ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T : +1 360 577 7222
F : +1 360 636 1068
www.alsglobal.com

April 04, 2019

Analytical Report for Service Request No: K1902351

Scott Thielke
JH Baxter & Company
85 N. Baxter Road
P.O. Box 10797
Eugene, OR 97440

RE: JH Baxter - Arlington

Dear Scott,

Enclosed are the results of the sample(s) submitted to our laboratory March 26, 2019
For your reference, these analyses have been assigned our service request number **K1902351.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3350. You may also contact me via email at Kelley.Lovejoy@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Kelley Lovejoy
Project Manager

ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
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Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1902351
Date Received: 03/19/2019 - 03/26/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Group. This report contains analytical results and quality control parameters for samples designated for Tier IV validation deliverables, which includes summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt:

Thirty two water samples were received for analysis at ALS Environmental on 03/19/2019 - 03/26/2019. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4ºC upon receipt at the laboratory.

Semivolatiles by GC/MS:

Method 8270D, Polycyclic Aromatic Hydrocarbons by GC/MS SIM 03/22/2019: The results reported for Acenaphthylene in sample FIELD BLANK RINSATE may contain a slight bias. The chromatogram indicated the presence of non-target background components. The matrix interference may have resulted in a slight high bias in the affected sample. The results were flagged with "X" to indicate the issue.

Semivoa GC:

No significant anomalies were noted with this analysis.

Approved by Kelley Lovejoy Date 04/04/2019

Chain of Custody

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SR# K1902357

0H	7D	28D	180D	7D

PAGE _____ OF _____

Project Name: JH Baxter - Arlington Project Number: _____

Project Manager: _____ Company: JH Baxter

Company/Address: 85 N Baxter Rd Phone: 541-689-3801

City, State, Zip: Eugene, OR 97402 FAX: 541-689-0769

Sampler's Signature: _____

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	Analysis Requested: SM 4500-H+ B / Ph	8270 D / PAH SIM	120.1 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	6020A / AS D	8151 A Modified / PCP only	REMARKS
HCMW-7	3/16/19	0942		water	1													X	PMP program
MW-15	"	1158		water	2		X											X	SI Program
MW-16	"	0914		water	2		X											X	SI Program
MW-17	"	1136		water	2		X											X	SI Program
MW-18	3/16/19	0835		water	2		X											X	SI Program
~~MW-2~~				~~water~~	~~2~~		X											X	SI Program MW
MW-22	3/17/19	0736		water	1													X	PMP program
MW-23	"	0712		water	1													X	PMP program
MW-24	"	0958		water	1													X	PMP program
MW-25	"	0849		water	1													X	PMP program
MW-26	3/17/19	0911		water	1													X	PMP program

TURNAROUND REQUIREMENTS

____ 24 hr ____ 48 hr ____ 5 day

__X__ Standard (21 days)

____ Provide FAX Preliminary Results

Requested Report Date: _____

REPORT REQUIREMENTS

____ I. Routine Report: Results, Method Blank, Surrogate, as required

____ II. Report Dup., MS, MSD as required

____ III. Data Validation Report (includes raw data)

__X__ IV. CLP Deliverable Report

____ V. EDD

Comments/Special Instructions:

PAH samples have 2 - 500ml amber bottles

Ramon Pratt 5512

Questions? - Please Call ~~Steven Kuhlmeier~~ @ GSI Water Solutions 971-~~208-8529~~

Invoice Information

P.O. # _____

Bill to: JH Baxter & Co
San Mateo CA,94402

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: JH Baxter	Firm:	Firm:	Firm:
Date/Time: 3/18/19 1600	Date/Time: 3/19/19 0930	Date/Time:	Date/Time:

ALS Environmental

1317 South 13th, Kelso, WA 98626 (360) 577-7222 FAX (360) 636-1068

SR# K1902351

PAGE _____ OF _____

0H	7D	28D	180D	7D

Project Name: JH Baxter - Arlington Project Number: _____

Project Manager: _____ Company: JH Baxter

Company/Address: 85 N Baxter Rd Phone: 541-689-3801

City, State, Zip: Eugene, OR 97402 FAX: 541-689-0769

Sampler's Signature: _____

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	Analysis Requested: SM 4500-H+ B / Ph	8270 D / PAH SIM	120.1 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	6020A / AS D	8151 A Modified / PCP only	REMARKS
MW - 27	3/17/19	0936		water	1													X	PMP program
MW - 28	3/16/19	1506		water	1													X	PMP program
MW - 29	1	1416		water	1													X	PMP program
MW - 30		1439		water	2		X											X	SI program
MW - 31	3/16/19	1236		water	1													X	PMP program
MW - 32	3/17/19	0822		water	1													X	PMP program
MW - 33	3/17/19	1043		water	1													X	PMP program
MW - 34	3/16/19	1316		water	1													X	PMP program
MW - 35	3/17/19	1116		water	2		X											X	PMP program
MW - 36	3/16/19	1255		water	2		X											X	SI program
MW - 37	3/16/19	1116		water	2		X											X	SI program

TURNAROUND REQUIREMENTS

_____ 24 hr _____ 48 hr _____ 5 day

__X__ Standard (21 days)

_____ Provide FAX Preliminary Results

Requested Report Date: _____

REPORT REQUIREMENTS

_____ I. Routine Report: Results, Method Blank, Surrogate, as required

_____ II. Report Dup., MS, MSD as required

_____ III. Data Validation Report (includes raw data)

__X__ IV. CLP Deliverable Report

_____ V. EDD

Comments/Special Instructions:

PAH samples have 2 - 500ml amber bottles

Randy Pratt 8512

Questions? - Please Call ~~Steven Kuhlmeier~~ @ GSI Water Solutions 971-200-~~8529~~

Invoice Information

P.O. # _____

Bill to: JH Baxter & Co
San Mateo CA,94402

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Printed Name: Matt Hansen	Printed Name: K Morrow	Printed Name:	Printed Name:
Firm: JH Baxter	Firm: ACS	Firm:	Firm:
Date/Time: 3/18/19 1600	Date/Time: 3/19/19 0930	Date/Time:	Date/Time:

ALS Environmental

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SR# K1902351

PAGE ____ OF ____

0H	7D	28D	180D	7D

Project Name: JH Baxter - Arlington Project Number: ____

Project Manager: ____ Company: JH Baxter

Company/Address: 85 N Baxter Rd Phone: 541-689-3801

City, State, Zip: Eugene, OR 97402 FAX: 541-689-0769

Sampler's Signature: ____

Analysis Requested

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	SM 4500-H+ B / Ph	8270 D / PAH SIM	120.1 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	6020A / AS D	8151 A Modified / PCP only	REMARKS
MW - 38	3/16/19	1322		water	1													X	SI program
MW - 39		1004		water	1													X	SI program
MW - 40		1217		water	1													X	SI program
MW - 41		1058		water	1													X	SI program
MW - 42	3/16/19	0856		water	1													X	SI program
~~MW - 43~~				~~water~~	~~1~~													~~X~~	mH SI program
MW - 44	3/16/19	1600		water	1													X	SI program
FIELD BLANK RINSATE	3/17/19	1200		water	2		X											X	PMP program
MW - 3	3/17/19	1018		water	2		X											X	SI program
MW - 2	3/16/19	1030		water	2		X											X	SI program

TURNAROUND REQUIREMENTS

____ 24 hr ____ 48 hr ____ 5 day

X Standard (21 days)

____ Provide FAX Preliminary Results

Requested Report Date: ____

Invoice Information

P.O. # ____

Bill to: JH Baxter & Co
San Mateo CA,94402

REPORT REQUIREMENTS

____ I. Routine Report: Results, Method Blank, Surrogate, as required

____ II. Report Dup., MS, MSD as required

____ III. Data Validation Report (includes raw data)

X IV. CLP Deliverable Report

____ V. EDD

Comments/Special Instructions:

PAH samples have 2 - 500ml amber bottles

Lab note: No pH or conductivity on field blank.

Questions? - Please Call ~~Steven Kuhlmeier~~ Randy Pratt @ GSI Water Solutions 971-200-~~8529~~ 8512

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: [signature]	Signature: [signature]	Signature:	Signature:
Printed Name: Matt Horvic	Printed Name: K Morrow	Printed Name:	Printed Name:
Firm: JH Baxter	Firm: ALS	Firm:	Firm:
Date/Time: 3/16/19 1600	Date/Time: 3/19/19 0930	Date/Time:	Date/Time:

PC KL

Cooler Receipt and Preservation Form

Client JH Baxter Service Request K1902351

Received: 3/19/19 Opened: 3/19/19 By: KM Unloaded: 3/19/19 By: K

1. Samples were received via? *USPS* (*Fed Ex*) *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other*_____ *NA*
3. Were custody seals on coolers? NA Y (N) If yes, how many and where?_____
   If present, were custody seals intact? Y (N) If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
-0.1	-0.1	3.3	3.3	0	362		4808 3227 5856	
-0.1	0.0	3.9	4.0	+0.1	381		4808 3227 5845	

4. Packing material: *Inserts* (*Baggies*) (*Bubble Wrap*) *Gel Packs* (*Wet Ice*) *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA (Y) N
   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y (N)
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* (NA) Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
12. Was C12/Res negative? NA (Y) N

Sample ID on Bottle	Sample ID on COC	Identified by:
MW-45	MW-44	Elimination/collection

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: ~~Did not receive MW44 Samples.~~
For MW-44 (Bottle label = MW-45), received bottles for 8151 & 8270.
Only received 2 bottle for 8151 for MW-18.

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SR# K1902351

PAGE _____ OF _____

0H	7D	28D	180D	7D

Project Name: JH Baxter - Arlington Project Number: _____

Project Manager: _____ Company: JH Baxter

Company/Address: 85 N Baxter Rd Phone: 541-689-3801

City, State, Zip: Eugene, OR 97402 FAX: 541-689-0769

Sampler's Signature: _____

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	Analysis Requested: SM 4500-H+ B / Ph	8270 D / PAH SIM	120.1 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	6020A / AS D	8151 A Modified / PCP only	REMARKS
HCMW-7				water	1													X	PMP program
MW-15				water	2		X											X	SI Program
MW-16				water	2		X											X	SI Program
MW-17				water	2		X											X	SI Program
MW-18	3/23/19	0830		water	2		X										~~X~~	X	SI Program
MW-2				water	2		X											X	SI Program
MW-22				water	1													X	PMP program
MW-23				water	1													X	PMP program
MW-24				water	1													X	PMP program
MW-25				water	1													X	PMP program
MW-26				water	1													X	PMP program

TURNAROUND REQUIREMENTS

____ 24 hr ____ 48 hr ____ 5 day

__X__ Standard (21 days)

____ Provide FAX Preliminary Results

Requested Report Date: _____

Invoice Information

P.O. # _____

Bill to: JH Baxter & Co
San Mateo CA,94402

REPORT REQUIREMENTS

____ I. Routine Report: Results, Method Blank, Surrogate, as required

____ II. Report Dup., MS, MSD as required

____ III. Data Validation Report (includes raw data)

__X__ IV. CLP Deliverable Report

____ V. EDD

Comments/Special Instructions:

PAH samples have 2 - 500ml amber bottles

Add Sample to this Invoice number
K1902351

Questions? - Please Call Steven Kuhlmeier @ GSI Water Solutions 971-200-8529

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Printed Name: Matt Hinsa	Printed Name: K Morrow	Printed Name:	Printed Name:
Firm: JH Baxter	Firm: ALS	Firm:	Firm:
Date/Time: 3/25/19	Date/Time: 3/26/19 0940	Date/Time:	Date/Time:

ALS Environmental

1317 South 13th, Kelso, WA 98626 (360) 577-7222 FAX (360) 636-1068

SR# K1902351

PAGE ______ OF ______

Project Name: JH Baxter - Arlington Project Number:

Project Manager: Company: JH Baxter

Company/Address: 85 N Baxter Rd Phone: 541-689-3801

City, State, Zip: Eugene, OR 97402 FAX: 541-689-0769

Sampler's Signature:

Analysis Requested (hold times: 0H, 7D, 28D, 180D, 7D)

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	SM 4500-H+ B / Ph	8270 D / PAH SIM	120.1 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	6020A / AS D	8151 A Modified / PCP only	REMARKS
MW - 38				water	1													X	SI program
MW - 39				water	1													X	SI program
MW - 40				water	1													X	SI program
MW - 41				water	1													X	SI program
MW - 42				water	1													X	SI program
MW - 43	3/23/19	0850		water	1													X	SI program
MW - 44				water	1													X	SI program
FIELD BLANK RINSATE				water	2		X											X	PMP program
MW - 3				water	2		X											X	SI program
MW - 2				water	2		X											X	SI program

TURNAROUND REQUIREMENTS

____ 24 hr ____ 48 hr ____ 5 day

X Standard (21 days)

____ Provide FAX Preliminary Results

Requested Report Date: ____________

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____ I. Routine Report: Results, Method Blank, Surrogate, as required

____ II. Report Dup., MS, MSD as required

____ III. Data Validation Report (includes raw data)

X IV. CLP Deliverable Report

____ V. EDD

Comments/Special Instructions:

Add sample to this service number K1902351

PAH samples have 2 - 500ml amber bottles

Lab note: No pH or conductivity on field blank.

Questions? - Please Call Steven Kuhlmeier @ GSI Water Solutions 971-200-8529

Invoice Information

P.O. # ____________

Bill to: JH Baxter & Co
San Mateo CA,94402

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Matt H	Signature: K Morrow	Signature:	Signature:
Printed Name: Matt Howser	Printed Name: K Morrow	Printed Name:	Printed Name:
Firm: JH Baxter	Firm: ALS	Firm:	Firm:
Date/Time: 3/25/19	Date/Time: 3/26/19 0940	Date/Time:	Date/Time:

PC KL

Cooler Receipt and Preservation Form

Client JHBaxter Service Request K19 02391

Received: 3/26/19 Opened: 3/26/19 By: KM Unloaded: 3/26/19 By: KM

1. Samples were received via? *USPS* (*Fed Ex*) *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other*_____ *NA*
3. Were custody seals on coolers? NA (Y) N If yes, how many and where? Front
   If present, were custody seals intact? (Y) N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
-0.1	-0.1	N/A	N/A	0	325		480832275834	

4. Packing material: *Inserts* (*Baggies*) *Bubble Wrap* *Gel Packs* (*Wet Ice*) *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA (Y) N
   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* (NA) Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
12. Was C12/Res negative? (NA) Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: Rec'd 2 Bottles MW-18 + 1 vial MW-43 as noted on COC by the client writing date & time sampled on the COC.

7/25/16 *Page____ of____*

Chlorinated Phenolics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 09:42
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	HCMW-7	**Units:**	ug/L
Lab Code:	K1902351-001	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/22/19 17:34	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	97	55 - 130	03/22/19 17:34	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 11:58
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-15	**Units:**	ug/L
Lab Code:	K1902351-002	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/22/19 17:52	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	86	55 - 130	03/22/19 17:52	

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 09:14
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-16	**Units:**	ug/L
Lab Code:	K1902351-003	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/22/19 18:10	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	82	55 - 130	03/22/19 18:10	

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 11:36
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-17	**Units:**	ug/L
Lab Code:	K1902351-004	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/22/19 18:29	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	84	55 - 130	03/22/19 18:29	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 08:35
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-18	**Units:**	ug/L
Lab Code:	K1902351-005	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/22/19 18:47	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	91	55 - 130	03/22/19 18:47	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/17/19 07:36
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-22	**Units:**	ug/L
Lab Code:	K1902351-006	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**56**	0.50	0.071	1	03/22/19 19:05	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	86	55 - 130	03/22/19 19:05	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/17/19 07:12
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-23	**Units:**	ug/L
Lab Code:	K1902351-007	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**7.4**	0.50	0.071	1	03/22/19 19:23	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	84	55 - 130	03/22/19 19:23	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/17/19 09:58
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-24	**Units:**	ug/L
Lab Code:	K1902351-008	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/22/19 19:42	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	79	55 - 130	03/22/19 19:42	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/17/19 08:49
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-25	**Units:**	ug/L
Lab Code:	K1902351-009	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**190**	2.5	0.36	5	03/25/19 14:44	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	89	55 - 130	03/22/19 20:00	

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/17/19 09:11
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-26	**Units:**	ug/L
Lab Code:	K1902351-010	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/22/19 20:18	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	82	55 - 130	03/22/19 20:18	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/17/19 09:36
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-27	**Units:**	ug/L
Lab Code:	K1902351-011	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**6.4**	0.50	0.071	1	03/22/19 21:13	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	86	55 - 130	03/22/19 21:13	

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 15:06
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-28	**Units:**	ug/L
Lab Code:	K1902351-012	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/22/19 21:31	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	88	55 - 130	03/22/19 21:31	

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 14:16
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-29	**Units:**	ug/L
Lab Code:	K1902351-013	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/22/19 21:50	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	93	55 - 130	03/22/19 21:50	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 14:39
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-30	**Units:**	ug/L
Lab Code:	K1902351-014	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**0.13 JP**	0.50	0.071	1	03/22/19 22:08	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	92	55 - 130	03/22/19 22:08	

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 12:36
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-31	**Units:**	ug/L
Lab Code:	K1902351-015	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**1.5**	0.50	0.071	1	03/22/19 22:26	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	91	55 - 130	03/22/19 22:26	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/17/19 08:22
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-32	**Units:**	ug/L
Lab Code:	K1902351-016	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**48**	0.50	0.071	1	03/22/19 22:44	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	95	55 - 130	03/22/19 22:44	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/17/19 10:43
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-33	**Units:**	ug/L
Lab Code:	K1902351-017	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**200**	2.5	0.36	5	03/25/19 15:02	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	101	55 - 130	03/22/19 23:03	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 13:46
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-34	**Units:**	ug/L
Lab Code:	K1902351-018	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/22/19 23:21	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	98	55 - 130	03/22/19 23:21	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/17/19 11:16
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-35	**Units:**	ug/L
Lab Code:	K1902351-019	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/22/19 23:39	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	92	55 - 130	03/22/19 23:39	

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 12:55
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-36	**Units:**	ug/L
Lab Code:	K1902351-020	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**1.0**	0.50	0.071	1	03/22/19 23:57	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	92	55 - 130	03/22/19 23:57	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 11:16
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-37	**Units:**	ug/L
Lab Code:	K1902351-021	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**26**	0.50	0.071	1	03/21/19 18:10	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	95	55 - 130	03/21/19 18:10	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 13:22
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-38	**Units:**	ug/L
Lab Code:	K1902351-022	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/21/19 18:29	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	92	55 - 130	03/21/19 18:29	

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 10:04
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-39	**Units:**	ug/L
Lab Code:	K1902351-023	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/21/19 18:47	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	94	55 - 130	03/21/19 18:47	

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 12:17
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-40	**Units:**	ug/L
Lab Code:	K1902351-024	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/21/19 19:05	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	87	55 - 130	03/21/19 19:05	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 10:58
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-41	**Units:**	ug/L
Lab Code:	K1902351-025	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/21/19 19:23	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	93	55 - 130	03/21/19 19:23	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 08:56
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-42	**Units:**	ug/L
Lab Code:	K1902351-026	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**0.84**	0.50	0.071	1	03/21/19 19:42	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	89	55 - 130	03/21/19 19:42	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 10:00
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-44	**Units:**	ug/L
Lab Code:	K1902351-027	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/21/19 20:00	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	95	55 - 130	03/21/19 20:00	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/17/19 12:00
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	FIELD BLANK RINSATE	**Units:**	ug/L
Lab Code:	K1902351-028	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/21/19 20:18	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	91	55 - 130	03/21/19 20:18	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/17/19 10:18
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-3	**Units:**	ug/L
Lab Code:	K1902351-029	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**1.1**	0.50	0.071	1	03/21/19 20:36	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	89	55 - 130	03/21/19 20:36	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 10:30
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-2	**Units:**	ug/L
Lab Code:	K1902351-030	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/21/19 20:54	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	94	55 - 130	03/21/19 20:54	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/23/19 08:58
Sample Matrix:	Water	**Date Received:**	03/26/19 09:40
Sample Name:	MW-43	**Units:**	ug/L
Lab Code:	K1902351-032	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	04/01/19 10:46	3/27/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	95	55 - 130	04/01/19 10:46	

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KQ1903557-04	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/22/19 16:57	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	94	55 - 130	03/22/19 16:57	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KQ1903604-04	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/21/19 17:34	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	86	55 - 130	03/21/19 17:34	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KQ1903939-04	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	04/01/19 11:59	3/27/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	89	55 - 130	04/01/19 11:59	

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/17/19 07:36
Date Received: 3/19/19

Sample Name: MW-22
Lab Code: K1902351-006

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	56	62	10		1	03/22/19 19:05

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/17/19 07:12
Date Received: 3/19/19

Sample Name: MW-23
Lab Code: K1902351-007

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	7.4	8.6	15		1	03/22/19 19:23

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/17/19 08:49
Date Received: 3/19/19

Sample Name: MW-25
Lab Code: K1902351-009

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.36	190	210	10		5	03/25/19 14:44

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/17/19 09:36
Date Received: 3/19/19

Sample Name: MW-27
Lab Code: K1902351-011

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	6.4	6.9	8		1	03/22/19 21:13

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/16/19 14:39
Date Received: 3/19/19

Sample Name: MW-30
Lab Code: K1902351-014

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	0.13	0.28	73	JP	1	03/22/19 22:08

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/16/19 12:36
Date Received: 3/19/19

Sample Name: MW-31
Lab Code: K1902351-015

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	1.5	1.5	<1		1	03/22/19 22:26

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Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/17/19 08:22
Date Received: 3/19/19

Sample Name: MW-32
Lab Code: K1902351-016

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	48	53	10		1	03/22/19 22:44

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/17/19 10:43
Date Received: 3/19/19

Sample Name: MW-33
Lab Code: K1902351-017

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.36	200	220	10		5	03/25/19 15:02

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/16/19 12:55
Date Received: 3/19/19

Sample Name: MW-36
Lab Code: K1902351-020

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	1.0	1.1	10		1	03/22/19 23:57

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/16/19 11:16
Date Received: 3/19/19

Sample Name: MW-37
Lab Code: K1902351-021

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	26	29	11		1	03/21/19 18:10

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/16/19 08:56
Date Received: 3/19/19

Sample Name: MW-42
Lab Code: K1902351-026

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	0.84	0.85	1		1	03/21/19 19:42

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/17/19 10:18
Date Received: 3/19/19

Sample Name: MW-3
Lab Code: K1902351-029

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	1.1	1.2	9		1	03/21/19 20:36

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/16/19 12:55
Date Received: 3/19/19

Sample Name: MW-36
Lab Code: KQ1903557-01

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	9.02	10.3	13		1	03/23/19 00:53

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/16/19 12:55
Date Received: 3/19/19

Sample Name: MW-36
Lab Code: KQ1903557-02

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	8.76	10.1	14		1	03/23/19 01:11

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: KQ1903557-03

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	7.33	8.57	16		1	03/22/19 17:16

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: NA
Date Received:

Sample Name: Batch QC
Lab Code: KQ1903604-01

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	8.44	9.82	15		1	03/21/19 22:44

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: NA
Date Received:

Sample Name: Batch QC
Lab Code: KQ1903604-02

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	7.83	9.19	16		1	03/21/19 23:03

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: KQ1903604-03

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	8.16	9.60	16		1	03/21/19 17:52

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/23/19 08:58
Date Received: 3/26/19

Sample Name: MW-43
Lab Code: KQ1903939-01

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	7.08	8.26	15		1	04/01/19 11:04

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: 03/23/19 08:58
Date Received: 3/26/19

Sample Name: MW-43
Lab Code: KQ1903939-02

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	6.64	7.74	15		1	04/01/19 11:22

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902351
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: KQ1903939-03

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	6.21	7.46	18		1	04/01/19 11:40

Client: JH Baxter & Company **Service Request:** K1902351
Project: JH Baxter - Arlington
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Chlorinated Phenolics

Analysis Method: 8151A Modified
Extraction Method: Method

Sample Name	Lab Code	4-Bromo-2,6-dichlorophenol 55-130
HCMW-7	K1902351-001	97
MW-15	K1902351-002	86
MW-16	K1902351-003	82
MW-17	K1902351-004	84
MW-18	K1902351-005	91
MW-22	K1902351-006	86
MW-23	K1902351-007	84
MW-24	K1902351-008	79
MW-25	K1902351-009	89
MW-26	K1902351-010	82
MW-27	K1902351-011	86
MW-28	K1902351-012	88
MW-29	K1902351-013	93
MW-30	K1902351-014	92
MW-31	K1902351-015	91
MW-32	K1902351-016	95
MW-33	K1902351-017	101
MW-34	K1902351-018	98
MW-35	K1902351-019	92
MW-36	K1902351-020	92
MW-37	K1902351-021	95
MW-38	K1902351-022	92
MW-39	K1902351-023	94
MW-40	K1902351-024	87
MW-41	K1902351-025	93
MW-42	K1902351-026	89
MW-44	K1902351-027	95
FIELD BLANK RINSATE	K1902351-028	91
MW-3	K1902351-029	89
MW-2	K1902351-030	94
MW-43	K1902351-032	95
Batch QC	K1902361-002	92
Method Blank	KQ1903557-04	94
Method Blank	KQ1903604-04	86
Method Blank	KQ1903939-04	89
Lab Control Sample	KQ1903557-03	91
Lab Control Sample	KQ1903604-03	91

Client: JH Baxter & Company **Service Request:** K1902351
Project: JH Baxter - Arlington
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Chlorinated Phenolics

Analysis Method: 8151A Modified
Extraction Method: Method

Sample Name	Lab Code	4-Bromo-2,6-dichlorophenol 55-130
Lab Control Sample	KQ1903939-03	84
MW-36	KQ1903557-01	88
MW-36	KQ1903557-02	98
Batch QC	KQ1903604-01	95
Batch QC	KQ1903604-02	94
MW-43	KQ1903939-01	89
MW-43	KQ1903939-02	86

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19
Sample Matrix:	Water	**Date Received:**	03/19/19
		Date Analyzed:	03/23/19
		Date Extracted:	03/20/19

Duplicate Matrix Spike Summary
Chlorinated Phenolics

Sample Name:	MW-36	**Units:**	ug/L
Lab Code:	K1902351-020	**Basis:**	NA
Analysis Method:	8151A Modified		
Prep Method:	Method		

		Matrix Spike KQ1903557-01			Duplicate Matrix Spike KQ1903557-02					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Pentachlorophenol (PCP)	1.0	9.02	10.0	80	8.76	10.0	77	22-136	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/23/19
Sample Matrix:	Water	**Date Received:**	03/26/19
		Date Analyzed:	04/1/19
		Date Extracted:	03/27/19

Duplicate Matrix Spike Summary
Chlorinated Phenolics

Sample Name:	MW-43	**Units:**	ug/L
Lab Code:	K1902351-032	**Basis:**	NA
Analysis Method:	8151A Modified		
Prep Method:	Method		

		Matrix Spike KQ1903939-01			Duplicate Matrix Spike KQ1903939-02					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Pentachlorophenol (PCP)	ND U	7.08	10.0	71	6.64	10.0	66	22-136	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/22/19
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Lab Control Sample Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Units:**	ug/L
Prep Method:	Method	**Basis:**	NA
		Analysis Lot:	629256

Lab Control Sample
KQ1903557-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Pentachlorophenol (PCP)	7.33	10.0	73	42-110

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Lab Control Sample Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Units:**	ug/L
Prep Method:	Method	**Basis:**	NA
		Analysis Lot:	629161

Lab Control Sample
KQ1903604-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Pentachlorophenol (PCP)	8.16	10.0	82	42-110

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	04/01/19
Sample Matrix:	Water	**Date Extracted:**	03/27/19

Lab Control Sample Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Units:**	ug/L
Prep Method:	Method	**Basis:**	NA
		Analysis Lot:	630241

Lab Control Sample
KQ1903939-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Pentachlorophenol (PCP)	6.21	10.0	62	42-110

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/22/19 16:57
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Method Blank Summary
Chlorinated Phenolics

Sample Name:	Method Blank	**Instrument ID:**	K-GC-28
Lab Code:	KQ1903557-04	**File ID:**	J:\GC28\Data\032219B\0322F005.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	629256,629403
Prep Method:	Method	**Extraction Lot:**	333272

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1903557-03	J:\GC28\Data\032219B\0322F006.D\	03/22/19 17:16
HCMW-7	K1902351-001	J:\GC28\Data\032219B\0322F007.D\	03/22/19 17:34
MW-15	K1902351-002	J:\GC28\Data\032219B\0322F008.D\	03/22/19 17:52
MW-16	K1902351-003	J:\GC28\Data\032219B\0322F009.D\	03/22/19 18:10
MW-17	K1902351-004	J:\GC28\Data\032219B\0322F010.D\	03/22/19 18:29
MW-18	K1902351-005	J:\GC28\Data\032219B\0322F011.D\	03/22/19 18:47
MW-22	K1902351-006	J:\GC28\Data\032219B\0322F012.D\	03/22/19 19:05
MW-23	K1902351-007	J:\GC28\Data\032219B\0322F013.D\	03/22/19 19:23
MW-24	K1902351-008	J:\GC28\Data\032219B\0322F014.D\	03/22/19 19:42
MW-25	K1902351-009	J:\GC28\Data\032219B\0322F015.D\	03/22/19 20:00
MW-26	K1902351-010	J:\GC28\Data\032219B\0322F016.D\	03/22/19 20:18
MW-27	K1902351-011	J:\GC28\Data\032219B\0322F019.D\	03/22/19 21:13
MW-28	K1902351-012	J:\GC28\Data\032219B\0322F020.D\	03/22/19 21:31
MW-29	K1902351-013	J:\GC28\Data\032219B\0322F021.D\	03/22/19 21:50
MW-30	K1902351-014	J:\GC28\Data\032219B\0322F022.D\	03/22/19 22:08
MW-31	K1902351-015	J:\GC28\Data\032219B\0322F023.D\	03/22/19 22:26
MW-32	K1902351-016	J:\GC28\Data\032219B\0322F024.D\	03/22/19 22:44
MW-33	K1902351-017	J:\GC28\Data\032219B\0322F025.D\	03/22/19 23:03
MW-34	K1902351-018	J:\GC28\Data\032219B\0322F026.D\	03/22/19 23:21
MW-35	K1902351-019	J:\GC28\Data\032219B\0322F027.D\	03/22/19 23:39
MW-36	K1902351-020	J:\GC28\Data\032219B\0322F028.D\	03/22/19 23:57
MW-36MS	KQ1903557-01	J:\GC28\Data\032219B\0322F031.D\	03/23/19 00:53
MW-36DMS	KQ1903557-02	J:\GC28\Data\032219B\0322F032.D\	03/23/19 01:11
MW-25	K1902351-009	J:\GC28\Data\032519\0325F005.D\	03/25/19 14:44
MW-33	K1902351-017	J:\GC28\Data\032519\0325F006.D\	03/25/19 15:02

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 17:34
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Method Blank Summary
Chlorinated Phenolics

Sample Name:	Method Blank	**Instrument ID:**	K-GC-28
Lab Code:	KQ1903604-04	**File ID:**	J:\GC28\Data\032119B\0321F005.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	629161
Prep Method:	Method	**Extraction Lot:**	333306

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1903604-03	J:\GC28\Data\032119B\0321F006.D\	03/21/19 17:52
MW-37	K1902351-021	J:\GC28\Data\032119B\0321F007.D\	03/21/19 18:10
MW-38	K1902351-022	J:\GC28\Data\032119B\0321F008.D\	03/21/19 18:29
MW-39	K1902351-023	J:\GC28\Data\032119B\0321F009.D\	03/21/19 18:47
MW-40	K1902351-024	J:\GC28\Data\032119B\0321F010.D\	03/21/19 19:05
MW-41	K1902351-025	J:\GC28\Data\032119B\0321F011.D\	03/21/19 19:23
MW-42	K1902351-026	J:\GC28\Data\032119B\0321F012.D\	03/21/19 19:42
MW-44	K1902351-027	J:\GC28\Data\032119B\0321F013.D\	03/21/19 20:00
FIELD BLANK RINSATE	K1902351-028	J:\GC28\Data\032119B\0321F014.D\	03/21/19 20:18
MW-3	K1902351-029	J:\GC28\Data\032119B\0321F015.D\	03/21/19 20:36
MW-2	K1902351-030	J:\GC28\Data\032119B\0321F016.D\	03/21/19 20:54
Batch QC	K1902361-002	J:\GC28\Data\032119B\0321F021.D\	03/21/19 22:26
Batch QCMS	KQ1903604-01	J:\GC28\Data\032119B\0321F022.D\	03/21/19 22:44
Batch QCDMS	KQ1903604-02	J:\GC28\Data\032119B\0321F023.D\	03/21/19 23:03

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	04/01/19 11:59
Sample Matrix:	Water	**Date Extracted:**	03/27/19

Method Blank Summary
Chlorinated Phenolics

Sample Name:	Method Blank	**Instrument ID:**	K-GC-28
Lab Code:	KQ1903939-04	**File ID:**	J:\GC28\Data\040119\0401F009.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	630241
Prep Method:	Method	**Extraction Lot:**	333689

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
MW-43	K1902351-032	J:\GC28\Data\040119\0401F005.D\	04/01/19 10:46
MW-43MS	KQ1903939-01	J:\GC28\Data\040119\0401F006.D\	04/01/19 11:04
MW-43DMS	KQ1903939-02	J:\GC28\Data\040119\0401F007.D\	04/01/19 11:22
Lab Control Sample	KQ1903939-03	J:\GC28\Data\040119\0401F008.D\	04/01/19 11:40

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/22/19 17:16
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Lab Control Sample Summary
Chlorinated Phenolics

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-28
Lab Code:	KQ1903557-03	**File ID:**	J:\GC28\Data\032219B\0322F006.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	629256,629403
Prep Method:	Method	**Extraction Lot:**	333272

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1903557-04	J:\GC28\Data\032219B\0322F005.D\	03/22/19 16:57
HCMW-7	K1902351-001	J:\GC28\Data\032219B\0322F007.D\	03/22/19 17:34
MW-15	K1902351-002	J:\GC28\Data\032219B\0322F008.D\	03/22/19 17:52
MW-16	K1902351-003	J:\GC28\Data\032219B\0322F009.D\	03/22/19 18:10
MW-17	K1902351-004	J:\GC28\Data\032219B\0322F010.D\	03/22/19 18:29
MW-18	K1902351-005	J:\GC28\Data\032219B\0322F011.D\	03/22/19 18:47
MW-22	K1902351-006	J:\GC28\Data\032219B\0322F012.D\	03/22/19 19:05
MW-23	K1902351-007	J:\GC28\Data\032219B\0322F013.D\	03/22/19 19:23
MW-24	K1902351-008	J:\GC28\Data\032219B\0322F014.D\	03/22/19 19:42
MW-25	K1902351-009	J:\GC28\Data\032219B\0322F015.D\	03/22/19 20:00
MW-26	K1902351-010	J:\GC28\Data\032219B\0322F016.D\	03/22/19 20:18
MW-27	K1902351-011	J:\GC28\Data\032219B\0322F019.D\	03/22/19 21:13
MW-28	K1902351-012	J:\GC28\Data\032219B\0322F020.D\	03/22/19 21:31
MW-29	K1902351-013	J:\GC28\Data\032219B\0322F021.D\	03/22/19 21:50
MW-30	K1902351-014	J:\GC28\Data\032219B\0322F022.D\	03/22/19 22:08
MW-31	K1902351-015	J:\GC28\Data\032219B\0322F023.D\	03/22/19 22:26
MW-32	K1902351-016	J:\GC28\Data\032219B\0322F024.D\	03/22/19 22:44
MW-33	K1902351-017	J:\GC28\Data\032219B\0322F025.D\	03/22/19 23:03
MW-34	K1902351-018	J:\GC28\Data\032219B\0322F026.D\	03/22/19 23:21
MW-35	K1902351-019	J:\GC28\Data\032219B\0322F027.D\	03/22/19 23:39
MW-36	K1902351-020	J:\GC28\Data\032219B\0322F028.D\	03/22/19 23:57
MW-36MS	KQ1903557-01	J:\GC28\Data\032219B\0322F031.D\	03/23/19 00:53
MW-36DMS	KQ1903557-02	J:\GC28\Data\032219B\0322F032.D\	03/23/19 01:11
MW-25	K1902351-009	J:\GC28\Data\032519\0325F005.D\	03/25/19 14:44
MW-33	K1902351-017	J:\GC28\Data\032519\0325F006.D\	03/25/19 15:02

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 17:52
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Lab Control Sample Summary
Chlorinated Phenolics

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-28
Lab Code:	KQ1903604-03	**File ID:**	J:\GC28\Data\032119B\0321F006.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	629161
Prep Method:	Method	**Extraction Lot:**	333306

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1903604-04	J:\GC28\Data\032119B\0321F005.D\	03/21/19 17:34
MW-37	K1902351-021	J:\GC28\Data\032119B\0321F007.D\	03/21/19 18:10
MW-38	K1902351-022	J:\GC28\Data\032119B\0321F008.D\	03/21/19 18:29
MW-39	K1902351-023	J:\GC28\Data\032119B\0321F009.D\	03/21/19 18:47
MW-40	K1902351-024	J:\GC28\Data\032119B\0321F010.D\	03/21/19 19:05
MW-41	K1902351-025	J:\GC28\Data\032119B\0321F011.D\	03/21/19 19:23
MW-42	K1902351-026	J:\GC28\Data\032119B\0321F012.D\	03/21/19 19:42
MW-44	K1902351-027	J:\GC28\Data\032119B\0321F013.D\	03/21/19 20:00
FIELD BLANK RINSATE	K1902351-028	J:\GC28\Data\032119B\0321F014.D\	03/21/19 20:18
MW-3	K1902351-029	J:\GC28\Data\032119B\0321F015.D\	03/21/19 20:36
MW-2	K1902351-030	J:\GC28\Data\032119B\0321F016.D\	03/21/19 20:54
Batch QC	K1902361-002	J:\GC28\Data\032119B\0321F021.D\	03/21/19 22:26
Batch QCMS	KQ1903604-01	J:\GC28\Data\032119B\0321F022.D\	03/21/19 22:44
Batch QCDMS	KQ1903604-02	J:\GC28\Data\032119B\0321F023.D\	03/21/19 23:03

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	04/01/19 11:40
Sample Matrix:	Water	**Date Extracted:**	03/27/19

Lab Control Sample Summary
Chlorinated Phenolics

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-28
Lab Code:	KQ1903939-03	**File ID:**	J:\GC28\Data\040119\0401F008.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	630241
Prep Method:	Method	**Extraction Lot:**	333689

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
MW-43	K1902351-032	J:\GC28\Data\040119\0401F005.D\	04/01/19 10:46
MW-43MS	KQ1903939-01	J:\GC28\Data\040119\0401F006.D\	04/01/19 11:04
MW-43DMS	KQ1903939-02	J:\GC28\Data\040119\0401F007.D\	04/01/19 11:22
Method Blank	KQ1903939-04	J:\GC28\Data\040119\0401F009.D\	04/01/19 11:59

Client: JH Baxter & Company **Service Request:** K1902351
Project: JH Baxter - Arlington **Calibration Date:** 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-1701
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Analyte

4-Bromo-2,6-dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	10	2.500	4.672E5	02	5.000	4.356E5	03	10.000	4.141E5
04	25.000	3.754E5	05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5
08	500.000	2.979E5	09	1000.000	2.755E5						

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	10	2.375	6.451E5	02	4.750	5.978E5	03	9.501	5.654E5
04	23.752	5.208E5	05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5
08	475.030	3.936E5	09	950.060	3.695E5						

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902351
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-1701

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
4-Bromo-2,6-dichlorophenol	SURR	Quadratic	COD	0.9994	≥0.99	3.824E5	
Pentachlorophenol (PCP)	TRG	Quadratic	COD	0.9990	≥0.99	5.2E5	

Client: JH Baxter & Company **Service Request:** K1902351
Project: JH Baxter - Arlington **Calibration Date:** 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-35
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Analyte

4-Bromo-2,6-dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	10	2.500	3.934E5	02	5.000	3.777E5	03	10.000	4.048E5
04	25.000	4.138E5	05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5
08	500.000	4.395E5	09	1000.000	4.542E5						

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	10	2.375	7.52E5	02	4.750	6.912E5	03	9.501	6.875E5
04	23.752	6.474E5	05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5
08	475.030	6.37E5	09	950.060	6.573E5						

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902351
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-35

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
4-Bromo-2,6-dichlorophenol	SURR	Average RF	% RSD	6.0	≤20	4.216E5	
Pentachlorophenol (PCP)	TRG	Average RF	% RSD	9.6	≤20	6.805E5	

Client: JH Baxter & Company **Service Request:** K1902351
Project: JH Baxter - Arlington **Calibration Date:** 2/28/2019

Initial Calibration Verification Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-1701
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900082-11	PENTA01-95D ICV	J:\GC28\Data\022819CAL\0228F016.D	02/28/2019 12:00

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	55.3	5.2E5	5.35E5	16.43	±20	Quadratic

Client: JH Baxter & Company **Service Request:** K1902351
Project: JH Baxter - Arlington **Calibration Date:** 2/28/2019

Initial Calibration Verification Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-35
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900082-11	PENTA01-95D ICV	J:\GC28\Data\022819CAL\0228F016.D	02/28/2019 12:00

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	48.8	6.805E5	6.996E5	2.80	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 16:57

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032119B\0321F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	629161
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	41.7	6.805E5	5.975E5	-12.2	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	47.5	4.216E5	4.001E5	-5.1	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 16:57

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032119B\0321F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	629161
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	47.3	5.2E5	4.599E5	NA	-0.4	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	51.1	3.824E5	3.527E5	NA	2.2	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 21:13

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032119B\0321F017.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	629161
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	41.4	6.805E5	5.935E5	-12.8	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	47.8	4.216E5	4.032E5	-4.4	NA	±20	Average RF

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902351
Date Analyzed: 03/21/19 21:13

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method: 8151A Modified
File ID: J:\GC28\Data\032119B\0321F017.D\
Signal ID: Rtx-1701

Calibration Date: 2/28/2019
Calibration ID: KC1900082
Analysis Lot: 629161
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	48.4	5.2E5	4.696E5	NA	1.8	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	53.0	3.824E5	3.656E5	NA	6.0	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 23:21

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032119B\0321F024.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	629161
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	41.2	6.805E5	5.908E5	-13.2	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	47.1	4.216E5	3.968E5	-5.9	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 23:21

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032119B\0321F024.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	629161
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	49.5	5.2E5	4.803E5	NA	4.2	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	53.5	3.824E5	3.692E5	NA	7.1	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/22/19 16:21

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032219B\0322F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	629256
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	45.9	6.805E5	6.581E5	-3.3	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	53.5	4.216E5	4.51E5	7.0	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/22/19 16:21

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032219B\0322F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	629256
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	51.9	5.2E5	5.025E5	NA	9.2	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	56.9	3.824E5	3.916E5	NA	13.7	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/22/19 20:37

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032219B\0322F017.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	629256
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	42.9	6.805E5	6.147E5	-9.7	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	48.2	4.216E5	4.062E5	-3.6	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/22/19 20:37

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032219B\0322F017.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	629256
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	50.7	5.2E5	4.916E5	NA	6.7	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	54.3	3.824E5	3.743E5	NA	8.6	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/23/19 00:16

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032219B\0322F029.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	629256
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	43.3	6.805E5	6.204E5	-8.8	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	48.7	4.216E5	4.104E5	-2.7	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/23/19 00:16

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032219B\0322F029.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	629256
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	52.0	5.2E5	5.036E5	NA	9.4	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	55.9	3.824E5	3.847E5	NA	11.7	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/23/19 01:29

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032219B\0322F033.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	629256
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	44.2	6.805E5	6.337E5	-6.9	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	51.1	4.216E5	4.305E5	2.1	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/23/19 01:29

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032219B\0322F033.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	629256
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	52.5	5.2E5	5.09E5	NA	10.6	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	57.6	3.824E5	3.964E5	NA	15.2	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/25/19 14:07

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032519\0325F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	629403
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	42.4	6.805E5	6.078E5	-10.7	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	47.9	4.216E5	4.036E5	-4.3	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/25/19 14:07

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032519\0325F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	629403
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	49.7	5.2E5	4.826E5	NA	4.7	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	53.8	3.824E5	3.711E5	NA	7.6	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/25/19 17:47

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032519\0325F015.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	629403
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	41.0	6.805E5	5.874E5	-13.7	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	47.2	4.216E5	3.981E5	-5.6	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/25/19 17:47

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032519\0325F015.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	629403
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	49.8	5.2E5	4.83E5	NA	4.8	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	54.1	3.824E5	3.73E5	NA	8.2	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	04/01/19 10:09

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\040119\0401F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	630241
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	43.2	6.805E5	6.184E5	-9.1	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	48.9	4.216E5	4.121E5	-2.3	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	04/01/19 10:09

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\040119\0401F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	630241
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	47.8	5.2E5	4.648E5	NA	0.7	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	52.4	3.824E5	3.618E5	NA	4.9	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	04/01/19 13:49

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\040119\0401F015.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	630241
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	40.9	6.805E5	5.859E5	-13.9	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	46.6	4.216E5	3.929E5	-6.8	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	04/01/19 13:49

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\040119\0401F015.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	630241
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	48.6	5.2E5	4.721E5	NA	2.3	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	54.2	3.824E5	3.739E5	NA	8.5	±20	Quadratic

Client: JH Baxter & Company **Service Request:**K1902351
Project: JH Baxter - Arlington

Analysis Run Log
Chlorinated Phenolics

Analysis Method: 8151A Modified **Analysis Lot:**629161
Instrument ID:K-GC-28

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\GC28\Data\032119B\0321F003.D\	Continuing Calibration Verification	KQ1903733-01	3/21/2019	16:57:00	
J:\GC28\Data\032119B\0321F004.D\	Continuing Calibration Blank	KQ1903733-04	3/21/2019	17:15:00	
J:\GC28\Data\032119B\0321F005.D\	Method Blank	KQ1903604-04	3/21/2019	17:34:00	
J:\GC28\Data\032119B\0321F006.D\	Lab Control Sample	KQ1903604-03	3/21/2019	17:52:00	
J:\GC28\Data\032119B\0321F007.D\	MW-37	K1902351-021	3/21/2019	18:10:00	
J:\GC28\Data\032119B\0321F008.D\	MW-38	K1902351-022	3/21/2019	18:29:00	
J:\GC28\Data\032119B\0321F009.D\	MW-39	K1902351-023	3/21/2019	18:47:00	
J:\GC28\Data\032119B\0321F010.D\	MW-40	K1902351-024	3/21/2019	19:05:00	
J:\GC28\Data\032119B\0321F011.D\	MW-41	K1902351-025	3/21/2019	19:23:00	
J:\GC28\Data\032119B\0321F012.D\	MW-42	K1902351-026	3/21/2019	19:42:00	
J:\GC28\Data\032119B\0321F013.D\	MW-44	K1902351-027	3/21/2019	20:00:00	
J:\GC28\Data\032119B\0321F014.D\	FIELD BLANK RINSATE	K1902351-028	3/21/2019	20:18:00	
J:\GC28\Data\032119B\0321F015.D\	MW-3	K1902351-029	3/21/2019	20:36:00	
J:\GC28\Data\032119B\0321F016.D\	MW-2	K1902351-030	3/21/2019	20:54:00	
J:\GC28\Data\032119B\0321F017.D\	Continuing Calibration Verification	KQ1903733-02	3/21/2019	21:13:00	
J:\GC28\Data\032119B\0321F018.D\	Continuing Calibration Blank	KQ1903733-05	3/21/2019	21:31:00	
J:\GC28\Data\032119B\0321F019.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	21:49:00	
J:\GC28\Data\032119B\0321F020.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	22:08:00	
J:\GC28\Data\032119B\0321F021.D\	Batch QC	K1902361-002	3/21/2019	22:26:00	
J:\GC28\Data\032119B\0321F022.D\	Batch QC MS	KQ1903604-01	3/21/2019	22:44:00	
J:\GC28\Data\032119B\0321F023.D\	Batch QC DMS	KQ1903604-02	3/21/2019	23:03:00	
J:\GC28\Data\032119B\0321F024.D\	Continuing Calibration Verification	KQ1903733-03	3/21/2019	23:21:00	
J:\GC28\Data\032119B\0321F025.D\	Continuing Calibration Blank	KQ1903733-06	3/21/2019	23:39:00	

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QA/QC Report

Client: JH Baxter & Company **Service Request:**K1902351
Project: JH Baxter - Arlington

Analysis Run Log
Chlorinated Phenolics

Analysis Method: 8151A Modified **Analysis Lot:**629256
Instrument ID:K-GC-28

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\GC28\Data\032219B\0322F003.D\	Continuing Calibration Verification	KQ1903779-01	3/22/2019	16:21:00	
J:\GC28\Data\032219B\0322F004.D\	Continuing Calibration Blank	KQ1903779-05	3/22/2019	16:39:00	
J:\GC28\Data\032219B\0322F005.D\	Method Blank	KQ1903557-04	3/22/2019	16:57:00	
J:\GC28\Data\032219B\0322F006.D\	Lab Control Sample	KQ1903557-03	3/22/2019	17:16:00	
J:\GC28\Data\032219B\0322F007.D\	HCMW-7	K1902351-001	3/22/2019	17:34:00	
J:\GC28\Data\032219B\0322F008.D\	MW-15	K1902351-002	3/22/2019	17:52:00	
J:\GC28\Data\032219B\0322F009.D\	MW-16	K1902351-003	3/22/2019	18:10:00	
J:\GC28\Data\032219B\0322F010.D\	MW-17	K1902351-004	3/22/2019	18:29:00	
J:\GC28\Data\032219B\0322F011.D\	MW-18	K1902351-005	3/22/2019	18:47:00	
J:\GC28\Data\032219B\0322F012.D\	MW-22	K1902351-006	3/22/2019	19:05:00	
J:\GC28\Data\032219B\0322F013.D\	MW-23	K1902351-007	3/22/2019	19:23:00	
J:\GC28\Data\032219B\0322F014.D\	MW-24	K1902351-008	3/22/2019	19:42:00	
J:\GC28\Data\032219B\0322F015.D\	MW-25	K1902351-009	3/22/2019	20:00:00	
J:\GC28\Data\032219B\0322F016.D\	MW-26	K1902351-010	3/22/2019	20:18:00	
J:\GC28\Data\032219B\0322F017.D\	Continuing Calibration Verification	KQ1903779-02	3/22/2019	20:37:00	
J:\GC28\Data\032219B\0322F018.D\	Continuing Calibration Blank	KQ1903779-06	3/22/2019	20:55:00	
J:\GC28\Data\032219B\0322F019.D\	MW-27	K1902351-011	3/22/2019	21:13:00	
J:\GC28\Data\032219B\0322F020.D\	MW-28	K1902351-012	3/22/2019	21:31:00	
J:\GC28\Data\032219B\0322F021.D\	MW-29	K1902351-013	3/22/2019	21:50:00	
J:\GC28\Data\032219B\0322F022.D\	MW-30	K1902351-014	3/22/2019	22:08:00	
J:\GC28\Data\032219B\0322F023.D\	MW-31	K1902351-015	3/22/2019	22:26:00	
J:\GC28\Data\032219B\0322F024.D\	MW-32	K1902351-016	3/22/2019	22:44:00	
J:\GC28\Data\032219B\0322F025.D\	MW-33	K1902351-017	3/22/2019	23:03:00	
J:\GC28\Data\032219B\0322F026.D\	MW-34	K1902351-018	3/22/2019	23:21:00	
J:\GC28\Data\032219B\0322F027.D\	MW-35	K1902351-019	3/22/2019	23:39:00	
J:\GC28\Data\032219B\0322F028.D\	MW-36	K1902351-020	3/22/2019	23:57:00	
J:\GC28\Data\032219B\0322F029.D\	Continuing Calibration Verification	KQ1903779-03	3/23/2019	00:16:00	
J:\GC28\Data\032219B\0322F030.D\	Continuing Calibration Blank	KQ1903779-07	3/23/2019	00:34:00	
J:\GC28\Data\032219B\0322F031.D\	MW-36 MS	KQ1903557-01	3/23/2019	00:53:00	
J:\GC28\Data\032219B\0322F032.D\	MW-36 DMS	KQ1903557-02	3/23/2019	01:11:00	
J:\GC28\Data\032219B\0322F033.D\	Continuing Calibration Verification	KQ1903779-04	3/23/2019	01:29:00	
J:\GC28\Data\032219B\0322F034.D\	Continuing Calibration Blank	KQ1903779-08	3/23/2019	01:48:00	

Client: JH Baxter & Company **Service Request:**K1902351
Project: JH Baxter - Arlington

Analysis Run Log
Chlorinated Phenolics

Analysis Method: 8151A Modified **Analysis Lot:**629403
Instrument ID:K-GC-28

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\GC28\Data\032519\0325F003.D\	Continuing Calibration Verification	KQ1903827-01	3/25/2019	14:07:00	
J:\GC28\Data\032519\0325F004.D\	Continuing Calibration Blank	KQ1903827-04	3/25/2019	14:26:00	
J:\GC28\Data\032519\0325F005.D\	MW-25	K1902351-009	3/25/2019	14:44:00	
J:\GC28\Data\032519\0325F006.D\	MW-33	K1902351-017	3/25/2019	15:02:00	
J:\GC28\Data\032519\0325F007.D\	ZZZZZZZ	ZZZZZZZ	3/25/2019	15:20:00	
J:\GC28\Data\032519\0325F008.D\	ZZZZZZZ	ZZZZZZZ	3/25/2019	15:39:00	
J:\GC28\Data\032519\0325F009.D\	ZZZZZZZ	ZZZZZZZ	3/25/2019	15:57:00	
J:\GC28\Data\032519\0325F010.D\	ZZZZZZZ	ZZZZZZZ	3/25/2019	16:15:00	
J:\GC28\Data\032519\0325F011.D\	ZZZZZZZ	ZZZZZZZ	3/25/2019	16:33:00	
J:\GC28\Data\032519\0325F012.D\	ZZZZZZZ	ZZZZZZZ	3/25/2019	16:52:00	
J:\GC28\Data\032519\0325F013.D\	ZZZZZZZ	ZZZZZZZ	3/25/2019	17:10:00	
J:\GC28\Data\032519\0325F014.D\	ZZZZZZZ	ZZZZZZZ	3/25/2019	17:29:00	
J:\GC28\Data\032519\0325F015.D\	Continuing Calibration Verification	KQ1903827-02	3/25/2019	17:47:00	
J:\GC28\Data\032519\0325F016.D\	Continuing Calibration Blank	KQ1903827-05	3/25/2019	18:05:00	

Client: JH Baxter & Company **Service Request:**K1902351
Project: JH Baxter - Arlington

Analysis Run Log
Chlorinated Phenolics

Analysis Method: 8151A Modified **Analysis Lot:**630241
Instrument ID:K-GC-28

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\GC28\Data\040119\0401F003.D\	Continuing Calibration Verification	KQ1904193-01	4/1/2019	10:09:00	
J:\GC28\Data\040119\0401F004.D\	Continuing Calibration Blank	KQ1904193-03	4/1/2019	10:27:00	
J:\GC28\Data\040119\0401F005.D\	MW-43	K1902351-032	4/1/2019	10:46:00	
J:\GC28\Data\040119\0401F006.D\	MW-43 MS	KQ1903939-01	4/1/2019	11:04:00	
J:\GC28\Data\040119\0401F007.D\	MW-43 DMS	KQ1903939-02	4/1/2019	11:22:00	
J:\GC28\Data\040119\0401F008.D\	Lab Control Sample	KQ1903939-03	4/1/2019	11:40:00	
J:\GC28\Data\040119\0401F009.D\	Method Blank	KQ1903939-04	4/1/2019	11:59:00	
J:\GC28\Data\040119\0401F010.D\	ZZZZZZZ	ZZZZZZZ	4/1/2019	12:17:00	
J:\GC28\Data\040119\0401F011.D\	ZZZZZZZ	ZZZZZZZ	4/1/2019	12:35:00	
J:\GC28\Data\040119\0401F012.D\	ZZZZZZZ	ZZZZZZZ	4/1/2019	12:54:00	
J:\GC28\Data\040119\0401F013.D\	ZZZZZZZ	ZZZZZZZ	4/1/2019	13:12:00	
J:\GC28\Data\040119\0401F014.D\	ZZZZZZZ	ZZZZZZZ	4/1/2019	13:30:00	
J:\GC28\Data\040119\0401F015.D\	Continuing Calibration Verification	KQ1904193-02	4/1/2019	13:49:00	
J:\GC28\Data\040119\0401F016.D\	Continuing Calibration Blank	KQ1904193-04	4/1/2019	14:07:00	

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Prep Summary Report

Client: JH Baxter & Company **Service Request:**K1902351
Project: JH Baxter - Arlington
Sample Matrix: Water

Chlorinated Phenolics

Prep Method: Method **Extraction Lot:** 333272
Analytical Method: 8151A Modified **Extraction Date:** 03/20/19 11:09

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
HCMW-7	K1902351-001	3/16/19	3/19/19	5 mL	1 mL	
MW-15	K1902351-002	3/16/19	3/19/19	5 mL	1 mL	
MW-16	K1902351-003	3/16/19	3/19/19	5 mL	1 mL	
MW-17	K1902351-004	3/16/19	3/19/19	5 mL	1 mL	
MW-18	K1902351-005	3/16/19	3/19/19	5 mL	1 mL	
MW-22	K1902351-006	3/17/19	3/19/19	5 mL	1 mL	
MW-23	K1902351-007	3/17/19	3/19/19	5 mL	1 mL	
MW-24	K1902351-008	3/17/19	3/19/19	5 mL	1 mL	
MW-25	K1902351-009	3/17/19	3/19/19	5 mL	1 mL	
MW-26	K1902351-010	3/17/19	3/19/19	5 mL	1 mL	
MW-27	K1902351-011	3/17/19	3/19/19	5 mL	1 mL	
MW-28	K1902351-012	3/16/19	3/19/19	5 mL	1 mL	
MW-29	K1902351-013	3/16/19	3/19/19	5 mL	1 mL	
MW-30	K1902351-014	3/16/19	3/19/19	5 mL	1 mL	
MW-31	K1902351-015	3/16/19	3/19/19	5 mL	1 mL	
MW-32	K1902351-016	3/17/19	3/19/19	5 mL	1 mL	
MW-33	K1902351-017	3/17/19	3/19/19	5 mL	1 mL	
MW-34	K1902351-018	3/16/19	3/19/19	5 mL	1 mL	
MW-35	K1902351-019	3/17/19	3/19/19	5 mL	1 mL	
MW-36	K1902351-020	3/16/19	3/19/19	5 mL	1 mL	
Matrix Spike	KQ1903557-01MS	3/16/19	3/19/19	5 mL	1 mL	
Duplicate Matrix Spike	KQ1903557-02DMS	3/16/19	3/19/19	5 mL	1 mL	
Lab Control Sample	KQ1903557-03LCS	NA	NA	5 mL	1 mL	
Method Blank	KQ1903557-04MB	NA	NA	5 mL	1 mL	

Prep Summary Report

Client: JH Baxter & Company **Service Request:**K1902351
Project: JH Baxter - Arlington
Sample Matrix: Water

Chlorinated Phenolics

Prep Method: Method **Extraction Lot:** 333306
Analytical Method: 8151A Modified **Extraction Date:** 03/20/19 14:12

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
MW-37	K1902351-021	3/16/19	3/19/19	5 mL	1 mL	
MW-38	K1902351-022	3/16/19	3/19/19	5 mL	1 mL	
MW-39	K1902351-023	3/16/19	3/19/19	5 mL	1 mL	
MW-40	K1902351-024	3/16/19	3/19/19	5 mL	1 mL	
MW-41	K1902351-025	3/16/19	3/19/19	5 mL	1 mL	
MW-42	K1902351-026	3/16/19	3/19/19	5 mL	1 mL	
MW-44	K1902351-027	3/16/19	3/19/19	5 mL	1 mL	
FIELD BLANK RINSATE	K1902351-028	3/17/19	3/19/19	5 mL	1 mL	
MW-3	K1902351-029	3/17/19	3/19/19	5 mL	1 mL	
MW-2	K1902351-030	3/16/19	3/19/19	5 mL	1 mL	
Batch QC	K1902361-002	NA	NA	5 mL	1 mL	
Matrix Spike	KQ1903604-01MS	NA	NA	5 mL	1 mL	
Duplicate Matrix Spike	KQ1903604-02DMS	NA	NA	5 mL	1 mL	
Lab Control Sample	KQ1903604-03LCS	NA	NA	5 mL	1 mL	
Method Blank	KQ1903604-04MB	NA	NA	5 mL	1 mL	

Prep Summary Report

Client: JH Baxter & Company **Service Request:**K1902351
Project: JH Baxter - Arlington
Sample Matrix: Water

Chlorinated Phenolics

Prep Method: Method **Extraction Lot:** 333689
Analytical Method: 8151A Modified **Extraction Date:** 03/27/19 12:19

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
MW-43	K1902351-032	3/23/19	3/26/19	5 mL	1 mL	
Matrix Spike	KQ1903939-01MS	3/23/19	3/26/19	5 mL	1 mL	
Duplicate Matrix Spike	KQ1903939-02DMS	3/23/19	3/26/19	5 mL	1 mL	
Lab Control Sample	KQ1903939-03LCS	NA	NA	5 mL	1 mL	
Method Blank	KQ1903939-04MB	NA	NA	5 mL	1 mL	

Polynuclear Aromatic Hydrocarbons

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 11:58
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-15	**Units:**	ug/L
Lab Code:	K1902351-002	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0030**	**J**	0.020	0.0013	1	03/22/19 19:02	3/20/19	
Acenaphthene	ND	U	0.020	0.0012	1	03/22/19 19:02	3/20/19	
Acenaphthylene	ND	U	0.020	0.0011	1	03/22/19 19:02	3/20/19	
Anthracene	ND	U	0.020	0.00082	1	03/22/19 19:02	3/20/19	
Benz(a)anthracene	**0.0020**	**J**	0.020	0.00097	1	03/22/19 19:02	3/20/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	03/22/19 19:02	3/20/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	03/22/19 19:02	3/20/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	03/22/19 19:02	3/20/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	03/22/19 19:02	3/20/19	
Chrysene	ND	U	0.020	0.00076	1	03/22/19 19:02	3/20/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	03/22/19 19:02	3/20/19	
Fluoranthene	ND	U	0.020	0.00082	1	03/22/19 19:02	3/20/19	
Fluorene	**0.0012**	**J**	0.020	0.0011	1	03/22/19 19:02	3/20/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	03/22/19 19:02	3/20/19	
Naphthalene	**0.0040**	**J**	0.020	0.0014	1	03/22/19 19:02	3/20/19	
Phenanthrene	**0.0037**	**J**	0.020	0.0011	1	03/22/19 19:02	3/20/19	
Pyrene	ND	U	0.020	0.0010	1	03/22/19 19:02	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	112	42 - 133	03/22/19 19:02	
Fluorene-d10	94	42 - 131	03/22/19 19:02	
Terphenyl-d14	111	32 - 129	03/22/19 19:02	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 09:14
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-16	**Units:**	ug/L
Lab Code:	K1902351-003	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0031**	**J**	0.020	0.0013	1	03/22/19 19:34	3/20/19	
Acenaphthene	ND	U	0.020	0.0012	1	03/22/19 19:34	3/20/19	
Acenaphthylene	ND	U	0.020	0.0011	1	03/22/19 19:34	3/20/19	
Anthracene	ND	U	0.020	0.00082	1	03/22/19 19:34	3/20/19	
Benz(a)anthracene	**0.0020**	**J**	0.020	0.00097	1	03/22/19 19:34	3/20/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	03/22/19 19:34	3/20/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	03/22/19 19:34	3/20/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	03/22/19 19:34	3/20/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	03/22/19 19:34	3/20/19	
Chrysene	ND	U	0.020	0.00076	1	03/22/19 19:34	3/20/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	03/22/19 19:34	3/20/19	
Fluoranthene	ND	U	0.020	0.00082	1	03/22/19 19:34	3/20/19	
Fluorene	ND	U	0.020	0.0011	1	03/22/19 19:34	3/20/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	03/22/19 19:34	3/20/19	
Naphthalene	**0.0044**	**J**	0.020	0.0014	1	03/22/19 19:34	3/20/19	
Phenanthrene	**0.0034**	**J**	0.020	0.0011	1	03/22/19 19:34	3/20/19	
Pyrene	**0.0010**	**J**	0.020	0.0010	1	03/22/19 19:34	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	104	42 - 133	03/22/19 19:34	
Fluorene-d10	89	42 - 131	03/22/19 19:34	
Terphenyl-d14	102	32 - 129	03/22/19 19:34	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 11:36
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-17	**Units:**	ug/L
Lab Code:	K1902351-004	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0030**	**J**	0.020	0.0013	1	03/22/19 20:07	3/20/19	
Acenaphthene	ND	U	0.020	0.0012	1	03/22/19 20:07	3/20/19	
Acenaphthylene	ND	U	0.020	0.0011	1	03/22/19 20:07	3/20/19	
Anthracene	ND	U	0.020	0.00082	1	03/22/19 20:07	3/20/19	
Benz(a)anthracene	**0.0020**	**J**	0.020	0.00097	1	03/22/19 20:07	3/20/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	03/22/19 20:07	3/20/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	03/22/19 20:07	3/20/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	03/22/19 20:07	3/20/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	03/22/19 20:07	3/20/19	
Chrysene	ND	U	0.020	0.00076	1	03/22/19 20:07	3/20/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	03/22/19 20:07	3/20/19	
Fluoranthene	**0.0012**	**J**	0.020	0.00082	1	03/22/19 20:07	3/20/19	
Fluorene	**0.0013**	**J**	0.020	0.0011	1	03/22/19 20:07	3/20/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	03/22/19 20:07	3/20/19	
Naphthalene	**0.0040**	**J**	0.020	0.0014	1	03/22/19 20:07	3/20/19	
Phenanthrene	**0.0034**	**J**	0.020	0.0011	1	03/22/19 20:07	3/20/19	
Pyrene	**0.0012**	**J**	0.020	0.0010	1	03/22/19 20:07	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	101	42 - 133	03/22/19 20:07	
Fluorene-d10	84	42 - 131	03/22/19 20:07	
Terphenyl-d14	96	32 - 129	03/22/19 20:07	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 14:39
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-30	**Units:**	ug/L
Lab Code:	K1902351-014	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0064**	**J**	0.040	0.0026	1	03/22/19 20:39	3/20/19	
Acenaphthene	ND	U	0.040	0.0024	1	03/22/19 20:39	3/20/19	
Acenaphthylene	ND	U	0.040	0.0022	1	03/22/19 20:39	3/20/19	
Anthracene	ND	U	0.040	0.0017	1	03/22/19 20:39	3/20/19	
Benz(a)anthracene	**0.0045**	**J**	0.040	0.0020	1	03/22/19 20:39	3/20/19	
Benzo(a)pyrene	ND	U	0.040	0.0022	1	03/22/19 20:39	3/20/19	
Benzo(b)fluoranthene	ND	U	0.040	0.0017	1	03/22/19 20:39	3/20/19	
Benzo(g,h,i)perylene	**0.0019**	**J**	0.040	0.0018	1	03/22/19 20:39	3/20/19	
Benzo(k)fluoranthene	ND	U	0.040	0.0019	1	03/22/19 20:39	3/20/19	
Chrysene	ND	U	0.040	0.0016	1	03/22/19 20:39	3/20/19	
Dibenz(a,h)anthracene	ND	U	0.040	0.0026	1	03/22/19 20:39	3/20/19	
Fluoranthene	**0.0026**	**J**	0.040	0.0017	1	03/22/19 20:39	3/20/19	
Fluorene	**0.0031**	**J**	0.040	0.0022	1	03/22/19 20:39	3/20/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.040	0.0018	1	03/22/19 20:39	3/20/19	
Naphthalene	**0.0066**	**J**	0.040	0.0028	1	03/22/19 20:39	3/20/19	
Phenanthrene	**0.010**	**J**	0.040	0.0022	1	03/22/19 20:39	3/20/19	
Pyrene	**0.0028**	**J**	0.040	0.0020	1	03/22/19 20:39	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	97	42 - 133	03/22/19 20:39	
Fluorene-d10	81	42 - 131	03/22/19 20:39	
Terphenyl-d14	62	32 - 129	03/22/19 20:39	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 12:55
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-36	**Units:**	ug/L
Lab Code:	K1902351-020	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0046**	**J**	0.040	0.0026	1	03/22/19 21:11	3/20/19	
Acenaphthene	ND	U	0.040	0.0024	1	03/22/19 21:11	3/20/19	
Acenaphthylene	ND	U	0.040	0.0022	1	03/22/19 21:11	3/20/19	
Anthracene	ND	U	0.040	0.0017	1	03/22/19 21:11	3/20/19	
Benz(a)anthracene	**0.0049**	**J**	0.040	0.0020	1	03/22/19 21:11	3/20/19	
Benzo(a)pyrene	ND	U	0.040	0.0022	1	03/22/19 21:11	3/20/19	
Benzo(b)fluoranthene	ND	U	0.040	0.0017	1	03/22/19 21:11	3/20/19	
Benzo(g,h,i)perylene	ND	U	0.040	0.0018	1	03/22/19 21:11	3/20/19	
Benzo(k)fluoranthene	ND	U	0.040	0.0019	1	03/22/19 21:11	3/20/19	
Chrysene	ND	U	0.040	0.0016	1	03/22/19 21:11	3/20/19	
Dibenz(a,h)anthracene	ND	U	0.040	0.0026	1	03/22/19 21:11	3/20/19	
Fluoranthene	**0.0018**	**J**	0.040	0.0017	1	03/22/19 21:11	3/20/19	
Fluorene	**0.0024**	**J**	0.040	0.0022	1	03/22/19 21:11	3/20/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.040	0.0018	1	03/22/19 21:11	3/20/19	
Naphthalene	**0.0059**	**J**	0.040	0.0028	1	03/22/19 21:11	3/20/19	
Phenanthrene	**0.0060**	**J**	0.040	0.0022	1	03/22/19 21:11	3/20/19	
Pyrene	**0.0022**	**J**	0.040	0.0020	1	03/22/19 21:11	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	98	42 - 133	03/22/19 21:11	
Fluorene-d10	83	42 - 131	03/22/19 21:11	
Terphenyl-d14	98	32 - 129	03/22/19 21:11	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 11:16
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-37	**Units:**	ug/L
Lab Code:	K1902351-021	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0018**	**J**	0.020	0.0013	1	03/22/19 21:43	3/20/19	
Acenaphthene	ND	U	0.020	0.0012	1	03/22/19 21:43	3/20/19	
Acenaphthylene	ND	U	0.020	0.0011	1	03/22/19 21:43	3/20/19	
Anthracene	ND	U	0.020	0.00082	1	03/22/19 21:43	3/20/19	
Benz(a)anthracene	**0.0020**	**J**	0.020	0.00097	1	03/22/19 21:43	3/20/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	03/22/19 21:43	3/20/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	03/22/19 21:43	3/20/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	03/22/19 21:43	3/20/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	03/22/19 21:43	3/20/19	
Chrysene	ND	U	0.020	0.00076	1	03/22/19 21:43	3/20/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	03/22/19 21:43	3/20/19	
Fluoranthene	ND	U	0.020	0.00082	1	03/22/19 21:43	3/20/19	
Fluorene	ND	U	0.020	0.0011	1	03/22/19 21:43	3/20/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	03/22/19 21:43	3/20/19	
Naphthalene	**0.0031**	**J**	0.020	0.0014	1	03/22/19 21:43	3/20/19	
Phenanthrene	ND	U	0.020	0.0011	1	03/22/19 21:43	3/20/19	
Pyrene	ND	U	0.020	0.0010	1	03/22/19 21:43	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	107	42 - 133	03/22/19 21:43	
Fluorene-d10	90	42 - 131	03/22/19 21:43	
Terphenyl-d14	105	32 - 129	03/22/19 21:43	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 10:00
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-44	**Units:**	ug/L
Lab Code:	K1902351-027	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0019**	**J**	0.020	0.0013	1	03/22/19 22:15	3/20/19	
Acenaphthene	ND	U	0.020	0.0012	1	03/22/19 22:15	3/20/19	
Acenaphthylene	ND	U	0.020	0.0011	1	03/22/19 22:15	3/20/19	
Anthracene	ND	U	0.020	0.00082	1	03/22/19 22:15	3/20/19	
Benz(a)anthracene	**0.0020**	**J**	0.020	0.00097	1	03/22/19 22:15	3/20/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	03/22/19 22:15	3/20/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	03/22/19 22:15	3/20/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	03/22/19 22:15	3/20/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	03/22/19 22:15	3/20/19	
Chrysene	ND	U	0.020	0.00076	1	03/22/19 22:15	3/20/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	03/22/19 22:15	3/20/19	
Fluoranthene	ND	U	0.020	0.00082	1	03/22/19 22:15	3/20/19	
Fluorene	ND	U	0.020	0.0011	1	03/22/19 22:15	3/20/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	03/22/19 22:15	3/20/19	
Naphthalene	**0.0026**	**J**	0.020	0.0014	1	03/22/19 22:15	3/20/19	
Phenanthrene	ND	U	0.020	0.0011	1	03/22/19 22:15	3/20/19	
Pyrene	ND	U	0.020	0.0010	1	03/22/19 22:15	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	112	42 - 133	03/22/19 22:15	
Fluorene-d10	94	42 - 131	03/22/19 22:15	
Terphenyl-d14	107	32 - 129	03/22/19 22:15	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/17/19 12:00
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	FIELD BLANK RINSATE	**Units:**	ug/L
Lab Code:	K1902351-028	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.22**		0.020	0.0013	1	03/22/19 22:48	3/20/19	
Acenaphthene	**0.022**		0.020	0.0012	1	03/22/19 22:48	3/20/19	
Acenaphthylene	**0.011**	**JX**	0.020	0.0011	1	03/22/19 22:48	3/20/19	
Anthracene	ND	U	0.020	0.00082	1	03/22/19 22:48	3/20/19	
Benz(a)anthracene	**0.0018**	**J**	0.020	0.00097	1	03/22/19 22:48	3/20/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	03/22/19 22:48	3/20/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	03/22/19 22:48	3/20/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	03/22/19 22:48	3/20/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	03/22/19 22:48	3/20/19	
Chrysene	ND	U	0.020	0.00076	1	03/22/19 22:48	3/20/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	03/22/19 22:48	3/20/19	
Fluoranthene	ND	U	0.020	0.00082	1	03/22/19 22:48	3/20/19	
Fluorene	**0.0088**	**J**	0.020	0.0011	1	03/22/19 22:48	3/20/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	03/22/19 22:48	3/20/19	
Naphthalene	**0.37**		0.020	0.0014	1	03/22/19 22:48	3/20/19	
Phenanthrene	**0.0082**	**J**	0.020	0.0011	1	03/22/19 22:48	3/20/19	
Pyrene	ND	U	0.020	0.0010	1	03/22/19 22:48	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	110	42 - 133	03/22/19 22:48	
Fluorene-d10	87	42 - 131	03/22/19 22:48	
Terphenyl-d14	98	32 - 129	03/22/19 22:48	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/17/19 10:18
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-3	**Units:**	ug/L
Lab Code:	K1902351-029	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0020**	**J**	0.020	0.0013	1	03/22/19 23:20	3/20/19	
Acenaphthene	ND	U	0.020	0.0012	1	03/22/19 23:20	3/20/19	
Acenaphthylene	ND	U	0.020	0.0011	1	03/22/19 23:20	3/20/19	
Anthracene	ND	U	0.020	0.00082	1	03/22/19 23:20	3/20/19	
Benz(a)anthracene	**0.0023**	**J**	0.020	0.00097	1	03/22/19 23:20	3/20/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	03/22/19 23:20	3/20/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	03/22/19 23:20	3/20/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	03/22/19 23:20	3/20/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	03/22/19 23:20	3/20/19	
Chrysene	ND	U	0.020	0.00076	1	03/22/19 23:20	3/20/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	03/22/19 23:20	3/20/19	
Fluoranthene	ND	U	0.020	0.00082	1	03/22/19 23:20	3/20/19	
Fluorene	ND	U	0.020	0.0011	1	03/22/19 23:20	3/20/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	03/22/19 23:20	3/20/19	
Naphthalene	**0.0036**	**J**	0.020	0.0014	1	03/22/19 23:20	3/20/19	
Phenanthrene	ND	U	0.020	0.0011	1	03/22/19 23:20	3/20/19	
Pyrene	ND	U	0.020	0.0010	1	03/22/19 23:20	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	120	42 - 133	03/22/19 23:20	
Fluorene-d10	103	42 - 131	03/22/19 23:20	
Terphenyl-d14	115	32 - 129	03/22/19 23:20	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 10:30
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	MW-2	**Units:**	ug/L
Lab Code:	K1902351-030	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0017**	**J**	0.020	0.0013	1	03/22/19 23:52	3/20/19	
Acenaphthene	ND	U	0.020	0.0012	1	03/22/19 23:52	3/20/19	
Acenaphthylene	ND	U	0.020	0.0011	1	03/22/19 23:52	3/20/19	
Anthracene	ND	U	0.020	0.00082	1	03/22/19 23:52	3/20/19	
Benz(a)anthracene	**0.0020**	**J**	0.020	0.00097	1	03/22/19 23:52	3/20/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	03/22/19 23:52	3/20/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	03/22/19 23:52	3/20/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	03/22/19 23:52	3/20/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	03/22/19 23:52	3/20/19	
Chrysene	ND	U	0.020	0.00076	1	03/22/19 23:52	3/20/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	03/22/19 23:52	3/20/19	
Fluoranthene	ND	U	0.020	0.00082	1	03/22/19 23:52	3/20/19	
Fluorene	ND	U	0.020	0.0011	1	03/22/19 23:52	3/20/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	03/22/19 23:52	3/20/19	
Naphthalene	**0.0029**	**J**	0.020	0.0014	1	03/22/19 23:52	3/20/19	
Phenanthrene	**0.0014**	**J**	0.020	0.0011	1	03/22/19 23:52	3/20/19	
Pyrene	ND	U	0.020	0.0010	1	03/22/19 23:52	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	108	42 - 133	03/22/19 23:52	
Fluorene-d10	90	42 - 131	03/22/19 23:52	
Terphenyl-d14	104	32 - 129	03/22/19 23:52	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KQ1903571-03	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0020**	**J**	0.020	0.0013	1	03/22/19 15:50	3/20/19	
Acenaphthene	ND	U	0.020	0.0012	1	03/22/19 15:50	3/20/19	
Acenaphthylene	ND	U	0.020	0.0011	1	03/22/19 15:50	3/20/19	
Anthracene	ND	U	0.020	0.00082	1	03/22/19 15:50	3/20/19	
Benz(a)anthracene	**0.0023**	**J**	0.020	0.00097	1	03/22/19 15:50	3/20/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	03/22/19 15:50	3/20/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	03/22/19 15:50	3/20/19	
Benzo(g,h,i)perylene	**0.0021**	**J**	0.020	0.00086	1	03/22/19 15:50	3/20/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	03/22/19 15:50	3/20/19	
Chrysene	ND	U	0.020	0.00076	1	03/22/19 15:50	3/20/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	03/22/19 15:50	3/20/19	
Fluoranthene	ND	U	0.020	0.00082	1	03/22/19 15:50	3/20/19	
Fluorene	ND	U	0.020	0.0011	1	03/22/19 15:50	3/20/19	
Indeno(1,2,3-cd)pyrene	**0.0014**	**J**	0.020	0.00089	1	03/22/19 15:50	3/20/19	
Naphthalene	**0.0031**	**J**	0.020	0.0014	1	03/22/19 15:50	3/20/19	
Phenanthrene	**0.0029**	**J**	0.020	0.0011	1	03/22/19 15:50	3/20/19	
Pyrene	ND	U	0.020	0.0010	1	03/22/19 15:50	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	118	42 - 133	03/22/19 15:50	
Fluorene-d10	98	42 - 131	03/22/19 15:50	
Terphenyl-d14	109	32 - 129	03/22/19 15:50	

Client: JH Baxter & Company **Service Request:** K1902351
Project: JH Baxter - Arlington
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Extraction Method: EPA 3511

Sample Name	Lab Code	Fluoranthene-d10 42-133	Fluorene-d10 42-131	Terphenyl-d14 32-129
MW-15	K1902351-002	112	94	111
MW-16	K1902351-003	104	89	102
MW-17	K1902351-004	101	84	96
MW-30	K1902351-014	97	81	62
MW-36	K1902351-020	98	83	98
MW-37	K1902351-021	107	90	105
MW-44	K1902351-027	112	94	107
FIELD BLANK RINSATE	K1902351-028	110	87	98
MW-3	K1902351-029	120	103	115
MW-2	K1902351-030	108	90	104
Method Blank	KQ1903571-03	118	98	109
Lab Control Sample	KQ1903571-01	119	97	98
Duplicate Lab Control Sample	KQ1903571-02	106	85	89

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QA/QC Report

Client: JH Baxter & Company **Service Request:**K1902351
Project: JH Baxter - Arlington **Date Analyzed:**03/22/19 15:18

Internal Standard Area and RT SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\032219\0322F019.D\ **Lab Code:**KQ1903805-01
Instrument ID: K-MS-14 **Analysis Lot:**629289
Analysis Method: 8270D **Signal ID:**1

		Acenaphthene-d10		Chrysene-d12		Naphthalene-d8	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Result ==>	26,263	6.35	65,229	10.17	55,165	4.79
	Upper Limit ==>	52,526	6.85	130,458	10.67	110,330	5.29
	Lower Limit ==>	13,132	5.85	32,615	9.67	27,583	4.29
Associated Analyses							
Continuing Calibration Verification	KQ1903805-01	26263	6.35	65229	10.17	55165	4.79
Method Blank	KQ1903571-03	32909	6.35	64957	10.17	67353	4.79
Lab Control Sample	KQ1903571-01	31222	6.35	63468	10.17	69740	4.79
Duplicate Lab Control Sample	KQ1903571-02	30977	6.35	62330	10.17	67848	4.79
MW-15	K1902351-002	33413	6.35	64614	10.17	69193	4.79
MW-16	K1902351-003	33396	6.35	61941	10.17	67893	4.79
MW-17	K1902351-004	32613	6.35	64692	10.17	67495	4.79
MW-30	K1902351-014	33665	6.35	63506	10.17	67995	4.79
MW-36	K1902351-020	33043	6.35	62208	10.17	67570	4.79
MW-37	K1902351-021	32286	6.35	62489	10.17	66872	4.79
MW-44	K1902351-027	32569	6.35	60926	10.17	67083	4.79
FIELD BLANK RINSATE	K1902351-028	33666	6.35	59882	10.17	66653	4.79
MW-3	K1902351-029	31056	6.35	59583	10.17	64735	4.79
MW-2	K1902351-030	32008	6.35	61571	10.17	66445	4.79

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QA/QC Report

Client: JH Baxter & Company **Service Request:**K1902351
Project: JH Baxter - Arlington **Date Analyzed:**03/22/19 15:18

Internal Standard Area and RT SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\032219\0322F019.D\ **Lab Code:**KQ1903805-01
Instrument ID: K-MS-14 **Analysis Lot:**629289
Analysis Method: 8270D **Signal ID:**1

		Perylene-d12		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**
	Result ==>	72,282	13.41	53,755	7.60
	Upper Limit ==>	144,564	13.91	107,510	8.10
	Lower Limit ==>	36,141	12.91	26,878	7.10
Associated Analyses					
Continuing Calibration Verification	KQ1903805-01	72282	13.41	53755	7.60
Method Blank	KQ1903571-03	71936	13.40	63268	7.60
Lab Control Sample	KQ1903571-01	69603	13.40	60572	7.60
Duplicate Lab Control Sample	KQ1903571-02	67518	13.40	59921	7.60
MW-15	K1902351-002	70770	13.39	64570	7.60
MW-16	K1902351-003	68992	13.39	63960	7.60
MW-17	K1902351-004	72726	13.40	62697	7.60
MW-30	K1902351-014	70466	13.39	63866	7.60
MW-36	K1902351-020	70244	13.39	62992	7.60
MW-37	K1902351-021	69141	13.39	61658	7.59
MW-44	K1902351-027	66650	13.39	62312	7.59
FIELD BLANK RINSATE	K1902351-028	65353	13.39	62369	7.59
MW-3	K1902351-029	65304	13.39	59796	7.59
MW-2	K1902351-030	67555	13.38	61260	7.59

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/22/19
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Duplicate Lab Control Sample Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method:	8270D	**Units:**	ug/L
Prep Method:	EPA 3511	**Basis:**	NA
		Analysis Lot:	629289

	Lab Control Sample KQ1903571-01			Duplicate Lab Control Sample KQ1903571-02					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
2-Methylnaphthalene	2.56	2.78	92	2.67	2.78	96	48-120	4	30
Acenaphthene	2.71	2.78	97	2.75	2.78	99	63-121	2	30
Acenaphthylene	2.61	2.78	94	2.65	2.78	95	58-124	2	30
Anthracene	2.99	2.78	108	3.06	2.78	110	68-127	2	30
Benz(a)anthracene	2.78	2.78	100	2.81	2.78	101	74-124	1	30
Benzo(a)pyrene	2.72	2.78	98	2.80	2.78	101	75-131	3	30
Benzo(b)fluoranthene	2.96	2.78	107	3.07	2.78	110	73-136	4	30
Benzo(g,h,i)perylene	2.81	2.78	101	2.91	2.78	105	63-127	4	30
Benzo(k)fluoranthene	3.03	2.78	109	3.11	2.78	112	74-134	2	30
Chrysene	2.95	2.78	106	2.99	2.78	108	74-132	1	30
Dibenz(a,h)anthracene	2.78	2.78	100	2.91	2.78	105	59-135	4	30
Fluoranthene	2.86	2.78	103	2.91	2.78	105	70-127	2	30
Fluorene	2.48	2.78	89	2.53	2.78	91	68-121	2	30
Indeno(1,2,3-cd)pyrene	2.63	2.78	95	2.67	2.78	96	63-136	2	30
Naphthalene	2.65	2.78	95	2.73	2.78	98	52-115	3	30
Phenanthrene	2.84	2.78	102	2.92	2.78	105	64-126	3	30
Pyrene	2.90	2.78	104	2.98	2.78	107	72-127	3	30

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/22/19 15:50
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Method Blank Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Sample Name:	Method Blank	**Instrument ID:**	K-MS-14
Lab Code:	KQ1903571-03	**File ID:**	J:\MS14\DATA\032219\0322F020.D\
Analysis Method:	8270D	**Analysis Lot:**	629289
Prep Method:	EPA 3511	**Extraction Lot:**	333285

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1903571-01	J:\MS14\DATA\032219\0322F021.D\	03/22/19 16:22
Duplicate Lab Control Sample	KQ1903571-02	J:\MS14\DATA\032219\0322F022.D\	03/22/19 16:54
MW-15	K1902351-002	J:\MS14\DATA\032219\0322F026.D\	03/22/19 19:02
MW-16	K1902351-003	J:\MS14\DATA\032219\0322F027.D\	03/22/19 19:34
MW-17	K1902351-004	J:\MS14\DATA\032219\0322F028.D\	03/22/19 20:07
MW-30	K1902351-014	J:\MS14\DATA\032219\0322F029.D\	03/22/19 20:39
MW-36	K1902351-020	J:\MS14\DATA\032219\0322F030.D\	03/22/19 21:11
MW-37	K1902351-021	J:\MS14\DATA\032219\0322F031.D\	03/22/19 21:43
MW-44	K1902351-027	J:\MS14\DATA\032219\0322F032.D\	03/22/19 22:15
FIELD BLANK RINSATE	K1902351-028	J:\MS14\DATA\032219\0322F033.D\	03/22/19 22:48
MW-3	K1902351-029	J:\MS14\DATA\032219\0322F034.D\	03/22/19 23:20
MW-2	K1902351-030	J:\MS14\DATA\032219\0322F035.D\	03/22/19 23:52

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902351
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/22/19 16:22
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Lab Control Sample Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Sample Name:	Lab Control Sample	**Instrument ID:**	K-MS-14
Lab Code:	KQ1903571-01	**File ID:**	J:\MS14\DATA\032219\0322F021.D\
Analysis Method:	8270D	**Analysis Lot:**	629289
Prep Method:	EPA 3511	**Extraction Lot:**	333285

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1903571-03	J:\MS14\DATA\032219\0322F020.D\	03/22/19 15:50
Duplicate Lab Control Sample	KQ1903571-02	J:\MS14\DATA\032219\0322F022.D\	03/22/19 16:54
MW-15	K1902351-002	J:\MS14\DATA\032219\0322F026.D\	03/22/19 19:02
MW-16	K1902351-003	J:\MS14\DATA\032219\0322F027.D\	03/22/19 19:34
MW-17	K1902351-004	J:\MS14\DATA\032219\0322F028.D\	03/22/19 20:07
MW-30	K1902351-014	J:\MS14\DATA\032219\0322F029.D\	03/22/19 20:39
MW-36	K1902351-020	J:\MS14\DATA\032219\0322F030.D\	03/22/19 21:11
MW-37	K1902351-021	J:\MS14\DATA\032219\0322F031.D\	03/22/19 21:43
MW-44	K1902351-027	J:\MS14\DATA\032219\0322F032.D\	03/22/19 22:15
FIELD BLANK RINSATE	K1902351-028	J:\MS14\DATA\032219\0322F033.D\	03/22/19 22:48
MW-3	K1902351-029	J:\MS14\DATA\032219\0322F034.D\	03/22/19 23:20
MW-2	K1902351-030	J:\MS14\DATA\032219\0322F035.D\	03/22/19 23:52

Client: JH Baxter & Company **Service Request:**K1902351
Project: JH Baxter - Arlington **Date Analyzed:**03/22/19 14:45

Tune Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\032219\0322F018.D\ **Analytical Method:** 8270D
Instrument ID: K-MS-14 **Analysis Lot:** 629289

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	30.23	53530	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	32.42	57420	Pass
70	69	0	2	0.57	327	Pass
127	198	10	80	40.85	72333	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	48.26	177088	Pass
199	198	5	9	6.55	11598	Pass
275	198	10	60	34.59	61253	Pass
365	442	1	50	2.63	9658	Pass
441	443	0.01	100	74.70	53258	Pass
442	442	30	100	100.00	366933	Pass
443	442	15	24	19.43	71298	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	KQ1903805-01	J:\MS14\DATA\032219\0322F019.D\	03/22/19 15:18	
Method Blank	KQ1903571-03	J:\MS14\DATA\032219\0322F020.D\	03/22/19 15:50	
Lab Control Sample	KQ1903571-01	J:\MS14\DATA\032219\0322F021.D\	03/22/19 16:22	
Duplicate Lab Control Sample	KQ1903571-02	J:\MS14\DATA\032219\0322F022.D\	03/22/19 16:54	
MW-15	K1902351-002	J:\MS14\DATA\032219\0322F026.D\	03/22/19 19:02	
MW-16	K1902351-003	J:\MS14\DATA\032219\0322F027.D\	03/22/19 19:34	
MW-17	K1902351-004	J:\MS14\DATA\032219\0322F028.D\	03/22/19 20:07	
MW-30	K1902351-014	J:\MS14\DATA\032219\0322F029.D\	03/22/19 20:39	
MW-36	K1902351-020	J:\MS14\DATA\032219\0322F030.D\	03/22/19 21:11	
MW-37	K1902351-021	J:\MS14\DATA\032219\0322F031.D\	03/22/19 21:43	
MW-44	K1902351-027	J:\MS14\DATA\032219\0322F032.D\	03/22/19 22:15	
FIELD BLANK RINSATE	K1902351-028	J:\MS14\DATA\032219\0322F033.D\	03/22/19 22:48	
MW-3	K1902351-029	J:\MS14\DATA\032219\0322F034.D\	03/22/19 23:20	
MW-2	K1902351-030	J:\MS14\DATA\032219\0322F035.D\	03/22/19 23:52	

Client: JH Baxter & Company **Service Request:** K1902351
Project: JH Baxter - Arlington **Calibration Date:** 12/26/2018

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900055 **Signal ID:** 1
Instrument ID: K-MS-14

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900055-01	SIM-PAH ICAL @.002ug/mL | SVM59-4A	J:\MS14\DATA\122618A\1226F006.D	12/26/2018 08:15
02	KC1900055-02	SIM-PAH ICAL @.004ug/mL | SVM59-4B	J:\MS14\DATA\122618A\1226F007.D	12/26/2018 08:41
03	KC1900055-03	SIM-PAH ICAL @.008ug/mL | SVM59-4C	J:\MS14\DATA\122618A\1226F008.D	12/26/2018 09:07
04	KC1900055-04	SIM-PAH ICAL @0.02ug/mL | SVM59-4D	J:\MS14\DATA\122618A\1226F009.D	12/26/2018 09:33
05	KC1900055-05	SIM-PAH ICAL @0.1ug/mL | SVM59-4E	J:\MS14\DATA\122618A\1226F010.D	12/26/2018 09:59
06	KC1900055-06	SIM-PAH ICAL @0.2ug/mL | SVM59-4F	J:\MS14\DATA\122618A\1226F011.D	12/26/2018 10:26
07	KC1900055-07	SIM-PAH ICAL @0.4ug/mL | SVM59-4G	J:\MS14\DATA\122618A\1226F012.D	12/26/2018 10:52
08	KC1900055-08	SIM-PAH ICAL @1.0ug/mL | SVM59-4H	J:\MS14\DATA\122618A\1226F013.D	12/26/2018 11:18
09	KC1900055-09	SIM-PAH ICAL @1.6ug/mL | SVM59-4I	J:\MS14\DATA\122618A\1226F014.D	12/26/2018 11:45
10	KC1900055-10	SIM-PAH ICAL @2.0ug/mL | SVM59-4J	J:\MS14\DATA\122618A\1226F015.D	12/26/2018 12:12

Analyte

2-Methylnaphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	0.7405	02	4.000	0.8066	03	8.000	0.7507	04	20.000	0.7419
05	100.000	0.7214	06	200.000	0.6641	07	400.000	0.6616	08	1000.000	0.65
09	1600.000	0.6553	10	2000.000	0.635						

Acenaphthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.535	02	4.000	1.424	03	8.000	1.393	04	20.000	1.393
05	100.000	1.404	06	200.000	1.397	07	400.000	1.409	08	1000.000	1.404
09	1600.000	1.415	10	2000.000	1.387						

Acenaphthylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	2.712	02	4.000	2.541	03	8.000	2.41	04	20.000	2.415
05	100.000	2.473	06	200.000	2.45	07	400.000	2.46	08	1000.000	2.472
09	1600.000	2.478	10	2000.000	2.415						

Anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.234	02	4.000	1.215	03	8.000	1.233	04	20.000	1.189
05	100.000	1.248	06	200.000	1.234	07	400.000	1.222	08	1000.000	1.228
09	1600.000	1.224	10	2000.000	1.194						

Benz(a)anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.753	02	4.000	1.471	03	8.000	1.414	04	20.000	1.366
05	100.000	1.35	06	200.000	1.36	07	400.000	1.391	08	1000.000	1.415
09	1600.000	1.435	10	2000.000	1.397						

Client: JH Baxter & Company **Service Request:** K1902351
Project: JH Baxter - Arlington **Calibration Date:** 12/26/2018

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900055 **Signal ID:** 1
Instrument ID: K-MS-14

Analyte

Benzo(a)pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	1.48	03	8.000	1.317	04	20.000	1.25	05	100.000	1.239
06	200.000	1.205	07	400.000	1.208	08	1000.000	1.209	09	1600.000	1.204
10	2000.000	1.168									

Benzo(b)fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.4	02	4.000	1.295	03	8.000	1.273	04	20.000	1.305
05	100.000	1.332	06	200.000	1.324	07	400.000	1.368	08	1000.000	1.377
09	1600.000	1.351	10	2000.000	1.311						

Benzo(g,h,i)perylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.474	02	4.000	1.359	03	8.000	1.34	04	20.000	1.387
05	100.000	1.394	06	200.000	1.352	07	400.000	1.328	08	1000.000	1.31
09	1600.000	1.302	10	2000.000	1.252						

Benzo(k)fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.234	02	4.000	1.247	03	8.000	1.168	04	20.000	1.26
05	100.000	1.298	06	200.000	1.271	07	400.000	1.307	08	1000.000	1.294
09	1600.000	1.284	10	2000.000	1.247						

Chrysene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.326	02	4.000	1.272	03	8.000	1.27	04	20.000	1.298
05	100.000	1.285	06	200.000	1.302	07	400.000	1.309	08	1000.000	1.315
09	1600.000	1.351	10	2000.000	1.315						

Dibenz(a,h)anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.074	02	4.000	1.033	03	8.000	0.995	04	20.000	1.12
05	100.000	1.217	06	200.000	1.186	07	400.000	1.111	08	1000.000	1.107
09	1600.000	1.154	10	2000.000	1.116						

Fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.564	02	4.000	1.437	03	8.000	1.441	04	20.000	1.429
05	100.000	1.464	06	200.000	1.46	07	400.000	1.445	08	1000.000	1.45
09	1600.000	1.447	10	2000.000	1.407						

Fluoranthene-d10

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.191	02	4.000	1.137	03	8.000	1.13	04	20.000	1.124
05	100.000	1.157	06	200.000	1.17	07	400.000	1.179	08	1000.000	1.212
09	1600.000	1.218	10	2000.000	1.191						

Client: JH Baxter & Company **Service Request:** K1902351
Project: JH Baxter - Arlington **Calibration Date:** 12/26/2018

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900055 **Signal ID:** 1
Instrument ID: K-MS-14

Analyte

Fluorene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	2.111	02	4.000	1.863	03	8.000	1.847	04	20.000	1.793
05	100.000	1.843	06	200.000	1.809	07	400.000	1.763	08	1000.000	1.748
09	1600.000	1.777	10	2000.000	1.747						

Fluorene-d10

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	1.65	03	8.000	1.486	04	20.000	1.367	05	100.000	1.347
06	200.000	1.341	07	400.000	1.31	08	1000.000	1.314	09	1600.000	1.343
10	2000.000	1.313									

Indeno(1,2,3-cd)pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.255	02	4.000	1.138	03	8.000	1.138	04	20.000	1.165
05	100.000	1.215	06	200.000	1.217	07	400.000	1.21	08	1000.000	1.201
09	1600.000	1.206	10	2000.000	1.173						

Naphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.263	02	4.000	1.124	03	8.000	1.183	04	20.000	1.165
05	100.000	1.127	06	200.000	1.104	07	400.000	1.087	08	1000.000	1.069
09	1600.000	1.075	10	2000.000	1.034						

Phenanthrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.344	02	4.000	1.32	03	8.000	1.36	04	20.000	1.261
05	100.000	1.264	06	200.000	1.244	07	400.000	1.239	08	1000.000	1.246
09	1600.000	1.245	10	2000.000	1.212						

Pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.588	02	4.000	1.577	03	8.000	1.561	04	20.000	1.467
05	100.000	1.478	06	200.000	1.463	07	400.000	1.457	08	1000.000	1.478
09	1600.000	1.521	10	2000.000	1.489						

Terphenyl-d14

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	1.117	03	8.000	0.9776	04	20.000	0.8752	05	100.000	0.8447
06	200.000	0.838	07	400.000	0.8281	08	1000.000	0.8213	09	1600.000	0.8335
10	2000.000	0.8045									

Client: JH Baxter & Company **Service Request:** K1902351
Project: JH Baxter - Arlington **Calibration Date:** 12/26/2018

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900055 **Signal ID:** 1
Instrument ID: K-MS-14

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
2-Methylnaphthalene	TRG	Average RF	% RSD	8.1	≤20	0.7027	0.40
Acenaphthene	TRG	Average RF	% RSD	3.1	≤20	1.416	0.90
Acenaphthylene	TRG	Average RF	% RSD	3.6	≤20	2.483	0.90
Anthracene	TRG	Average RF	% RSD	1.5	≤20	1.222	0.70
Benz(a)anthracene	TRG	Average RF	% RSD	8.2	≤20	1.435	0.80
Benzo(a)pyrene	TRG	Average RF	% RSD	7.5	≤20	1.253	0.70
Benzo(b)fluoranthene	TRG	Average RF	% RSD	3.0	≤20	1.334	0.70
Benzo(g,h,i)perylene	TRG	Average RF	% RSD	4.5	≤20	1.35	0.50
Benzo(k)fluoranthene	TRG	Average RF	% RSD	3.2	≤20	1.261	0.70
Chrysene	TRG	Average RF	% RSD	1.9	≤20	1.304	0.70
Dibenz(a,h)anthracene	TRG	Average RF	% RSD	6.0	≤20	1.111	0.40
Fluoranthene	TRG	Average RF	% RSD	2.9	≤20	1.454	0.60
Fluoranthene-d10	SURR	Average RF	% RSD	2.8	≤20	1.171	0.01
Fluorene	TRG	Average RF	% RSD	5.8	≤20	1.83	0.90
Fluorene-d10	SURR	Average RF	% RSD	8.1	≤20	1.386	0.01
Indeno(1,2,3-cd)pyrene	TRG	Average RF	% RSD	3.2	≤20	1.192	0.50
Naphthalene	TRG	Average RF	% RSD	5.9	≤20	1.123	0.70
Phenanthrene	TRG	Average RF	% RSD	3.9	≤20	1.273	0.70
Pyrene	TRG	Average RF	% RSD	3.3	≤20	1.508	0.60
Terphenyl-d14	SURR	Average RF	% RSD	11.5	≤20	0.8822	0.01

Client: JH Baxter & Company **Service Request:** K1902351
Project: JH Baxter - Arlington **Calibration Date:** 12/26/2018

Initial Calibration Verification Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900055 **Signal ID:** 1
Instrument ID: K-MS-14

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900055-11	SIM-PAH ICV @0.4ug/mL | SVM60 -14A	J:\MS14\DATA\122618A\1226F016.D	12/26/2018 12:38

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
2-Methylnaphthalene	400	379	7.027E-1	6.658E-1	-5.250	±30	Average RF
Acenaphthene	400	380	1.416E0	1.344E0	-5.107	±30	Average RF
Acenaphthylene	400	385	2.483E0	2.39E0	-3.747	±30	Average RF
Anthracene	400	391	1.222E0	1.194E0	-2.293	±30	Average RF
Benz(a)anthracene	400	367	1.435E0	1.316E0	-8.324	±30	Average RF
Benzo(a)pyrene	400	373	1.253E0	1.168E0	-6.824	±30	Average RF
Benzo(b)fluoranthene	400	400	1.334E0	1.333E0	-0.009	±30	Average RF
Benzo(g,h,i)perylene	400	360	1.35E0	1.215E0	-9.967	±30	Average RF
Benzo(k)fluoranthene	400	407	1.261E0	1.284E0	1.80	±30	Average RF
Chrysene	400	381	1.304E0	1.243E0	-4.701	±30	Average RF
Dibenz(a,h)anthracene	400	377	1.111E0	1.046E0	-5.872	±30	Average RF
Fluoranthene	400	406	1.454E0	1.475E0	1.43	±30	Average RF
Fluorene	400	381	1.83E0	1.743E0	-4.741	±30	Average RF
Indeno(1,2,3-cd)pyrene	400	381	1.192E0	1.136E0	-4.687	±30	Average RF
Naphthalene	400	380	1.123E0	1.069E0	-4.880	±30	Average RF
Phenanthrene	400	375	1.273E0	1.195E0	-6.159	±30	Average RF
Pyrene	400	371	1.508E0	1.397E0	-7.329	±30	Average RF

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Fluoranthene-d10	400	410	1.171E0	1.199E0	2.40	±30	Average RF
Fluorene-d10	400	389	1.386E0	1.347E0	-2.785	±30	Average RF
Terphenyl-d14	400	379	8.822E-1	8.367E-1	-5.153	±30	Average RF

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902351
Date Analyzed: 03/22/19 15:18

Continuing Calibration Verification (CCV) Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
File ID: J:\MS14\DATA\032219\0322F019.D\
Signal ID: 1

Calibration Date: 12/26/2018
Calibration ID: KC1900055
Analysis Lot: 629289
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2-Methylnaphthalene	400	376	0.7027	0.6608	-6.0	NA	±20	Average RF
Acenaphthene	400	364	1.4162	1.2894	-9.0	NA	±20	Average RF
Acenaphthylene	400	339	2.4827	2.1042	-15.2	NA	±20	Average RF
Anthracene	400	381	1.2221	1.1626	-4.9	NA	±20	Average RF
Benz(a)anthracene	400	365	1.4352	1.3107	-8.7	NA	±20	Average RF
Benzo(a)pyrene	400	362	1.2532	1.1326	-9.6	NA	±20	Average RF
Benzo(b)fluoranthene	400	388	1.3335	1.2942	-2.9	NA	±20	Average RF
Benzo(g,h,i)perylene	400	349	1.3498	1.1783	-12.7	NA	±20	Average RF
Benzo(k)fluoranthene	400	400	1.2609	1.2617	0.1	NA	±20	Average RF
Chrysene	400	390	1.3043	1.2717	-2.5	NA	±20	Average RF
Dibenz(a,h)anthracene	400	361	1.1113	1.0031	-9.7	NA	±20	Average RF
Fluoranthene	400	435	1.4544	1.5816	8.7	NA	±20	Average RF
Fluorene	400	337	1.8302	1.5422	-15.7	NA	±20	Average RF
Indeno(1,2,3-cd)pyrene	400	319	1.1919	0.9492	-20.4	NA	±20	Average RF
Naphthalene	400	375	1.1234	1.0539	-6.2	NA	±20	Average RF
Phenanthrene	400	383	1.2735	1.2205	-4.2	NA	±20	Average RF
Pyrene	400	373	1.5079	1.4056	-6.8	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Fluoranthene-d10	400	467	1.1709	1.3664	16.7	NA	±20	Average RF
Fluorene-d10	400	345	1.3856	1.1953	-13.7	NA	±20	Average RF
Terphenyl-d14	400	418	0.8822	0.9223	4.5	NA	±20	Average RF

Client: JH Baxter & Company **Service Request:**K1902351
Project: JH Baxter - Arlington

Analysis Run Log
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: **Analysis Lot:**629289
Instrument ID:K-MS-14

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\MS14\DATA\032219\0322F018.D\	ZZZZZZZ	ZZZZZZZ	3/22/2019	14:45:00	
J:\MS14\DATA\032219\0322F019.D\	Continuing Calibration Verification	KQ1903805-01	3/22/2019	15:18:00	
J:\MS14\DATA\032219\0322F020.D\	Method Blank	KQ1903571-03	3/22/2019	15:50:00	
J:\MS14\DATA\032219\0322F021.D\	Lab Control Sample	KQ1903571-01	3/22/2019	16:22:00	
J:\MS14\DATA\032219\0322F022.D\	Duplicate Lab Control Sample	KQ1903571-02	3/22/2019	16:54:00	
J:\MS14\DATA\032219\0322F023.D\	ZZZZZZZ	ZZZZZZZ	3/22/2019	17:26:00	
J:\MS14\DATA\032219\0322F024.D\	ZZZZZZZ	ZZZZZZZ	3/22/2019	17:58:00	
J:\MS14\DATA\032219\0322F025.D\	ZZZZZZZ	ZZZZZZZ	3/22/2019	18:30:00	
J:\MS14\DATA\032219\0322F026.D\	MW-15	K1902351-002	3/22/2019	19:02:00	
J:\MS14\DATA\032219\0322F027.D\	MW-16	K1902351-003	3/22/2019	19:34:00	
J:\MS14\DATA\032219\0322F028.D\	MW-17	K1902351-004	3/22/2019	20:07:00	
J:\MS14\DATA\032219\0322F029.D\	MW-30	K1902351-014	3/22/2019	20:39:00	
J:\MS14\DATA\032219\0322F030.D\	MW-36	K1902351-020	3/22/2019	21:11:00	
J:\MS14\DATA\032219\0322F031.D\	MW-37	K1902351-021	3/22/2019	21:43:00	
J:\MS14\DATA\032219\0322F032.D\	MW-44	K1902351-027	3/22/2019	22:15:00	
J:\MS14\DATA\032219\0322F033.D\	FIELD BLANK RINSATE	K1902351-028	3/22/2019	22:48:00	
J:\MS14\DATA\032219\0322F034.D\	MW-3	K1902351-029	3/22/2019	23:20:00	
J:\MS14\DATA\032219\0322F035.D\	MW-2	K1902351-030	3/22/2019	23:52:00	

Prep Summary Report

Client: JH Baxter & Company **Service Request:**K1902351
Project: JH Baxter - Arlington
Sample Matrix: Water

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Prep Method: EPA 3511 **Extraction Lot:** 333285
Analytical Method: 8270D **Extraction Date:** 03/20/19 12:39

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
MW-15	K1902351-002	3/16/19	3/19/19	450 mL	2 mL	
MW-16	K1902351-003	3/16/19	3/19/19	450 mL	2 mL	
MW-17	K1902351-004	3/16/19	3/19/19	450 mL	2 mL	
MW-30	K1902351-014	3/16/19	3/19/19	450 mL	4 mL	
MW-36	K1902351-020	3/16/19	3/19/19	450 mL	4 mL	
MW-37	K1902351-021	3/16/19	3/19/19	450 mL	2 mL	
MW-44	K1902351-027	3/16/19	3/19/19	450 mL	2 mL	
FIELD BLANK RINSATE	K1902351-028	3/17/19	3/19/19	450 mL	2 mL	
MW-3	K1902351-029	3/17/19	3/19/19	450 mL	2 mL	
MW-2	K1902351-030	3/16/19	3/19/19	450 mL	2 mL	
Lab Control Sample	KQ1903571-01LCS	NA	NA	450 mL	2 mL	
Duplicate Lab Control Sample	KQ1903571-02DLCS	NA	NA	450 mL	2 mL	
Method Blank	KQ1903571-03MB	NA	NA	450 mL	2 mL	

Raw Data

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Chlorinated Phenolics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 333306 **Prep WorkFlow:** OrgExtPcpAq7 **Status:** Prepped
Team: Semivoa GC/WVANDERHOFF **Prep Method:** Method **Prep Date/Time:** 3/20/19 02:12 PM
Number of Copies to make: 3

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1902351-021	MW-37	.01	8151A Modified/PCP		Water	5mL	1.00mL	
2	K1902351-022	MW-38	.01	8151A Modified/PCP		Water	5mL	1.00mL	
3	K1902351-023	MW-39	.01	8151A Modified/PCP		Water	5mL	1.00mL	
4	K1902351-024	MW-40	.01	8151A Modified/PCP		Water	5mL	1.00mL	
5	K1902351-025	MW-41	.01	8151A Modified/PCP		Water	5mL	1.00mL	
6	K1902351-026	MW-42	.01	8151A Modified/PCP		Water	5mL	1.00mL	
7	K1902351-027	MW-44	.01	8151A Modified/PCP		Water	5mL	1.00mL	
8	K1902351-028	FIELD BLANK RINSATE	.01	8151A Modified/PCP		Water	5mL	1.00mL	
9	K1902351-029	MW-3	.01	8151A Modified/PCP		Water	5mL	1.00mL	
10	K1902351-030	MW-2	.01	8151A Modified/PCP		Water	5mL	1.00mL	
11	K1902359-004	EW COMPOSITE	.01	8151A Modified/PCP		Water	5mL	1.00mL	
12	K1902361-001	BXS-1	.02	8151A Modified/PCP		Water	5mL	1.00mL	
13	K1902361-002	BXS-2	.02	8151A Modified/PCP		Water	5mL	1.00mL	
14	KQ1903604-01	K1902361-002 MS	.02	8151A Modified/PCP		Liquid	5mL	1.00mL	
15	KQ1903604-02	K1902361-002 DMS	.02	8151A Modified/PCP		Liquid	5mL	1.00mL	
16	KQ1903604-03	LCS		8151A Modified/PCP		Liquid	5mL	1.00mL	
17	KQ1903604-04	MB		8151A Modified/PCP		Liquid	5mL	1.00mL	

Spiking Solutions

Name: 8151M Penta Matrix Spike Inventory ID 193483 Logbook Ref: Penta01-92L Expires On: 03/24/2019

KQ1903604-01	100.00µL	KQ1903604-02	100.00µL	KQ1903604-03	100.00µL

Name: 8151M Penta Surrogate Inventory ID 196125 Logbook Ref: Penta01-94K Expires On: 05/12/2019

K1902351-021	100.00µL	K1902351-022	100.00µL	K1902351-023	100.00µL	K1902351-024	100.00µL	K1902351-025	100.00µL	K1902351-026	100.00µL
K1902351-027	100.00µL	K1902351-028	100.00µL	K1902351-029	100.00µL	K1902351-030	100.00µL	K1902359-004	100.00µL	K1902361-001	100.00µL
K1902361-002	100.00µL	KQ1903604-01	100.00µL	KQ1903604-02	100.00µL	KQ1903604-03	100.00µL	KQ1903604-04	100.00µL		

Preparation Steps

Step:	Extraction	Step:	Derivitization	Step:	Final Volume
Started:	3/20/19 14:12	Started:	3/21/19 14:52	Started:	3/21/19 15:23
Finished:	3/20/19 14:55	Finished:	3/21/19 15:23	Finished:	3/21/19 15:41
By:	WVANDERHOFF	By:	WVANDERHOFF	By:	WVANDERHOFF
Comments		Comments		Comments	

Preparation Information Benchsheet

Prep Run#: 333306
Team: Semivoa GC/WVANDERHOFF

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method

Status: Prepped
Prep Date/Time: 3/20/19 02:12 PM

Comments: _____

Reviewed By: _____ Date: 3/22/19

Chain of Custody

Relinquished By: _____ Date: 3.21.19

Received By: _____ Date: 3/21/19

Extracts Examined
Yes No

Preparation Information Benchsheet

Prep Run#: 333306 **Prep WorkFlow:** OrgExtPcpAq7 **Status:** Draft
Team: Semivoa GC/WVANDERHOFF **Prep Method:** Method [redacted] **Prep Date/Time:** 3/20/19 01:11 PM
Number of Copies to make: 3

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. mL	pH	Int. Vol mL	Final Vol mL	Surr Amt uL	Spike Amt uL
1	**K1902351-021**	MW-37	.01	✓	8151A Modified / PCP	Water	5	<2		1	100	-
2	**K1902351-022**	MW-38	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
3	**K1902351-023**	MW-39	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
4	**K1902351-024**	MW-40	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
5	**K1902351-025**	MW-41	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
6	**K1902351-026**	MW-42	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
7	**K1902351-027**	MW-44	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
8	**K1902351-028**	FIELD BLANK RINSATE	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
9	**K1902351-029**	MW-3	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
10	**K1902351-030**	MW-2	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
11	**K1902359-004**	EW COMPOSITE	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
12	**K1902361-001**	BXS-1	.02	✓	8151A Modified / PCP	Water	5	<2		1		-
13	**K1902361-002**	BXS-2	.02	✓	8151A Modified / PCP	Water	5	<2		1		-
14	**KQ1903604-01**	K1902361-002 MS	.02	✓	8151A Modified / PCP	Liquid	5	<2		1		100
15	**KQ1903604-02**	K1902361-002 DMS	.02	✓	8151A Modified / PCP	Liquid	5	<2		1		-
16	**KQ1903604-03**	LCS			8151A Modified / PCP	Liquid	5	<2		1		-
17	**KQ1903604-04**	MB			8151A Modified / PCP	Liquid	5	<2		1		-

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Comments:

Surrogate ID: 196,125-Penta01-94K 196,125-Penta01-94K 196,125-Penta01-94K 196,125-Penta01-94K 196 100uL xp 5-12-19 cpp#28 500ppb

Spike ID: 193,483-Penta01-92L 196,125-Penta01-94K 193,483-Penta01-92L 196,125-Penta01-94K 193,4 100uL xp 3-04-19 cpp#28 500ppb

Witnessed By: BWilland 3/20/19

Analyst: MSV

Assisted By:

ALS Environmental

Extraction Analyst Notes

Service Request: K1902359 Prep Group: KQ1903604

Topic	Notes	Initials/Date
No Anomalies: □		
Sample Anomalies: □		
Organics Present (sticks, leafs, bugs): □		
Fuel Odors: □		
Sulfur Odors, Precipitate: □		
General Notes:	K1902359 - samples 001, 002, 003 · 5 mls. of each (composite) to make sample # 004	NS 3.20.19

Reviewed by: Jonathon Walter 12/19/18

EXT-NOTES r.0

Additional Prep Information for Method 8151M
Chlorinated Phenols "PCPs" in Water

[redacted]

Service Request # K1902351, 2359, 2361 **Work Group #** KQ1903604

1:1 Sulfuric Acid Lot # 7121159 Ethyl Ether Lot # DV328-115

Extraction Start (time/date/initial): 14:12 3-20-19 WS

Extraction Stop (time/date/initial): 14:55 3-20-19 WS

Storage Location (overnight): 25R Acidified Sulfate Lot # DZ03-29T

N-Evap (time/date/initial): 13:30 3/21/19 WS N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Derivatization Start (time/date/initial): 14:52 3/21/19 WS

Derivatization Stop (time/date/initial): 15:23 3/21/19 WS

Diazomethane Lot # DZ03-40Q Methanol Lot # DN615

Solvent Exchange to Iso-Octane (time/date/initial): 15:23 3/21/19 WS

Iso-Octane Lot # DM121 N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Pipette (1 mL) Lot # 25215645

Vial: Red Vial Storage: Rental

Additional Comments:

Bench Sheet Review Check List
☐ Hold times met (if no, reason:)
☐ Prep date, time, method, department, product code correct in stealth
☐ Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☐ Weights/Volumes and units correct on raw and final bench sheets
☐ Sample IDs have been checked - bottle numbers appended if required
☐ Names present for: started by, completed by, relinquished by, and witnessed by. Training circled.
☐ Extract storage recorded
☐ Additional prep sheet completely filled out (NA or line out blanks)
☐ All clean-ups have been noted on additional prep sheet
☐ Signed service request with Form V, if applicable, has been attached

Preparation Information Benchsheet

Prep Run#: 333689
Team: Semivoa GC/WVANDERHOFF
Number of Copies to make: 1

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method

Status: Prepped
Prep Date/Time: 3/27/19 12:19

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1902351-032	MW-43	.01	8151A Modified/PCP		Water	5mL	1.00mL	
2	KQ1903939-01	K1902351-032 MS	.01	8151A Modified/PCP		Liquid	5mL	1.00mL	
3	KQ1903939-02	K1902351-032 DMS	.01	8151A Modified/PCP		Liquid	5mL	1.00mL	
4	KQ1903939-03	LCS		8151A Modified/PCP		Liquid	5mL	1.00mL	
5	KQ1903939-04	MB		8151A Modified/PCP		Liquid	5mL	1.00mL	

Spiking Solutions

Name: 8151M Penta Surrogate Inventory ID 196125 Logbook Ref: Penta01-94K Expires On: 05/12/2019

K1902351-032 100.00µL KQ1903939-01 100.00µL KQ1903939-02 100.00µL KQ1903939-03 100.00µL KQ1903939-04 100.00µL

Name: 8151M Penta Matrix Spike Inventory ID 197895 Logbook Ref: Penta01-95L Expires On: 09/20/2019

KQ1903939-01 100.00µL KQ1903939-02 100.00µL KQ1903939-03 100.00µL

Preparation Steps

Step:	Extraction	Step:	Derivitization	Step:	Final Volume
Started:	3/27/19 12:19	Started:	3/29/19 12:21	Started:	3/29/19 13:04
Finished:	3/27/19 12:48	Finished:	3/29/19 13:04	Finished:	3/29/19 13:40
By:	WVANDERHOFF	By:	WVANDERHOFF	By:	WVANDERHOFF
Comments		Comments		Comments	

Comments: _____

Reviewed By: Cwilliams Date: 3/30/19

Chain of Custody

Relinquished By: _____ Date: 3-29-19

Received By: _____ Date: 4/1/19

~~Extracts Examined~~ Yes No

Preparation Information Benchsheet

Prep Run#: 333689
Team: Semivoa GC/WVANDERHOFF
Number of Copies to make: 1

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method

[redacted]

Status: Draft
Prep Date/Time: 3/27/19 09:09 AM

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. (mL)	pH	Int. Vol (mL)	Final Vol (mL)	Surr Amt (uL)	Spike Amt (uL)
1	**K1902351-032**	MW-43	.01	✓	8151A Modified / PCP	Water	5	<2	NA	1	100	—
2	**KQ1903939-01**	K1902351-032 MS	.01	✓	8151A Modified / PCP	Liquid	5	<2		1		100
3	**KQ1903939-02**	K1902351-032 DMS	.01	✓	8151A Modified / PCP	Liquid	5	<2		1		
4	**KQ1903939-03**	LCS	—	—	8151A Modified / PCP	Liquid	5	<2		1		
5	**KQ1903939-04**	MB	—	—	8151A Modified / PCP	Liquid	5	<2	—	1	—	—

Comments:

Surrogate ID: 196,125-Penta01-94K 100uL XP. 5-12-19 PP# 38

Spike ID: 196,125-Penta01-94K 197,895-Penta01-95L 196,125-Penta01-94K 197,895-Penta01-95L 196,1 100uL XP. 9-20-19 PP# 38

Witnessed By: 3/27/19

Analyst: HGV

Assisted By: —

Additional Prep Information for Method 8151M
Chlorinated Phenols "PCPs" in Water

[redacted] **Service Request #** K1902351 **Work Group #** KQ1903939

1:1 Sulfuric Acid Lot # 3121159 Ethyl Ether Lot # DN328-152

Extraction Start (time/date/initial): 12:19 3.27.19 WS

Extraction Stop (time/date/initial): 12:48 3.27.19 WS

Storage Location (overnight): 25R Acidified Sulfate Lot # DZ03.28I

N-Evap (time/date/initial): 11:05 3.29.19 WS N-Evap Thermometer ID: DNB.012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Derivatization Start (time/date/initial): 12:21 3.29.19 WS

Derivatization Stop (time/date/initial): 13:04 3.29.19 WS

Diazomethane Lot # DZ03.40R Methanol Lot # DN615

Solvent Exchange to Iso-Octane (time/date/initial): 13:04 3.29.19 WS

Iso-Octane Lot # DM121 N-Evap Thermometer ID: DNB.012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Pipette (1 mL) Lot # 25215645

Vial: red Vial Storage: pants

Additional Comments:

Bench Sheet Review Check List
☑ Hold times met (if no, reason:)
☑ Prep date, time, method, department, product code correct in stealth
☑ Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☑ Weights/Volumes and units correct on raw and final bench sheets
☑ Sample IDs have been checked - bottle numbers appended if required
☑ Names present for: started by, completed by, relinquished by, and witnessed by. Training circled.
☑ Extract storage recorded
☑ Additional prep sheet completely filled out (NA or line out blanks)
☑ All clean-ups have been noted on additional prep sheet
☑ Signed service request with Form V, if applicable, has been attached

ALS Environmental

Extraction Analyst Notes

Service Request: K1902251 Prep Group: KQ1903929

Topic	Notes	Initials/Date
No Anomalies: X		
Sample Anomalies: □		
Organics Present (sticks, leafs, bugs): □		
Fuel Odors: □		
Sulfur Odors, Precipitate: □		
General Notes:		

Reviewed by: Jonathon Walter 12/19/18

EXT-NOTES r.0

Preparation Information Benchsheet

Prep Run#: 333272
Team: Semivoa GC/WVANDERHOFF
Number of Copies to make: 1

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method

Status: Prepped
Prep Date/Time: 3/20/19 11:09 AM

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1902351-001	HCMW-7	.01	8151A Modified/PCP		Water	5mL	1.00mL	
2	K1902351-002	MW-15	.01	8151A Modified/PCP		Water	5mL	1.00mL	
3	K1902351-003	MW-16	.01	8151A Modified/PCP		Water	5mL	1.00mL	
4	K1902351-004	MW-17	.01	8151A Modified/PCP		Water	5mL	1.00mL	
5	K1902351-005	MW-18	.01	8151A Modified/PCP		Water	5mL	1.00mL	
6	K1902351-006	MW-22	.01	8151A Modified/PCP		Water	5mL	1.00mL	
7	K1902351-007	MW-23	.01	8151A Modified/PCP		Water	5mL	1.00mL	
8	K1902351-008	MW-24	.01	8151A Modified/PCP		Water	5mL	1.00mL	
9	K1902351-009	MW-25	.01	8151A Modified/PCP		Water	5mL	1.00mL	
10	K1902351-010	MW-26	.01	8151A Modified/PCP		Water	5mL	1.00mL	
11	K1902351-011	MW-27	.01	8151A Modified/PCP		Water	5mL	1.00mL	
12	K1902351-012	MW-28	.01	8151A Modified/PCP		Water	5mL	1.00mL	
13	K1902351-013	MW-29	.01	8151A Modified/PCP		Water	5mL	1.00mL	
14	K1902351-014	MW-30	.01	8151A Modified/PCP		Water	5mL	1.00mL	
15	K1902351-015	MW-31	.01	8151A Modified/PCP		Water	5mL	1.00mL	
16	K1902351-016	MW-32	.01	8151A Modified/PCP		Water	5mL	1.00mL	
17	K1902351-017	MW-33	.01	8151A Modified/PCP		Water	5mL	1.00mL	
18	K1902351-018	MW-34	.01	8151A Modified/PCP		Water	5mL	1.00mL	
19	K1902351-019	MW-35	.01	8151A Modified/PCP		Water	5mL	1.00mL	
20	K1902351-020	MW-36	.01	8151A Modified/PCP		Water	5mL	1.00mL	
21	KQ1903557-01	K1902351-020 MS	.01	8151A Modified/PCP		Liquid	5mL	1.00mL	
22	KQ1903557-02	K1902351-020 DMS	.01	8151A Modified/PCP		Liquid	5mL	1.00mL	
23	KQ1903557-03	LCS		8151A Modified/PCP		Liquid	5mL	1.00mL	
24	KQ1903557-04	MB		8151A Modified/PCP		Liquid	5mL	1.00mL	

Spiking Solutions

Name: 8151M Penta Matrix Spike Inventory ID 193483 Logbook Ref: Penta01-92L Expires On: 03/24/2019

KQ1903557-01	100.00µL	KQ1903557-02	100.00µL	KQ1903557-03	100.00µL

Name: 8151M Penta Surrogate Inventory ID 196125 Logbook Ref: Penta01-94K Expires On: 05/12/2019

K1902351-001	100.00µL	K1902351-002	100.00µL	K1902351-003	100.00µL	K1902351-004	100.00µL	K1902351-005	100.00µL	K1902351-006	100.00µL
K1902351-007	100.00µL	K1902351-008	100.00µL	K1902351-009	100.00µL	K1902351-010	100.00µL	K1902351-011	100.00µL	K1902351-012	100.00µL
K1902351-013	100.00µL	K1902351-014	100.00µL	K1902351-015	100.00µL	K1902351-016	100.00µL	K1902351-017	100.00µL	K1902351-018	100.00µL

Preparation Information Benchsheet

Prep Run#: 333272 **Prep WorkFlow:** OrgExtPcpAq7 **Status:** Prepped
Team: Semivoa GC/WVANDERHOFF **Prep Method:** Method **Prep Date/Time:** 3/20/19 11:09 AM

K1902351-019	100.00µL	K1902351-020	100.00µL	KQ1903557-01	100.00µL	KQ1903557-02	100.00µL	KQ1903557-03	100.00µL	KQ1903557-04	100.00µL

Preparation Steps

Step:	Extraction	Step:	Derivitization	Step:	Final Volume
Started:	3/20/19 11:09	Started:	3/22/19 13:17	Started:	3/22/19 14:15
Finished:	~~3/22/19~~ 12:27	Finished:	3/22/19 14:15	Finished:	3/22/19 15:19
By:	WVANDERHOFF	By:	WVANDERHOFF	By:	WVANDERHOFF
Comments		Comments		Comments	

EECW 3/25/19

3/25/19

Comments: _____

Reviewed By: CWilliams Date: 3/25/19

Chain of Custody

Relinquished By: _____ Date: 3.22.19

Received By: _____ Date: 3-22-19

Extracts Examined: (Yes) No

Preparation Information Benchsheet

Prep Run#: 333272 **Prep WorkFlow:** OrgExtPcpAq7 **Status:** Draft
Team: Semivoa GC/WVANDERHOFF **Prep Method:** Method **Prep Date/Time:** 3/20/19 08:30 AM
Number of Copies to make: 1

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. ml.	pH	Int. Vol ml.	Final Vol ml.	Surr Amt ug	Spike Amt ug
1	**K1902351-001**	HCMW-7	.01	✓	8151A Modified / PCP	Water	5	<2		1	100	–
2	**K1902351-002**	MW-15	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
3	**K1902351-003**	MW-16	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
4	**K1902351-004**	MW-17	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
5	**K1902351-005**	MW-18	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
6	**K1902351-006**	MW-22	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
7	**K1902351-007**	MW-23	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
8	**K1902351-008**	MW-24	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
9	**K1902351-009**	MW-25	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
10	**K1902351-010**	MW-26	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
11	**K1902351-011**	MW-27	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
12	**K1902351-012**	MW-28	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
13	**K1902351-013**	MW-29	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
14	**K1902351-014**	MW-30	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
15	**K1902351-015**	MW-31	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
16	**K1902351-016**	MW-32	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
17	**K1902351-017**	MW-33	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
18	**K1902351-018**	MW-34	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
19	**K1902351-019**	MW-35	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
20	**K1902351-020**	MW-36	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
21	**KQ1903557-01**	K1902351-020 MS	.01	✓	8151A Modified / PCP	Liquid	5	<2		1		100
22	**KQ1903557-02**	K1902351-020 DMS	.01	✓	8151A Modified / PCP	Liquid	5	<2		1		
23	**KQ1903557-03**	LCS	—		8151A Modified / PCP	Liquid	5	<2		1		–
24	**KQ1903557-04**	MB	—		8151A Modified / PCP	Liquid	5	<2		1		–

Comments:

Surrogate ID: 196,125-Penta01-94K 196,125-Penta01-94K 196,125-Penta01-94K 196,125-Penta01-94K 196
100 ug xp 5-12-19 epp #28 500ppb

Spike ID: 193,483-Penta01-92L 196,125-Penta01-94K 193,483-Penta01-92L 196,125-Penta01-94K 193.
100 ug xp 3-24-19 epp #28 500ppb

Witnessed By: [signature] 3/20/19

Analyst: [signature]

Assisted By:

ALS Environmental

Extraction Analyst Notes

Service Request: K1902351 Prep Group: KQ1903557

Topic	Notes	Initials/Date
No Anomalies: ☐		WS J.
Sample Anomalies: ☒	Slight emulsion on sample 19.	WS 3.20.19
Organics Present (sticks, leafs, bugs): ☐		
Fuel Odors: ☐		
Sulfur Odors, Precipitate: ☐		
General Notes:		

Additional Prep Information for Method 8151M
Chlorinated Phenols "PCPs" in Water

Service Request # K1902351 **Work Group #** KQ1903557

1:1 Sulfuric Acid Lot # 3121159 Ethyl Ether Lot # DV328-05

Extraction Start (time/date/initial): 11:09 3.20.19 WG

Extraction Stop (time/date/initial): 12:27 3.20.19 WG

Storage Location (overnight): 25R Acidified Sulfate Lot # DZ03-29I

N-Evap (time/date/initial): 11:20 3.22.19 WG N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Derivatization Start (time/date/initial): 13:17 3.22.19 WG

Derivatization Stop (time/date/initial): 14:15 3.22.19 WG

Diazomethane Lot # DZ03-40Q Methanol Lot # DN615

Solvent Exchange to Iso-Octane (time/date/initial): 14:15 3.22.19 WG

Iso-Octane Lot # DM 121 N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Pipette (1 mL) Lot # 20717645

Vial: red Vial Storage: pentd

Additional Comments:

Bench Sheet Review Check List
☑ Hold times met (if no, reason:)
☑ Prep date, time, method, department, product code correct in stealth
☑ Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☑ Weights/Volumes and units correct on raw and final bench sheets
☑ Sample IDs have been checked - bottle numbers appended if required
☑ Names present for: started by, completed by, relinquished by, and witnessed by. Training circled.
☑ Extract storage recorded
☑ Additional prep sheet completely filled out (NA or line out blanks)
☑ All clean-ups have been noted on additional prep sheet
☑ Signed service request with Form V, if applicable, has been attached

DILUTION LOG

LAB ID	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	DATE	ANALYST	SOLVENT LOT	COMMENTS
K1902351-009	200 µl	1 ml	5x	3/25/19	MC	ISO DR253	PCP
" -017	"	"	"	"	"	"	"
K1902418-007	"	"	"	"	"	"	yellow
" -007 MS/DMS	"	"	"	"	"	"	"

1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F007.D\
Lab ID: K1902351-001
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 17:34:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F007.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 17:34:00	**Vial:**	9
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-001	**Raw Units:**	ug/L

Bottle ID:	K1902351-001.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	19176410	20548427	55.676	48.741	111	97	97	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	540690	0.000	0.795	0U	0.16J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 5:34 pm Operator: MC
Sample : K1902351-001 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:39:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	19176410	20548427	55.676	48.741
		Target Compounds						
1)		3,4-Dichl...	0.000	3.744	0	25569	N.D.	1.179 #
2)		3,5-Dichl...	3.342	3.994	15960	17370	0.760	0.565 #
3)		2,4,6-Tri...	0.000	4.178	0	12778	N.D. d	0.031
5)		2,4,5-Tri...	4.182	0.000	201389	0	0.558	N.D. d#
6)		3,4,5-Tri...	4.182f	0.000	201389	0	0.765	N.D. d#
7)	M	2,3,5,6-T...	0.000	5.008	0	304864	N.D. d	0.505
8)	M	2,3,4,5-T...	0.000	5.431	0	16819	N.D. d	0.040
9)	M	Pentachlo...	0.000	5.608	0	540690	N.D. d	0.795
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

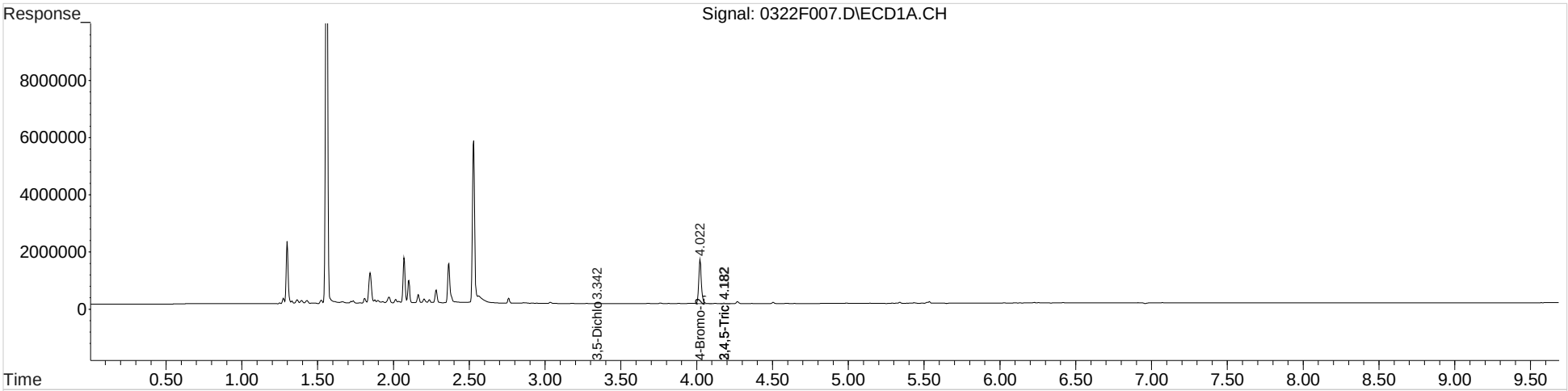
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 5:34 pm Operator: MC
Sample : K1902351-001 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:39:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F008.D\
Lab ID: K1902351-002
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 17:52:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F008.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 17:52:00	**Vial:**	10
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-002	**Raw Units:**	ug/L

Bottle ID:	K1902351-002.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17303060	18029198	50.093	42.766	100	86	86	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	495283	0.000	0.728	0U	0.15J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 5:52 pm Operator: MC
Sample : K1902351-002 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:40:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	17303060	18029198	50.093	42.766
		Target Compounds						
1)		3,4-Dichl...	0.000	3.745	0	32774	N.D.	1.511 #
2)		3,5-Dichl...	3.339	3.991	28536	20764	1.889	0.780 #
3)		2,4,6-Tri...	0.000	4.178	0	15302	N.D. d	0.037
5)		2,4,5-Tri...	4.179	0.000	204290	0	0.579	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.008	0	271067	N.D. d	0.449
8)	M	2,3,4,5-T...	0.000	5.381f	0	5050	N.D. d	0.012
9)	M	Pentachlo...	0.000	5.608	0	495283	N.D. d	0.728
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

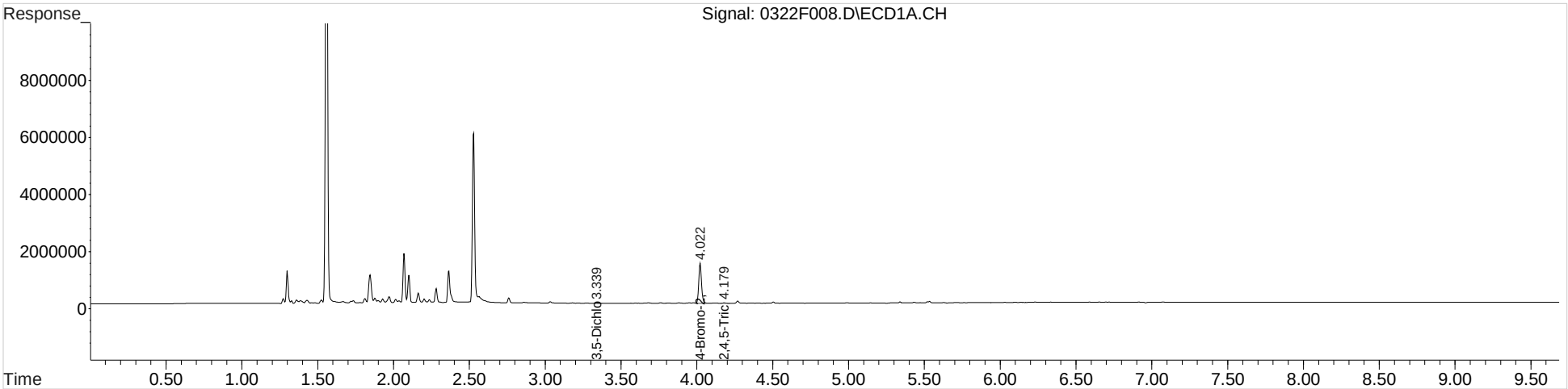
1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 5:52 pm Operator: MC
Sample : K1902351-002 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:40:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F009.D\
Lab ID: K1902351-003
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 18:10:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F009.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 18:10:00	**Vial:**	11
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-003	**Raw Units:**	ug/L

Bottle ID:	K1902351-003.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17032364	17351290	49.287	41.158	99	82	82	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	484103	0.000	0.711	0U	0.14J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 6:10 pm Operator: MC
Sample : K1902351-003 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:40:52 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.021	4.650	17032364	17351290	49.287	41.158
	Target Compounds						
1)	3,4-Dichl...	0.000	3.747	0	24296	N.D.	1.120 #
2)	3,5-Dichl...	3.341	3.993	27222	19343	1.771	0.690 #
3)	2,4,6-Tri...	0.000	4.207	0	8448	N.D. d	0.021
5)	2,4,5-Tri...	4.181	0.000	261875	0	0.992	N.D. d#
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	0.000	5.010	0	256870	N.D. d	0.425
8) M	2,3,4,5-T...	0.000	5.430	0	12797	N.D. d	0.031
9) M	Pentachlo...	0.000	5.607	0	484103	N.D. d	0.711
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

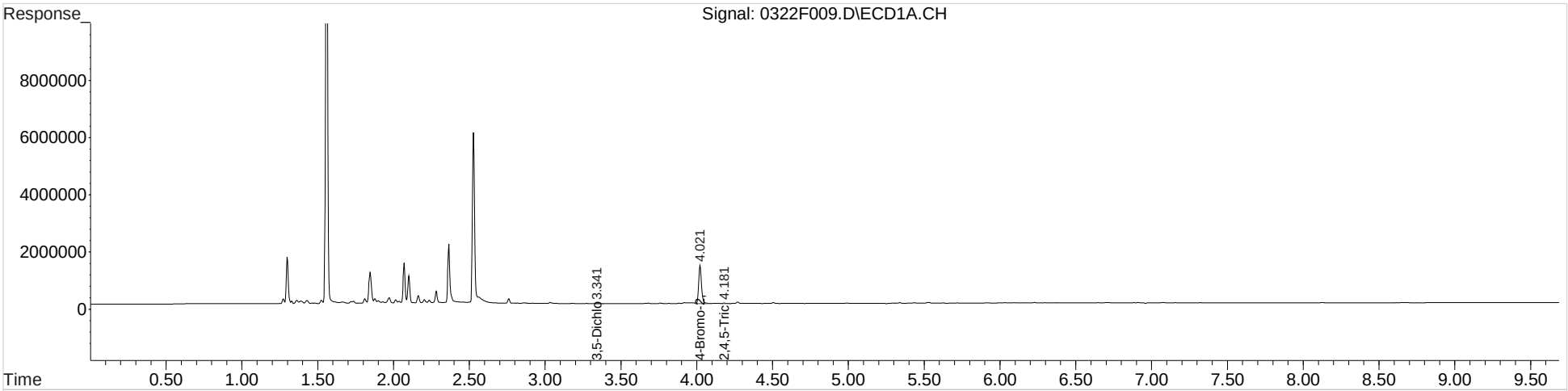
1st MC 03/25/19
2nd JMS 03/26/19

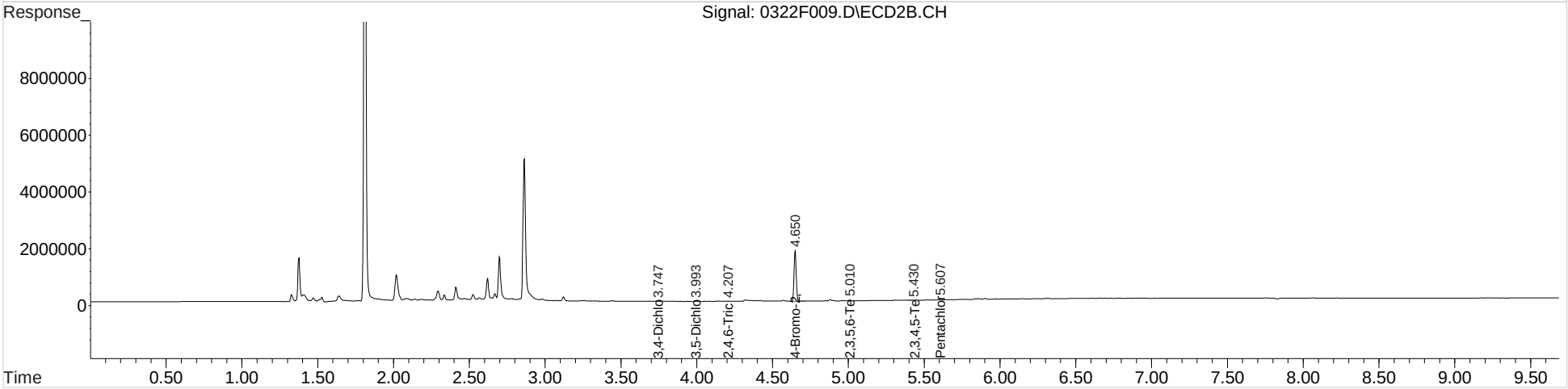
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 6:10 pm Operator: MC
Sample : K1902351-003 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:40:52 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F010.D\
Lab ID: K1902351-004
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 18:29:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F010.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 18:29:00	**Vial:**	12
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-004	**Raw Units:**	ug/L

Bottle ID:	K1902351-004.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17289225	17722867	50.052	42.039	100	84	84	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	677314	0.000	0.995	0U	0.20J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 6:29 pm Operator: MC
Sample : K1902351-004 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:41:14 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	17289225	17722867	50.052	42.039
		Target Compounds						
1)		3,4-Dichl...	0.000	3.748	0	22887	N.D.	1.055 #
2)		3,5-Dichl...	3.369	3.991	70111	16868	5.646	0.533 #
3)		2,4,6-Tri...	0.000	4.208	0	8134	N.D. d	0.020
5)		2,4,5-Tri...	4.179	0.000	199572	0	0.545	N.D. d#
6)		3,4,5-Tri...	4.179f	0.000	199572	0	0.753	N.D. d#
7)	M	2,3,5,6-T...	0.000	5.008	0	259110	N.D. d	0.429
8)	M	2,3,4,5-T...	0.000	5.411	0	10141	N.D. d	0.024
9)	M	Pentachlo...	0.000	5.608	0	677314	N.D. d	0.995
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

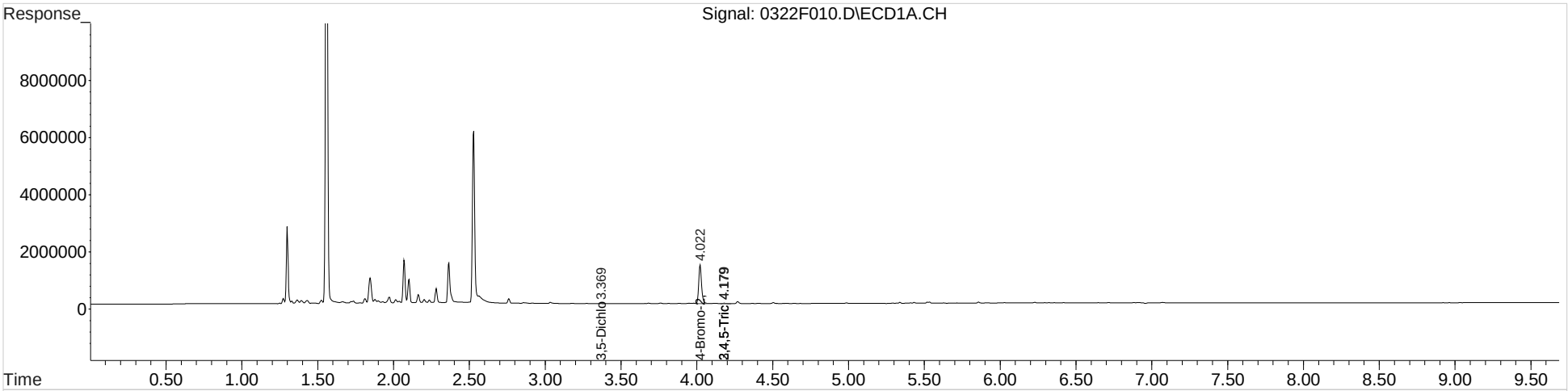
1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 6:29 pm Operator: MC
Sample : K1902351-004 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:41:14 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F011.D\
Lab ID: K1902351-005
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 18:47:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F011.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 18:47:00	**Vial:**	13
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-005	**Raw Units:**	ug/L

Bottle ID:	K1902351-005.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18285270	19122192	53.018	45.358	106	91	91	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.59 -0.01	0	865950	0.000	1.272	0U	0.25J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 6:47 pm Operator: MC
Sample : K1902351-005 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:41:52 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.021	4.650	18285270	19122192	53.018	45.358
	Target Compounds						
1)	3,4-Dichl...	0.000	3.747	0	23098	N.D.	1.065 #
2)	3,5-Dichl...	3.367	3.993	444462	12597	41.327	0.262 #
3)	2,4,6-Tri...	0.000	4.210	0	9764	N.D. d	0.024
5)	2,4,5-Tri...	4.181	0.000	175716	0	0.375	N.D. d#
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	0.000	5.007	0	307213	N.D. d	0.509
8) M	2,3,4,5-T...	0.000	5.410	0	8180	N.D. d	0.020
9) M	Pentachlo...	0.000	5.593	0	865950	N.D. d	1.272
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

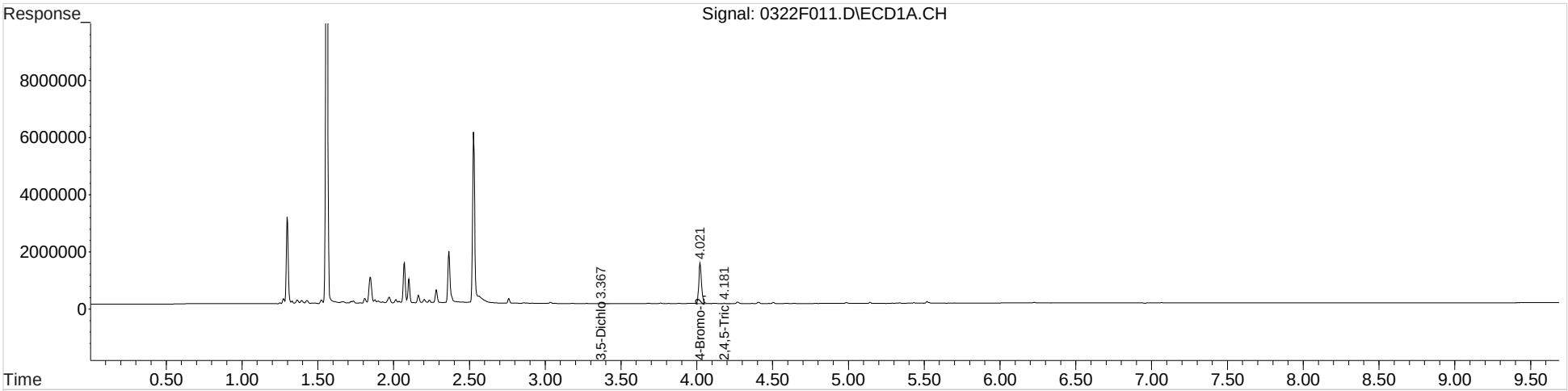
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 6:47 pm Operator: MC
Sample : K1902351-005 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:41:52 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F012.D\
Lab ID: K1902351-006
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 19:05:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F012.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 19:05:00	**Vial:**	14
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-006	**Raw Units:**	ug/L

Bottle ID:	K1902351-006.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17166996	18075677	49.688	42.876	99	86	86	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	133719794	191752584	312.400	281.777	62	56	**56**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 7:05 pm Operator: MC
Sample : K1902351-006 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:42:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.023	4.649	17166996	18075677	49.688	42.876
	Target Compounds						
1)	3,4-Dichl...	0.000	3.745	0	13548	N.D.	0.625 #
2)	3,5-Dichl...	3.366	3.992	19788	14764	1.104	0.400 #
3)	2,4,6-Tri...	0.000	4.205	0	16400	N.D. d	0.040
5)	2,4,5-Tri...	4.183	0.000	161183	0	0.270	N.D. d#
6)	3,4,5-Tri...	4.183f	0.000	161183	0	0.493	N.D. d#
7) M	2,3,5,6-T...	4.476	5.019	7518766	8371666	16.749	13.866
8) M	2,3,4,5-T...	0.000	5.415	0	164223	N.D. d	0.395
9) M	Pentachlo...	5.143	5.595	133.7E6	191.8E6	312.400	281.777
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

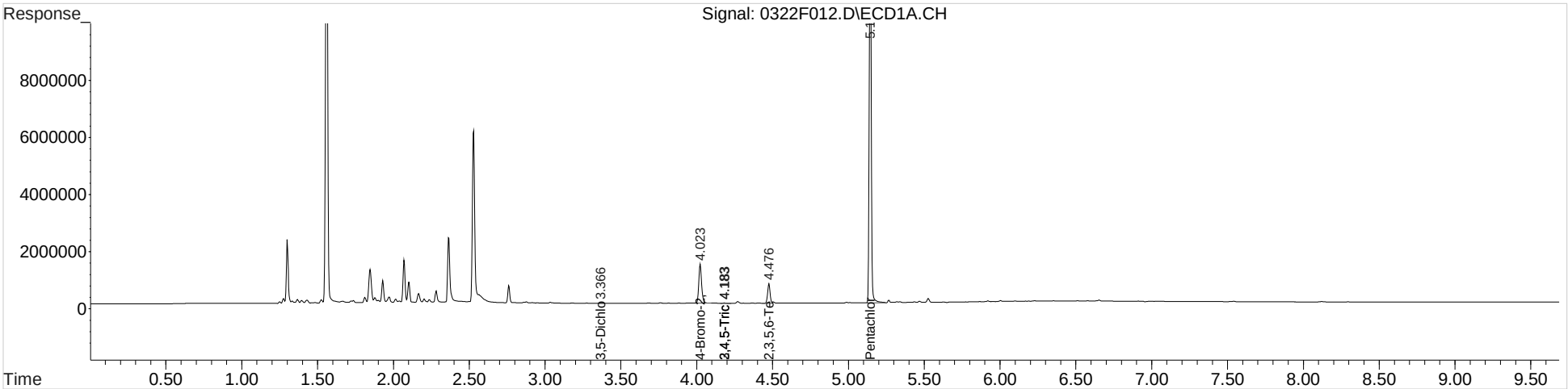
1st MC 03/25/19
2nd JMS 03/26/19

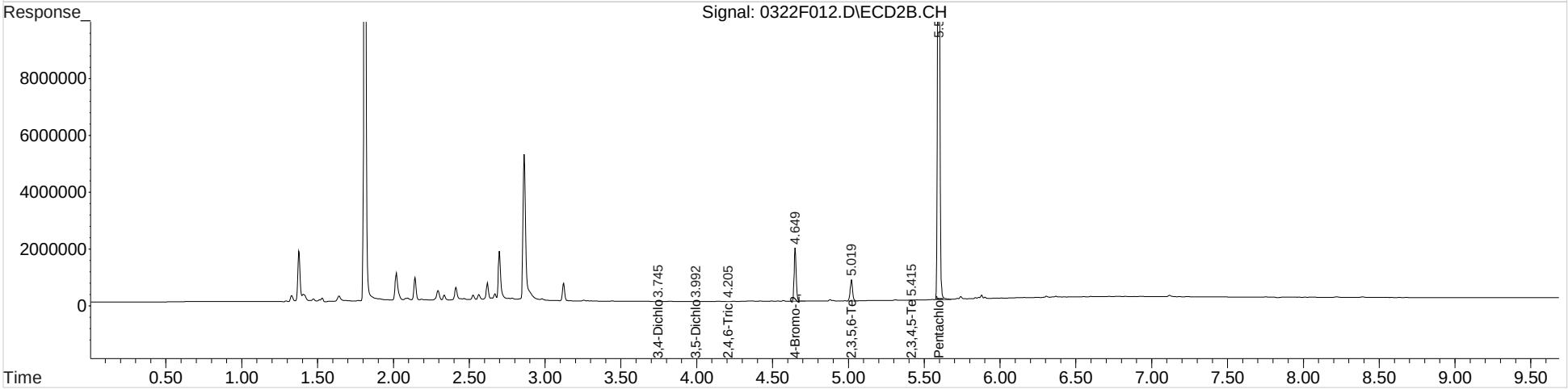
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 7:05 pm Operator: MC
Sample : K1902351-006 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:42:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F013.D\
Lab ID: K1902351-007
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 19:23:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F013.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 19:23:00	**Vial:**	15
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-007	**Raw Units:**	ug/L

Bottle ID:	K1902351-007.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17103475	17700906	49.499	41.987	99	84	84	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	20013832	25121043	43.241	36.915	8.6	7.4	**7.4**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 7:23 pm Operator: MC
Sample : K1902351-007 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:43:16 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.020	4.650	17103475	17700906	49.499	41.987
	Target Compounds						
1)	3,4-Dichl...	0.000	3.746	0	18152	N.D.	0.837 #
2)	3,5-Dichl...	3.367	3.993	8164	12425	0.062	0.251 #
3)	2,4,6-Tri...	0.000	4.210	0	26667	N.D. d	0.065
5)	2,4,5-Tri...	4.180	0.000	184884	0	0.440	N.D. d#
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	4.477	5.020	1022602	1156690	1.756	1.916
8) M	2,3,4,5-T...	4.987	5.413	506188	89502	0.466	0.215 #
9) M	Pentachlo...	5.144	5.596	20013832	25121043	43.241m	36.915
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

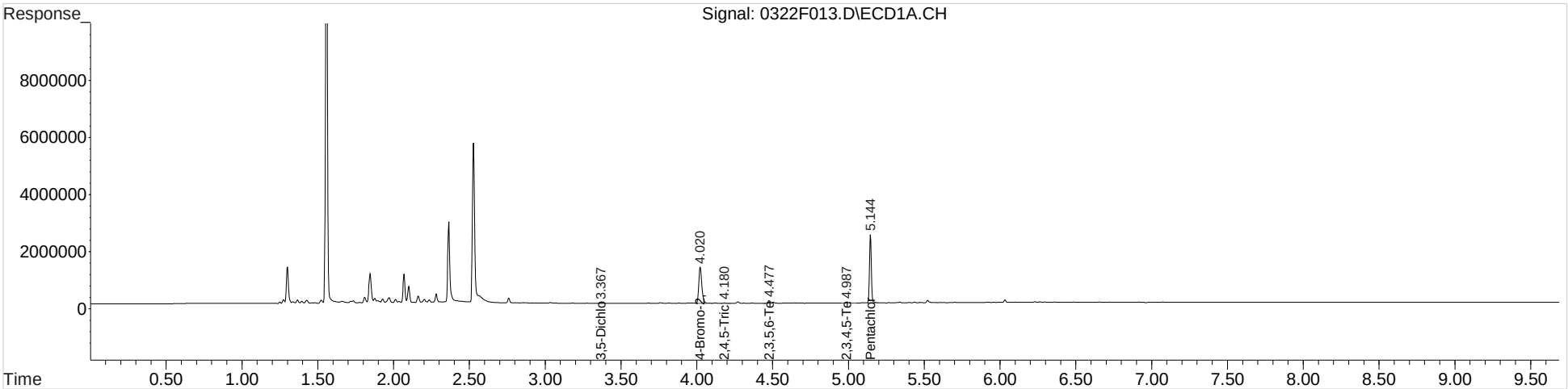
1st MC 03/25/19
2nd JMS 03/26/19

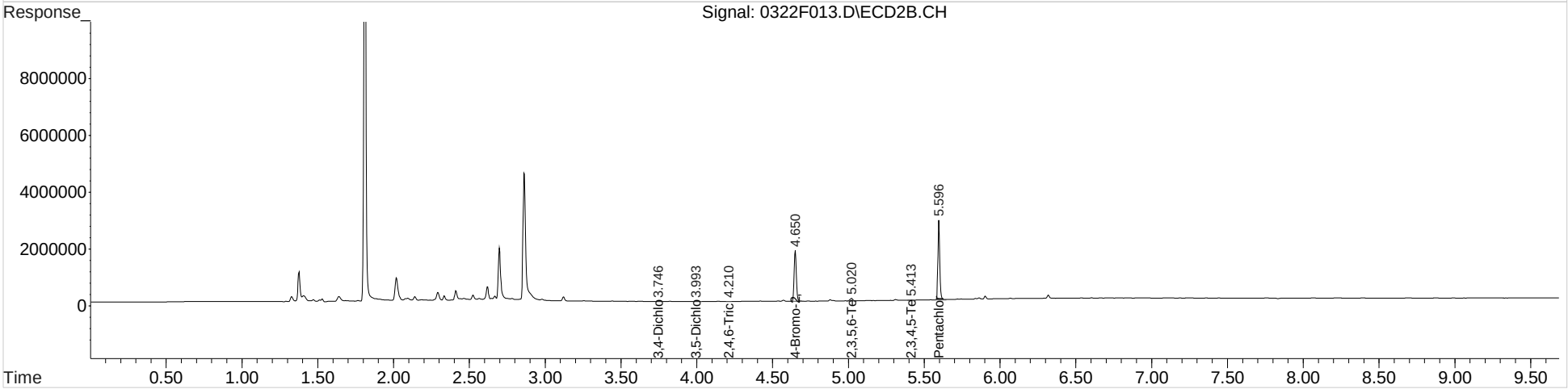
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 7:23 pm Operator: MC
Sample : K1902351-007 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:43:16 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





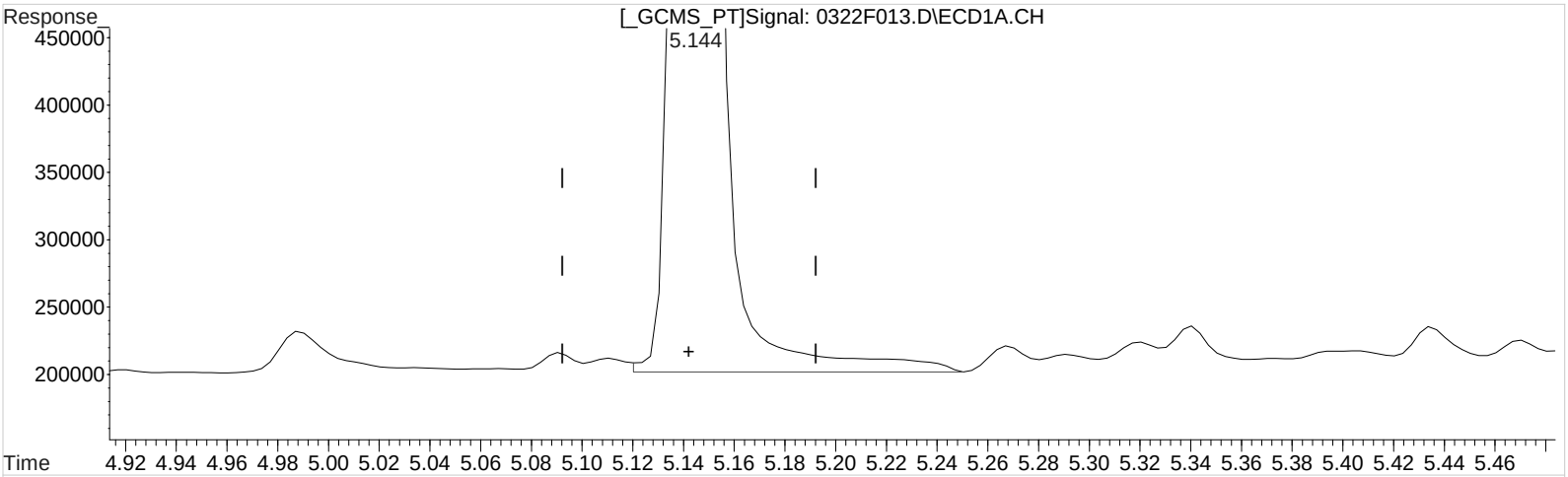
Quantitation Report (Qedit)

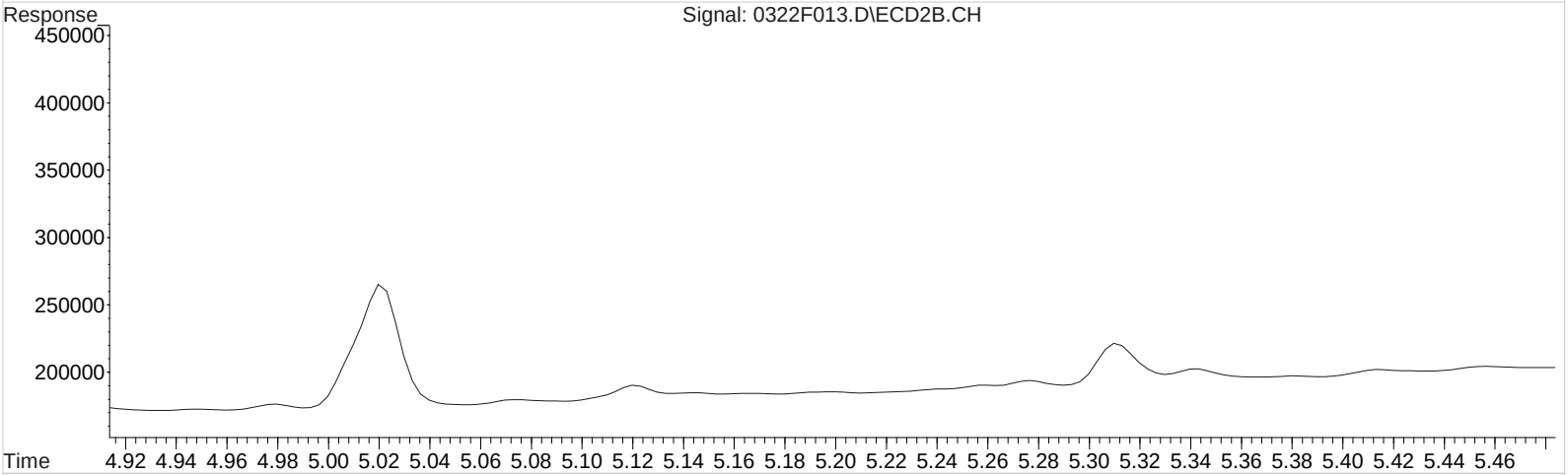
1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 7:23 pm Operator: MC
Sample : K1902351-007 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 11:24:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.144min 44.312 ug/L

response 20494340

Manual Integration:

Before

03/25/19

(9) Pentachlorophenol #2 (M)

5.596min 36.915 ug/L

response 25121043

(+) = Expected Retention Time

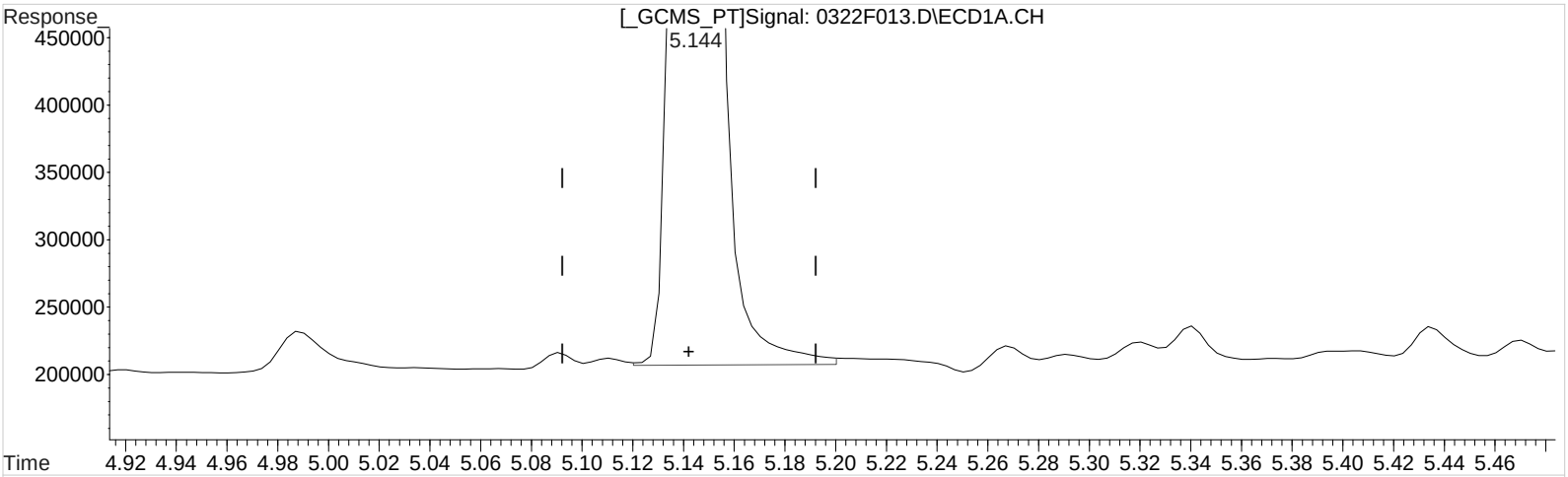
Quantitation Report (Qedit)

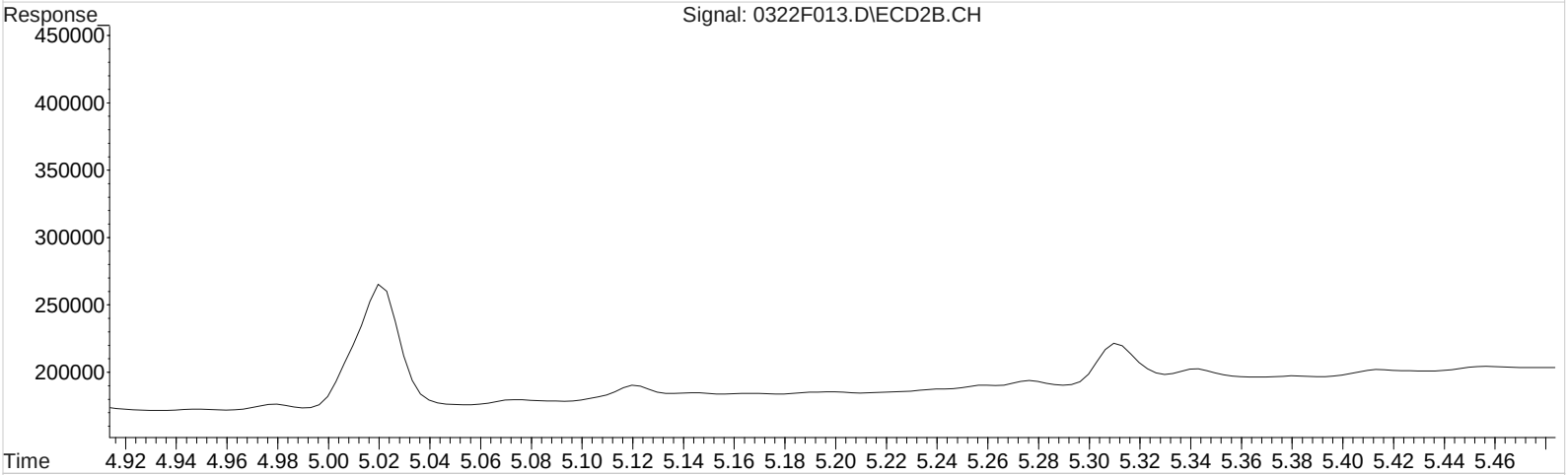
1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 7:23 pm Operator: MC
Sample : K1902351-007 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 11:24:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.144min 43.241 ug/L m

response 20013832

Manual Integration:

After

Baseline/Shoulder

03/25/19

(9) Pentachlorophenol #2 (M)

5.596min 36.915 ug/L

response 25121043

(+) = Expected Retention Time

1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F014.D\
Lab ID: K1902351-008
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 19:42:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F014.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 19:42:00	**Vial:**	16
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-008	**Raw Units:**	ug/L

Bottle ID:	K1902351-008.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	16212549	16631320	46.849	39.450	94	79	79	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	981158	0.000	1.442	0U	0.29J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F014.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 7:42 pm Operator: MC
Sample : K1902351-008 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:43:38 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.021	4.650	16212549	16631320	46.849	39.450
	Target Compounds						
1)	3,4-Dichl...	0.000	3.747	0	12834	N.D.	0.592 #
2)	3,5-Dichl...	3.364	3.994	14044	11936	0.589	0.220 #
3)	2,4,6-Tri...	0.000	4.214	0	8174	N.D. d	0.020
5)	2,4,5-Tri...	4.181	0.000	199806	0	0.547	N.D. d#
6)	3,4,5-Tri...	4.181f	0.000	199806	0	0.754	N.D. d#
7) M	2,3,5,6-T...	0.000	5.010	0	293796	N.D. d	0.487
8) M	2,3,4,5-T...	0.000	5.430	0	19397	N.D. d	0.047
9) M	Pentachlo...	0.000	5.607	0	981158	N.D. d	1.442
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

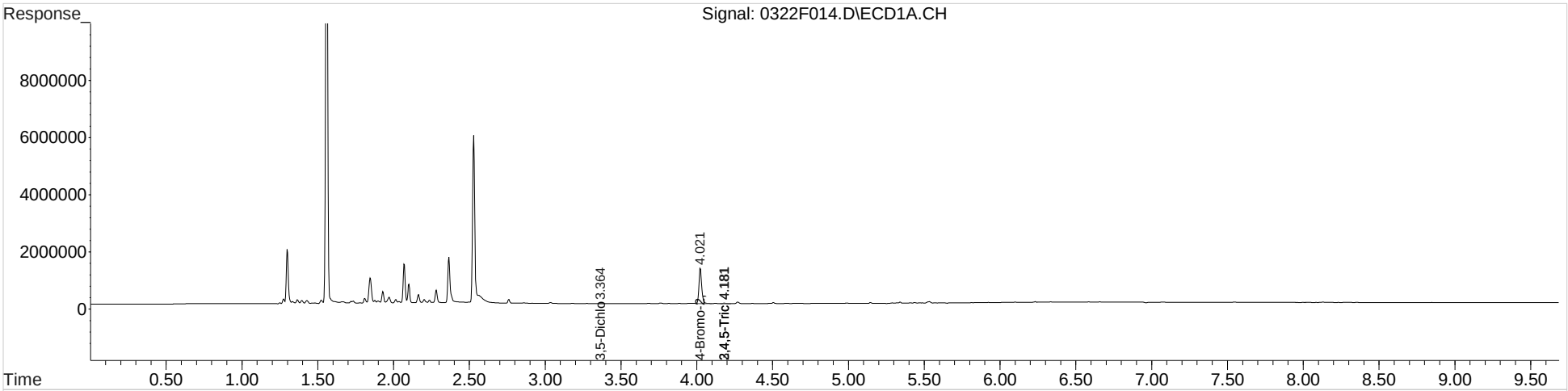
1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F014.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 7:42 pm Operator: MC
Sample : K1902351-008 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:43:38 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/26/19
2nd TP 03/26/19

Validation Report

Data File: J:\GC28\Data\032519\0325F005.D\
Lab ID: K1902351-009
RunType: N/A
Matrix: Water

Date Acquired: 3/25/19 14:44:00
Batch ID: 629403
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/26/19
2nd TP 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032519\0325F005.D\	**Instrument:**	K-GC-28
Acqu Date:	3/25/19 14:44:00	**Vial:**	18
Run Type:	N/A	**Dilution:**	5
Lab ID:	K1902351-009	**Raw Units:**	ug/L

Bottle ID:	K1902351-009.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629403	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	3639381	3061326	9.760	7.262	98	73	73	55 - 130	N

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	91356926	126653173	208.162	186.114	210	190	**190**	Y

Prep Amount:	5 mL	**Dilution:**	5
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/26/19
2nd TP 03/26/19

Data File : J:\GC28\Data\032519\0325F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 2:44 pm Operator: MC
Sample : K1902351-009 @5X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 15:19:32 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.020	4.646	3639381	3061326	9.760	7.262 #
		Target Compounds						
1)		3,4-Dichl...	0.000	3.743	0	3010	N.D.	0.139 #
2)		3,5-Dichl...	0.000	0.000	0	0	N.D.	N.D.
3)		2,4,6-Tri...	0.000	4.203	0	48532	N.D. d	0.119
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	4.214	0.000	133323	0	0.304	N.D. d#
7)	M	2,3,5,6-T...	4.474	5.016	3679856	3636886	7.850	6.024
8)	M	2,3,4,5-T...	0.000	5.413	0	286666	N.D. d	0.689
9)	M	Pentachlo...	5.144	5.596	91356926	126.7E6	208.162	186.114
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

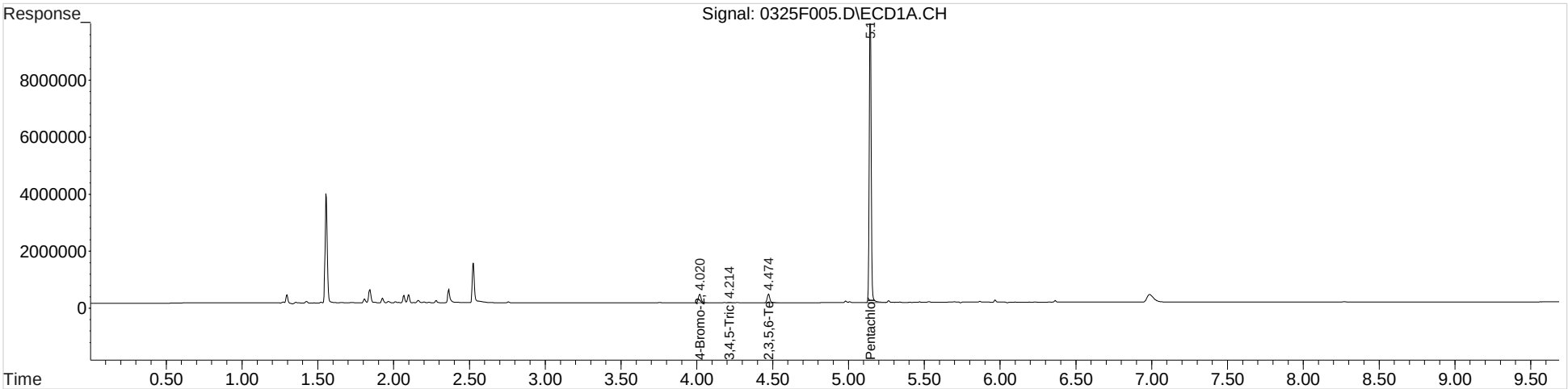
1st 03/26/19
2nd 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032519\0325F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 2:44 pm Operator: MC
Sample : K1902351-009 @5X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 15:19:32 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F015.D\
Lab ID: K1902351-009.R01
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 20:00:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level		X
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Above Highest ICAL Level - Rtx-1701	Pentachlorophenol (PCP)	1297.513		950.06	dil
Above Highest ICAL Level - Rtx-35	Pentachlorophenol (PCP)	1042.457		950.06	dil

Primary Review: _____

Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F015.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 20:00:00	**Vial:**	17
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-009.R01	**Raw Units:**	ug/L

Bottle ID:	K1902351-009.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17859313	18790532	51.749	44.572	103	89	89	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15 +0.01	5.60	429666322	709405470	1297.513	1042.457	260E	210E	**210** E	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F015.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 8:00 pm Operator: MC
Sample : K1902351-009 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:44:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.021	4.651	17859313	18790532	51.749	44.572	
		Target Compounds							
1)		3,4-Dichl...	0.000	3.744	0	23078	N.D.	1.064	#
2)		3,5-Dichl...	0.000	3.991	0	13765	N.D. d	0.336	
3)		2,4,6-Tri...	3.468	4.207	365872	294963	0.522	0.723	#
5)		2,4,5-Tri...	0.000	4.731	0	371484	N.D. d	1.496	
6)		3,4,5-Tri...	4.221	4.781	635789	344631	3.717	1.498	#
7)	M	2,3,5,6-T...	4.475	5.021	16701006	18957144	38.527	31.400	
8)	M	2,3,4,5-T...	5.011	5.417	1184739	1204426	2.677	2.896	
9)	M	Pentachlo...	5.148	5.604	429.7E6	709.4E6	1297.513	1042.457	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

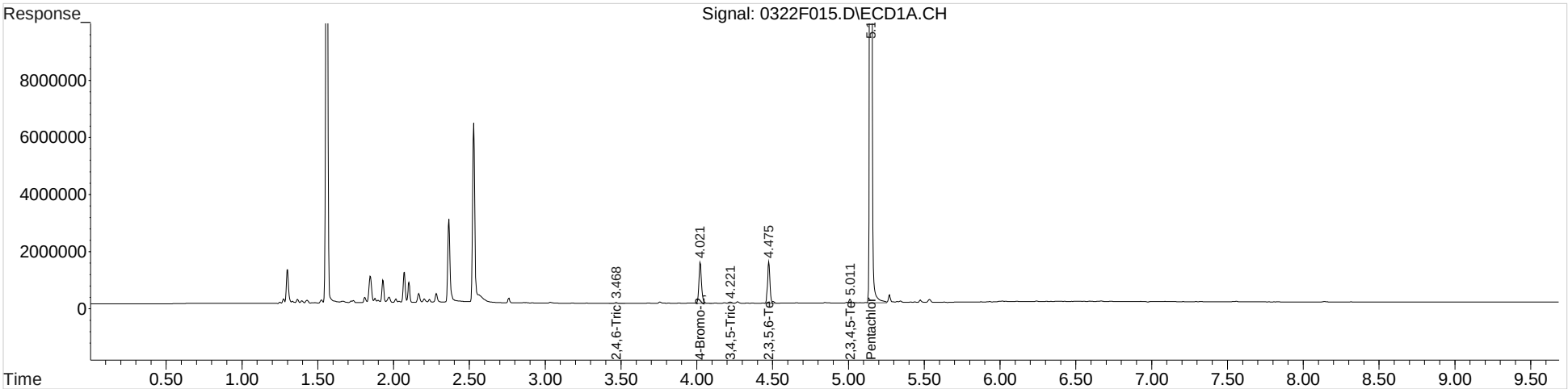
1st MC 03/25/19
2nd JMS 03/26/19

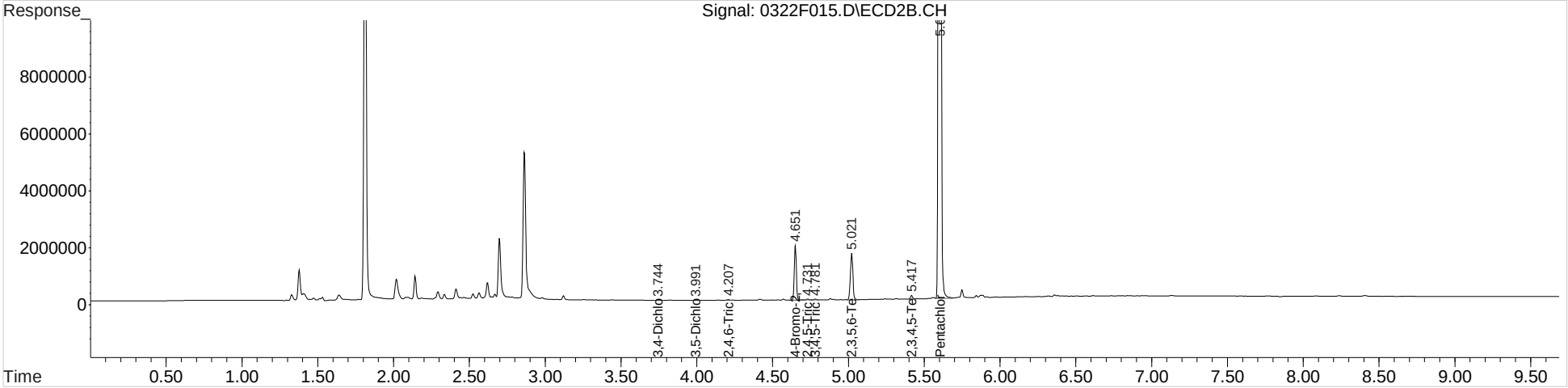
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F015.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 8:00 pm Operator: MC
Sample : K1902351-009 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:44:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F016.D\
Lab ID: K1902351-010
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 20:18:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F016.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 20:18:00	**Vial:**	18
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-010	**Raw Units:**	ug/L

Bottle ID:	K1902351-010.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	16367566	17262531	47.310	40.947	95	82	82	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	567414	1287062	0.295	1.891	0.059U	0.38J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F016.D Vial: 14
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 8:18 pm Operator: MC
Sample : K1902351-010 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:44:32 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	16367566	17262531	47.310	40.947
		Target Compounds						
1)		3,4-Dichl...	0.000	3.748	0	18328	N.D. d	0.845
2)		3,5-Dichl...	3.338	3.994	15198	17495	0.692	0.573
3)		2,4,6-Tri...	0.000	4.178	0	15611	N.D. d	0.038
5)		2,4,5-Tri...	4.182	0.000	201742	0	0.561	N.D. d#
6)		3,4,5-Tri...	4.182f	0.000	201742	0	0.767	N.D. d#
7)	M	2,3,5,6-T...	0.000	5.008	0	277201	N.D. d	0.459
8)	M	2,3,4,5-T...	0.000	5.431	0	24160	N.D. d	0.058
9)	M	Pentachlo...	5.145	5.598	567414	1287062	0.295	1.891 #
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

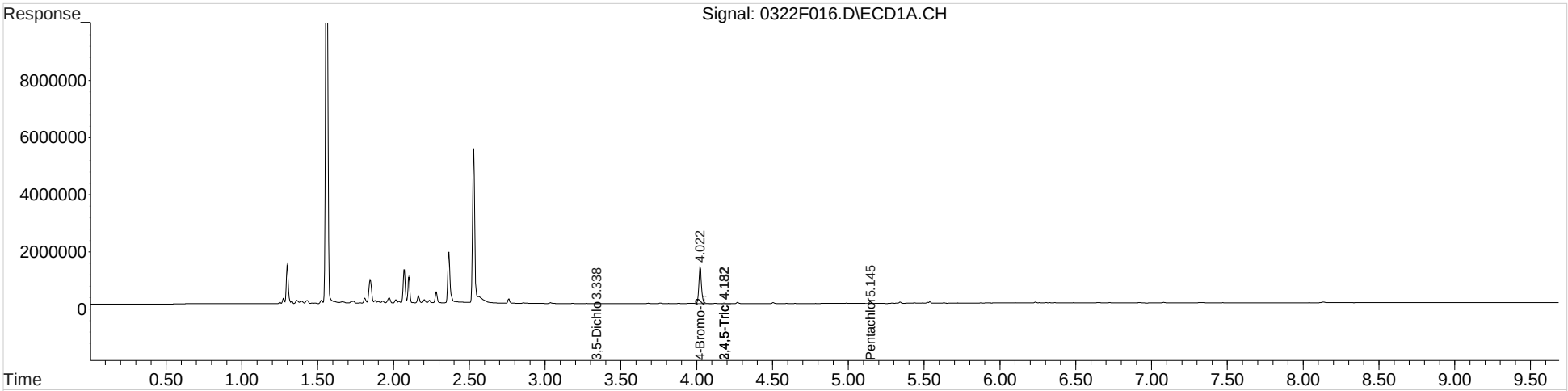
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F016.D Vial: 14
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 8:18 pm Operator: MC
Sample : K1902351-010 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:44:32 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F019.D\
Lab ID: K1902351-011
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 21:13:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F019.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 21:13:00	**Vial:**	19
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-011	**Raw Units:**	ug/L

Bottle ID:	K1902351-011.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	17173338	18215886	49.707	43.209	99	86	86	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15	5.60	16169700	21742997	34.688	31.951	6.9	6.4	**6.4**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F019.D Vial: 15
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 9:13 pm Operator: MC
Sample : K1902351-011 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:45:51 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.022	4.648	17173338	18215886	49.707	43.209
	Target Compounds						
1)	3,4-Dichl...	3.105	3.748	25868	111257	1.076	5.129 #
2)	3,5-Dichl...	3.369	3.998	18935	29064	1.027	1.307 #
3)	2,4,6-Tri...	0.000	4.205	0	34070	N.D. d	0.083
5)	2,4,5-Tri...	4.179	0.000	243600	0	0.861	N.D. d#
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	4.475	5.021	2280778	2478092	4.635	4.105
8) M	2,3,4,5-T...	0.000	5.415	0	422392	N.D. d	1.016
9) M	Pentachlo...	5.145	5.598	16169700	21742997	34.688	31.951
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

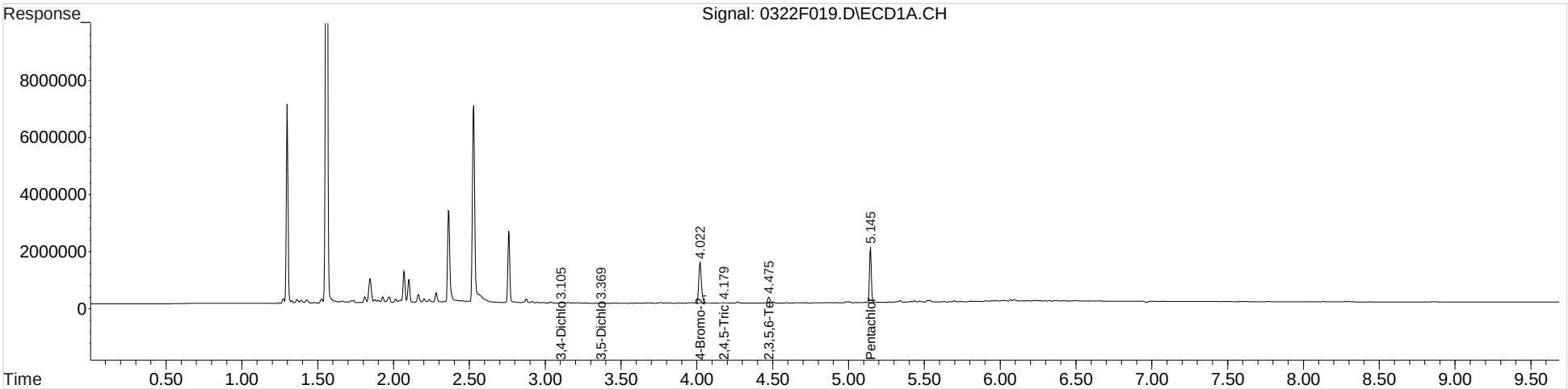
1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F019.D Vial: 15
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 9:13 pm Operator: MC
Sample : K1902351-011 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:45:51 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F020.D\
Lab ID: K1902351-012
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 21:31:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F020.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 21:31:00	**Vial:**	20
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-012	**Raw Units:**	ug/L

Bottle ID:	K1902351-012.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	17846942	18570585	51.712	44.050	103	88	88	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	1046458	0.000	1.538	0U	0.31J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F020.D Vial: 16
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 9:31 pm Operator: MC
Sample : K1902351-012 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:49:00 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	17846942	18570585	51.712	44.050
		Target Compounds						
1)		3,4-Dichl...	0.000	3.748	0	17518	N.D.	0.808 #
2)		3,5-Dichl...	3.365	3.994	7650	15814	0.016	0.466 #
3)		2,4,6-Tri...	0.000	4.211	0	16356	N.D. d	0.040
5)		2,4,5-Tri...	4.182	0.000	193821	0	0.504	N.D. d#
6)		3,4,5-Tri...	4.182f	0.000	193821	0	0.714	N.D. d#
7)	M	2,3,5,6-T...	0.000	5.008	0	323074	N.D. d	0.535
8)	M	2,3,4,5-T...	4.988	5.381f	555636	4588	0.627	0.011 #
9)	M	Pentachlo...	0.000	5.608	0	1046458	N.D. d	1.538
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

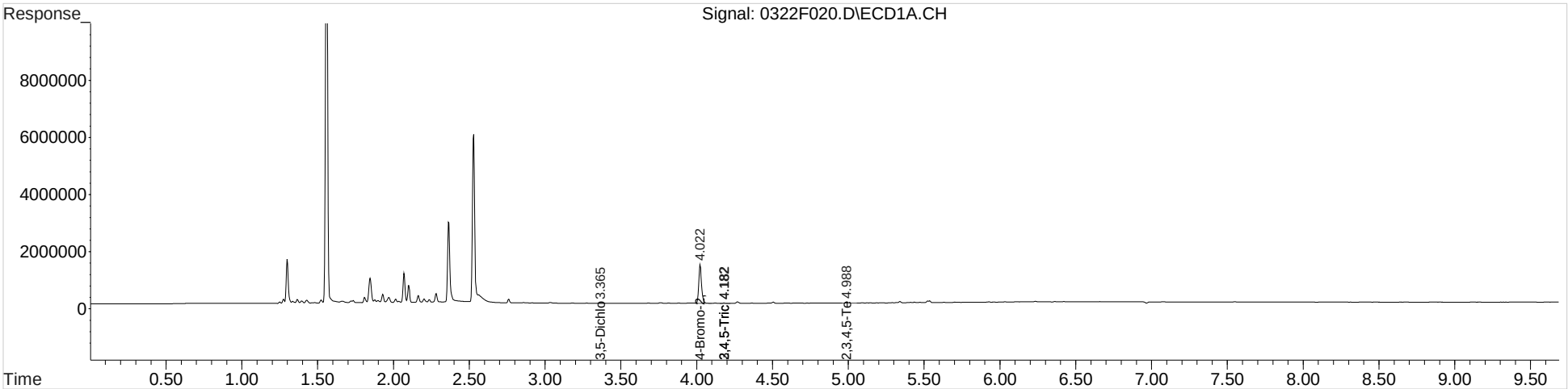
1st MC 03/25/19
2nd JMS 03/26/19

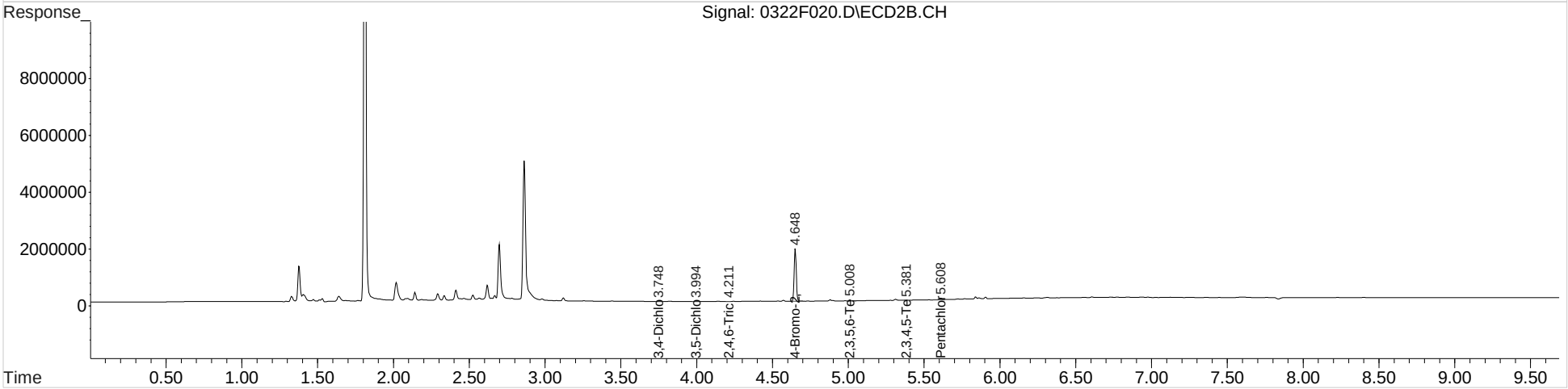
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F020.D Vial: 16
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 9:31 pm Operator: MC
Sample : K1902351-012 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:49:00 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F021.D\
Lab ID: K1902351-013
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 21:50:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F021.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 21:50:00	**Vial:**	21
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-013	**Raw Units:**	ug/L

Bottle ID:	K1902351-013.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18471934	19544499	53.575	46.360	107	93	93	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	771680	0.000	1.134	0U	0.23J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F021.D Vial: 17
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 9:50 pm Operator: MC
Sample : K1902351-013 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:49:35 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	18471934	19544499	53.575	46.360
		Target Compounds						
1)		3,4-Dichl...	0.000	3.748	0	24589	N.D.	1.134 #
2)		3,5-Dichl...	3.338	3.994	7766	15009	0.027	0.415 #
3)		2,4,6-Tri...	0.000	4.178	0	10004	N.D. d	0.025
5)		2,4,5-Tri...	4.182	0.000	218896	0	0.684	N.D. d#
6)		3,4,5-Tri...	4.182f	0.000	218896	0	0.884	N.D. d#
7)	M	2,3,5,6-T...	0.000	5.008	0	291268	N.D. d	0.482
8)	M	2,3,4,5-T...	4.988	5.428	478218	26005	0.375	0.063 #
9)	M	Pentachlo...	0.000	5.608	0	771680	N.D. d	1.134
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

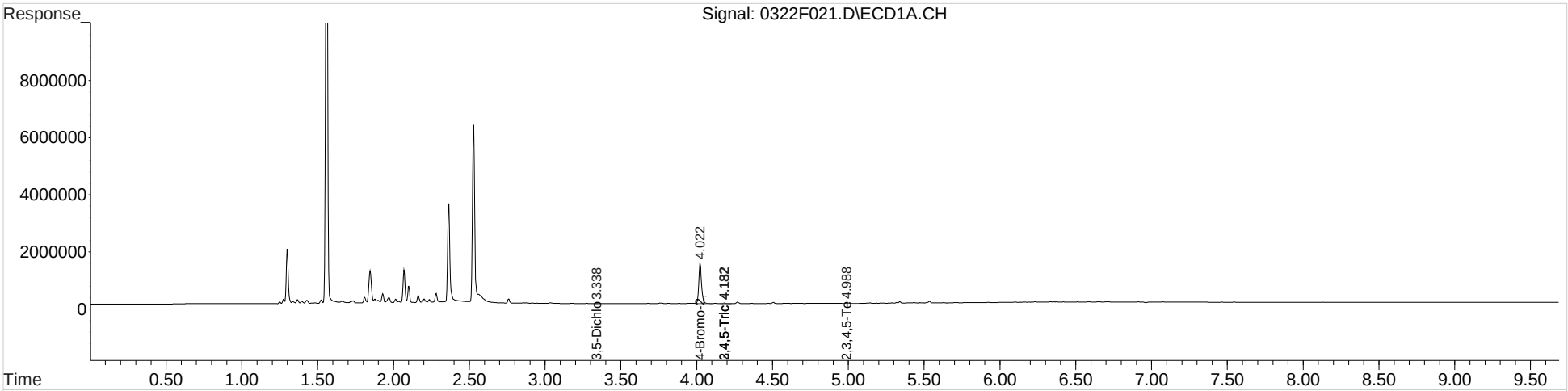
1st MC 03/25/19
2nd JMS 03/26/19

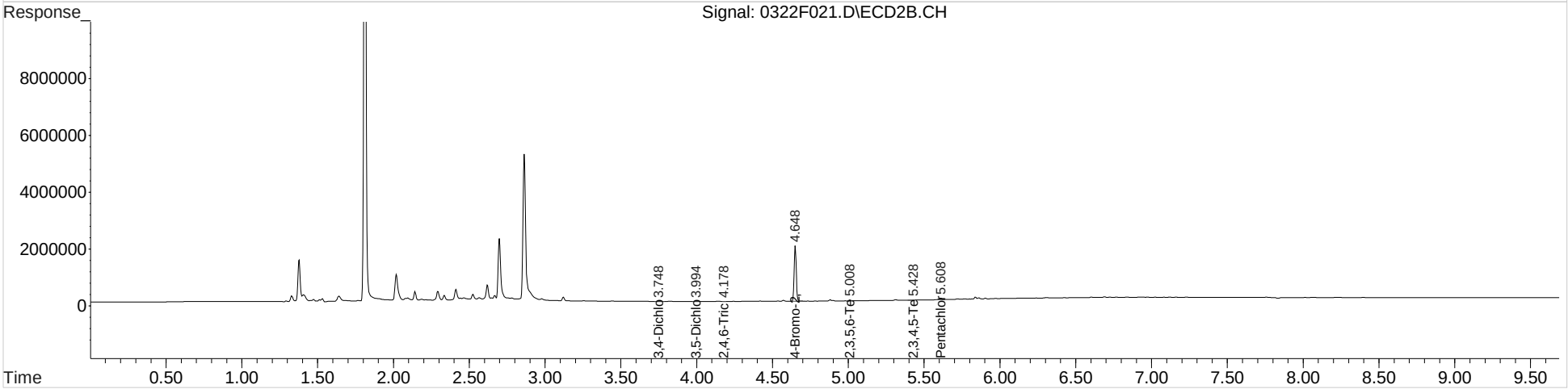
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F021.D Vial: 17
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 9:50 pm Operator: MC
Sample : K1902351-013 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:49:35 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F022.D\
Lab ID: K1902351-014
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 22:08:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F022.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 22:08:00	**Vial:**	22
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-014	**Raw Units:**	ug/L

Bottle ID:	K1902351-014.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18456877	19401914	53.530	46.022	107	92	92	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc		Rpt?
Pentachlorophenol (PCP)	5.14 -0.01	5.59 -0.01	734812	962399	0.662	1.414	0.13J	0.28J	**0.13** J	P	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:08 pm Operator: MC
Sample : K1902351-014 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 14:18:00 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	18456877	19401914	53.530	46.022
		Target Compounds						
1)		3,4-Dichl...	0.000	3.744	0	12652	N.D.	0.583 #
2)		3,5-Dichl...	0.000	3.994	0	9194	N.D. d	0.046
3)		2,4,6-Tri...	0.000	4.207	0	5985	N.D. d	0.015
5)		2,4,5-Tri...	4.181	0.000	205108	0	0.585	N.D. d#
6)		3,4,5-Tri...	4.181f	0.000	205108	0	0.790	N.D. d#
7)	M	2,3,5,6-T...	0.000	5.007	0	336126	N.D. d	0.557
8)	M	2,3,4,5-T...	4.988	5.454f	460942	52722	0.319	0.127 #
9)	M	Pentachlo...	5.144	5.594	734812	962399	0.662m	1.414m#
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

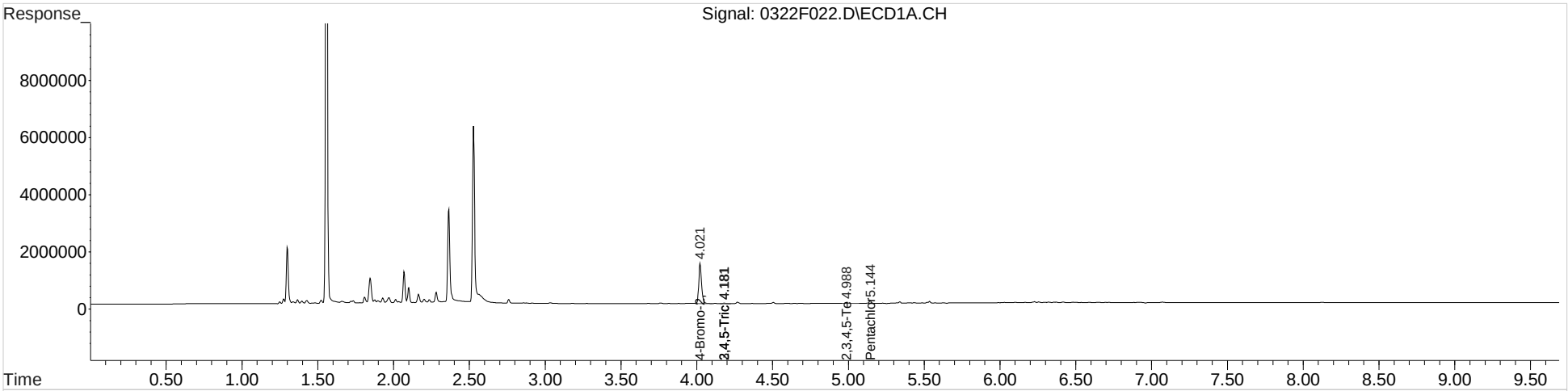
1st MC 03/25/19
2nd JMS 03/26/19

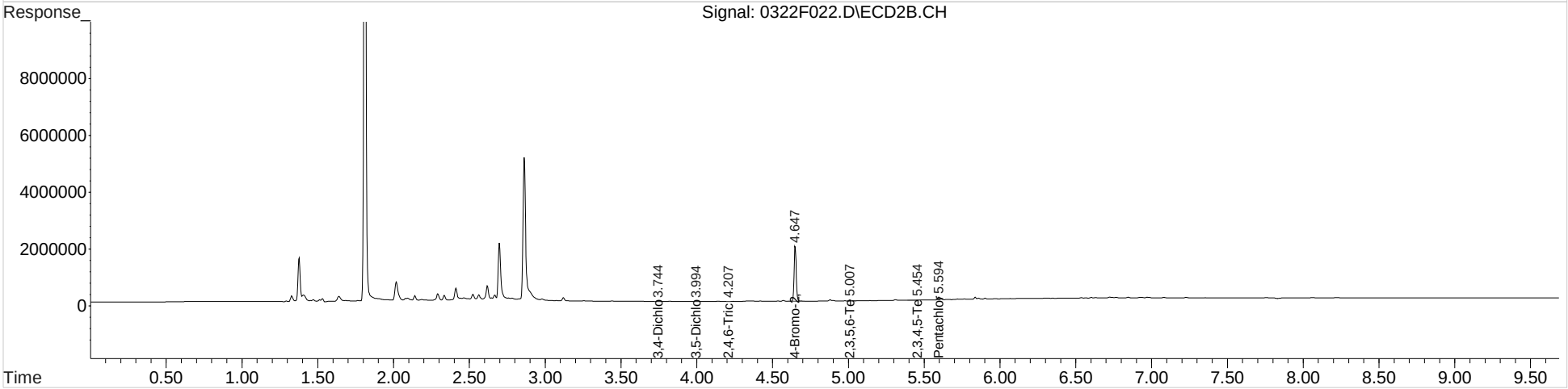
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:08 pm Operator: MC
Sample : K1902351-014 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 14:18:00 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





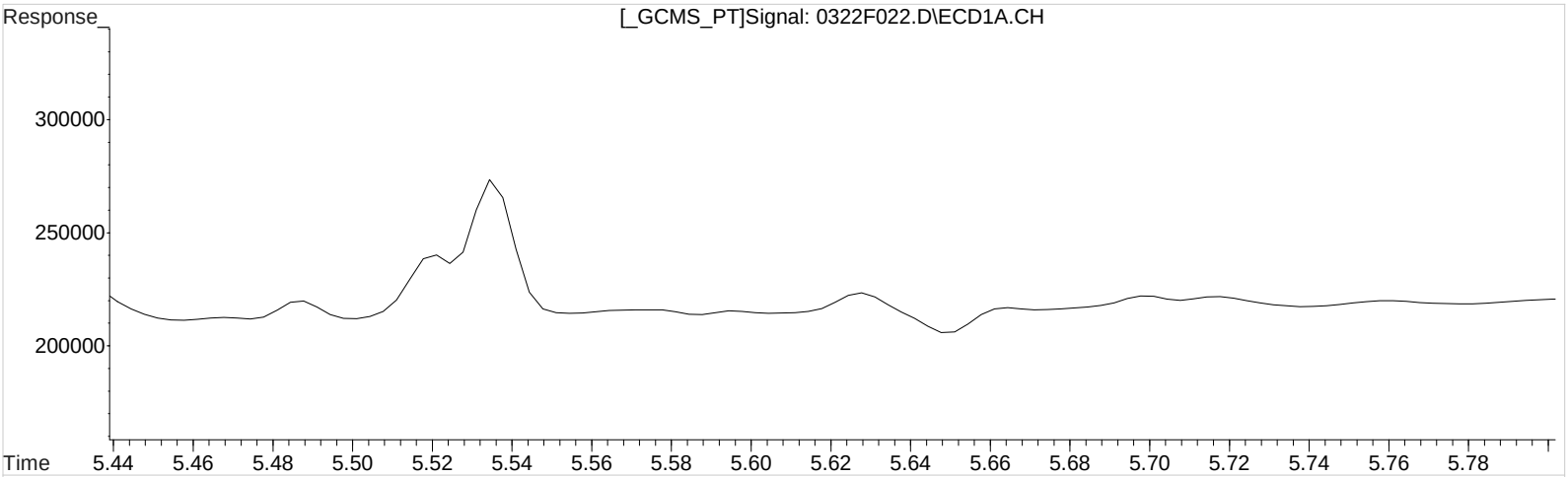
Quantitation Report (Qedit)

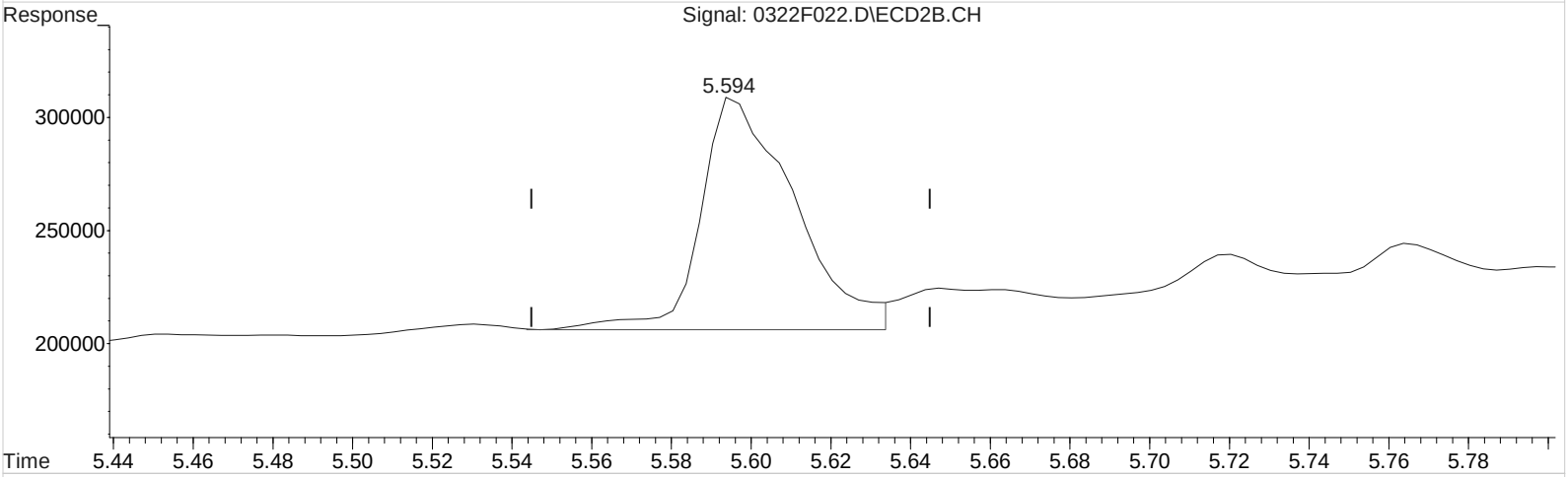
1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:08 pm Operator: MC
Sample : K1902351-014 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:50:13 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.144min 0.865 ug/L

response 827704

Manual Integration:

Before

03/25/19

(9) Pentachlorophenol #2 (M)

5.594min 2.480 ug/L

response 1687396

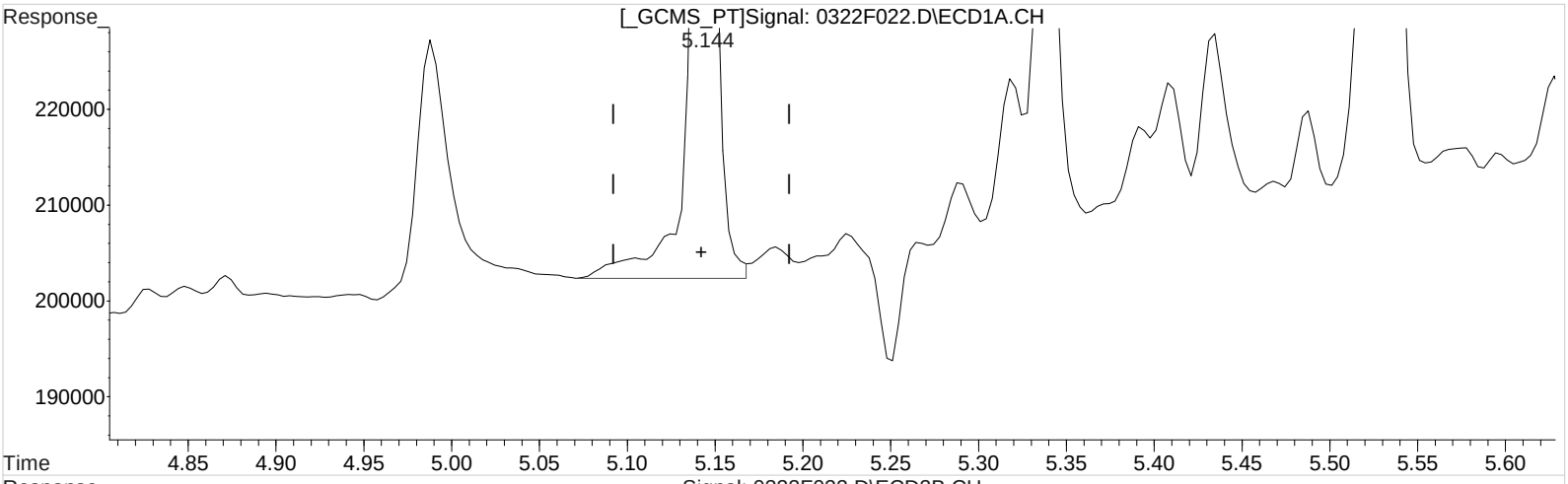
(+) = Expected Retention Time

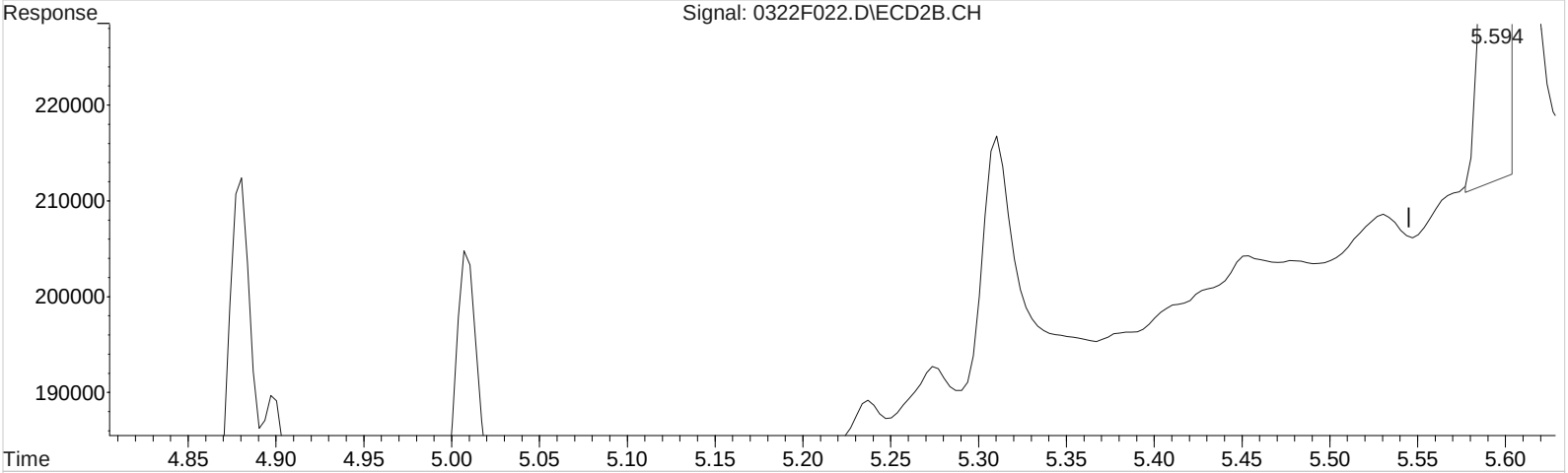
1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:08 pm Operator: MC
Sample : K1902351-014 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 14:17:40 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.144min 0.865 ug/L

response 827704

Manual Integration:

Before

03/25/19

(9) Pentachlorophenol #2 (M)

5.594min 1.414 ug/L m

response 962399

(+) = Expected Retention Time

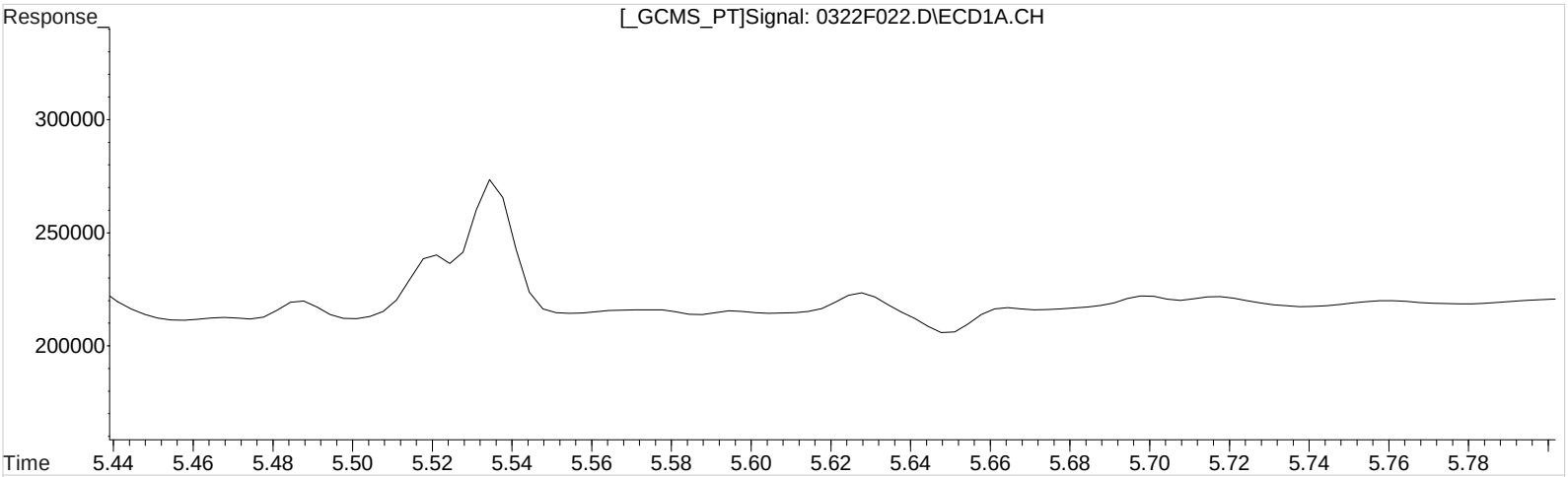
Quantitation Report (Qedit)

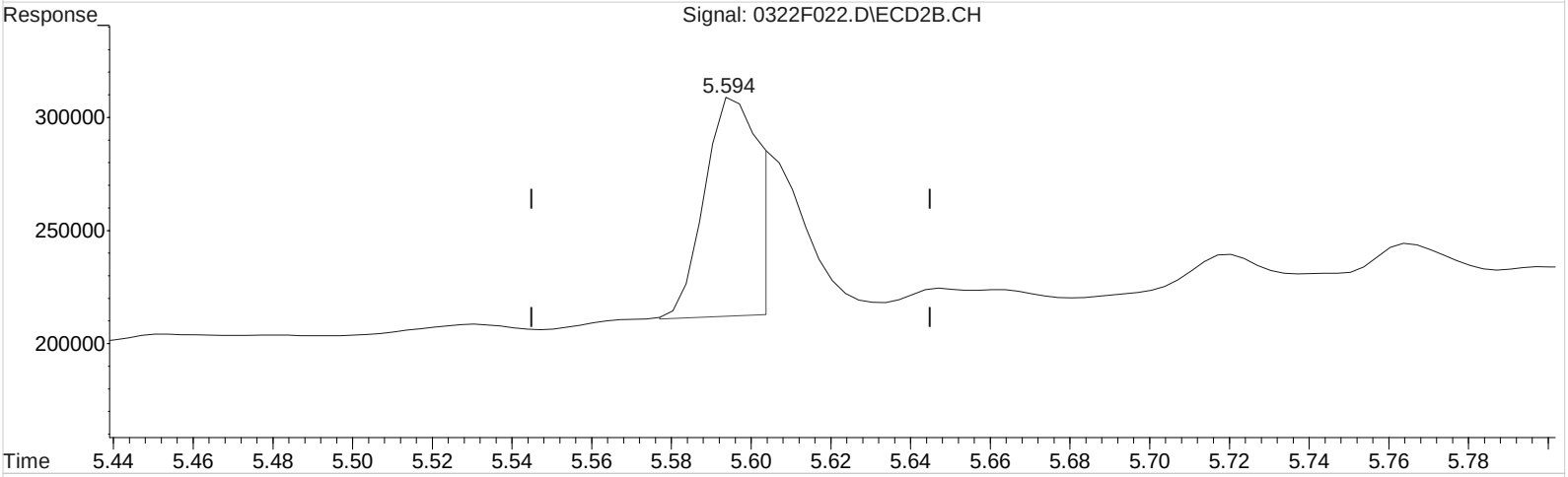
1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:08 pm Operator: MC
Sample : K1902351-014 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:50:13 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.144min 0.865 ug/L

response 827704

Manual Integration:

After

Baseline/Shoulder

03/25/19

(9) Pentachlorophenol #2 (M)

5.594min 1.414 ug/L m

response 962399

(+) = Expected Retention Time

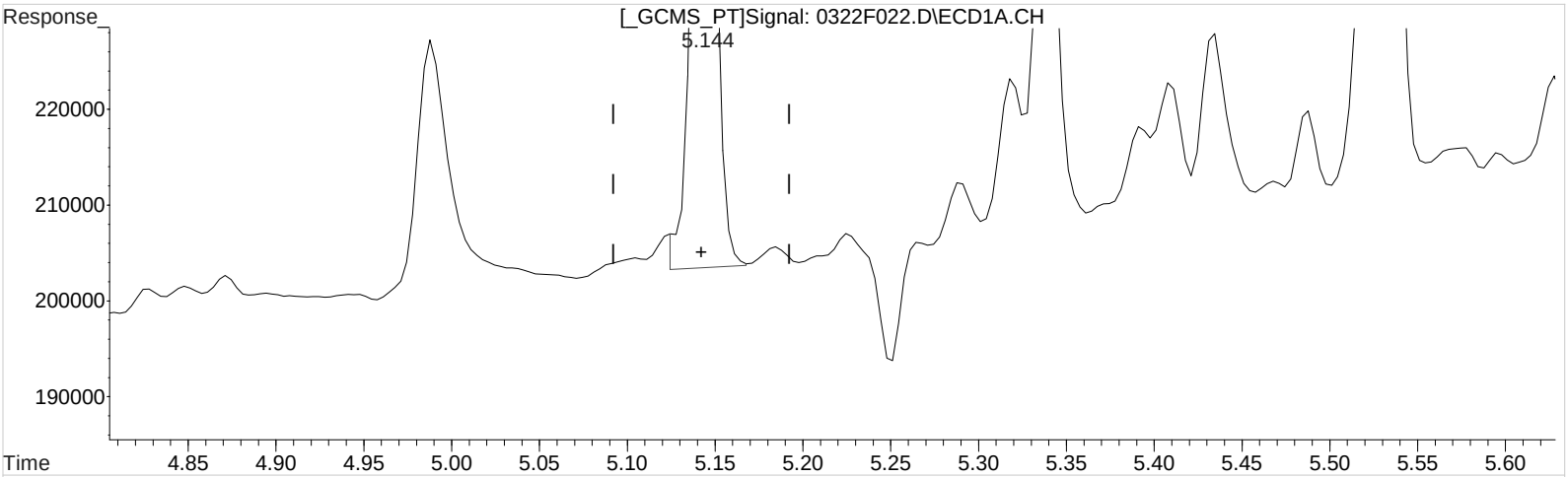
Quantitation Report (Qedit)

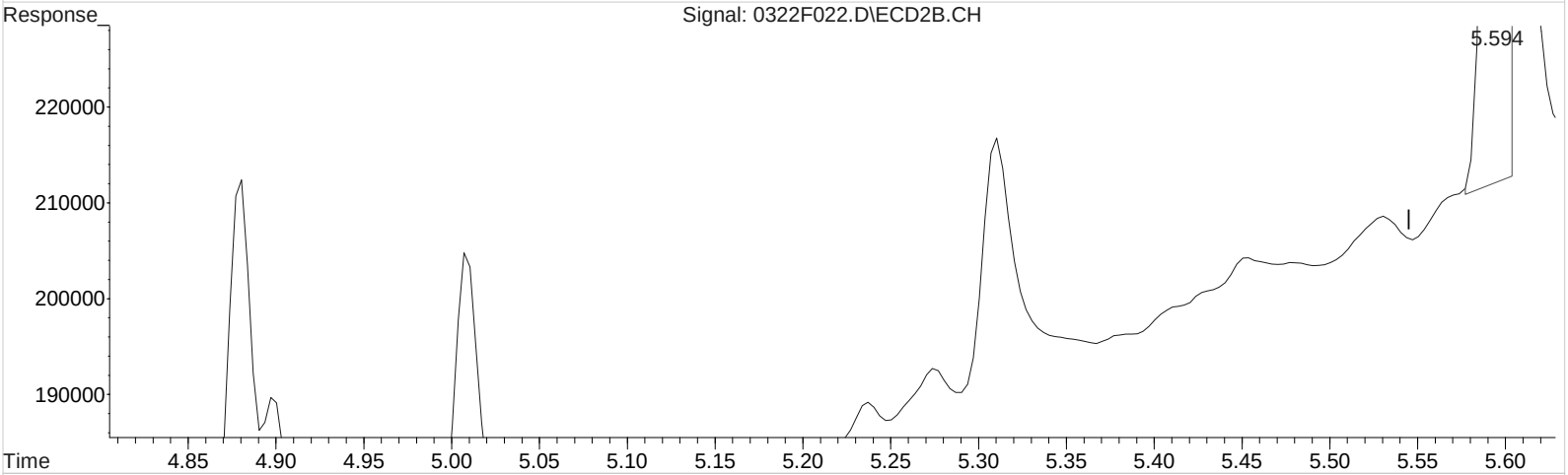
1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:08 pm Operator: MC
Sample : K1902351-014 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 14:17:40 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.144min 0.662 ug/L m

response 734812

Manual Integration:

After

Baseline/Shoulder

03/25/19

(9) Pentachlorophenol #2 (M)

5.594min 1.414 ug/L m

response 962399

(+) = Expected Retention Time

1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F023.D\
Lab ID: K1902351-015
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 22:26:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F023.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 22:26:00	**Vial:**	23
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-015	**Raw Units:**	ug/L

Bottle ID:	K1902351-015.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18222190	19265918	52.830	45.699	106	91	91	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14 -0.01	5.60	3850550	5041467	7.491	7.408	1.5	1.5	**1.5**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:26 pm Operator: MC
Sample : K1902351-015 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:51:50 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.020	4.650	18222190	19265918	52.830	45.699
		Target Compounds						
1)		3,4-Dichl...	0.000	3.746	0	16754	N.D.	0.772 #
2)		3,5-Dichl...	3.340	3.993	19134	15678	1.045	0.458 #
3)		2,4,6-Tri...	0.000	4.216	0	3384	N.D. d	0.008
5)		2,4,5-Tri...	4.180	0.000	208238	0	0.607	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.010	0	381808	N.D. d	0.632
8)	M	2,3,4,5-T...	0.000	5.430	0	28381	N.D. d	0.068
9)	M	Pentachlo...	5.144	5.596	3850550	5041467	7.491m	7.408m
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

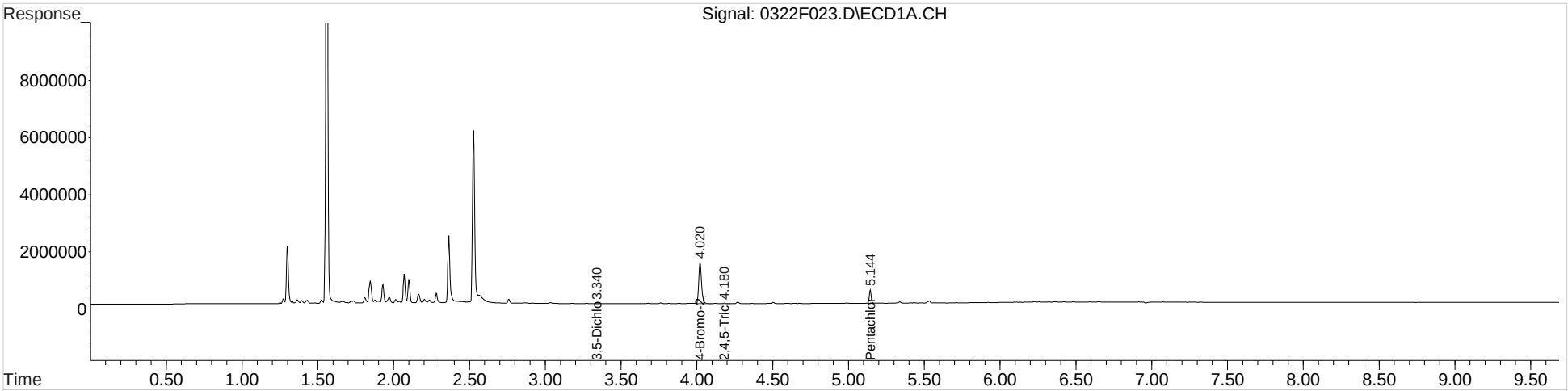
1st MC 03/25/19
2nd JMS 03/26/19

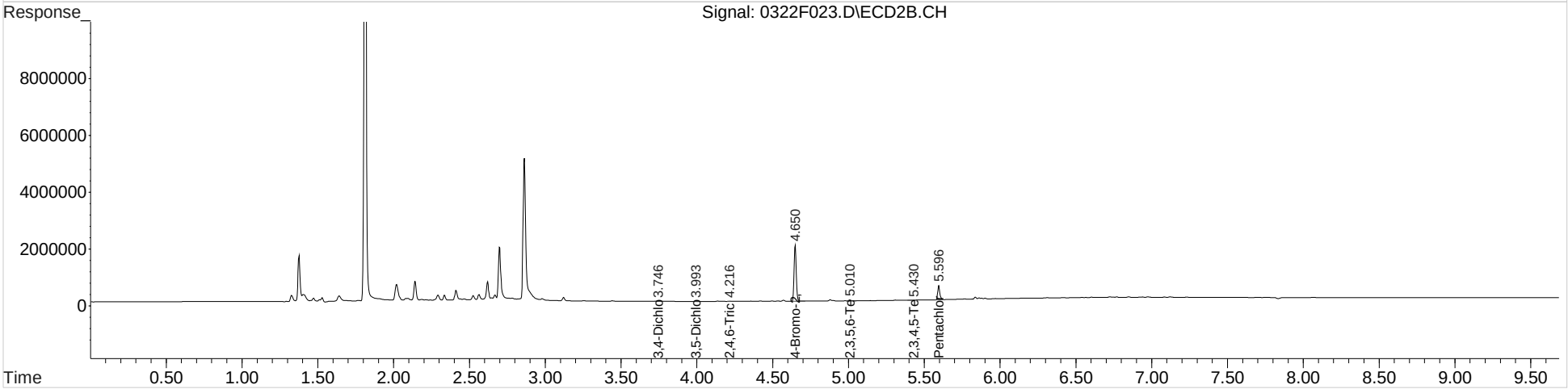
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:26 pm Operator: MC
Sample : K1902351-015 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:51:50 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





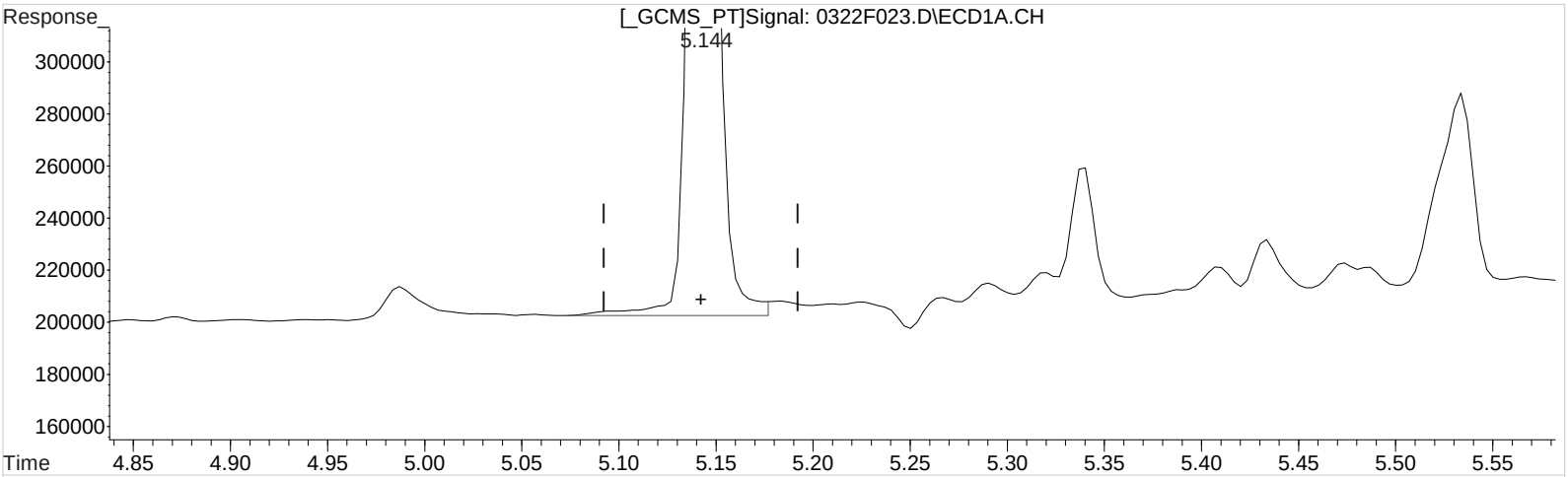
Quantitation Report (Qedit)

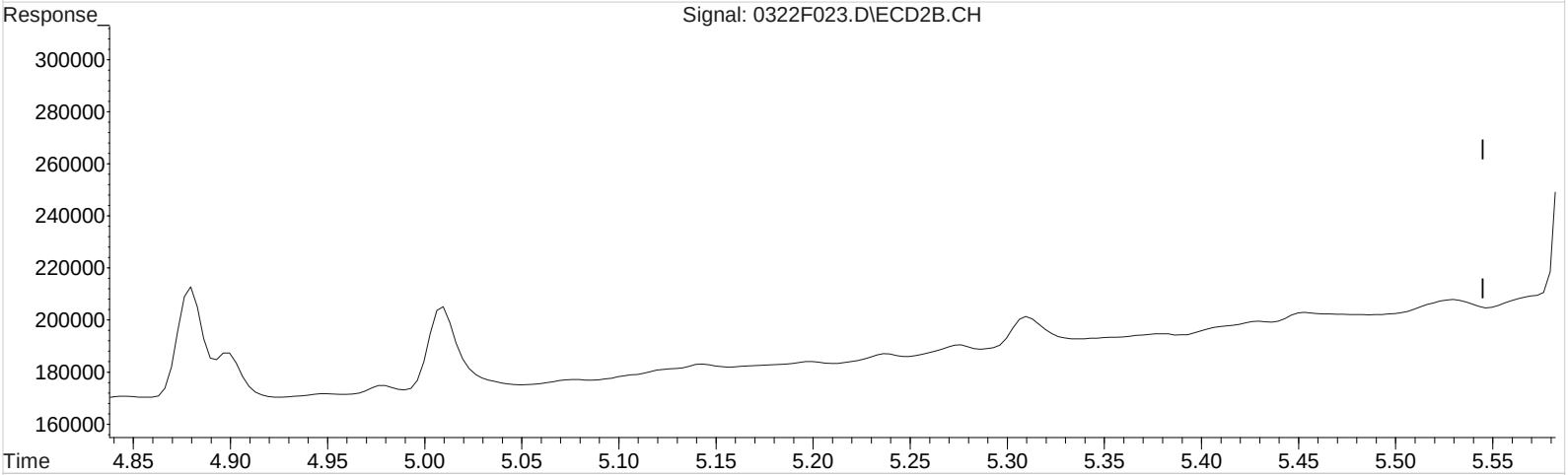
1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:26 pm Operator: MC
Sample : K1902351-015 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 11:25:04 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.144min 7.837 ug/L

response 4008490

Manual Integration:

Before

03/25/19

(9) Pentachlorophenol #2 (M)

5.596min 7.876 ug/L

response 5359642

(+) = Expected Retention Time

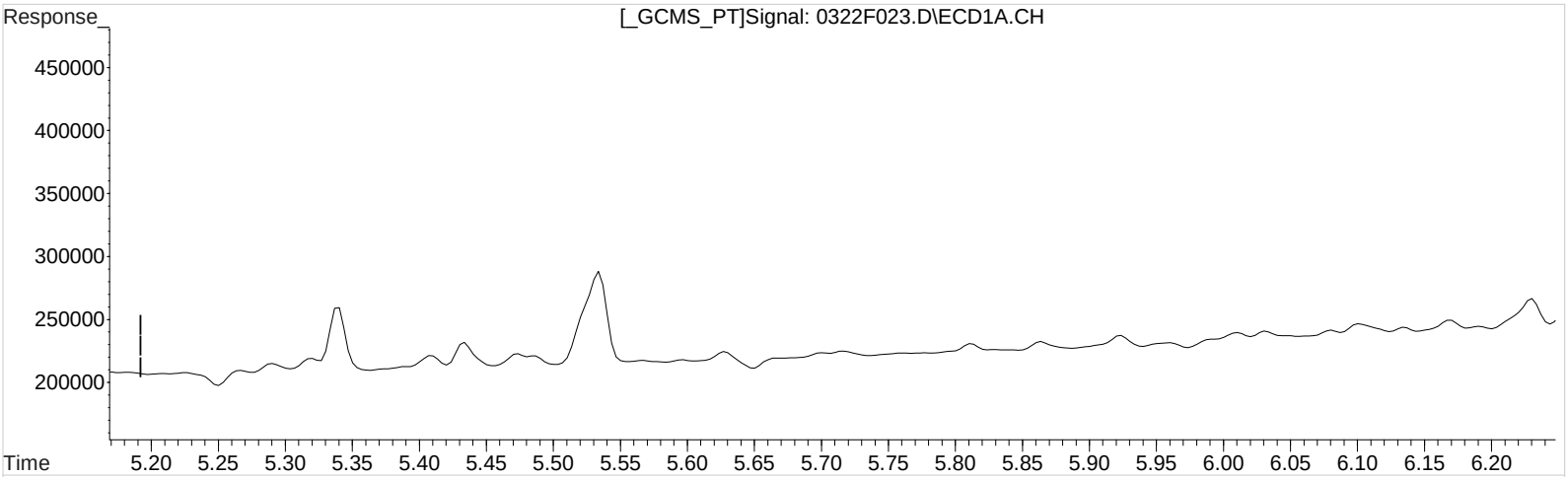
Quantitation Report (Qedit)

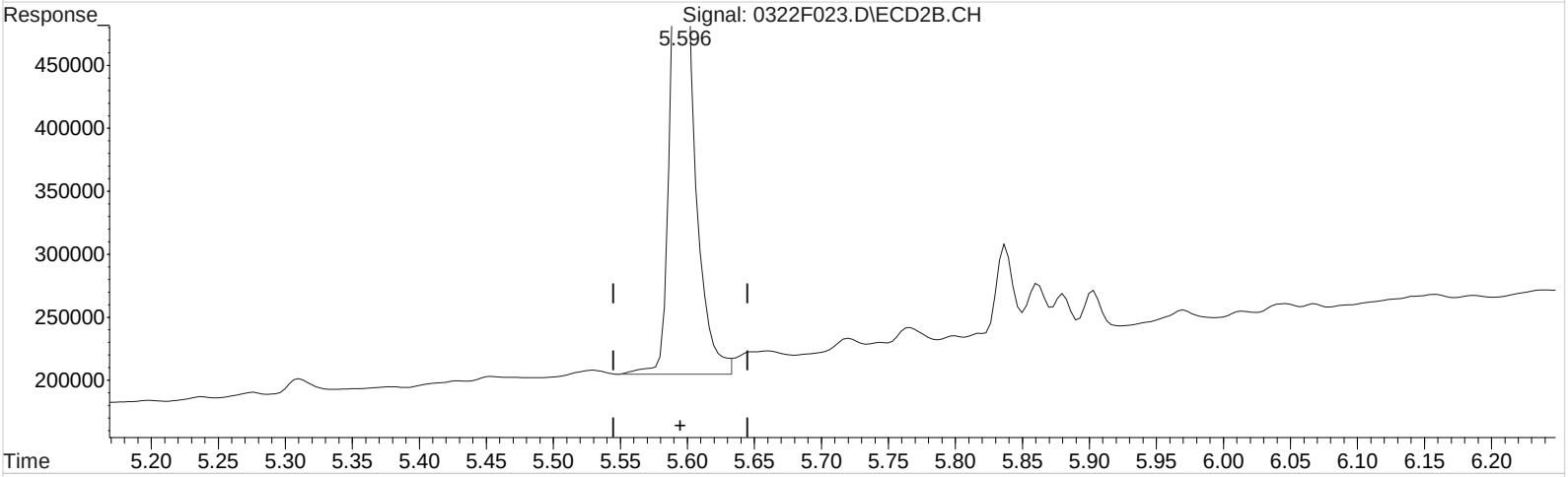
1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:26 pm Operator: MC
Sample : K1902351-015 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 11:25:04 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.144min 7.491 ug/L m

response 3850550

Manual Integration:

Before

03/25/19

(9) Pentachlorophenol #2 (M)

5.596min 7.876 ug/L

response 5359642

(+) = Expected Retention Time

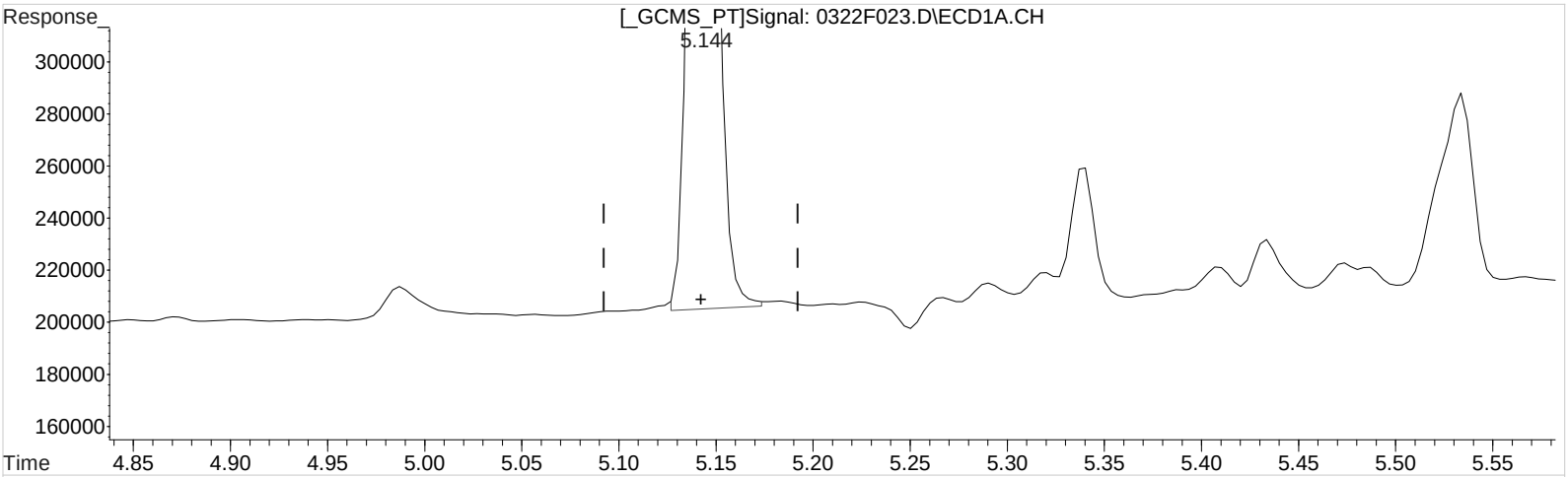
Quantitation Report (Qedit)

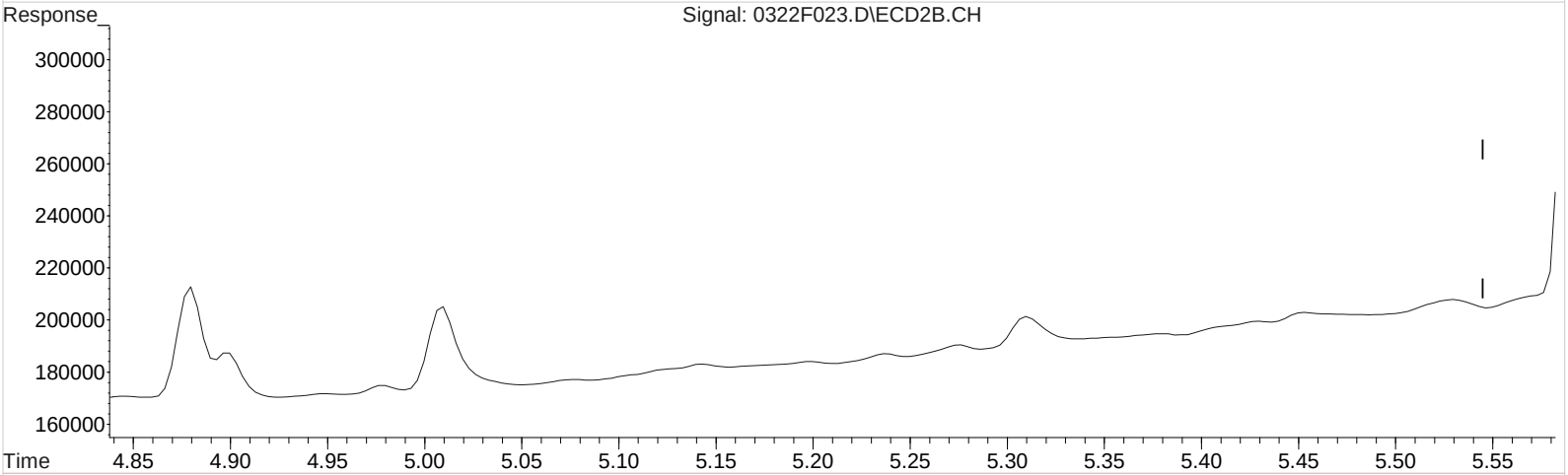
1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:26 pm Operator: MC
Sample : K1902351-015 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 11:25:04 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.144min 7.491 ug/L m

response 3850550

Manual Integration:

After

Baseline/Shoulder

03/25/19

(9) Pentachlorophenol #2 (M)

5.596min 7.876 ug/L

response 5359642

(+) = Expected Retention Time

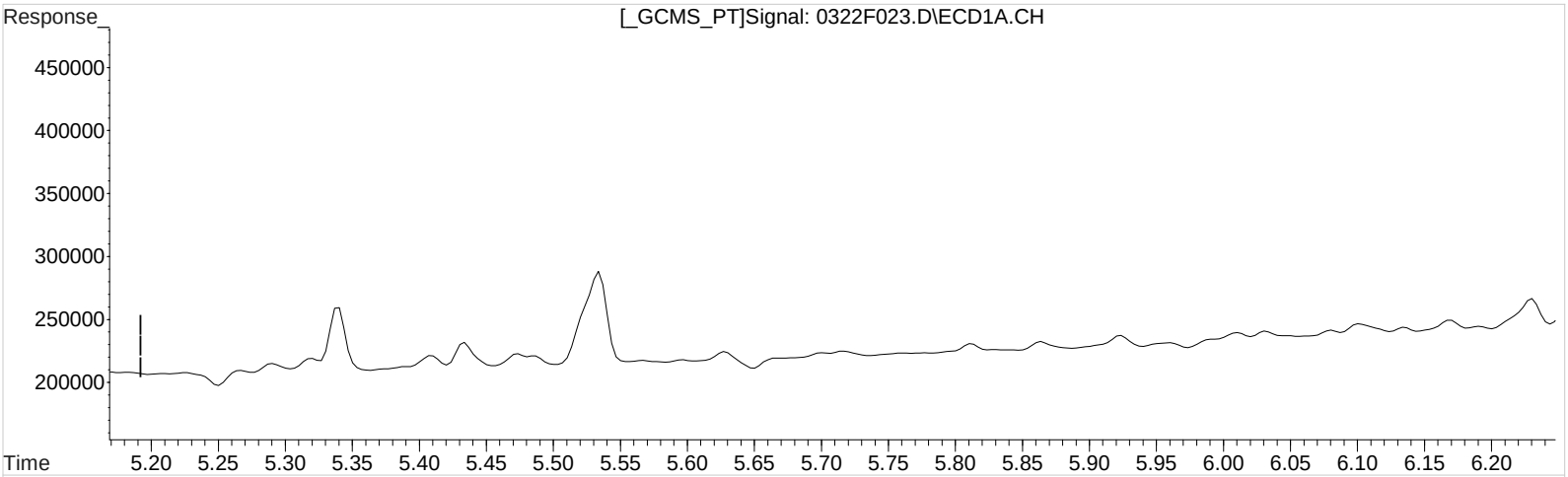
Quantitation Report (Qedit)

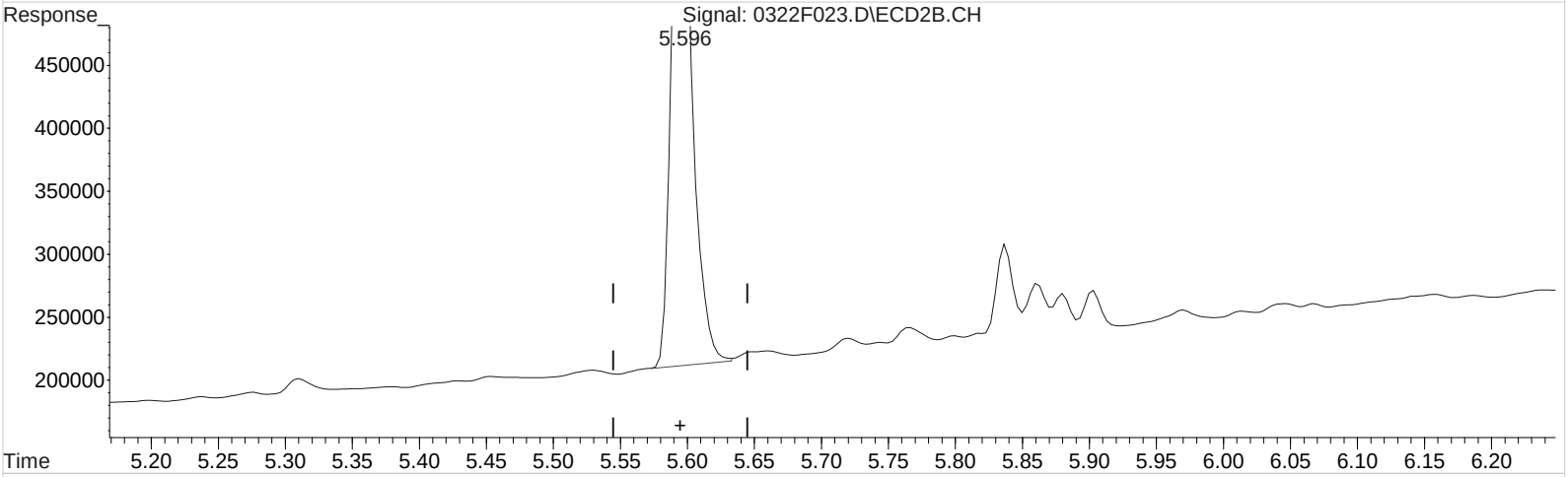
1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:26 pm Operator: MC
Sample : K1902351-015 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 11:25:04 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.144min 7.491 ug/L m

response 3850550

Manual Integration:

After

Baseline/Shoulder

03/25/19

(9) Pentachlorophenol #2 (M)

5.596min 7.408 ug/L m

response 5041467

(+) = Expected Retention Time

1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F024.D\
Lab ID: K1902351-016
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 22:44:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F024.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 22:44:00	**Vial:**	24
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-016	**Raw Units:**	ug/L

Bottle ID:	K1902351-016.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18952783	20073690	55.009	47.615	110	95	95	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15	5.59 -0.01	114327678	164011232	264.037	241.011	53	48	**48**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F024.D Vial: 20
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:44 pm Operator: MC
Sample : K1902351-016 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:52:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	18952783	20073690	55.009	47.615
		Target Compounds						
1)		3,4-Dichl...	0.000	3.748	0	16204	N.D. d	0.747
2)		3,5-Dichl...	3.365	3.991	52838	15288	4.081	0.433 #
3)		2,4,6-Tri...	0.000	4.208	0	19362	N.D. d	0.047
5)		2,4,5-Tri...	4.182	0.000	164402	0	0.294	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	4.475	5.021	4928242	5433630	10.731	9.000
8)	M	2,3,4,5-T...	0.000	5.411	0	196410	N.D. d	0.472
9)	M	Pentachlo...	5.145	5.594	114.3E6	164.0E6	264.037	241.011
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

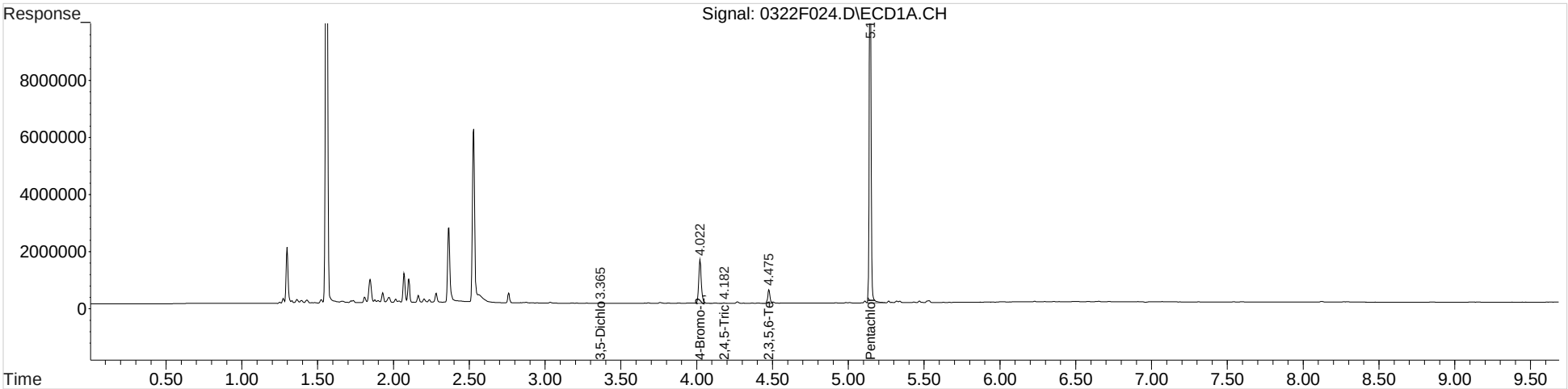
1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F024.D Vial: 20
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:44 pm Operator: MC
Sample : K1902351-016 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:52:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/26/19
2nd TP 03/26/19

Validation Report

Data File: J:\GC28\Data\032519\0325F006.D\
Lab ID: K1902351-017
RunType: N/A
Matrix: Water

Date Acquired: 3/25/19 15:02:00
Batch ID: 629403
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/26/19
2nd TP 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032519\0325F006.D\	**Instrument:**	K-GC-28
Acqu Date:	3/25/19 15:02:00	**Vial:**	19
Run Type:	N/A	**Dilution:**	5
Lab ID:	K1902351-017	**Raw Units:**	ug/L

Bottle ID:	K1902351-017.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629403	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	4154400	3511982	11.268	8.331	113	83	83	55 - 130	N

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15 +0.01	5.59 -0.01	96061478	133358278	219.486	195.967	220	200	**200**	Y

Prep Amount:	5 mL	**Dilution:**	5
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/26/19
2nd TP 03/26/19

Data File : J:\GC28\Data\032519\0325F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 3:02 pm Operator: MC
Sample : K1902351-017 @5X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 15:19:48 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.018	4.648	4154400	3511982	11.268	8.331 #
		Target Compounds						
1)		3,4-Dichl...	0.000	3.744	0	5496	N.D.	0.253 #
2)		3,5-Dichl...	3.365	0.000	20964	0	1.209	N.D. d#
3)		2,4,6-Tri...	0.000	4.178	0	7267	N.D. d	0.018
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	4.475	5.021	3388500	3317594	7.179	5.495
8)	M	2,3,4,5-T...	0.000	5.414	0	122700	N.D. d	0.295
9)	M	Pentachlo...	5.145	5.594	96061478	133.4E6	219.486	195.967
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

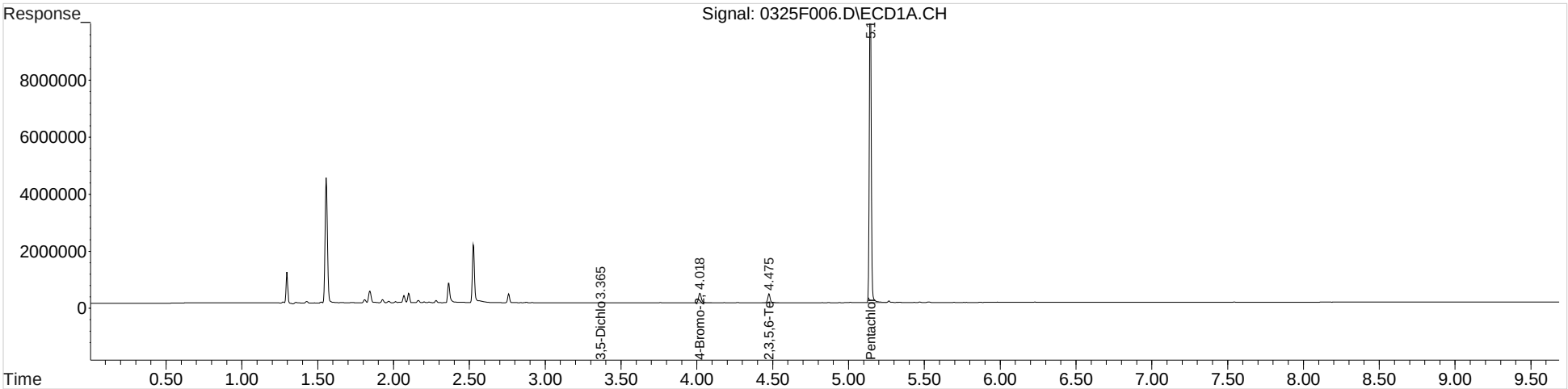
1st 03/26/19
2nd 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032519\0325F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 3:02 pm Operator: MC
Sample : K1902351-017 @5X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 15:19:48 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F025.D\
Lab ID: K1902351-017.R01
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 23:03:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level		X
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Above Highest ICAL Level - Rtx-1701	Pentachlorophenol (PCP)	1420.235		950.06	dil
Above Highest ICAL Level - Rtx-35	Pentachlorophenol (PCP)	1131.493		950.06	dil
Analyte Coelutions - Rtx-1701	3,4,5-Trichlorophenol	4.18			NR
	2,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F025.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 23:03:00	**Vial:**	25
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-017.R01	**Raw Units:**	ug/L

Bottle ID:	K1902351-017.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	19921286	21380228	57.899	50.715	116	101	101	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14 -0.01	5.60	453306927	769995328	1420.235	1131.493	280E	230E	**230** E	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F025.D Vial: 21
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 11:03 pm Operator: MC
Sample : K1902351-017 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:53:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.019	4.649	19921286	21380228	57.899	50.715
		Target Compounds						
1)		3,4-Dichl...	0.000	3.745	0	19024	N.D.	0.877 #
2)		3,5-Dichl...	3.366	3.992	64388	15816	5.126	0.466 #
3)		2,4,6-Tri...	0.000	4.209	0	3818	N.D. d	0.009
5)		2,4,5-Tri...	4.179	0.000	182150	0	0.421	N.D. d#
6)		3,4,5-Tri...	4.179f	0.000	182150	0	0.635	N.D. d#
7)	M	2,3,5,6-T...	4.476	5.019	15227442	17195025	34.984	28.481
8)	M	2,3,4,5-T...	5.009	5.412	383608	346948	0.068	0.834 #
9)	M	Pentachlo...	5.143	5.595	453.3E6	770.0E6	1420.235	1131.493
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

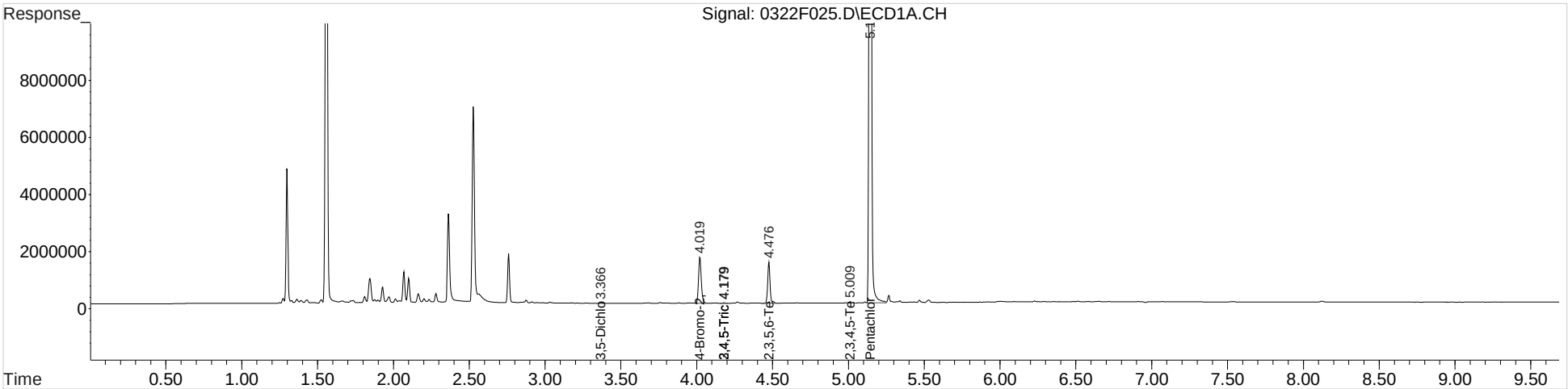
1st MC 03/25/19
2nd JMS 03/26/19

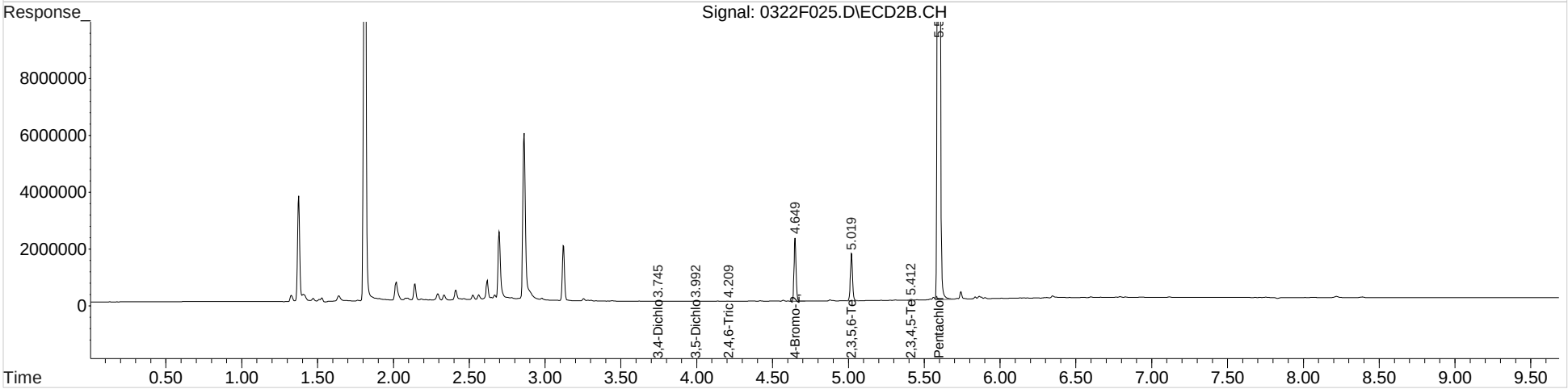
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F025.D Vial: 21
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 11:03 pm Operator: MC
Sample : K1902351-017 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:53:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F026.D\
Lab ID: K1902351-018
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 23:21:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F026.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 23:21:00	**Vial:**	26
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-018	**Raw Units:**	ug/L

Bottle ID:	K1902351-018.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	19190828	20675614	55.719	49.043	111	98	98	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	1080346	0.000	1.588	0U	0.32J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F026.D Vial: 22
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 11:21 pm Operator: MC
Sample : K1902351-018 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:54:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.019	4.648	19190828	20675614	55.719	49.043
	Target Compounds						
1)	3,4-Dichl...	0.000	3.745	0	25578	N.D.	1.179 #
2)	3,5-Dichl...	3.339	3.992	15596	14882	0.728	0.407 #
3)	2,4,6-Tri...	0.000	4.215	0	3583	N.D. d	0.009
5)	2,4,5-Tri...	4.179	0.000	220370	0	0.694	N.D. d#
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	0.000	5.008	0	298892	N.D. d	0.495
8) M	2,3,4,5-T...	4.989	5.432	396050	12712	0.108	0.031 #
9) M	Pentachlo...	0.000	5.608	0	1080346	N.D. d	1.588
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

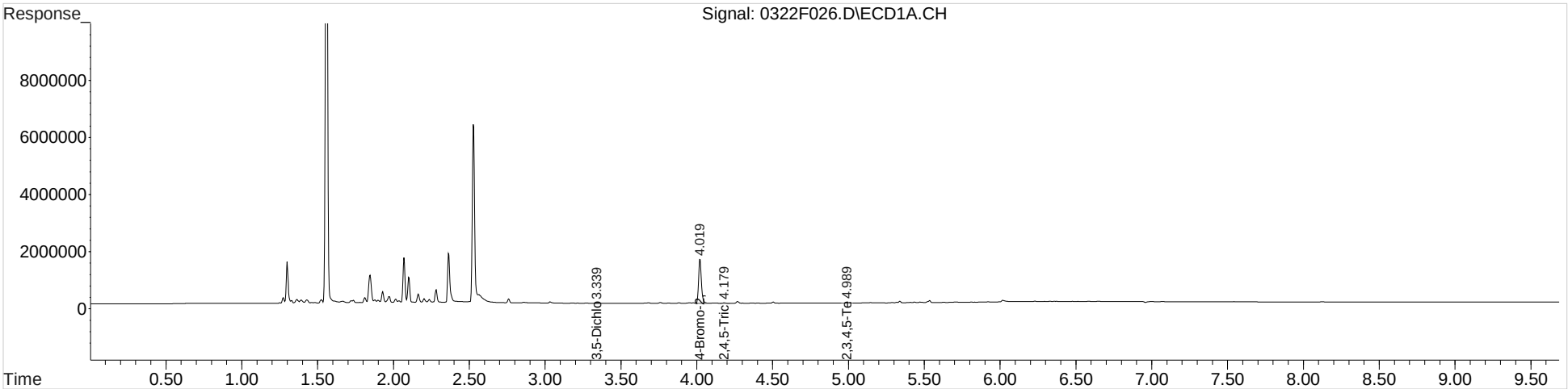
1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F026.D Vial: 22
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 11:21 pm Operator: MC
Sample : K1902351-018 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:54:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F027.D\
Lab ID: K1902351-019
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 23:39:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F027.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 23:39:00	**Vial:**	27
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-019	**Raw Units:**	ug/L

Bottle ID:	K1902351-019.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18208139	19380862	52.789	45.972	106	92	92	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.60	0	993451	0.000	1.460	0U	0.29J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F027.D Vial: 23
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 11:39 pm Operator: MC
Sample : K1902351-019 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:55:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	18208139	19380862	52.789	45.972
		Target Compounds						
1)		3,4-Dichl...	0.000	3.747	0	22799	N.D.	1.051 #
2)		3,5-Dichl...	3.341	3.990	15582	18062	0.726	0.609
3)		2,4,6-Tri...	3.451	4.207	378439	9260	0.562	0.023 #
5)		2,4,5-Tri...	4.181	0.000	332716	0	1.500	N.D. d#
6)		3,4,5-Tri...	4.181f	0.000	332716	0	1.655	N.D. d#
7)	M	2,3,5,6-T...	0.000	5.007	0	285713	N.D. d	0.473
8)	M	2,3,4,5-T...	0.000	5.410	0	16083	N.D. d	0.039
9)	M	Pentachlo...	0.000	5.603	0	993451	N.D. d	1.460
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

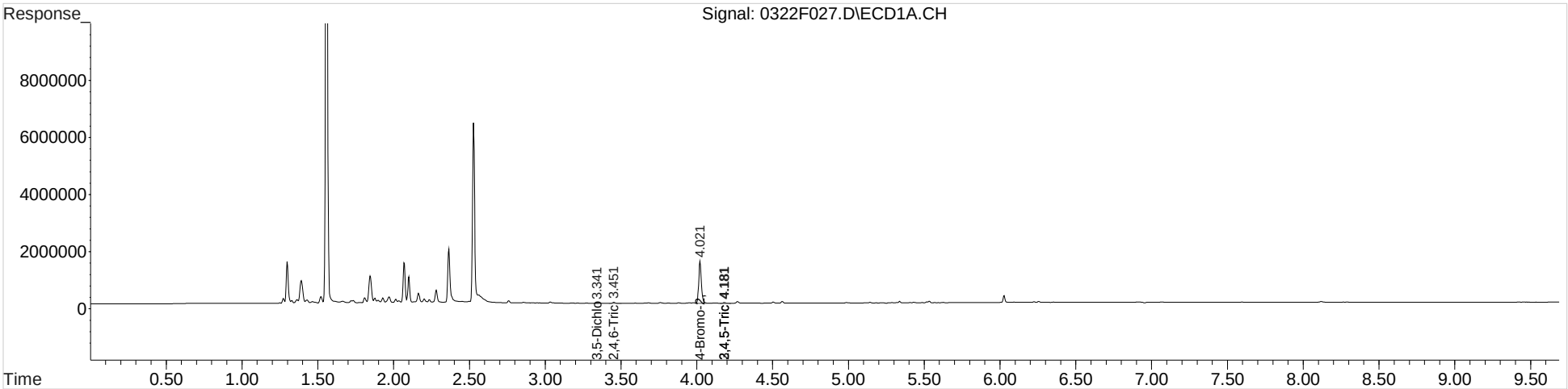
1st MC 03/25/19
2nd JMS 03/26/19

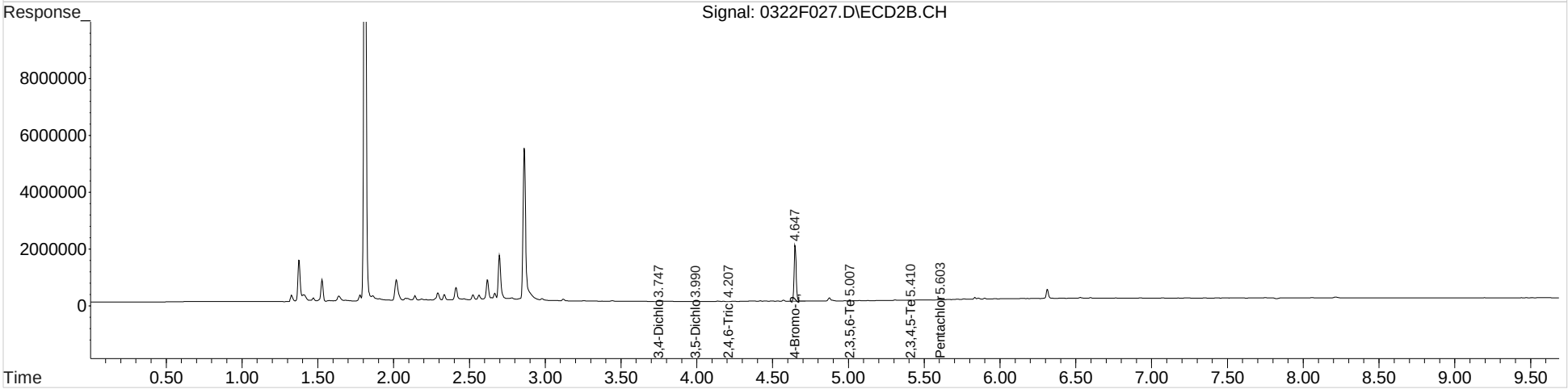
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F027.D Vial: 23
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 11:39 pm Operator: MC
Sample : K1902351-019 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:55:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F028.D\
Lab ID: K1902351-020
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 23:57:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F028.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 23:57:00	**Vial:**	28
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-020	**Raw Units:**	ug/L

Bottle ID:	K1902351-020.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18102194	19486513	52.473	46.223	105	92	92	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14 -0.01	5.60	2776071	3786544	5.133	5.564	1.0	1.1	**1.0**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F028.D Vial: 24
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 11:57 pm Operator: MC
Sample : K1902351-020 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:58:04 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.650	18102194	19486513	52.473	46.223
		Target Compounds						
1)		3,4-Dichl...	0.000	3.747	0	21869	N.D.	1.008 #
2)		3,5-Dichl...	0.000	3.990	0	12350	N.D. d	0.246
3)		2,4,6-Tri...	0.000	4.207	0	19686	N.D. d	0.048
5)		2,4,5-Tri...	4.181	0.000	221042	0	0.699	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.010	0	501280	N.D. d	0.830
8)	M	2,3,4,5-T...	4.987	5.380f	442350	12506	0.259	0.030 #
9)	M	Pentachlo...	5.144	5.597	2776071	3786544	5.133	5.564m
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

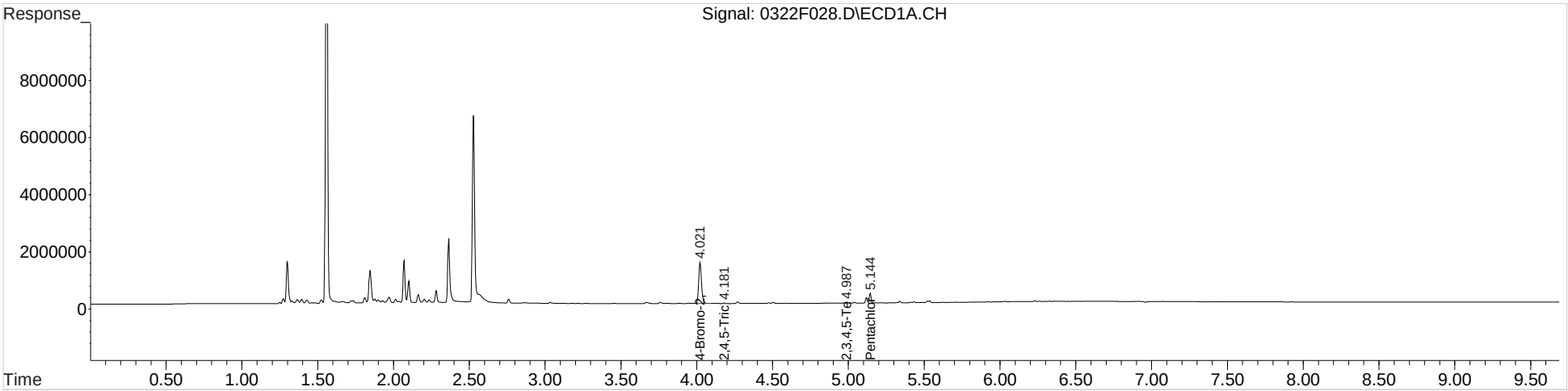
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F028.D Vial: 24
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 11:57 pm Operator: MC
Sample : K1902351-020 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:58:04 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



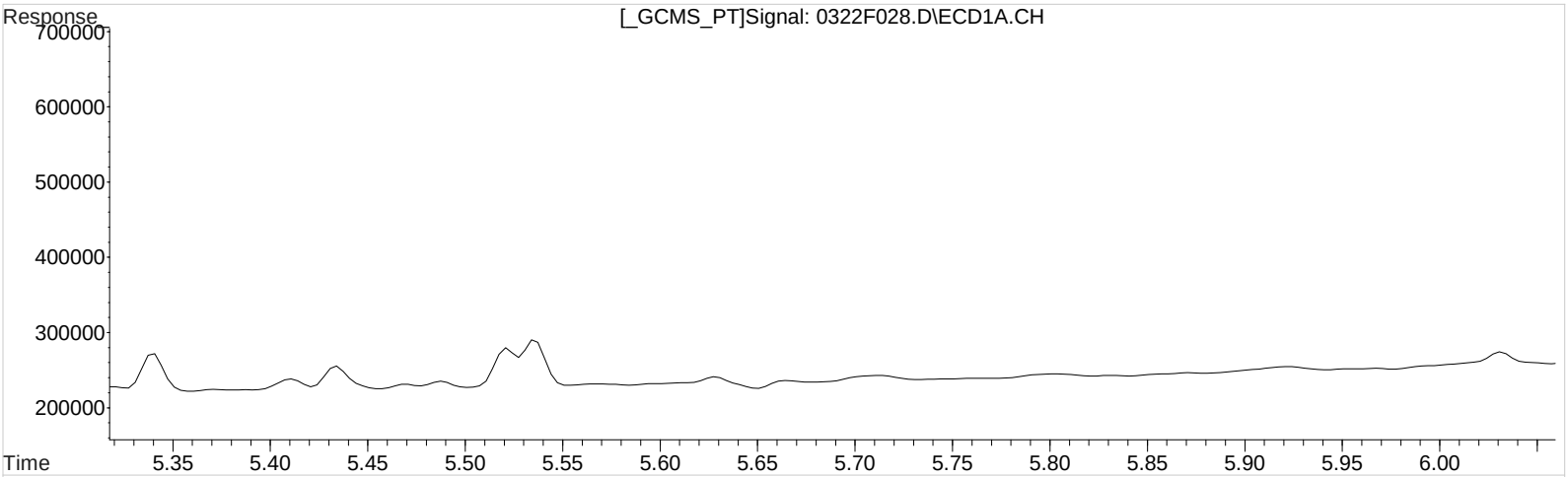
Quantitation Report (Qedit)

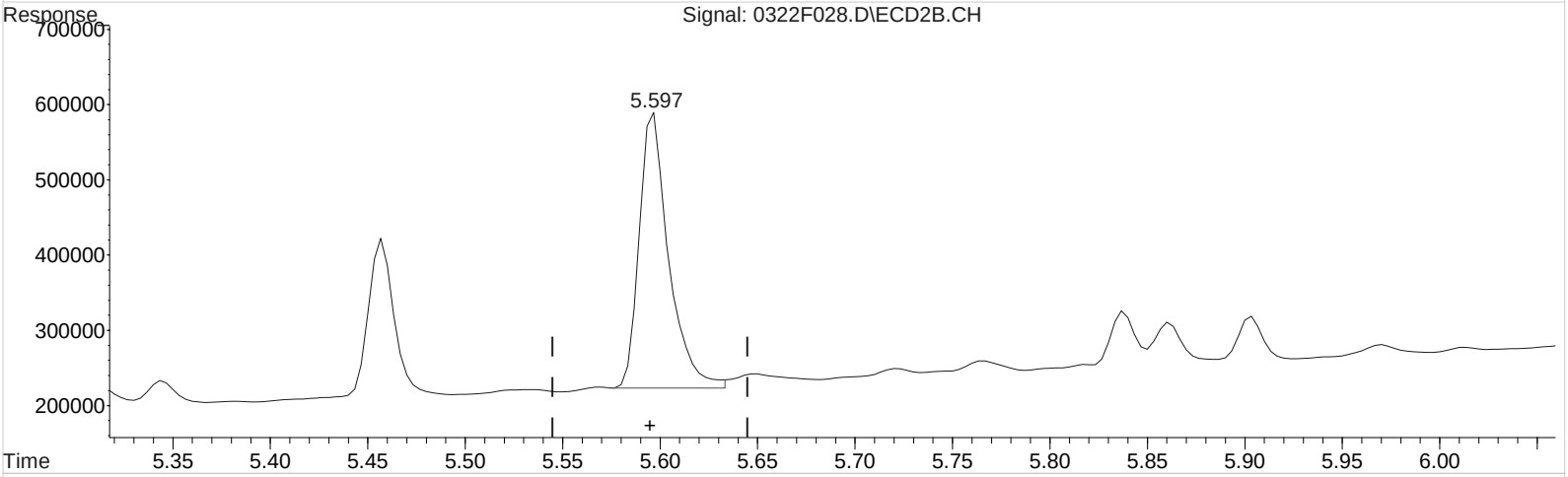
1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F028.D Vial: 24
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 11:57 pm Operator: MC
Sample : K1902351-020 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 11:25:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.144min 5.133 ug/L

response 2776071

Manual Integration:

Before

03/25/19

(9) Pentachlorophenol #2 (M)

5.597min 5.663 ug/L

response 3853792

(+) = Expected Retention Time

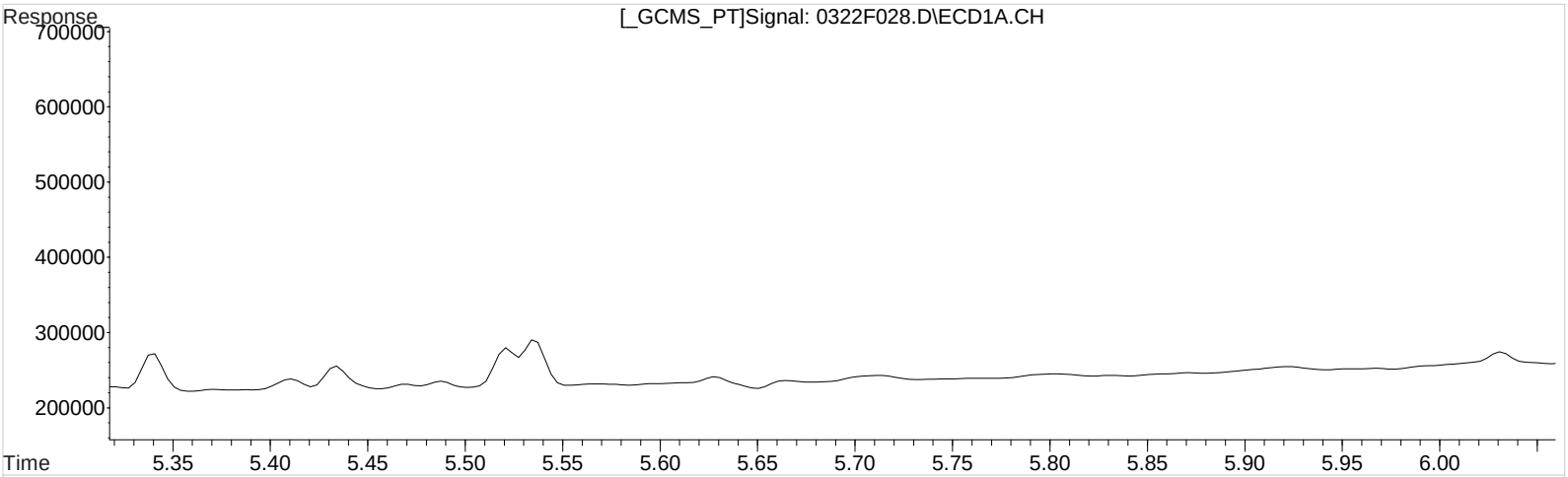
Quantitation Report (Qedit)

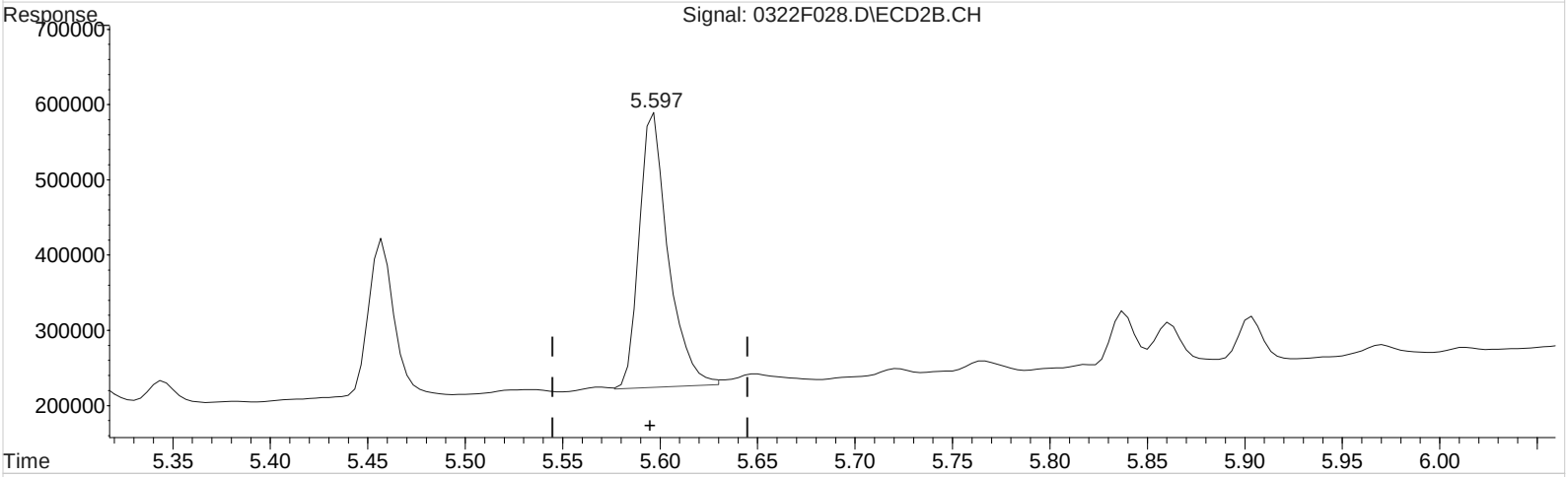
1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F028.D Vial: 24
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 11:57 pm Operator: MC
Sample : K1902351-020 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 11:25:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.144min 5.133 ug/L

response 2776071

Manual Integration:

After

Baseline/Shoulder

03/25/19

(9) Pentachlorophenol #2 (M)

5.597min 5.564 ug/L m

response 3786544

(+) = Expected Retention Time

1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F007.D\
Lab ID: K1902351-021
RunType: N/A
Matrix: Water

Date Acquired: 3/21/19 18:10:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F007.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 18:10:00	**Vial:**	7
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-021	**Raw Units:**	ug/L

Bottle ID:	K1902351-021.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18743391	20020980	54.384	47.490	109	95	95	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14	5.60 +0.01	64910750	87135050	145.587	128.043	29	26	**26**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 6:10 pm Operator: MC
Sample : K1902351-021 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:19:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.021	4.650	18743391	20020980	54.384	47.490
	Target Compounds						
1)	3,4-Dichl...	0.000	3.747	0	30358	N.D.	1.399 #
2)	3,5-Dichl...	3.341	3.993	22984	19392	1.390	0.693 #
3)	2,4,6-Tri...	0.000	4.207	0	11892	N.D. d	0.029
5)	2,4,5-Tri...	4.181	0.000	185840	0	0.447	N.D. d#
6)	3,4,5-Tri...	4.181f	0.000	185840	0	0.660	N.D. d#
7) M	2,3,5,6-T...	4.474	5.020	3436764	3863660	7.290	6.400
8) M	2,3,4,5-T...	0.000	5.417	0	119093	N.D. d	0.286
9) M	Pentachlo...	5.144	5.597	64910750	87135050	145.587	128.043
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

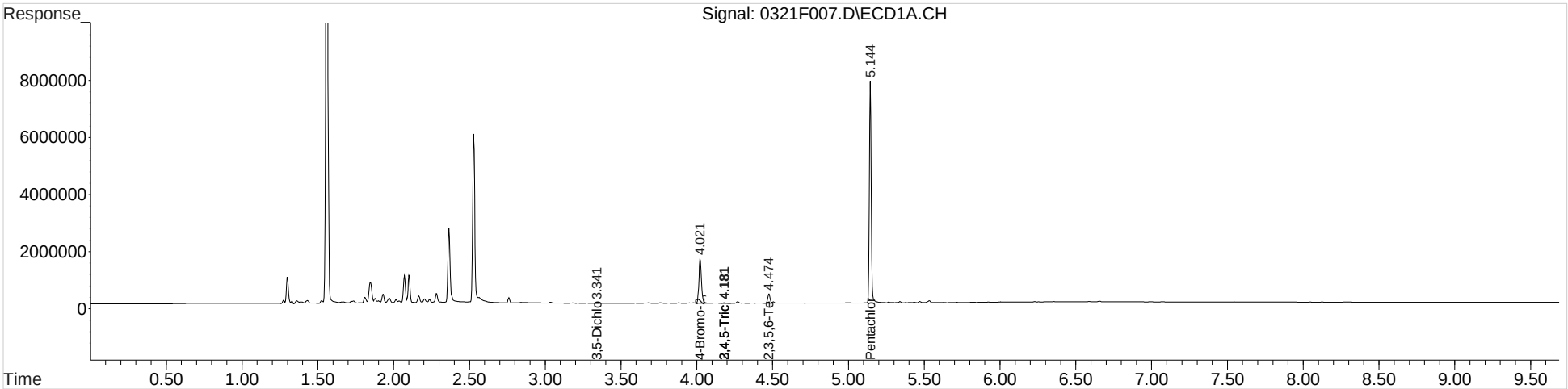
1st 03/22/19
2nd 03/22/19

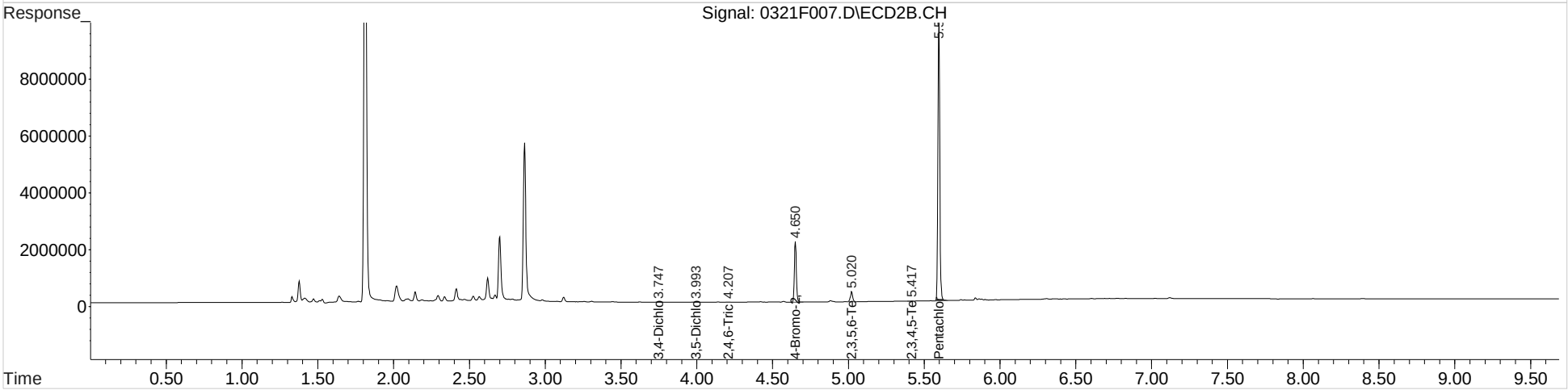
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 6:10 pm Operator: MC
Sample : K1902351-021 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:19:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F008.D\
Lab ID: K1902351-022
RunType: N/A
Matrix: Water

Date Acquired: 3/21/19 18:29:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F008.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 18:29:00	**Vial:**	8
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-022	**Raw Units:**	ug/L

Bottle ID:	K1902351-022.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18509625	19320926	53.687	45.830	107	92	92	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.02	0	811095	0.000	1.192	0U	0.24J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 6:29 pm Operator: MC
Sample : K1902351-022 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:20:11 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.651	18509625	19320926	53.687	45.830
		Target Compounds						
1)		3,4-Dichl...	0.000	3.748	0	25420	N.D.	1.172 #
2)		3,5-Dichl...	3.342	3.994	13918	17797	0.577	0.592
3)		2,4,6-Tri...	0.000	4.208	0	3230	N.D. d	0.008
5)		2,4,5-Tri...	4.182	0.000	171434	0	0.344	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.008	0	313532	N.D. d	0.519
8)	M	2,3,4,5-T...	0.000	5.431	0	24287	N.D. d	0.058
9)	M	Pentachlo...	0.000	5.608	0	811095	N.D. d	1.192
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

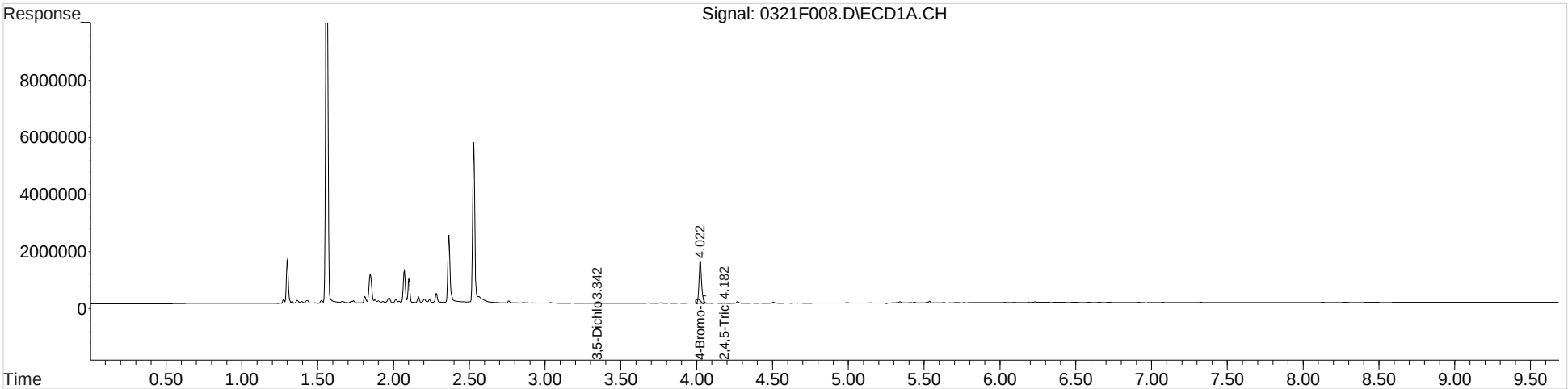
1st 03/22/19
2nd 03/22/19

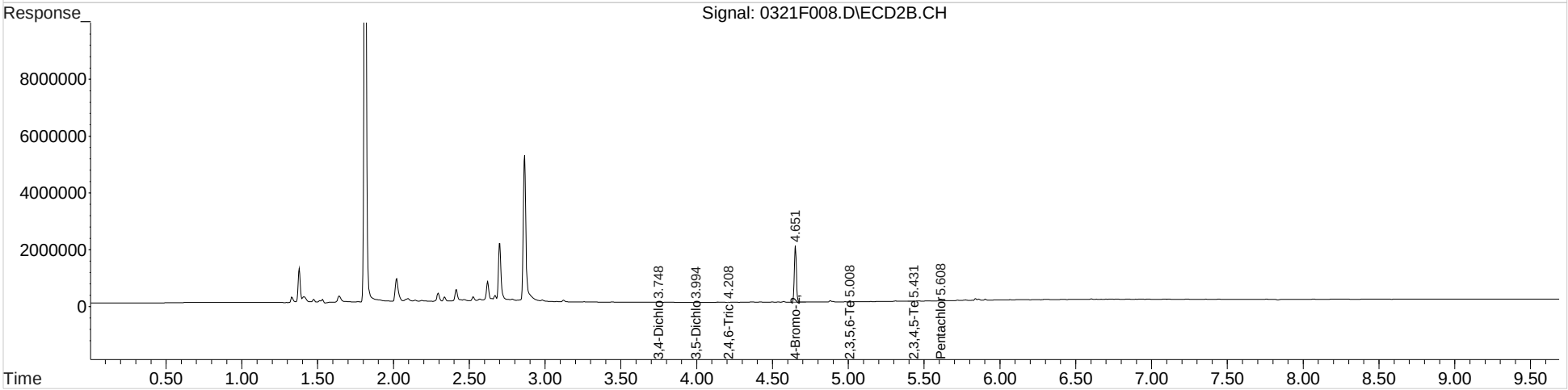
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 6:29 pm Operator: MC
Sample : K1902351-022 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:20:11 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F009.D\
Lab ID: K1902351-023
RunType: N/A
Matrix: Water

Date Acquired: 3/21/19 18:47:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F009.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 18:47:00	**Vial:**	9
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-023	**Raw Units:**	ug/L

Bottle ID:	K1902351-023.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18657774	19766548	54.129	46.887	108	94	94	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14	5.61 +0.02	440804	1053476	0.018	1.548	0.0036U	0.31J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 6:47 pm Operator: MC
Sample : K1902351-023 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:20:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.650	18657774	19766548	54.129	46.887
		Target Compounds						
1)		3,4-Dichl...	0.000	3.747	0	19098	N.D.	0.880 #
2)		3,5-Dichl...	3.368	3.994	20641	20705	1.180	0.777 #
3)		2,4,6-Tri...	0.000	4.210	0	9810	N.D. d	0.024
5)		2,4,5-Tri...	4.181	0.000	211383	0	0.630	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.010	0	331230	N.D. d	0.549
8)	M	2,3,4,5-T...	0.000	5.427	0	171643	N.D. d	0.413
9)	M	Pentachlo...	5.144	5.607	440804	1053476	0.018	1.548 #
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

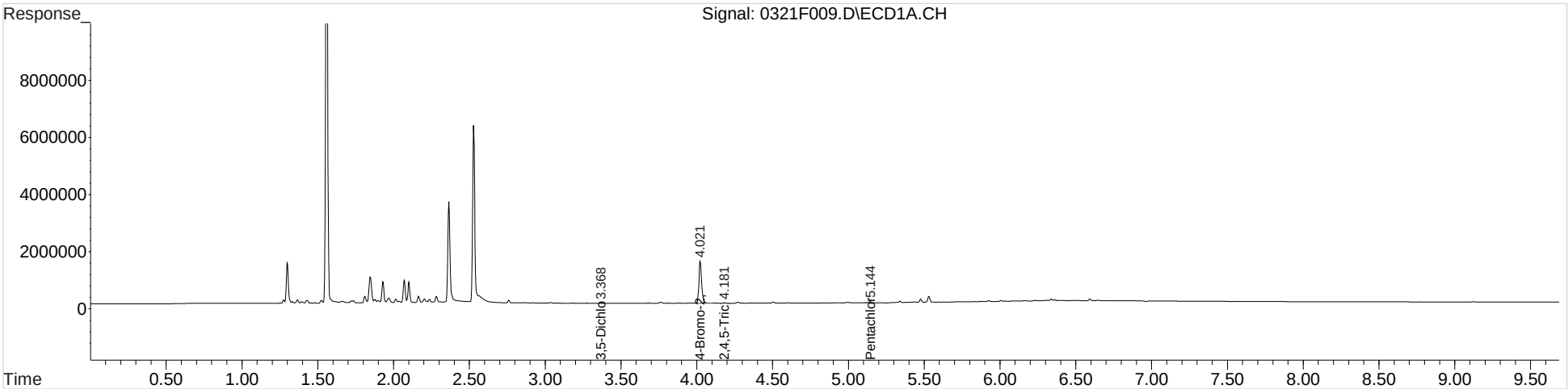
1st 03/22/19
2nd 03/22/19

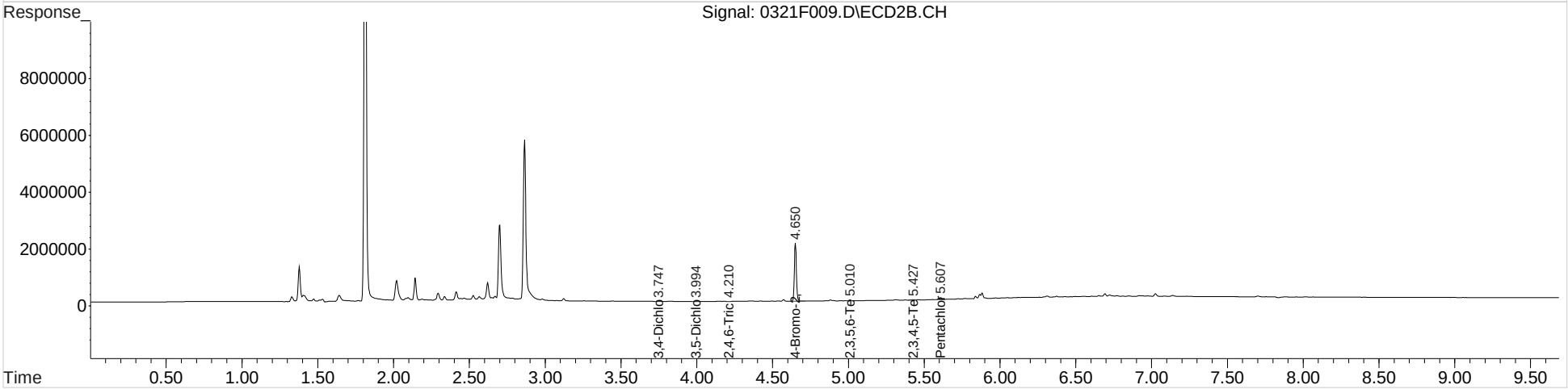
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 6:47 pm Operator: MC
Sample : K1902351-023 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:20:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F010.D\
Lab ID: K1902351-024
RunType: N/A
Matrix: Water

Date Acquired: 3/21/19 19:05:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F010.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 19:05:00	**Vial:**	10
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-024	**Raw Units:**	ug/L

Bottle ID:	K1902351-024.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17473261	18322124	50.600	43.461	101	87	87	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.02	0	986086	0.000	1.449	0U	0.29J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 7:05 pm Operator: MC
Sample : K1902351-024 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:21:23 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.023	4.649	17473261	18322124	50.600	43.461
		Target Compounds						
1)		3,4-Dichl...	0.000	3.746	0	18070	N.D.	0.833 #
2)		3,5-Dichl...	3.340	3.992	8850	11620	0.124	0.200 #
3)		2,4,6-Tri...	0.000	4.209	0	12818	N.D. d	0.031
5)		2,4,5-Tri...	4.180	0.000	185094	0	0.442	N.D. d#
6)		3,4,5-Tri...	4.180f	0.000	185094	0	0.655	N.D. d#
7)	M	2,3,5,6-T...	4.503f	5.009	366689	273724	0.261	0.453 #
8)	M	2,3,4,5-T...	4.990	5.382f	558550	25622	0.637	0.062 #
9)	M	Pentachlo...	0.000	5.609	0	986086	N.D. d	1.449
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

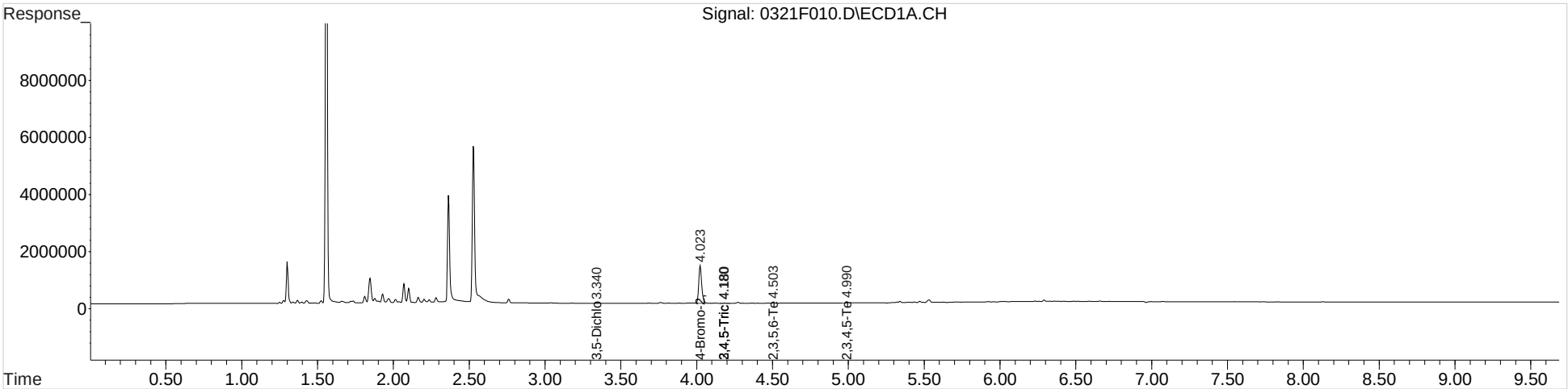
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 7:05 pm Operator: MC
Sample : K1902351-024 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:21:23 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F011.D\
Lab ID: K1902351-025
RunType: N/A
Matrix: Water

Date Acquired: 3/21/19 19:23:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F011.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 19:23:00	**Vial:**	11
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-025	**Raw Units:**	ug/L

Bottle ID:	K1902351-025.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18106122	19519456	52.485	46.301	105	93	93	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.02	0	765696	0.000	1.125	0U	0.23J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 7:23 pm Operator: MC
Sample : K1902351-025 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:22:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.020	4.650	18106122	19519456	52.485	46.301
		Target Compounds						
1)		3,4-Dichl...	0.000	3.746	0	20242	N.D.	0.933 #
2)		3,5-Dichl...	3.367	3.993	15514	20050	0.720	0.735
3)		2,4,6-Tri...	0.000	4.210	0	9804	N.D. d	0.024
5)		2,4,5-Tri...	4.180	0.000	194541	0	0.509	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	4.504f	5.010	459706	288626	0.472	0.478
8)	M	2,3,4,5-T...	0.000	5.426	0	37519	N.D. d	0.090
9)	M	Pentachlo...	0.000	5.610	0	765696	N.D. d	1.125
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

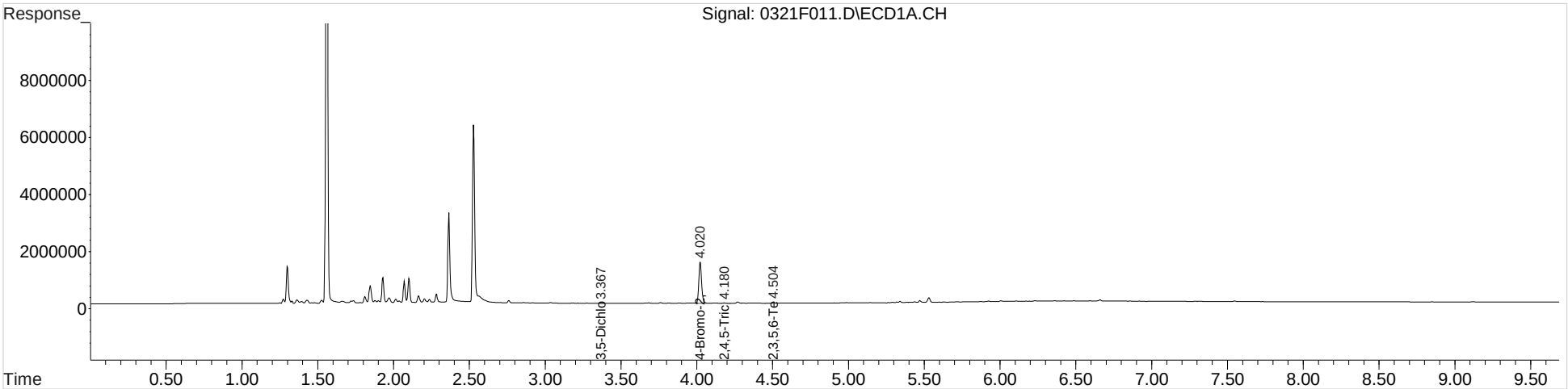
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 7:23 pm Operator: MC
Sample : K1902351-025 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:22:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F012.D\
Lab ID: K1902351-026
RunType: N/A
Matrix: Water

Date Acquired: 3/21/19 19:42:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F012.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 19:42:00	**Vial:**	12
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-026	**Raw Units:**	ug/L

Bottle ID:	K1902351-026.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17587635	18828161	50.940	44.661	102	89	89	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14	5.60 +0.01	2366566	2869484	4.236	4.217	0.85	0.84	**0.84**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 7:42 pm Operator: MC
Sample : K1902351-026 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:22:45 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.650	17587635	18828161	50.940	44.661
		Target Compounds						
1)		3,4-Dichl...	3.107	3.747	10557	15931	0.113	0.734 #
2)		3,5-Dichl...	0.000	3.993	0	14940	N.D. d	0.411
3)		2,4,6-Tri...	0.000	4.207	0	7040	N.D. d	0.017
5)		2,4,5-Tri...	4.181	0.000	185348	0	0.443	N.D. d#
6)		3,4,5-Tri...	4.181f	0.000	185348	0	0.656	N.D. d#
7)	M	2,3,5,6-T...	0.000	5.010	0	452440	N.D. d	0.749
8)	M	2,3,4,5-T...	0.000	5.387	0	26955	N.D. d	0.065
9)	M	Pentachlo...	5.144	5.597	2366566	2869484	4.236	4.217
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

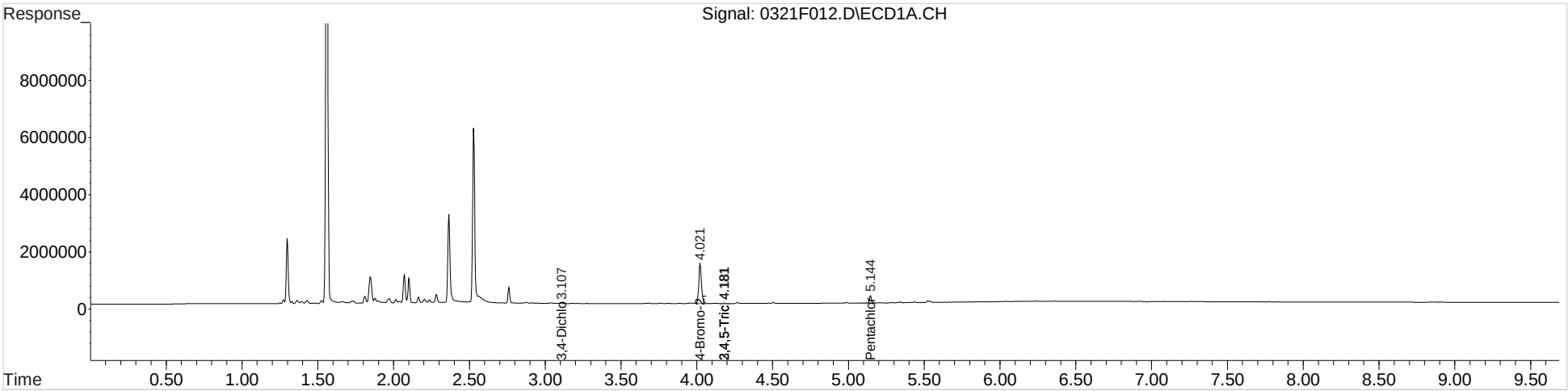
1st 03/22/19
2nd 03/22/19

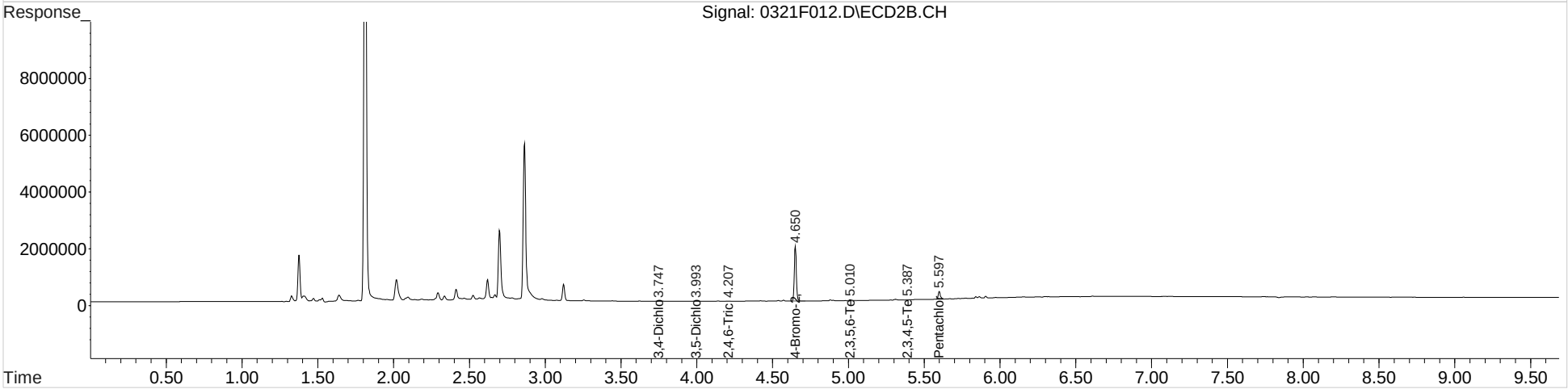
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 7:42 pm Operator: MC
Sample : K1902351-026 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:22:45 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F013.D\
Lab ID: K1902351-027
RunType: N/A
Matrix: Water

Date Acquired: 3/21/19 20:00:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F013.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 20:00:00	**Vial:**	13
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-027	**Raw Units:**	ug/L

Bottle ID:	K1902351-027.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18919630	20054528	54.910	47.570	110	95	95	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.02	0	581486	0.000	0.854	0U	0.17J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 8:00 pm Operator: MC
Sample : K1902351-027 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:00:35 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.023	4.649	18919630	20054528	54.910	47.570
	Target Compounds						
1)	3,4-Dichl...	0.000	3.746	0	32811	N.D.	1.513 #
2)	3,5-Dichl...	3.340	3.992	28110	15141	1.851	0.423 #
3)	2,4,6-Tri...	0.000	4.206	0	3450	N.D. d	0.008
5)	2,4,5-Tri...	4.180	0.000	190970	0	0.484	N.D. d#
6)	3,4,5-Tri...	4.180f	0.000	190970	0	0.694	N.D. d#
7) M	2,3,5,6-T...	0.000	5.009	0	284670	N.D. d	0.472
8) M	2,3,4,5-T...	0.000	5.386f	0	17288	N.D. d	0.042
9) M	Pentachlo...	0.000	5.612	0	581486	N.D. d	0.854
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

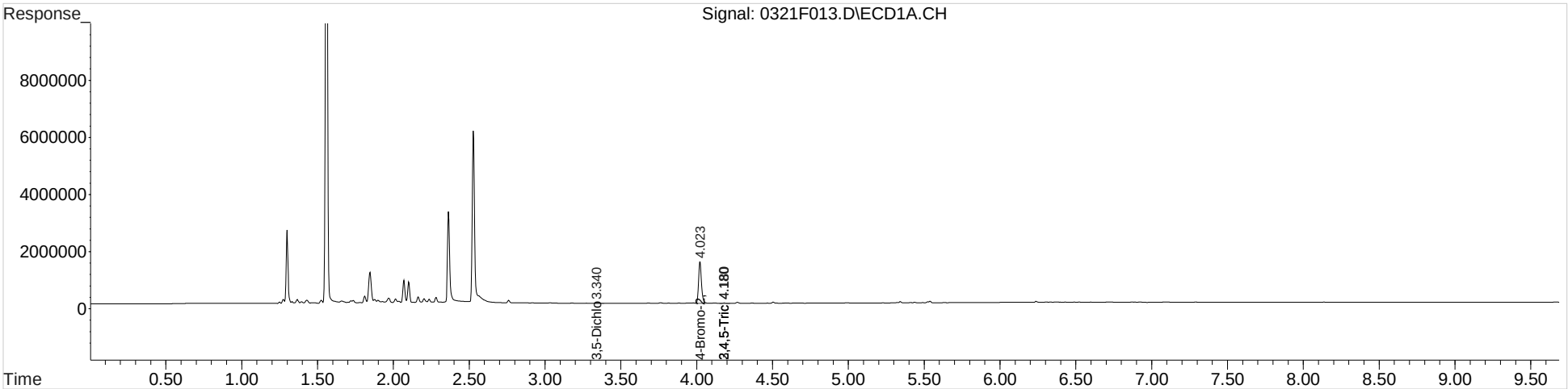
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 8:00 pm Operator: MC
Sample : K1902351-027 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:00:35 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F014.D\
Lab ID: K1902351-028
RunType: N/A
Matrix: Water

Date Acquired: 3/21/19 20:18:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F014.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 20:18:00	**Vial:**	14
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-028	**Raw Units:**	ug/L

Bottle ID:	K1902351-028.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18239147	19217167	52.881	45.584	106	91	91	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.02	0	758730	0.000	1.115	0U	0.22J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F014.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 8:18 pm Operator: MC
Sample : K1902351-028 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:01:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.023	4.649	18239147	19217167	52.881	45.584
		Target Compounds						
1)		3,4-Dichl...	0.000	3.745	0	25552	N.D.	1.178 #
2)		3,5-Dichl...	3.339	3.992	9090	16867	0.145	0.533 #
3)		2,4,6-Tri...	0.000	4.208	0	24050	N.D. d	0.059
5)		2,4,5-Tri...	4.179	0.000	192814	0	0.497	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.012	0	382952	N.D. d	0.634
8)	M	2,3,4,5-T...	0.000	5.432	0	29791	N.D. d	0.072
9)	M	Pentachlo...	0.000	5.612	0	758730	N.D. d	1.115
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

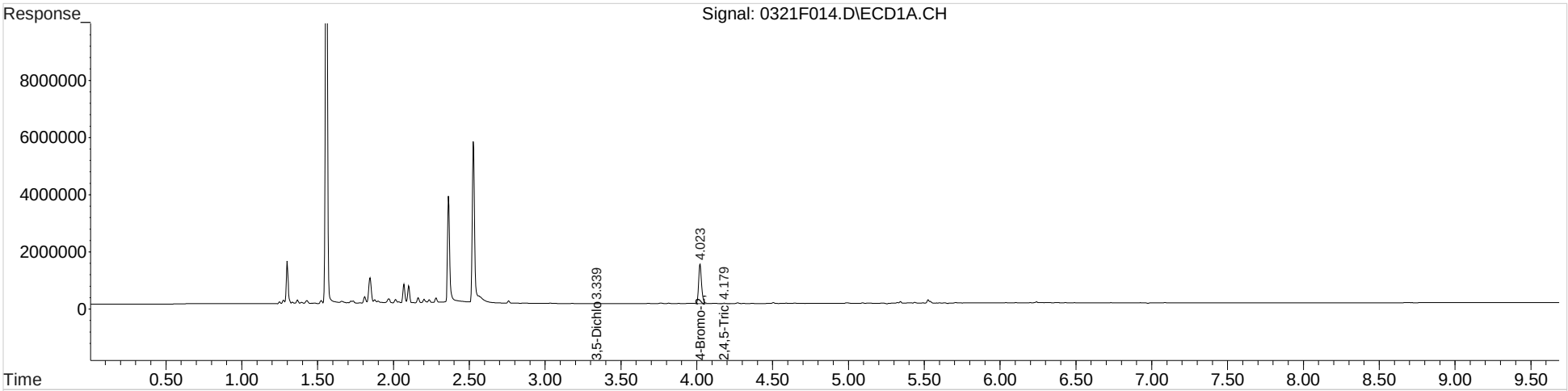
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F014.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 8:18 pm Operator: MC
Sample : K1902351-028 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:01:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F015.D\
Lab ID: K1902351-029
RunType: N/A
Matrix: Water

Date Acquired: 3/21/19 20:36:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F015.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 20:36:00	**Vial:**	15
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-029	**Raw Units:**	ug/L

Bottle ID:	K1902351-029.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17780236	18775332	51.514	44.536	103	89	89	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14	5.60 +0.01	2972206	4117246	5.564	6.050	1.1	1.2	**1.1**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F015.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 8:36 pm Operator: MC
Sample : K1902351-029 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:02:21 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.650	17780236	18775332	51.514	44.536
		Target Compounds						
1)		3,4-Dichl...	0.000	3.747	0	29623	N.D.	1.366 #
2)		3,5-Dichl...	0.000	3.990	0	19028	N.D. d	0.670
3)		2,4,6-Tri...	0.000	4.203	0	4426	N.D. d	0.011
5)		2,4,5-Tri...	4.181	0.000	193938	0	0.505	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.010	0	418618	N.D. d	0.693
8)	M	2,3,4,5-T...	0.000	5.433	0	25707	N.D. d	0.062
9)	M	Pentachlo...	5.144	5.597	2972206	4117246	5.564m	6.050
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

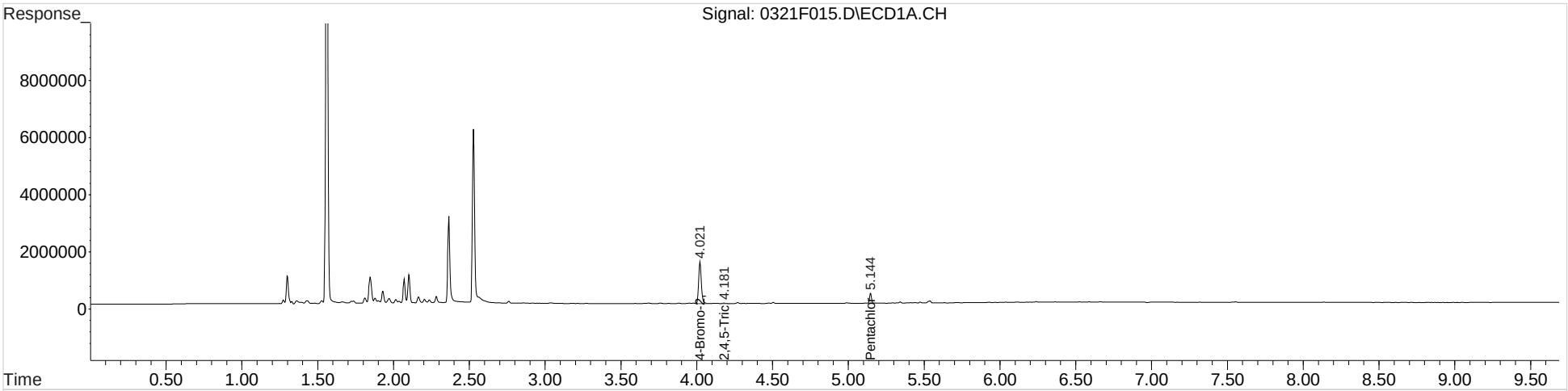
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F015.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 8:36 pm Operator: MC
Sample : K1902351-029 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:02:21 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



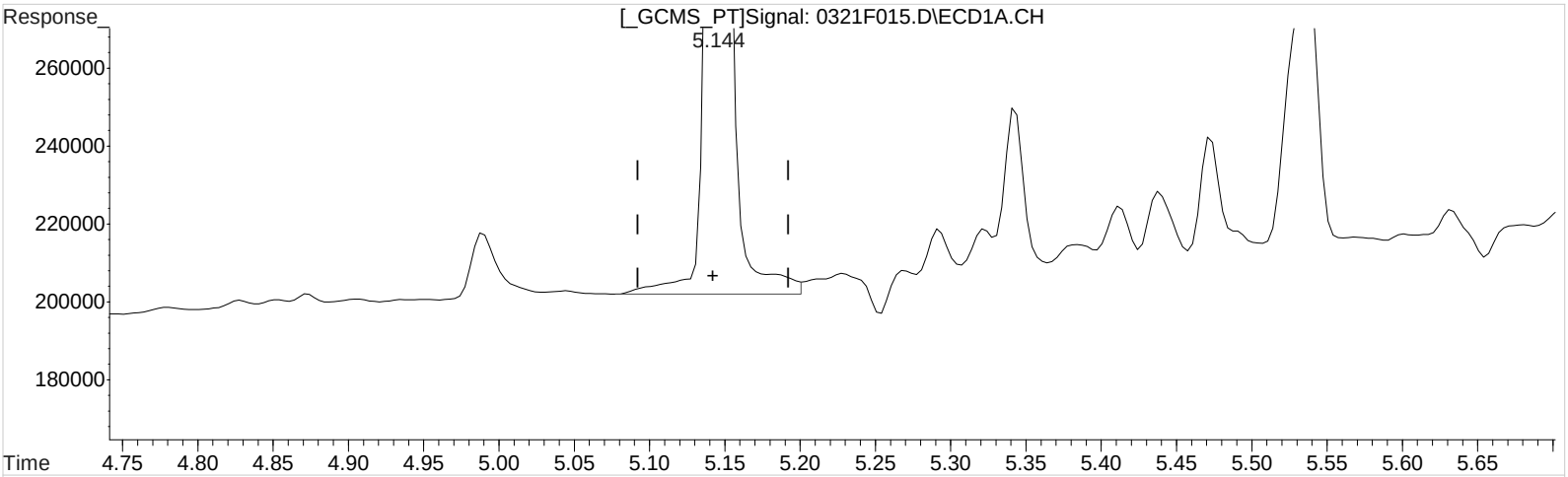
Quantitation Report (Qedit)

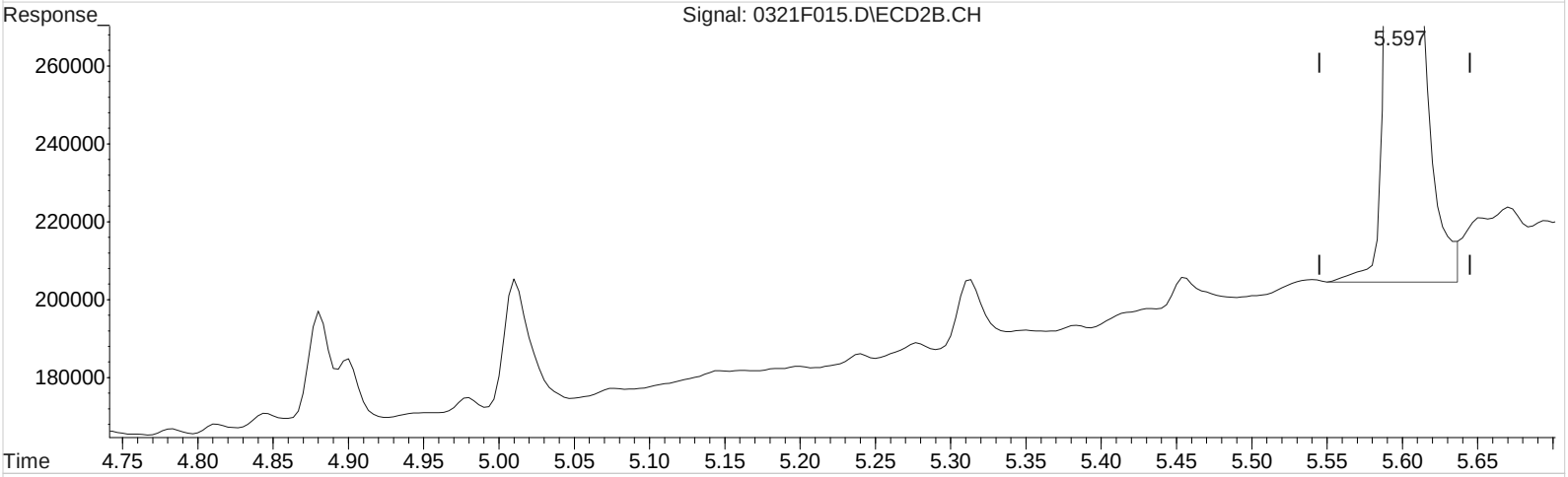
1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F015.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 8:36 pm Operator: MC
Sample : K1902351-029 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:01:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.144min 6.042 ug/L

response 3190374

Manual Integration:

Before

03/22/19

(9) Pentachlorophenol #2 (M)

5.597min 6.050 ug/L

response 4117246

(+) = Expected Retention Time

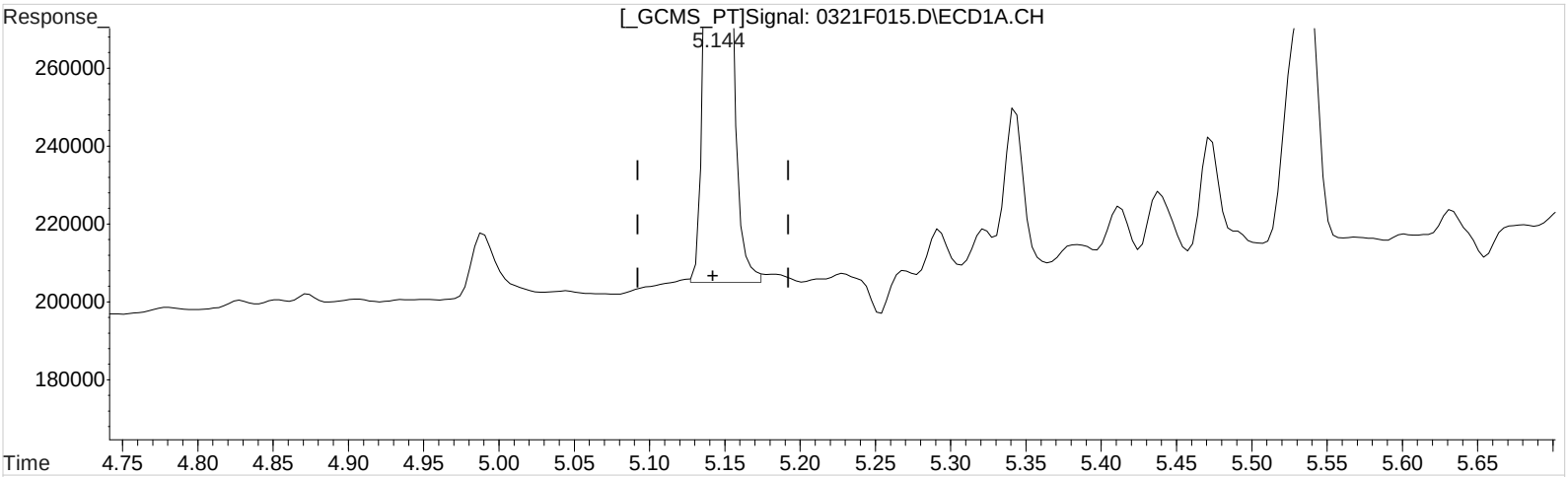
Quantitation Report (Qedit)

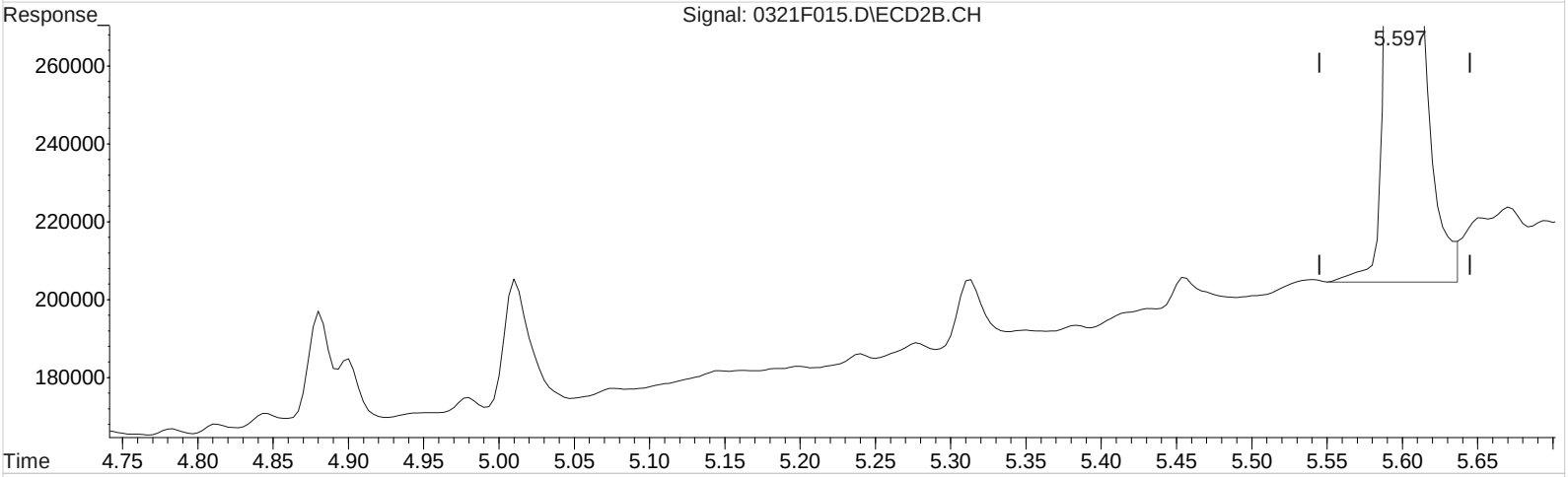
1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F015.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 8:36 pm Operator: MC
Sample : K1902351-029 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:01:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.144min 5.564 ug/L m

response 2972206

Manual Integration:

After

Baseline/Shoulder

03/22/19

(9) Pentachlorophenol #2 (M)

5.597min 6.050 ug/L

response 4117246

(+) = Expected Retention Time

1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F016.D\
Lab ID: K1902351-030
RunType: N/A
Matrix: Water

Date Acquired: 3/21/19 20:54:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F016.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 20:54:00	**Vial:**	16
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-030	**Raw Units:**	ug/L

Bottle ID:	K1902351-030.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18541054	19819732	53.781	47.013	108	94	94	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.02	0	664875	0.000	0.977	0U	0.20J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F016.D Vial: 14
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 8:54 pm Operator: MC
Sample : K1902351-030 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:04:44 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	18541054	19819732	53.781	47.013
		Target Compounds						
1)		3,4-Dichl...	0.000	3.744	0	24988	N.D.	1.152 #
2)		3,5-Dichl...	3.341	3.994	25106	23640	1.581	0.963 #
3)		2,4,6-Tri...	0.000	4.207	0	6697	N.D. d	0.016
5)		2,4,5-Tri...	4.178	0.000	196596	0	0.524	N.D. d#
6)		3,4,5-Tri...	4.178f	0.000	196596	0	0.733	N.D. d#
7)	M	2,3,5,6-T...	0.000	5.007	0	293903	N.D. d	0.487
8)	M	2,3,4,5-T...	0.000	5.454f	0	403948	N.D. d	0.971
9)	M	Pentachlo...	0.000	5.611	0	664875	N.D. d	0.977
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

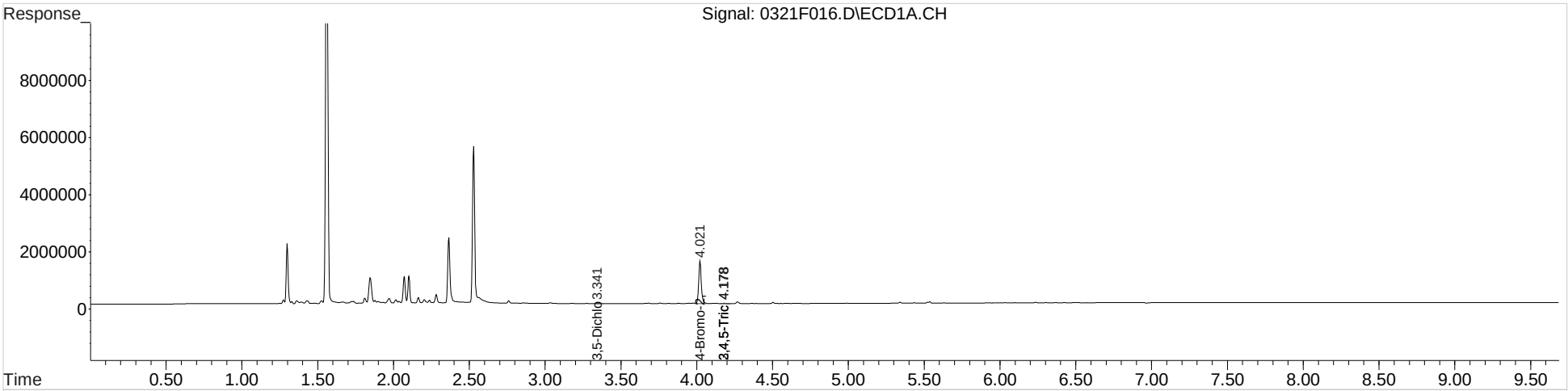
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F016.D Vial: 14
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 8:54 pm Operator: MC
Sample : K1902351-030 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:04:44 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 04/01/19
2nd MC 04/01/19

Validation Report

Data File: J:\GC28\Data\040119\0401F005.D\
Lab ID: K1902351-032
RunType: N/A
Matrix: Water

Date Acquired: 4/1/19 10:46:00
Batch ID: 630241
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 04/01/19
2nd MC 04/01/19

Quantitation Report

Data File:	J:\GC28\Data\040119\0401F005.D\	**Instrument:**	K-GC-28
Acqu Date:	4/1/19 10:46:00	**Vial:**	5
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-032	**Raw Units:**	ug/L

Bottle ID:	K1902351-032.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/23/19	**Receive Date:**	3/26/19

Analysis Lot:	630241	**Prep Lot:**	333689	**Report Group:**	K1902351
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/27/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18642399	19971518	54.083	47.373	108	95	95	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	932748	0.000	1.371	0U	0.27J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 04/01/19
2nd MC 04/01/19

Data File : J:\GC28\Data\040119\0401F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 10:46 am Operator: SMS
Sample : K1902351-032 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 11:19:13 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.020	4.646	18642399	19971518	54.083	47.373
		Target Compounds						
1)		3,4-Dichl...	0.000	3.743	0	33024	N.D.	1.522 #
2)		3,5-Dichl...	3.364	3.990	26386	25393	1.696	1.074 #
3)		2,4,6-Tri...	0.000	4.203	0	24556	N.D. d	0.060
5)		2,4,5-Tri...	4.177	0.000	229498	0	0.760	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.006	0	341294	N.D. d	0.565
8)	M	2,3,4,5-T...	0.000	5.423	0	318076	N.D. d	0.765
9)	M	Pentachlo...	0.000	5.610	0	932748	N.D. d	1.371
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

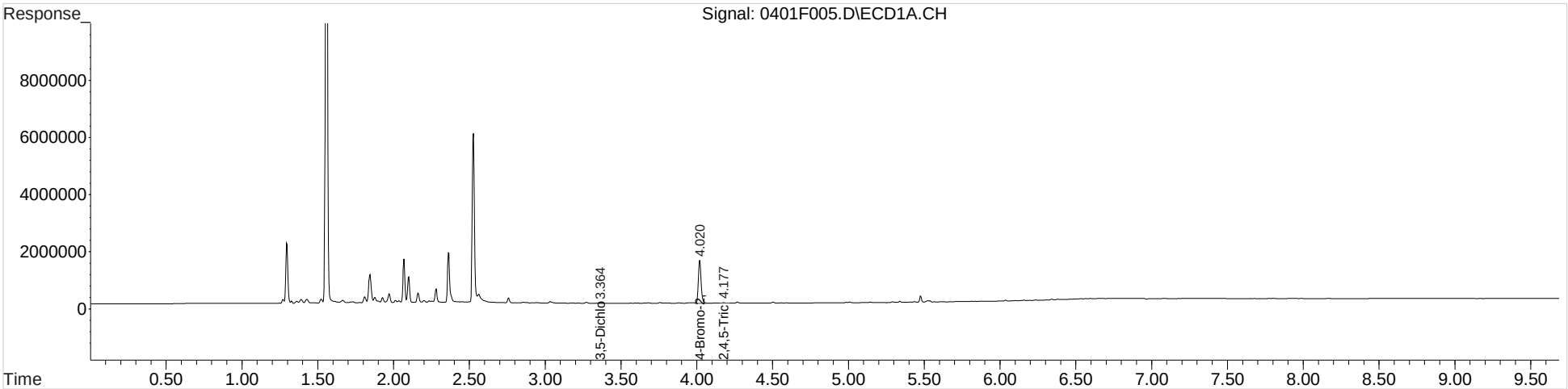
1st JMS 04/01/19
2nd MC 04/01/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\040119\0401F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 10:46 am Operator: SMS
Sample : K1902351-032 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 11:19:13 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F021.D\
Lab ID: K1902361-002
RunType: N/A
Matrix: Water

Date Acquired: 3/21/19 22:26:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F021.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 22:26:00	**Vial:**	19
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902361-002	**Raw Units:**	ug/L

Bottle ID:	K1902361-002.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	K1902361
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18253304	19492476	52.923	46.237	106	92	92	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	773368	0.000	1.136	0U	0.23J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F021.D Vial: 17
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 10:26 pm Operator: MC
Sample : K1902361-002 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:08:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.020	4.650	18253304	19492476	52.923	46.237
	Target Compounds						
1)	3,4-Dichl...	0.000	3.746	0	9907	N.D.	0.457 #
2)	3,5-Dichl...	0.000	3.996	0	9848	N.D. d	0.088
3)	2,4,6-Tri...	0.000	4.210	0	11766	N.D. d	0.029
5)	2,4,5-Tri...	4.180	0.000	168486	0	0.323	N.D. d#
6)	3,4,5-Tri...	4.180f	0.000	168486	0	0.542	N.D. d#
7) M	2,3,5,6-T...	0.000	5.010	0	292193	N.D. d	0.484
8) M	2,3,4,5-T...	0.000	5.423	0	129752	N.D. d	0.312
9) M	Pentachlo...	0.000	5.606	0	773368	N.D. d	1.136
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

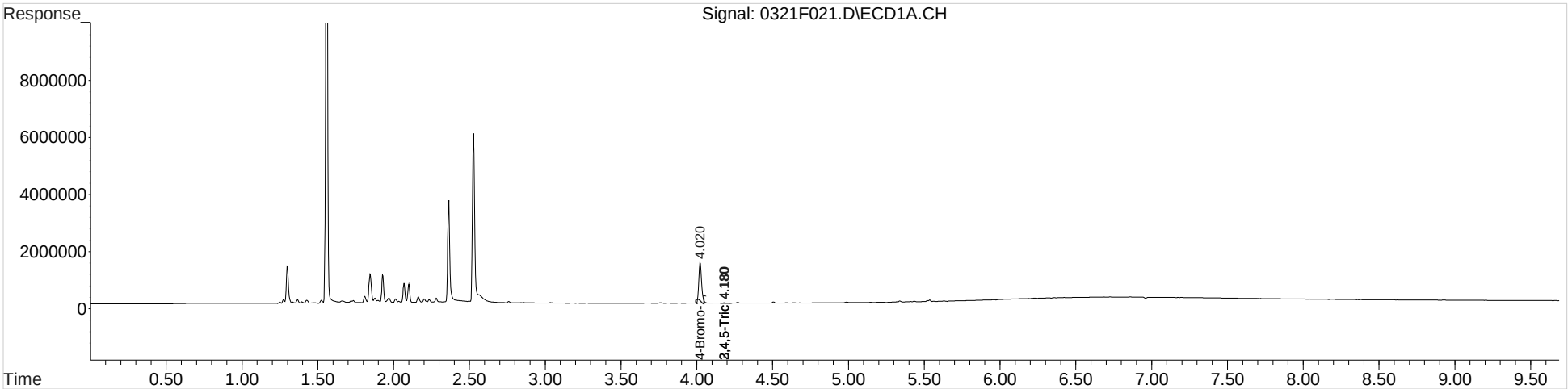
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F021.D Vial: 17
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 10:26 pm Operator: MC
Sample : K1902361-002 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:08:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F005.D\
Lab ID: KQ1903557-04
RunType: MB
Matrix: Water

Date Acquired: 3/22/19 16:57:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F005.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 16:57:00	**Vial:**	32
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1903557-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	KQ1903557
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18633700	19843514	54.057	47.069	108	94	94	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	521428	0.000	0.766	0U	0.15J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 4:57 pm Operator: MC
Sample : KQ1903557-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:39:00 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.019	4.649	18633700	19843514	54.057	47.069
		Target Compounds						
1)		3,4-Dichl...	0.000	3.742	0	20224	N.D.	0.932 #
2)		3,5-Dichl...	3.339	3.989	12094	11780	0.414	0.210 #
3)		2,4,6-Tri...	0.000	4.175	0	7419	N.D. d	0.018
5)		2,4,5-Tri...	4.179	0.000	196148	0	0.521	N.D. d#
6)		3,4,5-Tri...	4.179f	0.000	196148	0	0.729	N.D. d#
7)	M	2,3,5,6-T...	0.000	5.009	0	289928	N.D. d	0.480
8)	M	2,3,4,5-T...	4.986	5.415	508640	10123	0.474	0.024 #
9)	M	Pentachlo...	0.000	5.609	0	521428	N.D. d	0.766
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

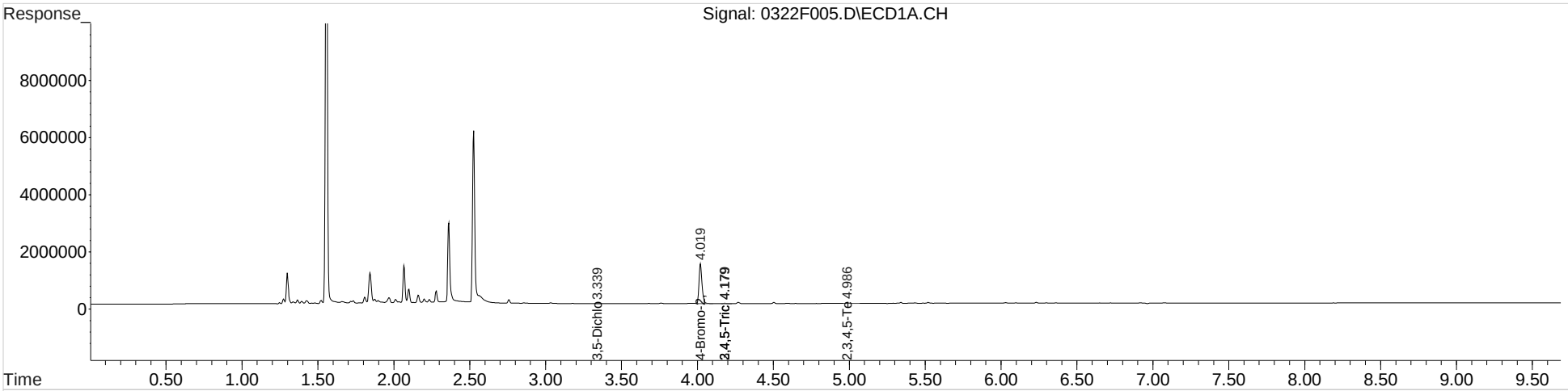
1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 4:57 pm Operator: MC
Sample : KQ1903557-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:39:00 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F005.D\
Lab ID: KQ1903604-04
RunType: MB
Matrix: Water

Date Acquired: 3/21/19 17:34:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F005.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 17:34:00	**Vial:**	23
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1903604-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18597

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17046858	18025758	49.330	42.758	99	86	86	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
2,4,5-Trichlorophenol	4.18 -0.01	0.00	162372	0	0.279	0.000	0.056U	0U	0.16 U	Y
2,4,6-Trichlorophenol	0.00	4.18 -0.02	0	16384	0.000	0.040	0U	0.0080U	0.042 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.15 U	Y
2,3,4,5-Tetrachlorophenol	4.99 -0.01	5.38 -0.03	364920	11776	0.007	0.028	0.0014U	0.0056U	0.042 U	Y
2,3,5,6-Tetrachlorophenol	0.00	5.01	0	270139	0.000	0.447	0U	0.089J	0.032 U	Y
Pentachlorophenol (PCP)	0.00	5.61 +0.02	0	306317	0.000	0.450	0U	0.090J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F005.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 17:34:00	**Vial:**	23
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1903604-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17046858	18025758	49.330	42.758	99	86	86	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	0.00	3.75 +0.02	0	18322	0.000	0.845	0U	0.17U	0.35 U	Y
3,5-Dichlorophenol	3.36	3.99 +0.01	11758	13732	0.384	0.334	0.077U	0.067U	0.65 U	Y
2,4,5-Trichlorophenol	4.18 -0.01	0.00	162372	0	0.279	0.000	0.056U	0U	0.16 U	Y
2,4,6-Trichlorophenol	0.00	4.18 -0.02	0	16384	0.000	0.040	0U	0.0080U	0.042 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.15 U	Y
2,3,4,5-Tetrachlorophenol	4.99 -0.01	5.38 -0.03	364920	11776	0.007	0.028	0.0014U	0.0056U	0.042 U	Y
2,3,5,6-Tetrachlorophenol	0.00	5.01	0	270139	0.000	0.447	0U	0.089J	0.032 U	Y
Pentachlorophenol (PCP)	0.00	5.61 +0.02	0	306317	0.000	0.450	0U	0.090J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:34 pm Operator: MC
Sample : KQ1903604-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:17:16 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	17046858	18025758	49.330	42.758
		Target Compounds						
1)		3,4-Dichl...	0.000	3.747	0	18322	N.D.	0.845 #
2)		3,5-Dichl...	3.361	3.991	11758	13732	0.384	0.334
3)		2,4,6-Tri...	0.000	4.177	0	16384	N.D. d	0.040
5)		2,4,5-Tri...	4.181	0.000	162372	0	0.279	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.007	0	270139	N.D. d	0.447
8)	M	2,3,4,5-T...	4.988	5.384f	364920	11776	0.007	0.028 #
9)	M	Pentachlo...	0.000	5.607	0	306317	N.D. d	0.450
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

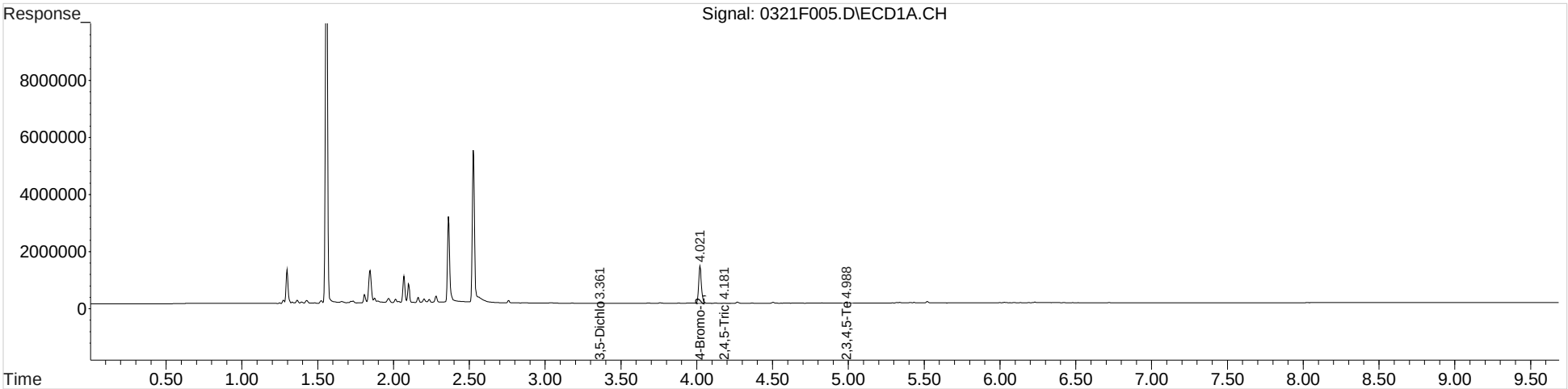
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:34 pm Operator: MC
Sample : KQ1903604-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:17:16 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 04/01/19
2nd MC 04/01/19

Validation Report

Data File: J:\GC28\Data\040119\0401F009.D\
Lab ID: KQ1903939-04
RunType: MB
Matrix: Water

Date Acquired: 4/1/19 11:59:00
Batch ID: 630241
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 04/01/19
2nd MC 04/01/19

Quantitation Report

Data File:	J:\GC28\Data\040119\0401F009.D\	**Instrument:**	K-GC-28
Acqu Date:	4/1/19 11:59:00	**Vial:**	10
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1903939-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/23/19	**Receive Date:**	3/26/19

Analysis Lot:	630241	**Prep Lot:**	333689	**Report Group:**	KQ1903939
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/27/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18516348	18836132	53.707	44.680	107	89	89	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	547894	0.000	0.805	0U	0.16J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 04/01/19
2nd MC 04/01/19

Data File : J:\GC28\Data\040119\0401F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 11:59 am Operator: SMS
Sample : KWG1903939-4MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 12:53:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.023	4.649	18516348	18836132	53.707	44.680
		Target Compounds						
1)		3,4-Dichl...	0.000	3.746	0	31808	N.D.	1.466 #
2)		3,5-Dichl...	3.340	3.993	24884	22055	1.561	0.862 #
3)		2,4,6-Tri...	0.000	4.206	0	14874	N.D. d	0.036
5)		2,4,5-Tri...	4.180	0.000	207324	0	0.601	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	4.507f	5.009	483084	294866	0.526	0.488
8)	M	2,3,4,5-T...	0.000	5.433	0	20729	N.D. d	0.050
9)	M	Pentachlo...	0.000	5.612	0	547894	N.D. d	0.805
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

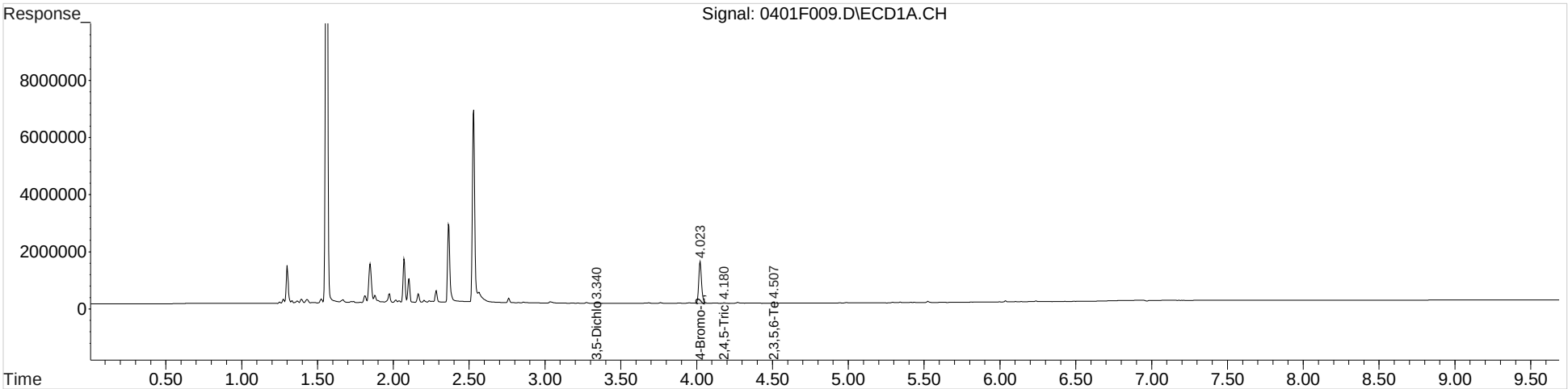
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st JMS 04/01/19
2nd MC 04/01/19

Data File : J:\GC28\Data\040119\0401F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 11:59 am Operator: SMS
Sample : KWG1903939-4MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 12:53:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F006.D\
Lab ID: KQ1903557-03
RunType: LCS
Matrix: Water

Date Acquired: 3/22/19 17:16:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F006.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 17:16:00	**Vial:**	31
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1903557-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	KQ1903557
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18149694	19270318	52.614	45.710	105	91	91	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	19844444	24925274	42.864	36.627	8.57	7.33	**7.33**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 5:16 pm Operator: MC
Sample : KQ1903557-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:39:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.020	4.649	18149694	19270318	52.614	45.710	
		Target Compounds							
1)		3,4-Dichl...	3.130	3.736	234866	281039	14.403	12.956	
2)		3,5-Dichl...	3.370	3.989	112295	87922	9.496	5.061	#
3)		2,4,6-Tri...	3.466	4.206	11179556	13138080	36.016	32.186	
5)		2,4,5-Tri...	4.193	4.716	5092773	5631976	36.976	31.504	
6)		3,4,5-Tri...	4.223	4.779	3409803	3780246	23.059	21.883	
7)	M	2,3,5,6-T...	4.466	5.012	17023104	21636986	39.305	35.839	
8)	M	2,3,4,5-T...	5.006	5.412	11285507	13493088	36.668	32.442	
9)	M	Pentachlo...	5.143	5.596	19844444	24925274	42.864	36.627	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

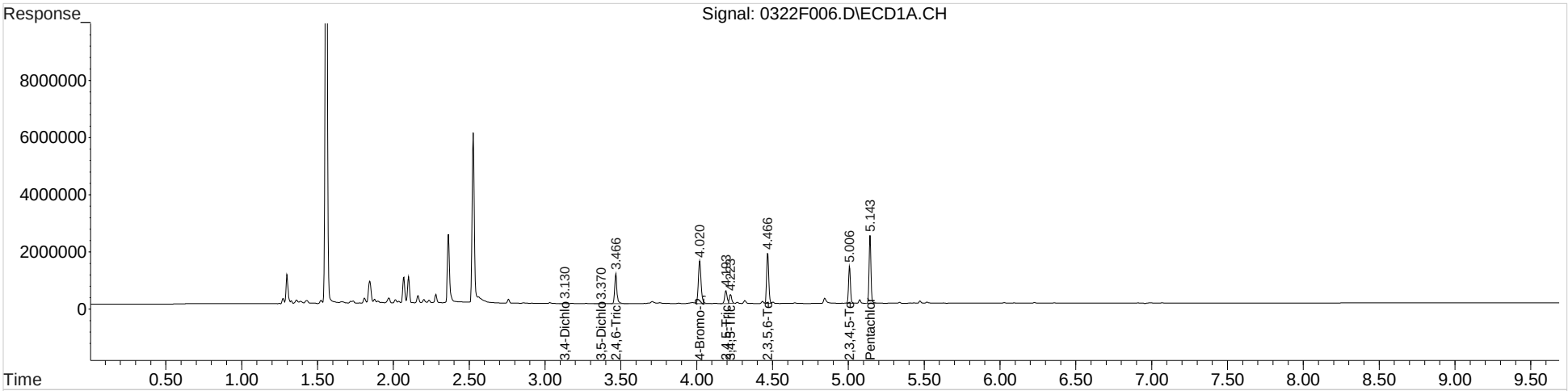
1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 5:16 pm Operator: MC
Sample : KQ1903557-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:39:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F006.D\
Lab ID: KQ1903604-03
RunType: LCS
Matrix: Water

Date Acquired: 3/21/19 17:52:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F006.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 17:52:00	**Vial:**	22
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1903604-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18597

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18160368	19223874	52.646	45.600	105	91	91	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
2,4,5-Trichlorophenol	4.19	4.72 +0.01	5216276	5939635	37.934	33.283	7.59	6.66	**6.66**	Y
2,4,6-Trichlorophenol	3.47 +0.01	4.21 +0.01	12608078	14901540	40.862	36.507	8.17	7.30	**7.30**	Y
3,4,5-Trichlorophenol	4.22	4.78 +0.01	3202026	3428336	21.579	19.780	4.32	3.96	**3.96**	Y
2,3,4,5-Tetrachlorophenol	5.01 +0.01	5.41	12372290	14972754	40.455	36.000	8.09	7.20	**7.20**	Y
2,3,5,6-Tetrachlorophenol	4.47 +0.01	5.01	18766390	24661773	43.527	40.849	8.71	8.17	**8.17**	Y
Pentachlorophenol (PCP)	5.14	5.60 +0.01	22142610	27767321	47.991	40.804	9.60	8.16	**8.16**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F006.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 17:52:00	**Vial:**	22
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1903604-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18160368	19223874	52.646	45.600	105	91	91	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	3.13 +0.01	3.74 +0.01	207800	249053	12.657	11.481	2.53	2.30	**2.30**	Y
3,5-Dichlorophenol	3.37 +0.01	3.99 +0.01	45520	81204	3.419	4.631	0.684J	0.926J	**0.926** J	Y
2,4,5-Trichlorophenol	4.19	4.72 +0.01	5216276	5939635	37.934	33.283	7.59	6.66	**6.66**	Y
2,4,6-Trichlorophenol	3.47 +0.01	4.21 +0.01	12608078	14901540	40.862	36.507	8.17	7.30	**7.30**	Y
3,4,5-Trichlorophenol	4.22	4.78 +0.01	3202026	3428336	21.579	19.780	4.32	3.96	**3.96**	Y
2,3,4,5-Tetrachlorophenol	5.01 +0.01	5.41	12372290	14972754	40.455	36.000	8.09	7.20	**7.20**	Y
2,3,5,6-Tetrachlorophenol	4.47 +0.01	5.01	18766390	24661773	43.527	40.849	8.71	8.17	**8.17**	Y
Pentachlorophenol (PCP)	5.14	5.60 +0.01	22142610	27767321	47.991	40.804	9.60	8.16	**8.16**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:52 pm Operator: MC
Sample : KQ1903604-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:11:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.021	4.651	18160368	19223874	52.646	45.600	
		Target Compounds							
1)		3,4-Dichl...	3.128	3.737	207800	249053	12.657	11.481	
2)		3,5-Dichl...	3.368	3.991	45520	81204	3.419m	4.631	#
3)		2,4,6-Tri...	3.468	4.207	12608078	14901540	40.862	36.507	
5)		2,4,5-Tri...	4.191	4.717	5216276	5939635	37.934	33.283	
6)		3,4,5-Tri...	4.225	4.781	3202026	3428336	21.579	19.780	
7)	M	2,3,5,6-T...	4.468	5.014	18766390	24661773	43.527	40.849	
8)	M	2,3,4,5-T...	5.008	5.414	12372290	14972754	40.455	36.000	
9)	M	Pentachlo...	5.145	5.597	22142610	27767321	47.991	40.804	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

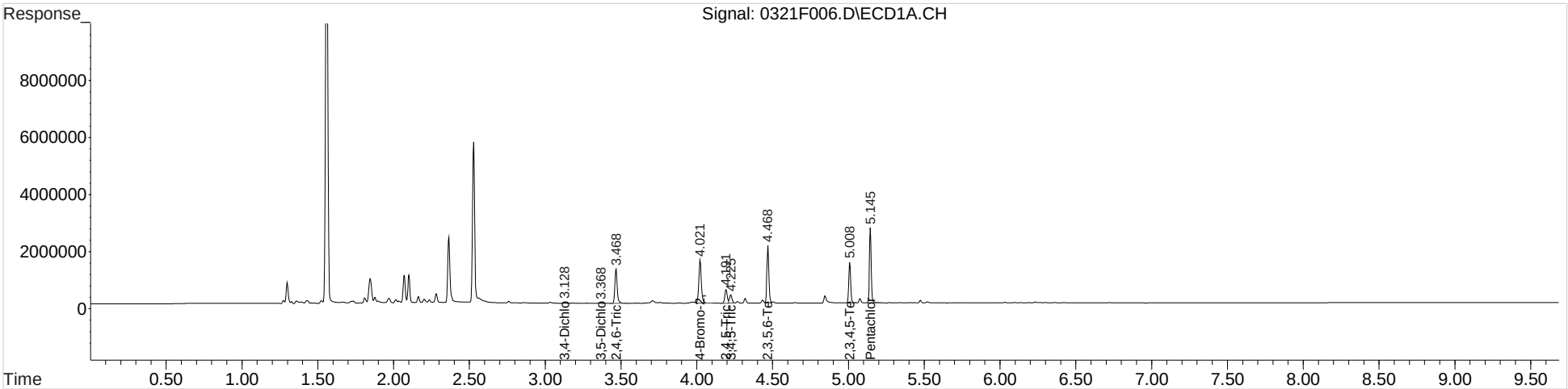
1st 03/22/19
2nd 03/22/19

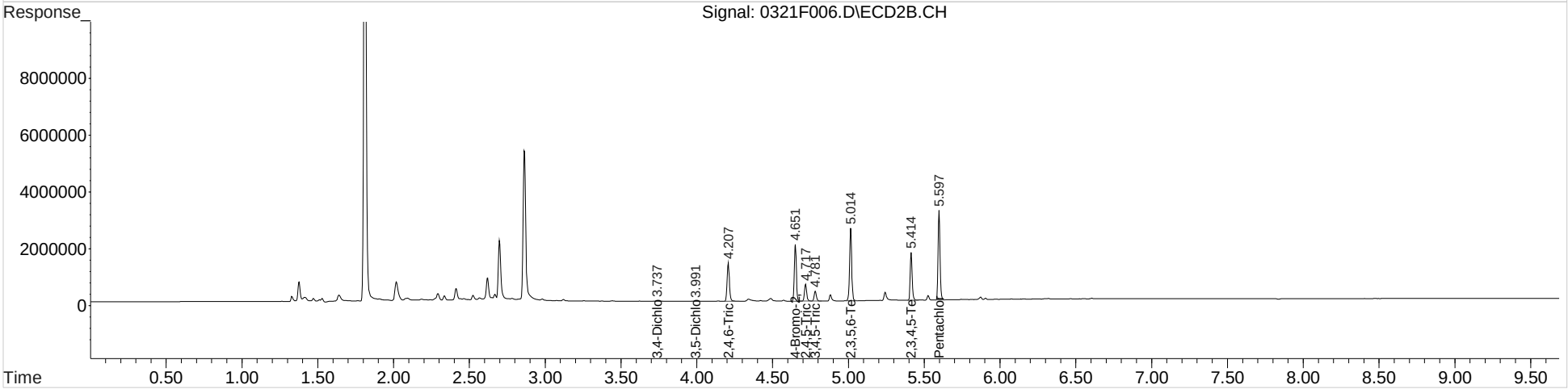
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:52 pm Operator: MC
Sample : KQ1903604-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:11:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





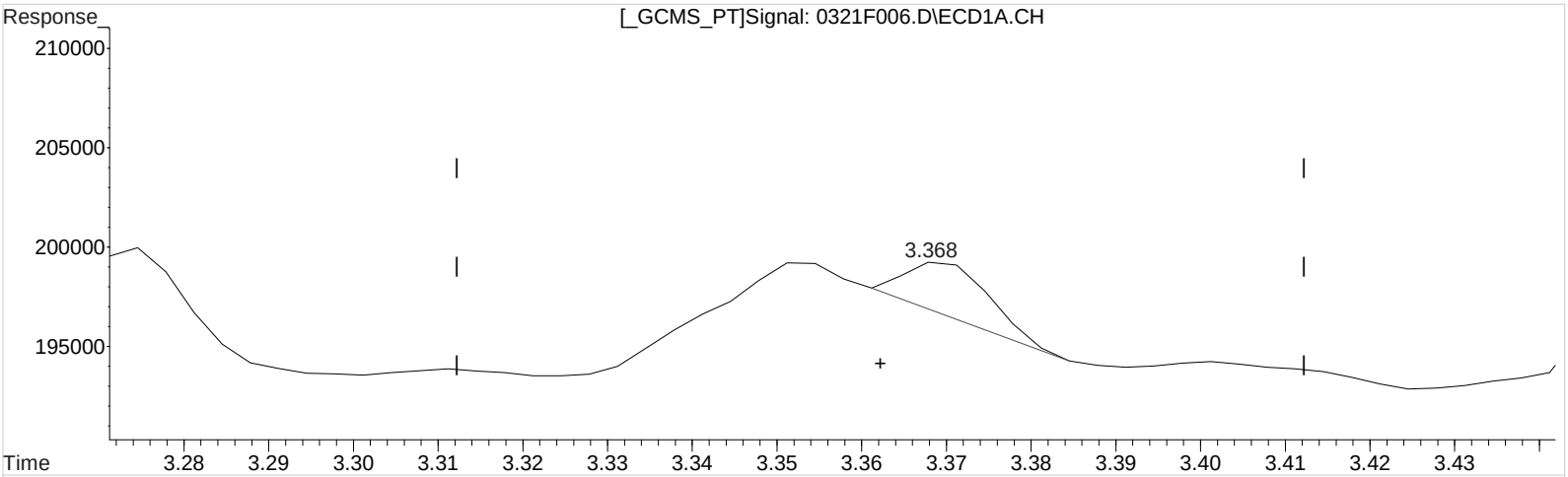
Quantitation Report (Qedit)

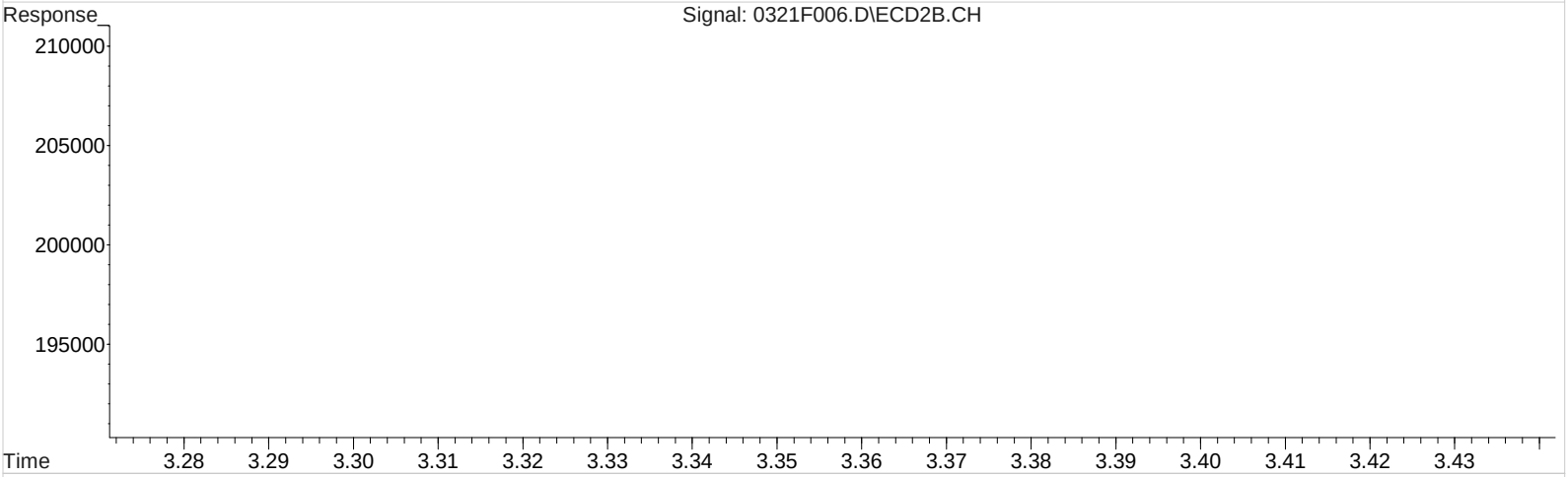
1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:52 pm Operator: MC
Sample : KQ1903604-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:17:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.368min 0.632 ug/L

response 14532

Manual Integration:

Before

03/22/19

(2) 3,5-Dichlorophenol #2

3.991min 4.631 ug/L

response 81204

(+) = Expected Retention Time

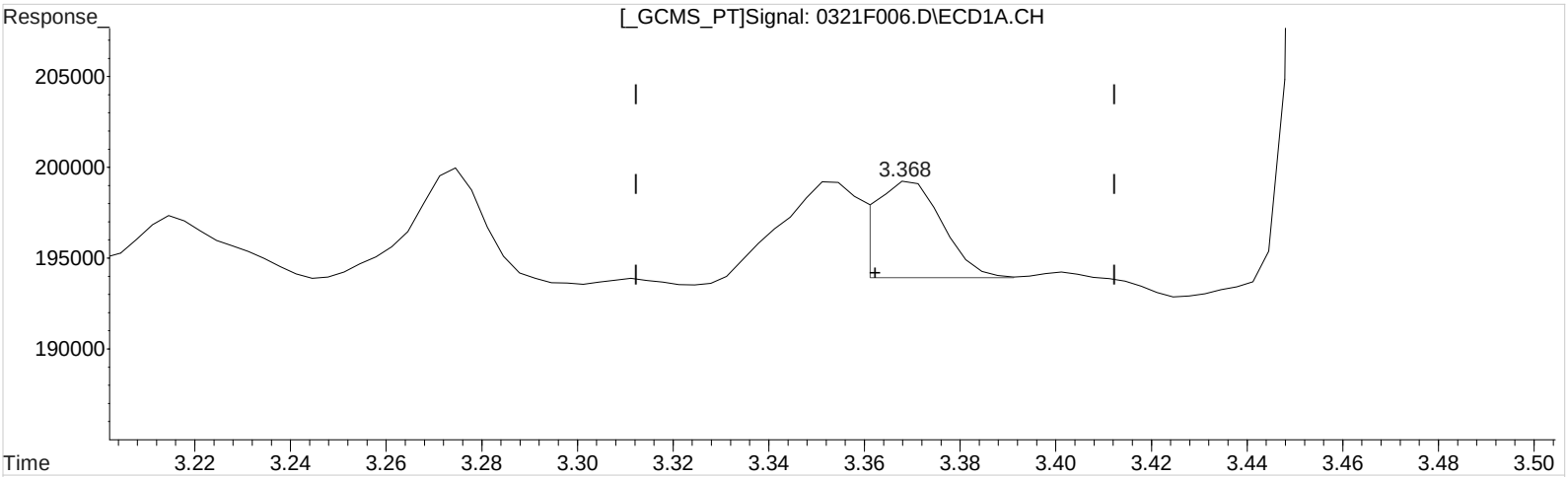
Quantitation Report (Qedit)

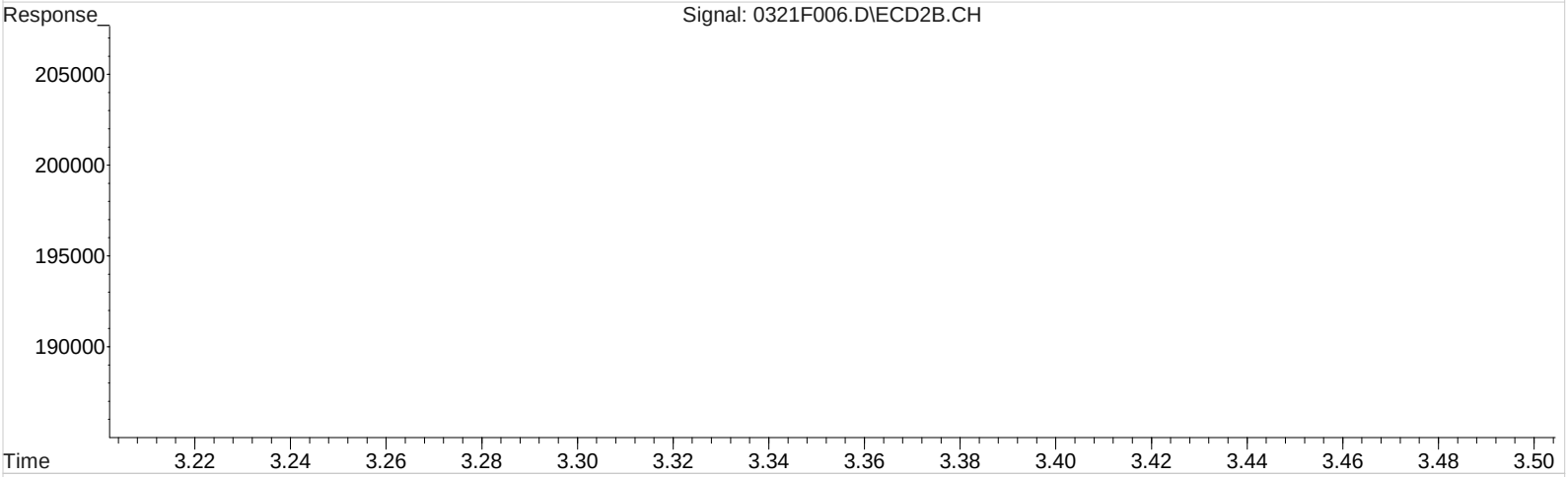
1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:52 pm Operator: MC
Sample : KQ1903604-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:18:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.368min 3.419 ug/L m

response 45520

Manual Integration:

After

Baseline/Shoulder

03/22/19

(2) 3,5-Dichlorophenol #2

3.991min 4.631 ug/L

response 81204

(+) = Expected Retention Time

1st JMS 04/01/19
2nd MC 04/01/19

Validation Report

Data File: J:\GC28\Data\040119\0401F008.D\
Lab ID: KQ1903939-03
RunType: LCS
Matrix: Water

Date Acquired: 4/1/19 11:40:00
Batch ID: 630241
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 04/01/19
2nd MC 04/01/19

Quantitation Report

Data File:	J:\GC28\Data\040119\0401F008.D\	**Instrument:**	K-GC-28
Acqu Date:	4/1/19 11:40:00	**Vial:**	9
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1903939-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/23/19	**Receive Date:**	3/26/19

Analysis Lot:	630241	**Prep Lot:**	333689	**Report Group:**	KQ1903939
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/27/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17406684	17760338	50.401	42.128	101	84	84	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15 +0.01	5.60	17341142	21141814	37.291	31.067	7.46	6.21	**6.21**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 04/01/19
2nd MC 04/01/19

Data File : J:\GC28\Data\040119\0401F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 11:40 am Operator: SMS
Sample : KWG1903939-3LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 12:52:23 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
4) S	4-Bromo-2...	4.023	4.649	17406684	17760338	50.401	42.128	
	Target Compounds							
1)	3,4-Dichl...	3.129	3.739	205048	270626	12.480	12.476	
2)	3,5-Dichl...	3.369	3.992	21763	86476	1.281	4.968	#
3)	2,4,6-Tri...	3.469	4.205	10056646	11415972	32.233	27.967	
5)	2,4,5-Tri...	4.193	4.715	4580050	5048564	33.019	28.138	
6)	3,4,5-Tri...	4.226	4.782	3334794	3416336	22.524	19.708	
7) M	2,3,5,6-T...	4.469	5.015	15103564	18690705	34.687	30.958	
8) M	2,3,4,5-T...	5.009	5.415	10178784	12141437	32.840	29.193	
9) M	Pentachlo...	5.146	5.599	17341142	21141814	37.291	31.067	
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

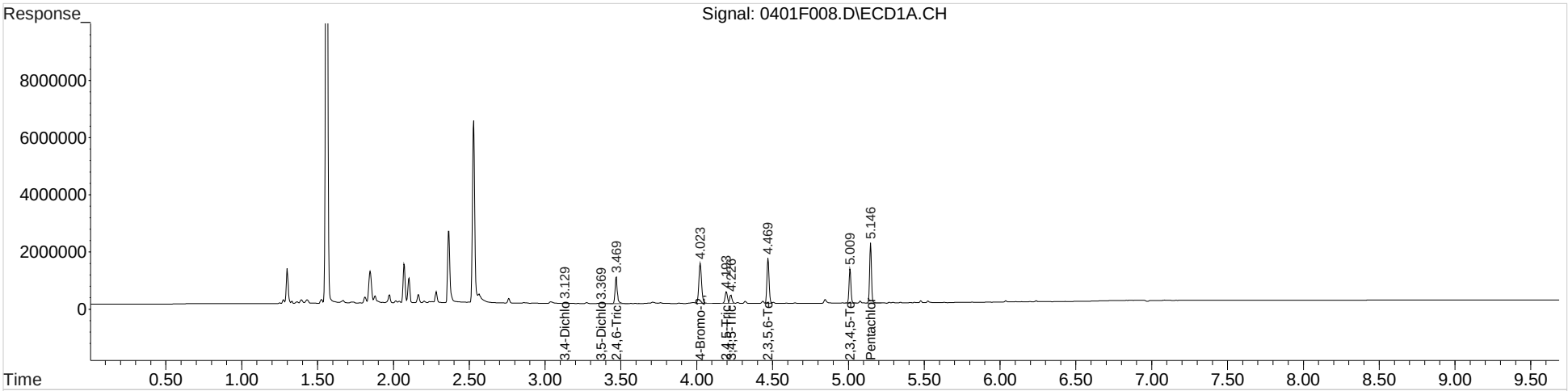
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

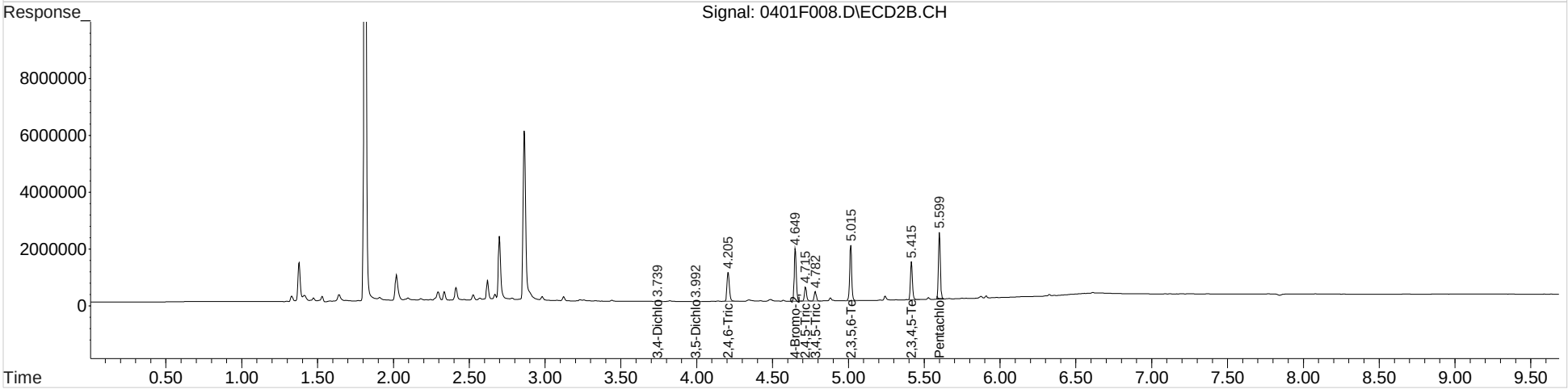
1st 04/01/19
2nd 04/01/19

Data File : J:\GC28\Data\040119\0401F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 11:40 am Operator: SMS
Sample : KWG1903939-3LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 12:52:23 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F031.D\
Lab ID: KQ1903557-01
RunType: MS
Matrix: Water

Date Acquired: 3/23/19 00:53:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F031.D\	**Instrument:**	K-GC-28
Acqu Date:	3/23/19 00:53:00	**Vial:**	29
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1903557-01	**Raw Units:**	ug/L

Bottle ID:	K1902351-020.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	KQ1903557
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	17665151	18557886	51.171	44.020	102	88	88	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14 -0.01	5.60	23754791	30682036	51.595	45.087	10.3	9.02	**9.02**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F031.D Vial: 25
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Mar 2019 12:53 am Operator: MC
Sample : K1902351-020 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 14:01:46 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.020	4.650	17665151	18557886	51.171	44.020	
		Target Compounds							
1)		3,4-Dichl...	3.130	3.736	172138	248642	10.366	11.462	
2)		3,5-Dichl...	3.354	3.990	15062	72660	0.680	4.085	#
3)		2,4,6-Tri...	3.467	4.206	12359702	14477097	40.017	35.467	
5)		2,4,5-Tri...	4.194	4.716	5396148	6031120	39.334	33.812	
6)		3,4,5-Tri...	4.224	4.780	3284654	3642902	22.167	21.062	
7)	M	2,3,5,6-T...	4.470	5.013	18705930	24530452	43.380	40.631	
8)	M	2,3,4,5-T...	5.010	5.413	12226614	14756963	39.946	35.481	
9)	M	Pentachlo...	5.144	5.596	23754791	30682036	51.595	45.087	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

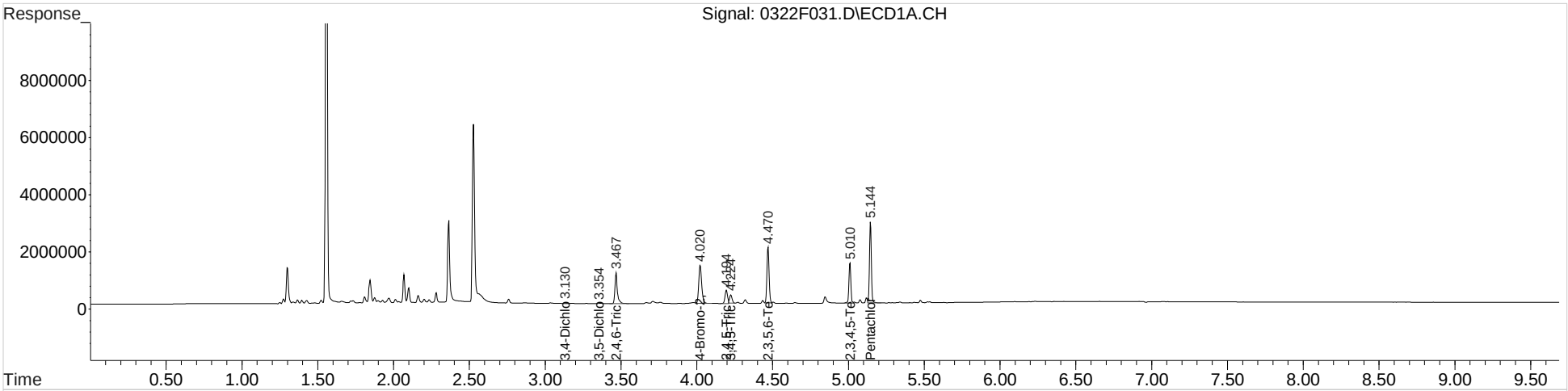
1st MC 03/25/19
2nd JMS 03/26/19

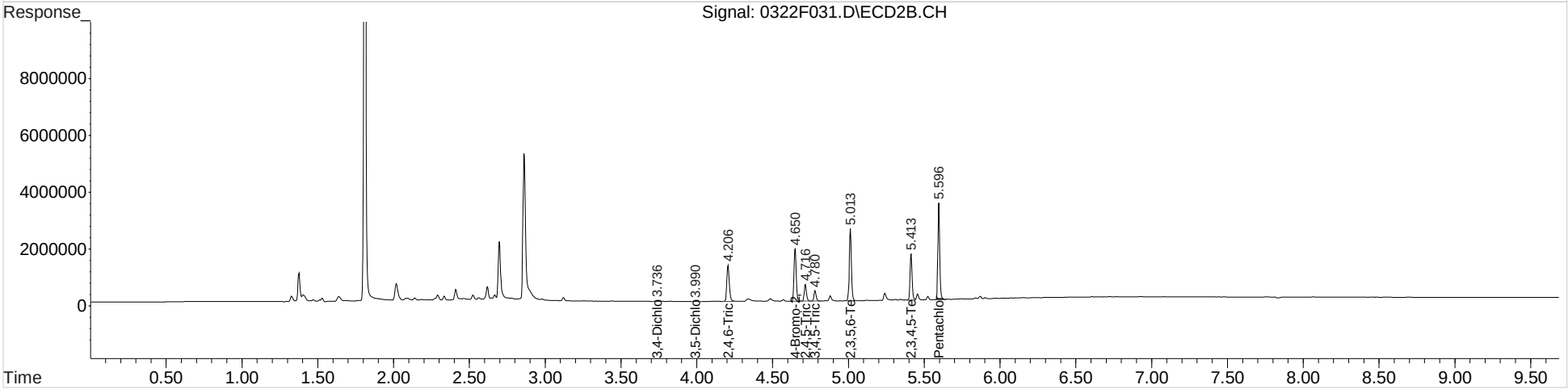
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F031.D Vial: 25
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Mar 2019 12:53 am Operator: MC
Sample : K1902351-020 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 14:01:46 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F022.D\
Lab ID: KQ1903604-01
RunType: MS
Matrix: Water

Date Acquired: 3/21/19 22:44:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F022.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 22:44:00	**Vial:**	20
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1903604-01	**Raw Units:**	ug/L

Bottle ID:	K1902361-002.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18597

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18833011	20092758	54.651	47.661	109	95	95	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
2,4,5-Trichlorophenol	4.19	4.72 +0.01	5769374	6550208	42.253	36.821	8.45	7.36	**7.36**	Y
2,4,6-Trichlorophenol	3.47	4.21 +0.01	12995322	15671140	42.183	38.392	8.44	7.68	**7.68**	Y
3,4,5-Trichlorophenol	4.22	4.78	2898603	3254708	19.428	18.744	3.89	3.75	**3.75**	Y
2,3,4,5-Tetrachlorophenol	5.01	5.41	12832201	15791500	42.066	37.969	8.41	7.59	**7.59**	Y
2,3,5,6-Tetrachlorophenol	4.47	5.01	19514052	25190286	45.346	41.724	9.07	8.34	**8.34**	Y
Pentachlorophenol (PCP)	5.14	5.59 -0.01	22649476	28718712	49.123	42.202	9.82	8.44	**8.44**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F022.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 22:44:00	**Vial:**	20
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1903604-01	**Raw Units:**	ug/L

Bottle ID:	K1902361-002.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18833011	20092758	54.651	47.661	109	95	95	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	3.13	3.74 +0.01	173110	246690	10.429	11.372	2.09	2.27	**2.09**	Y
3,5-Dichlorophenol	3.37	3.99	42194	59207	3.119	3.226	0.624U	0.645U	0.65 U	Y
2,4,5-Trichlorophenol	4.19	4.72 +0.01	5769374	6550208	42.253	36.821	8.45	7.36	**7.36**	Y
2,4,6-Trichlorophenol	3.47	4.21 +0.01	12995322	15671140	42.183	38.392	8.44	7.68	**7.68**	Y
3,4,5-Trichlorophenol	4.22	4.78	2898603	3254708	19.428	18.744	3.89	3.75	**3.75**	Y
2,3,4,5-Tetrachlorophenol	5.01	5.41	12832201	15791500	42.066	37.969	8.41	7.59	**7.59**	Y
2,3,5,6-Tetrachlorophenol	4.47	5.01	19514052	25190286	45.346	41.724	9.07	8.34	**8.34**	Y
Pentachlorophenol (PCP)	5.14	5.59 -0.01	22649476	28718712	49.123	42.202	9.82	8.44	**8.44**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 10:44 pm Operator: MC
Sample : K1902361-002 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:09:14 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.020	4.649	18833011	20092758	54.651	47.661
		Target Compounds						
1)		3,4-Dichl...	3.130	3.736	173110	246690	10.429	11.372
2)		3,5-Dichl...	3.370	3.989	42194	59207	3.119m	3.226
3)		2,4,6-Tri...	3.467	4.206	12995322	15671140	42.183	38.392
5)		2,4,5-Tri...	4.193	4.716	5769374	6550208	42.253	36.821
6)		3,4,5-Tri...	4.223	4.779	2898603	3254708	19.428	18.744
7)	M	2,3,5,6-T...	4.467	5.013	19514052	25190286	45.346	41.724
8)	M	2,3,4,5-T...	5.007	5.409	12832201	15791500	42.066	37.969
9)	M	Pentachlo...	5.143	5.593	22649476	28718712	49.123	42.202
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

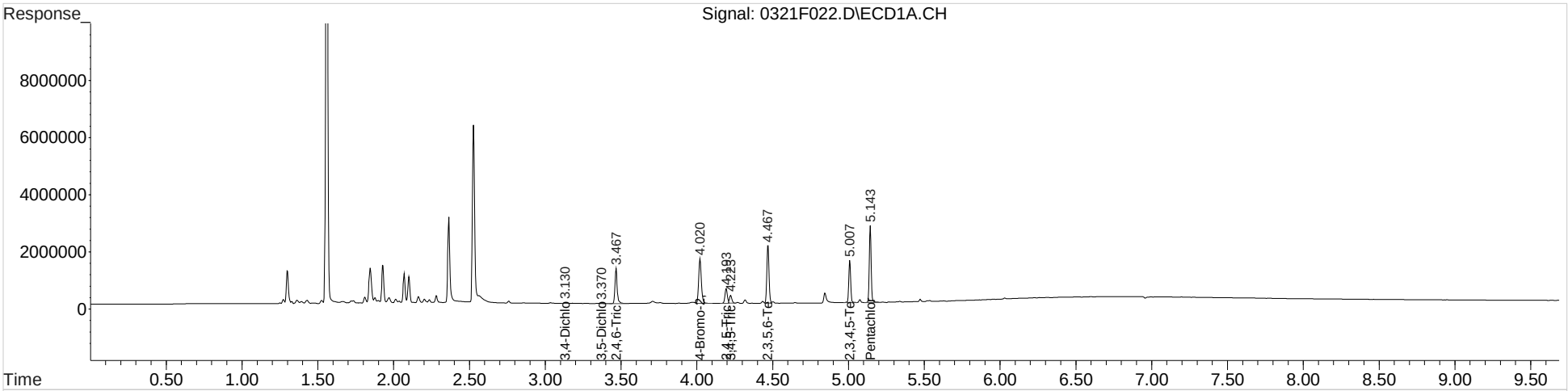
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 10:44 pm Operator: MC
Sample : K1902361-002 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:09:14 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



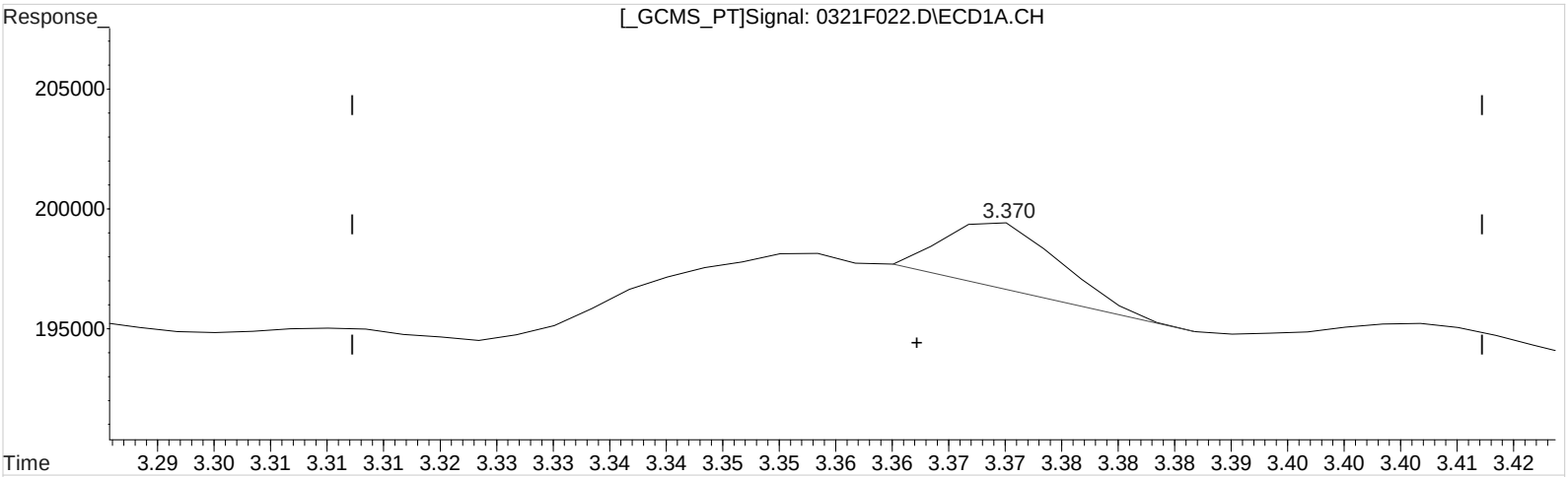
Quantitation Report (Qedit)

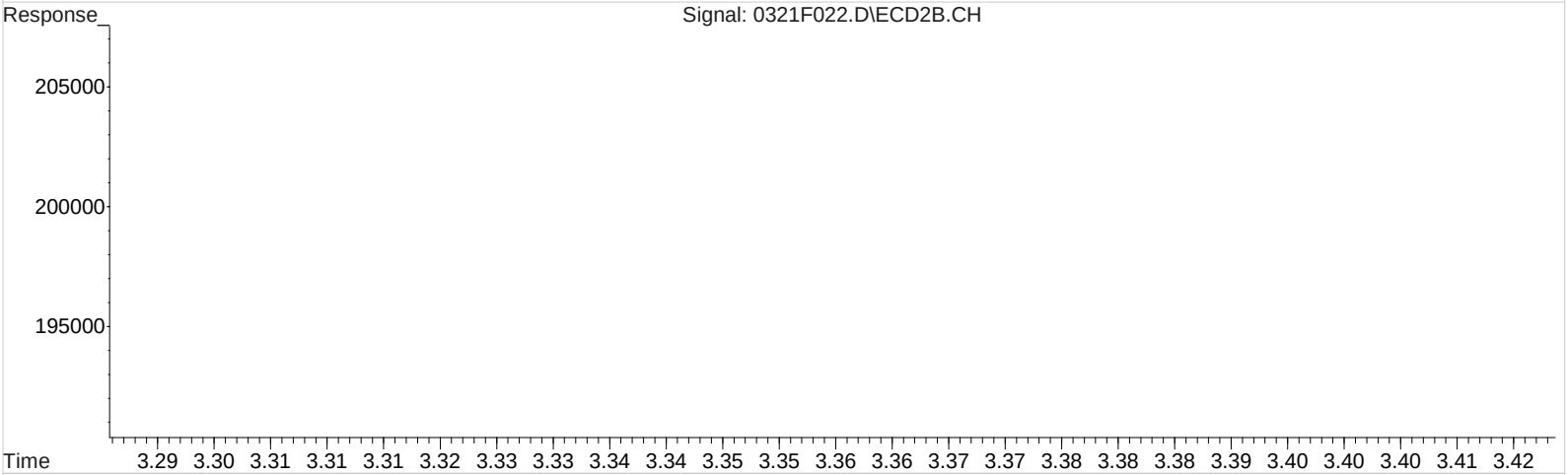
1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 10:44 pm Operator: MC
Sample : K1902361-002 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:08:30 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.370min 0.838 ug/L

response 16828

(2) 3,5-Dichlorophenol #2

3.989min 3.226 ug/L

response 59207

Manual Integration:

Before

03/22/19

(+) = Expected Retention Time

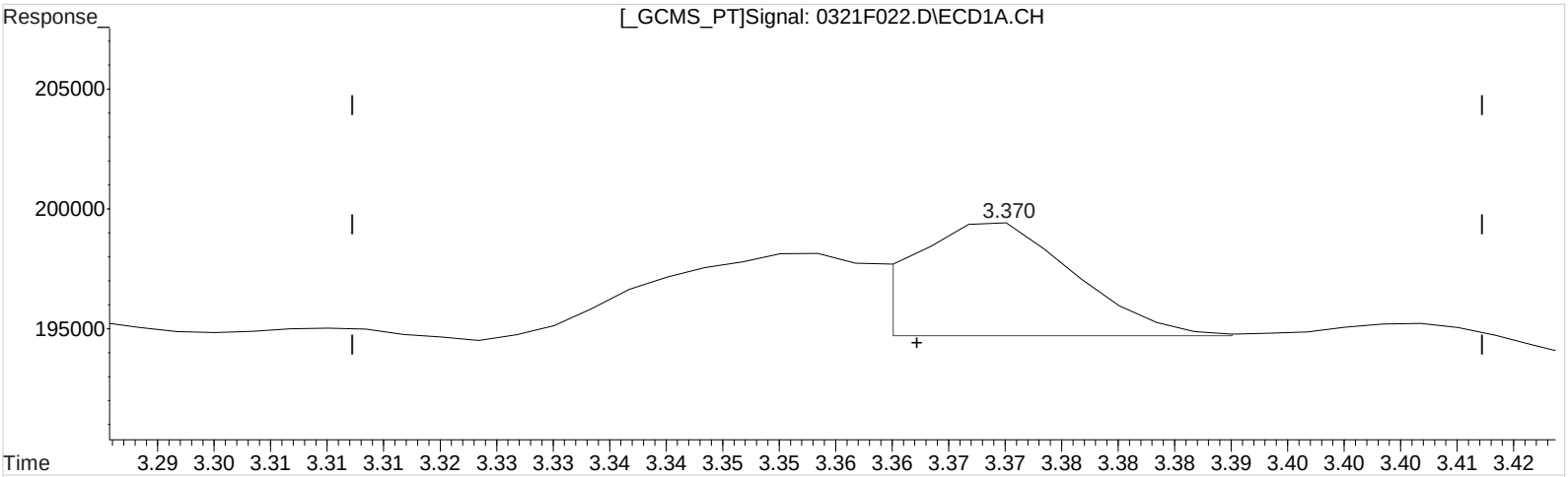
Quantitation Report (Qedit)

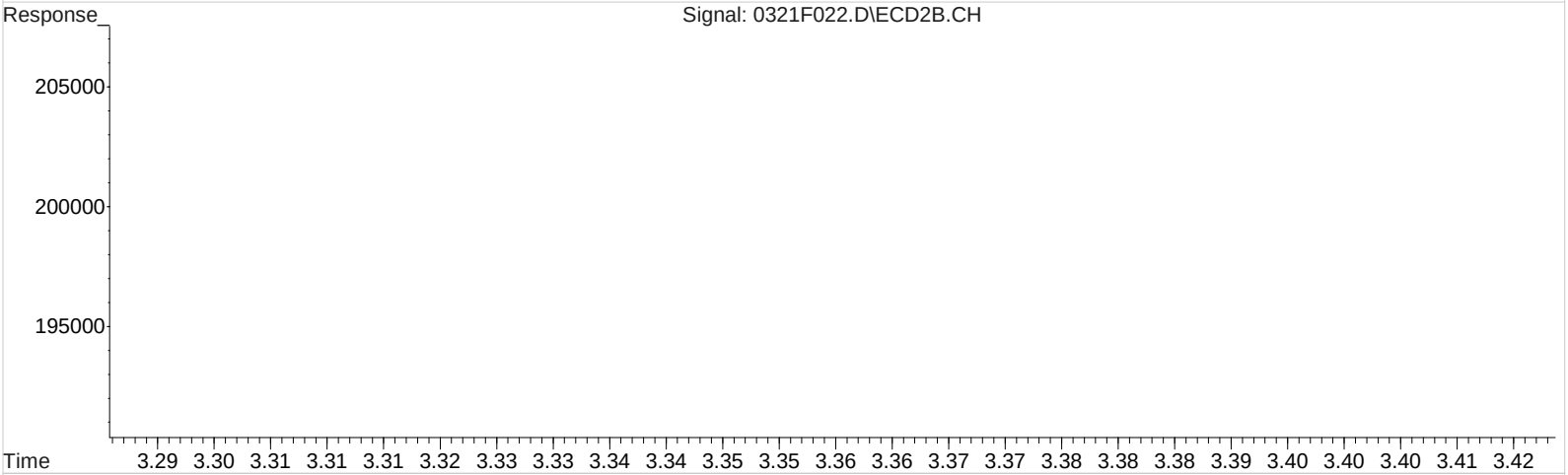
1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 10:44 pm Operator: MC
Sample : K1902361-002 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:08:30 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.370min 3.119 ug/L m

response 42194

(2) 3,5-Dichlorophenol #2

3.989min 3.226 ug/L

response 59207

Manual Integration:

After

Baseline/Shoulder

03/22/19

(+) = Expected Retention Time

1st JMS 04/01/19
2nd MC 04/01/19

Validation Report

Data File: J:\GC28\Data\040119\0401F006.D\
Lab ID: KQ1903939-01
RunType: MS
Matrix: Water

Date Acquired: 4/1/19 11:04:00
Batch ID: 630241
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 04/01/19
2nd MC 04/01/19

Quantitation Report

Data File:	J:\GC28\Data\040119\0401F006.D\	**Instrument:**	K-GC-28
Acqu Date:	4/1/19 11:04:00	**Vial:**	7
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1903939-01	**Raw Units:**	ug/L

Bottle ID:	K1902351-032.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/23/19	**Receive Date:**	3/26/19

Analysis Lot:	630241	**Prep Lot:**	333689	**Report Group:**	KQ1903939
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/27/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17755852	18719848	51.441	44.404	103	89	89	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15 +0.01	5.60	19150389	24083782	41.317	35.391	8.26	7.08	**7.08**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 04/01/19
2nd MC 04/01/19

Data File : J:\GC28\Data\040119\0401F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 11:04 am Operator: SMS
Sample : K1902351-032MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 11:19:46 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.019	4.648	17755852	18719848	51.441	44.404	
		Target Compounds							
1)		3,4-Dichl...	3.129	3.735	234116	310320	14.355	14.305	
2)		3,5-Dichl...	3.369	3.988	148367	97879	12.820	5.698	#
3)		2,4,6-Tri...	3.466	4.205	11240373	13106796	36.221	32.110	
5)		2,4,5-Tri...	4.192	4.715	5125080	5668968	37.226	31.718	
6)		3,4,5-Tri...	4.222	4.778	3606356	3898756	24.463	22.592	
7)	M	2,3,5,6-T...	4.469	5.015	16773786	21716634	38.703	35.970	
8)	M	2,3,4,5-T...	5.009	5.415	11604478	14043777	37.777	33.766	
9)	M	Pentachlo...	5.146	5.598	19150389	24083782	41.317	35.391	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

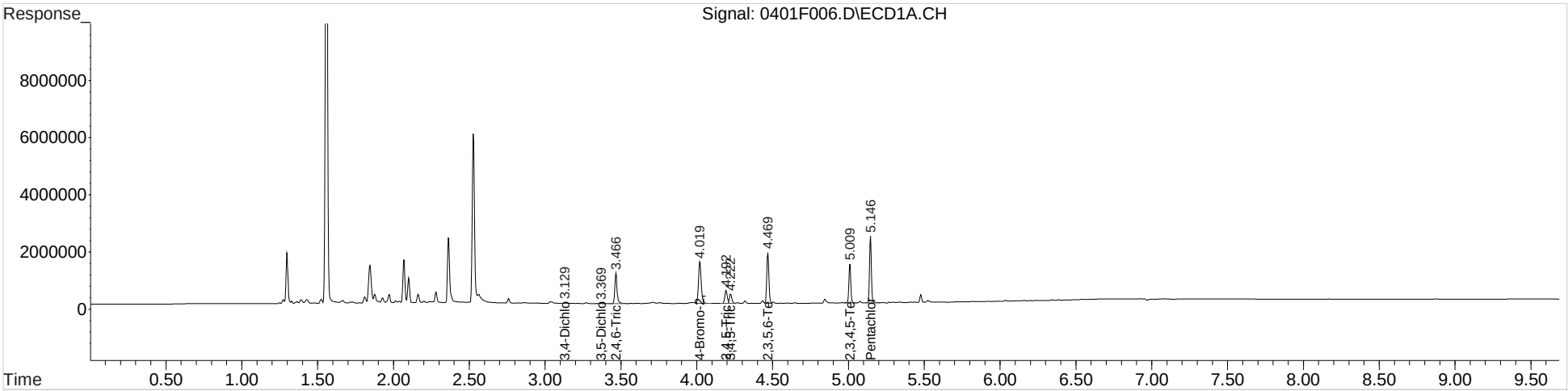
1st JMS 04/01/19
2nd MC 04/01/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\040119\0401F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 11:04 am Operator: SMS
Sample : K1902351-032MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 11:19:46 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F032.D\
Lab ID: KQ1903557-02
RunType: DMS
Matrix: Water

Date Acquired: 3/23/19 01:11:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F032.D\	**Instrument:**	K-GC-28
Acqu Date:	3/23/19 01:11:00	**Vial:**	30
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1903557-02	**Raw Units:**	ug/L

Bottle ID:	K1902351-020.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**	333272	**Report Group:**	KQ1903557
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	19192342	20560302	55.723	48.770	111	98	98	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15	5.59 -0.01	23285608	29817336	50.545	43.816	10.1	8.76	**8.76**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F032.D Vial: 26
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Mar 2019 1:11 am Operator: MC
Sample : K1902351-020 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 14:01:56 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.022	4.648	19192342	20560302	55.723	48.770	
		Target Compounds							
1)		3,4-Dichl...	3.128	3.738	268780	338633	16.600	15.611	
2)		3,5-Dichl...	3.368	3.988	19635	110396	1.090	6.501	#
3)		2,4,6-Tri...	3.468	4.204	12152544	14289400	39.313	35.007	
5)		2,4,5-Tri...	4.192	4.714	5078616	5808534	36.866	32.525	
6)		3,4,5-Tri...	4.225	4.778	3720116	4192686	25.278	24.351	
7)	M	2,3,5,6-T...	4.468	5.011	18193586	24231986	42.136	40.137	
8)	M	2,3,4,5-T...	5.008	5.411	11640738	14051420	37.903	33.785	
9)	M	Pentachlo...	5.145	5.594	23285608	29817336	50.545	43.816	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

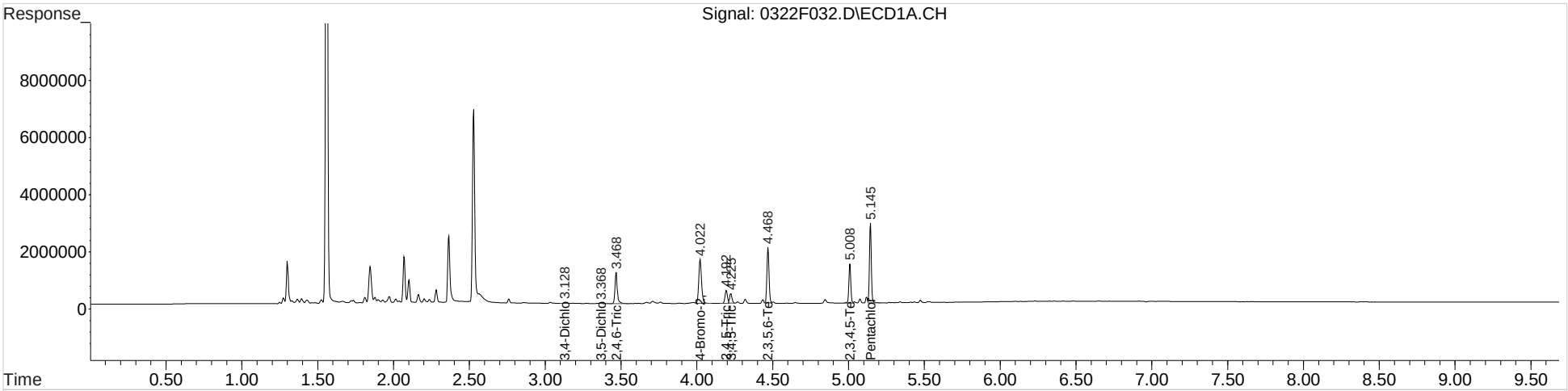
1st MC 03/25/19
2nd JMS 03/26/19

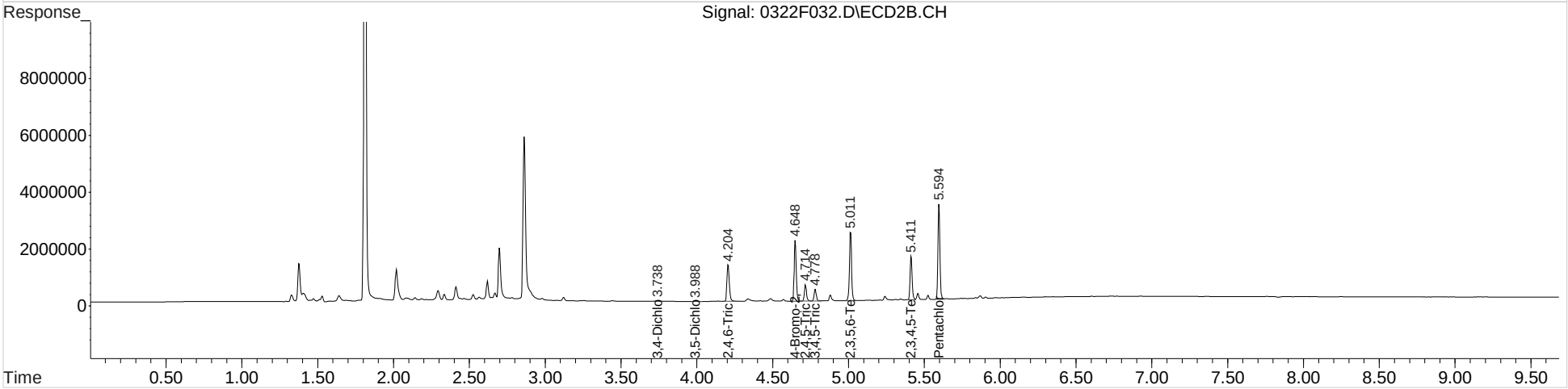
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F032.D Vial: 26
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Mar 2019 1:11 am Operator: MC
Sample : K1902351-020 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 14:01:56 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st DMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F023.D\
Lab ID: KQ1903604-02
RunType: DMS
Matrix: Water

Date Acquired: 3/21/19 23:03:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st DMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F023.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 23:03:00	**Vial:**	21
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1903604-02	**Raw Units:**	ug/L

Bottle ID:	K1902361-002.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18597

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18414615	19784260	53.404	46.929	107	94	94	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
2,4,5-Trichlorophenol	4.19	4.72 +0.01	5308540	5975352	38.652	33.489	7.73	6.70	**6.70**	Y
2,4,6-Trichlorophenol	3.47	4.21 +0.01	12170746	14573682	39.374	35.703	7.87	7.14	**7.14**	Y
3,4,5-Trichlorophenol	4.22	4.78	2700896	2909231	18.033	16.685	3.61	3.34	**3.34**	Y
2,3,4,5-Tetrachlorophenol	5.01	5.41	11840646	14535888	38.599	34.950	7.72	6.99	**6.99**	Y
2,3,5,6-Tetrachlorophenol	4.47	5.01	18487114	23681844	42.848	39.226	8.57	7.85	**7.85**	Y
Pentachlorophenol (PCP)	5.14	5.60	21231222	26657677	45.956	39.173	9.19	7.83	**7.83**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st DMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F023.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 23:03:00	**Vial:**	21
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1903604-02	**Raw Units:**	ug/L

Bottle ID:	K1902361-002.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18414615	19784260	53.404	46.929	107	94	94	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	3.13	3.74 +0.01	159000	218763	9.525	10.085	1.91J	2.02	**1.91** J	Y
3,5-Dichlorophenol	3.37	3.99	35640	53506	2.529	2.863	0.506U	0.573U	0.65 U	Y
2,4,5-Trichlorophenol	4.19	4.72 +0.01	5308540	5975352	38.652	33.489	7.73	6.70	**6.70**	Y
2,4,6-Trichlorophenol	3.47	4.21 +0.01	12170746	14573682	39.374	35.703	7.87	7.14	**7.14**	Y
3,4,5-Trichlorophenol	4.22	4.78	2700896	2909231	18.033	16.685	3.61	3.34	**3.34**	Y
2,3,4,5-Tetrachlorophenol	5.01	5.41	11840646	14535888	38.599	34.950	7.72	6.99	**6.99**	Y
2,3,5,6-Tetrachlorophenol	4.47	5.01	18487114	23681844	42.848	39.226	8.57	7.85	**7.85**	Y
Pentachlorophenol (PCP)	5.14	5.60	21231222	26657677	45.956	39.173	9.19	7.83	**7.83**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st DMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:03 pm Operator: MC
Sample : K1902361-002 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:10:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	18414615	19784260	53.404	46.929
		Target Compounds						
1)		3,4-Dichl...	3.131	3.737	159000	218763	9.525	10.085
2)		3,5-Dichl...	3.367	3.990	35640	53506	2.529m	2.863
3)		2,4,6-Tri...	3.467	4.207	12170746	14573682	39.374	35.703
5)		2,4,5-Tri...	4.191	4.717	5308540	5975352	38.652	33.489
6)		3,4,5-Tri...	4.224	4.780	2700896	2909231	18.033	16.685
7)	M	2,3,5,6-T...	4.467	5.013	18487114	23681844	42.848	39.226
8)	M	2,3,4,5-T...	5.007	5.413	11840646	14535888	38.599	34.950
9)	M	Pentachlo...	5.144	5.597	21231222	26657677	45.956	39.173
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

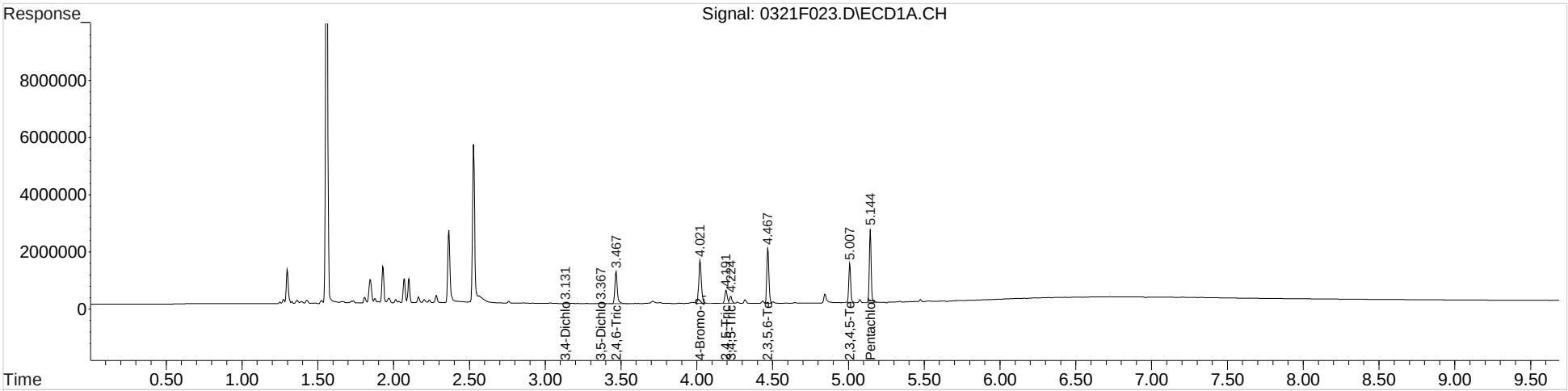
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:03 pm Operator: MC
Sample : K1902361-002 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:10:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

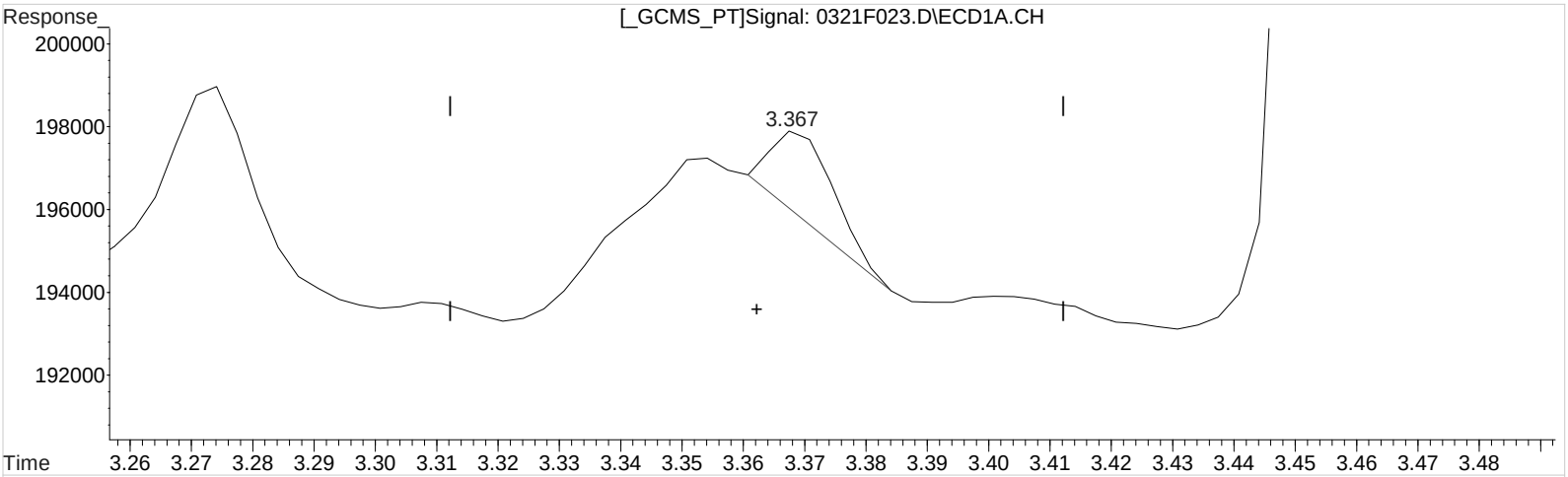


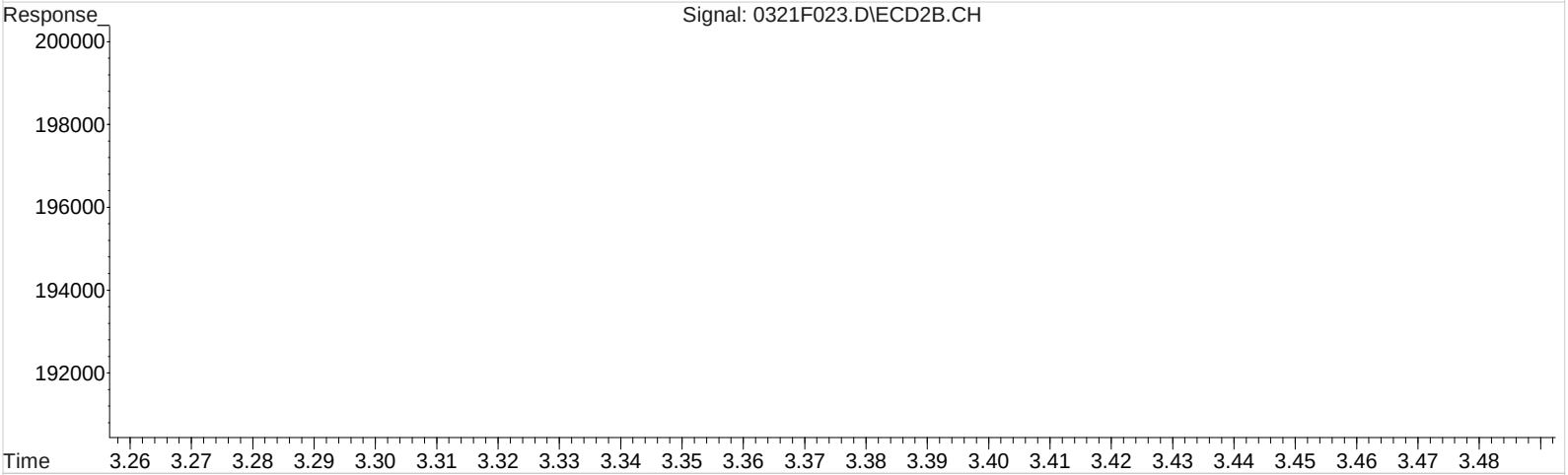
1st DMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:03 pm Operator: MC
Sample : K1902361-002 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:09:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.367min 0.363 ug/L

response 11520

Manual Integration:

Before

03/22/19

(2) 3,5-Dichlorophenol #2

3.990min 2.863 ug/L

response 53506

(+) = Expected Retention Time

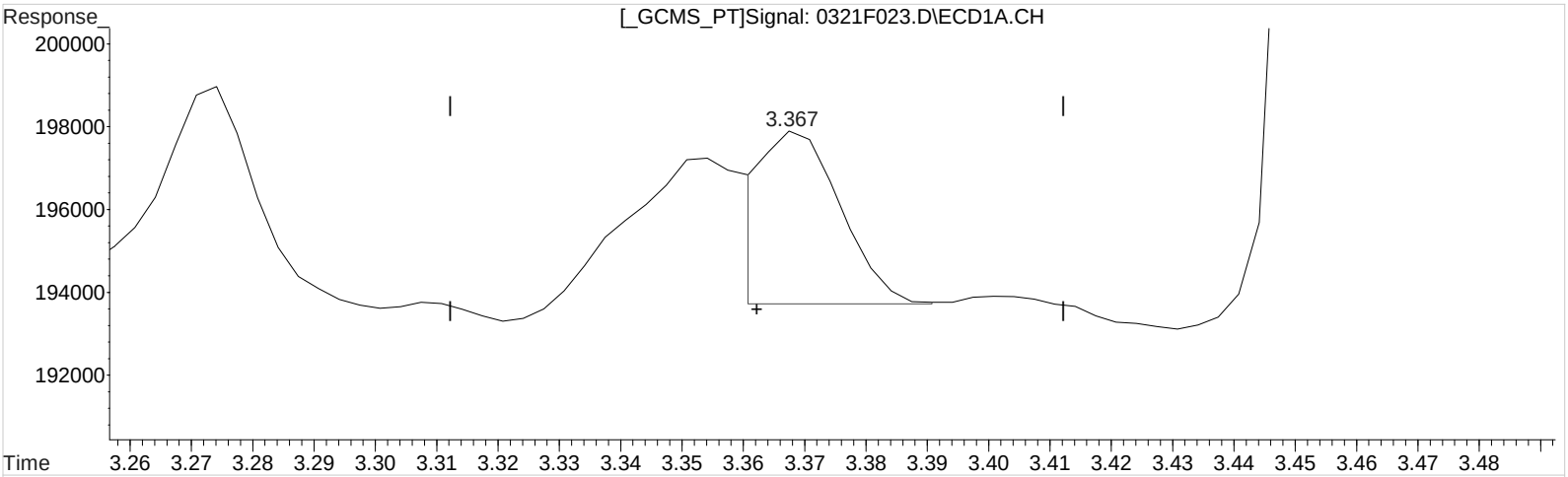
Quantitation Report (Qedit)

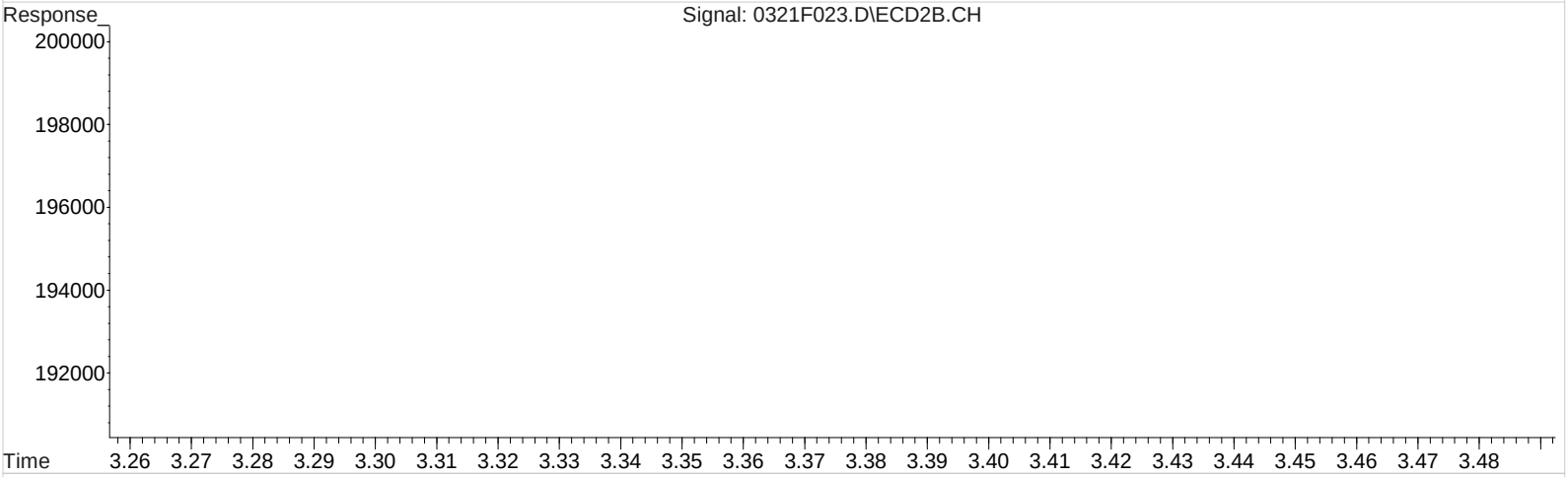
1st DMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:03 pm Operator: MC
Sample : K1902361-002 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:09:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.367min 2.529 ug/L m

response 35640

(2) 3,5-Dichlorophenol #2

3.990min 2.863 ug/L

response 53506

Manual Integration:

After

Baseline/Shoulder

03/22/19

(+) = Expected Retention Time

1st DMS 04/01/19
2nd MC 04/01/19

Validation Report

Data File: J:\GC28\Data\040119\0401F007.D\
Lab ID: KQ1903939-02
RunType: DMS
Matrix: Water

Date Acquired: 4/1/19 11:22:00
Batch ID: 630241
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 04/01/19
2nd MC 04/01/19

Quantitation Report

Data File:	J:\GC28\Data\040119\0401F007.D\	**Instrument:**	K-GC-28
Acqu Date:	4/1/19 11:22:00	**Vial:**	8
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1903939-02	**Raw Units:**	ug/L

Bottle ID:	K1902351-032.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/23/19	**Receive Date:**	3/26/19

Analysis Lot:	630241	**Prep Lot:**	333689	**Report Group:**	KQ1903939
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/27/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17704358	18185780	51.288	43.137	103	86	86	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15 +0.01	5.60	17970091	22580140	38.690	33.181	7.74	6.64	**6.64**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 04/01/19
2nd MC 04/01/19

Data File : J:\GC28\Data\040119\0401F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 11:22 am Operator: SMS
Sample : K1902351-032DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 12:51:45 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.022	4.648	17704358	18185780	51.288	43.137	
		Target Compounds							
1)		3,4-Dichl...	3.128	3.738	239897	285476	14.729	13.160	
2)		3,5-Dichl...	3.368	3.991	137202	91880	11.788	5.314	#
3)		2,4,6-Tri...	3.468	4.204	10825658	12368878	34.821	30.302	
5)		2,4,5-Tri...	4.195	4.714	4930714	5278706	35.721	29.465	
6)		3,4,5-Tri...	4.225	4.781	3412181	3664064	23.076	21.188	
7)	M	2,3,5,6-T...	4.468	5.014	16169710	20418232	37.248	33.820	
8)	M	2,3,4,5-T...	5.012	5.414	10949872	12934147	35.504	31.098	
9)	M	Pentachlo...	5.148	5.598	17970091	22580140	38.690	33.181	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

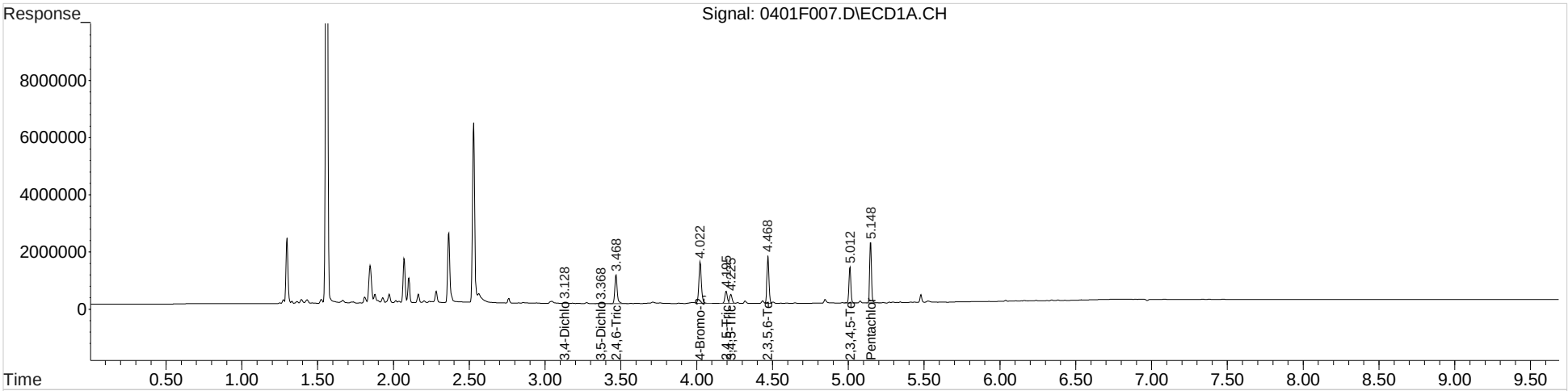
1st JMS 04/01/19
2nd MC 04/01/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\040119\0401F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 11:22 am Operator: SMS
Sample : K1902351-032DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 12:51:45 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F004.D\
Lab ID: KQ1903733-04
RunType: CCB
Matrix: Water

Date Acquired: 3/21/19 17:15:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F004.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 17:15:00	**Vial:**	4
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903733-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.66 +0.02	0	4740	0.000	0.011				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:15 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:07:38 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.659	0	4740	N.D. d	0.011
		Target Compounds						
1)		3,4-Dichl...	0.000	3.709	0	3709	N.D. d	0.171
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	4.206	0	3985	N.D. d	0.010
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	4.989	0	25121	N.D. d	0.042
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

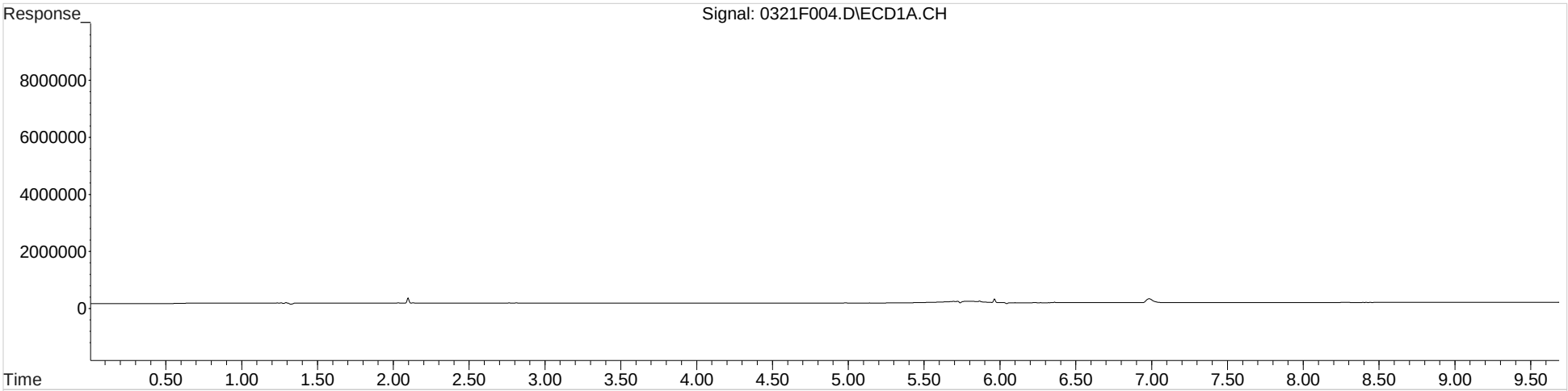
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:15 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:07:38 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F018.D\
Lab ID: KQ1903733-05
RunType: CCB
Matrix: Water

Date Acquired: 3/21/19 21:31:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F018.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 21:31:00	**Vial:**	5
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903733-05	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.69 +0.04	0	10598	0.000	0.025				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F018.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 9:31 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:06:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	0.000	4.688f	0	10598	N.D.	0.025 #
	Target Compounds						
1)	3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
2)	3,5-Dichl...	3.386	0.000	11274	0	0.340	N.D. #
3)	2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D.
5)	2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	0.000	4.992	0	22796	N.D. d	0.038
8) M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9) M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

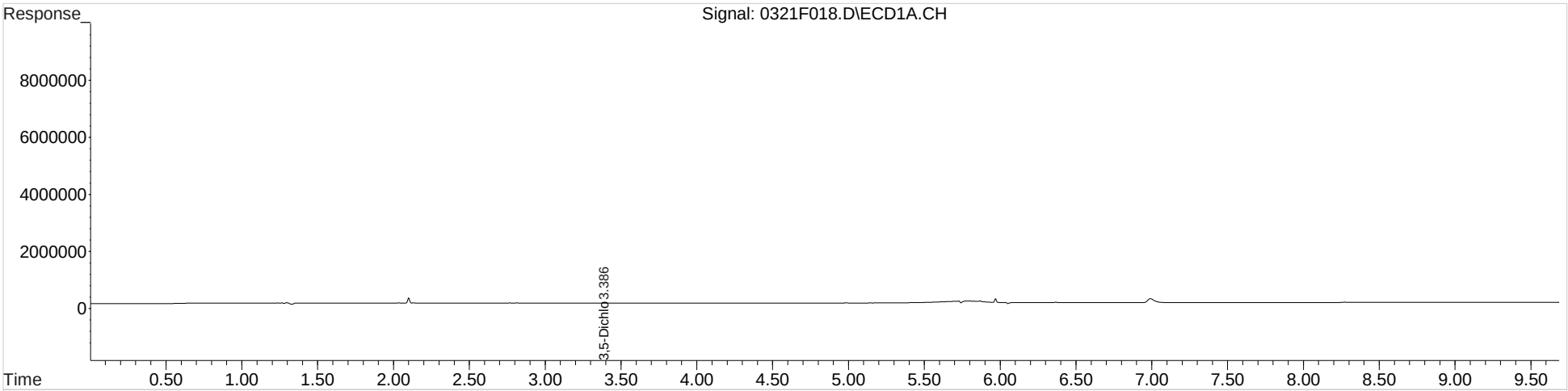
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F018.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 9:31 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:06:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F025.D\
Lab ID: KQ1903733-06
RunType: CCB
Matrix: Water

Date Acquired: 3/21/19 23:39:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F025.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 23:39:00	**Vial:**	6
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903733-06	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.63 -0.02	0	4119	0.000	0.010				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F025.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:39 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:11:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.626	0	4119	N.D. d	0.010
		Target Compounds						
1)		3,4-Dichl...	0.000	3.683f	0	3232	N.D. d	0.149
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
3)		2,4,6-Tri...	0.000	4.173f	0	5065	N.D. d	0.012
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D.
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	4.989	0	27618	N.D. d	0.046
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

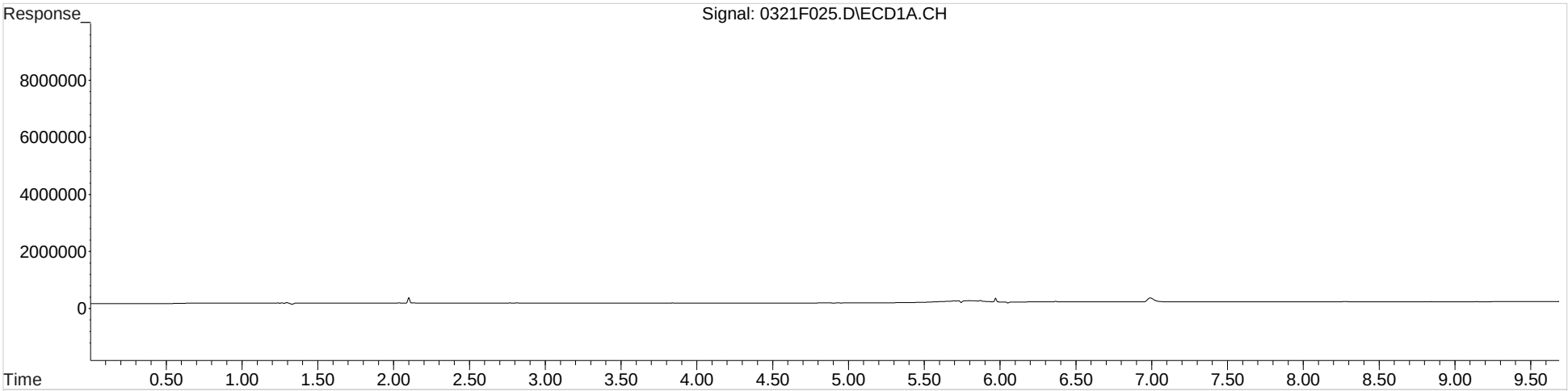
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F025.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:39 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:11:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F004.D\
Lab ID: KQ1903779-05
RunType: CCB
Matrix: Water

Date Acquired: 3/22/19 16:39:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F004.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 16:39:00	**Vial:**	5
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903779-05	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**		**Report Group:**	KQ1903779
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.68 +0.04	0	17174	0.000	0.041				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 4:39 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:38:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	0.000	4.681f	0	17174	N.D.	0.041 #
	Target Compounds						
1)	3,4-Dichl...	0.000	3.725	0	10346	N.D. d	0.477
2)	3,5-Dichl...	3.362	0.000	30881	0	2.100	N.D. d#
3)	2,4,6-Tri...	0.000	4.201	0	3358	N.D. d	0.008
5)	2,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	0.000	5.028	0	7834	N.D. d	0.013
8) M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9) M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

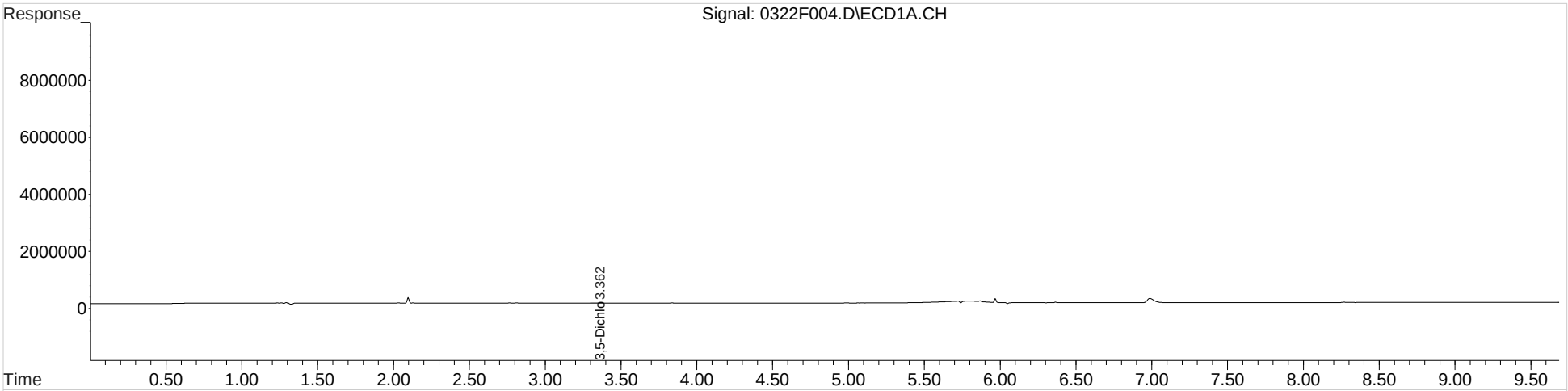
1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 4:39 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:38:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F018.D\
Lab ID: KQ1903779-06
RunType: CCB
Matrix: Water

Date Acquired: 3/22/19 20:55:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F018.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 20:55:00	**Vial:**	6
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903779-06	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**		**Report Group:**	KQ1903779
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	0.00	0	0	0.000	0.000				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F018.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 8:55 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:45:23 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	0.000	3.726	0	12677	N.D. d	0.584
2)		3,5-Dichl...	3.384	0.000	69590	0	5.598	N.D. d#
3)		2,4,6-Tri...	0.000	4.206	0	3538	N.D. d	0.009
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	4.990	0	31336	N.D. d	0.052
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

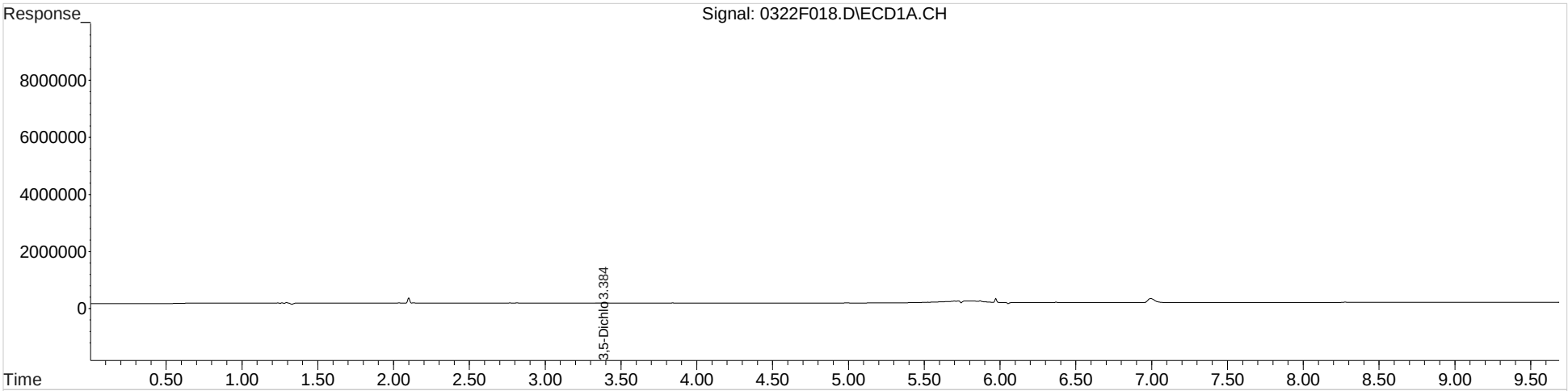
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F018.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 8:55 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:45:23 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F030.D\
Lab ID: KQ1903779-07
RunType: CCB
Matrix: Water

Date Acquired: 3/23/19 00:34:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F030.D\	**Instrument:**	K-GC-28
Acqu Date:	3/23/19 00:34:00	**Vial:**	7
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903779-07	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**		**Report Group:**	KQ1903779
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.66 +0.01	0	6114	0.000	0.015				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F030.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Mar 2019 12:34 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 14:01:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.659	0	6114	N.D. d	0.015
		Target Compounds						
1)		3,4-Dichl...	3.129	0.000	15636	0	0.432	N.D. #
2)		3,5-Dichl...	3.386	0.000	17404	0	0.890	N.D. #
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	4.989	0	32286	N.D. d	0.053
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

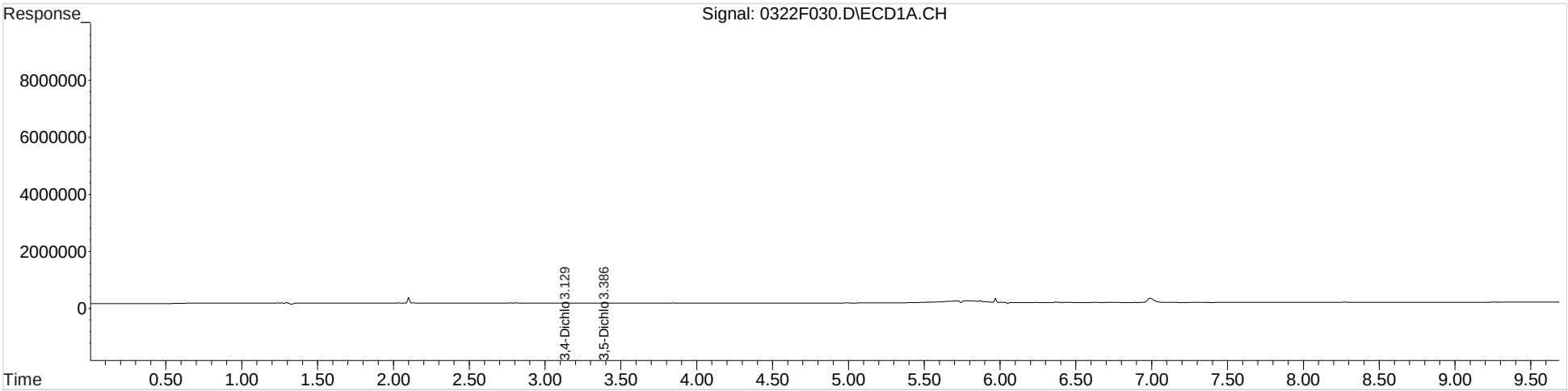
1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F030.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Mar 2019 12:34 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 14:01:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F034.D\
Lab ID: KQ1903779-08
RunType: CCB
Matrix: Water

Date Acquired: 3/23/19 01:48:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F034.D\	**Instrument:**	K-GC-28
Acqu Date:	3/23/19 01:48:00	**Vial:**	8
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903779-08	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**		**Report Group:**	KQ1903779
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.69 +0.04	0	3388	0.000	0.008				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F034.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Mar 2019 1:48 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 14:02:32 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.690f	0	3388	N.D. d	0.008
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	4.207	0	4062	N.D. d	0.010
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	4.987	0	19624	N.D. d	0.033
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

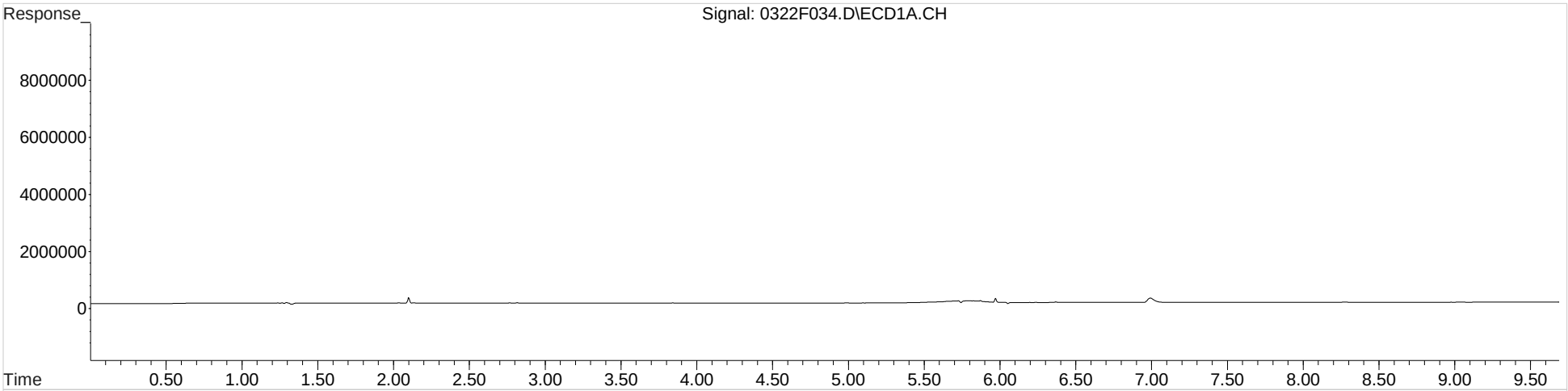
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F034.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Mar 2019 1:48 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 14:02:32 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/26/19
2nd TP 03/26/19

Validation Report

Data File: J:\GC28\Data\032519\0325F004.D\
Lab ID: KQ1903827-04
RunType: CCB
Matrix: Water

Date Acquired: 3/25/19 14:26:00
Batch ID: 629403
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/26/19
2nd TP 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032519\0325F004.D\	**Instrument:**	K-GC-28
Acqu Date:	3/25/19 14:26:00	**Vial:**	4
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903827-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/20/19	**Receive Date:**	3/20/19

Analysis Lot:	629403	**Prep Lot:**		**Report Group:**	KQ1903827
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	0.00	0	0	0.000	0.000				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/26/19
2nd 03/26/19

Data File : J:\GC28\Data\032519\0325F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 2:26 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 15:20:23 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	0.000	3.719	0	5490	N.D.	0.253 #
2)		3,5-Dichl...	0.000	0.000	0	0	N.D.	N.D.
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.032	0	13151	N.D. d	0.022
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D.	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D.	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

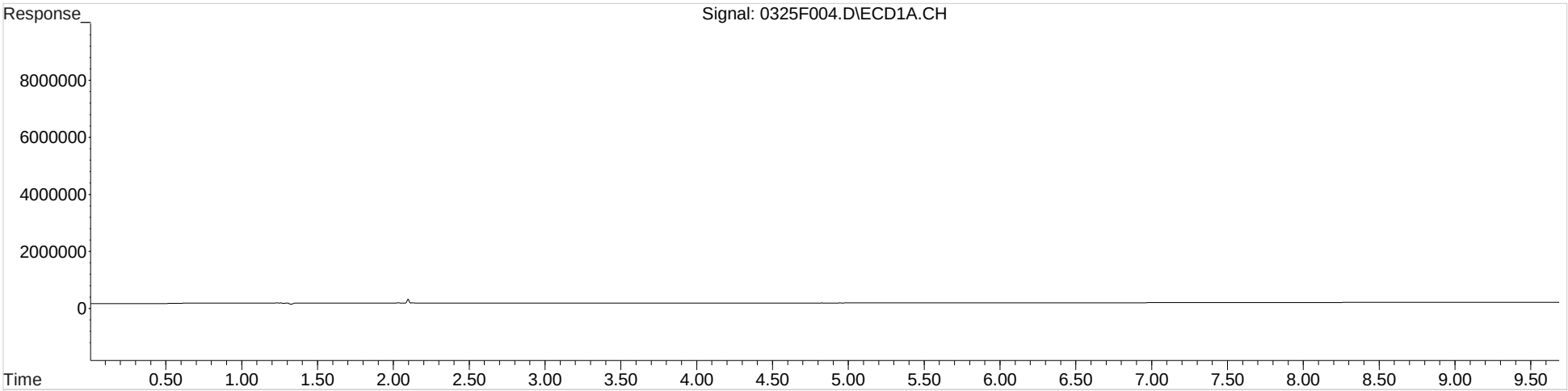
1st 03/26/19
2nd 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032519\0325F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 2:26 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 15:20:23 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/26/19
2nd TP 03/26/19

Validation Report

Data File: J:\GC28\Data\032519\0325F016.D\
Lab ID: KQ1903827-05
RunType: CCB
Matrix: Water

Date Acquired: 3/25/19 18:05:00
Batch ID: 629403
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/26/19
2nd TP 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032519\0325F016.D\	**Instrument:**	K-GC-28
Acqu Date:	3/25/19 18:05:00	**Vial:**	5
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903827-05	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/20/19	**Receive Date:**	3/20/19

Analysis Lot:	629403	**Prep Lot:**		**Report Group:**	KQ1903827
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	0.00	0	0	0.000	0.000				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st JMS 03/26/19
2nd TP 03/26/19

Quantitation Report (QT Reviewed)

1st JMS 03/26/19
2nd TP 03/26/19

Data File : J:\GC28\Data\032519\0325F016.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 6:05 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 26 07:59:51 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D.	N.D.
2)		3,5-Dichl...	0.000	0.000	0	0	N.D.	N.D.
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D.
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D.
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D.
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

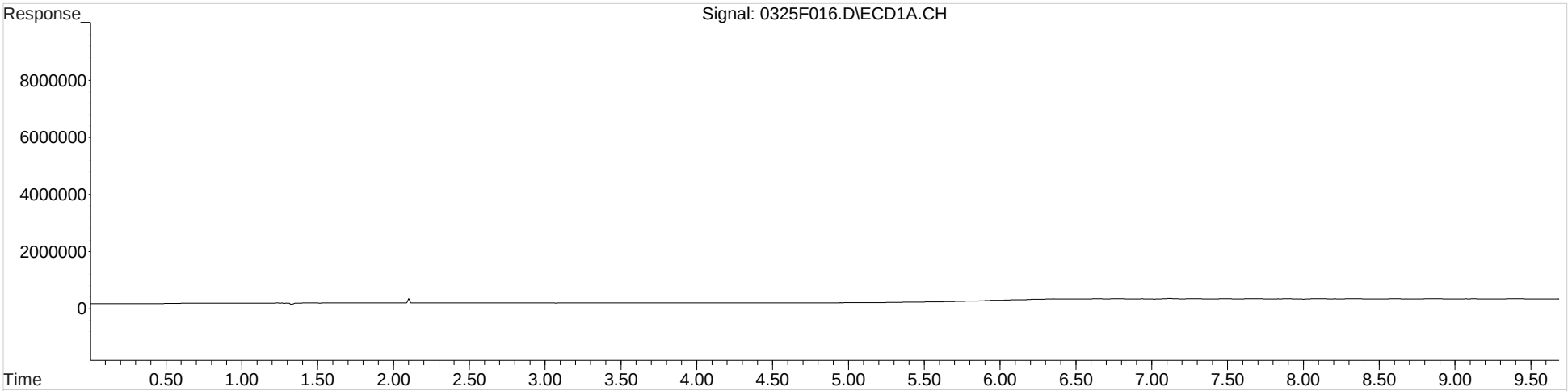
1st 03/26/19
2nd 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032519\0325F016.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 6:05 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 26 07:59:51 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 04/01/19
2nd MC 04/01/19

Validation Report

Data File: J:\GC28\Data\040119\0401F004.D\
Lab ID: KQ1904193-03
RunType: CCB
Matrix: Water

Date Acquired: 4/1/19 10:27:00
Batch ID: 630241
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 04/01/19
2nd MC 04/01/19

Quantitation Report

Data File:	J:\GC28\Data\040119\0401F004.D\	**Instrument:**	K-GC-28
Acqu Date:	4/1/19 10:27:00	**Vial:**	3
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1904193-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/23/19	**Receive Date:**	3/26/19

Analysis Lot:	630241	**Prep Lot:**		**Report Group:**	KQ1904193
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	0.00	0	0	0.000	0.000				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 04/01/19
2nd MC 04/01/19

Data File : J:\GC28\Data\040119\0401F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 10:27 am Operator: SMS
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 11:17:42 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D.
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D.
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D.
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

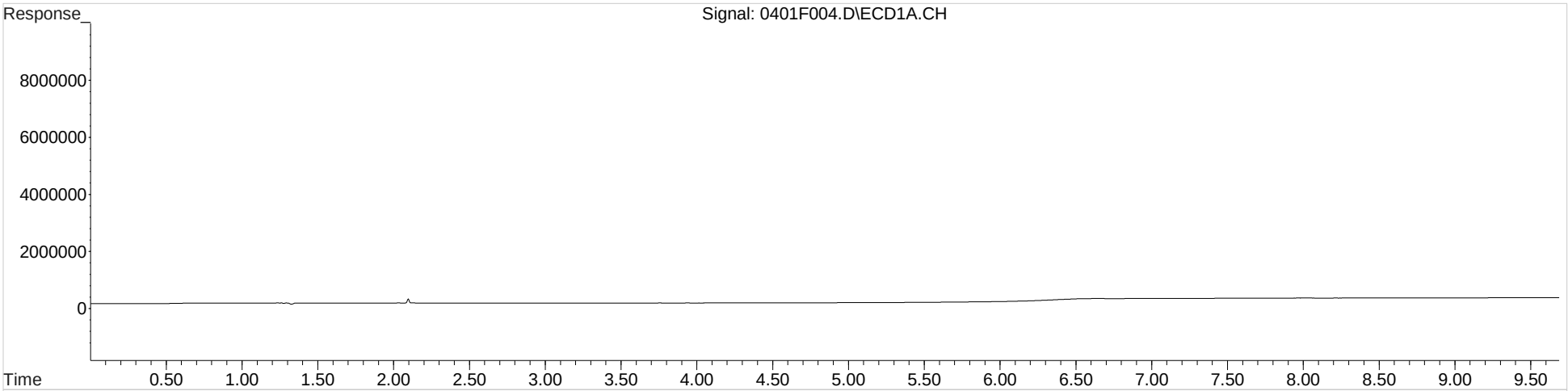
1st SMS 04/01/19
2nd MC 04/01/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\040119\0401F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 10:27 am Operator: SMS
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 11:17:42 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 04/01/19
2nd MC 04/01/19

Validation Report

Data File: J:\GC28\Data\040119\0401F016.D\
Lab ID: KQ1904193-04
RunType: CCB
Matrix: Water

Date Acquired: 4/1/19 14:07:00
Batch ID: 630241
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 04/01/19
2nd MC 04/01/19

Quantitation Report

Data File:	J:\GC28\Data\040119\0401F016.D\	**Instrument:**	K-GC-28
Acqu Date:	4/1/19 14:07:00	**Vial:**	4
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1904193-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/23/19	**Receive Date:**	3/26/19

Analysis Lot:	630241	**Prep Lot:**		**Report Group:**	KQ1904193
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	0.00	0	0	0.000	0.000				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 04/01/19
2nd MC 04/01/19

Data File : J:\GC28\Data\040119\0401F016.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 2:07 pm Operator: SMS
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 14:53:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
2)		3,5-Dichl...	0.000	0.000	0	0	N.D.	N.D.
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D.
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D.
7)	M	2,3,5,6-T...	0.000	5.040f	0	15395	N.D. d	0.025
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

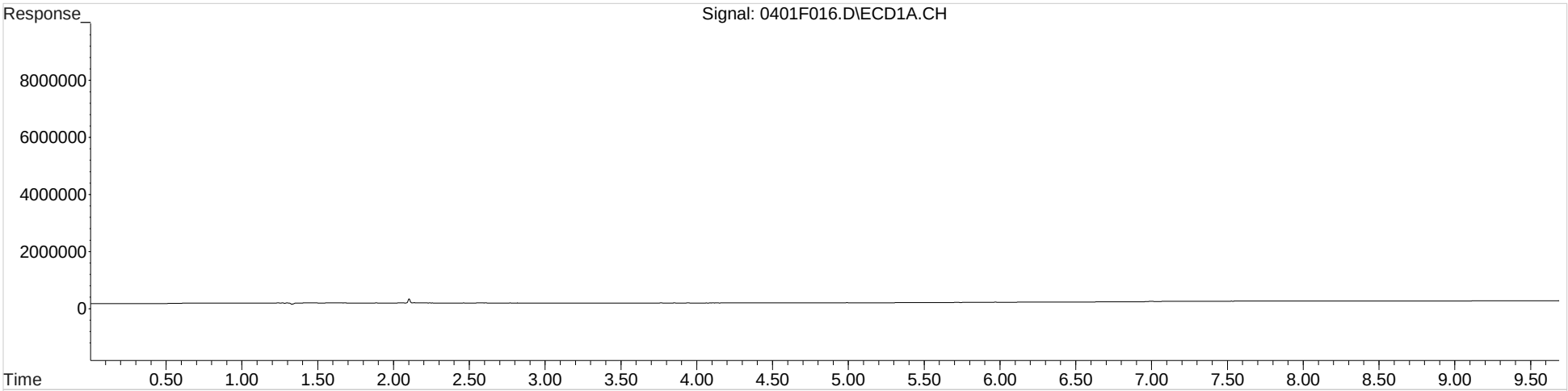
1st SMS 04/01/19
2nd MC 04/01/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\040119\0401F016.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 2:07 pm Operator: SMS
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 14:53:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F003.D\
Lab ID: KQ1903733-01
RunType: CCV
Matrix: Water

Date Acquired: 3/21/19 16:57:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F003.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 16:57:00	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903733-01	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.01	4.64	17637006	20007220	51.087	47.458			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.59	21845320	28381951	47.327	41.707	47.3	41.7	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 4:57 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:06:46 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.015	4.644	17637006	20007220	51.087	47.458
		Target Compounds						
1)		3,4-Dichl...	3.124	3.731	715795	889996	46.511	41.028
2)		3,5-Dichl...	3.365	3.981	513089	642616	48.282	41.828
3)		2,4,6-Tri...	3.461	4.200	13633520	17129552	44.366	41.965
5)		2,4,5-Tri...	4.188	4.710	6298813	7585894	46.427	42.847
6)		3,4,5-Tri...	4.218	4.774	6113969	7169916	42.808	42.311
7)	M	2,3,5,6-T...	4.465	5.011	19291588	25496952	44.804	42.232
8)	M	2,3,4,5-T...	5.005	5.410	13042117	16798644	42.802	40.390
9)	M	Pentachlo...	5.141	5.590	21845320	28381951	47.327	41.707
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

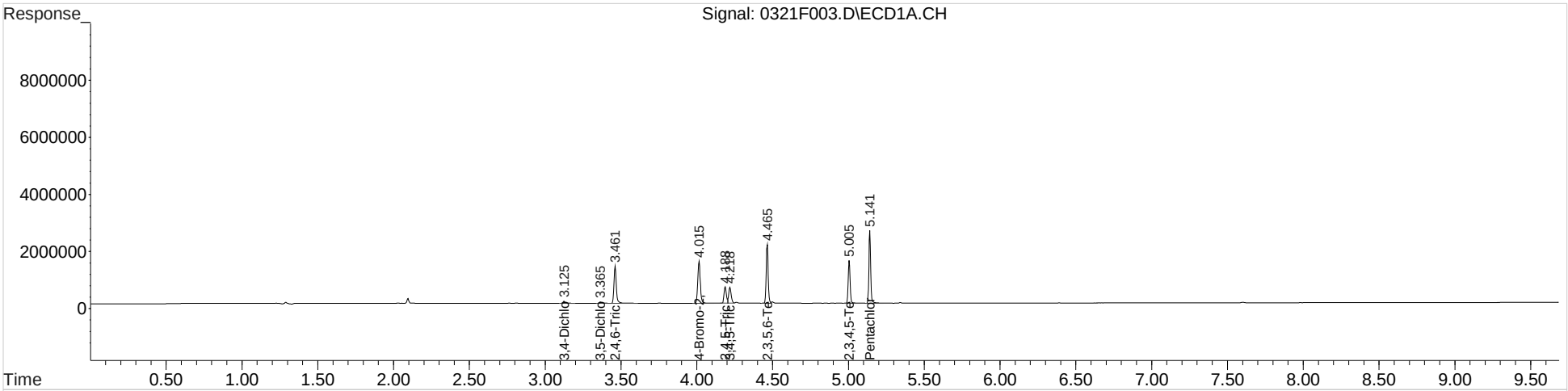
1st 03/22/19
2nd 03/22/19

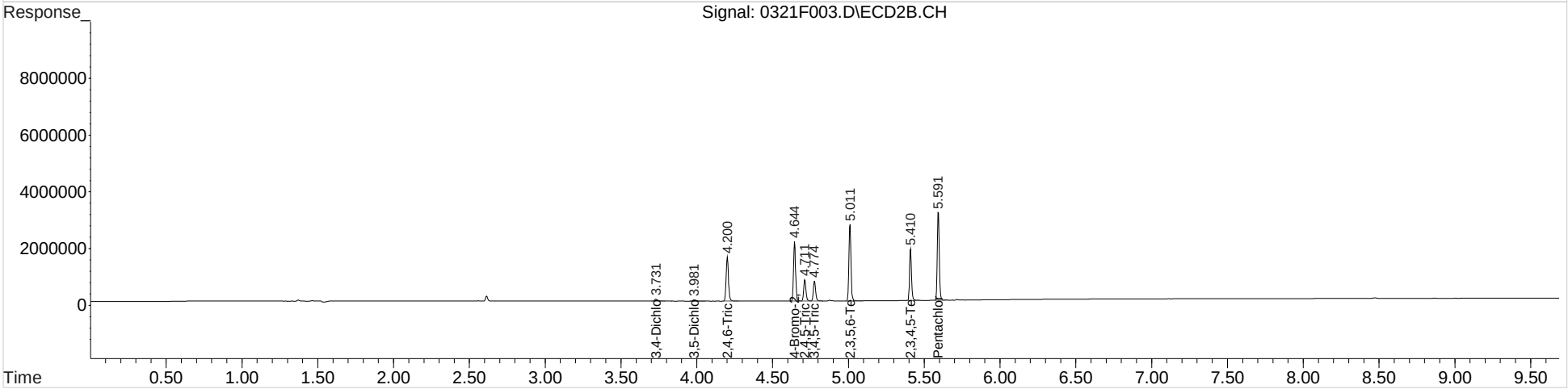
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 4:57 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:06:46 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F017.D\
Lab ID: KQ1903733-02
RunType: CCV
Matrix: Water

Date Acquired: 3/21/19 21:13:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F017.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 21:13:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903733-02	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18278264	20160352	52.998	47.821			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	22308120	28192546	48.361	41.428	48.4	41.4	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 3/22/19 8:56
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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F017.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 9:13 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:05:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	18278264	20160352	52.998	47.821
		Target Compounds						
1)		3,4-Dichl...	3.127	3.733	754148	922708	49.167	42.536
2)		3,5-Dichl...	3.367	3.987	538909	667170	50.936	43.519
3)		2,4,6-Tri...	3.467	4.203	14346803	17578972	46.815	43.066
5)		2,4,5-Tri...	4.191	4.713	6437078	7748464	47.523	43.795
6)		3,4,5-Tri...	4.221	4.780	6546988	7317536	46.061	43.208
7)	M	2,3,5,6-T...	4.467	5.013	20279796	25975020	47.214	43.024
8)	M	2,3,4,5-T...	5.007	5.413	13478909	16864322	44.339	40.548
9)	M	Pentachlo...	5.144	5.597	22308120	28192546	48.361	41.428
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

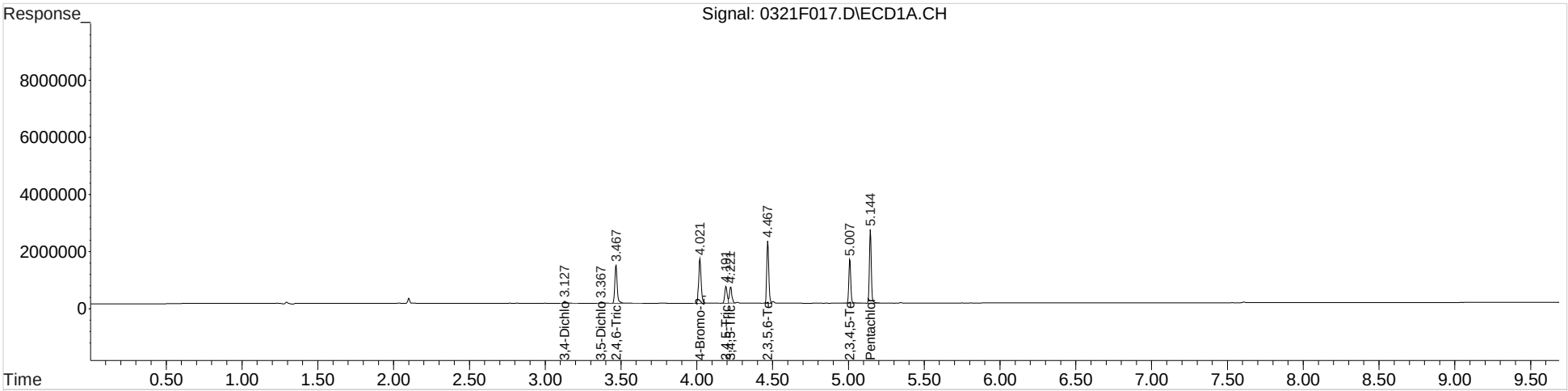
1st 03/22/19
2nd 03/22/19

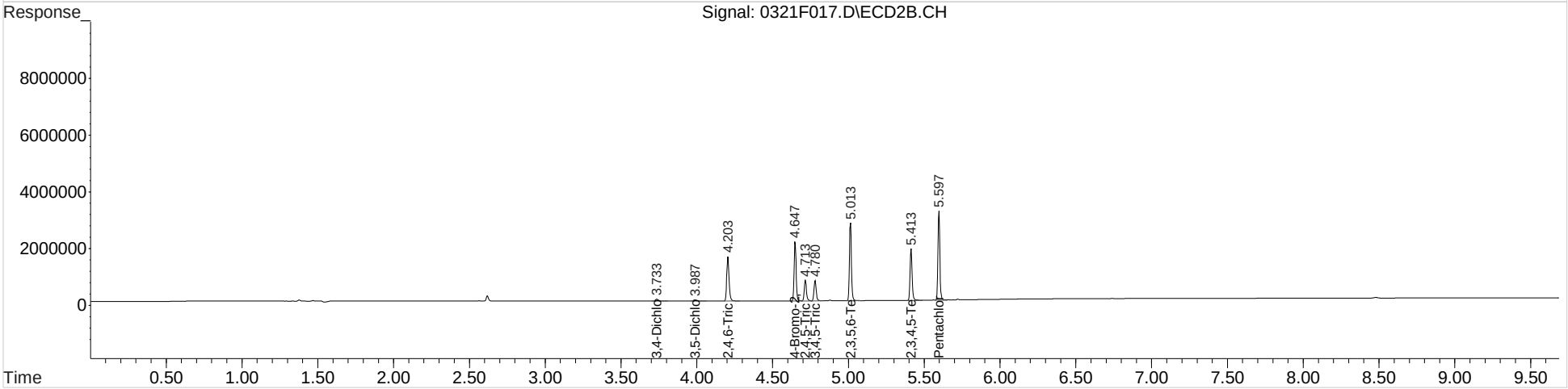
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F017.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 9:13 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:05:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F024.D\
Lab ID: KQ1903733-03
RunType: CCV
Matrix: Water

Date Acquired: 3/21/19 23:21:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F024.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 23:21:00	**Vial:**	3
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903733-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18459552	19840209	53.538	47.062			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	22816136	28061303	49.496	41.236	49.5	41.2	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F024.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:21 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:10:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	18459552	19840209	53.538	47.062
		Target Compounds						
1)		3,4-Dichl...	3.128	3.734	743225	897822	48.409	41.389
2)		3,5-Dichl...	3.368	3.988	528954	647718	49.910	42.179
3)		2,4,6-Tri...	3.465	4.204	14049800	17109382	45.794	41.916
5)		2,4,5-Tri...	4.192	4.714	6445798	7540579	47.593	42.582
6)		3,4,5-Tri...	4.222	4.781	6536556	7101386	45.983	41.895
7)	M	2,3,5,6-T...	4.468	5.014	20411928	25624502	47.537	42.443
8)	M	2,3,4,5-T...	5.008	5.414	13684954	16797170	45.065	40.387
9)	M	Pentachlo...	5.145	5.598	22816136	28061303	49.496	41.236
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

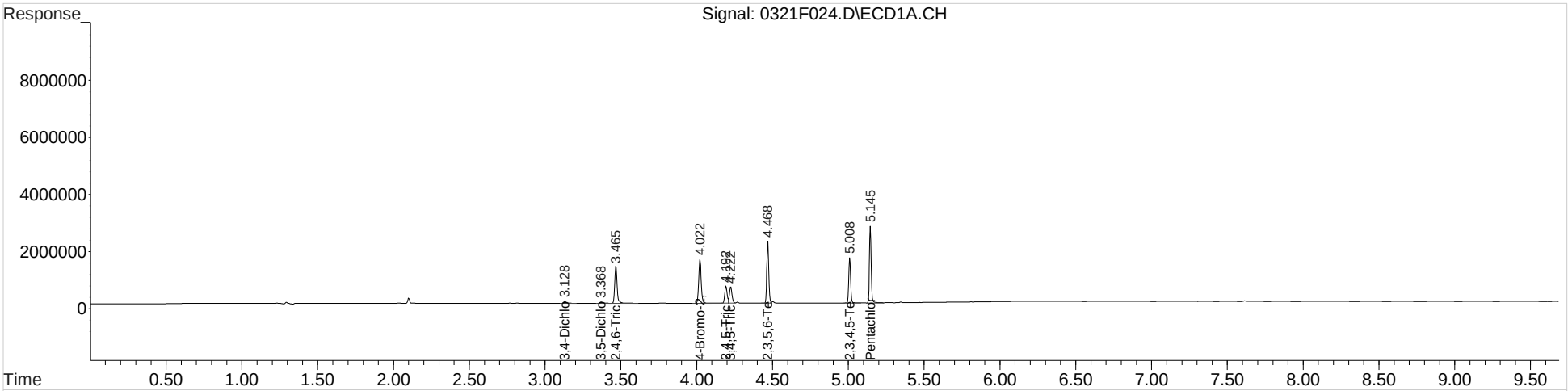
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F024.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:21 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:10:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F003.D\
Lab ID: KQ1903779-01
RunType: CCV
Matrix: Water

Date Acquired: 3/22/19 16:21:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F003.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 16:21:00	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903779-01	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**		**Report Group:**	KQ1903779
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.01	4.64	19577532	22550264	56.873	53.490			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	23869550	31261902	51.852	45.939	51.9	45.9	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 4:21 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 16:44:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.013	4.642	19577532	22550264	56.873	53.490
	Target Compounds						
1)	3,4-Dichl...	3.123	3.729	775448	998963	50.649	46.051
2)	3,5-Dichl...	3.363	3.982	559074	707544	53.024	46.312
3)	2,4,6-Tri...	3.463	4.199	14653890	19265932	47.872	47.199
5)	2,4,5-Tri...	4.186	4.712	6647010	8470279	49.194	48.017
6)	3,4,5-Tri...	4.219	4.775	6807276	8110376	48.030	48.036
7) M	2,3,5,6-T...	4.463	5.009	21180908	28432680	49.420	47.095
8) M	2,3,4,5-T...	5.006	5.412	14136694	18490674	46.661	44.458
9) M	Pentachlo...	5.143	5.595	23869550	31261902	51.852	45.939
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

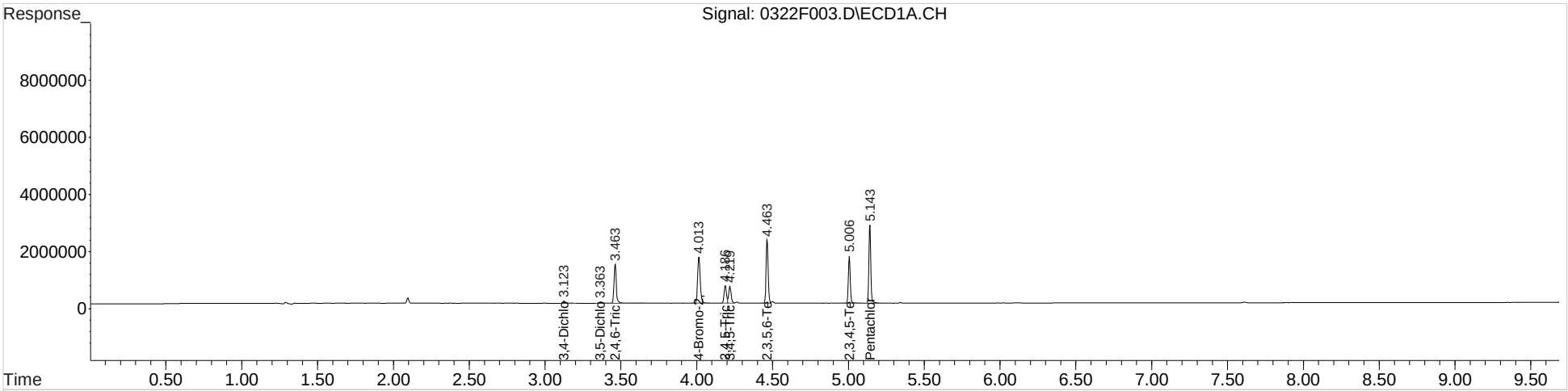
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

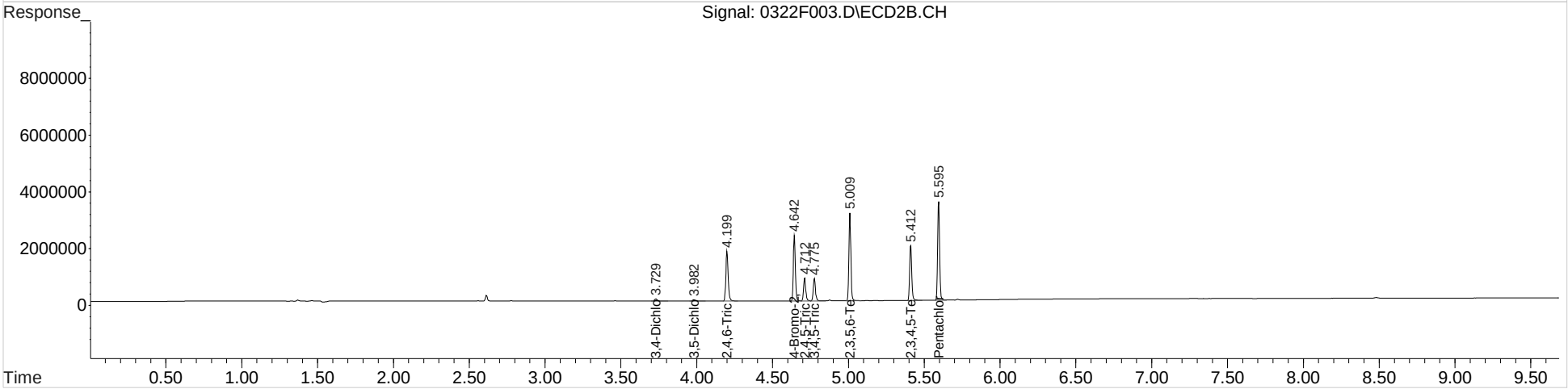
1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 4:21 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 16:44:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F017.D\
Lab ID: KQ1903779-02
RunType: CCV
Matrix: Water

Date Acquired: 3/22/19 20:37:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F017.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 20:37:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903779-02	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**		**Report Group:**	KQ1903779
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18714706	20311322	54.299	48.179			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.15	5.60	23351644	29197360	50.693	42.905	50.7	42.9	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F017.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 8:37 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:44:56 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.019	4.648	18714706	20311322	54.299	48.179
		Target Compounds						
1)		3,4-Dichl...	3.129	3.735	768006	914790	50.130	42.171
2)		3,5-Dichl...	3.369	3.988	542245	663349	51.280	43.256
3)		2,4,6-Tri...	3.466	4.205	14149750	17587071	46.137	43.086
5)		2,4,5-Tri...	4.192	4.715	6683099	7835258	49.482	44.302
6)		3,4,5-Tri...	4.222	4.778	6629578	7397016	46.685	43.691
7)	M	2,3,5,6-T...	4.469	5.015	20849294	26318917	48.608	43.593
8)	M	2,3,4,5-T...	5.009	5.415	14071846	17384242	46.431	41.798
9)	M	Pentachlo...	5.146	5.598	23351644	29197360	50.693	42.905
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

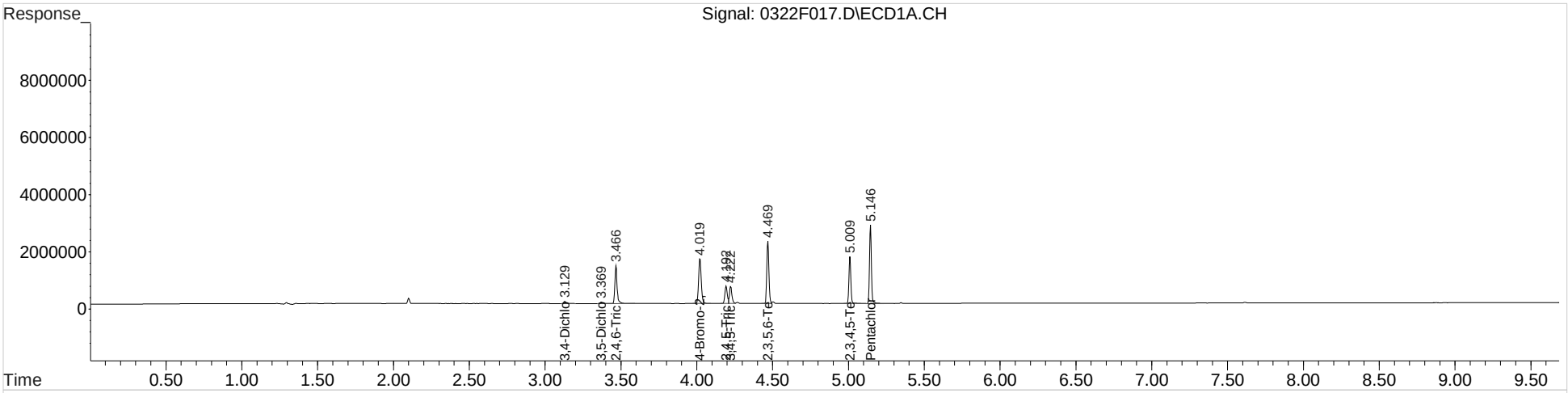
1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F017.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 8:37 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:44:56 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F029.D\
Lab ID: KQ1903779-03
RunType: CCV
Matrix: Water

Date Acquired: 3/23/19 00:16:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F029.D\	**Instrument:**	K-GC-28
Acqu Date:	3/23/19 00:16:00	**Vial:**	3
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903779-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**		**Report Group:**	KQ1903779
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	19237097	20519742	55.857	48.673			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.15	5.60	23919338	29468302	51.963	43.303	52.0	43.3	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F029.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Mar 2019 12:16 am Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:59:54 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.019	4.649	19237097	20519742	55.857	48.673
		Target Compounds						
1)		3,4-Dichl...	3.129	3.735	772726	918363	50.459	42.336
2)		3,5-Dichl...	3.369	3.989	547528	658783	51.827	42.941
3)		2,4,6-Tri...	3.466	4.205	14004042	17588226	45.637	43.089
5)		2,4,5-Tri...	4.193	4.715	6555558	7743175	48.466	43.764
6)		3,4,5-Tri...	4.223	4.779	6842624	7313571	48.298	43.184
7)	M	2,3,5,6-T...	4.469	5.012	21081482	26366249	49.176	43.672
8)	M	2,3,4,5-T...	5.009	5.415	14226044	17459234	46.977	41.978
9)	M	Pentachlo...	5.146	5.599	23919338	29468302	51.963	43.303
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

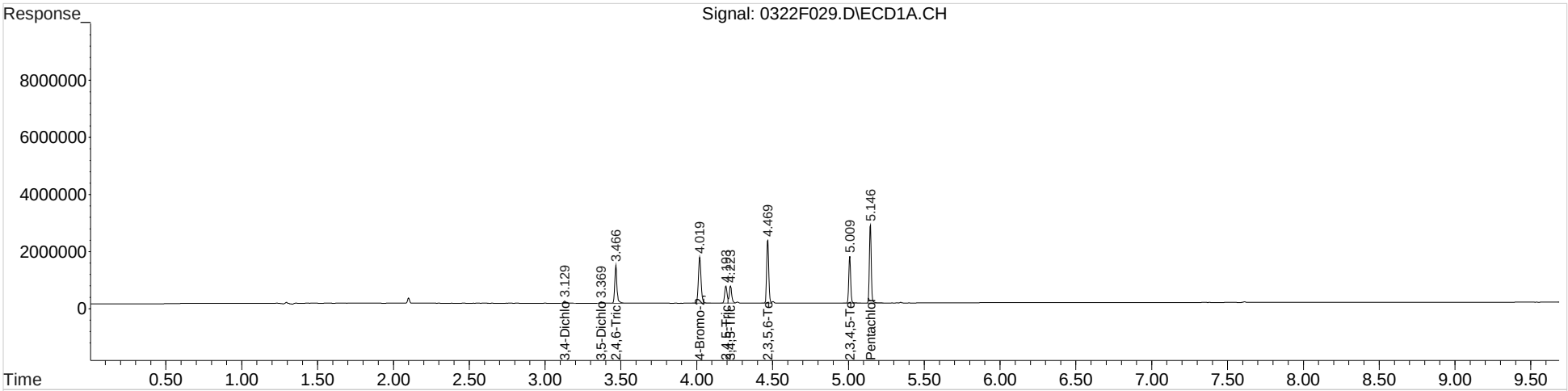
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

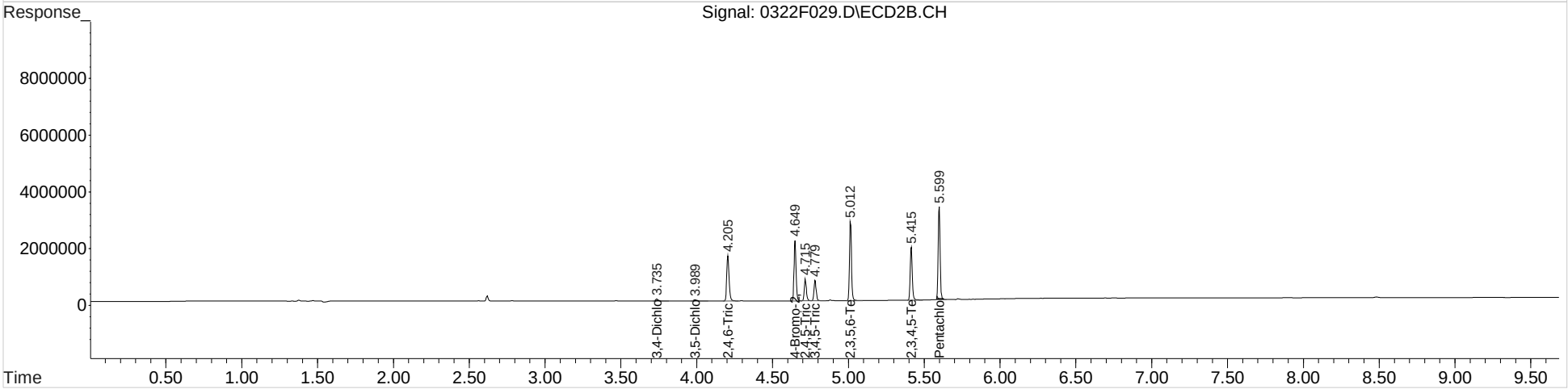
1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F029.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Mar 2019 12:16 am Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 13:59:54 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 03/25/19
2nd JMS 03/26/19

Validation Report

Data File: J:\GC28\Data\032219B\0322F033.D\
Lab ID: KQ1903779-04
RunType: CCV
Matrix: Water

Date Acquired: 3/23/19 01:29:00
Batch ID: 629256
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 03/25/19
2nd JMS 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032219B\0322F033.D\	**Instrument:**	K-GC-28
Acqu Date:	3/23/19 01:29:00	**Vial:**	4
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903779-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629256	**Prep Lot:**		**Report Group:**	KQ1903779
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	19820086	21527244	57.597	51.063			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.59	24177842	30102724	52.541	44.235	52.5	44.2	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 03/25/19
2nd JMS 03/26/19

Data File : J:\GC28\Data\032219B\0322F033.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Mar 2019 1:29 am Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 14:02:07 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.019	4.648	19820086	21527244	57.597	51.063
		Target Compounds						
1)		3,4-Dichl...	3.129	3.735	796950	956843	52.149	44.110
2)		3,5-Dichl...	3.369	3.988	559064	693186	53.023	45.317
3)		2,4,6-Tri...	3.465	4.205	14495776	18473836	47.328	45.258
5)		2,4,5-Tri...	4.192	4.715	6908655	8110066	51.285	45.908
6)		3,4,5-Tri...	4.222	4.778	6620862	7677790	46.619	45.400
7)	M	2,3,5,6-T...	4.469	5.011	21506934	27322091	50.220	45.255
8)	M	2,3,4,5-T...	5.009	5.411	14399016	17788146	47.589	42.769
9)	M	Pentachlo...	5.142	5.595	24177842	30102724	52.541	44.235
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

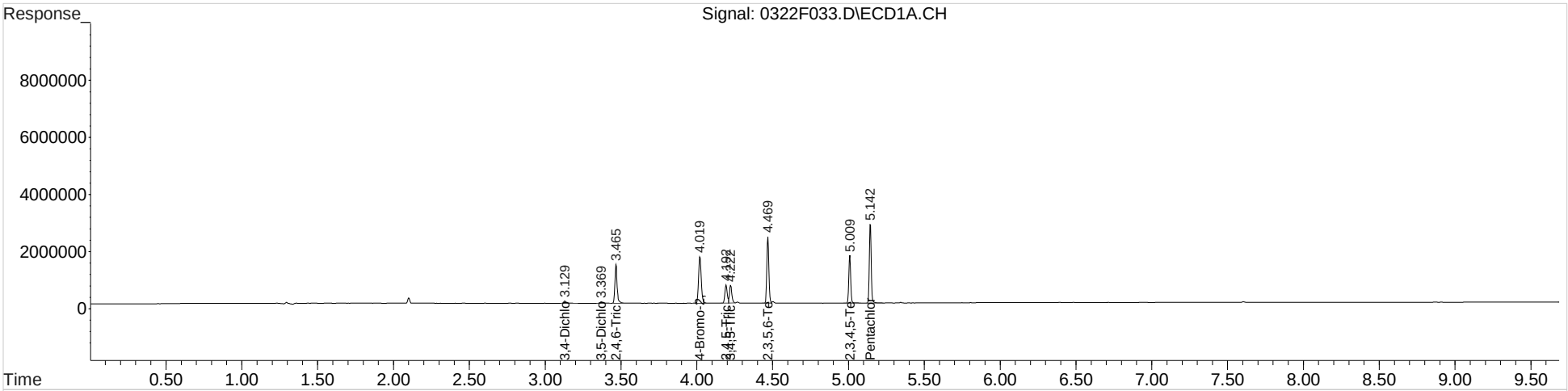
1st MC 03/25/19
2nd JMS 03/26/19

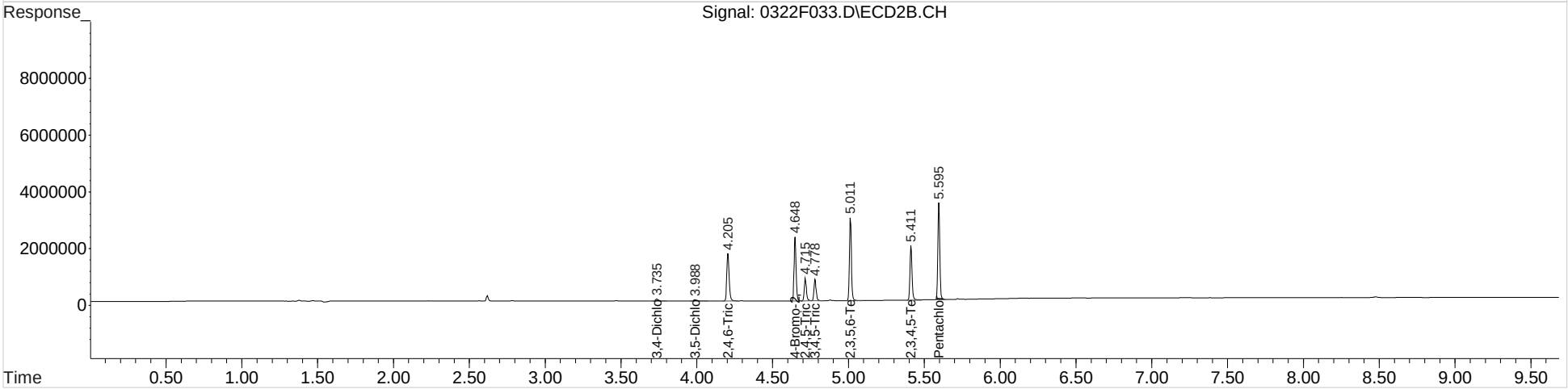
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219B\0322F033.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Mar 2019 1:29 am Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 14:02:07 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Mar 21 09:34:06 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st JMS 03/26/19
2nd TP 03/26/19

Validation Report

Data File: J:\GC28\Data\032519\0325F003.D\
Lab ID: KQ1903827-01
RunType: CCV
Matrix: Water

Date Acquired: 3/25/19 14:07:00
Batch ID: 629403
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/26/19
2nd TP 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032519\0325F003.D\	**Instrument:**	K-GC-28
Acqu Date:	3/25/19 14:07:00	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903827-01	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/20/19	**Receive Date:**	3/20/19

Analysis Lot:	629403	**Prep Lot:**		**Report Group:**	KQ1903827
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.01	4.64	18555138	20178998	53.823	47.865			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	22921368	28868688	49.731	42.422	49.7	42.4	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/26/19
2nd 03/26/19

Data File : J:\GC28\Data\032519\0325F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 2:07 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 15:20:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.013	4.642	18555138	20178998	53.823	47.865
		Target Compounds						
1)		3,4-Dichl...	3.123	3.729	749964	909490	48.877	41.927
2)		3,5-Dichl...	3.363	3.979	542381	651020	51.294	42.406
3)		2,4,6-Tri...	3.460	4.199	14460334	17404606	47.206	42.639
5)		2,4,5-Tri...	4.186	4.712	6479144	7665516	47.858	43.311
6)		3,4,5-Tri...	4.216	4.776	6604254	7272909	46.494	42.937
7)	M	2,3,5,6-T...	4.463	5.009	20380198	25868328	47.460	42.847
8)	M	2,3,4,5-T...	5.006	5.412	13618510	17199684	44.831	41.354
9)	M	Pentachlo...	5.143	5.596	22921368	28868688	49.731	42.422
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

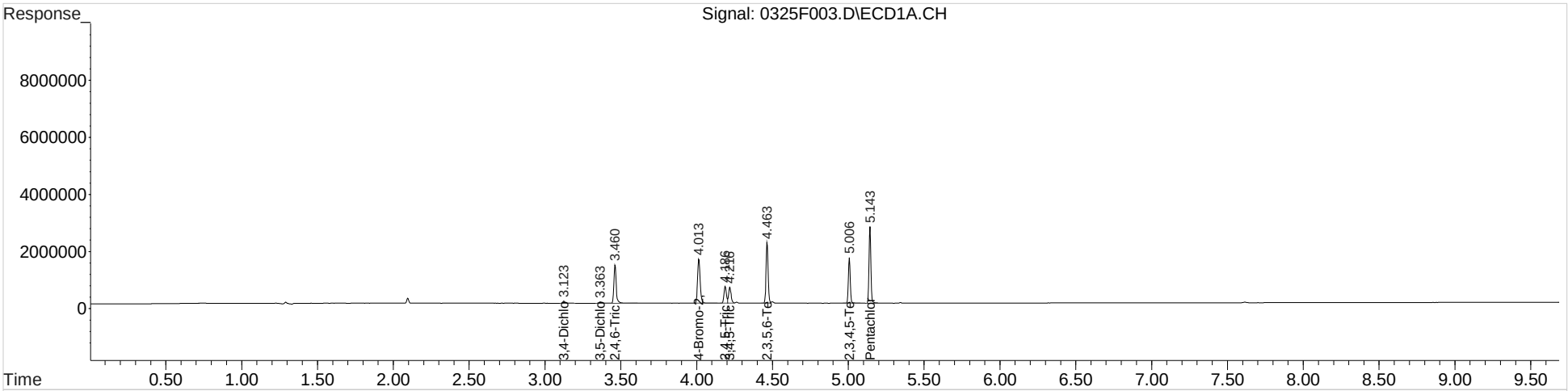
1st 03/26/19
2nd 03/26/19

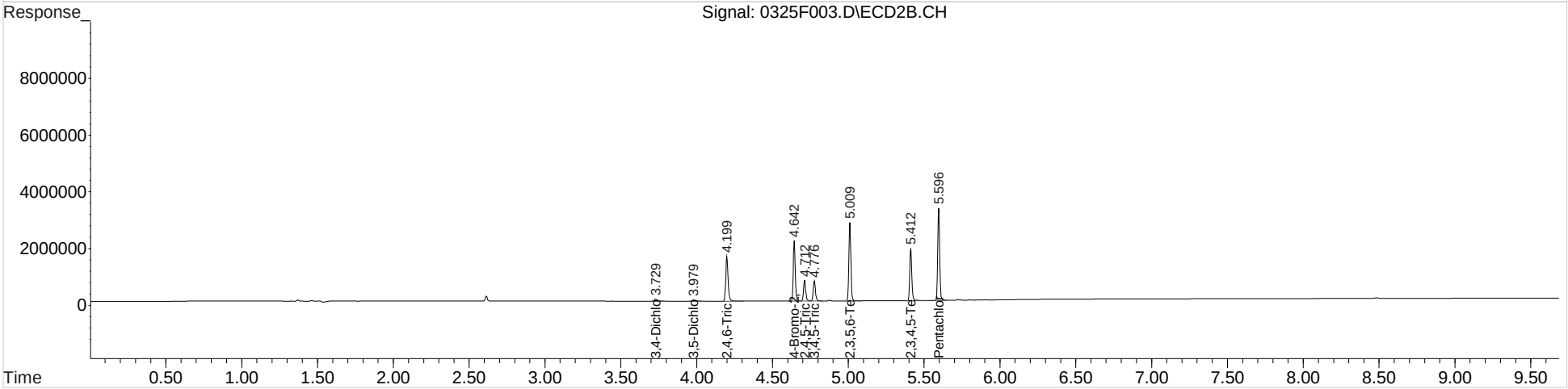
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032519\0325F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 2:07 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 25 15:20:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st JMS 03/26/19
2nd TP 03/26/19

Validation Report

Data File: J:\GC28\Data\032519\0325F015.D\
Lab ID: KQ1903827-02
RunType: CCV
Matrix: Water

Date Acquired: 3/25/19 17:47:00
Batch ID: 629403
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/26/19
2nd TP 03/26/19

Quantitation Report

Data File:	J:\GC28\Data\032519\0325F015.D\	**Instrument:**	K-GC-28
Acqu Date:	3/25/19 17:47:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903827-02	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/20/19	**Receive Date:**	3/20/19

Analysis Lot:	629403	**Prep Lot:**		**Report Group:**	KQ1903827
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18650708	19902757	54.108	47.210			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.15	5.60	22942128	27901819	49.778	41.001	49.8	41.0	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/26/19
2nd TP 03/26/19

Data File : J:\GC28\Data\032519\0325F015.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 5:47 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 26 08:00:07 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	18650708	19902757	54.108	47.210m
		Target Compounds						
1)		3,4-Dichl...	3.129	3.735	730180	881300	47.505	40.627
2)		3,5-Dichl...	3.369	3.988	524942	625822	49.498	40.675
3)		2,4,6-Tri...	3.466	4.205	14209366	16929552	46.342	41.475
5)		2,4,5-Tri...	4.192	4.715	6407926	7400813	47.292	41.767
6)		3,4,5-Tri...	4.222	4.778	6376427	7006788	44.777	41.320
7)	M	2,3,5,6-T...	4.469	5.015	20139160	26586271	46.871	44.036
8)	M	2,3,4,5-T...	5.009	5.415	13429080	17717926	44.163	42.600
9)	M	Pentachlo...	5.146	5.598	22942128	27901819	49.778	41.001m
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

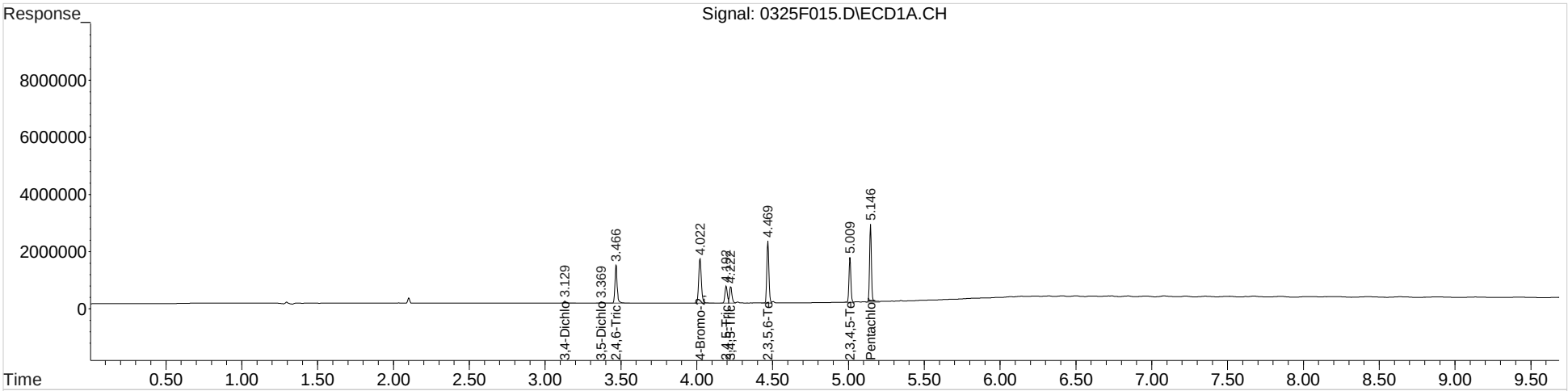
1st 03/26/19
2nd 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032519\0325F015.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 5:47 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 26 08:00:07 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



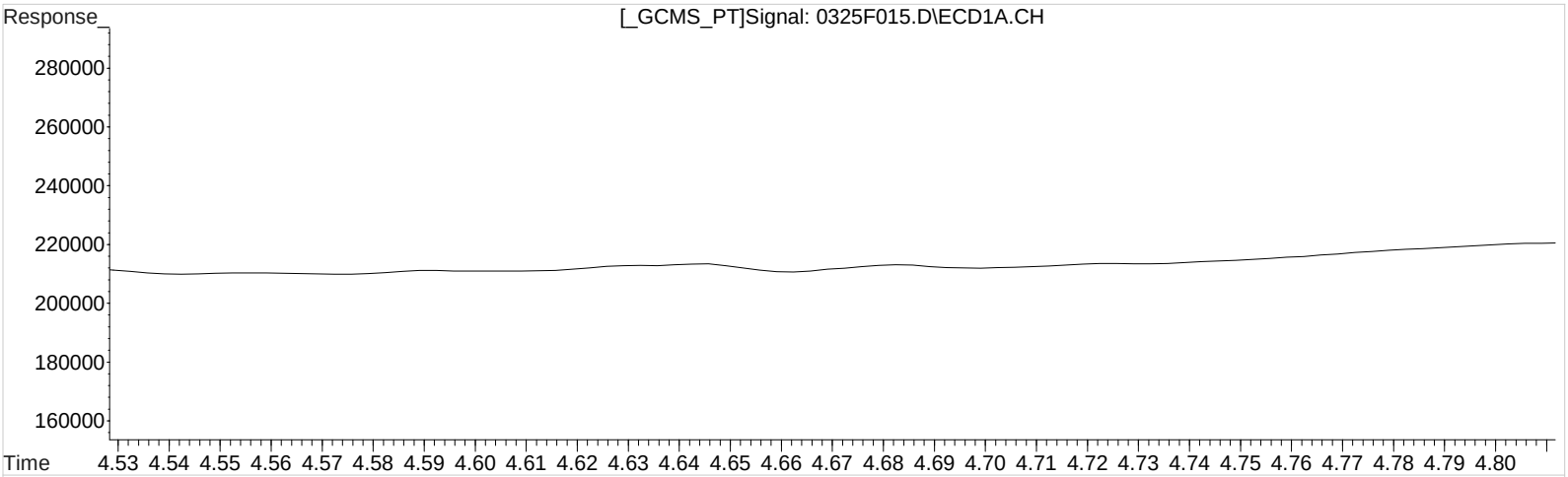
Quantitation Report (Qedit)

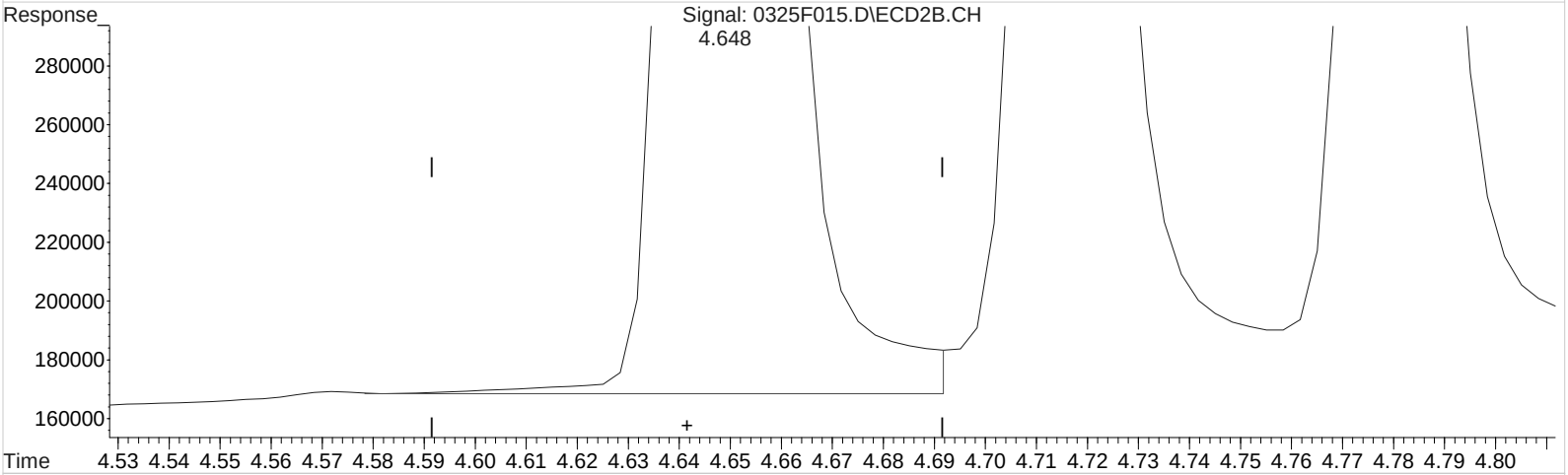
1st 03/26/19
2nd 03/26/19

Data File : J:\GC28\Data\032519\0325F015.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 5:47 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 26 07:57:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.022min 54.108 ug/L

response 18650708

Manual Integration:

Before

03/26/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.648min 47.525 ug/L

response 20035462

(+) = Expected Retention Time

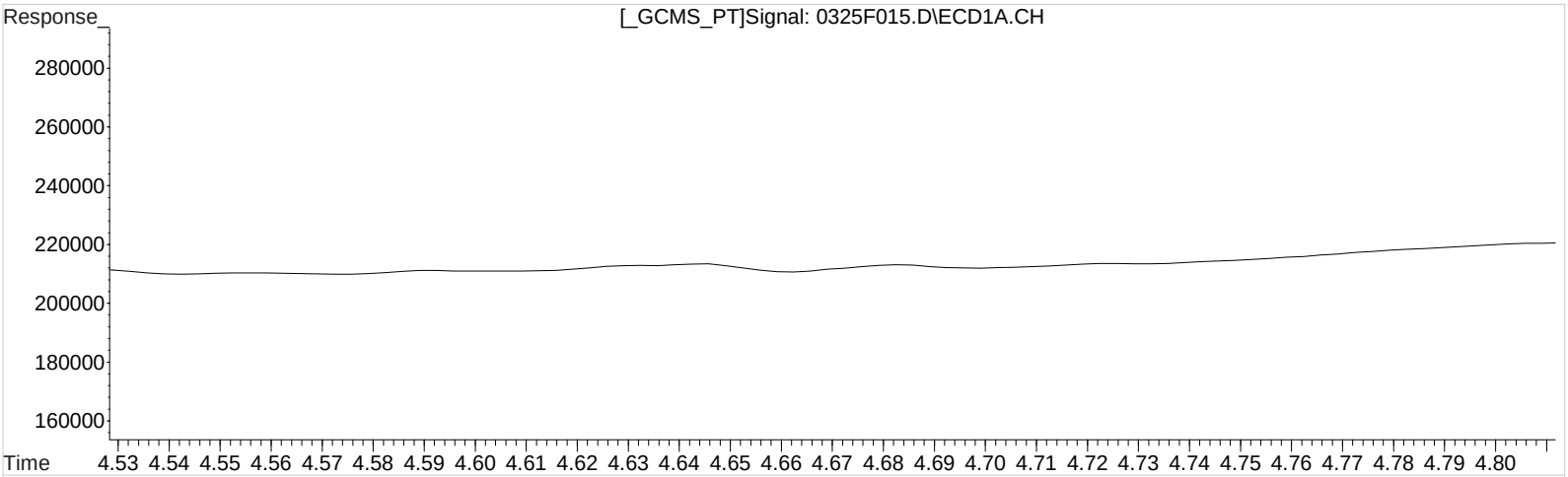
Quantitation Report (Qedit)

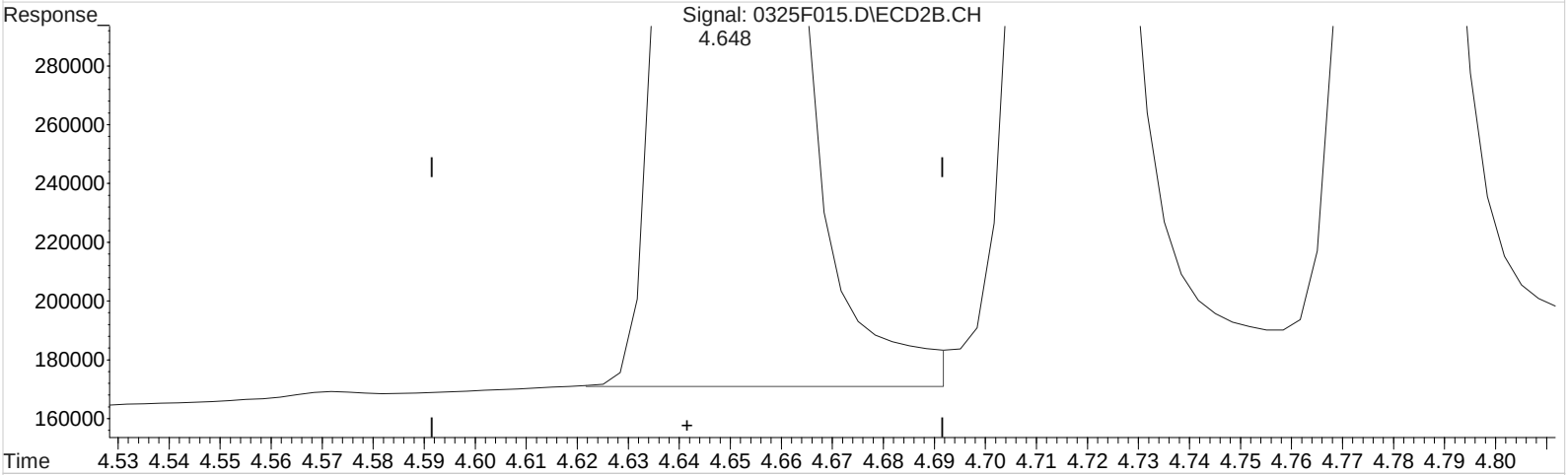
1st 03/26/19
2nd 03/26/19

Data File : J:\GC28\Data\032519\0325F015.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 5:47 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 26 07:57:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.022min 54.108 ug/L

response 18650708

Manual Integration:

After

Baseline/Shoulder

03/26/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.648min 47.210 ug/L m

response 19902757

(+) = Expected Retention Time

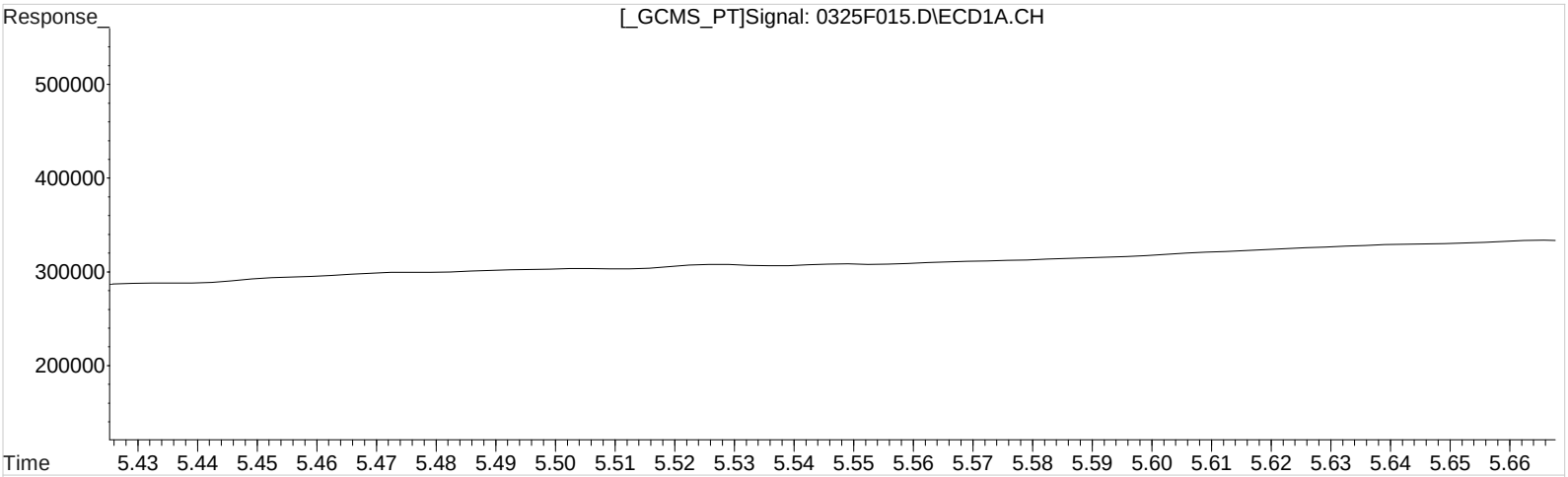
Quantitation Report (Qedit)

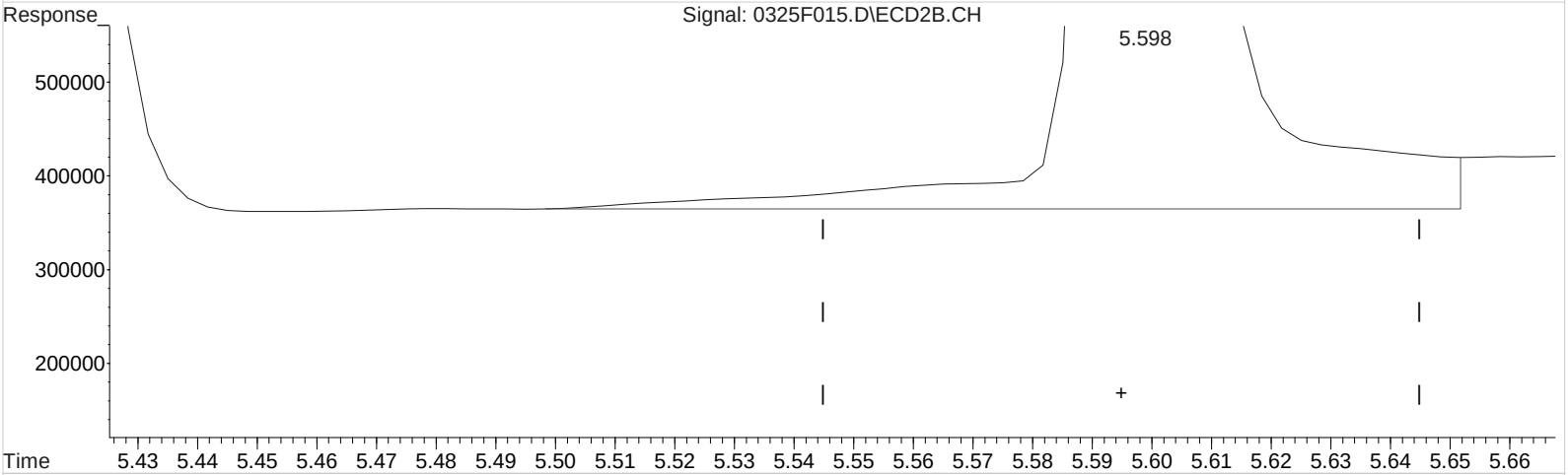
1st 03/26/19
2nd 03/26/19

Data File : J:\GC28\Data\032519\0325F015.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 5:47 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 26 07:57:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.146min 49.778 ug/L

response 22942128

Manual Integration:

Before

03/26/19

(9) Pentachlorophenol #2 (M)

5.598min 44.640 ug/L

response 30378084

(+) = Expected Retention Time

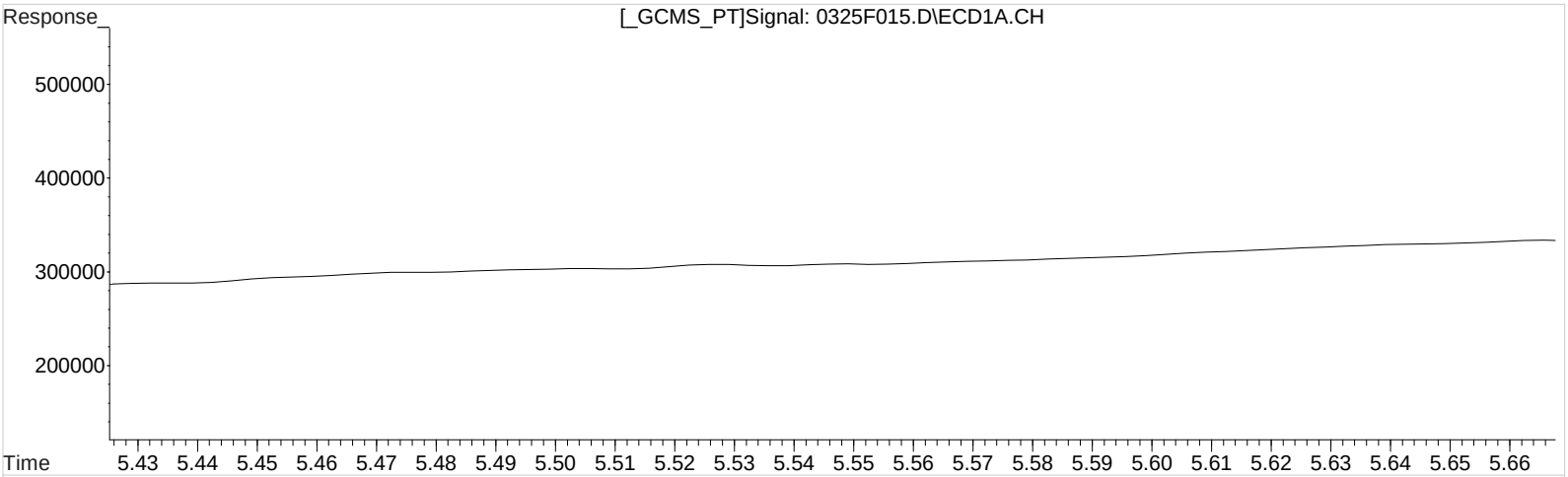
Quantitation Report (Qedit)

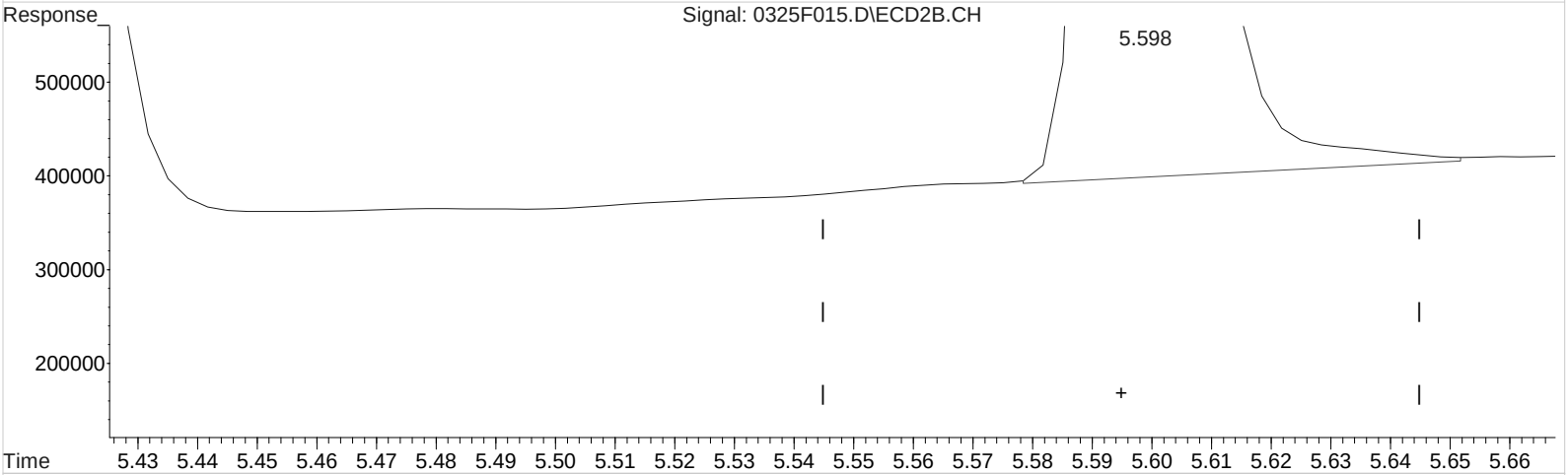
1st JMS 03/26/19
2nd TP 03/26/19

Data File : J:\GC28\Data\032519\0325F015.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 25 Mar 2019 5:47 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 26 07:57:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.146min 49.778 ug/L

response 22942128

Manual Integration:

After

Baseline/Shoulder

03/26/19

(9) Pentachlorophenol #2 (M)

5.598min 41.001 ug/L m

response 27901819

(+) = Expected Retention Time

1st JMS 04/01/19
2nd MC 04/01/19

Validation Report

Data File: J:\GC28\Data\040119\0401F003.D\
Lab ID: KQ1904193-01
RunType: CCV
Matrix: Water

Date Acquired: 4/1/19 10:09:00
Batch ID: 630241
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 04/01/19
2nd MC 04/01/19

Quantitation Report

Data File:	J:\GC28\Data\040119\0401F003.D\	**Instrument:**	K-GC-28
Acqu Date:	4/1/19 10:09:00	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1904193-01	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/23/19	**Receive Date:**	3/26/19

Analysis Lot:	630241	**Prep Lot:**		**Report Group:**	KQ1904193
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.01	4.64	18092136	20603911	52.443	48.873			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	22078830	29372024	47.849	43.162	47.8	43.2	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 04/01/19
2nd MC 04/01/19

Data File : J:\GC28\Data\040119\0401F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 10:09 am Operator: SMS
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 11:17:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.012	4.642	18092136	20603911	52.443	48.873
		Target Compounds						
1)		3,4-Dichl...	3.122	3.728	745674	907718	48.579	41.845
2)		3,5-Dichl...	3.362	3.978	523083	647058	49.307	42.134
3)		2,4,6-Tri...	3.459	4.198	14216717	17745212	46.367	43.473
5)		2,4,5-Tri...	4.186	4.708	6371274	7778311	47.001	43.970
6)		3,4,5-Tri...	4.216	4.775	6411404	7420977	45.040	43.837
7)	M	2,3,5,6-T...	4.462	5.008	19998768	26400644	46.528	43.729
8)	M	2,3,4,5-T...	5.006	5.412	12987270	17312569	42.610	41.626
9)	M	Pentachlo...	5.142	5.595	22078830	29372024	47.849	43.162
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

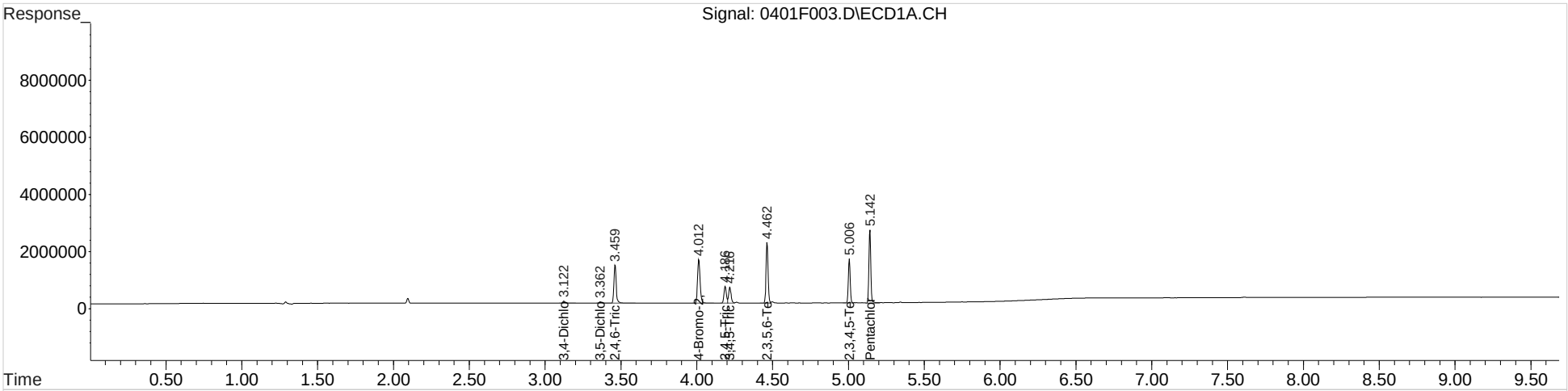
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

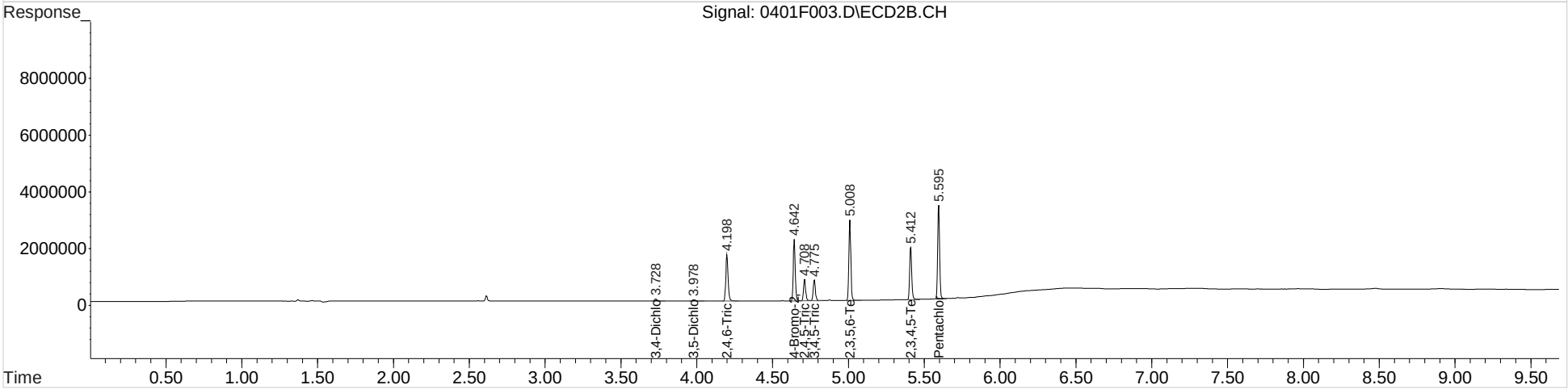
1st 04/01/19
2nd 04/01/19

Data File : J:\GC28\Data\040119\0401F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 10:09 am Operator: SMS
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 11:17:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st JMS 04/01/19
2nd MC 04/01/19

Validation Report

Data File: J:\GC28\Data\040119\0401F015.D\
Lab ID: KQ1904193-02
RunType: CCV
Matrix: Water

Date Acquired: 4/1/19 13:49:00
Batch ID: 630241
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 04/01/19
2nd MC 04/01/19

Quantitation Report

Data File:	J:\GC28\Data\040119\0401F015.D\	**Instrument:**	K-GC-28
Acqu Date:	4/1/19 13:49:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1904193-02	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/23/19	**Receive Date:**	3/26/19

Analysis Lot:	630241	**Prep Lot:**		**Report Group:**	KQ1904193
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.65	18692604	19647412	54.233	46.604			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.15	5.60	22422482	27829050	48.616	40.894	48.6	40.9	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 4/1/19 14:59
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Quantitation Report (QT Reviewed)

1st JMS 04/01/19
2nd MC 04/01/19

Data File : J:\GC28\Data\040119\0401F015.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 1:49 pm Operator: SMS
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 13:59:41 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.026	4.652	18692604	19647412	54.233	46.604
		Target Compounds						
1)		3,4-Dichl...	3.132	3.742	766344	876794	50.015	40.419
2)		3,5-Dichl...	3.372	3.995	530873	643530	50.108	41.891
3)		2,4,6-Tri...	3.469	4.212	14642536	16983835	47.833	41.608
5)		2,4,5-Tri...	4.196	4.718	6633783	7539631	49.089	42.577
6)		3,4,5-Tri...	4.226	4.782	6542664	7112098	46.029	41.960
7)	M	2,3,5,6-T...	4.472	5.015	20595398	25272529	47.986	41.860
8)	M	2,3,4,5-T...	5.012	5.415	13592768	16614076	44.740	39.946
9)	M	Pentachlo...	5.146	5.598	22422482	27829050	48.616	40.894
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

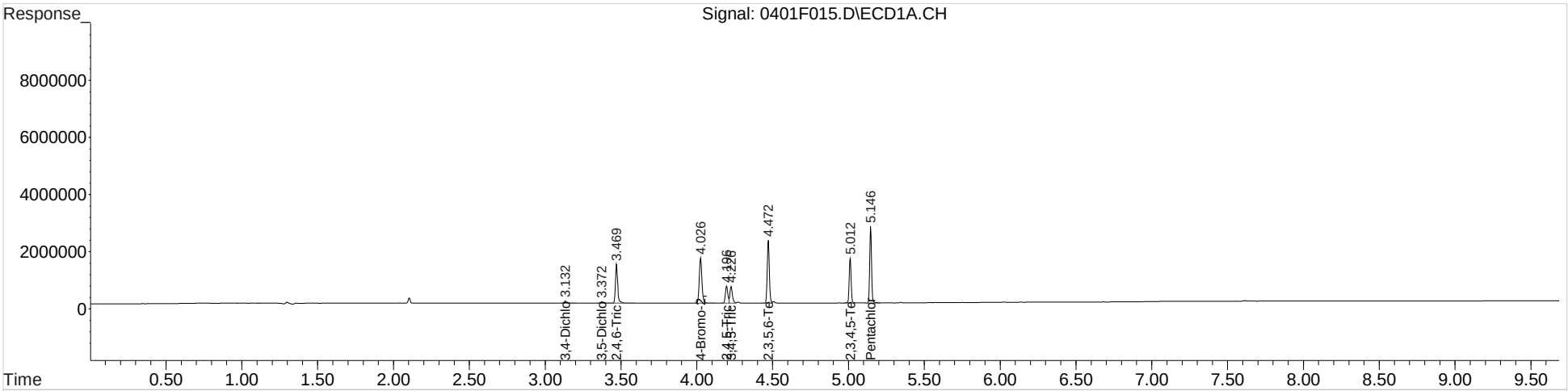
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

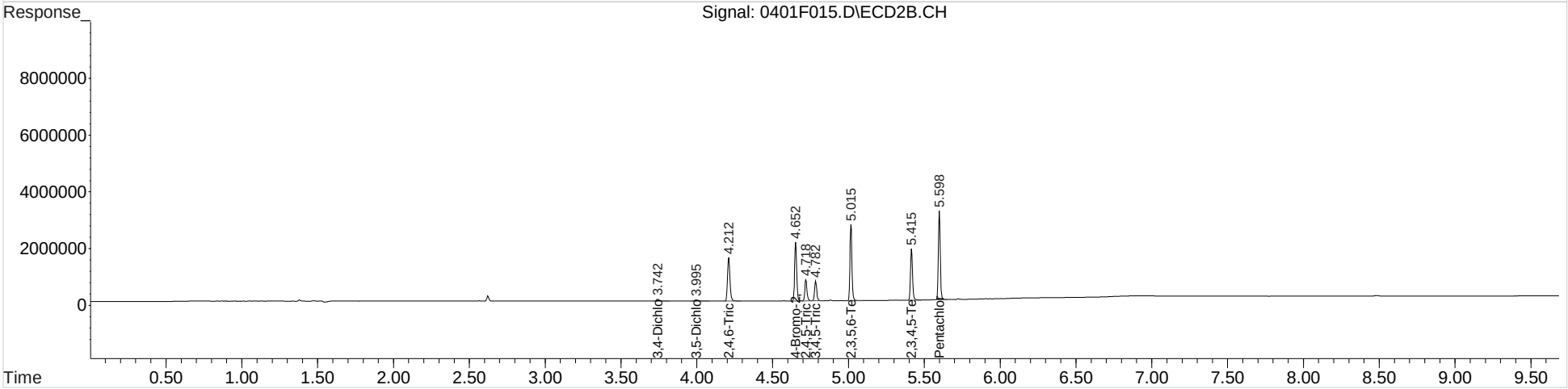
1st 04/01/19
2nd 04/01/19

Data File : J:\GC28\Data\040119\0401F015.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 01 Apr 2019 1:49 pm Operator: SMS
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Apr 01 13:59:41 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\022819CAL\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0228F001	PENTHOT2	PRIMER
2	IB	100	0228F002	PENTHOT2	PRIMER
3	ICAL	1	0228F003	PENTHOT2	IB
4	ICAL	2	0228F004	PENTHOT2	PENTA01-94T 1.0
5	ICAL	NR 3	0228F005	PENTHOT2	PENTA01-94S 2.5 - bad injection
6	ICAL	4	0228F006	PENTHOT2	PENTA01-94R 5.0
7	ICAL	5	0228F007	PENTHOT2	PENTA01-94Q 10
8	ICAL	6	0228F008	PENTHOT2	PENTA01-94P 25
9	ICAL	7	0228F009	PENTHOT2	PENTA01-94O 50
10	ICAL	8	0228F010	PENTHOT2	PENTA01-94N 100
11	ICAL	9	0228F011	PENTHOT2	PENTA01-94M 250
12	ICAL	10	0228F012	PENTHOT2	PENTA01-95G 500
13	ICAL	11	0228F013	PENTHOT2	PENTA01-95H 1000
14	ICAL	3	0228F014	PENTHOT2	PENTA01-94S 2.5 ok
15	IB	1	0228F015	PENTHOT2	IB
16	ICAL	12	0228F016	PENTHOT2	PENTA01-95D ICV

KC1900082
2/28/19

Last Modified: Thu Feb 28 10:29:05 2019 Page: 1

ALS-Kelso
Initial Calibration Checklist GC

Method: 8151M
ICAL ID or Date: KC000821
Instrument: GC28

Primary	Secondary	
☑	☑	The new ICAL is saved with a unique ID.
☑	☑	ICAL was performed continuously (i.e. not interrupted by maintenance event).
☑	☐	All analytes in blank are < ½ MRL.
☑	☑	ICAL contains minimum number of concentrations.
☑	☑	No internal levels excluded for any analytes.
☑	☑	Retention times updated using a midpoint of the calibration. Secondary reviewer double check peak IDs.
☑	☑	Calibration files quantitated with new method.
☑	☑	Check integrations. Primary reviewer must check all integrations electronically. Secondary reviewer will check low point and high point electronically.
☑	☑	ICAL files added to calibration table.
☑	☑	The average RF or COD meets method criteria for all analytes.
☑	☑	ICV is quantitated against new ICAL.
☑	☑	ICV meets method criteria.
☑	☐	Linked in ~~Stealth~~ UMS to an appropriate method. An appropriate method will be one that contains all analytes that were analyzed.
☑	☑	All calibration reports included: ICAL SUMMARY, ICAL DETAILED, ICV SUMMARY.
☑	☑	Enviroquant/Target responses match those in Stealth.
☑	☑	All quant reports and manual integrations initialed and dated.

Data packet should be in the following order: Sequence log, Calibration Review, Stealth ICAL reports, and quant reports.

Primary: _____ Date: 2/28/19

Secondary: _____ Date: 2/28/19

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -87.82 X² + 4.342E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	6.732E5	02	5.000	5.679E5	03	10.000	5.372E5	04	25.000	4.948E5
05	50.000	4.691E5	06	100.000	4.496E5	07	250.000	4.103E5	08	500.000	3.739E5
09	1000.000	3.511E5	10	2.500	6.128E5						

2,3,4,5-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -268.7 X² + 3.077E5 X + 3.627E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	02	4.715	3.979E5	03	9.431	3.696E5	04	23.577	3.259E5
05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5	10	2.358	4.756E5

2,3,5,6-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -316.9 X² + 4.391E5 X + 2.523E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	02	4.715	5.28E5	03	9.431	4.935E5	04	23.577	4.478E5
05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5	10	2.358	5.749E5

2,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -146.2 X² + 1.398E5 X + 1.234E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	02	4.669	1.8E5	03	9.338	1.735E5	04	23.345	1.484E5
05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5	10	2.334	2.006E5

2,4,6-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9995**	**Y= -245.7 X² + 3.136E5 X + 2.021E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	02	4.669	3.846E5	03	9.338	3.638E5	04	23.345	3.225E5
05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5	10	2.334	4.078E5

3,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -166.3 X² + 1.479E5 X + 8.837E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	02	4.669	1.823E5	03	9.338	1.696E5	04	23.345	1.515E5
05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5	10	2.334	1.988E5

3,4-Dichlorophenol	**Quadratic**	**1/X**	**COD = 1.0000**	**Y= -15.47 X² + 1.592E4 X + 8.759E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.529E4	02	4.605	1.749E4	03	9.209	1.718E4	04	23.023	1.584E4
05	46.046	1.558E4	06	92.091	1.446E4	07	230.230	1.241E4	10	2.302	1.966E4

3,5-Dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9982**	**Y= -14.62 X² + 1.118E4 X + 7.47E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	1.798E4	02	4.605	1.407E4	03	9.209	1.255E4	04	23.023	1.076E4
05	46.046	1.147E4	06	92.091	9.36E3	07	230.230	7.904E3	10	2.302	1.374E4

Pentachlorophenol (PCP)	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -97.29 X² + 4.57E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	02	4.750	5.978E5	03	9.501	5.654E5	04	23.752	5.208E5
05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5	08	475.030	3.936E5
09	950.060	3.695E5	10	2.375	6.451E5						

4-Bromo-2,6-dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9994**	**Y= -70.25 X² + 3.43E5 X + 2.985E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	02	5.000	4.356E5	03	10.000	4.141E5	04	25.000	3.754E5
05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5	08	500.000	2.979E5
09	1000.000	2.755E5	10	2.500	4.672E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.555	**-44.5**	02	5.000	5.55	11.0	03	10.000	11.4	14.0
04	25.000	27.6	10.6	05	50.000	53.6	7.2	06	100.000	105	4.8
07	250.000	248	-0.9	08	500.000	475	-5.0	09	1000.000	1020	1.6
10	2.500	2.53	1.4								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.770	-18.3	02	4.715	4.94	4.7	03	9.431	10.2	8.6
04	23.577	24.3	3.1	05	47.153	46.9	-0.6	06	94.307	91.6	-2.8
07	235.770	237	0.6	10	2.358	2.47	4.8				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.738	-21.7	02	4.715	5.11	8.5	03	9.431	10.1	7.1
04	23.577	23.9	1.3	05	47.153	47.4	0.6	06	94.307	91.5	-3.0
07	235.770	237	0.5	10	2.358	2.52	6.8				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.634	**-32.1**	02	4.669	5.16	10.4	03	9.338	10.8	15.9
04	23.345	24.5	5.1	05	46.690	46.1	-1.2	06	93.379	88.6	-5.1
07	233.450	236	1.2	10	2.334	2.47	6.0				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.732	-21.6	02	4.669	5.10	9.3	03	9.338	10.3	10.0
04	23.345	23.8	2.0	05	46.690	47.3	1.2	06	93.379	89.5	-4.1
07	233.450	235	0.8	10	2.334	2.39	2.6				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.655	-29.8	02	4.669	5.19	11.1	03	9.338	10.2	9.6
04	23.345	24.0	2.7	05	46.690	47.4	1.5	06	93.379	88.5	-5.2
07	233.450	236	1.2	10	2.334	2.55	9.2				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.914	-0.8	02	4.605	4.53	-1.6	03	9.209	9.47	2.9
04	23.023	22.9	-0.7	05	46.046	46.6	1.3	06	92.091	91.2	-1.0
07	230.230	231	0.2	10	2.302	2.30	-0.2				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.814	-11.6	02	4.605	5.16	12.1	03	9.209	9.80	6.4
04	23.023	22.1	-3.9	05	46.046	49.8	8.2	06	92.091	86.2	-6.4
07	230.230	233	1.3	10	2.302	2.17	-5.8				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	0.527	**-44.5**	02	4.750	5.27	11.0	03	9.501	10.8	14.0
04	23.752	26.3	10.6	05	47.503	50.9	7.2	06	95.006	99.5	4.8
07	237.520	235	-0.9	08	475.030	452	-5.0	09	950.060	966	1.6
10	2.375	2.41	1.4								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.643	**-35.7**	02	5.000	5.49	9.7	03	10.000	11.2	12.3
04	25.000	26.6	6.5	05	50.000	53.3	6.6	06	100.000	102	1.6
07	250.000	251	0.2	08	500.000	481	-3.9	09	1000.000	1010	1.2
10	2.500	2.54	1.5								

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D\0228F004c.d	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D\0228F006c.d	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D\0228F007c.d	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D\0228F008c.d	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D\0228F009c.d	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D\0228F010c.d	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D\0228F011c.d	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D\0228F012c.d	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D\0228F013c.d	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D\0228F014c.d	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Average RF**		**RSD = 9.583**	**Average RF = 6.462E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	7.909E5	02	5.000	6.542E5	03	10.000	6.532E5	04	25.000	6.151E5
05	50.000	6.083E5	06	100.000	5.984E5	07	250.000	5.996E5	08	500.000	6.052E5
09	1000.000	6.245E5	10	2.500	7.13E5						

2,3,4,5-Tetrachlorophenol — Average RF — RSD = 12.29 — Average RF = 4.159E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	02	4.715	4.353E5	03	9.431	4.108E5	04	23.577	3.904E5
05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5	10	2.358	4.73E5

2,3,5,6-Tetrachlorophenol — Average RF — RSD = 6.587 — Average RF = 6.037E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	02	4.715	5.882E5	03	9.431	6.075E5	04	23.577	5.816E5
05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5	10	2.358	6.377E5

2,4,5-Trichlorophenol — Quadratic — 1/X — COD = 0.9997 — $Y = -73.44 X^2 + 1.777E5 X + 1.058E5$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	02	4.669	2.059E5	03	9.338	2.015E5	04	23.345	1.829E5
05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5	10	2.334	2.293E5

2,4,6-Trichlorophenol — Average RF — RSD = 4.634 — Average RF = 4.082E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	02	4.669	4.004E5	03	9.338	4.124E5	04	23.345	3.941E5
05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5	10	2.334	4.267E5

3,4,5-Trichlorophenol — Quadratic — 1/X — COD = 0.9998 — $Y = -63.92 X^2 + 1.7E5 X + 9.004E4$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	02	4.669	1.919E5	03	9.338	1.89E5	04	23.345	1.732E5
05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5	10	2.334	2.115E5

3,4-Dichlorophenol — Average RF — RSD = 10.82 — Average RF = 2.169E4

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.356E4	02	4.605	2.28E4	03	9.209	2.378E4	04	23.023	2.153E4
05	46.046	2.119E4	06	92.091	1.915E4	07	230.230	1.751E4	10	2.302	2.4E4

3,5-Dichlorophenol — Quadratic — 1/X — COD = 0.9996 — $Y = -14.71 X^2 + 1.578E4 X + 8.463E3$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.299E4	02	4.605	1.798E4	03	9.209	1.82E4	04	23.023	1.612E4
05	46.046	1.537E4	06	92.091	1.408E4	07	230.230	1.249E4	10	2.302	1.928E4

Pentachlorophenol (PCP) — Average RF — RSD = 9.573 — Average RF = 6.805E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	02	4.750	6.912E5	03	9.501	6.875E5	04	23.752	6.474E5
05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5	08	475.030	6.37E5
09	950.060	6.573E5	10	2.375	7.52E5						

4-Bromo-2,6-dichlorophenol — Average RF — RSD = 5.968 — Average RF = 4.216E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	02	5.000	3.777E5	03	10.000	4.048E5	04	25.000	4.138E5
05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5	08	500.000	4.395E5
09	1000.000	4.542E5	10	2.500	3.934E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.22	22.4	02	5.000	5.06	1.2	03	10.000	10.1	1.1
04	25.000	23.8	-4.8	05	50.000	47.1	-5.9	06	100.000	92.6	-7.4
07	250.000	232	-7.2	08	500.000	468	-6.4	09	1000.000	966	-3.4
10	2.500	2.76	10.3								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.14	21.2	02	4.715	4.93	4.7	03	9.431	9.31	-1.2
04	23.577	22.1	-6.1	05	47.153	43.3	-8.3	06	94.307	83.5	-11.5
07	235.770	206	-12.5	10	2.358	2.68	13.7				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.07	13.6	02	4.715	4.59	-2.6	03	9.431	9.49	0.6
04	23.577	22.7	-3.7	05	47.153	45.9	-2.6	06	94.307	89.1	-5.6
07	235.770	223	-5.4	10	2.358	2.49	5.6				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.799	-14.5	02	4.669	4.82	3.3	03	9.338	10.0	7.4
04	23.345	23.7	1.3	05	46.690	47.3	1.3	06	93.379	90.7	-2.9
07	233.450	234	0.4	10	2.334	2.42	3.6				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	1.01	8.7	02	4.669	4.58	-1.9	03	9.338	9.43	1.0
04	23.345	22.5	-3.5	05	46.690	46.6	-0.2	06	93.379	89.0	-4.7
07	233.450	224	-4.0	10	2.334	2.44	4.5				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.846	-9.5	02	4.669	4.75	1.7	03	9.338	9.88	5.9
04	23.345	23.5	0.5	05	46.690	47.5	1.7	06	93.379	91.1	-2.4
07	233.450	234	0.3	10	2.334	2.38	1.8				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	1.00	8.6	02	4.605	4.84	5.1	03	9.209	10.1	9.6
04	23.023	22.9	-0.7	05	46.046	45.0	-2.3	06	92.091	81.3	-11.7
07	230.230	186	-19.3	10	2.302	2.55	10.6				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.806	-12.4	02	4.605	4.73	2.8	03	9.209	10.2	10.6
04	23.023	23.5	2.1	05	46.046	46.3	0.6	06	92.091	89.0	-3.3
07	230.230	232	0.7	10	2.302	2.28	-0.9				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	1.16	22.2	02	4.750	4.82	1.6	03	9.501	9.60	1.0
04	23.752	22.6	-4.9	05	47.503	44.7	-5.9	06	95.006	87.9	-7.4
07	237.520	220	-7.3	08	475.030	445	-6.4	09	950.060	918	-3.4
10	2.375	2.62	10.5								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.975	-2.5	02	5.000	4.48	-10.4	03	10.000	9.60	-4.0
04	25.000	24.5	-1.8	05	50.000	52.4	4.9	06	100.000	103	3.0
07	250.000	264	5.5	08	500.000	521	4.2	09	1000.000	1080	7.7
10	2.500	2.33	-6.7								

Initial Calibration Verification Summary Report

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-1701

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Quadratic	50	58.215	ug/L	16.4	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.125	ug/L	6.3	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.742	ug/L	7.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.950	ug/L	7.0	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	47.208	ug/L	1.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.502	ug/L	6.0	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	50.405	ug/L	9.5	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	54.814	ug/L	19.0	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Quadratic	47.5030	55.309	ug/L	16.4	<= 20

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-35

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Average RF	50	51.424	ug/L	2.8	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	46.743	ug/L	-0.9	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	47.890	ug/L	1.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	50.676	ug/L	8.5	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Average RF	46.69	46.729	ug/L	0.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	48.393	ug/L	3.6	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Average RF	46.0460	46.475	ug/L	0.9	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	48.925	ug/L	6.3	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Average RF	47.5030	48.834	ug/L	2.8	<= 20

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:01 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:03:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.712	0	59380	N.D. d	0.137
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
2)		3,5-Dichl...	0.000	4.125f	0	25046	N.D.	1.520 #
3)		2,4,6-Tri...	0.000	4.292	0	32648	N.D. d	0.078
5)		2,4,5-Tri...	0.000	4.802	0	42050	N.D. d	0.210
6)		3,4,5-Tri...	0.000	4.832	0	55519	N.D. d	0.296
7)	M	2,3,5,6-T...	0.000	5.088	0	70520	N.D. d	0.114
8)	M	2,3,4,5-T...	0.000	5.452	0	131834	N.D. d	0.319
9)	M	Pentachlo...	0.000	5.685f	0	269600	N.D. d	0.392
10)		Pentachlo...	0.000	5.685f	0	269600	N.D. d	0.413

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

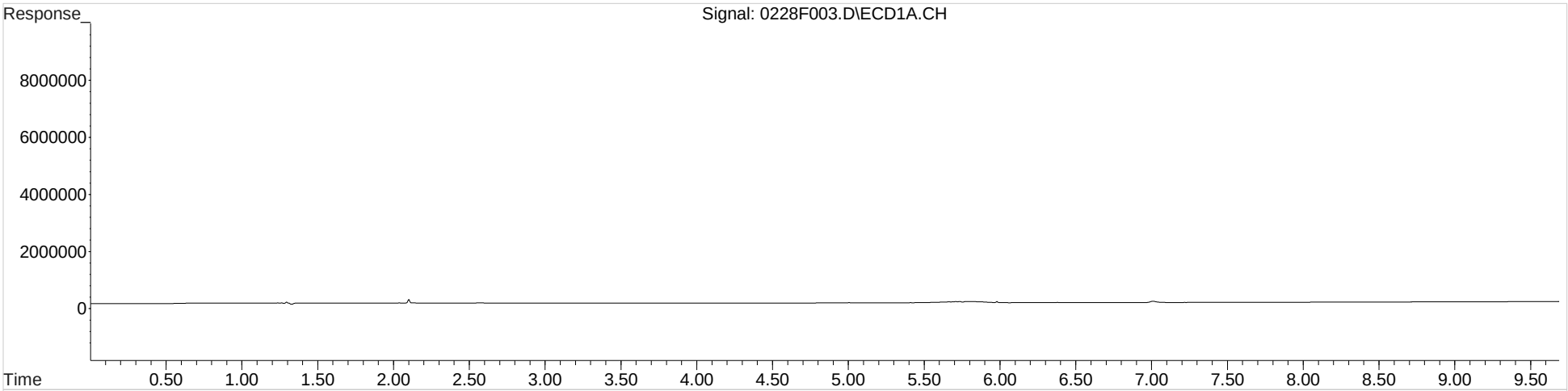
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:01 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:03:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.027	4.714	519128	410904	0.637	0.945 #
		Target Compounds						
1)		3,4-Dichl...	3.137	3.824	23293	21701	0.801m	0.982m
2)		3,5-Dichl...	3.377	4.084	16564	21176	1.036m	1.285m
3)		2,4,6-Tri...	3.473	4.284	431646	414230	0.802	0.993
5)		2,4,5-Tri...	4.200	4.778	211915	247658	0.739	1.239 #
6)		3,4,5-Tri...	4.230	4.844	185206	233780	0.709m	1.245 #
7)	M	2,3,5,6-T...	4.473	5.071	576226	646609	1.211m	1.048m
8)	M	2,3,4,5-T...	5.013	5.468	599618	475513	0.771	1.152m#
9)	M	Pentachlo...	5.150	5.648	673174	789810	0.493	1.149m#
10)		Pentachlo...	5.150	5.648	673174	790854	0.519	1.211m#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

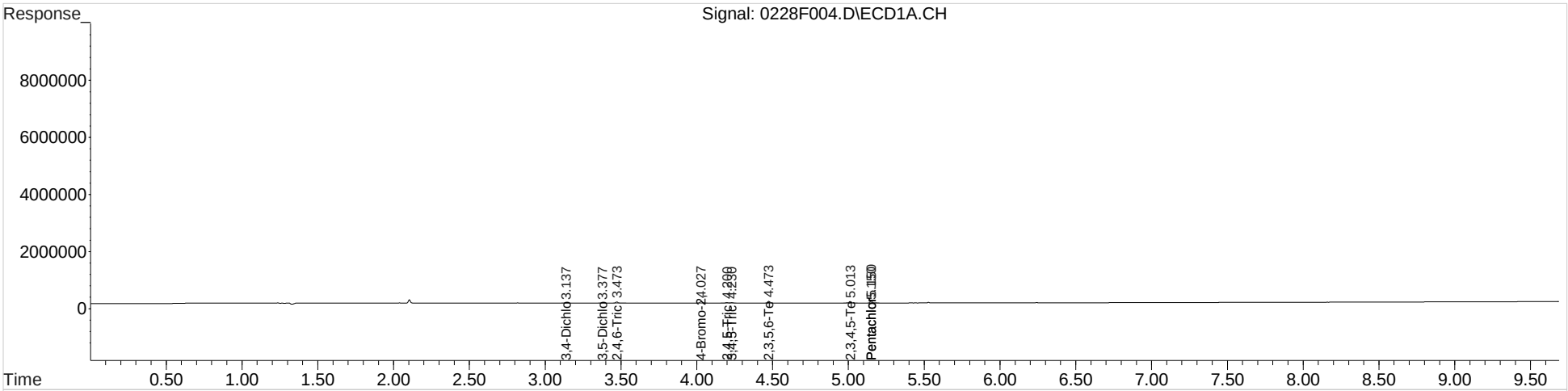
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

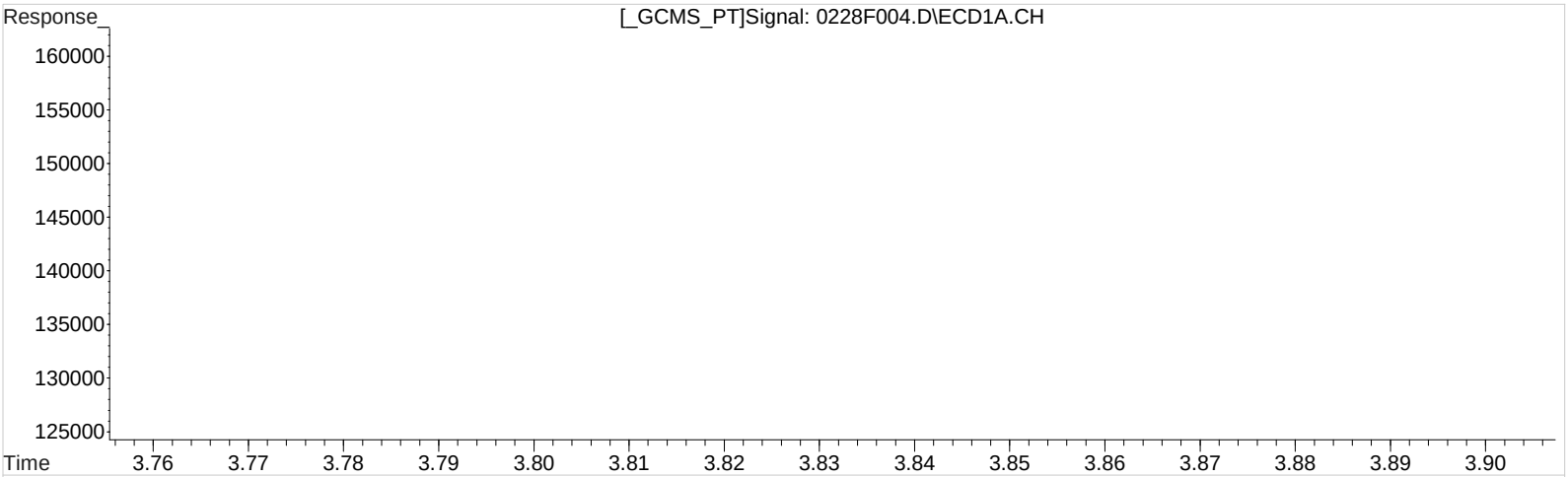


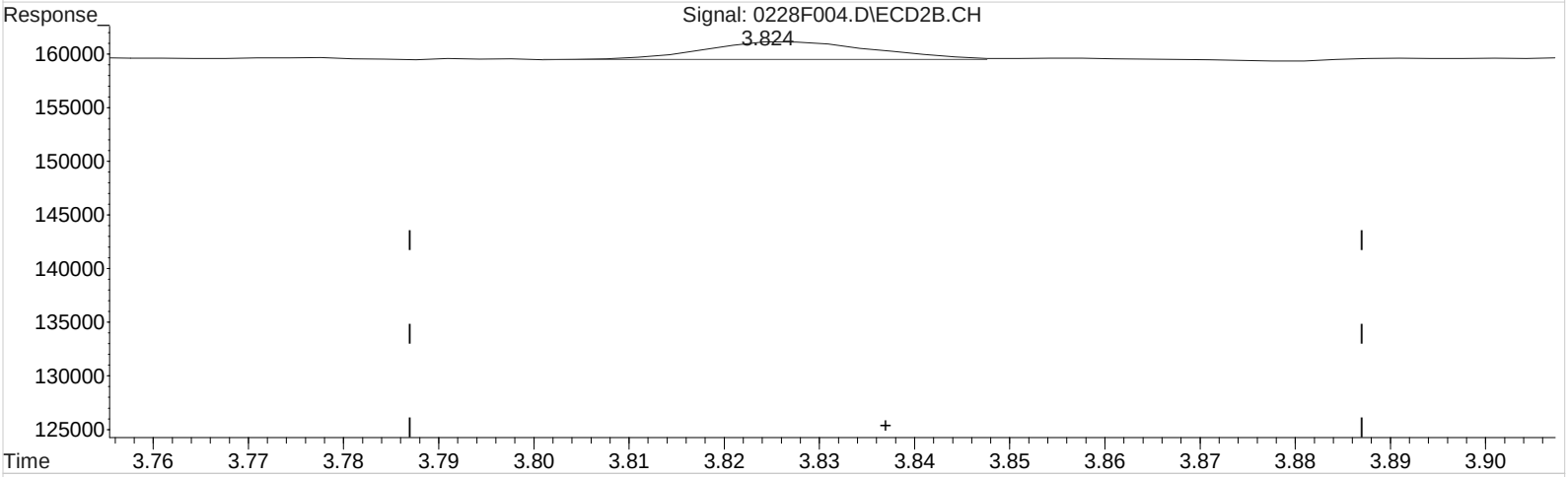
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.924 ug/L

response 20420

(+) = Expected Retention Time

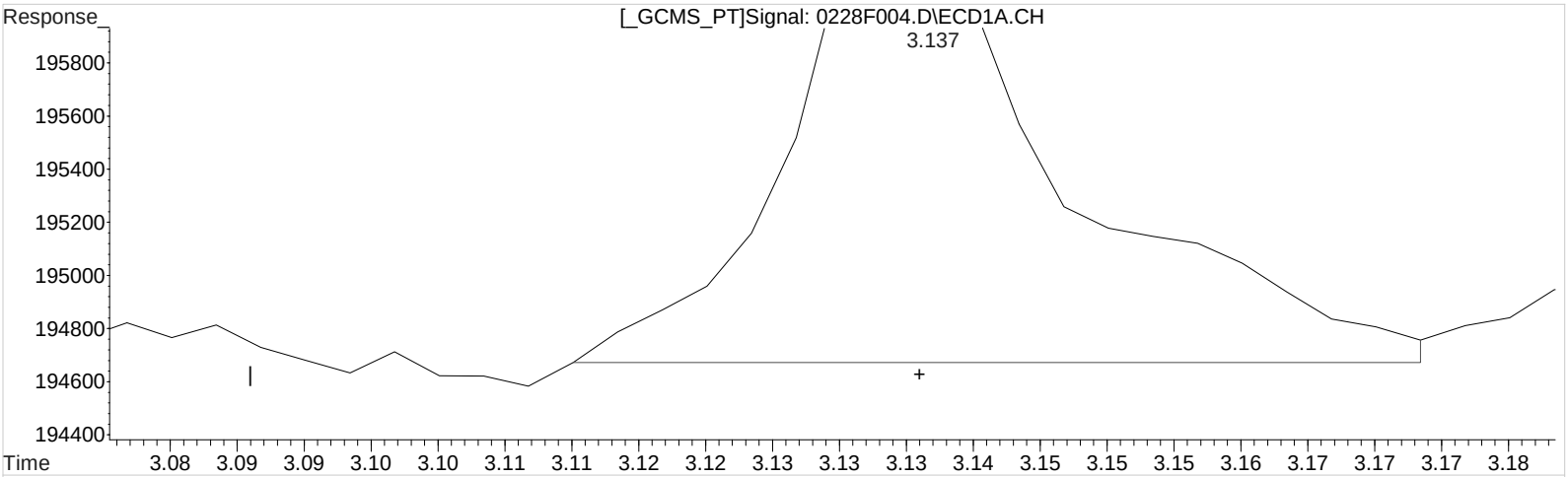
Quantitation Report (Qedit)

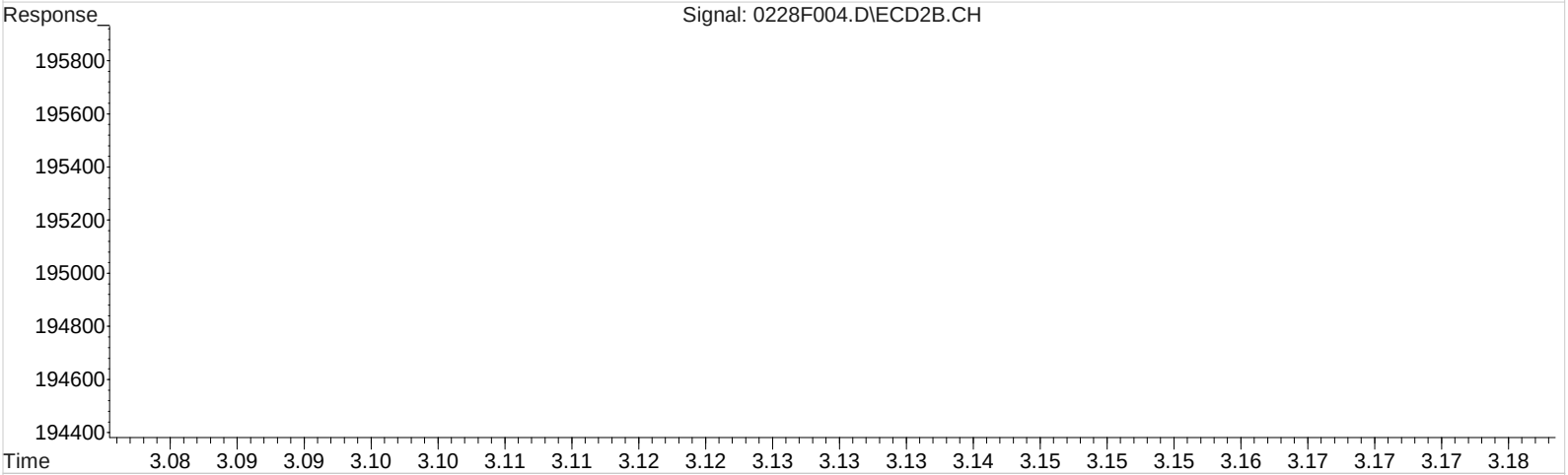
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

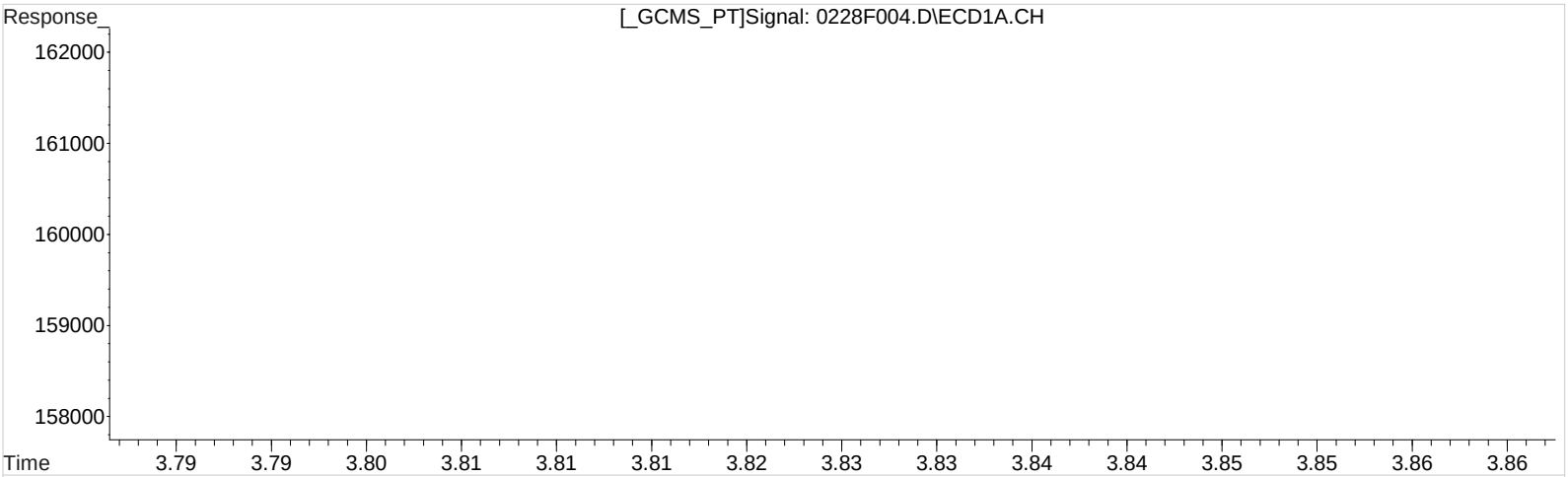
Quantitation Report (Qedit)

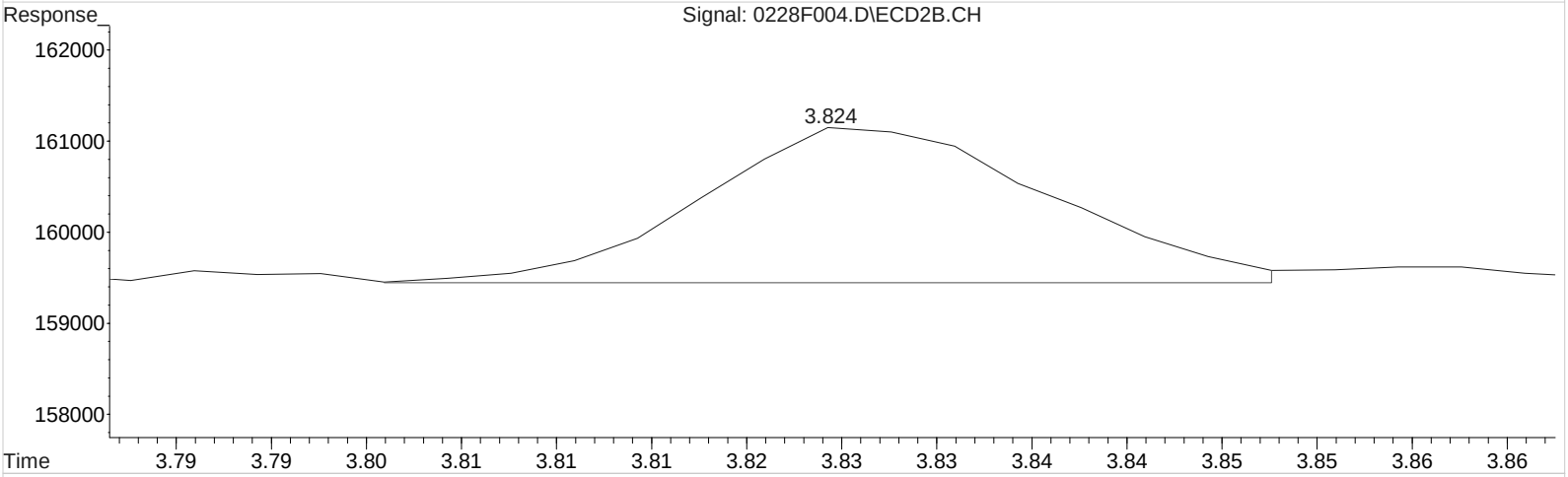
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

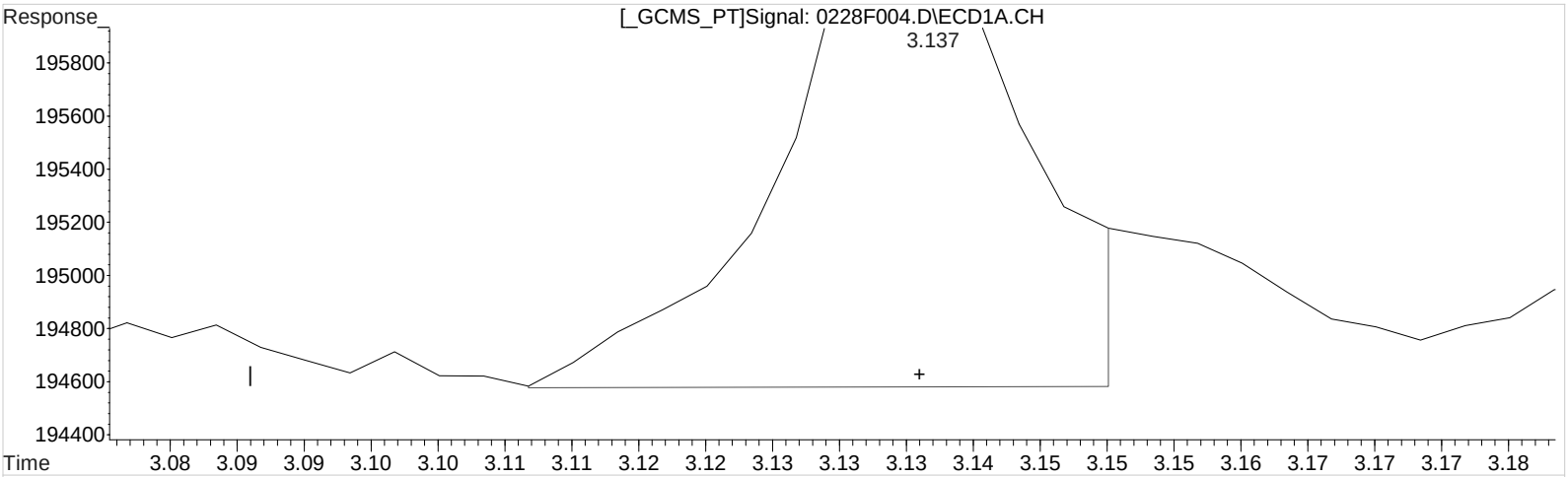
Quantitation Report (Qedit)

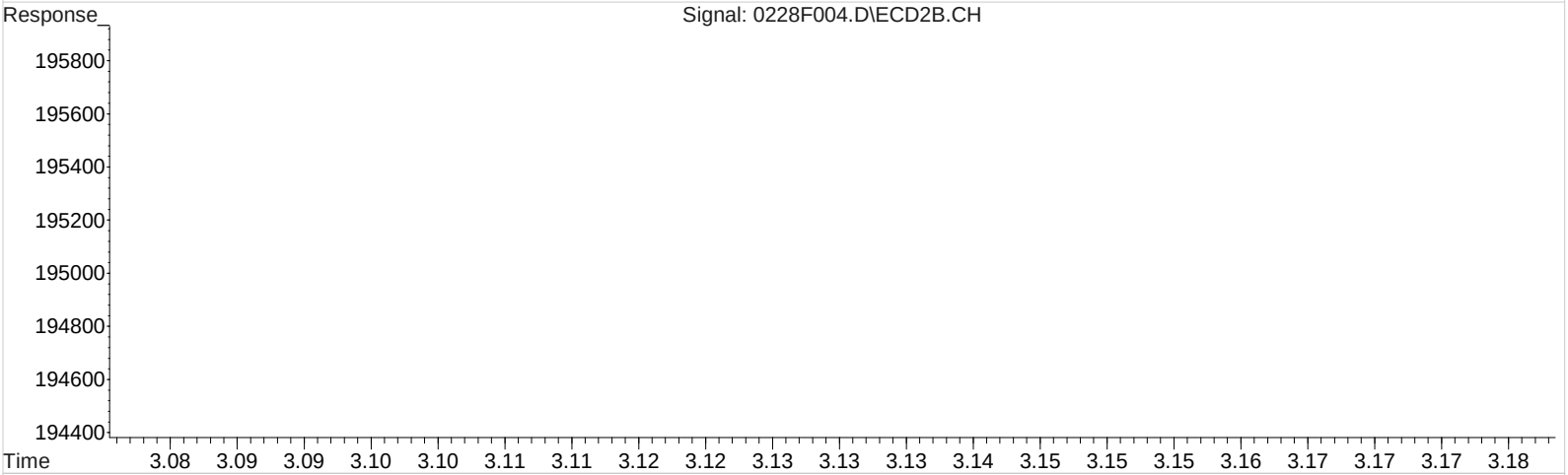
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.801 ug/L m

response 23293

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

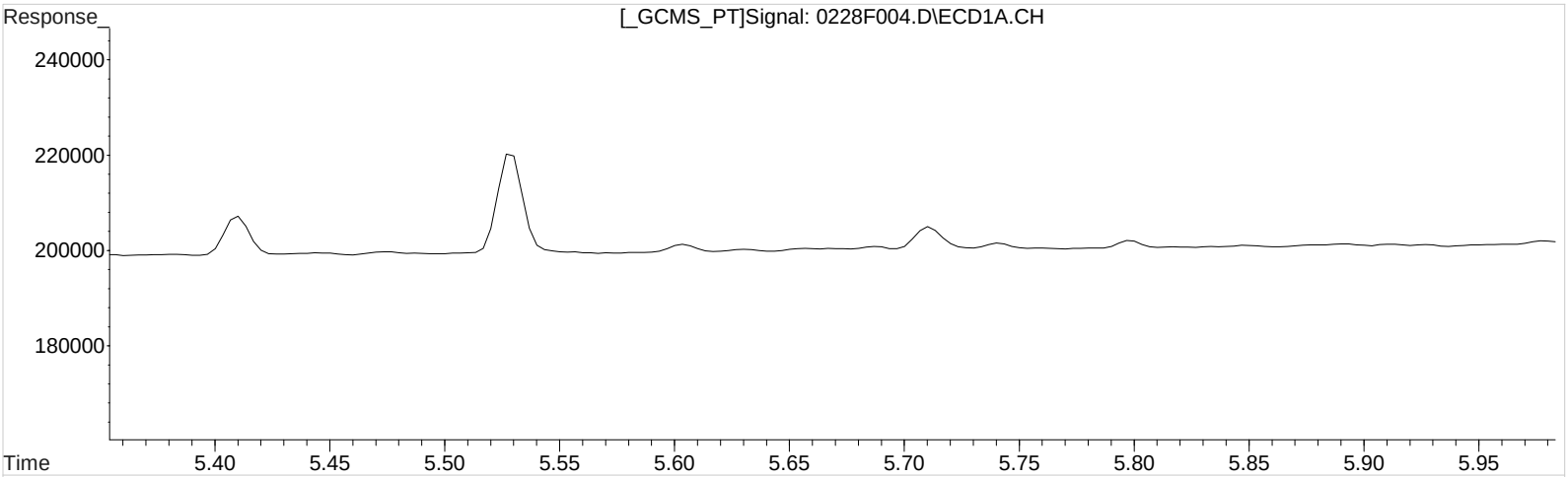
Quantitation Report (Qedit)

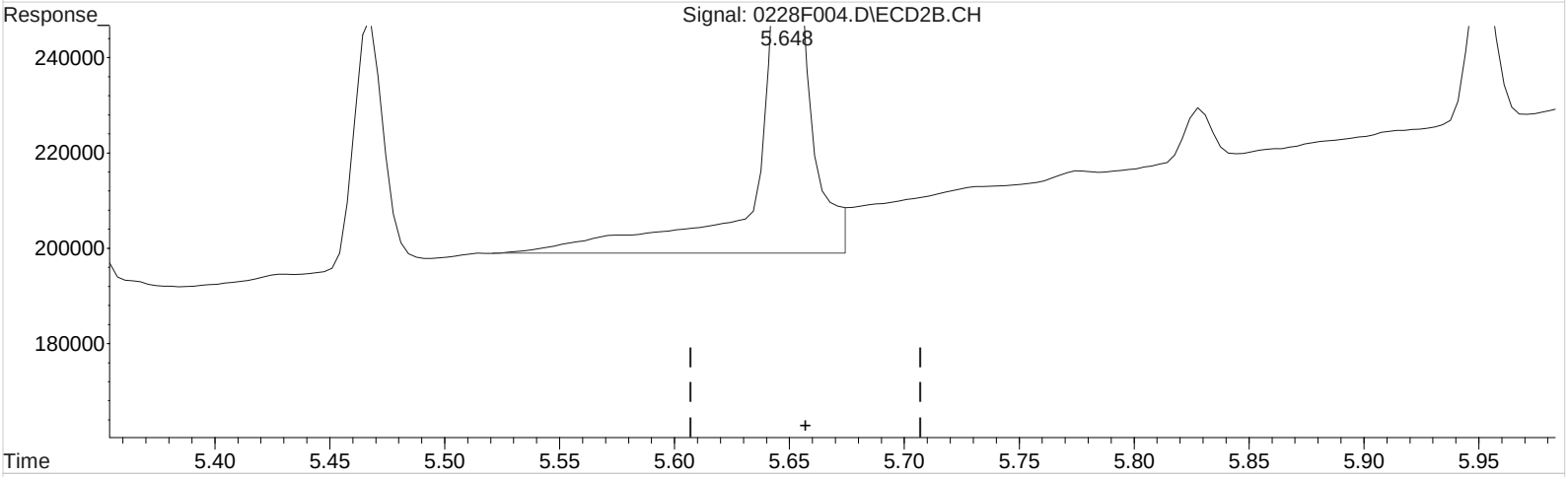
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.150min 0.519 ug/L

response 673174

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.648min 1.879 ug/L

response 1226970

(+) = Expected Retention Time

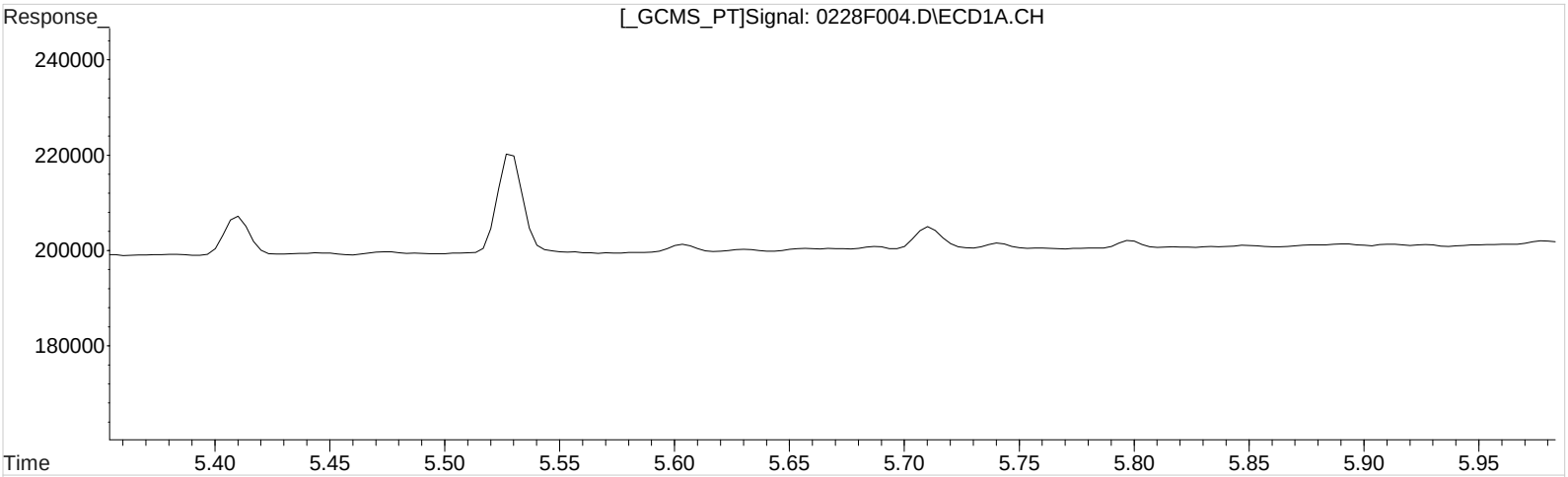
Quantitation Report (Qedit)

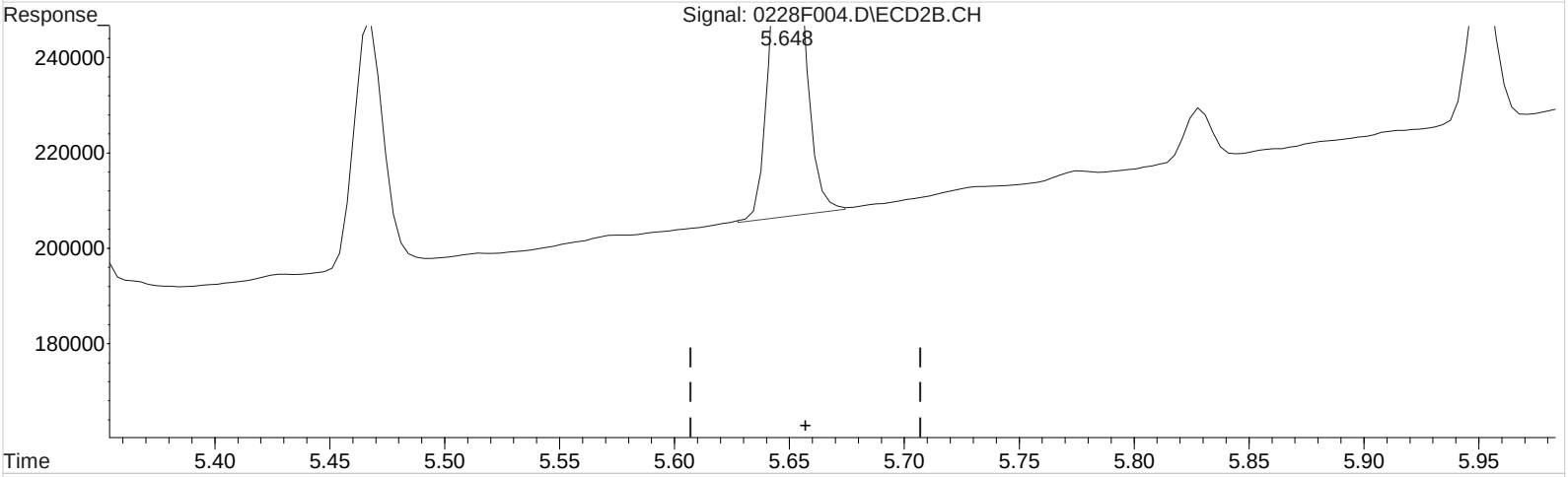
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.150min 0.519 ug/L

response 673174

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.648min 1.211 ug/L m

response 790854

(+) = Expected Retention Time

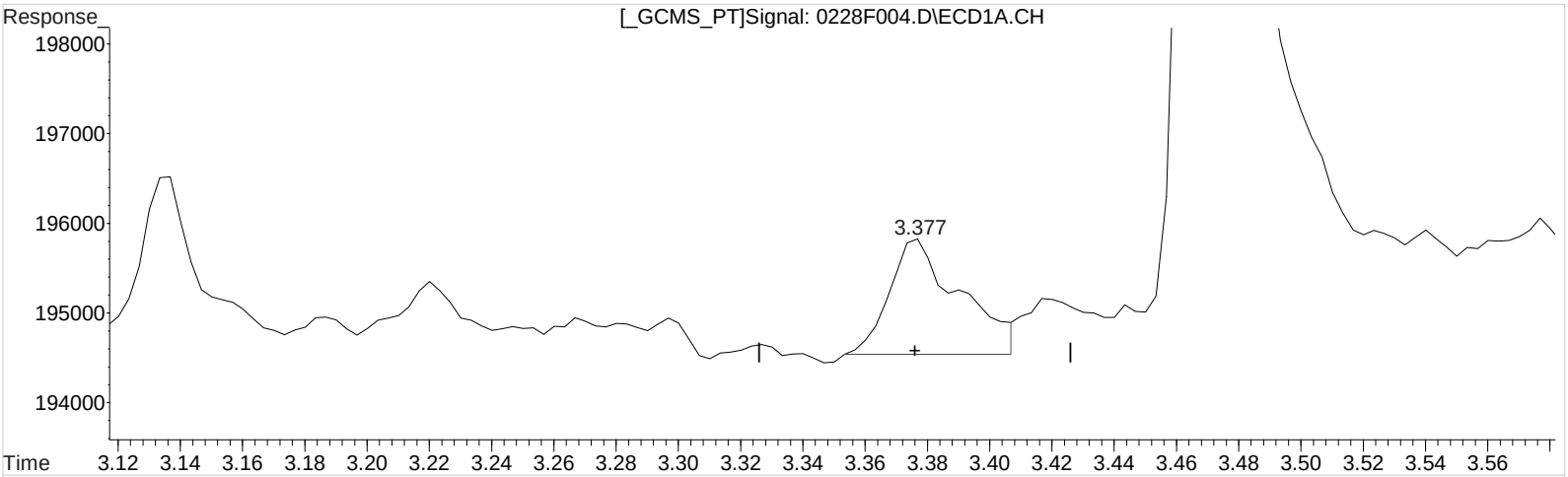
Quantitation Report (Qedit)

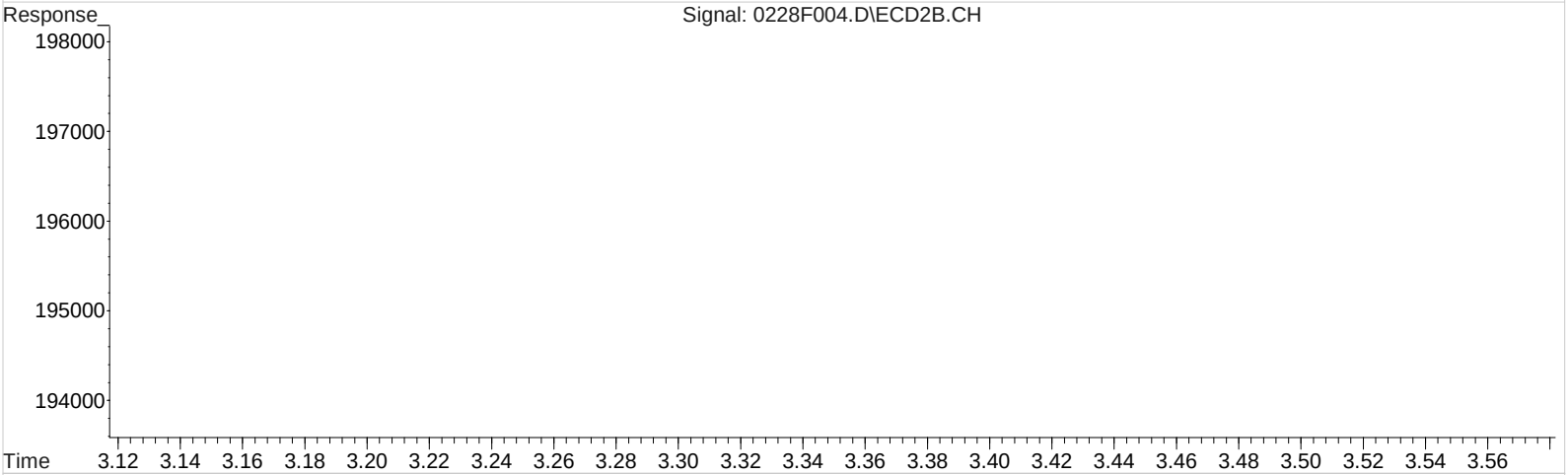
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.388 ug/L

response 20270

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

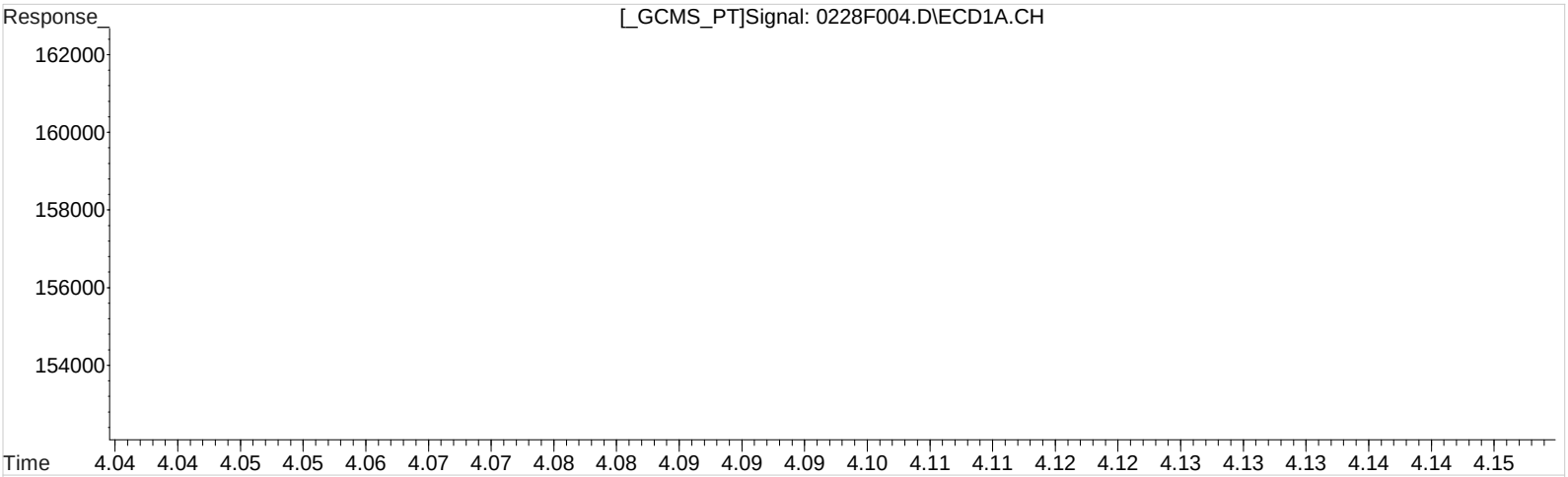
Quantitation Report (Qedit)

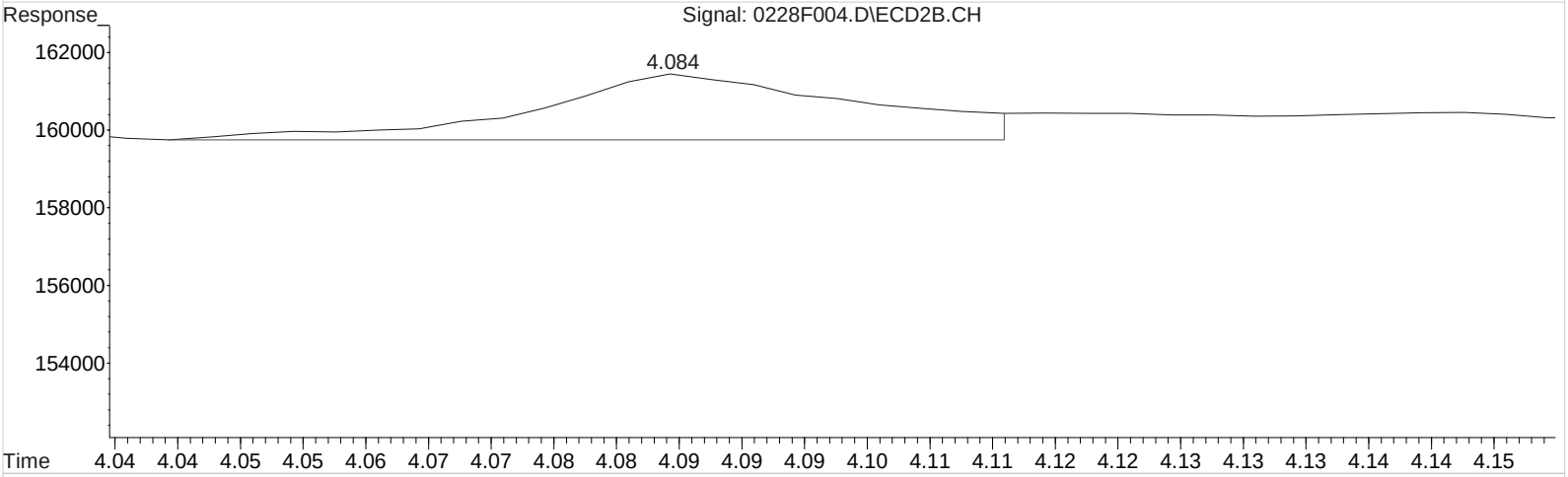
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

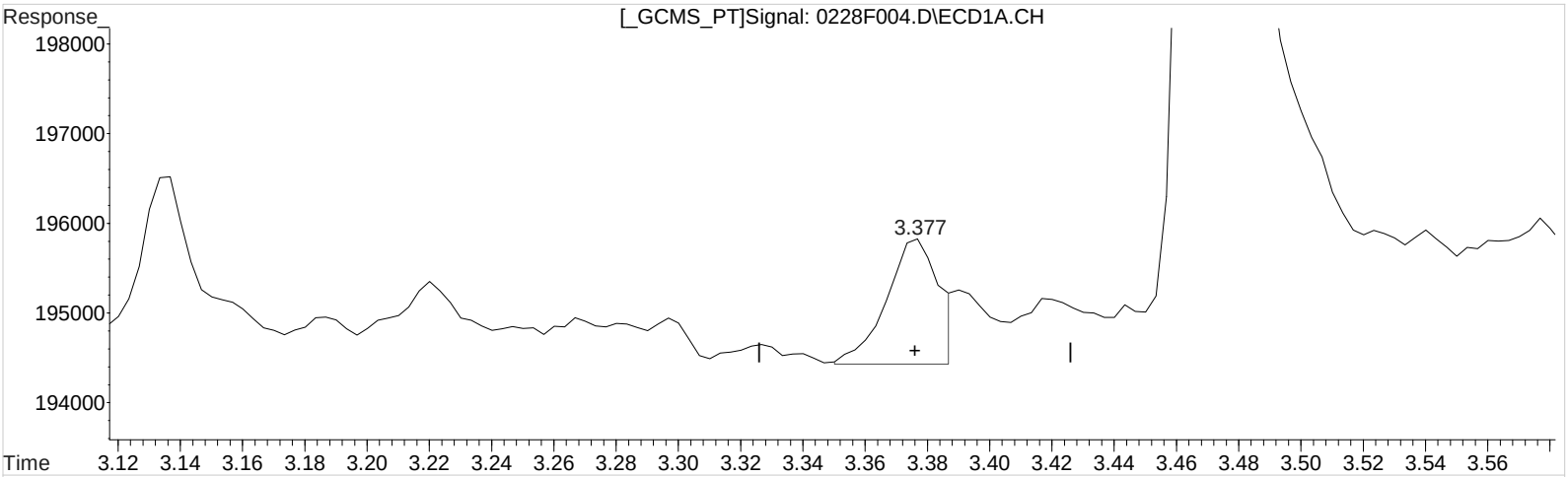
Quantitation Report (Qedit)

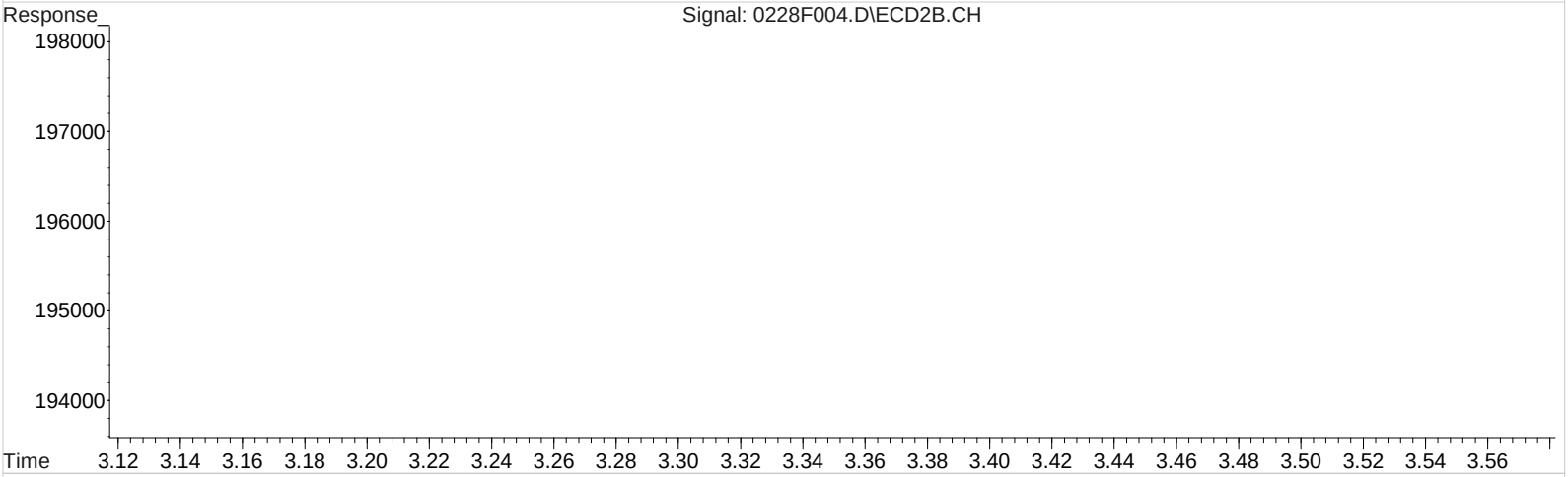
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

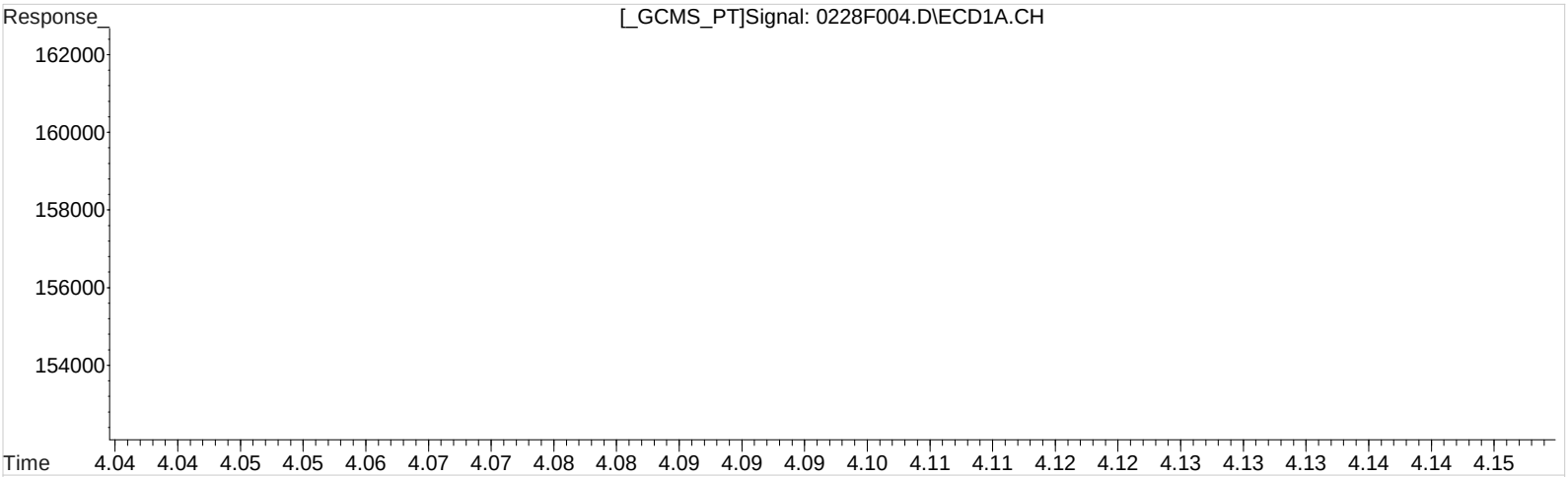
Quantitation Report (Qedit)

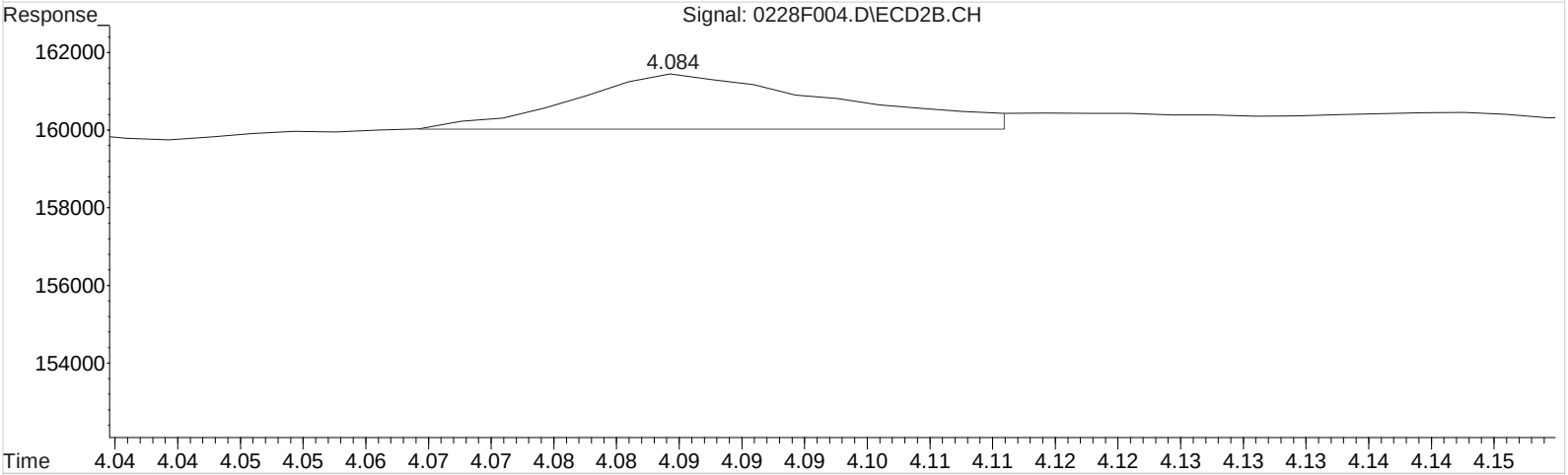
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.285 ug/L m

response 21176

(+) = Expected Retention Time

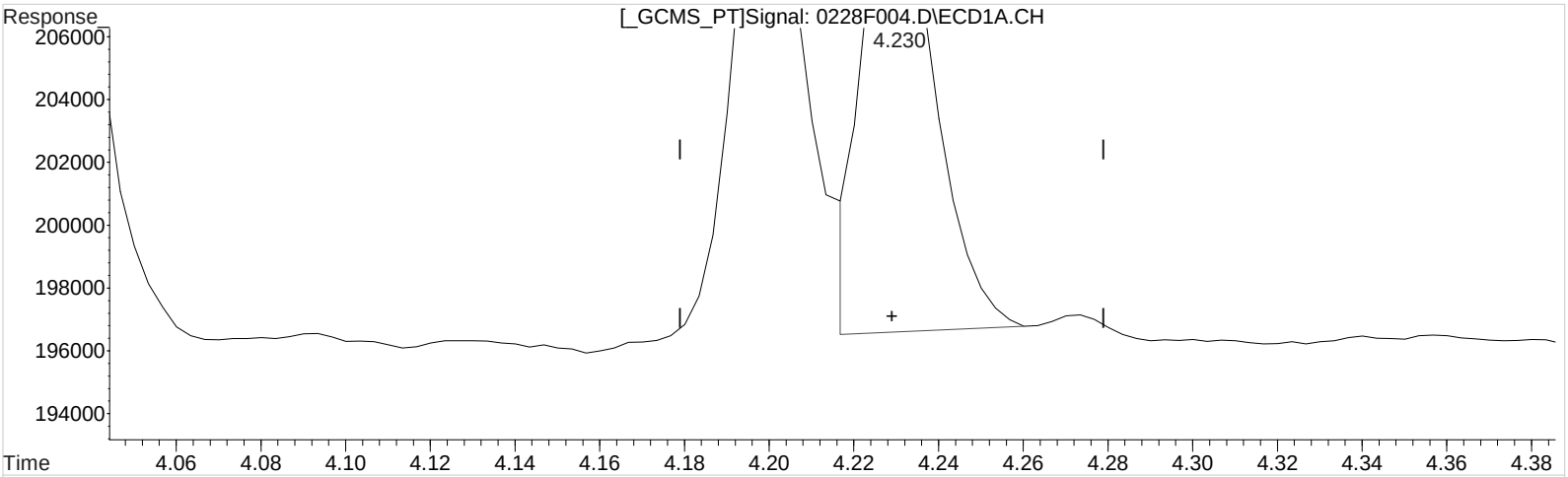
Quantitation Report (Qedit)

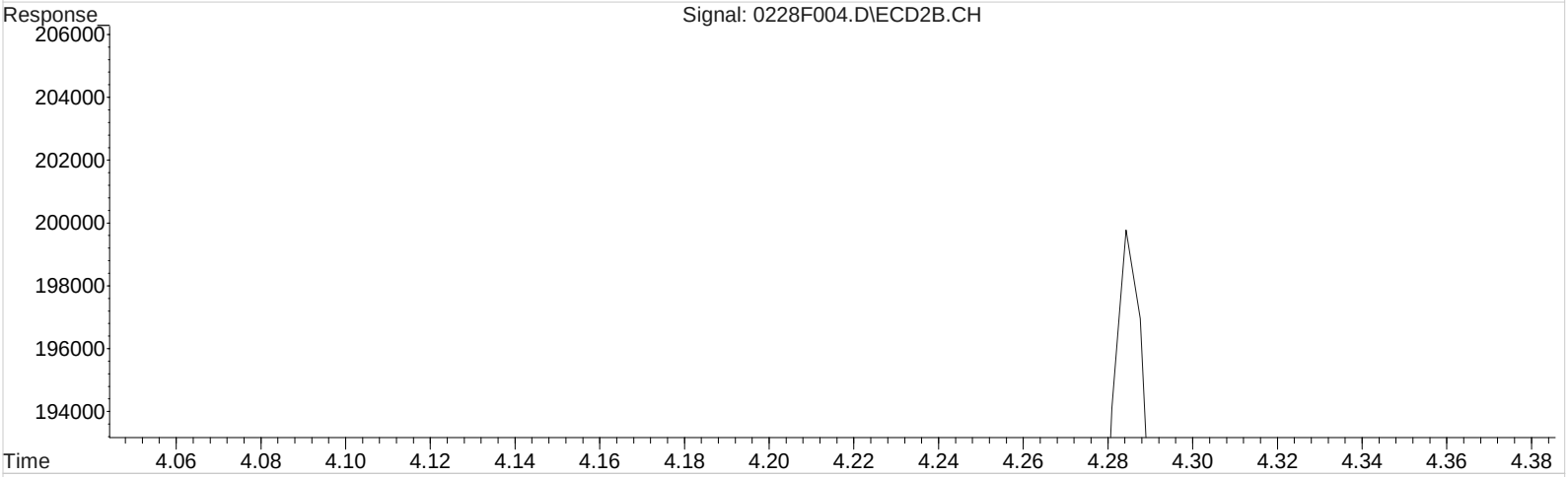
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.230min 0.644 ug/L

response 175885

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.844min 1.245 ug/L

response 233780

(+) = Expected Retention Time

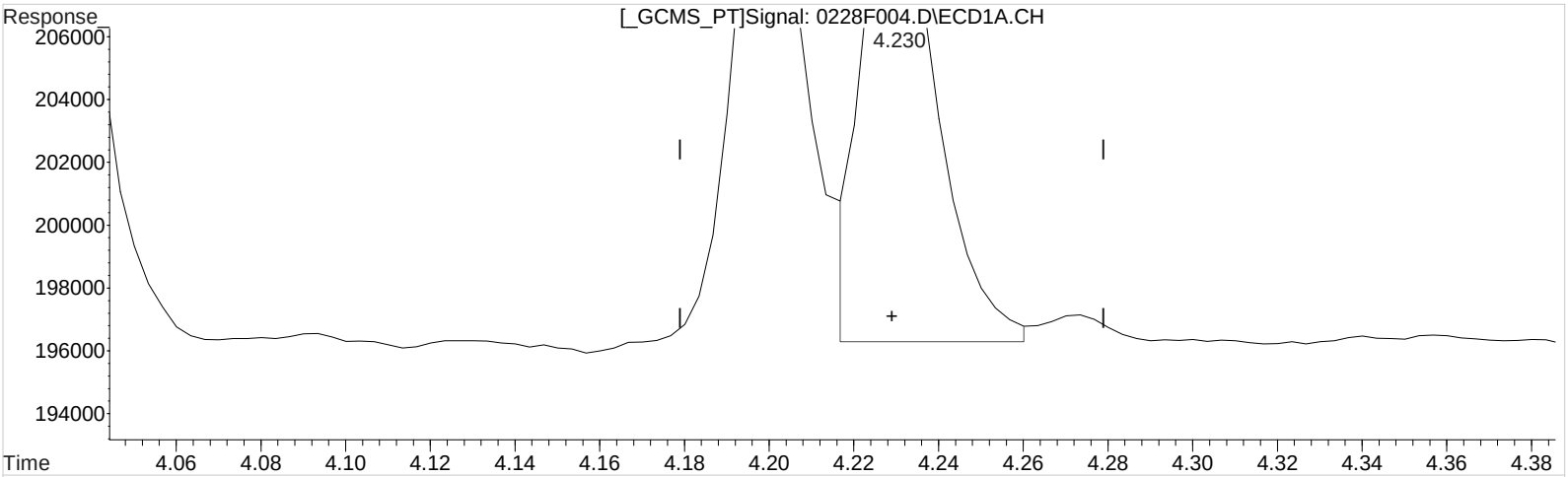
Quantitation Report (Qedit)

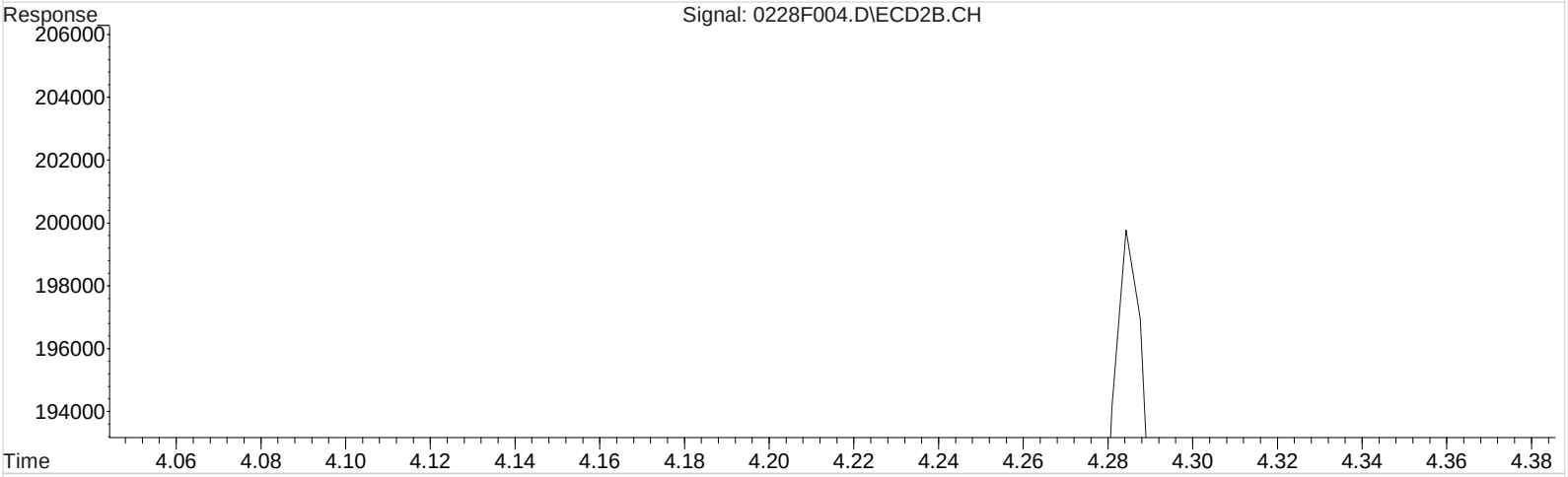
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.230min 0.709 ug/L m

response 185206

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.844min 1.245 ug/L

response 233780

(+) = Expected Retention Time

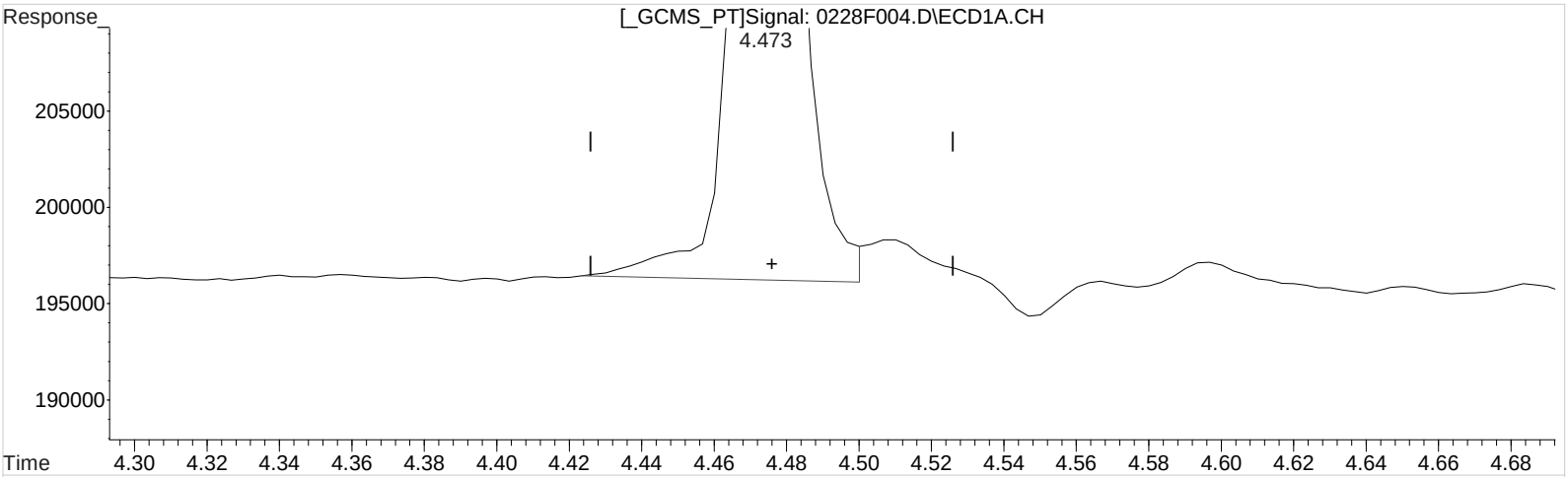
Quantitation Report (Qedit)

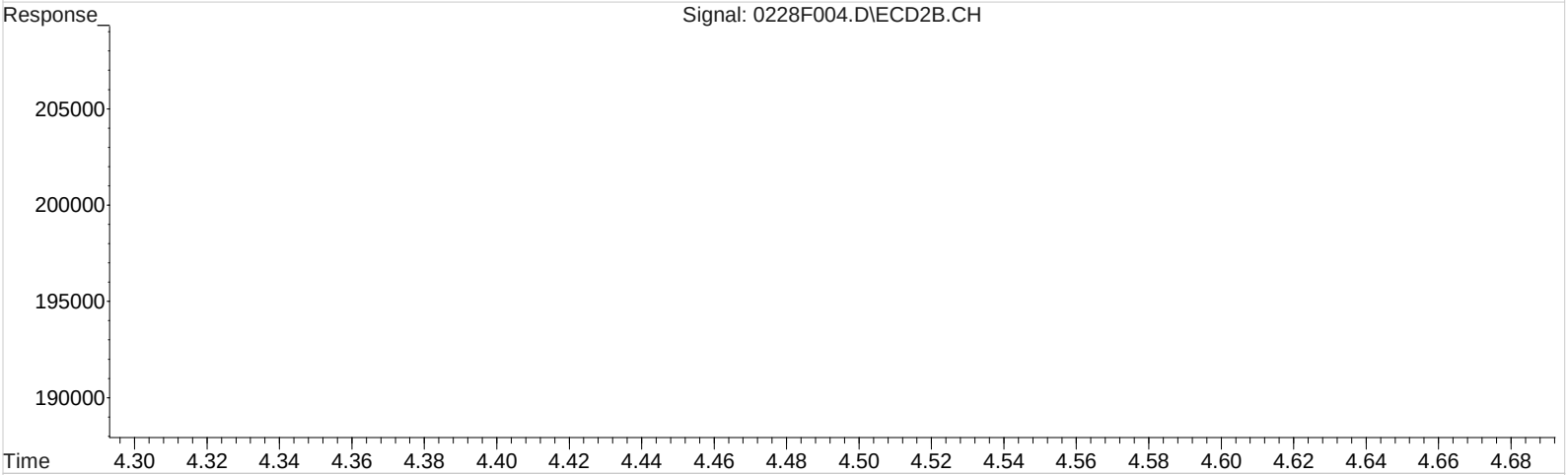
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.319 ug/L

response 627943

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

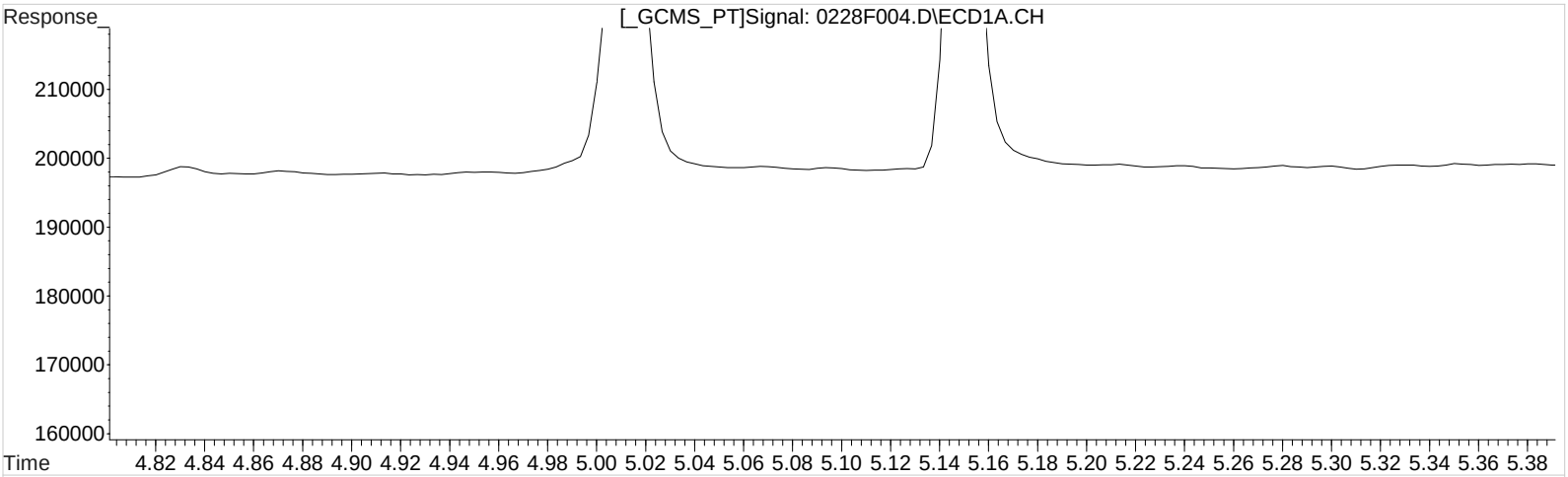
(+) = Expected Retention Time

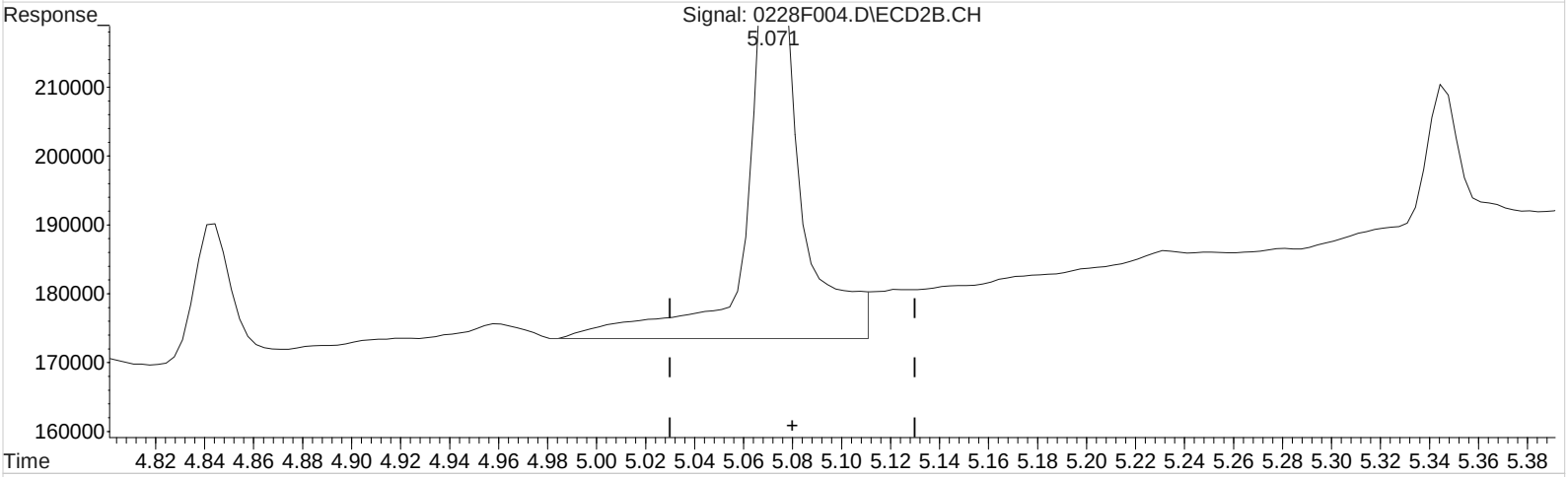
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

(+) = Expected Retention Time

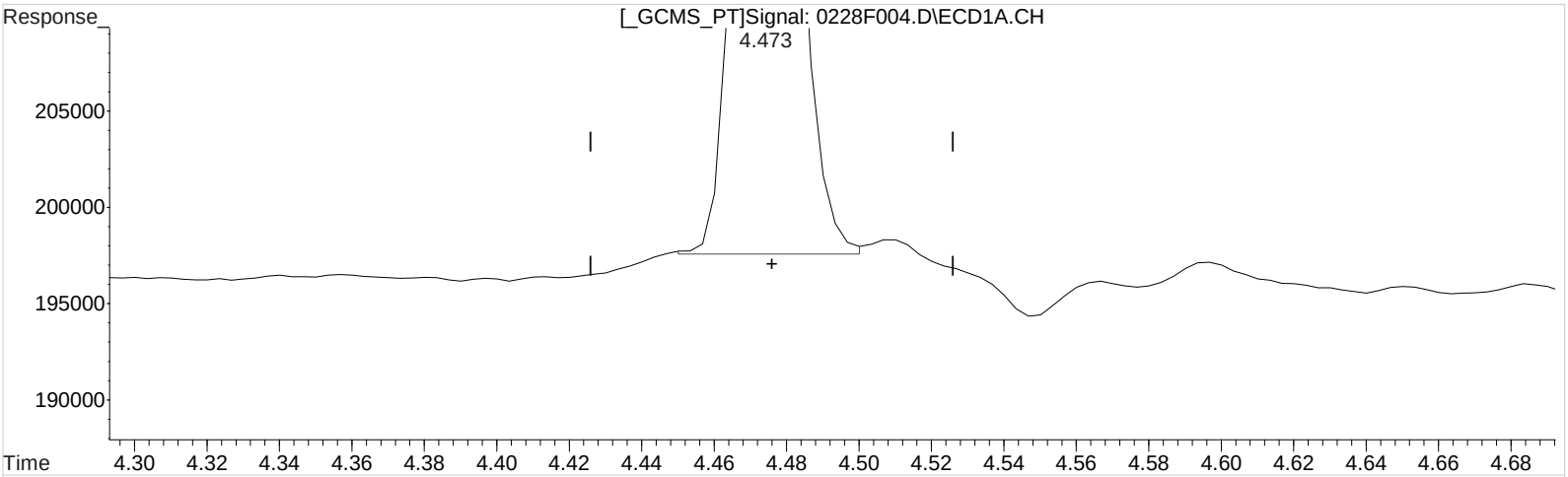
Quantitation Report (Qedit)

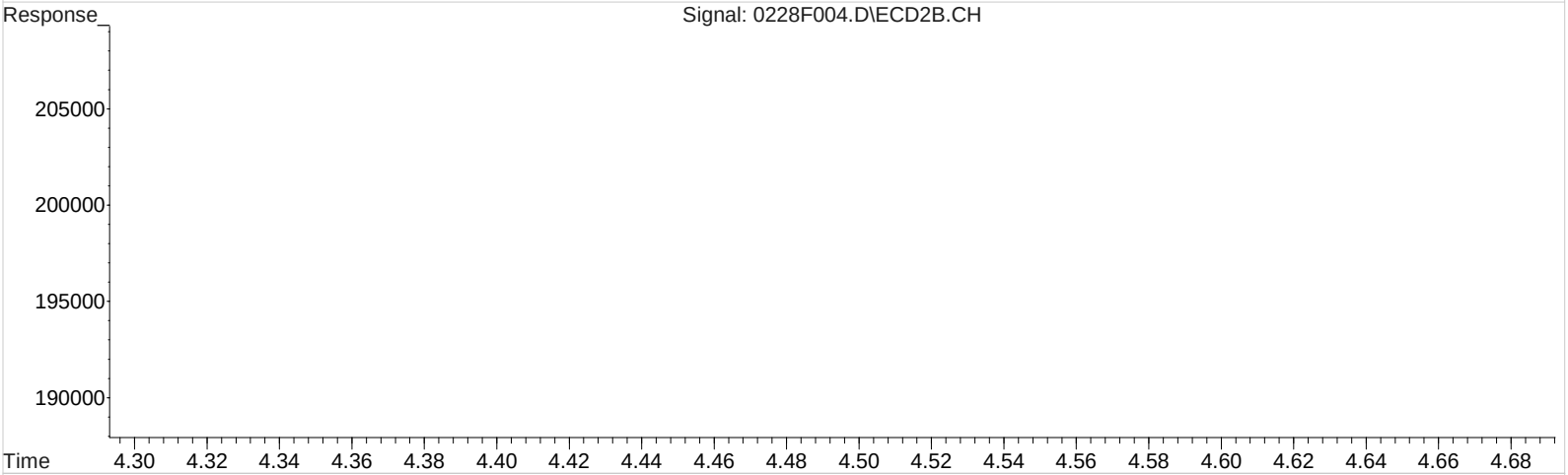
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

(+) = Expected Retention Time

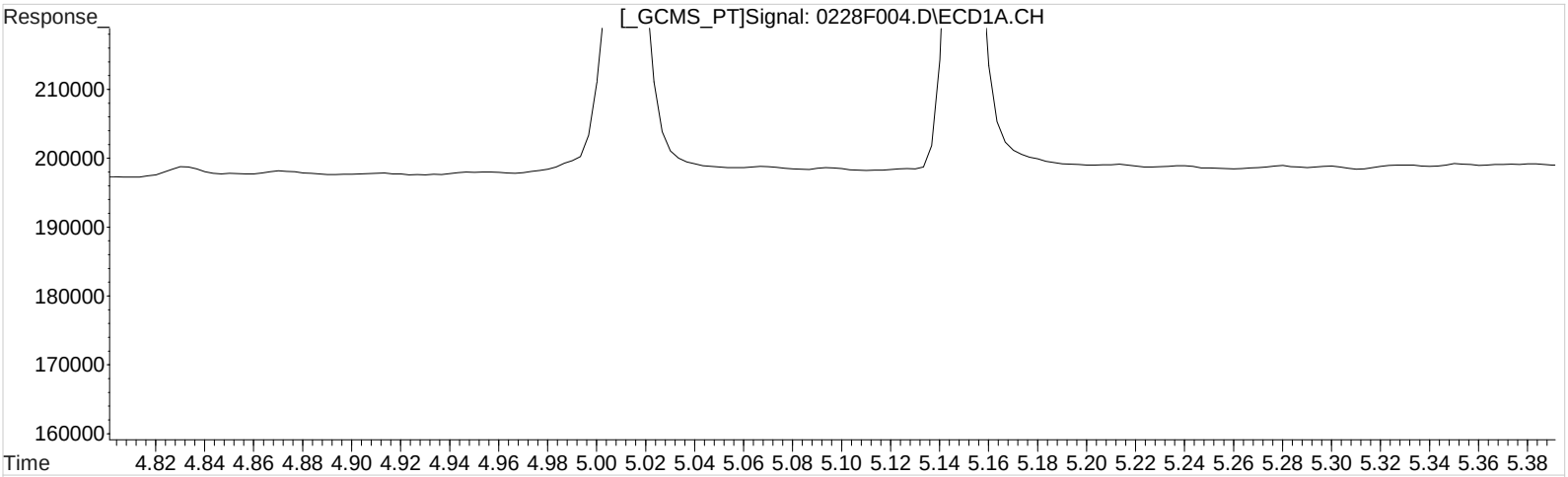
Quantitation Report (Qedit)

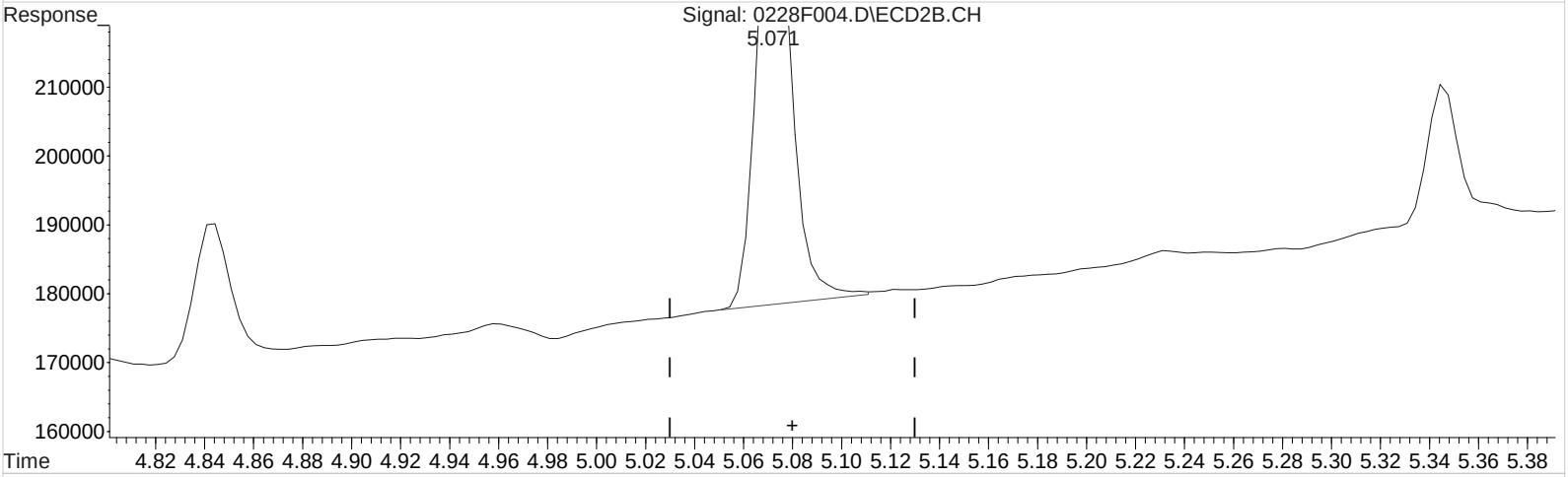
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.048 ug/L m

response 646609

(+) = Expected Retention Time

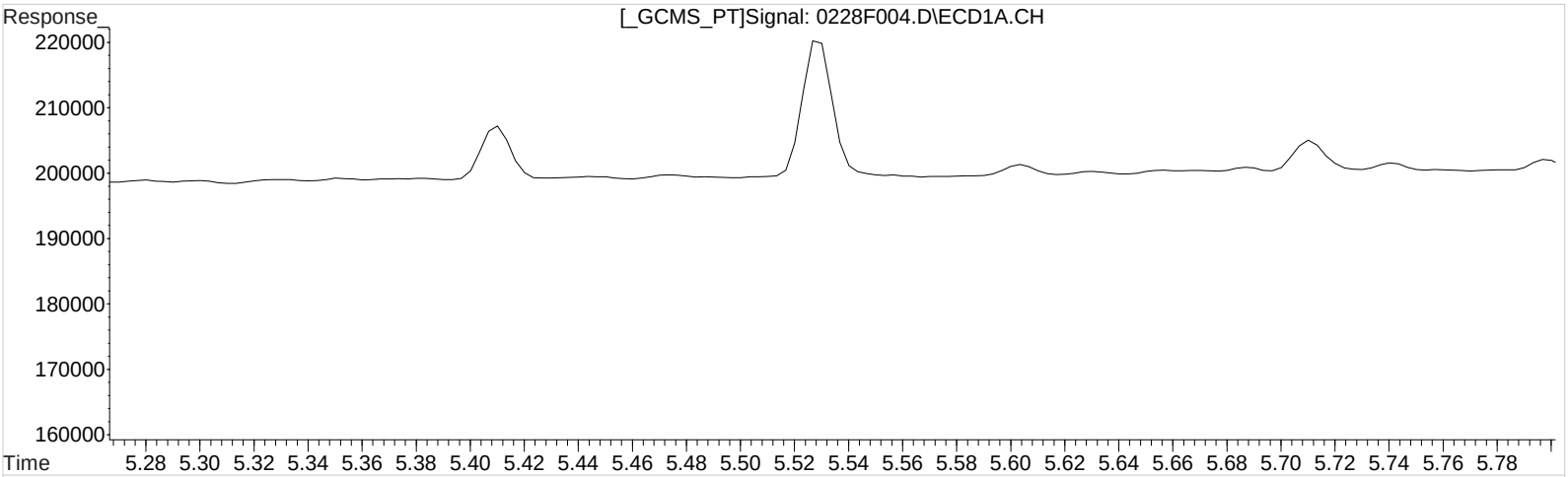
Quantitation Report (Qedit)

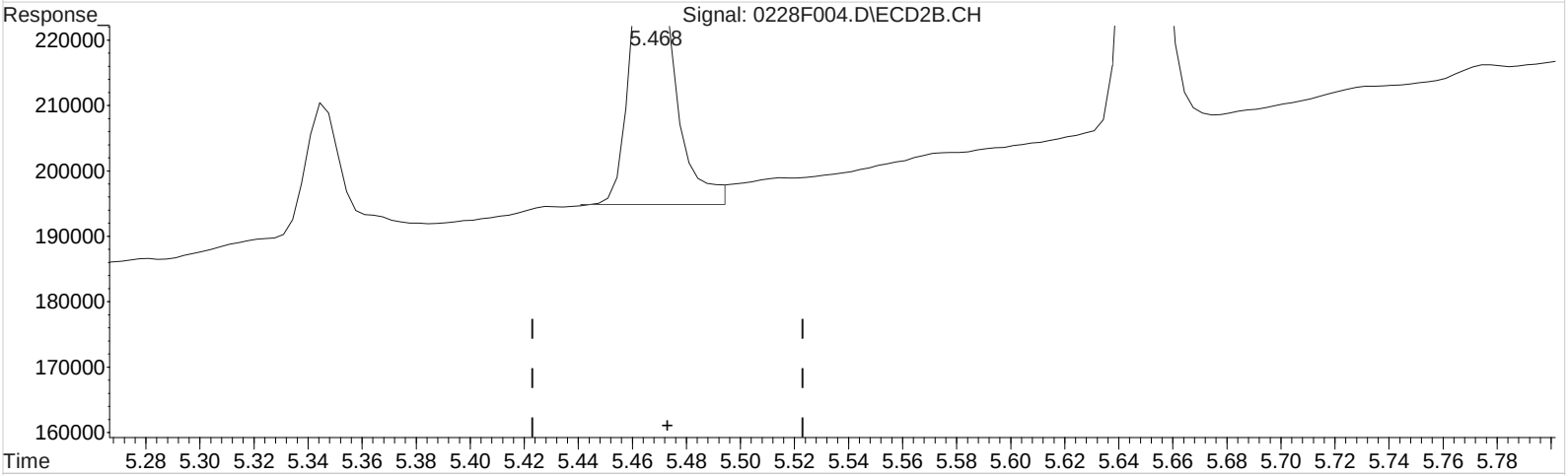
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.013min 0.771 ug/L

response 599618

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.468min 1.232 ug/L

response 508652

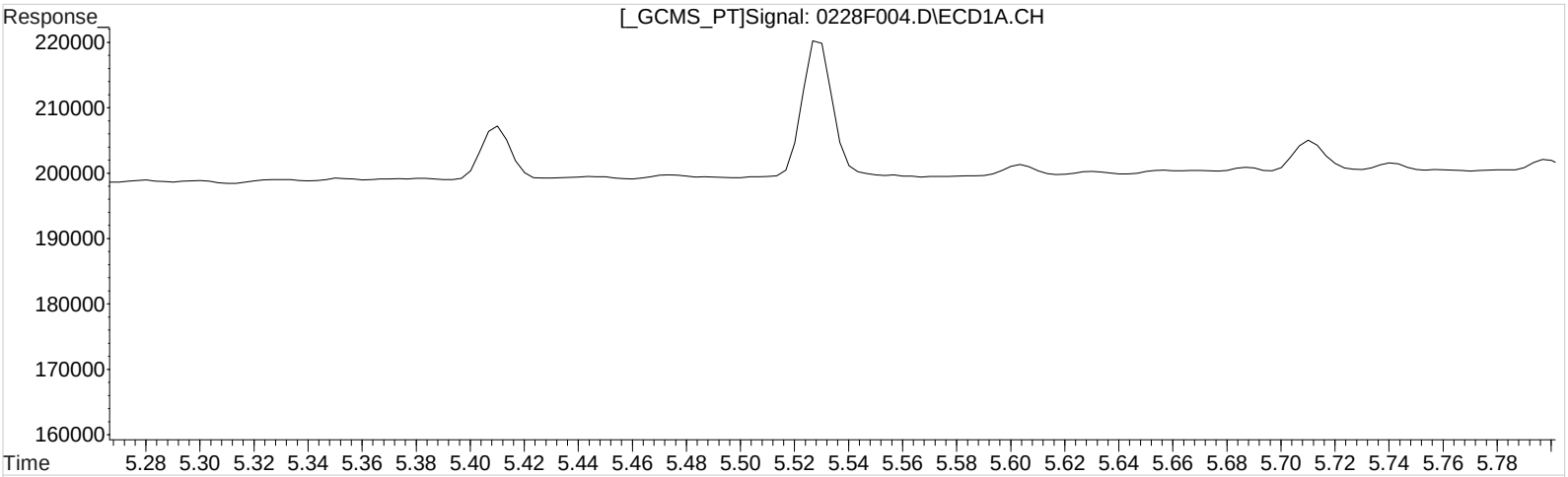
(+) = Expected Retention Time

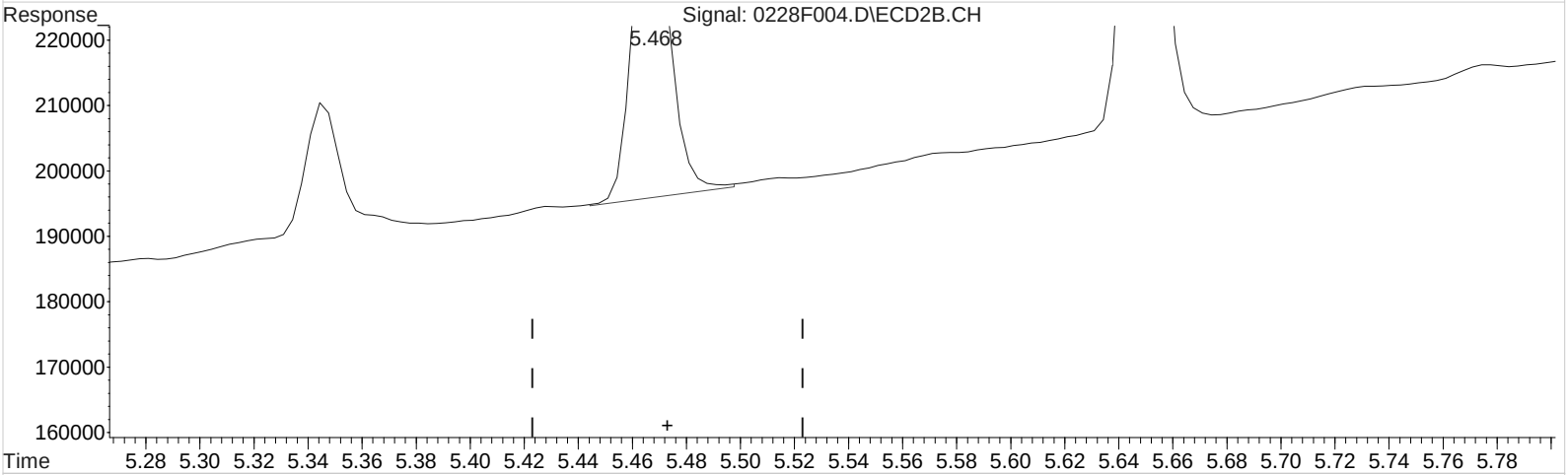
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.013min 0.771 ug/L

response 599618

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.468min 1.152 ug/L m

response 475513

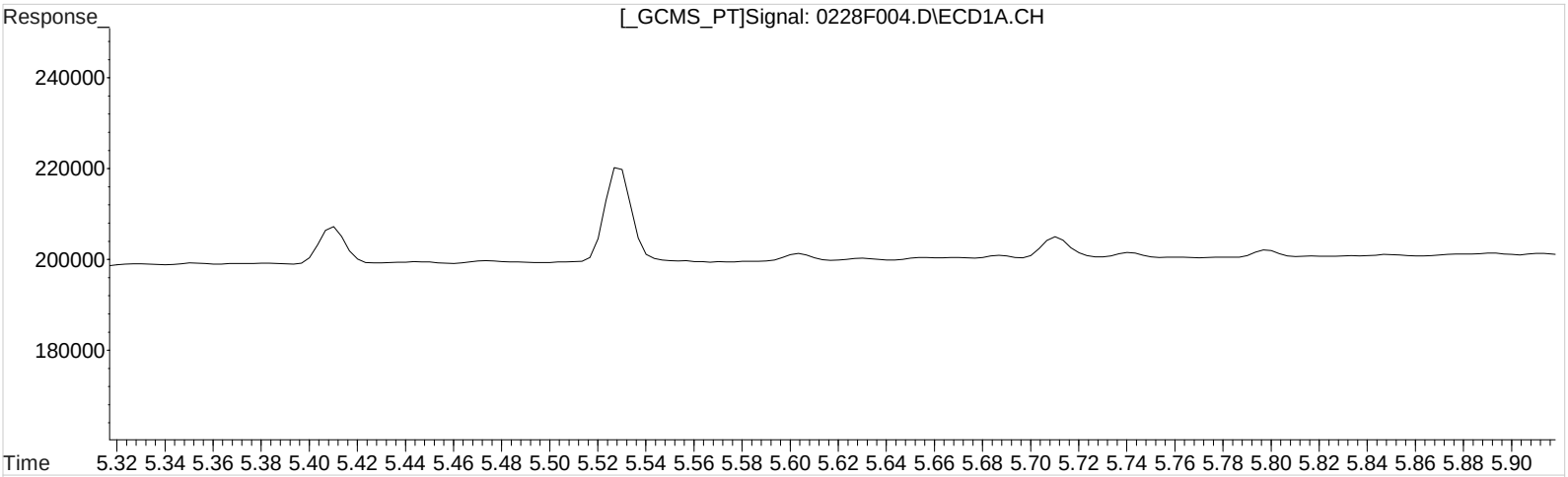
(+) = Expected Retention Time

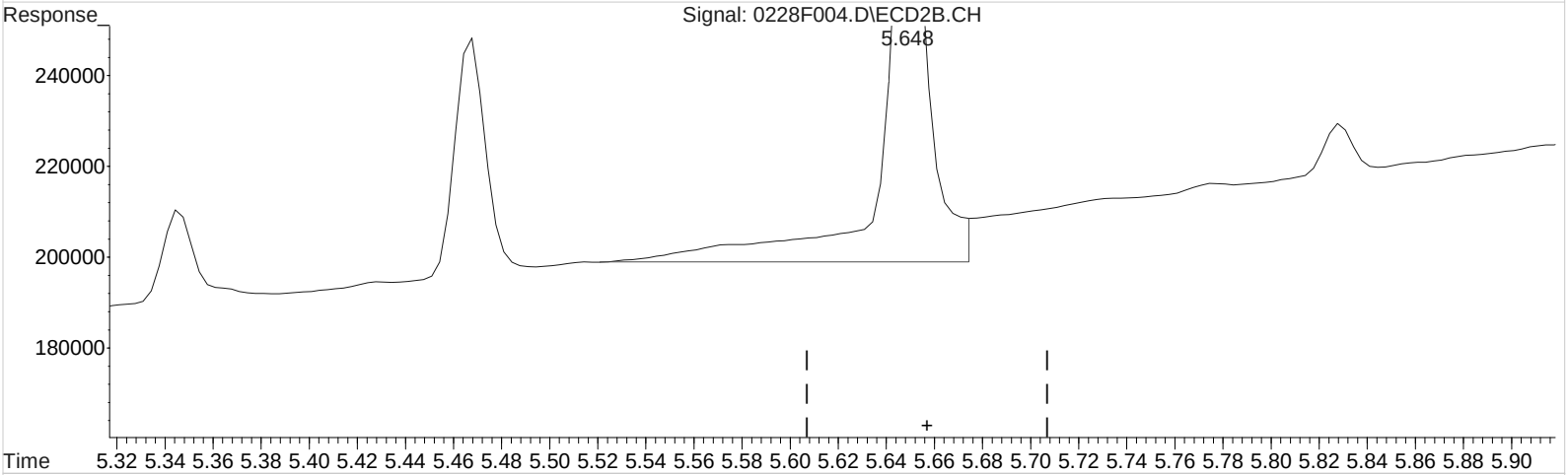
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.150min 0.493 ug/L

response 673174

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.648min 1.785 ug/L

response 1226970

(+) = Expected Retention Time

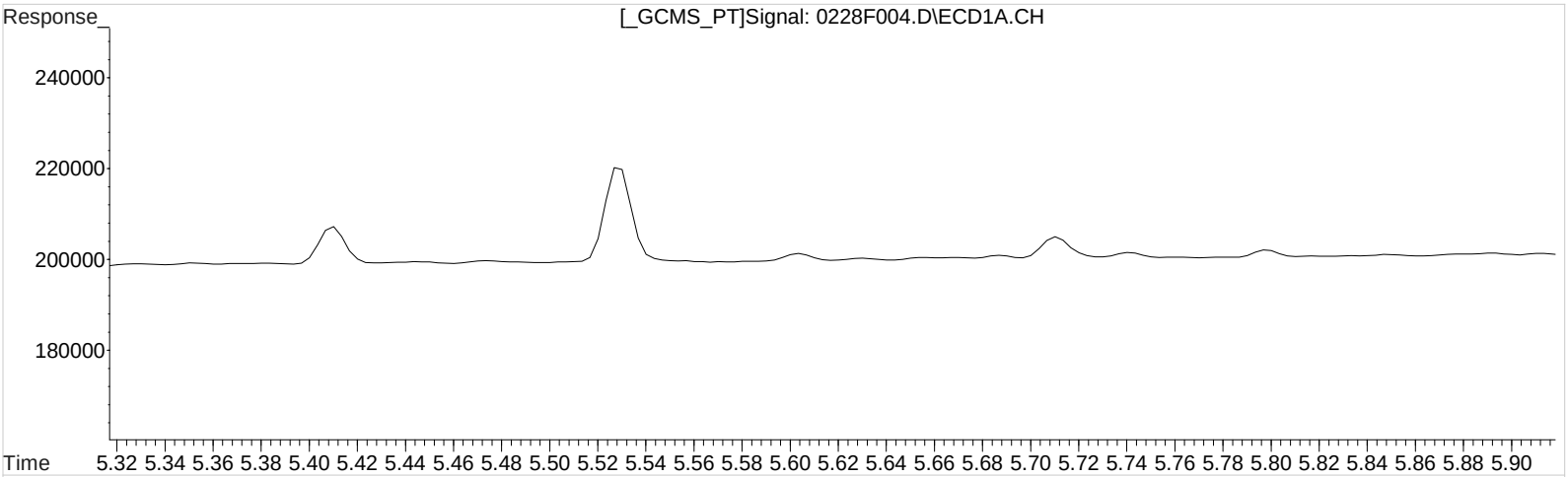
Quantitation Report (Qedit)

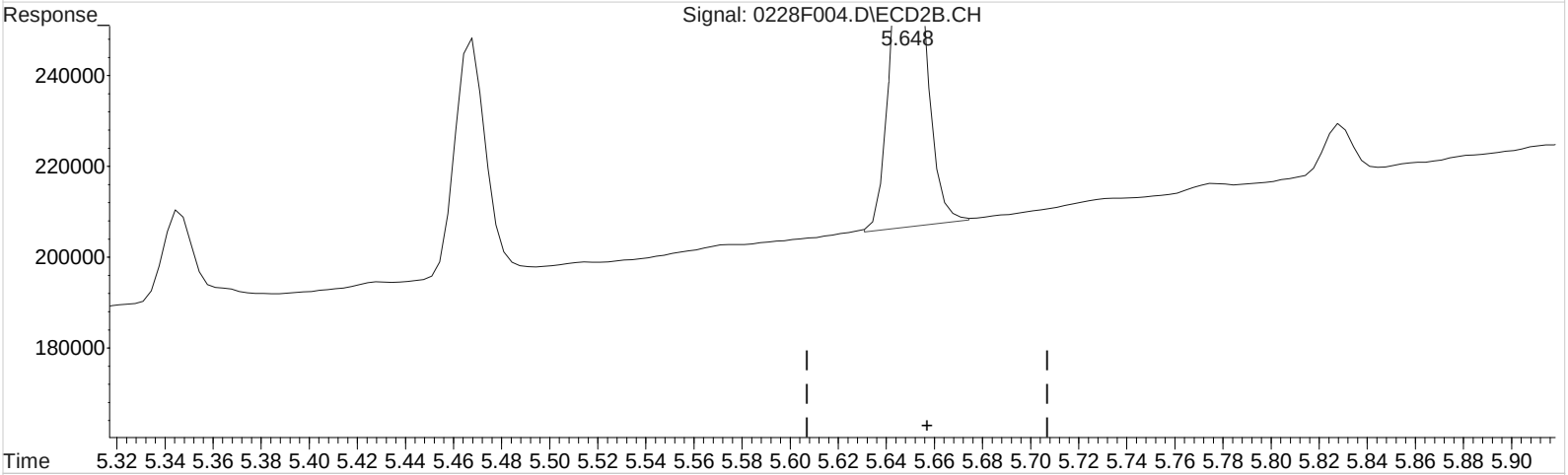
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.150min 0.493 ug/L

response 673174

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.648min 1.149 ug/L m

response 789810

(+) = Expected Retention Time

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -87.82 X² + 4.342E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	6.732E5	02	5.000	5.679E5	03	10.000	5.372E5	04	25.000	4.948E5
05	50.000	4.691E5	06	100.000	4.496E5	07	250.000	4.103E5	08	500.000	3.739E5
09	1000.000	3.511E5	10	2.500	6.128E5						

2,3,4,5-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -268.7 X² + 3.077E5 X + 3.627E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	02	4.715	3.979E5	03	9.431	3.696E5	04	23.577	3.259E5
05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5	10	2.358	4.756E5

2,3,5,6-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -316.9 X² + 4.391E5 X + 2.523E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	02	4.715	5.28E5	03	9.431	4.935E5	04	23.577	4.478E5
05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5	10	2.358	5.749E5

2,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -146.2 X² + 1.398E5 X + 1.234E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	02	4.669	1.8E5	03	9.338	1.735E5	04	23.345	1.484E5
05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5	10	2.334	2.006E5

2,4,6-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9995**	**Y= -245.7 X² + 3.136E5 X + 2.021E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	02	4.669	3.846E5	03	9.338	3.638E5	04	23.345	3.225E5
05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5	10	2.334	4.078E5

3,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -166.3 X² + 1.479E5 X + 8.837E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	02	4.669	1.823E5	03	9.338	1.696E5	04	23.345	1.515E5
05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5	10	2.334	1.988E5

3,4-Dichlorophenol	**Quadratic**	**1/X**	**COD = 1.0000**	**Y= -15.47 X² + 1.592E4 X + 8.759E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.529E4	02	4.605	1.749E4	03	9.209	1.718E4	04	23.023	1.584E4
05	46.046	1.558E4	06	92.091	1.446E4	07	230.230	1.241E4	10	2.302	1.966E4

3,5-Dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9982**	**Y= -14.62 X² + 1.118E4 X + 7.47E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	1.798E4	02	4.605	1.407E4	03	9.209	1.255E4	04	23.023	1.076E4
05	46.046	1.147E4	06	92.091	9.36E3	07	230.230	7.904E3	10	2.302	1.374E4

Pentachlorophenol (PCP)	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -97.29 X² + 4.57E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	02	4.750	5.978E5	03	9.501	5.654E5	04	23.752	5.208E5
05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5	08	475.030	3.936E5
09	950.060	3.695E5	10	2.375	6.451E5						

4-Bromo-2,6-dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9994**	**Y= -70.25 X² + 3.43E5 X + 2.985E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	02	5.000	4.356E5	03	10.000	4.141E5	04	25.000	3.754E5
05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5	08	500.000	2.979E5
09	1000.000	2.755E5	10	2.500	4.672E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.555	**-44.5**	02	5.000	5.55	11.0	03	10.000	11.4	14.0
04	25.000	27.6	10.6	05	50.000	53.6	7.2	06	100.000	105	4.8
07	250.000	248	-0.9	08	500.000	475	-5.0	09	1000.000	1020	1.6
10	2.500	2.53	1.4								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.770	-18.3	02	4.715	4.94	4.7	03	9.431	10.2	8.6
04	23.577	24.3	3.1	05	47.153	46.9	-0.6	06	94.307	91.6	-2.8
07	235.770	237	0.6	10	2.358	2.47	4.8				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.738	-21.7	02	4.715	5.11	8.5	03	9.431	10.1	7.1
04	23.577	23.9	1.3	05	47.153	47.4	0.6	06	94.307	91.5	-3.0
07	235.770	237	0.5	10	2.358	2.52	6.8				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.634	**-32.1**	02	4.669	5.16	10.4	03	9.338	10.8	15.9
04	23.345	24.5	5.1	05	46.690	46.1	-1.2	06	93.379	88.6	-5.1
07	233.450	236	1.2	10	2.334	2.47	6.0				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.732	-21.6	02	4.669	5.10	9.3	03	9.338	10.3	10.0
04	23.345	23.8	2.0	05	46.690	47.3	1.2	06	93.379	89.5	-4.1
07	233.450	235	0.8	10	2.334	2.39	2.6				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.655	-29.8	02	4.669	5.19	11.1	03	9.338	10.2	9.6
04	23.345	24.0	2.7	05	46.690	47.4	1.5	06	93.379	88.5	-5.2
07	233.450	236	1.2	10	2.334	2.55	9.2				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.914	-0.8	02	4.605	4.53	-1.6	03	9.209	9.47	2.9
04	23.023	22.9	-0.7	05	46.046	46.6	1.3	06	92.091	91.2	-1.0
07	230.230	231	0.2	10	2.302	2.30	-0.2				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.814	-11.6	02	4.605	5.16	12.1	03	9.209	9.80	6.4
04	23.023	22.1	-3.9	05	46.046	49.8	8.2	06	92.091	86.2	-6.4
07	230.230	233	1.3	10	2.302	2.17	-5.8				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	0.527	**-44.5**	02	4.750	5.27	11.0	03	9.501	10.8	14.0
04	23.752	26.3	10.6	05	47.503	50.9	7.2	06	95.006	99.5	4.8
07	237.520	235	-0.9	08	475.030	452	-5.0	09	950.060	966	1.6
10	2.375	2.41	1.4								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.643	**-35.7**	02	5.000	5.49	9.7	03	10.000	11.2	12.3
04	25.000	26.6	6.5	05	50.000	53.3	6.6	06	100.000	102	1.6
07	250.000	251	0.2	08	500.000	481	-3.9	09	1000.000	1010	1.2
10	2.500	2.54	1.5								

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D\0228F004c.d	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D\0228F006c.d	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D\0228F007c.d	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D\0228F008c.d	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D\0228F009c.d	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D\0228F010c.d	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D\0228F011c.d	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D\0228F012c.d	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D\0228F013c.d	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D\0228F014c.d	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte	Curve Fit	Weighting

2,3,4,5,6-Pentachloroanisole

Average RF **RSD = 9.583** **Average RF = 6.462E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	7.909E5	02	5.000	6.542E5	03	10.000	6.532E5	04	25.000	6.151E5
05	50.000	6.083E5	06	100.000	5.984E5	07	250.000	5.996E5	08	500.000	6.052E5
09	1000.000	6.245E5	10	2.500	7.13E5						

2,3,4,5-Tetrachlorophenol

Average RF **RSD = 12.29** **Average RF = 4.159E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	02	4.715	4.353E5	03	9.431	4.108E5	04	23.577	3.904E5
05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5	10	2.358	4.73E5

2,3,5,6-Tetrachlorophenol

Average RF **RSD = 6.587** **Average RF = 6.037E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	02	4.715	5.882E5	03	9.431	6.075E5	04	23.577	5.816E5
05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5	10	2.358	6.377E5

2,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9997** **Y= -73.44 X² + 1.777E5 X + 1.058E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	02	4.669	2.059E5	03	9.338	2.015E5	04	23.345	1.829E5
05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5	10	2.334	2.293E5

2,4,6-Trichlorophenol

Average RF **RSD = 4.634** **Average RF = 4.082E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	02	4.669	4.004E5	03	9.338	4.124E5	04	23.345	3.941E5
05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5	10	2.334	4.267E5

3,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9998** **Y= -63.92 X² + 1.7E5 X + 9.004E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	02	4.669	1.919E5	03	9.338	1.89E5	04	23.345	1.732E5
05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5	10	2.334	2.115E5

3,4-Dichlorophenol

Average RF **RSD = 10.82** **Average RF = 2.169E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.356E4	02	4.605	2.28E4	03	9.209	2.378E4	04	23.023	2.153E4
05	46.046	2.119E4	06	92.091	1.915E4	07	230.230	1.751E4	10	2.302	2.4E4

3,5-Dichlorophenol

Quadratic **1/X** **COD = 0.9996** **Y= -14.71 X² + 1.578E4 X + 8.463E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.299E4	02	4.605	1.798E4	03	9.209	1.82E4	04	23.023	1.612E4
05	46.046	1.537E4	06	92.091	1.408E4	07	230.230	1.249E4	10	2.302	1.928E4

Pentachlorophenol (PCP)

Average RF **RSD = 9.573** **Average RF = 6.805E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	02	4.750	6.912E5	03	9.501	6.875E5	04	23.752	6.474E5
05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5	08	475.030	6.37E5
09	950.060	6.573E5	10	2.375	7.52E5						

4-Bromo-2,6-dichlorophenol

Average RF **RSD = 5.968** **Average RF = 4.216E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	02	5.000	3.777E5	03	10.000	4.048E5	04	25.000	4.138E5
05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5	08	500.000	4.395E5
09	1000.000	4.542E5	10	2.500	3.934E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.22	22.4	02	5.000	5.06	1.2	03	10.000	10.1	1.1
04	25.000	23.8	-4.8	05	50.000	47.1	-5.9	06	100.000	92.6	-7.4
07	250.000	232	-7.2	08	500.000	468	-6.4	09	1000.000	966	-3.4
10	2.500	2.76	10.3								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.14	21.2	02	4.715	4.93	4.7	03	9.431	9.31	-1.2
04	23.577	22.1	-6.1	05	47.153	43.3	-8.3	06	94.307	83.5	-11.5
07	235.770	206	-12.5	10	2.358	2.68	13.7				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.07	13.6	02	4.715	4.59	-2.6	03	9.431	9.49	0.6
04	23.577	22.7	-3.7	05	47.153	45.9	-2.6	06	94.307	89.1	-5.6
07	235.770	223	-5.4	10	2.358	2.49	5.6				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.799	-14.5	02	4.669	4.82	3.3	03	9.338	10.0	7.4
04	23.345	23.7	1.3	05	46.690	47.3	1.3	06	93.379	90.7	-2.9
07	233.450	234	0.4	10	2.334	2.42	3.6				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	1.01	8.7	02	4.669	4.58	-1.9	03	9.338	9.43	1.0
04	23.345	22.5	-3.5	05	46.690	46.6	-0.2	06	93.379	89.0	-4.7
07	233.450	224	-4.0	10	2.334	2.44	4.5				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.846	-9.5	02	4.669	4.75	1.7	03	9.338	9.88	5.9
04	23.345	23.5	0.5	05	46.690	47.5	1.7	06	93.379	91.1	-2.4
07	233.450	234	0.3	10	2.334	2.38	1.8				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	1.00	8.6	02	4.605	4.84	5.1	03	9.209	10.1	9.6
04	23.023	22.9	-0.7	05	46.046	45.0	-2.3	06	92.091	81.3	-11.7
07	230.230	186	-19.3	10	2.302	2.55	10.6				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.806	-12.4	02	4.605	4.73	2.8	03	9.209	10.2	10.6
04	23.023	23.5	2.1	05	46.046	46.3	0.6	06	92.091	89.0	-3.3
07	230.230	232	0.7	10	2.302	2.28	-0.9				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	1.16	22.2	02	4.750	4.82	1.6	03	9.501	9.60	1.0
04	23.752	22.6	-4.9	05	47.503	44.7	-5.9	06	95.006	87.9	-7.4
07	237.520	220	-7.3	08	475.030	445	-6.4	09	950.060	918	-3.4
10	2.375	2.62	10.5								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.975	-2.5	02	5.000	4.48	-10.4	03	10.000	9.60	-4.0
04	25.000	24.5	-1.8	05	50.000	52.4	4.9	06	100.000	103	3.0
07	250.000	264	5.5	08	500.000	521	4.2	09	1000.000	1080	7.7
10	2.500	2.33	-6.7								

Initial Calibration Verification Summary Report

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-1701

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Quadratic	50	58.215	ug/L	16.4	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.125	ug/L	6.3	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.742	ug/L	7.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.950	ug/L	7.0	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	47.208	ug/L	1.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.502	ug/L	6.0	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	50.405	ug/L	9.5	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	54.814	ug/L	19.0	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Quadratic	47.5030	55.309	ug/L	16.4	<= 20

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-35

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Average RF	50	51.424	ug/L	2.8	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	46.743	ug/L	-0.9	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	47.890	ug/L	1.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	50.676	ug/L	8.5	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Average RF	46.69	46.729	ug/L	0.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	48.393	ug/L	3.6	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Average RF	46.0460	46.475	ug/L	0.9	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	48.925	ug/L	6.3	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Average RF	47.5030	48.834	ug/L	2.8	<= 20

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:10:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.031	4.715	2177979	1888328	5.516	4.344
		Target Compounds						
1)		3,4-Dichl...	3.138	3.832	80562	104986	4.505m	4.752
2)		3,5-Dichl...	3.378	4.089	64800	82809	5.639m	5.025
3)		2,4,6-Tri...	3.474	4.289	1795636	1869642	5.068	4.483
5)		2,4,5-Tri...	4.201	4.782	840314	961190	5.239	4.809
6)		3,4,5-Tri...	4.231	4.845	851278	896194	5.313	4.774
7)	M	2,3,5,6-T...	4.478	5.075	2489684	2773207	5.230	4.493m
8)	M	2,3,4,5-T...	5.014	5.469	1875877	2052365	4.930m	4.970
9)	M	Pentachlo...	5.151	5.649	2839370	3283089	5.309	4.775m
10)		Pentachlo...	5.151	5.649	2839370	3271189	5.588	5.010m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

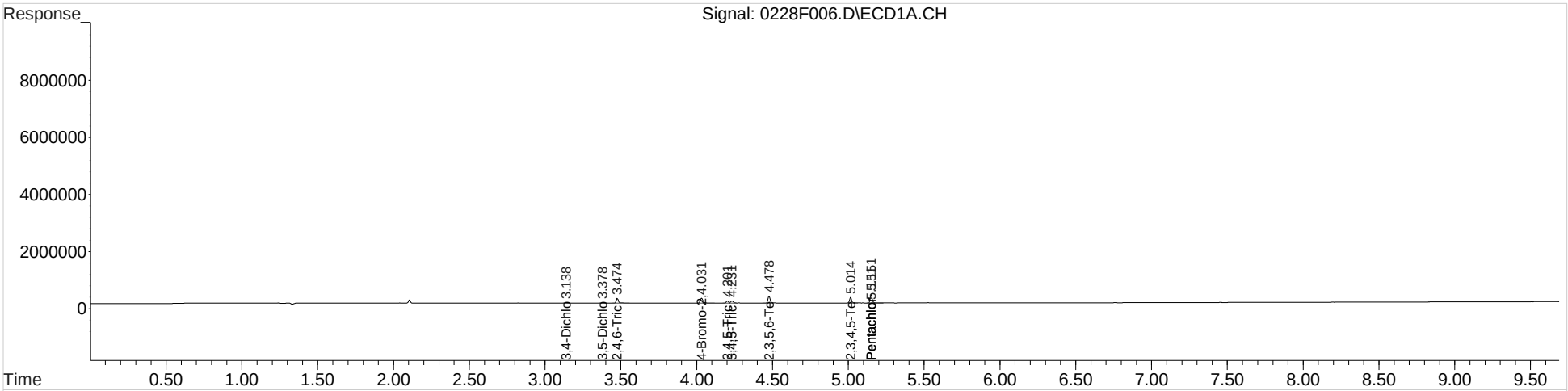
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:10:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



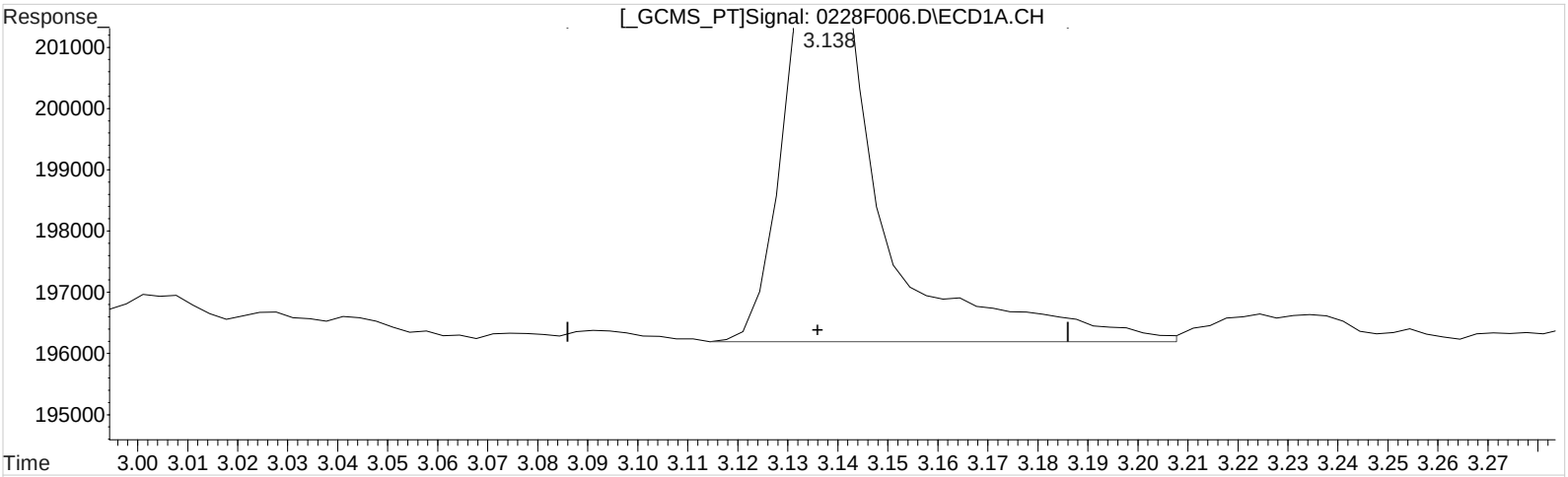
Quantitation Report (Qedit)

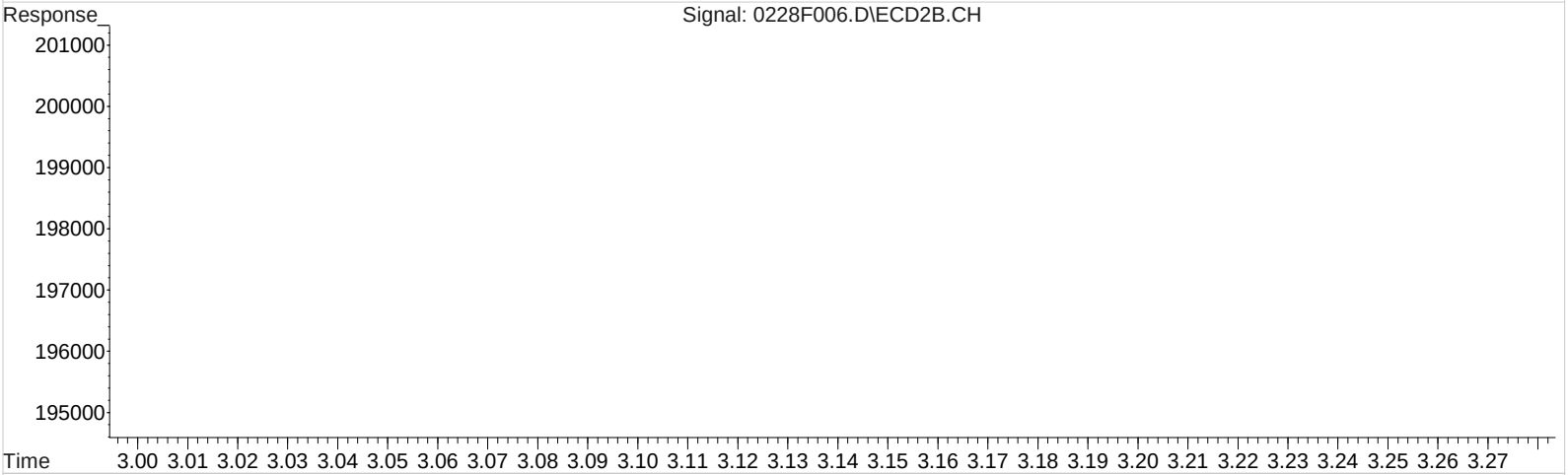
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.138min 5.274 ug/L

response 92393

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.832min 4.752 ug/L

response 104986

(+) = Expected Retention Time

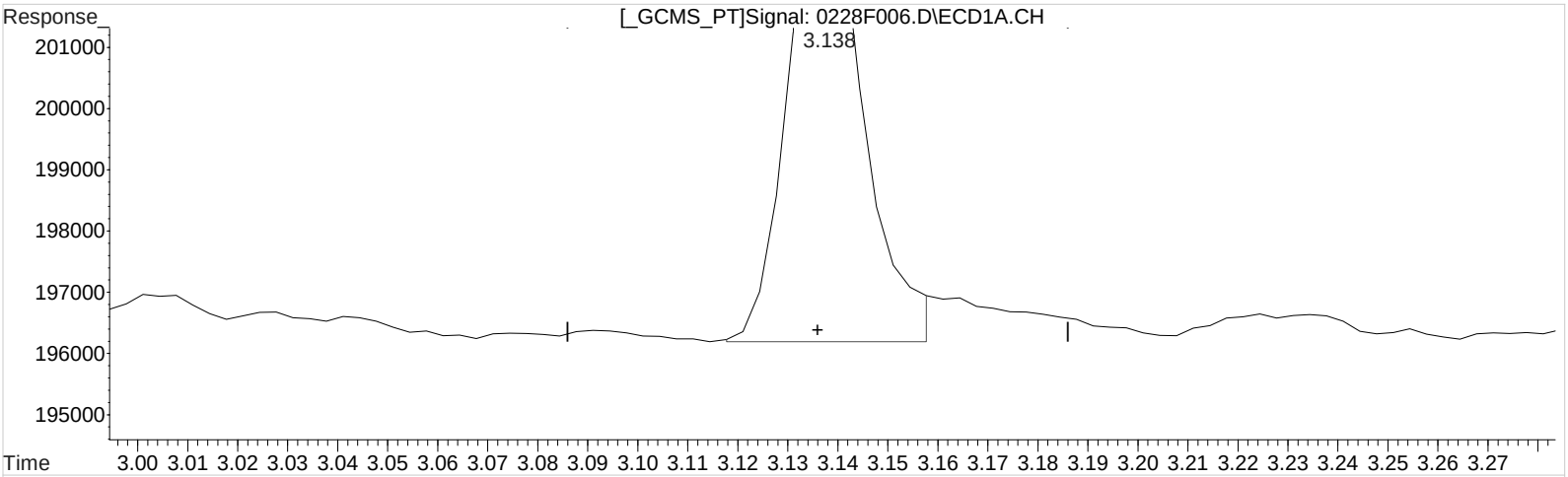
Quantitation Report (Qedit)

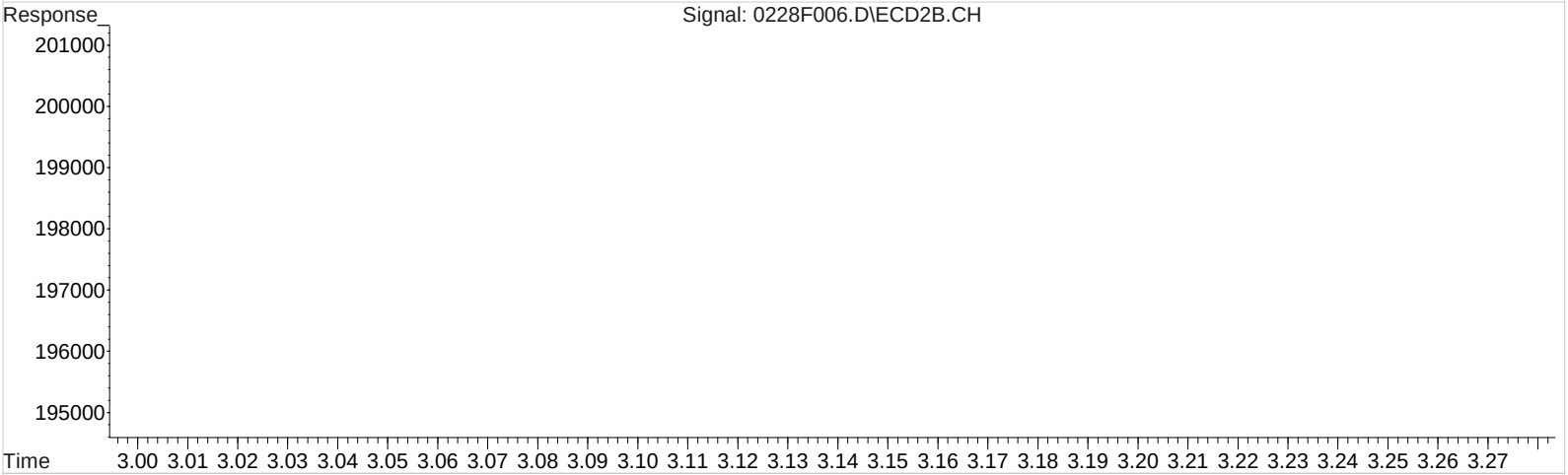
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.138min 4.505 ug/L m

response 80562

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.832min 4.752 ug/L

response 104986

(+) = Expected Retention Time

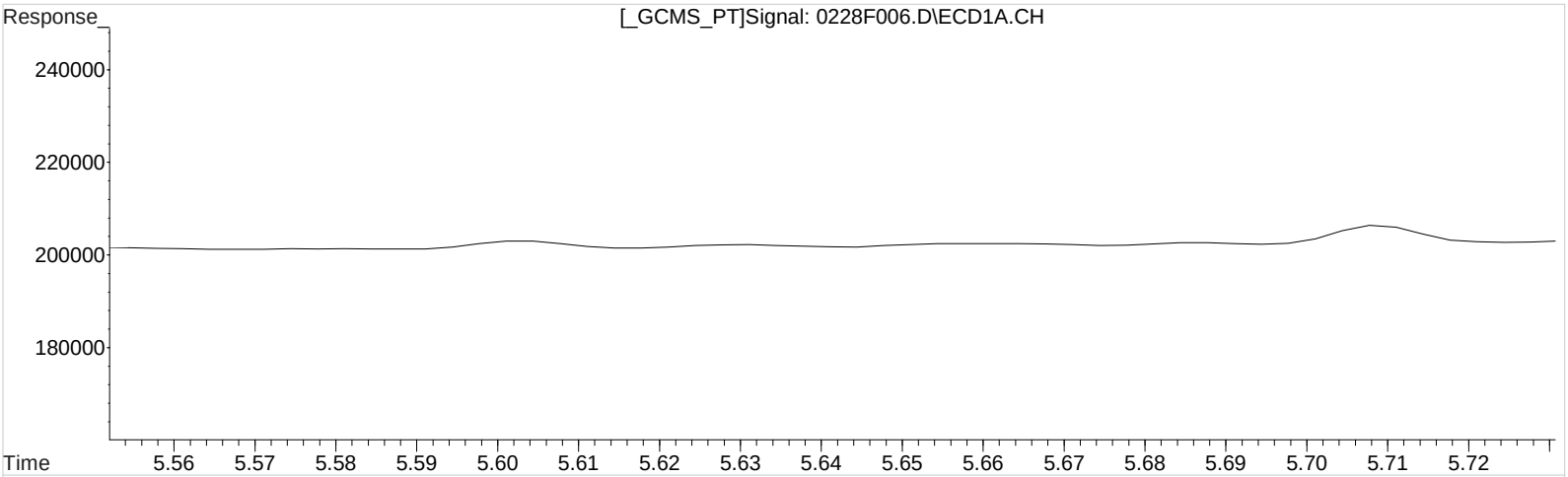
Quantitation Report (Qedit)

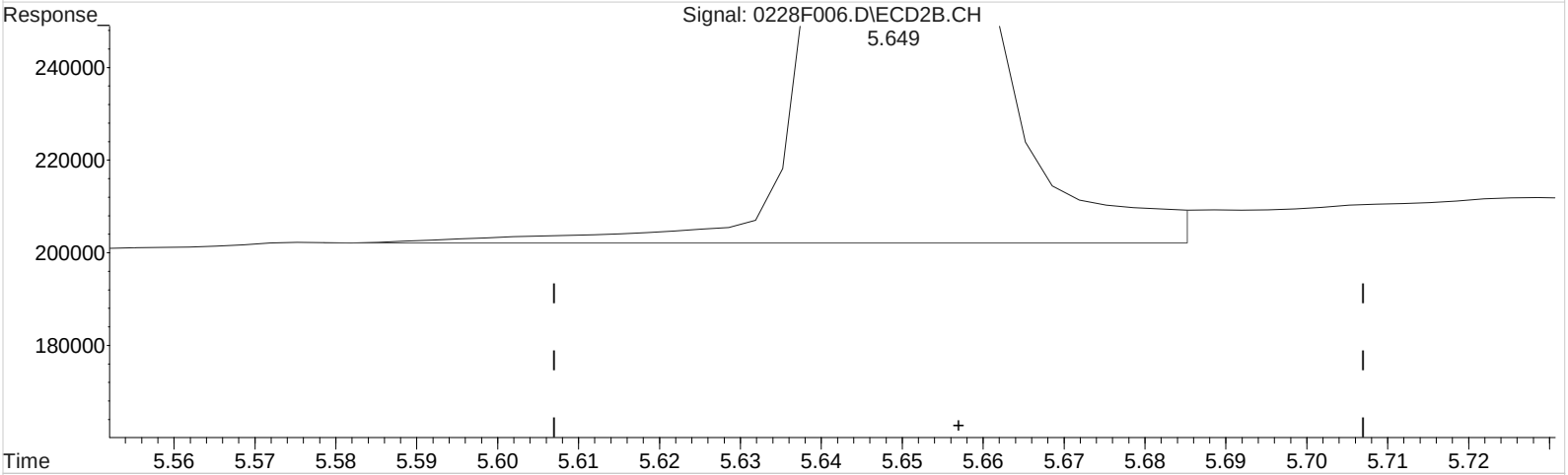
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.151min 5.588 ug/L

response 2839370

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.649min 5.332 ug/L

response 3480960

(+) = Expected Retention Time

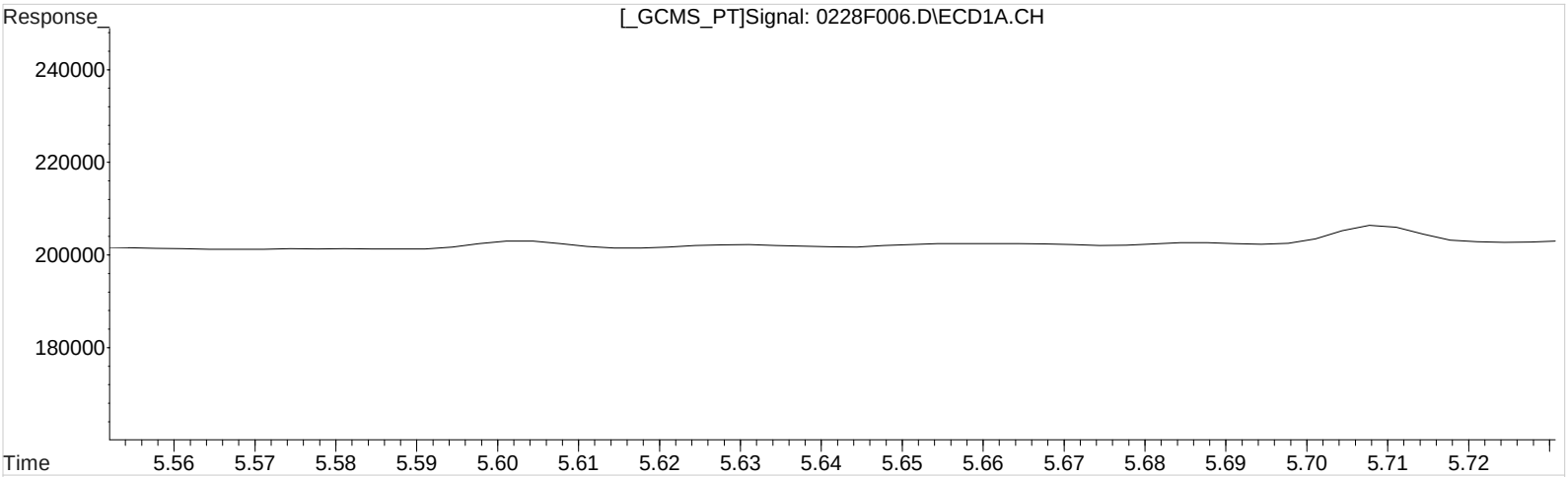
Quantitation Report (Qedit)

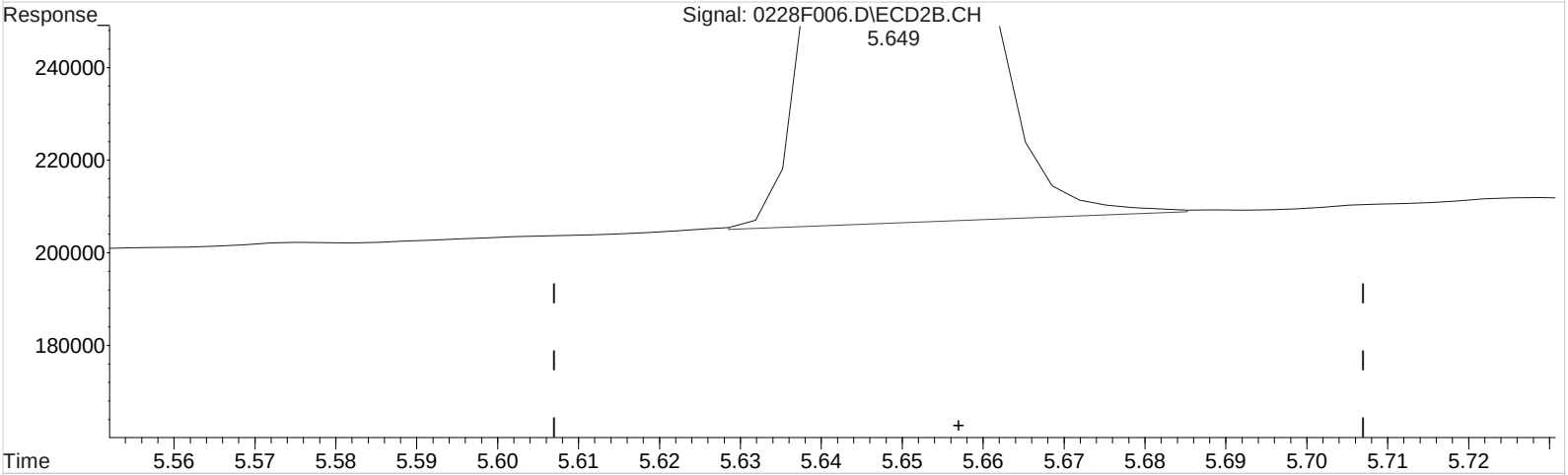
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.151min 5.588 ug/L

response 2839370

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.649min 5.010 ug/L m

response 3271189

(+) = Expected Retention Time

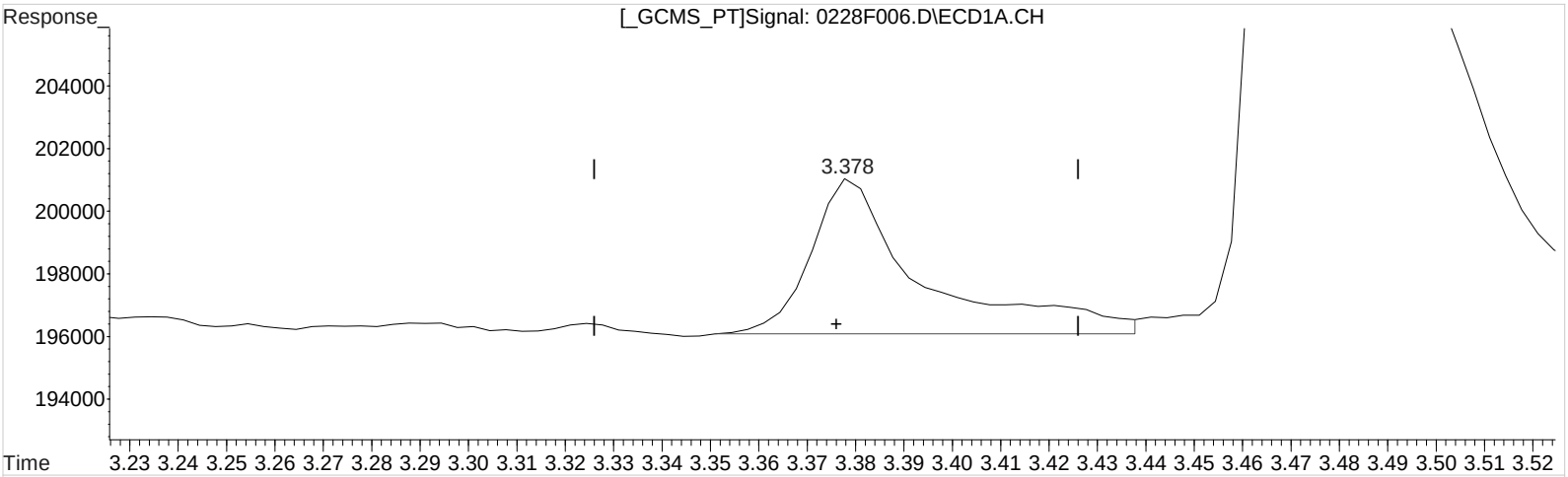
Quantitation Report (Qedit)

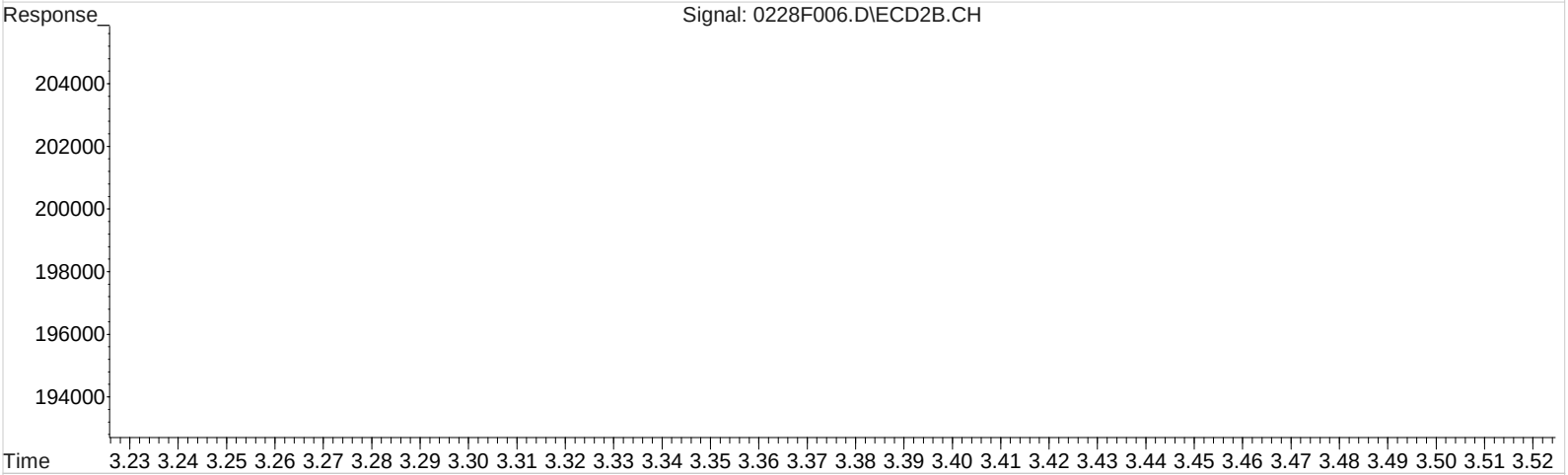
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 6.986 ug/L

response 78818

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 5.025 ug/L

response 82809

(+) = Expected Retention Time

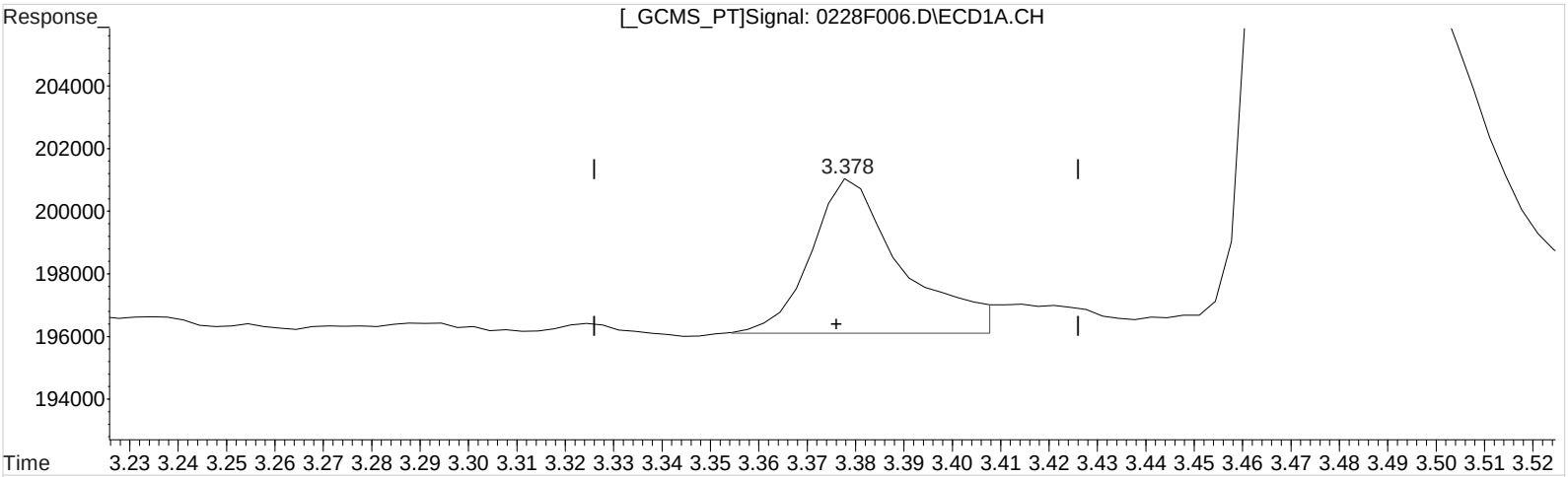
Quantitation Report (Qedit)

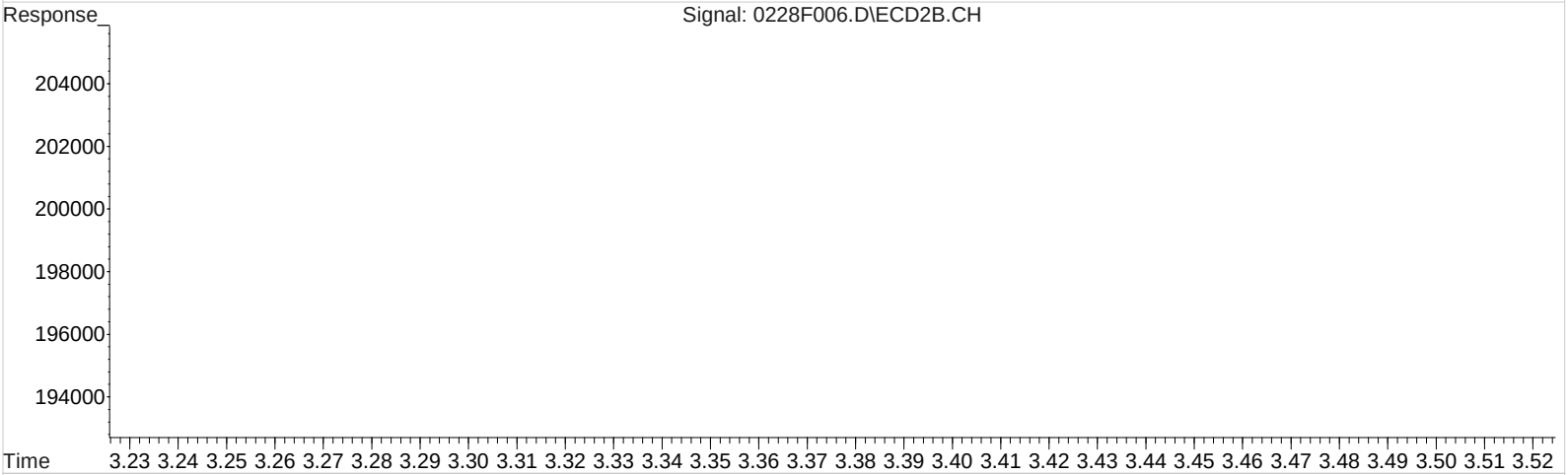
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 5.639 ug/L m

response 64800

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 5.025 ug/L

response 82809

(+) = Expected Retention Time

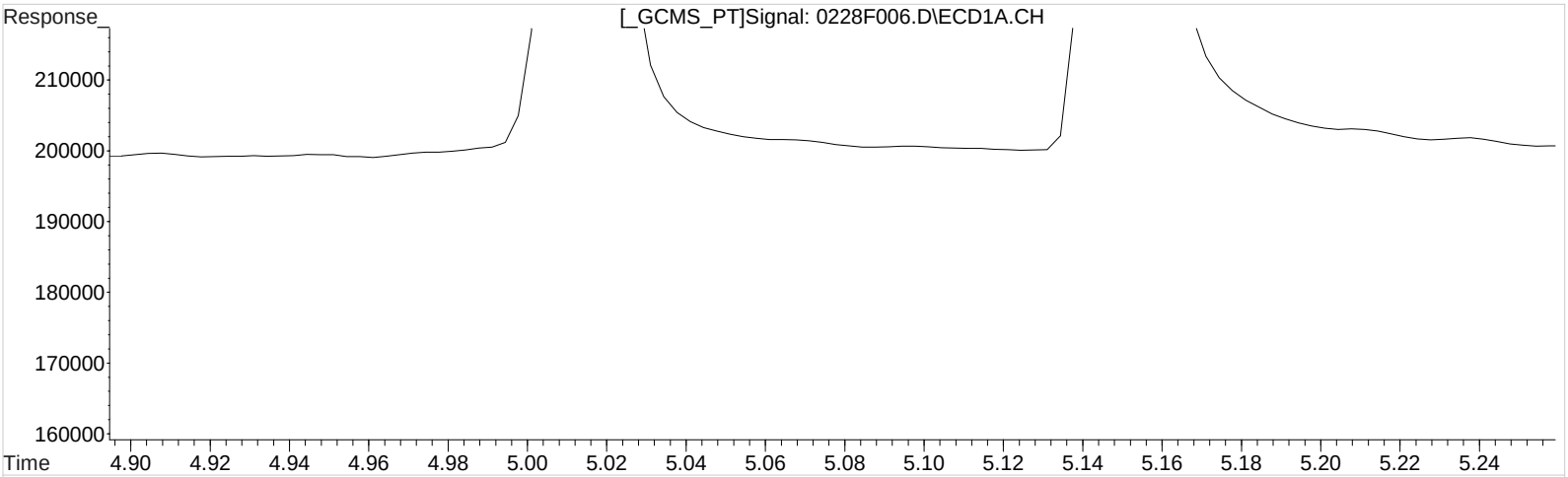
Quantitation Report (Qedit)

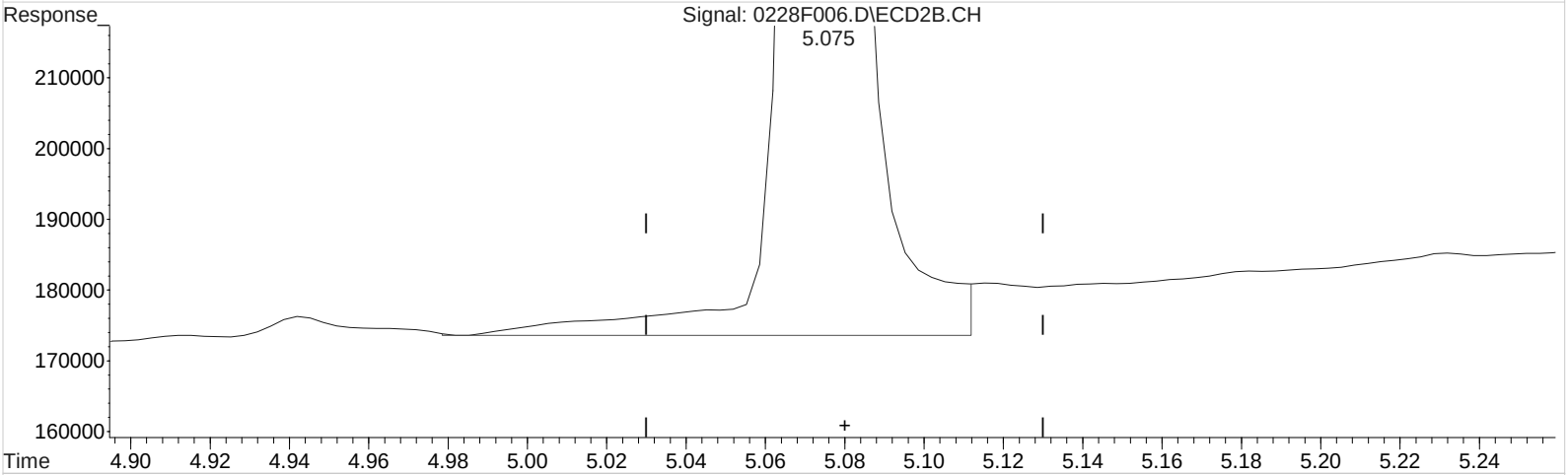
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 5.230 ug/L

response 2489684

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.075min 4.942 ug/L

response 3050029

(+) = Expected Retention Time

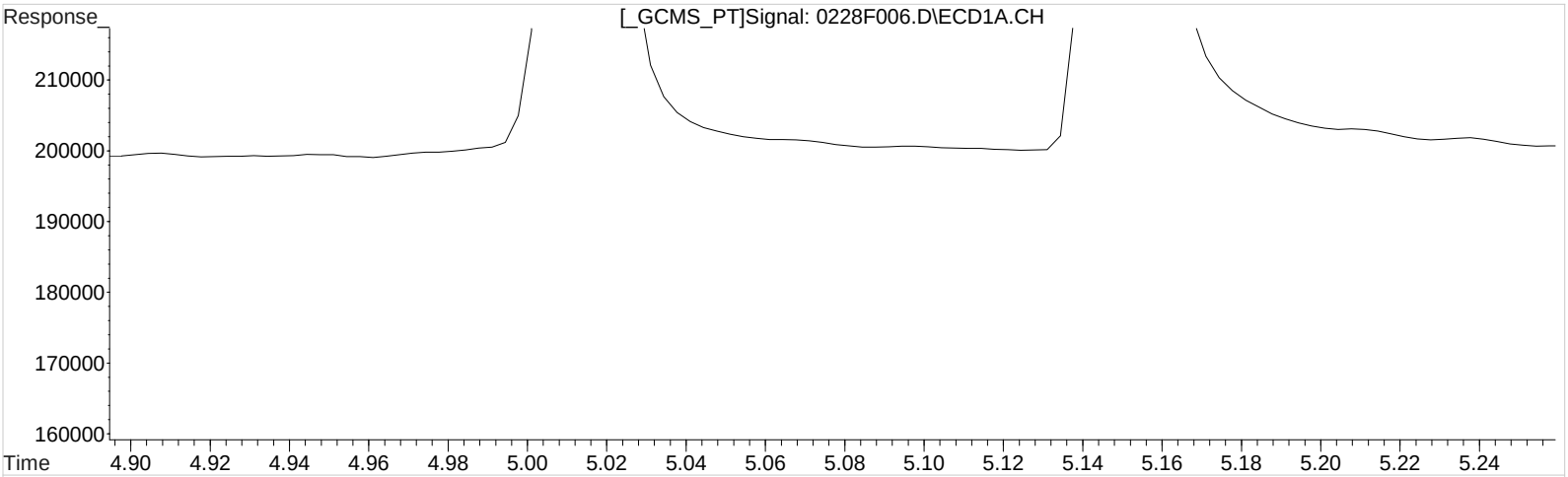
Quantitation Report (Qedit)

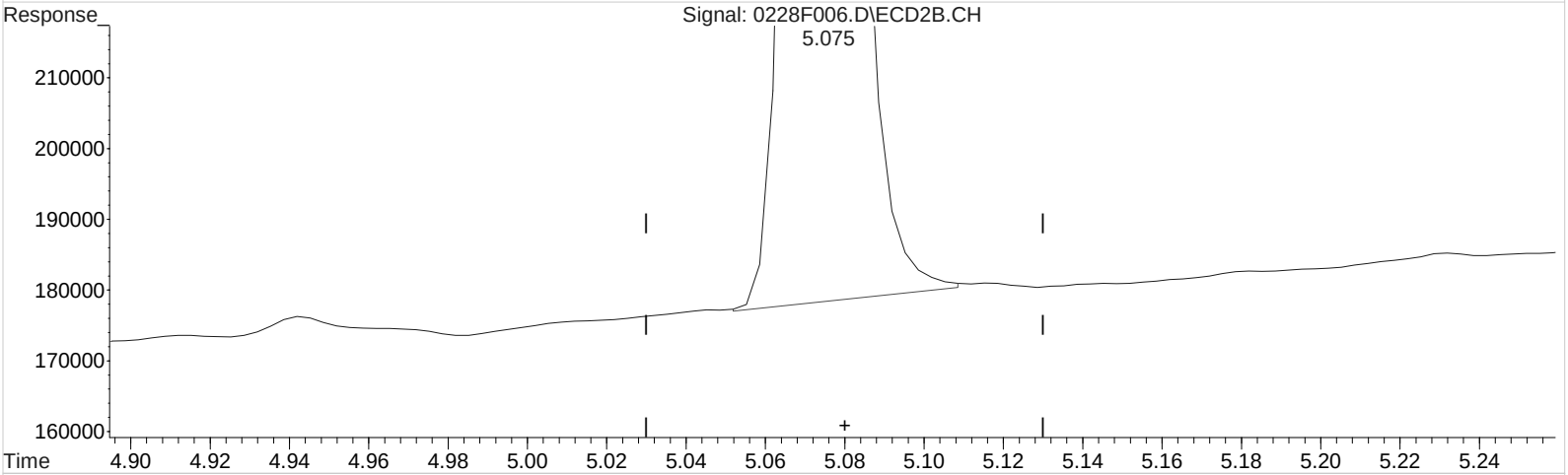
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 5.230 ug/L

response 2489684

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.075min 4.493 ug/L m

response 2773207

(+) = Expected Retention Time

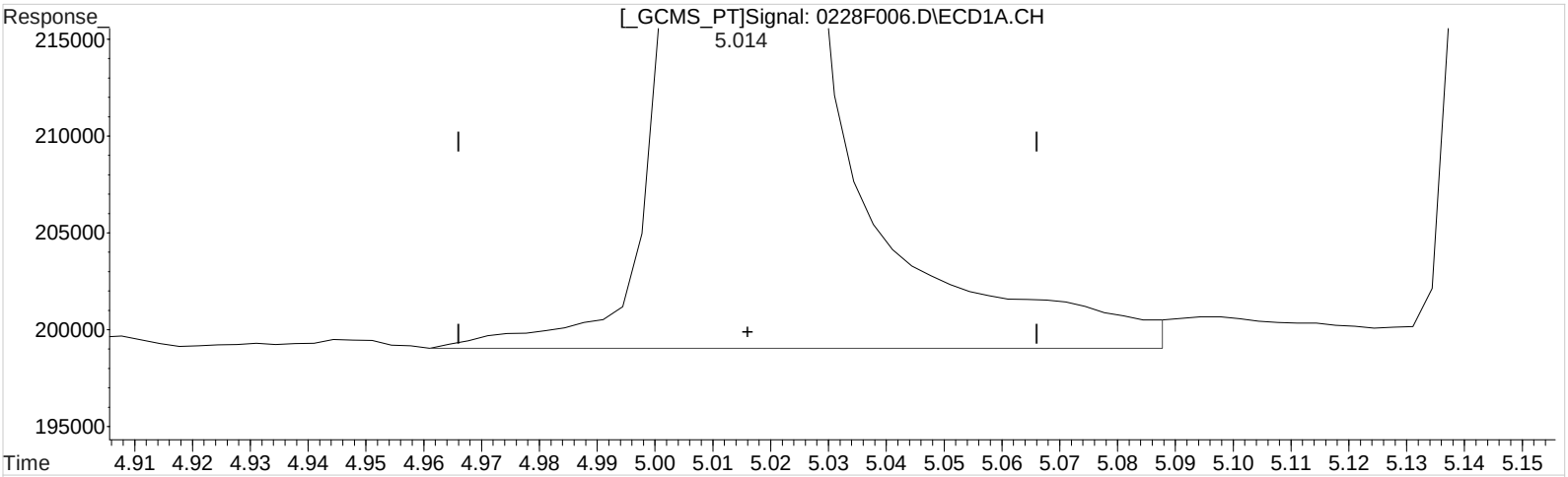
Quantitation Report (Qedit)

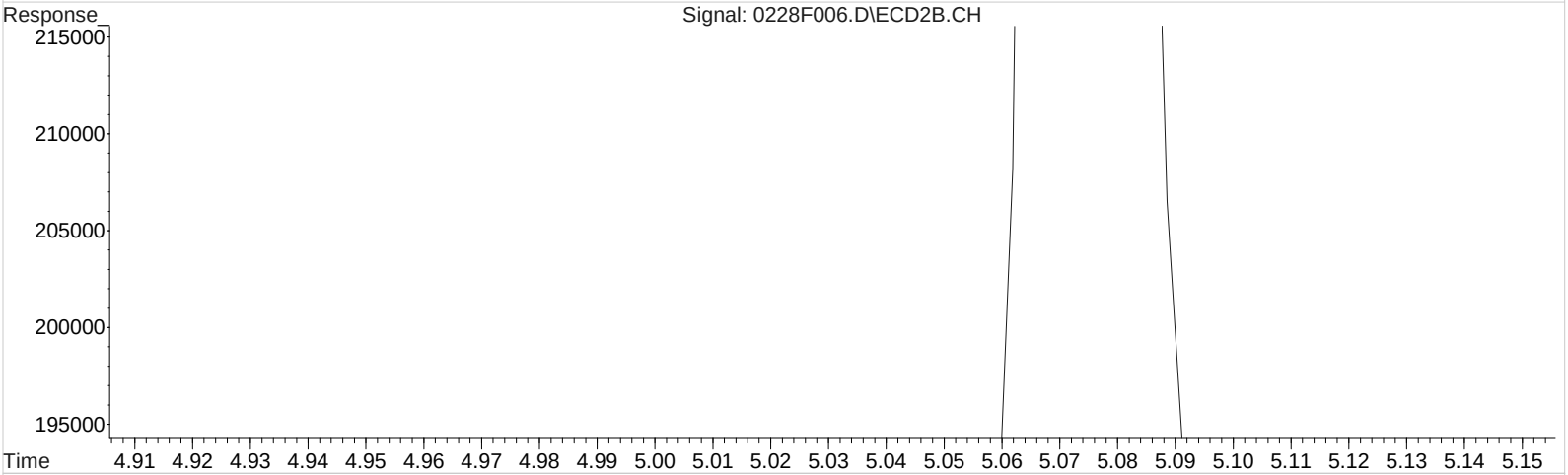
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.014min 5.252 ug/L

response 1974382

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.469min 4.970 ug/L

response 2052365

(+) = Expected Retention Time

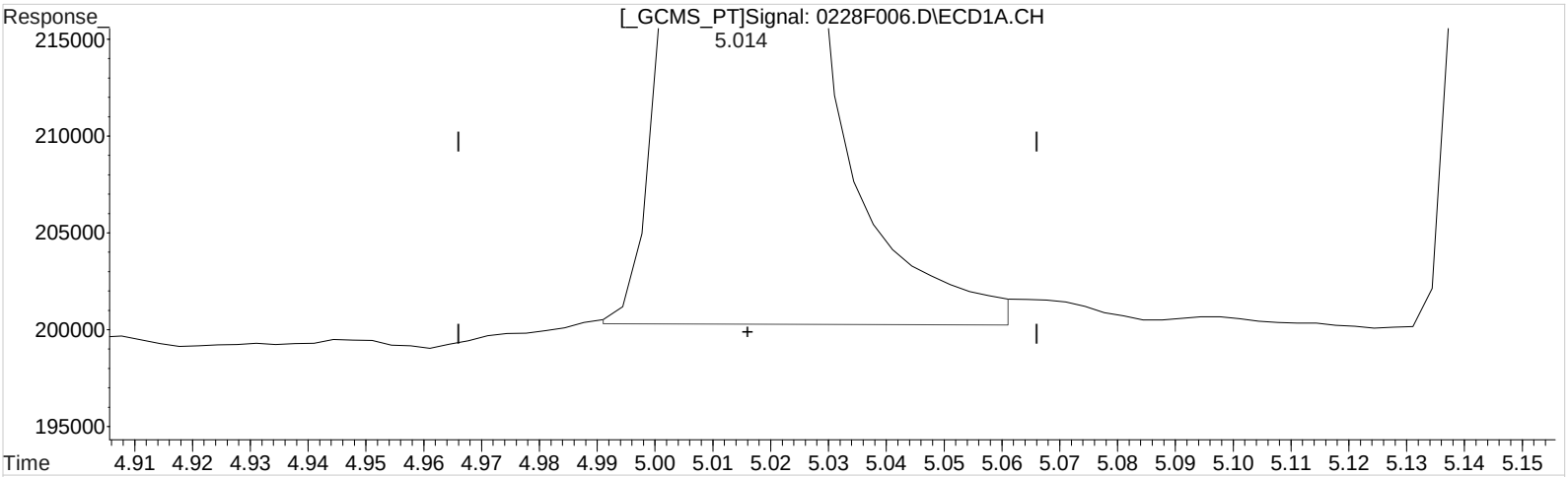
Quantitation Report (Qedit)

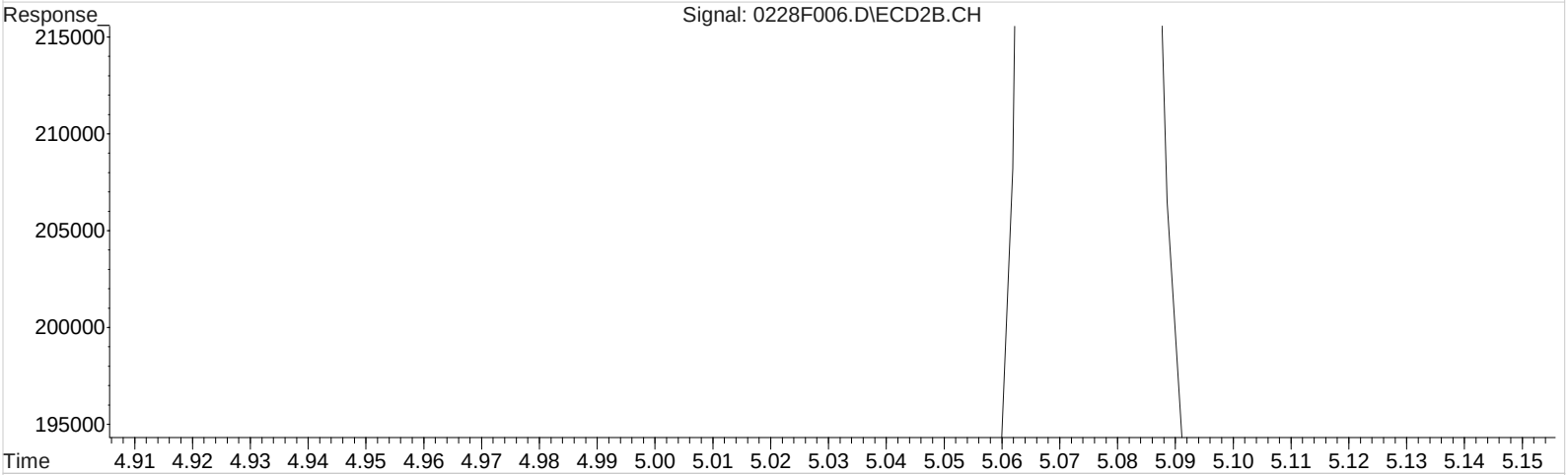
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.014min 4.930 ug/L m

response 1875877

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.469min 4.970 ug/L

response 2052365

(+) = Expected Retention Time

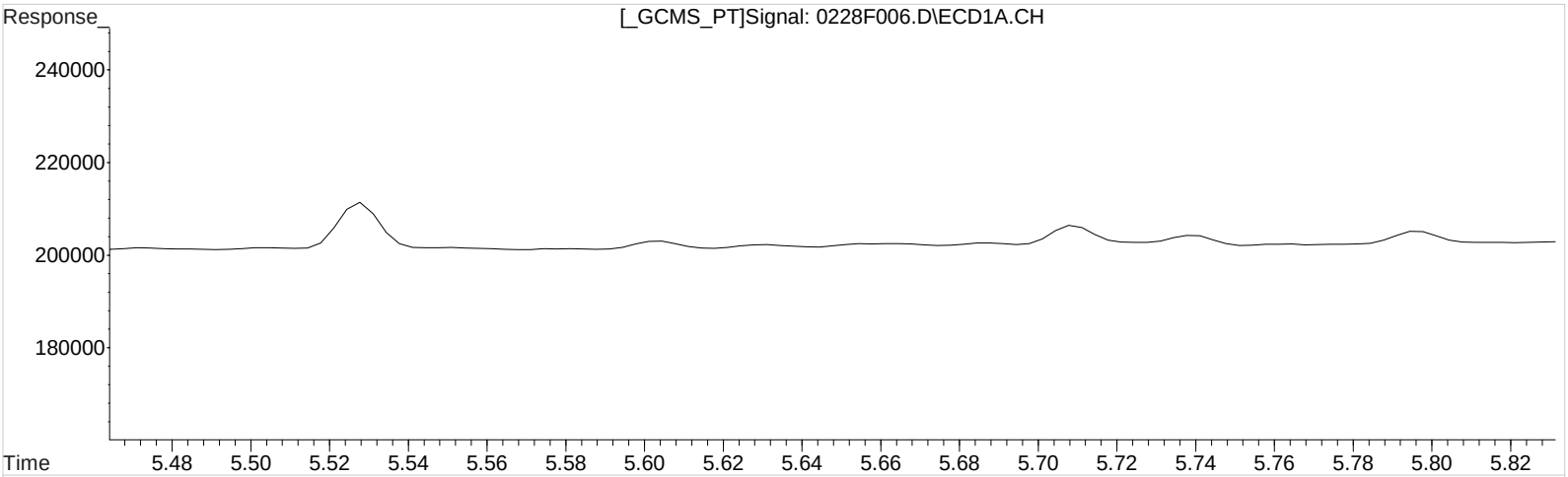
Quantitation Report (Qedit)

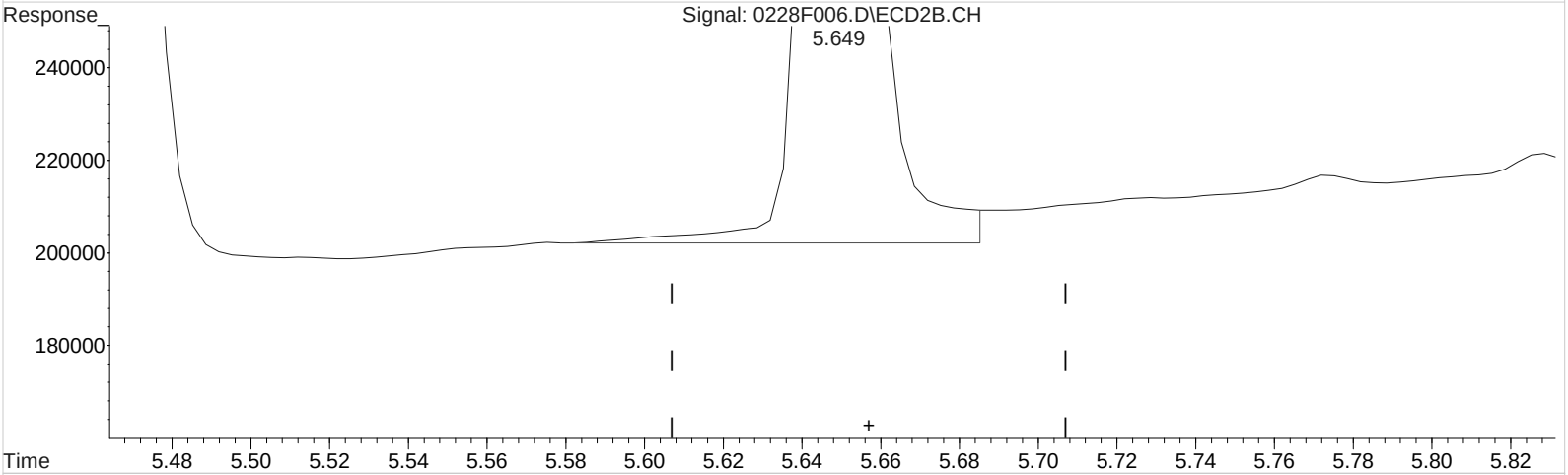
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.151min 5.309 ug/L

response 2839370

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.649min 5.063 ug/L

response 3480960

(+) = Expected Retention Time

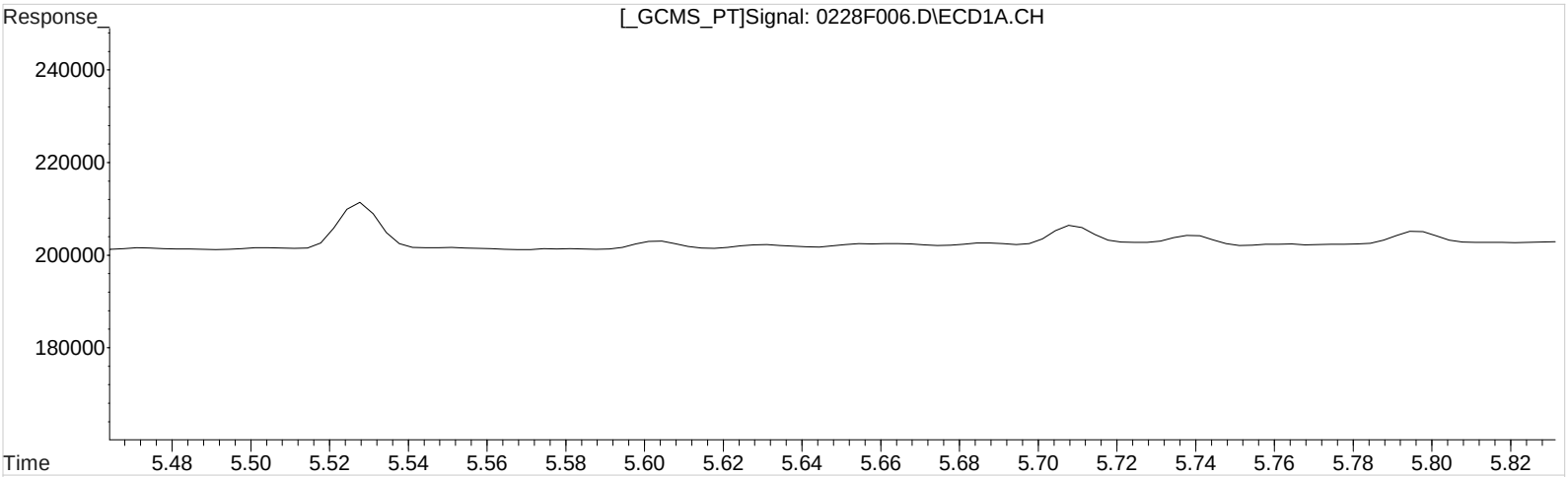
Quantitation Report (Qedit)

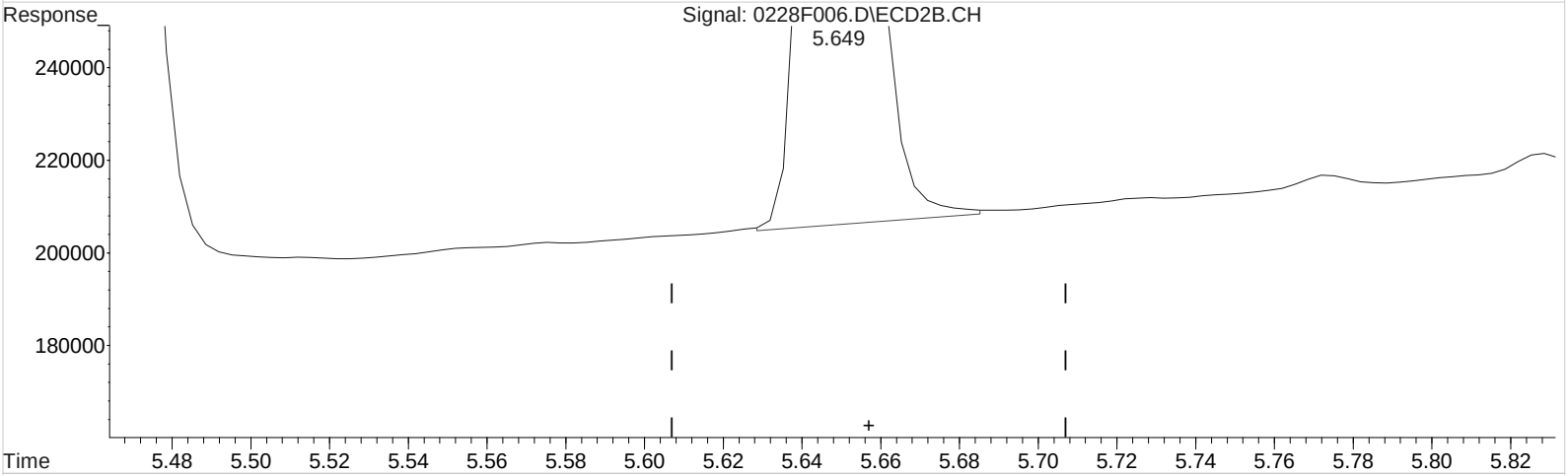
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.151min 5.309 ug/L

response 2839370

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.649min 4.775 ug/L m

response 3283089

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:31:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.033	4.717	4141410	4048056	11.304	9.312
		Target Compounds						
1)		3,4-Dichl...	3.136	3.831	158218	219018	9.573m	9.913
2)		3,5-Dichl...	3.380	4.087	115610	167574	10.545m	10.169
3)		2,4,6-Tri...	3.476	4.291	3397194	3850826	10.122	9.233
5)		2,4,5-Tri...	4.203	4.784	1619859	1881218	10.889	9.413
6)		3,4,5-Tri...	4.233	4.847	1583734	1764529	10.435m	9.401
7)	M	2,3,5,6-T...	4.476	5.077	4654510	5729619	9.778m	9.283
8)	M	2,3,4,5-T...	5.020	5.474	3486028	3874012	10.225m	9.382m
9)	M	Pentachlo...	5.156	5.657	5372015	6532395	10.950	9.501
10)		Pentachlo...	5.156	5.657	5372015	6532395	11.526	10.005

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

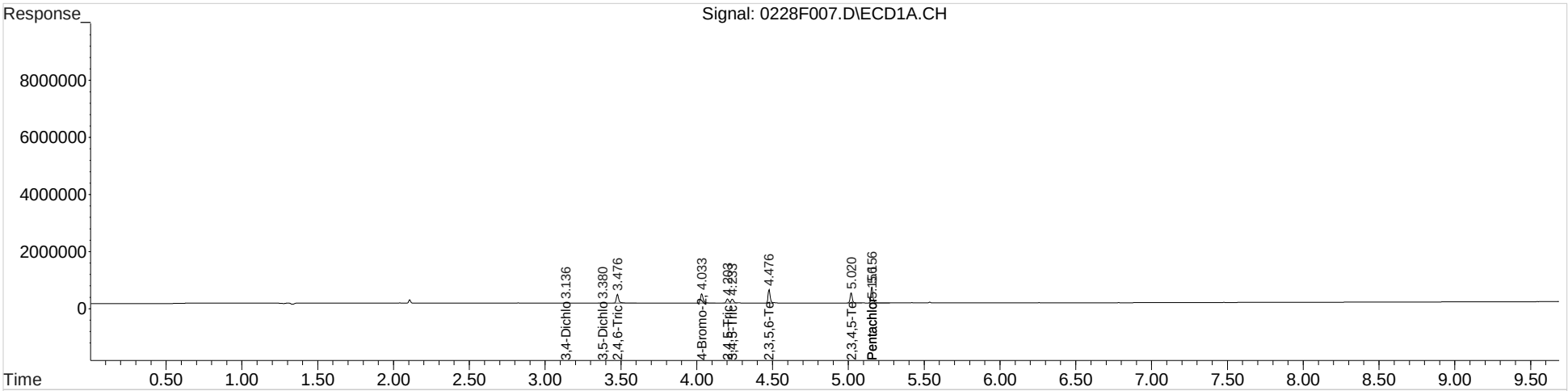
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:31:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



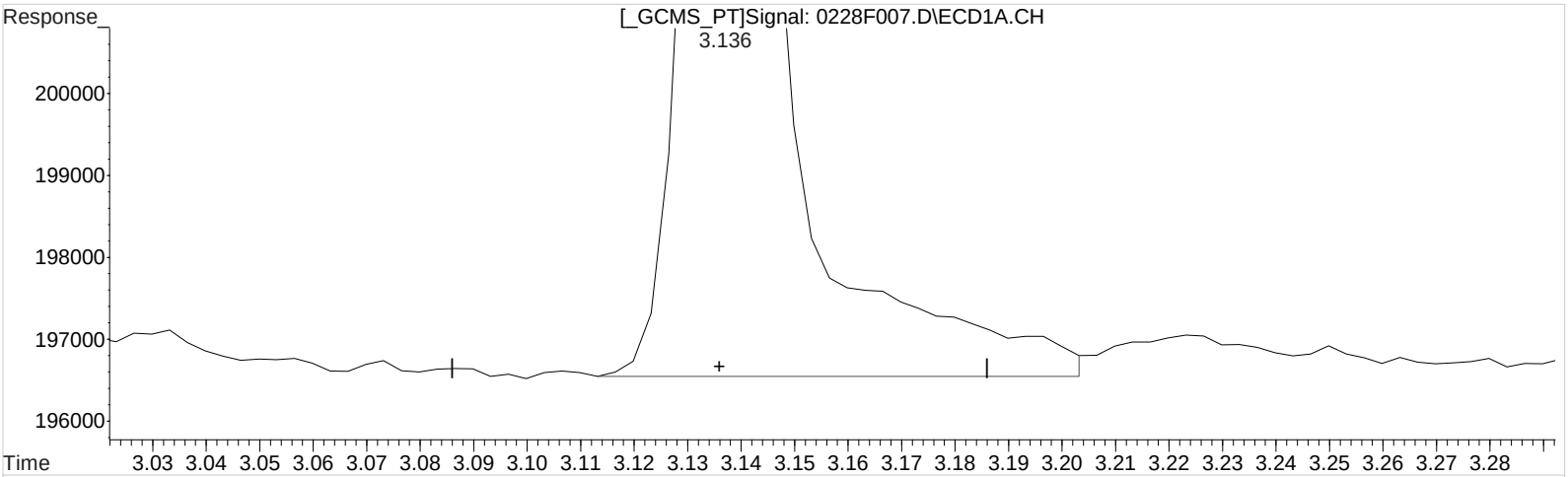
Quantitation Report (Qedit)

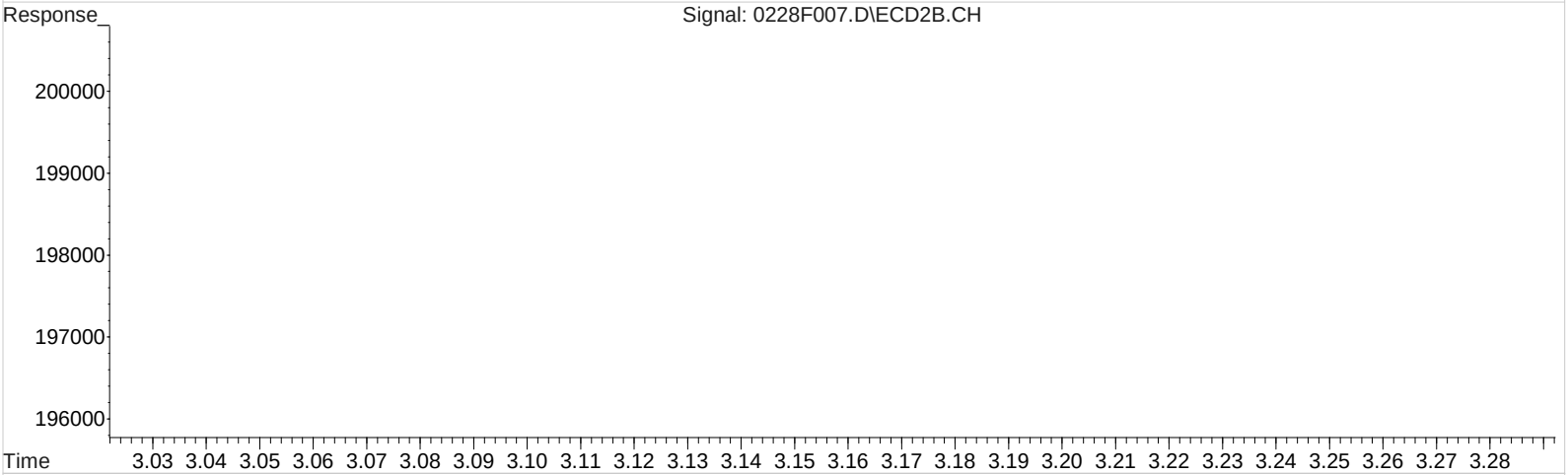
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.136min 10.715 ug/L

response 175614

(1) 3,4-Dichlorophenol #2

3.831min 9.913 ug/L

response 219018

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

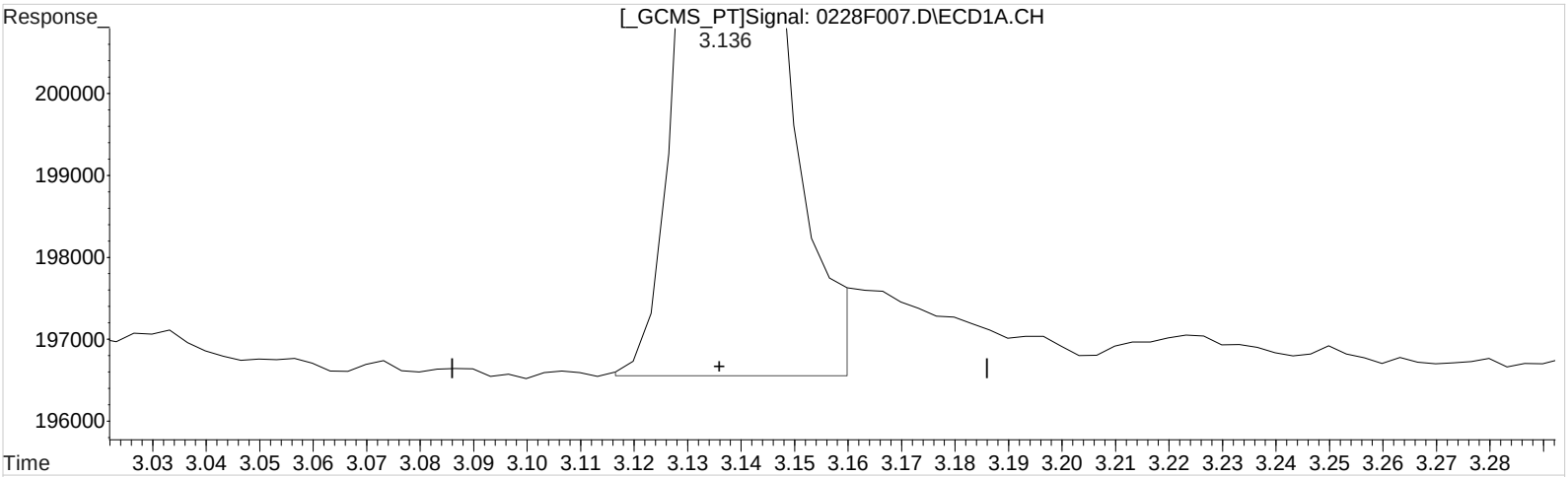
Quantitation Report (Qedit)

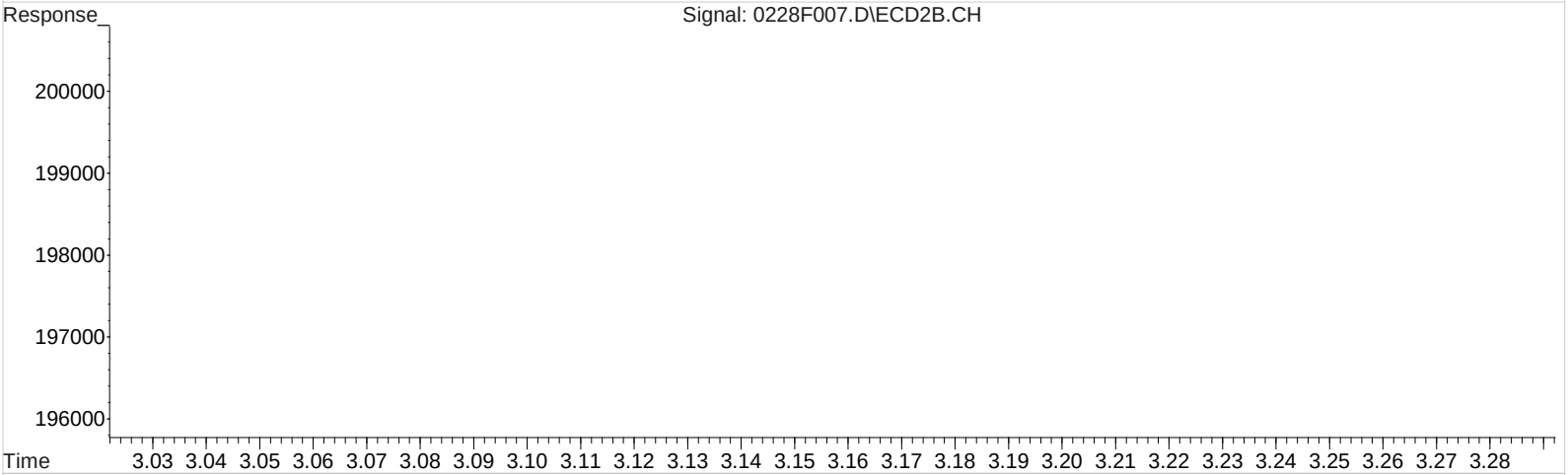
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.136min 9.573 ug/L m

response 158218

(1) 3,4-Dichlorophenol #2

3.831min 9.913 ug/L

response 219018

Manual Integration:

After

Baseline/Shoulder

02/28/19

(+) = Expected Retention Time

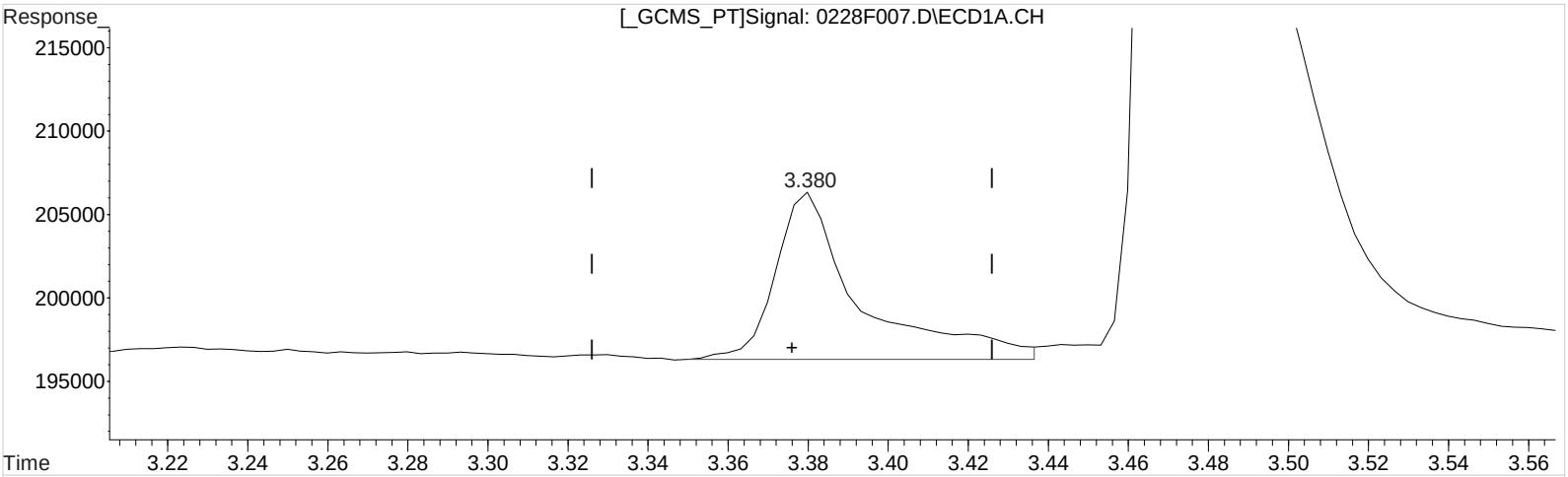
Quantitation Report (Qedit)

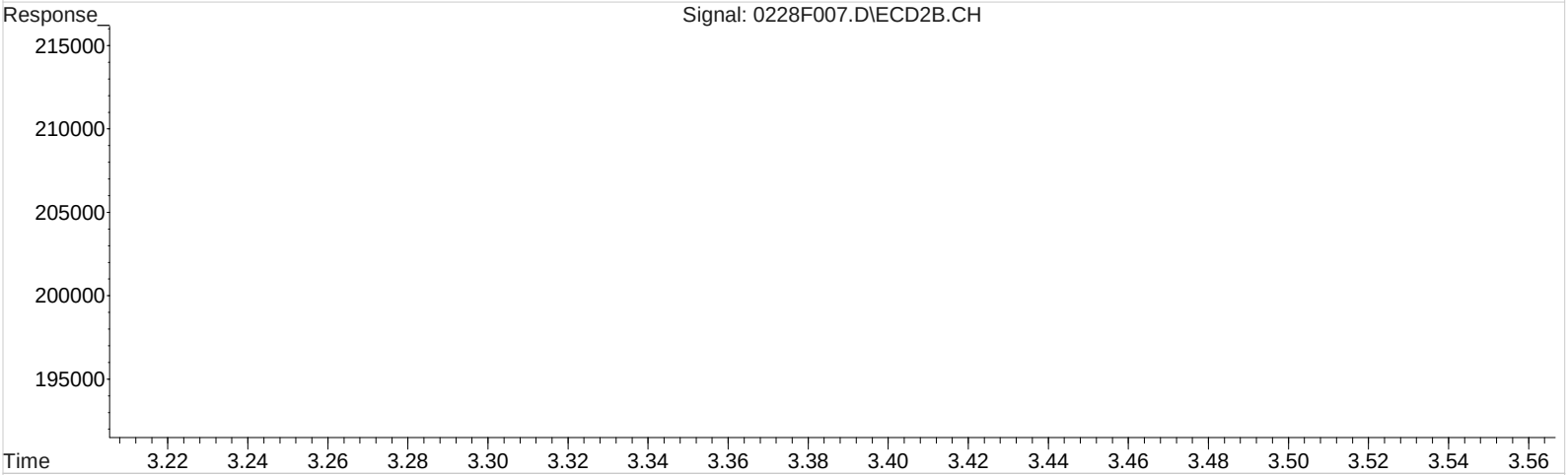
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 13.605 ug/L

response 146982

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.087min 10.169 ug/L

response 167574

(+) = Expected Retention Time

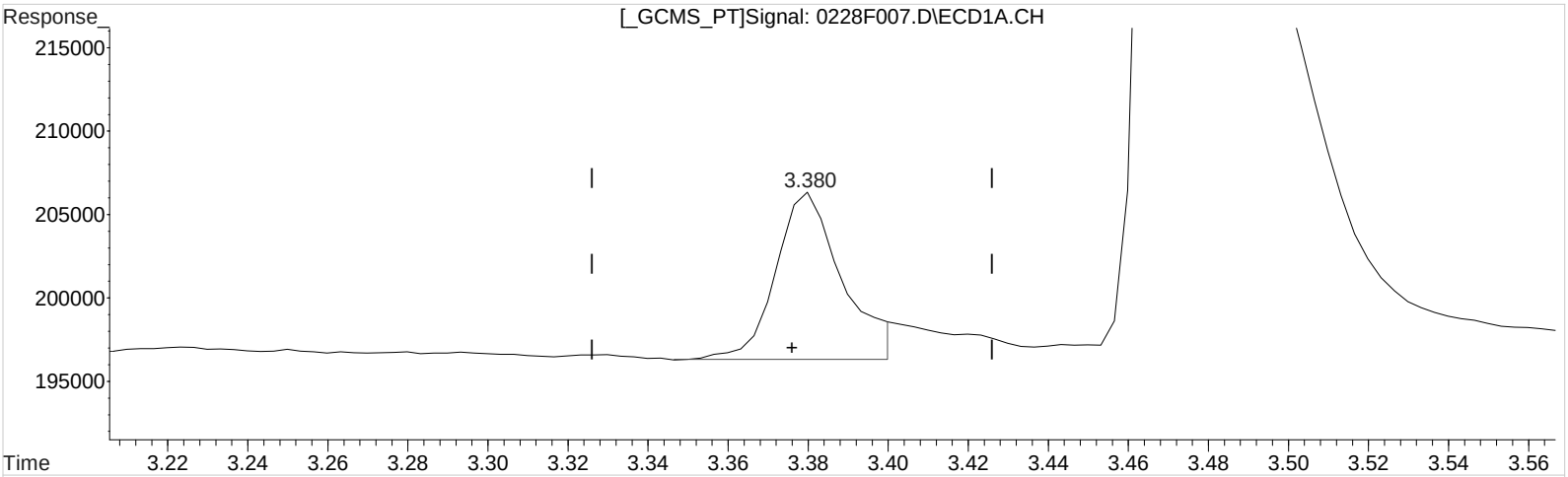
Quantitation Report (Qedit)

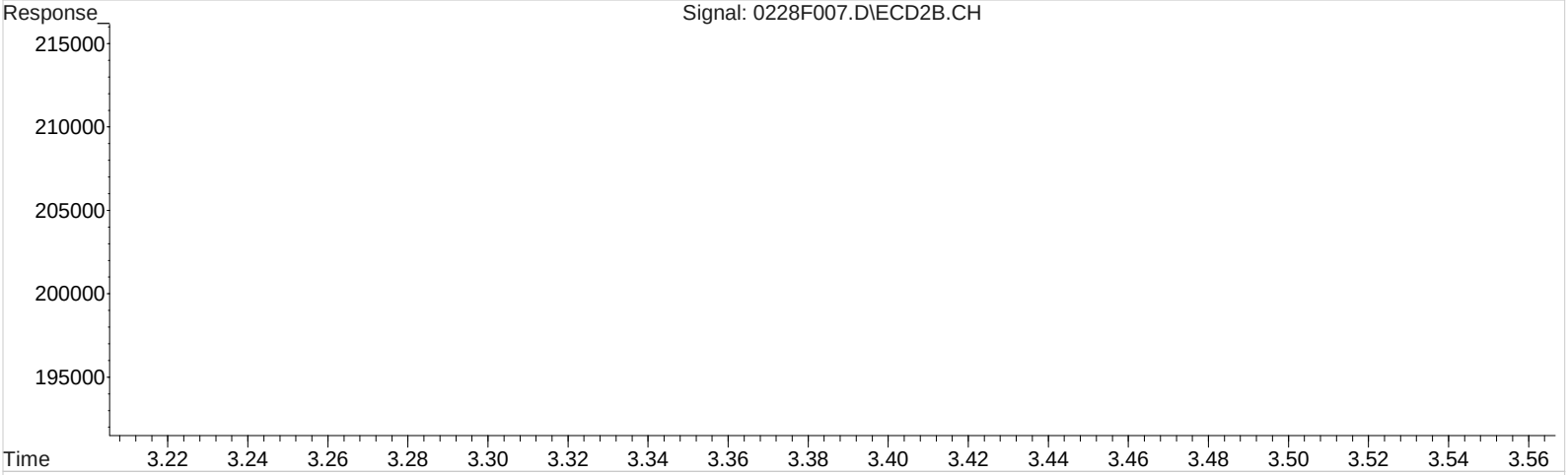
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 10.545 ug/L m

response 115610

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.087min 10.169 ug/L

response 167574

(+) = Expected Retention Time

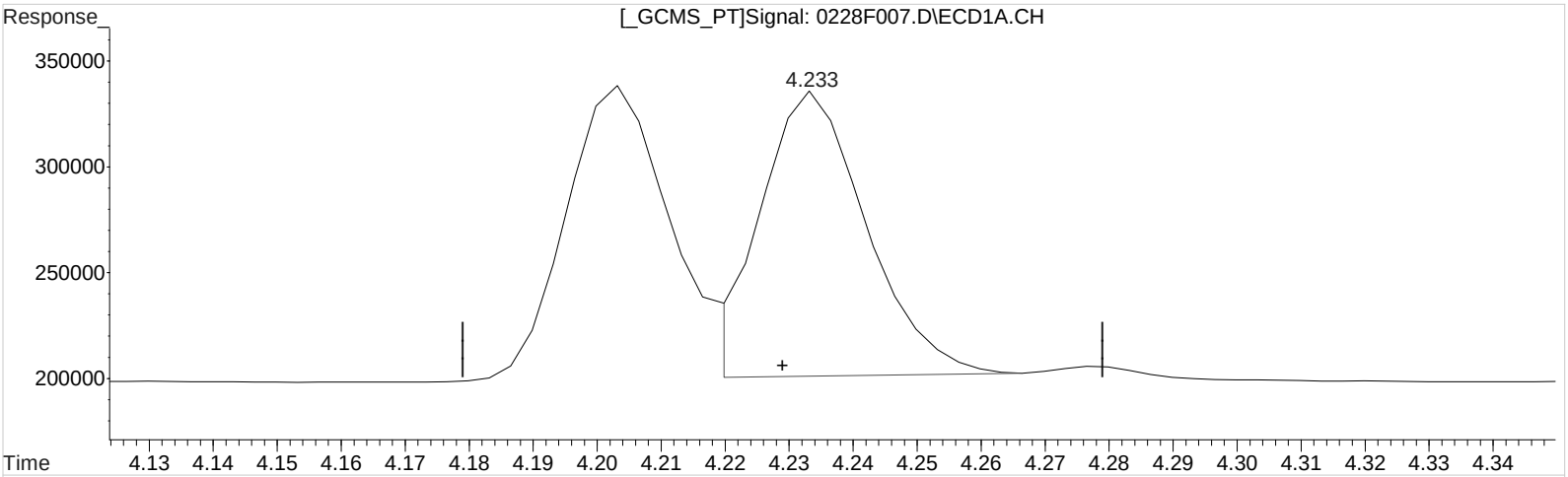
Quantitation Report (Qedit)

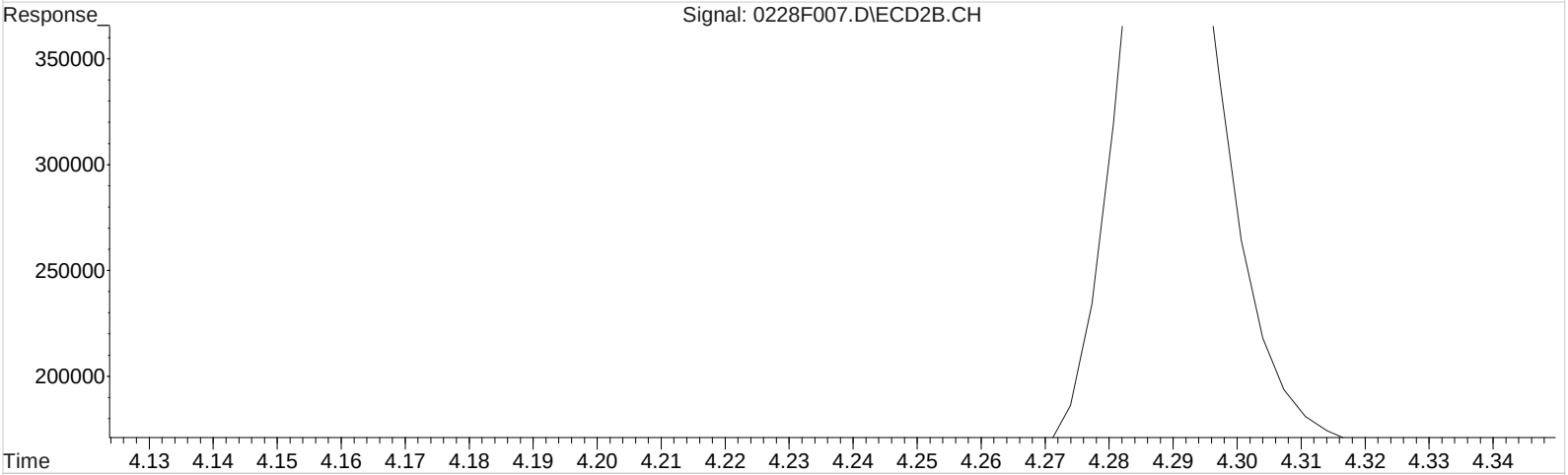
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 9.891 ug/L

response 1506370

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 9.401 ug/L

response 1764529

(+) = Expected Retention Time

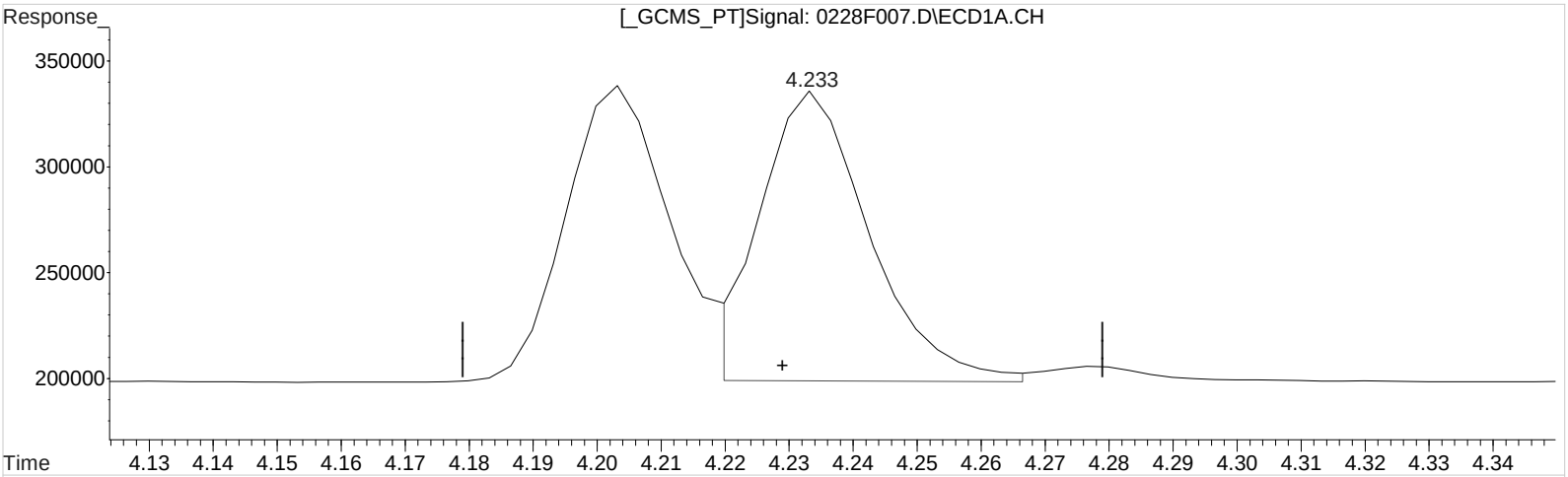
Quantitation Report (Qedit)

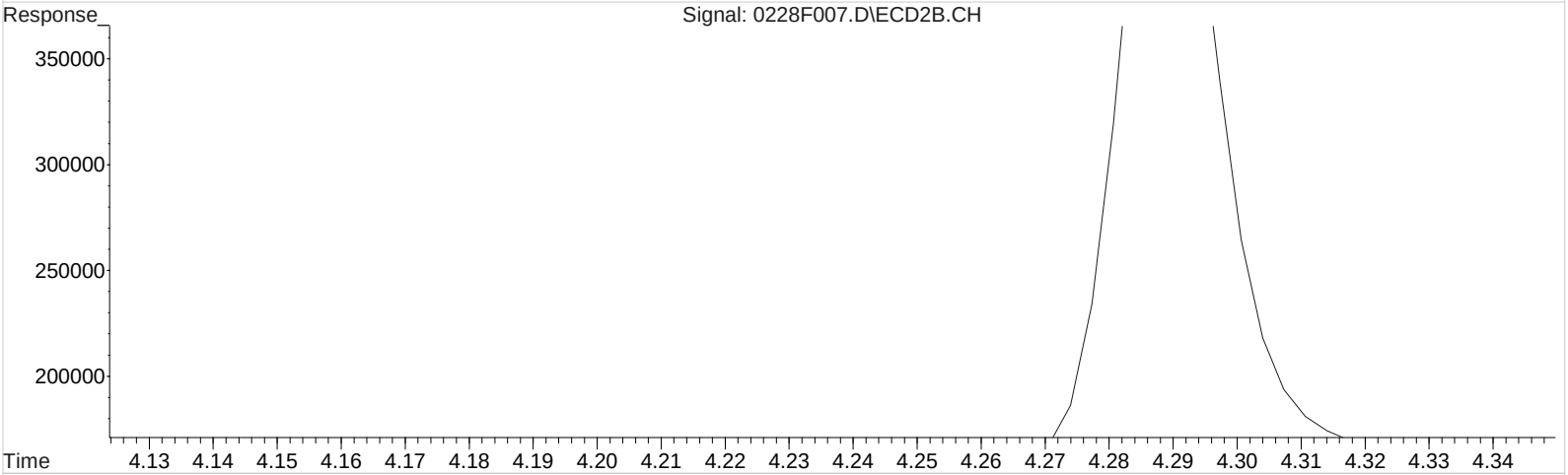
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 10.435 ug/L m

response 1583734

(6) 3,4,5-Trichlorophenol #2

4.847min 9.401 ug/L

response 1764529

Manual Integration:

After

Baseline/Shoulder

02/28/19

(+) = Expected Retention Time

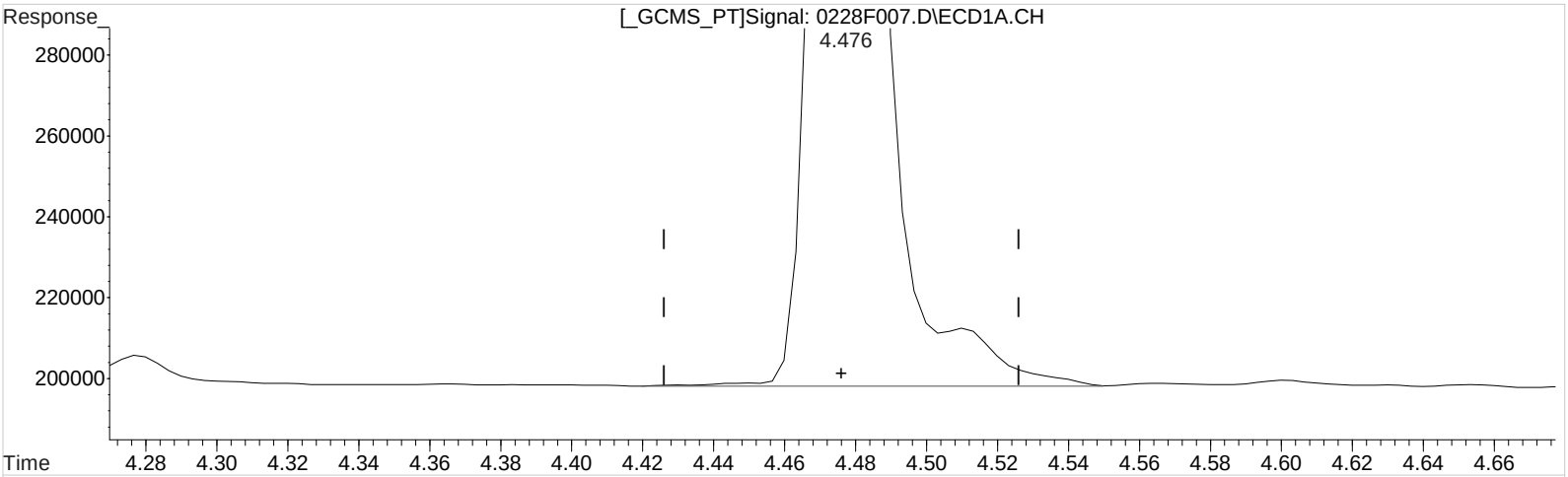
Quantitation Report (Qedit)

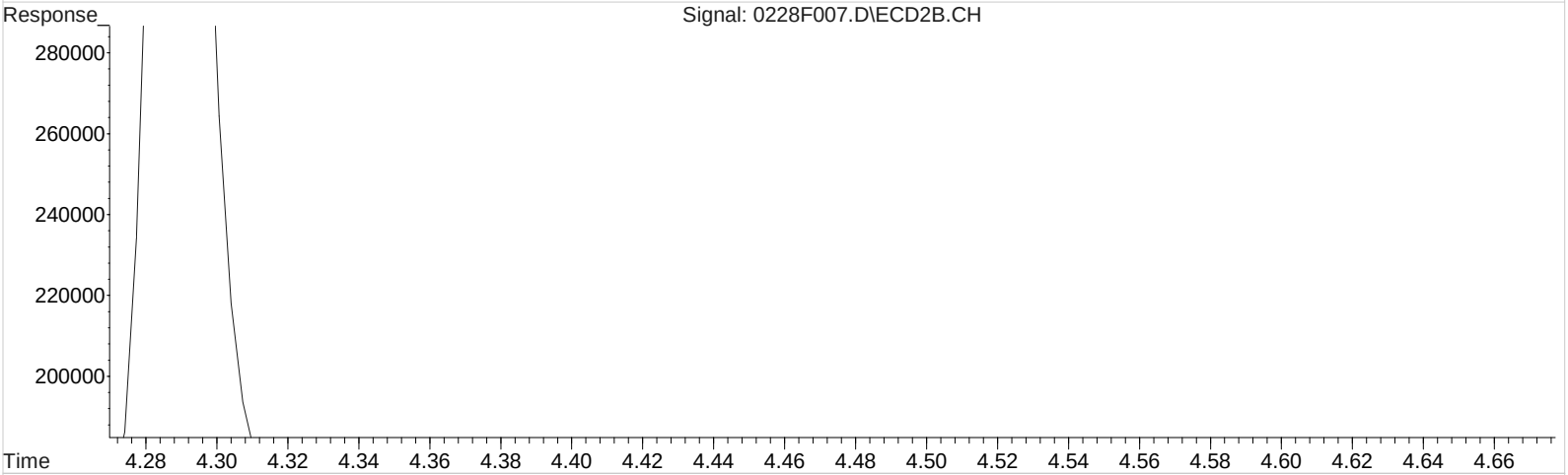
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.476min 10.180 ug/L

response 4845604

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.077min 9.283 ug/L

response 5729619

(+) = Expected Retention Time

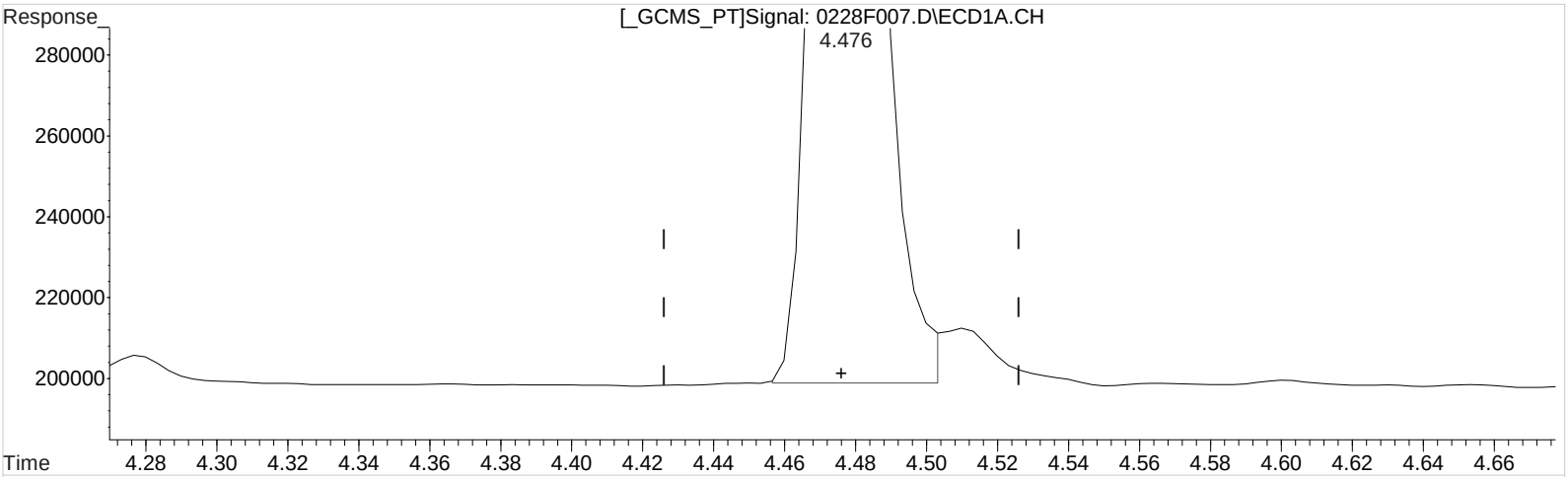
Quantitation Report (Qedit)

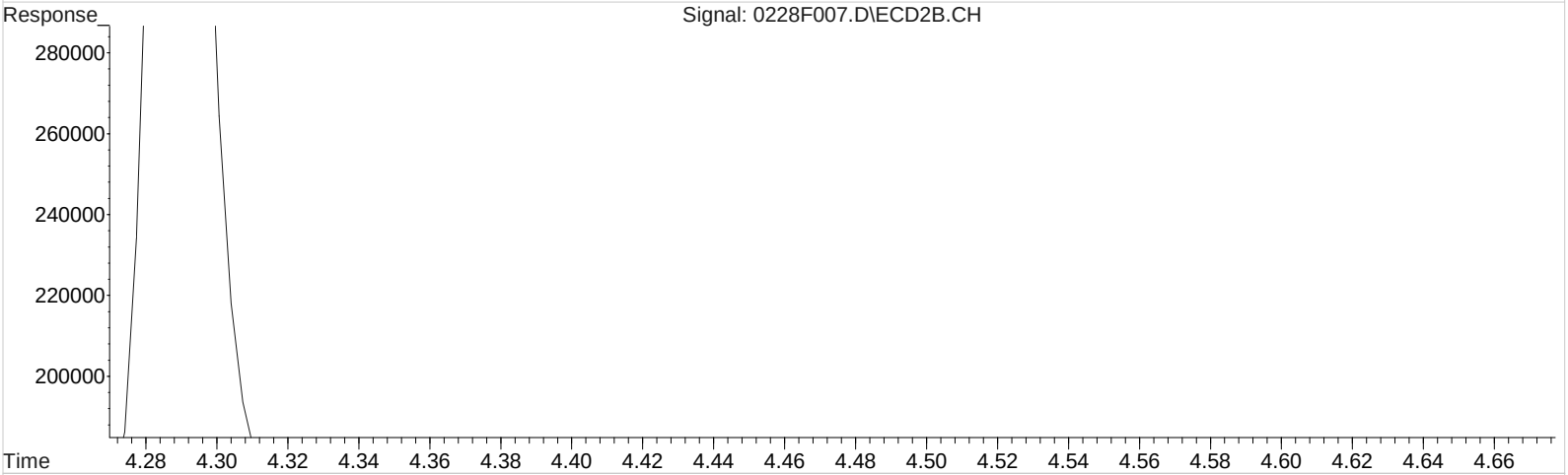
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.476min 9.778 ug/L m

response 4654510

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.077min 9.283 ug/L

response 5729619

(+) = Expected Retention Time

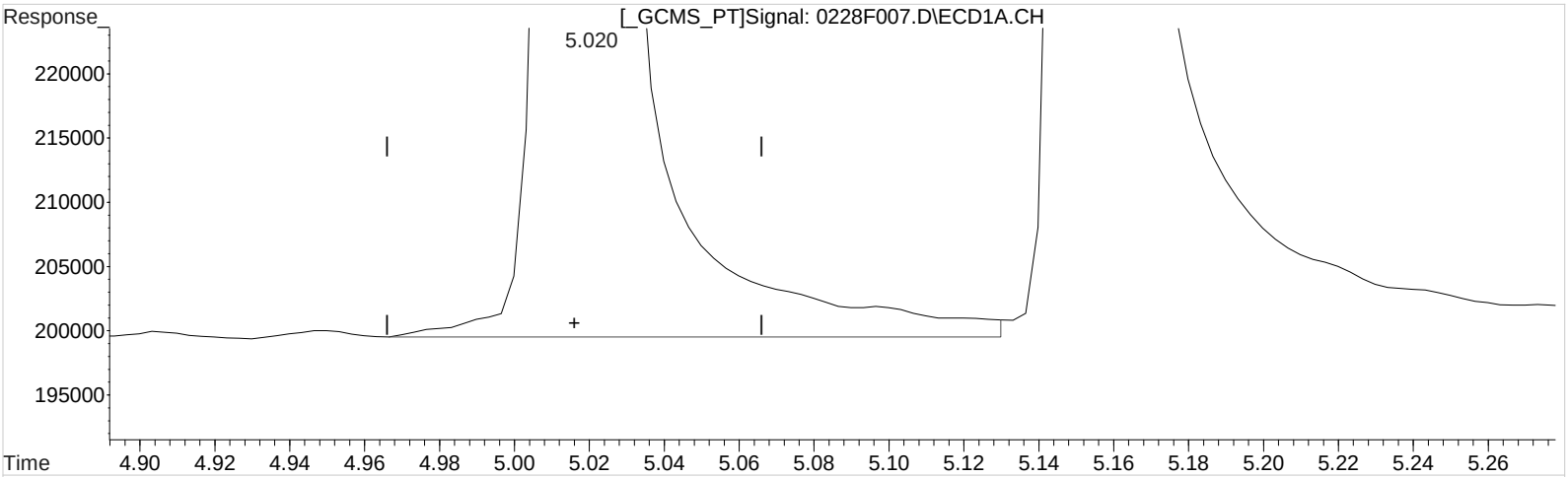
Quantitation Report (Qedit)

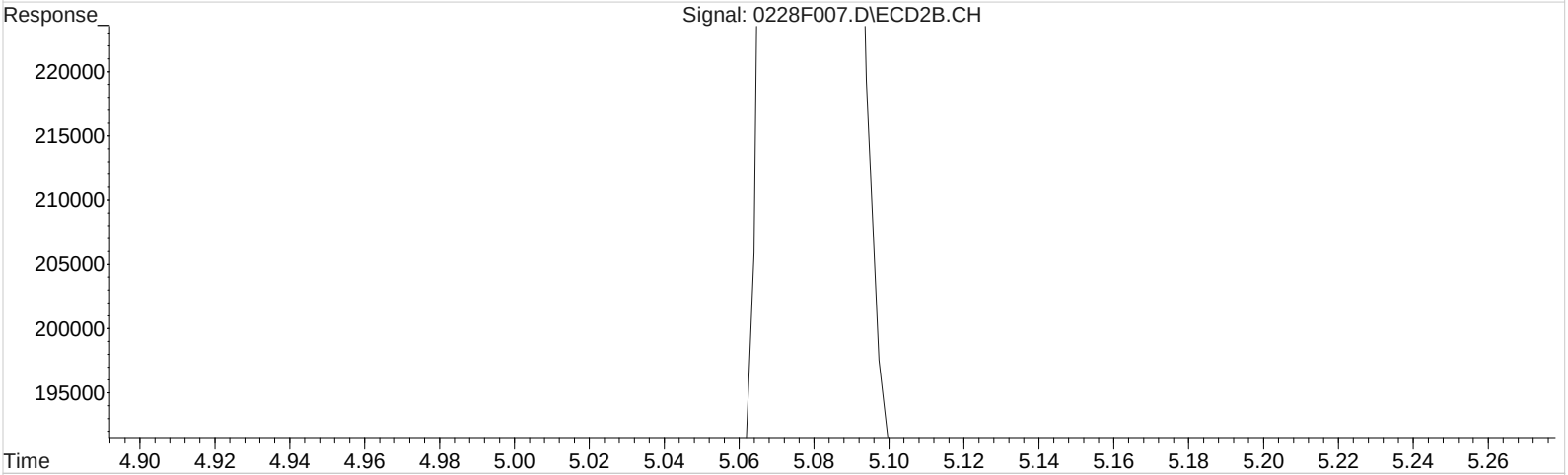
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.552 ug/L

response 3584964

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

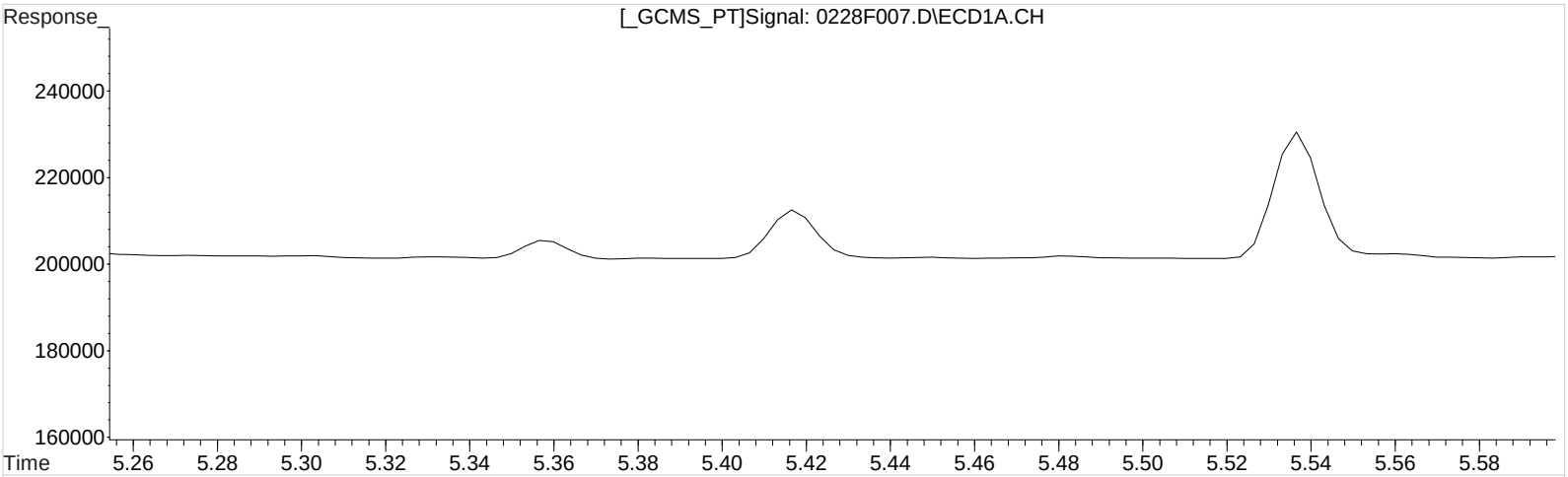
Quantitation Report (Qedit)

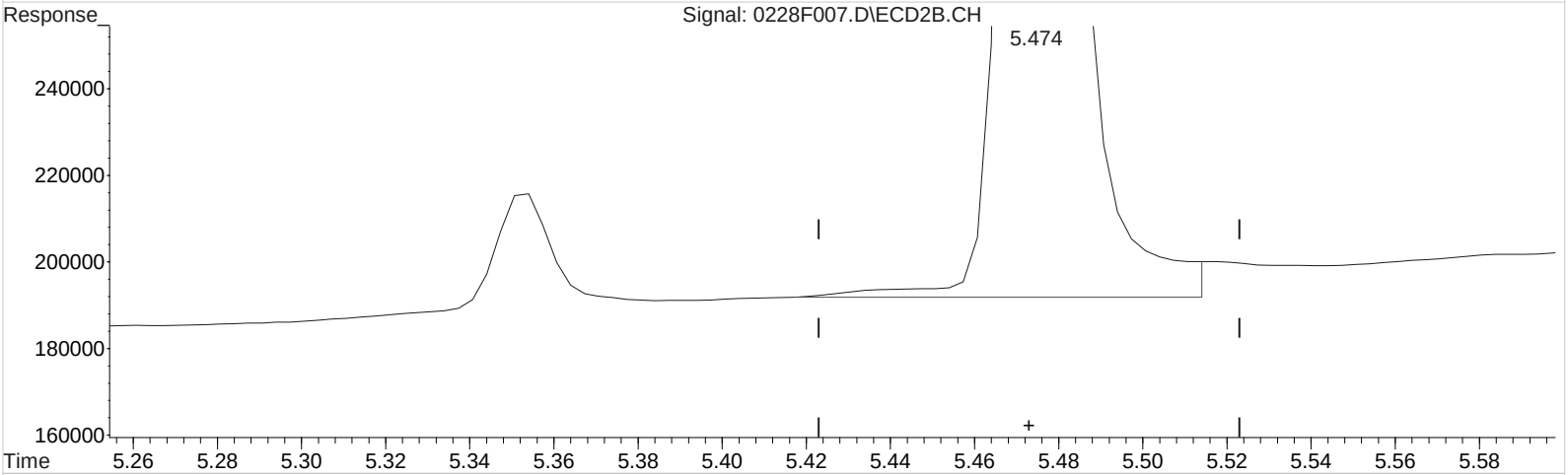
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

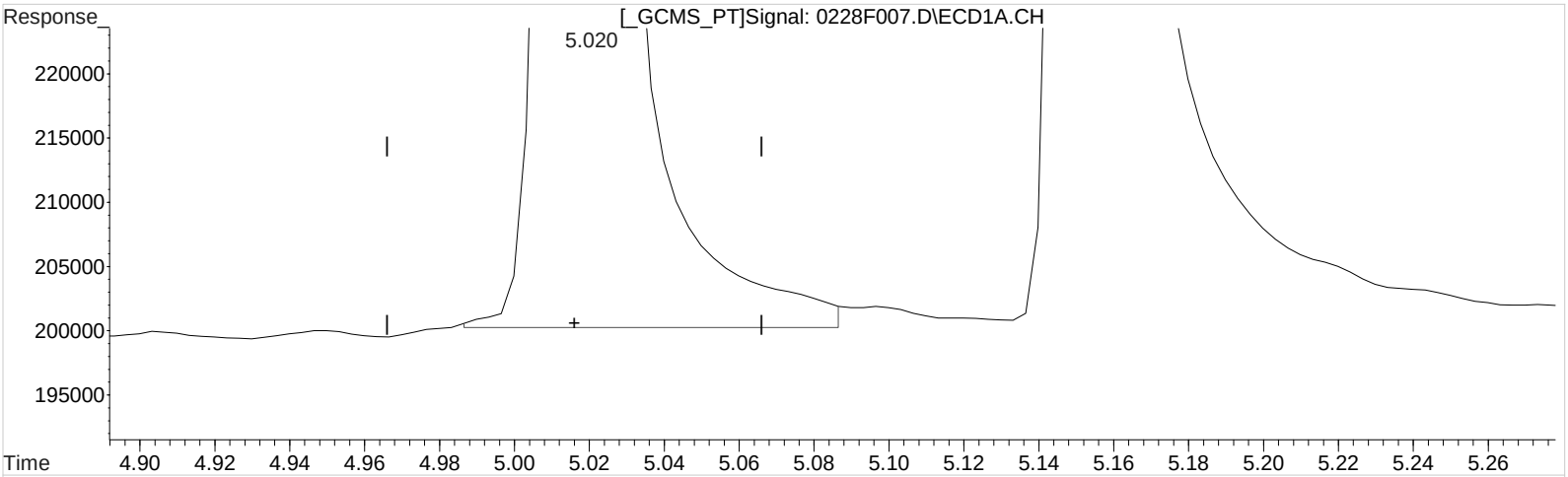
Quantitation Report (Qedit)

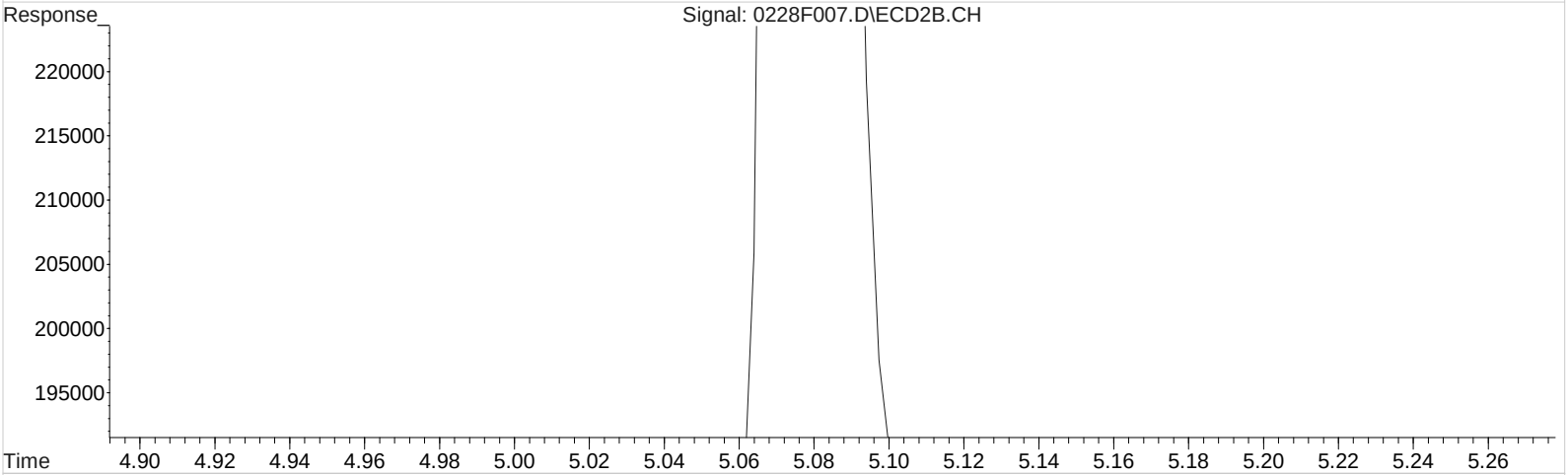
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

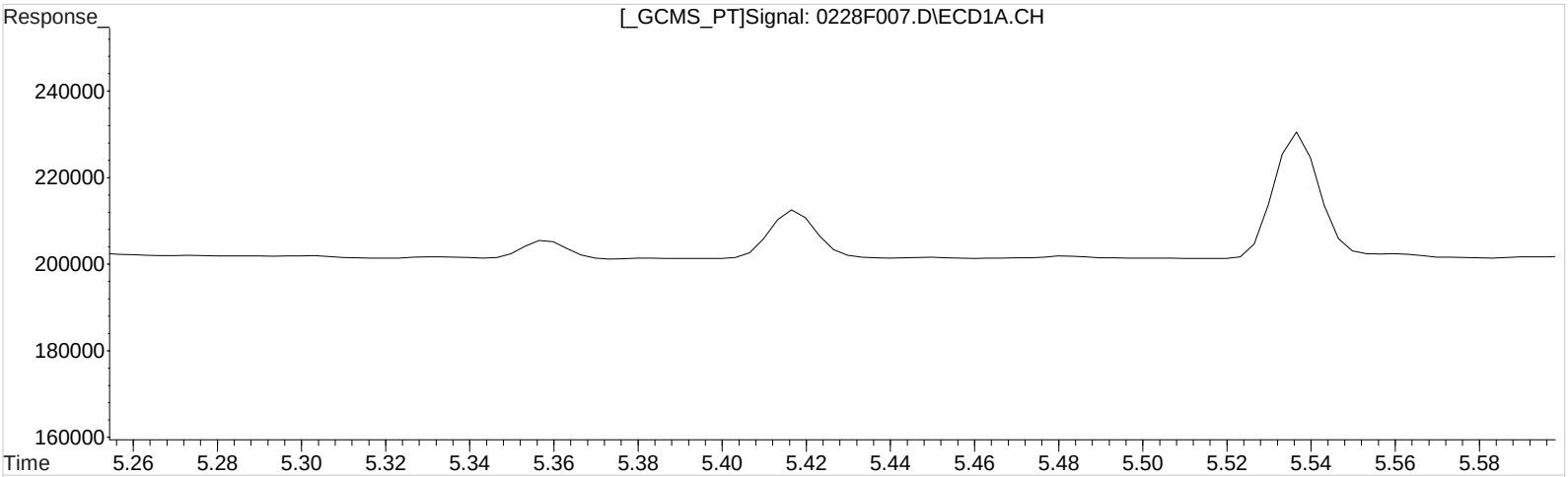
Quantitation Report (Qedit)

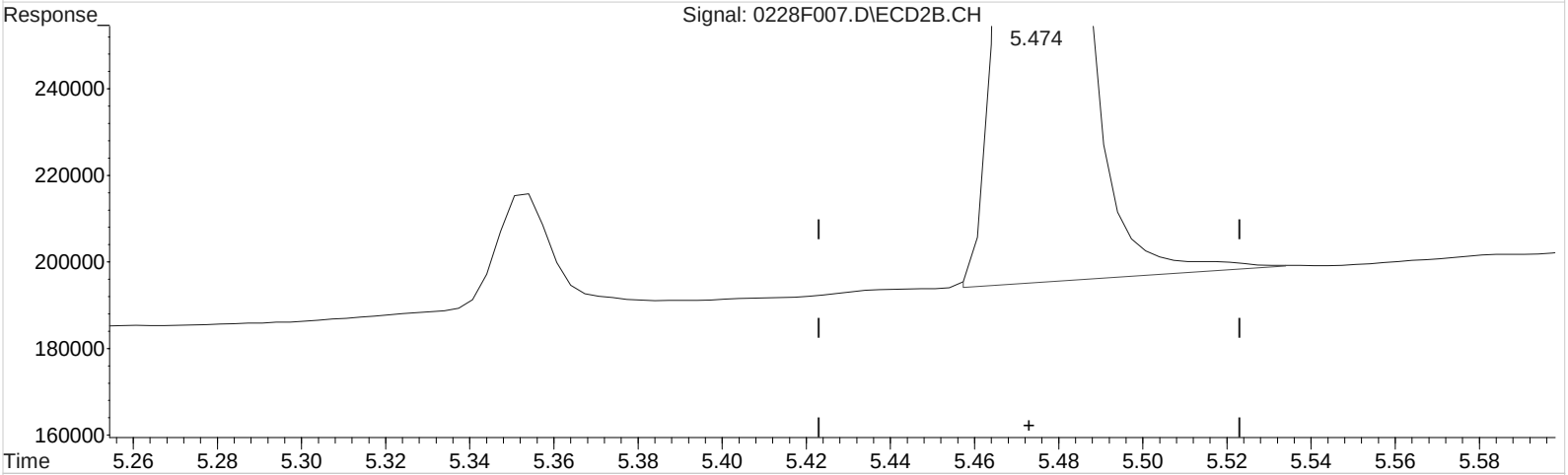
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.382 ug/L m

response 3874012

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.033	4.720	9384726	10345828	26.823	23.800
		Target Compounds						
1)		3,4-Dichl...	3.139	3.833	364718	495787	23.304m	22.440
2)		3,5-Dichl...	3.379	4.090	247686	371212	23.594m	22.526
3)		2,4,6-Tri...	3.476	4.290	7528057	9199994	23.385	22.059
5)		2,4,5-Tri...	4.203	4.783	3465348	4268979	24.581	21.360
6)		3,4,5-Tri...	4.233	4.847	3537210	4043017	24.409m	21.539
7)	M	2,3,5,6-T...	4.476	5.080	10557180	13711688	22.178	22.215
8)	M	2,3,4,5-T...	5.019	5.477	7682979	9204669	24.286	22.291
9)	M	Pentachlo...	5.156	5.660	12370956	15378050	26.604	22.366
10)		Pentachlo...	5.156	5.660	12370956	15378050	28.002	23.554

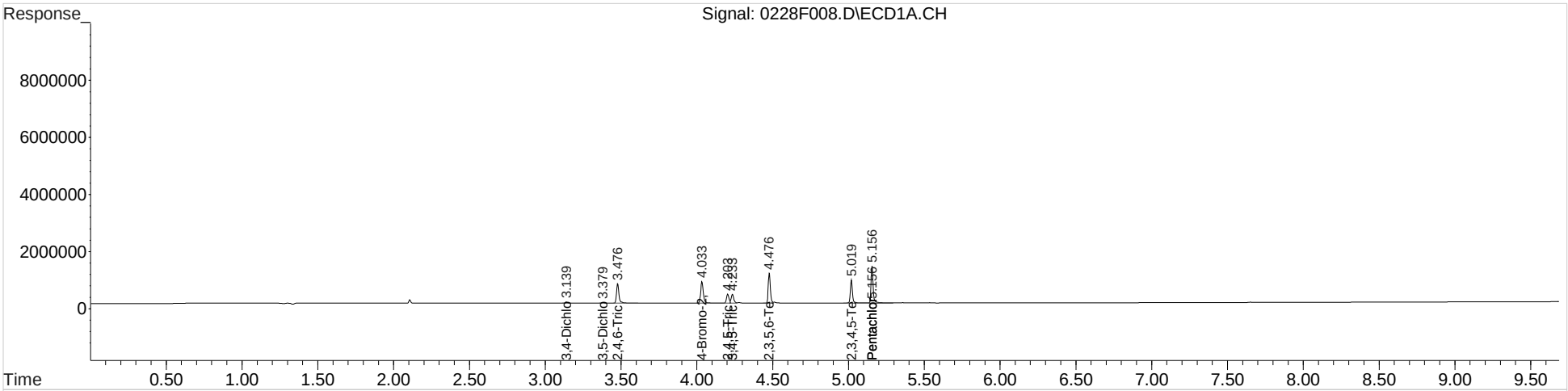
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



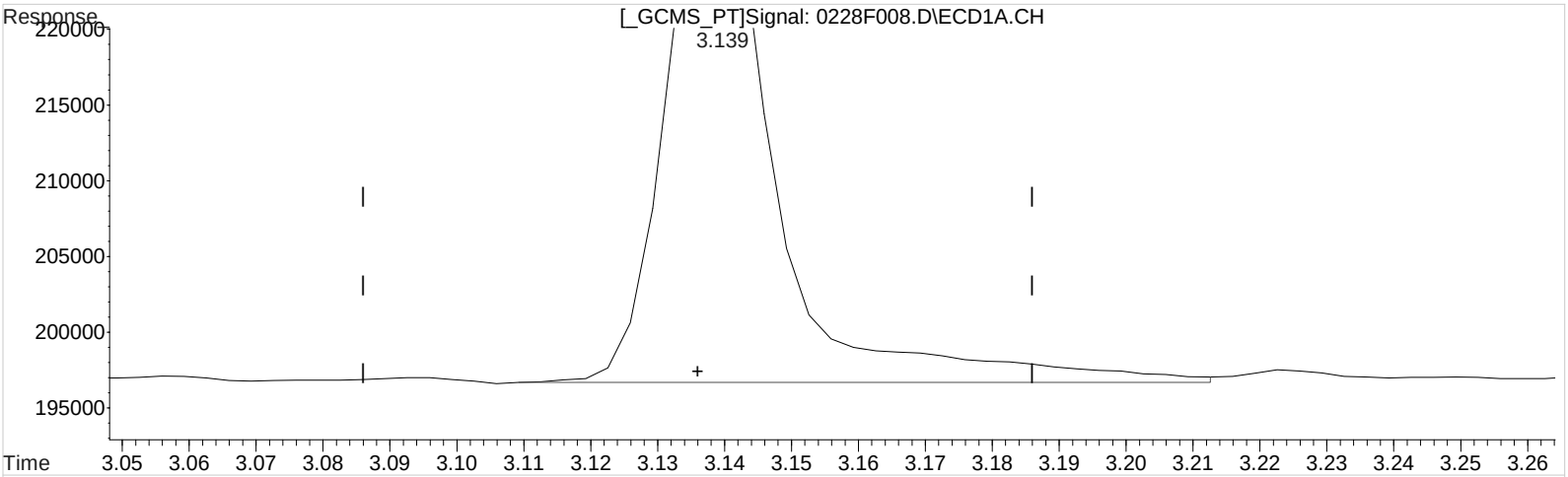
Quantitation Report (Qedit)

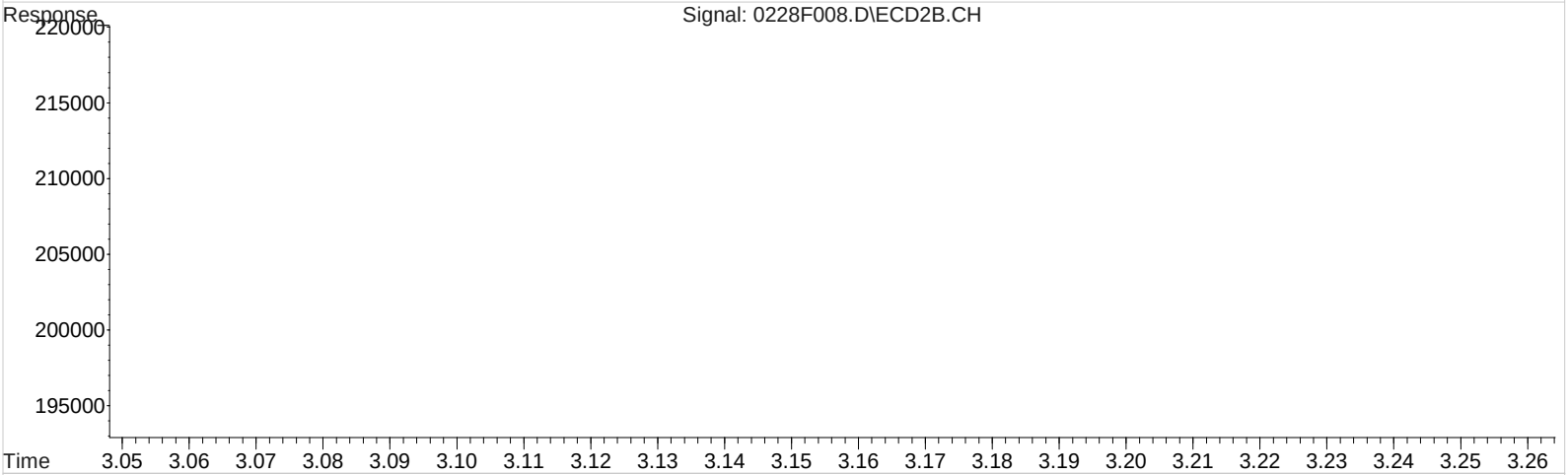
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 25.378 ug/L

response 395414

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 22.440 ug/L

response 495787

(+) = Expected Retention Time

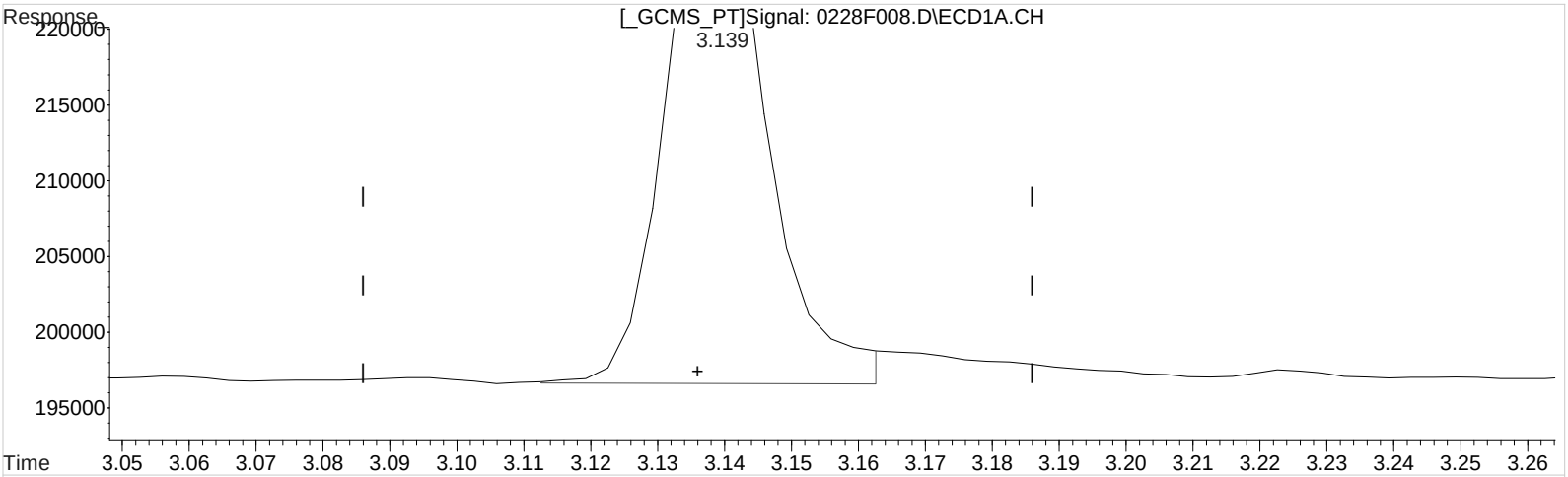
Quantitation Report (Qedit)

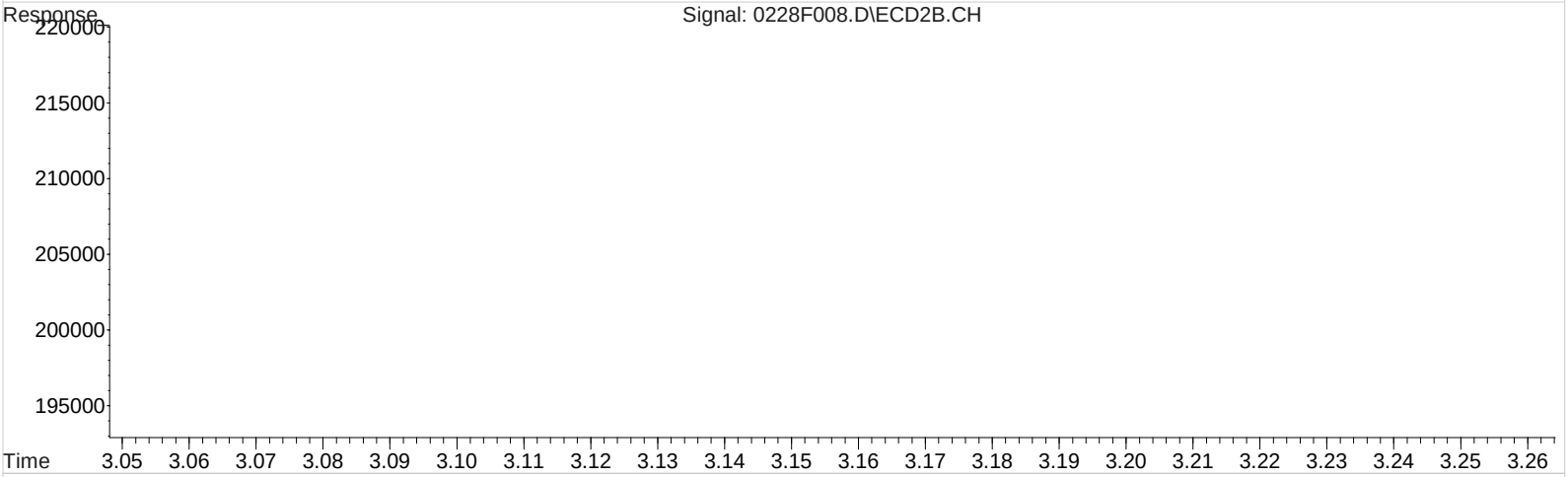
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 23.304 ug/L m

response 364718

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 22.440 ug/L

response 495787

(+) = Expected Retention Time

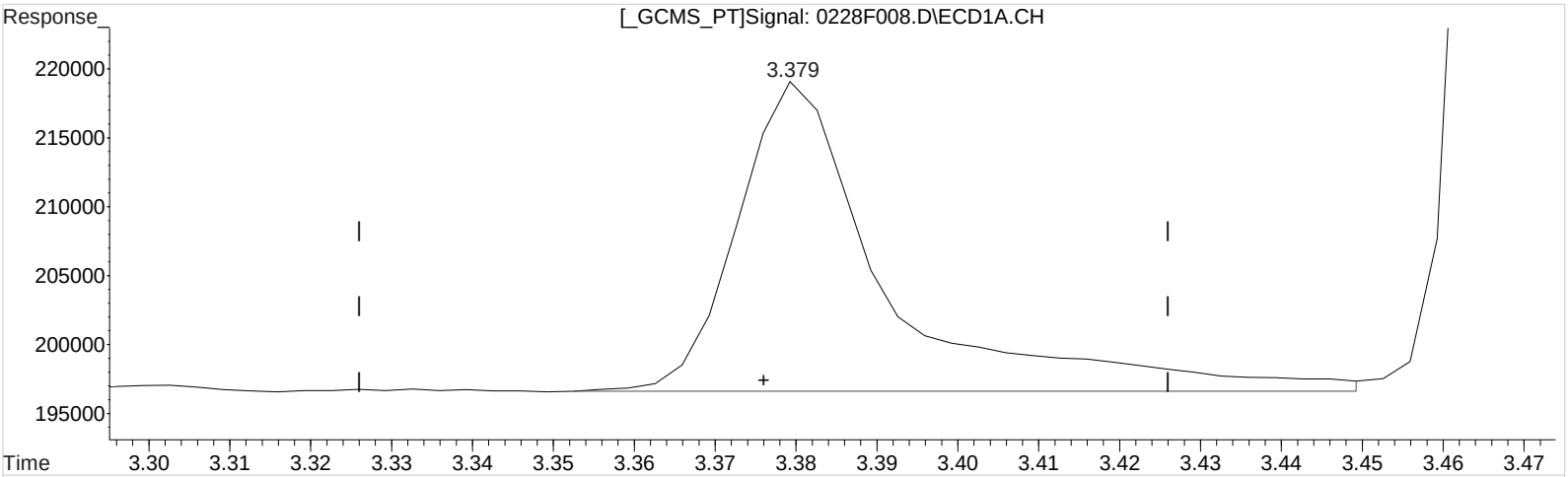
Quantitation Report (Qedit)

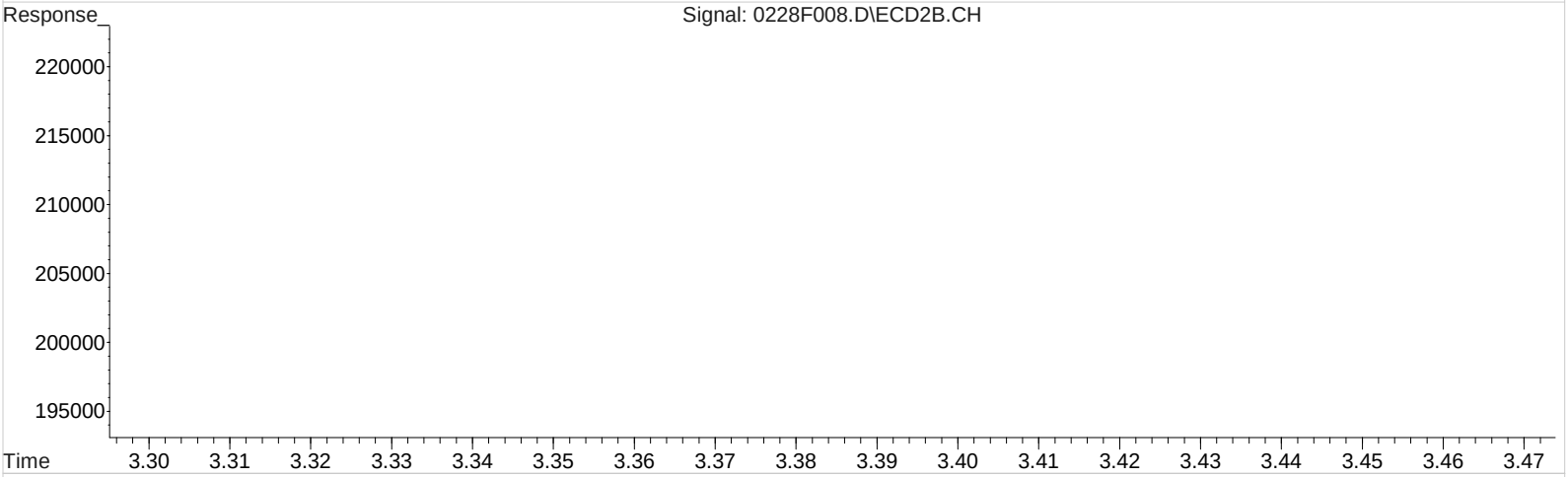
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 27.619 ug/L

response 287533

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 22.526 ug/L

response 371212

(+) = Expected Retention Time

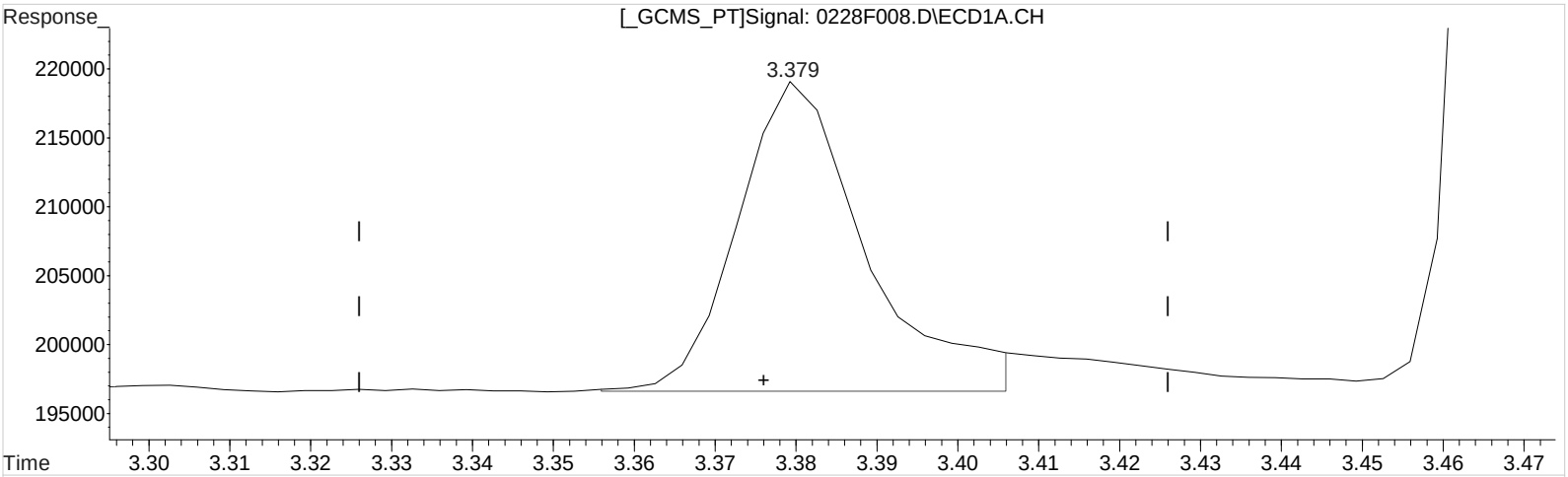
Quantitation Report (Qedit)

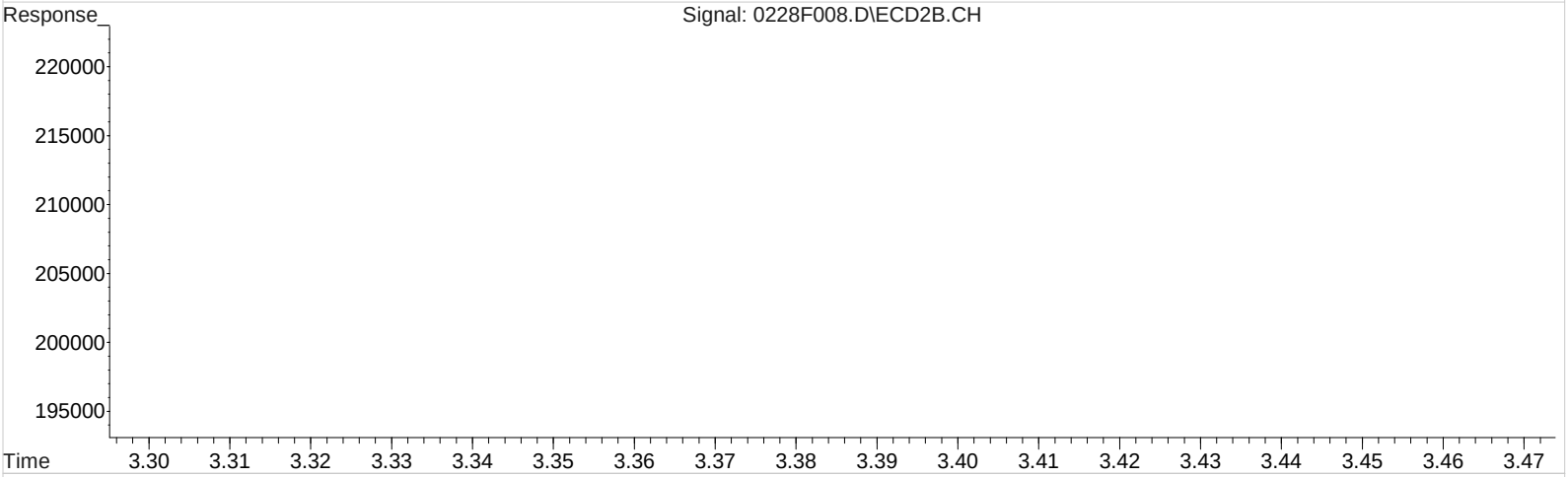
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 23.594 ug/L m

response 247686

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 22.526 ug/L

response 371212

(+) = Expected Retention Time

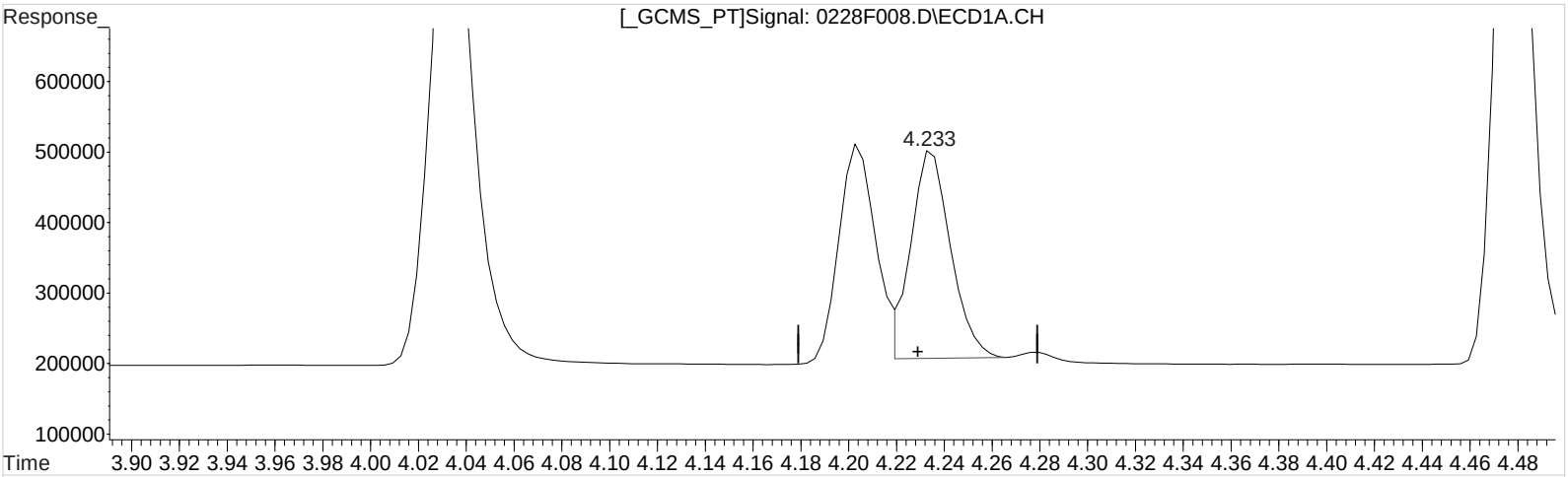
Quantitation Report (Qedit)

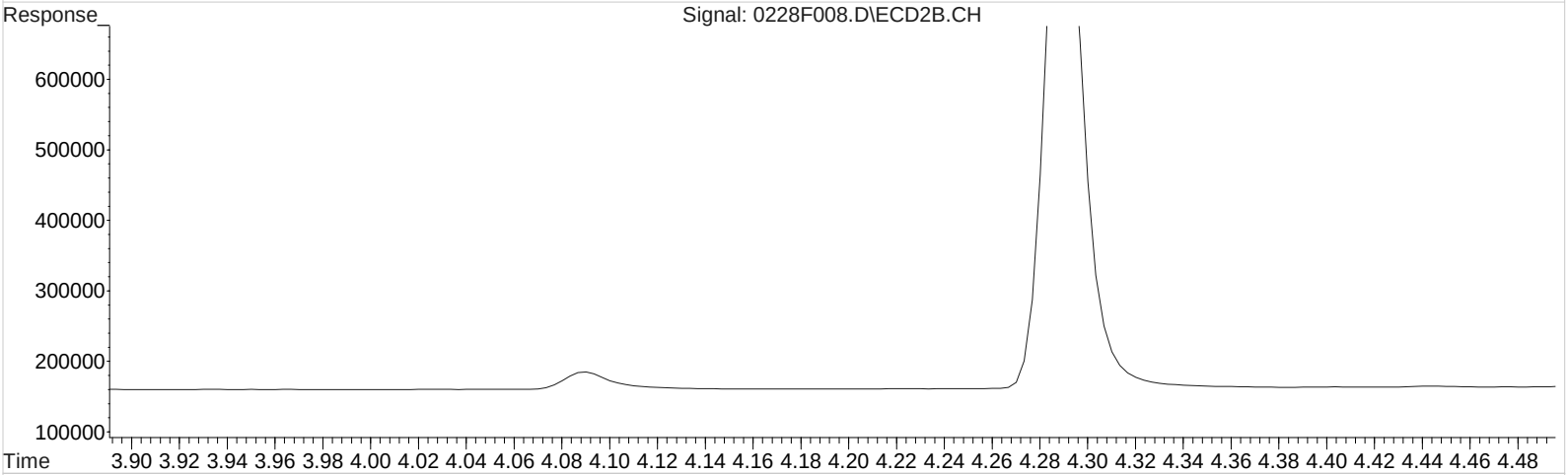
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 22.824 ug/L

response 3318986

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 21.539 ug/L

response 4043017

(+) = Expected Retention Time

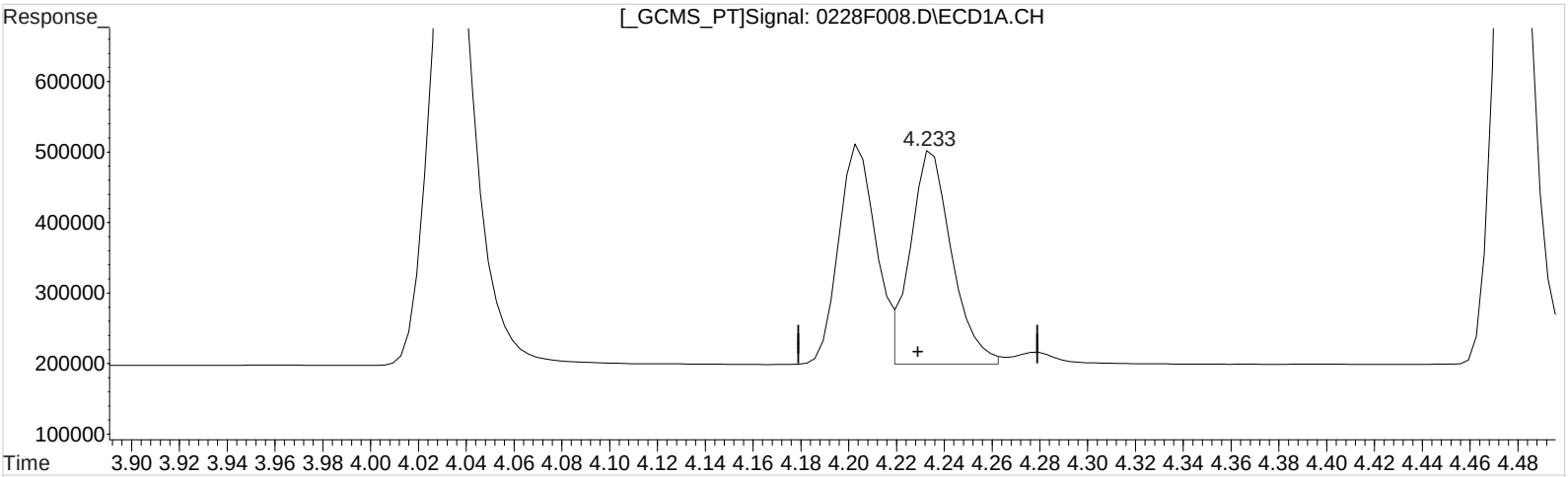
Quantitation Report (Qedit)

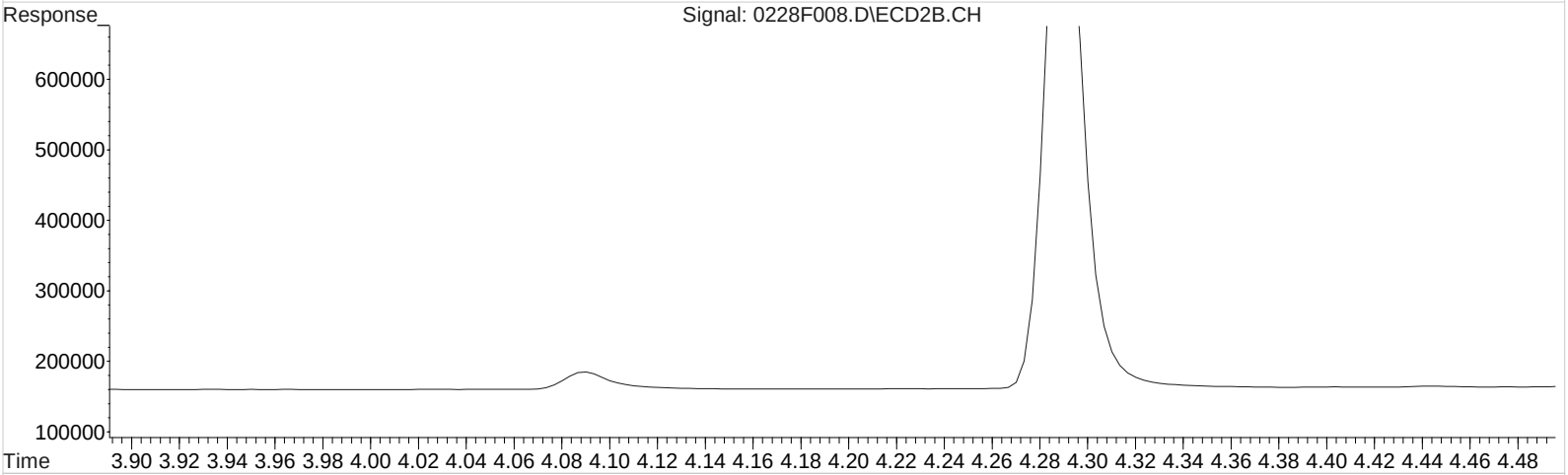
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 24.409 ug/L m

response 3537210

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 21.539 ug/L

response 4043017

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.034	4.718	18373800	22111030	53.653	50.866
		Target Compounds						
1)		3,4-Dichl...	3.137	3.831	717598	975860	47.710m	44.168
2)		3,5-Dichl...	3.380	4.088	527946	707614	52.883m	42.939
3)		2,4,6-Tri...	3.477	4.291	14477823	19027390	46.510	45.622
5)		2,4,5-Tri...	4.204	4.784	6258374	8346897	46.243	41.763
6)		3,4,5-Tri...	4.234	4.848	6723516	8022672	48.287m	42.741
7)	M	2,3,5,6-T...	4.477	5.078	20376062	27736415	42.806	44.938
8)	M	2,3,4,5-T...	5.017	5.474	14199642	17989254	46.931	43.566
9)	M	Pentachlo...	5.154	5.658	23456614	30413144	51.593	44.234
10)		Pentachlo...	5.154	5.658	23456614	30413144	54.305	46.582

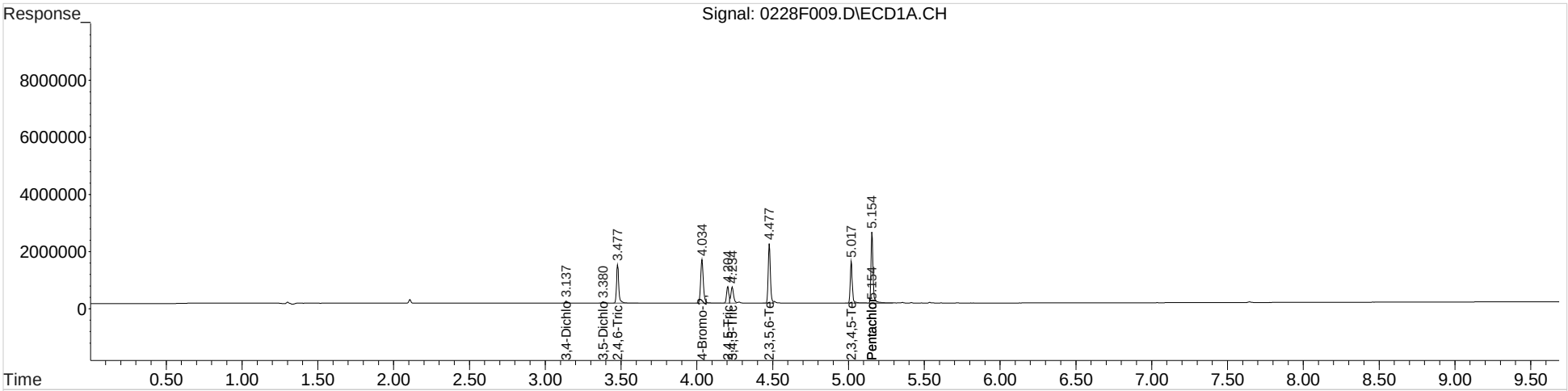
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

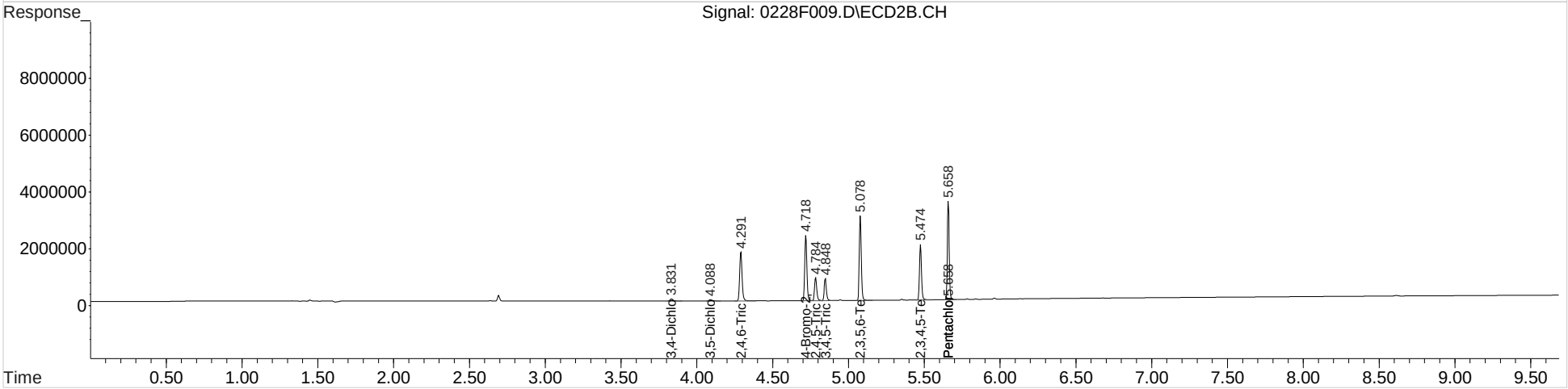
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





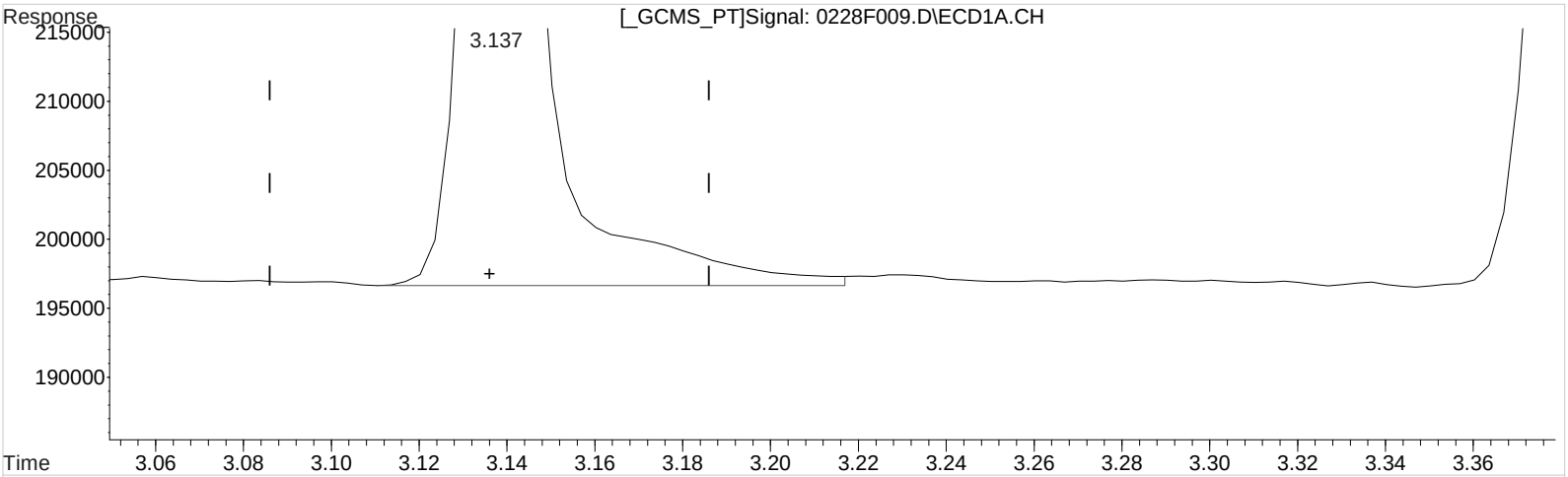
Quantitation Report (Qedit)

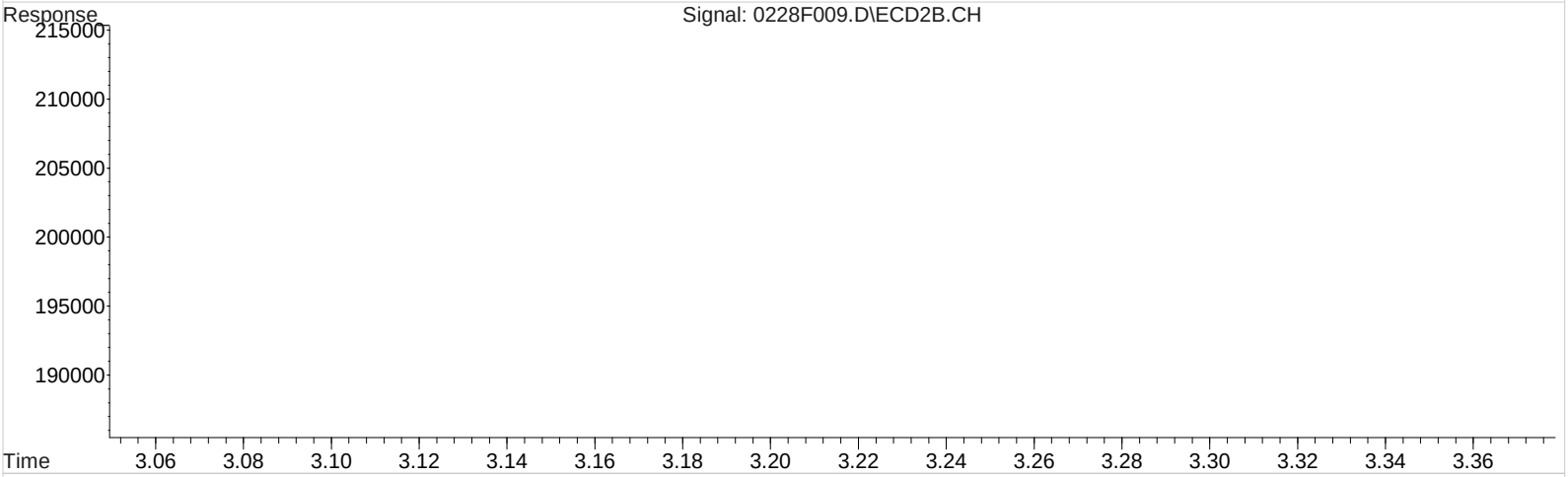
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 51.582 ug/L

response 771918

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 44.168 ug/L

response 975860

(+) = Expected Retention Time

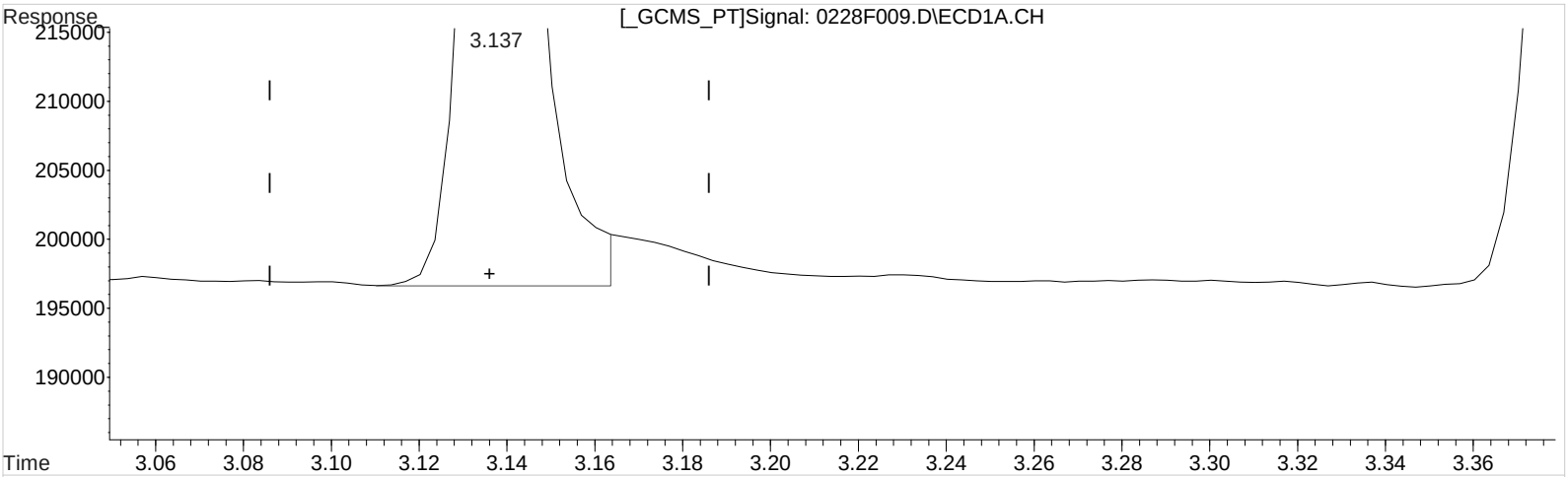
Quantitation Report (Qedit)

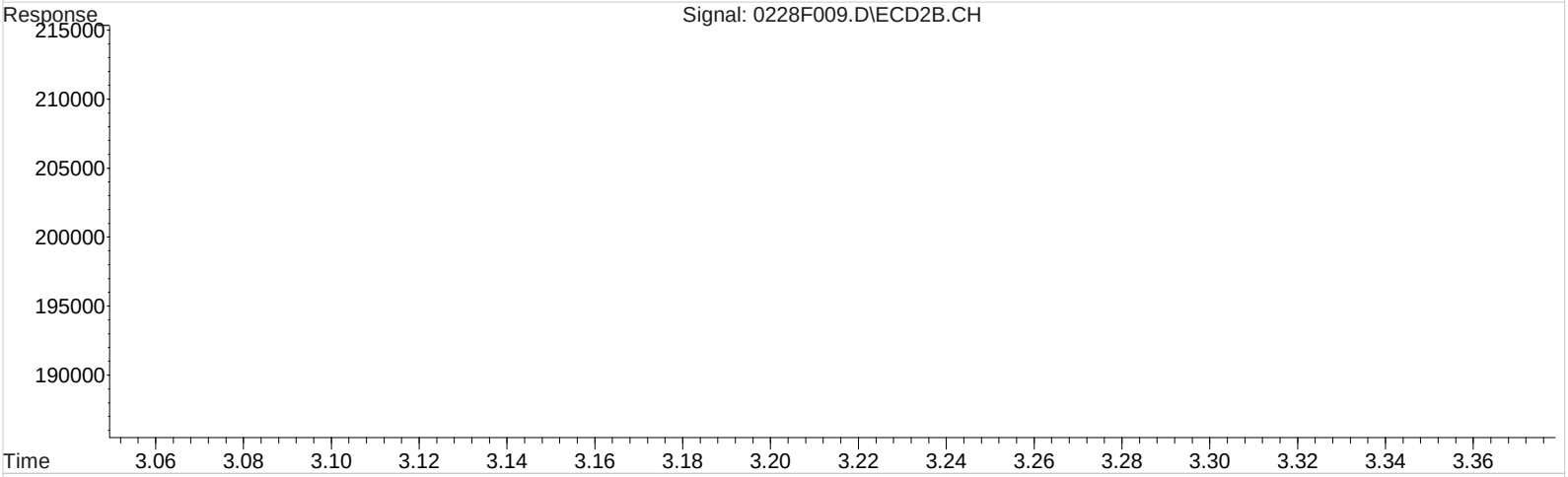
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 47.710 ug/L m

response 717598

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 44.168 ug/L

response 975860

(+) = Expected Retention Time

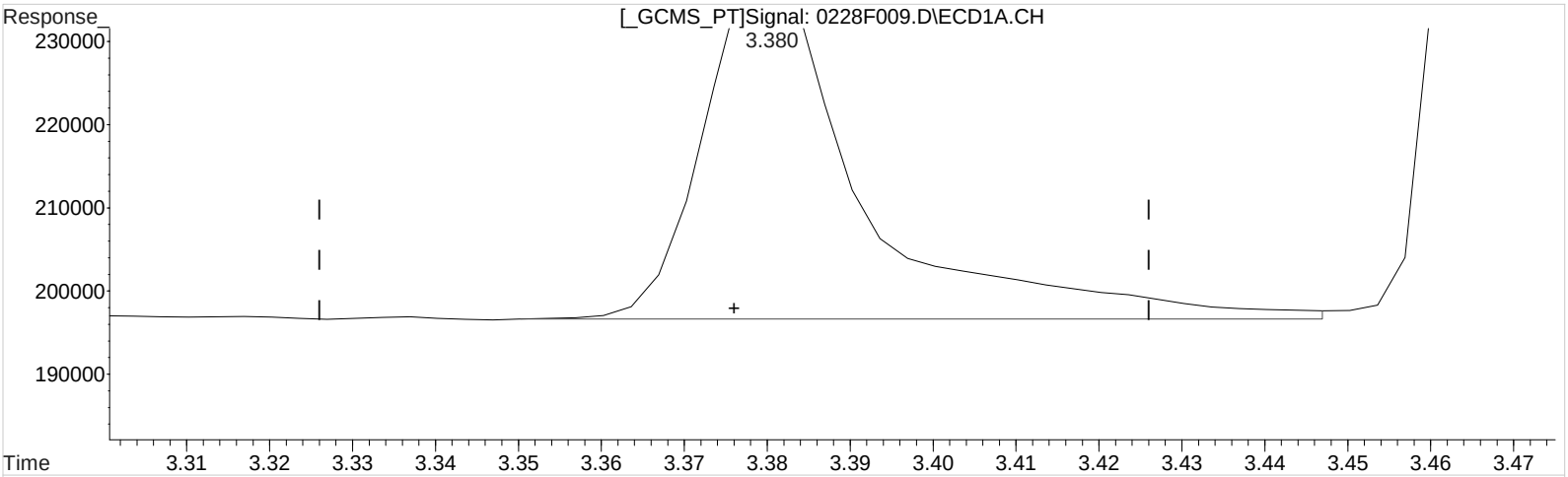
Quantitation Report (Qedit)

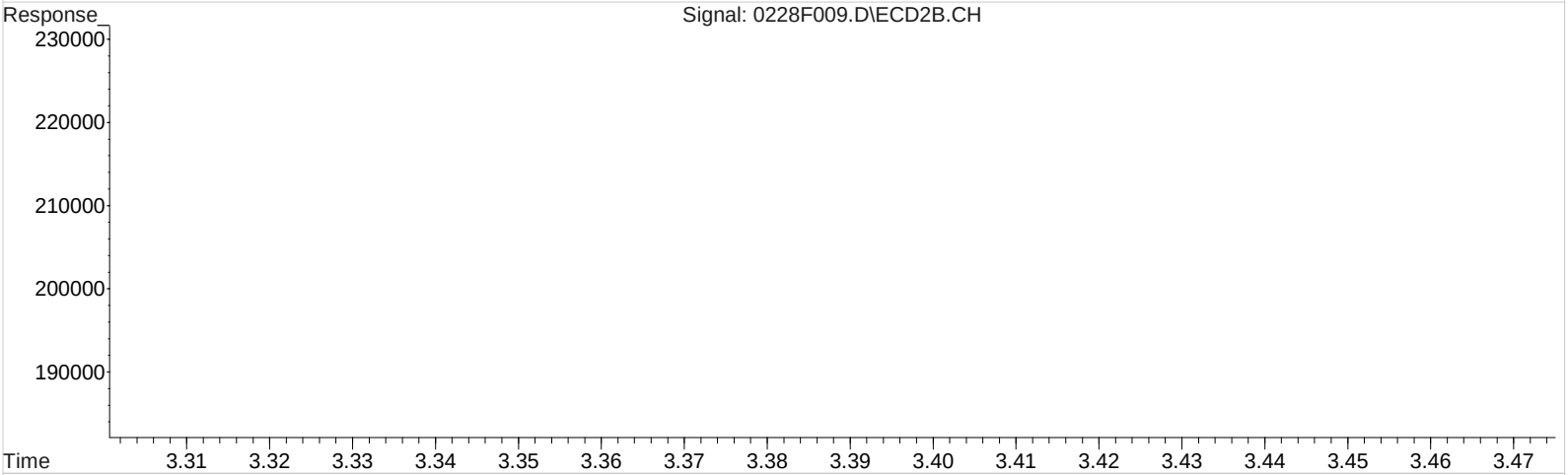
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 55.786 ug/L

response 554512

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 42.939 ug/L

response 707614

(+) = Expected Retention Time

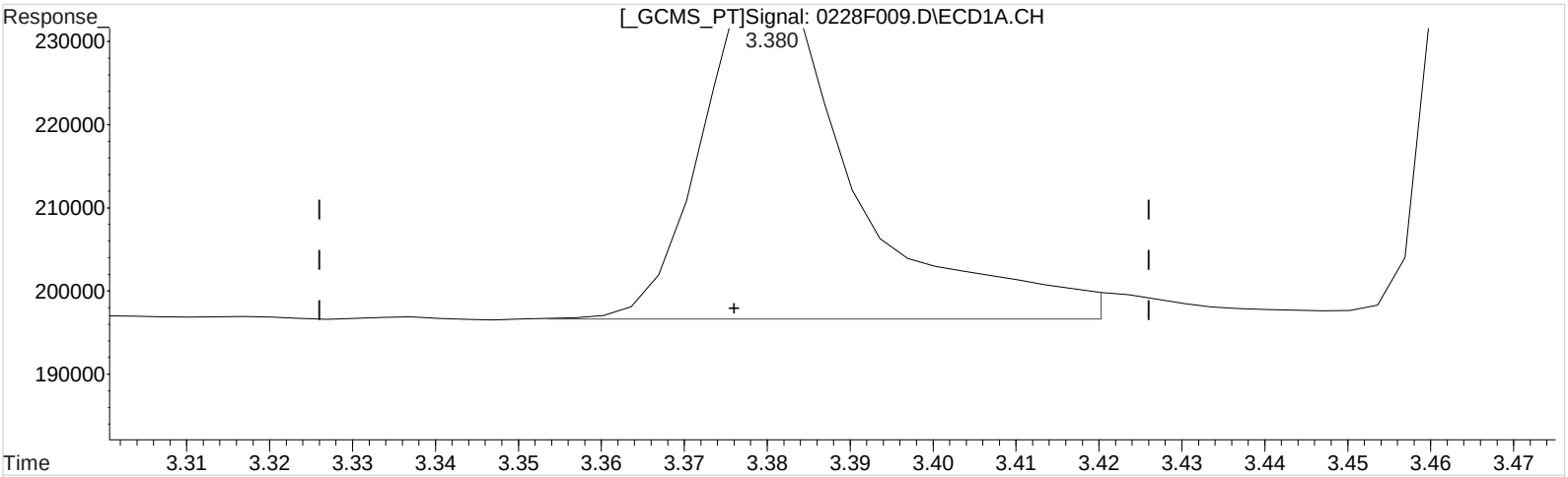
Quantitation Report (Qedit)

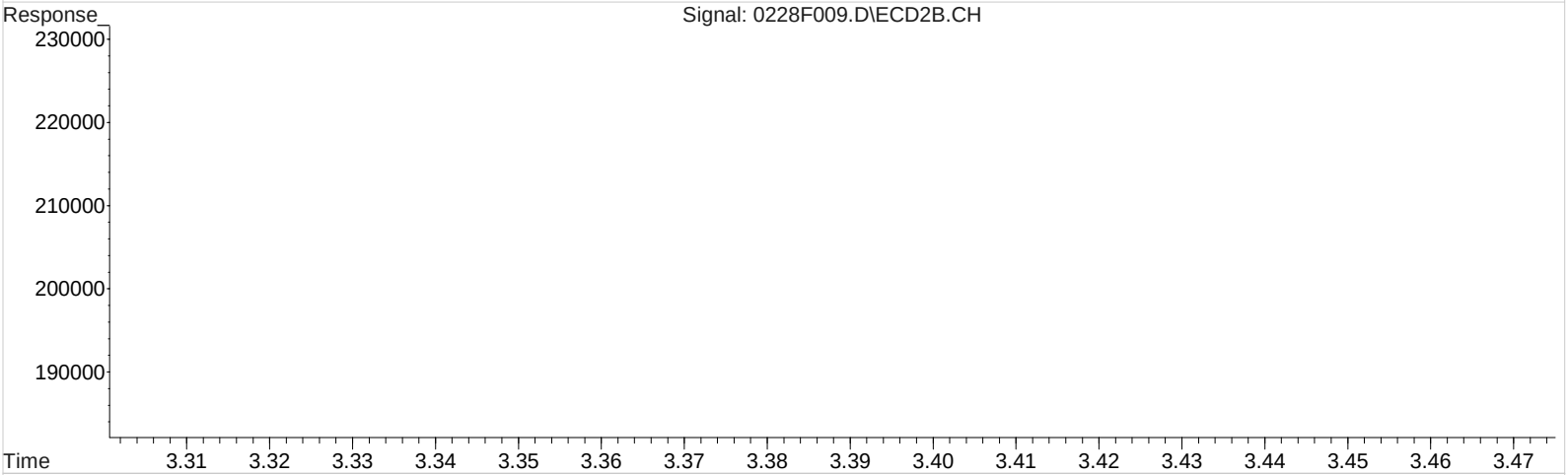
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 52.883 ug/L m

response 527946

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 42.939 ug/L

response 707614

(+) = Expected Retention Time

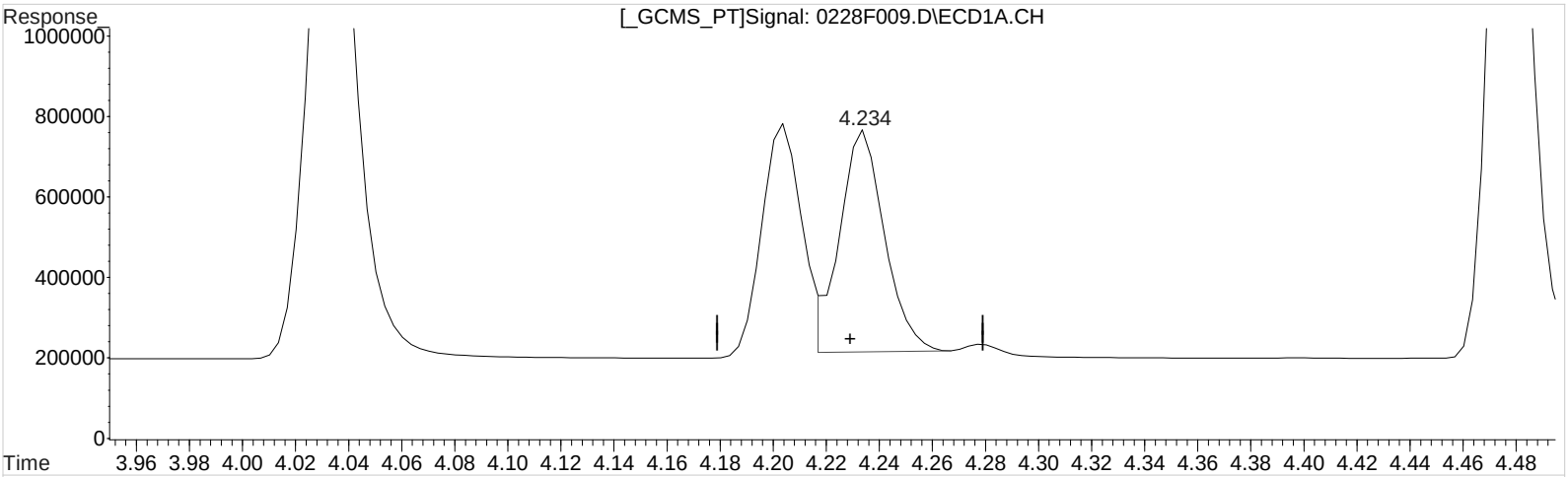
Quantitation Report (Qedit)

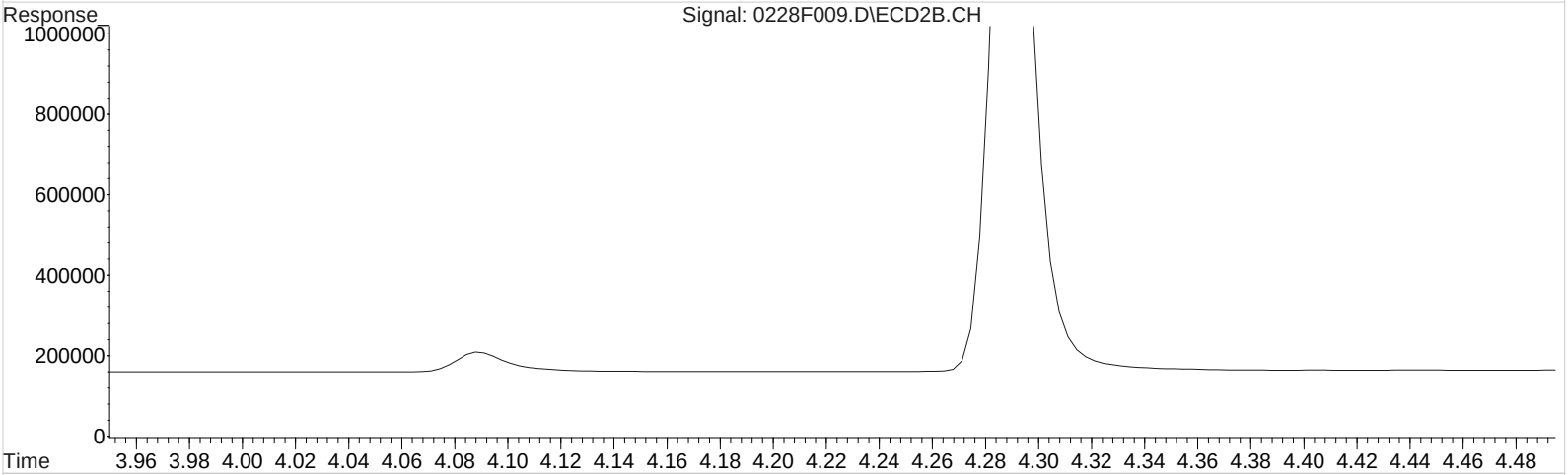
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.234min 45.176 ug/L

response 6319301

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.848min 42.741 ug/L

response 8022672

(+) = Expected Retention Time

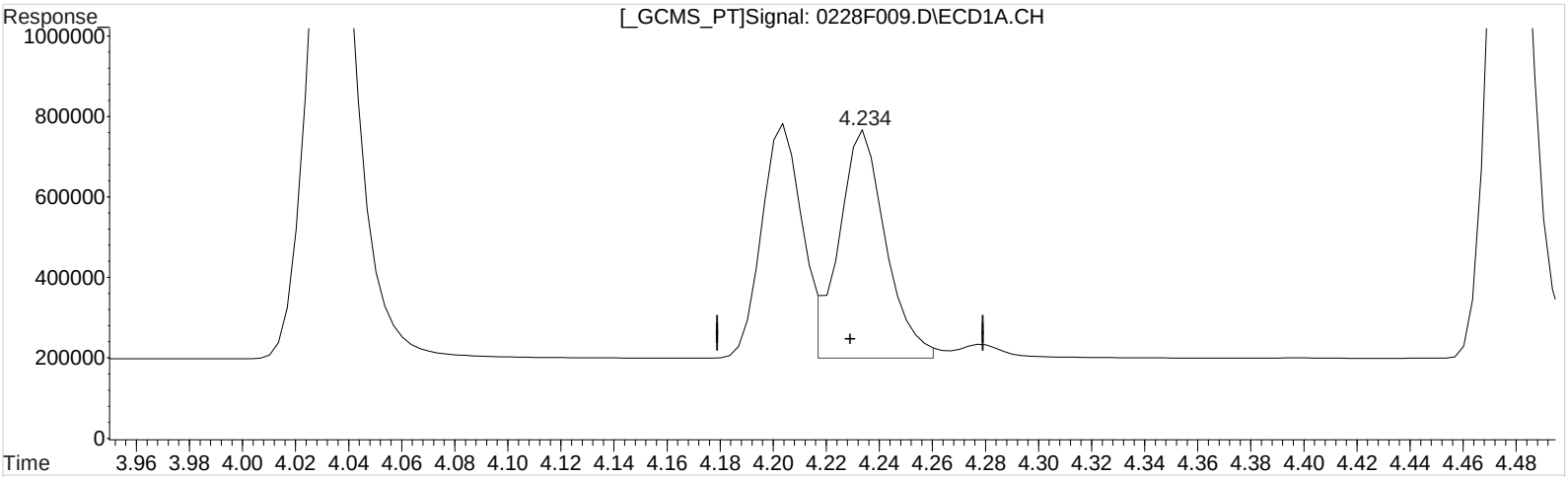
Quantitation Report (Qedit)

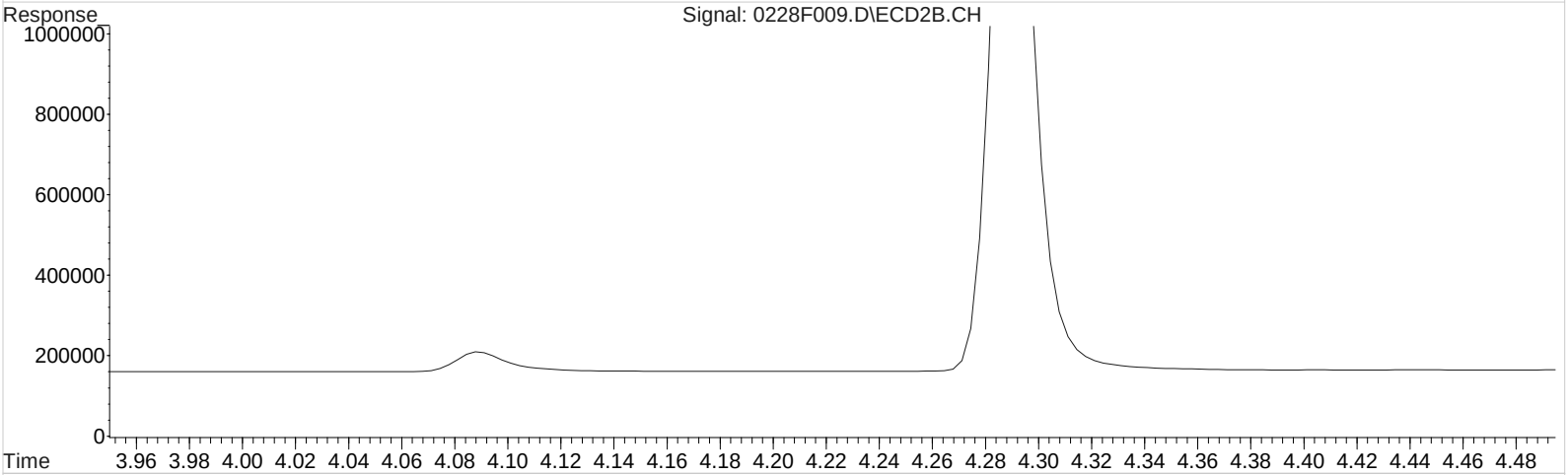
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.234min 48.287 ug/L m

response 6723516

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.848min 42.741 ug/L

response 8022672

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:22:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.032	4.719	34413155	43435506	102.249	99.922
	Target Compounds						
1)	3,4-Dichl...	3.138	3.833	1331525	1763970	93.560	79.838
2)	3,5-Dichl...	3.378	4.089	862010	1296503	91.350m	78.674
3)	2,4,6-Tri...	3.478	4.289	26311215	36325037	88.628	87.097
5)	2,4,5-Tri...	4.202	4.783	11366036	15617448	89.447	78.141
6)	3,4,5-Tri...	4.232	4.846	11877626	15048739	90.412	80.172
7) M	2,3,5,6-T...	4.478	5.079	37783526	53764292	79.375	87.108
8) M	2,3,4,5-T...	5.018	5.476	26302592	34720321	92.085	84.084
9) M	Pentachlo...	5.155	5.659	44955036	59841010	100.762	87.035
10)	Pentachlo...	5.155	5.659	44955036	59841010	106.058	91.655

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

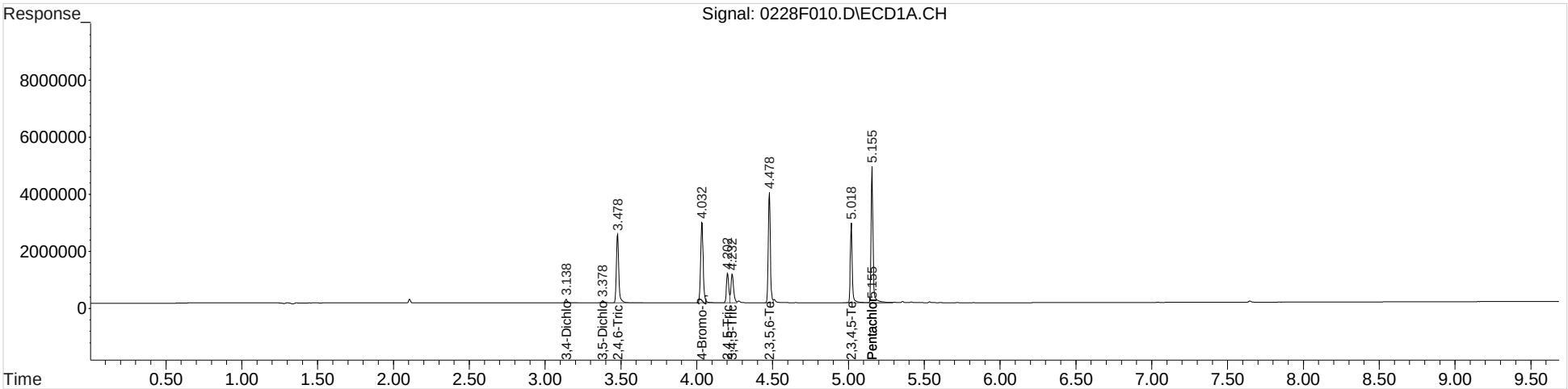
1st 02/28/19
2nd 02/28/19

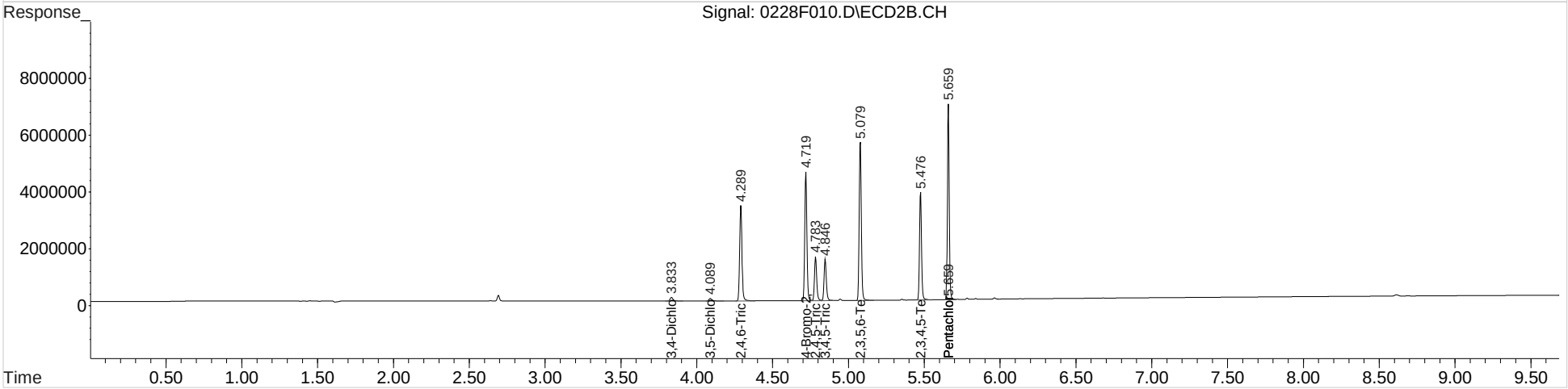
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:22:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





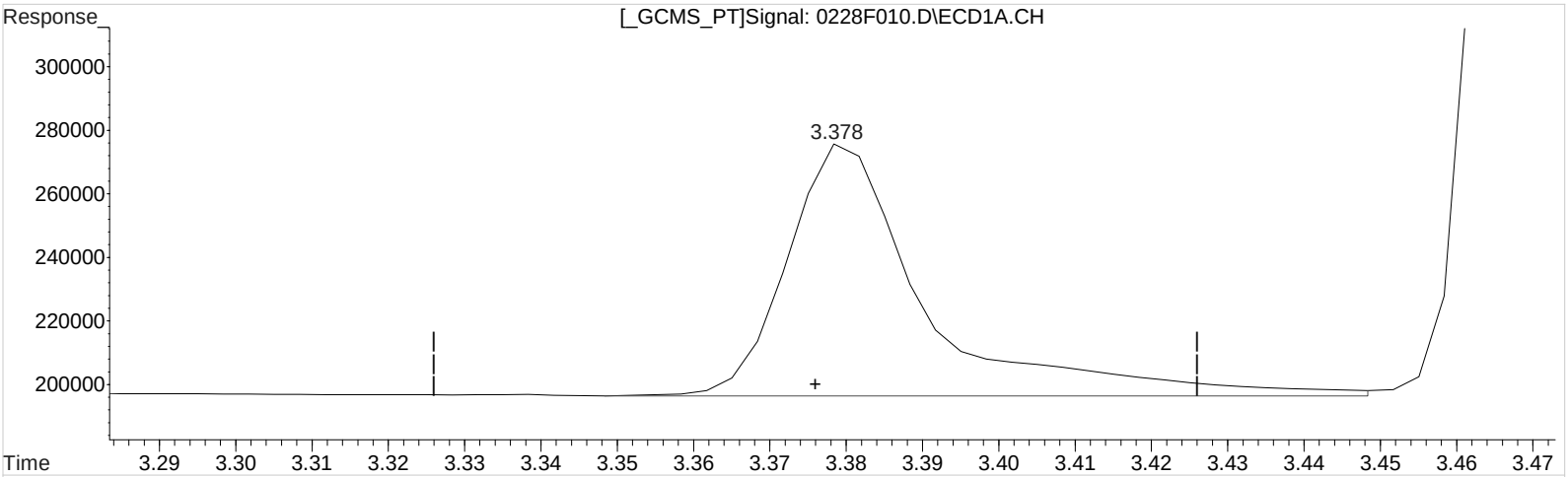
Quantitation Report (Qedit)

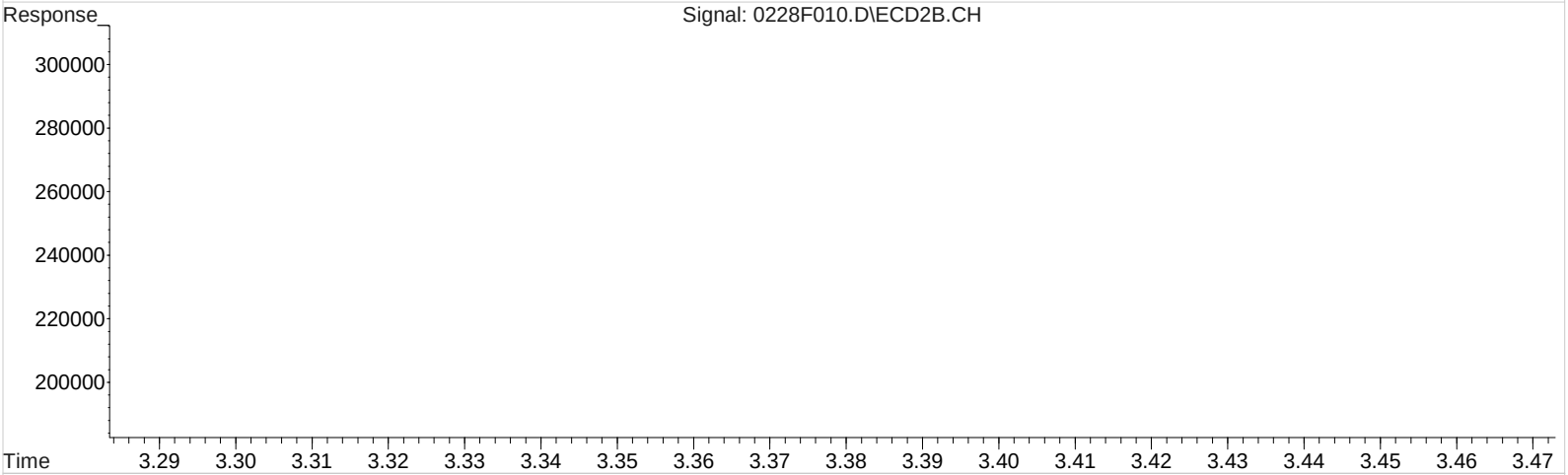
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 107.753 ug/L

response 992711

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 78.674 ug/L

response 1296503

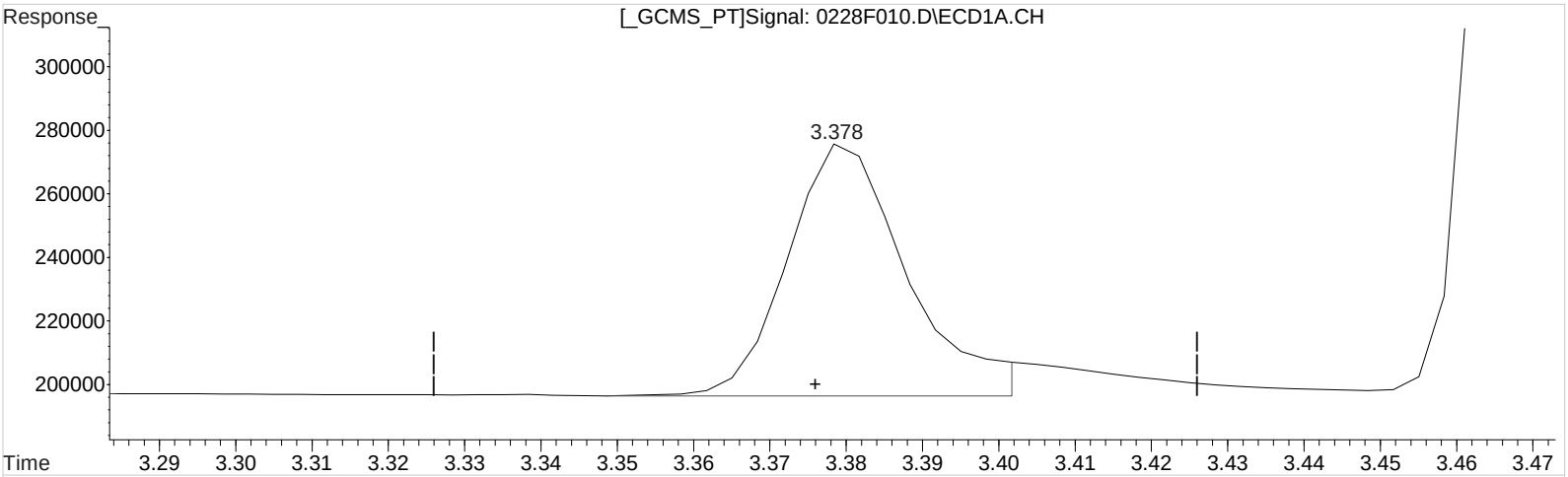
(+) = Expected Retention Time

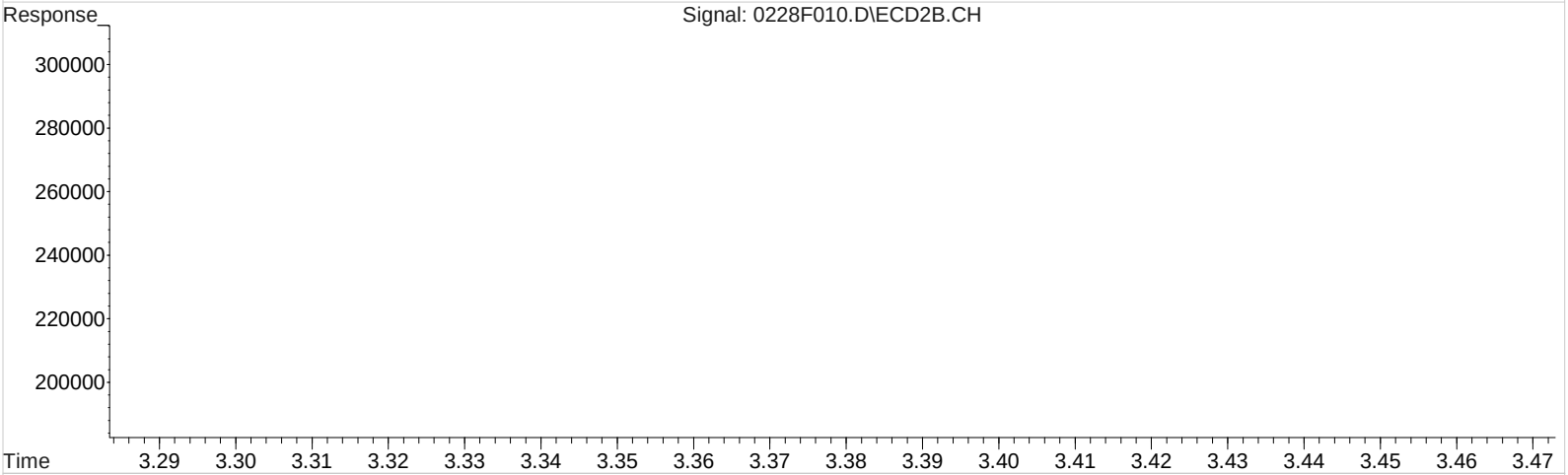
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 91.350 ug/L m

response 862010

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 78.674 ug/L

response 1296503

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:40:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.032	4.720	81814734	111.2E6	251.811	255.909	
		Target Compounds							
1)		3,4-Dichl...	3.139	3.833	2857364	4032207	239.203m	182.500	
2)		3,5-Dichl...	3.379	4.090	1819808	2874954	247.123m	174.458	#
3)		2,4,6-Tri...	3.479	4.290	60385111	91468356	241.870	219.315	
5)		2,4,5-Tri...	4.202	4.783	24998272	37739444	250.979	188.827	
6)		3,4,5-Tri...	4.232	4.846	25742104	36413226	245.950m	193.992	
7)	M	2,3,5,6-T...	4.479	5.076	86546934	134.6E6	181.817	218.076	
8)	M	2,3,4,5-T...	5.016	5.473	58240789	85792304	243.632	207.768	
9)	M	Pentachlo...	5.152	5.656	102.6E6	149.9E6	237.563	218.038	
10)		Pentachlo...	5.152	5.656	102.6E6	149.9E6	250.048	229.611	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

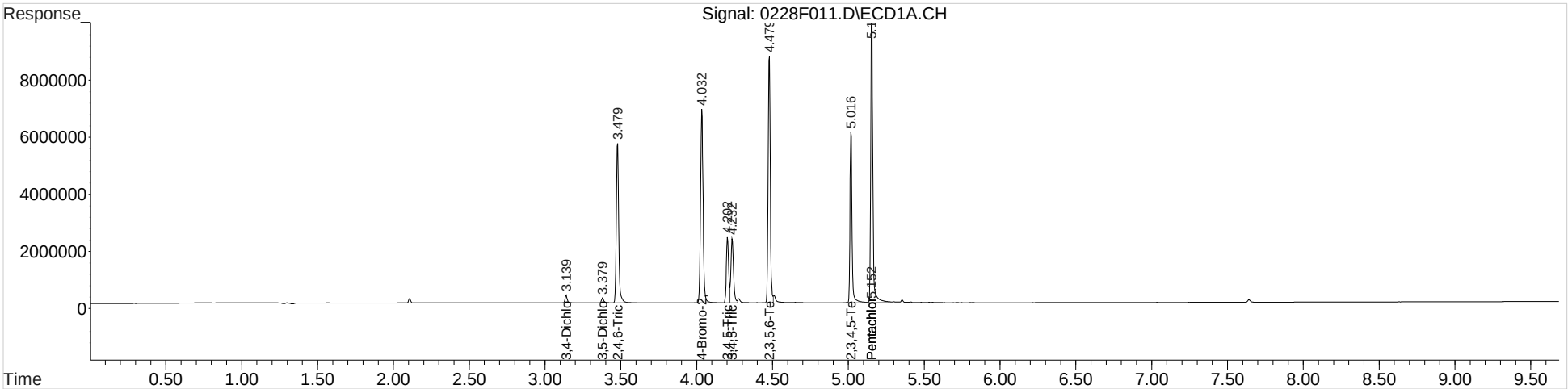
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:40:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



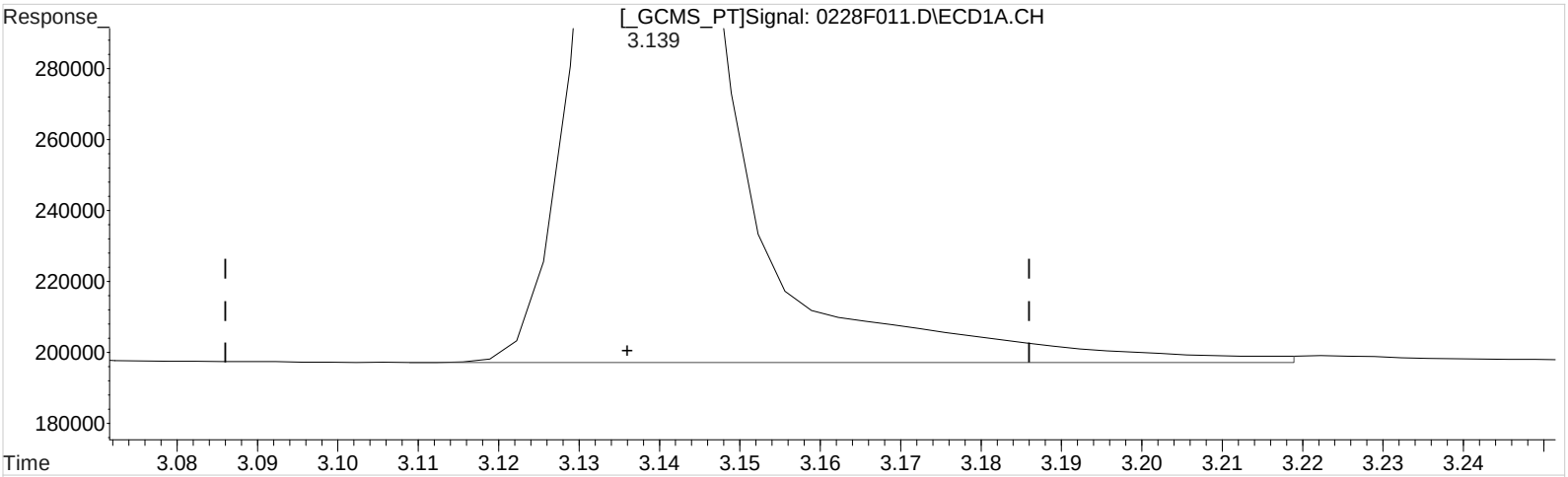
Quantitation Report (Qedit)

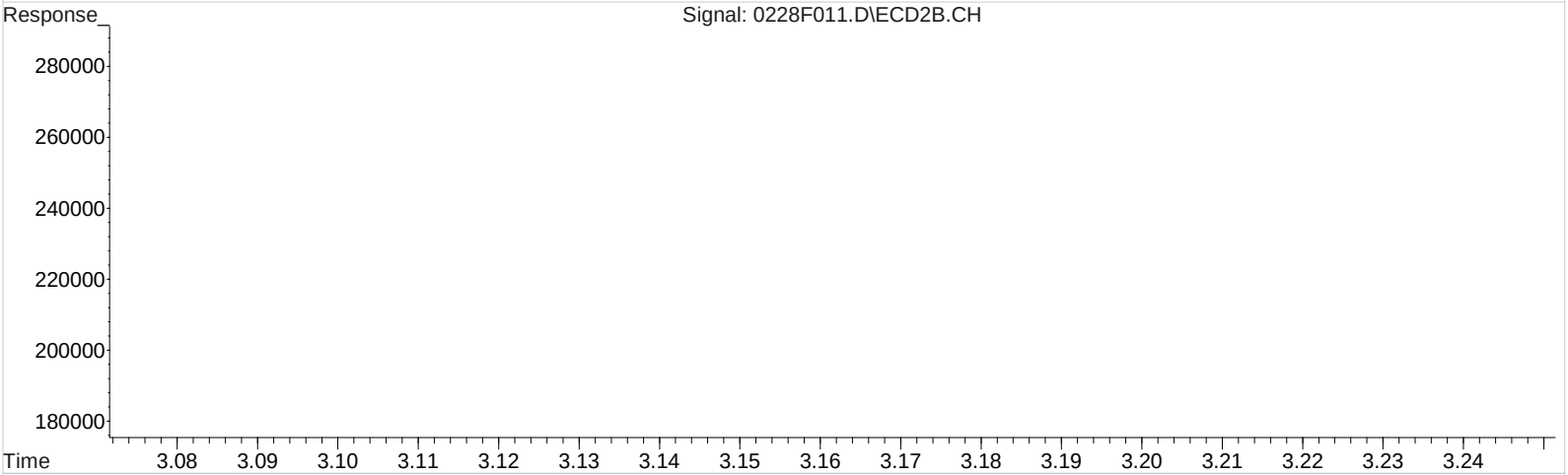
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 239.087 ug/L

response 2856406

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 182.500 ug/L

response 4032207

(+) = Expected Retention Time

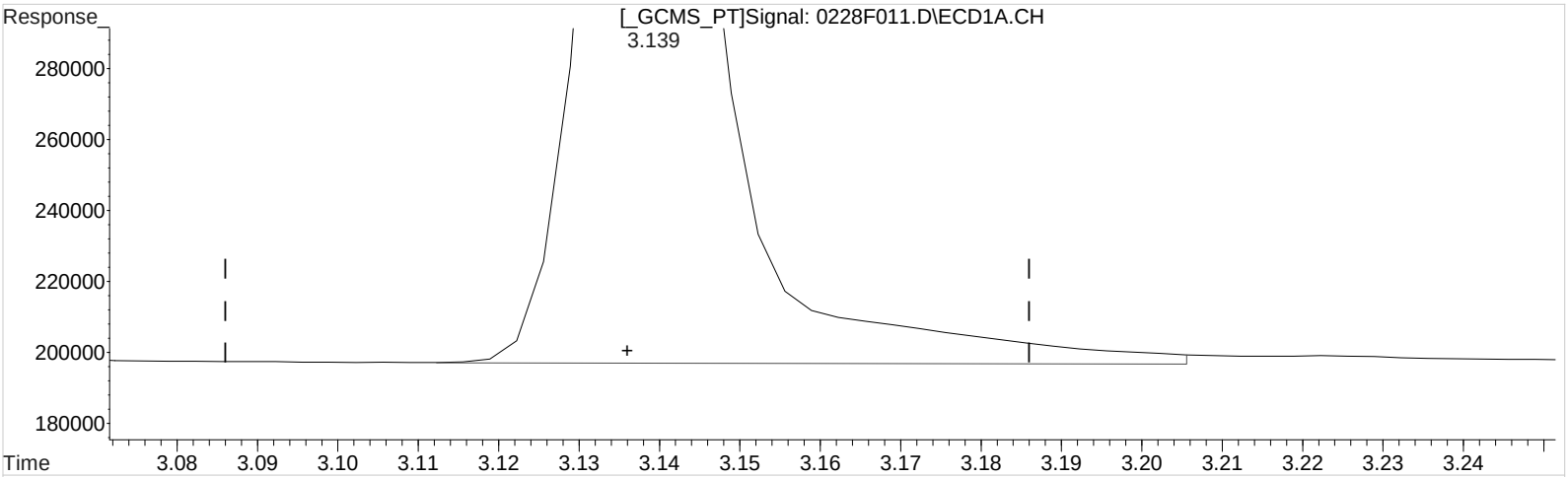
Quantitation Report (Qedit)

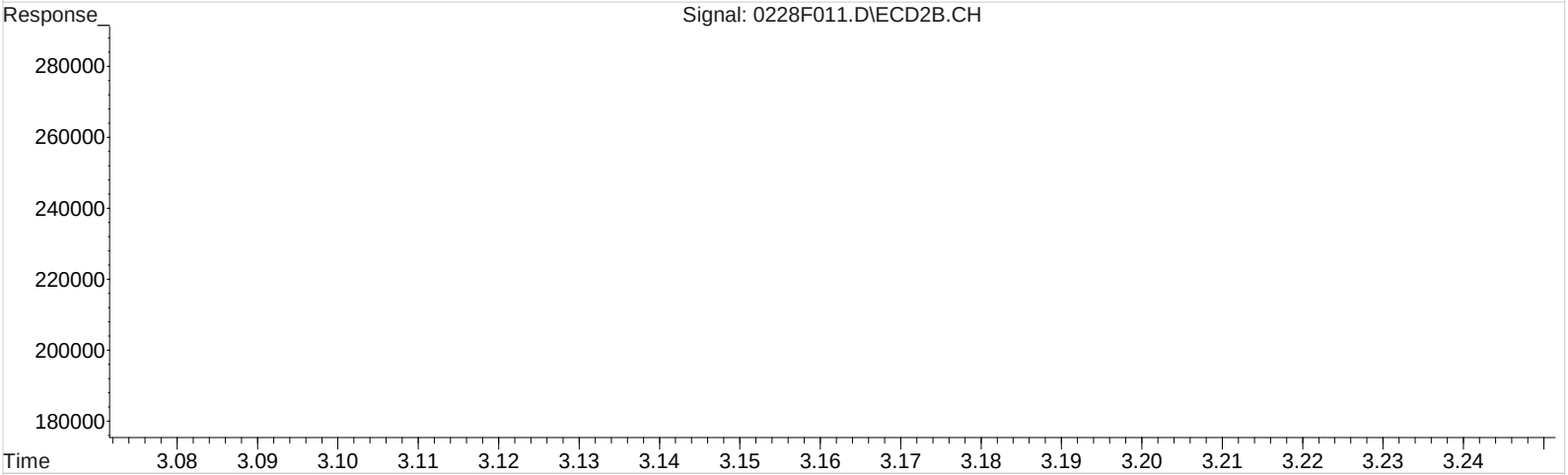
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 239.203 ug/L m

response 2857364

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 182.500 ug/L

response 4032207

(+) = Expected Retention Time

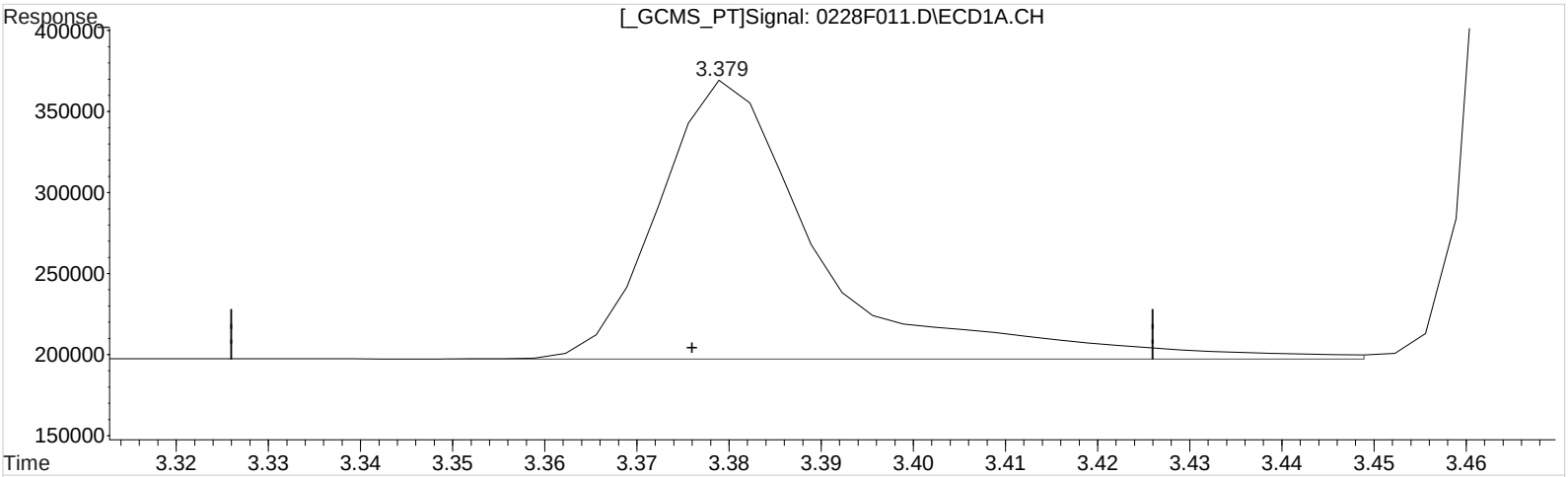
Quantitation Report (Qedit)

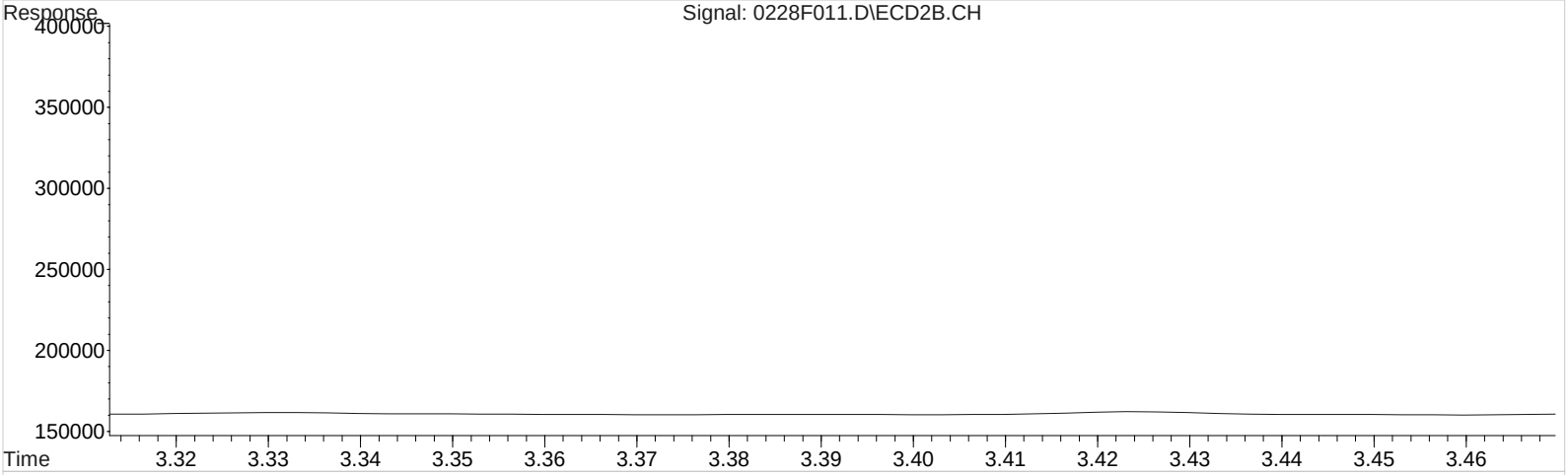
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 331.758 ug/L

response 2074587

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 174.458 ug/L

response 2874954

(+) = Expected Retention Time

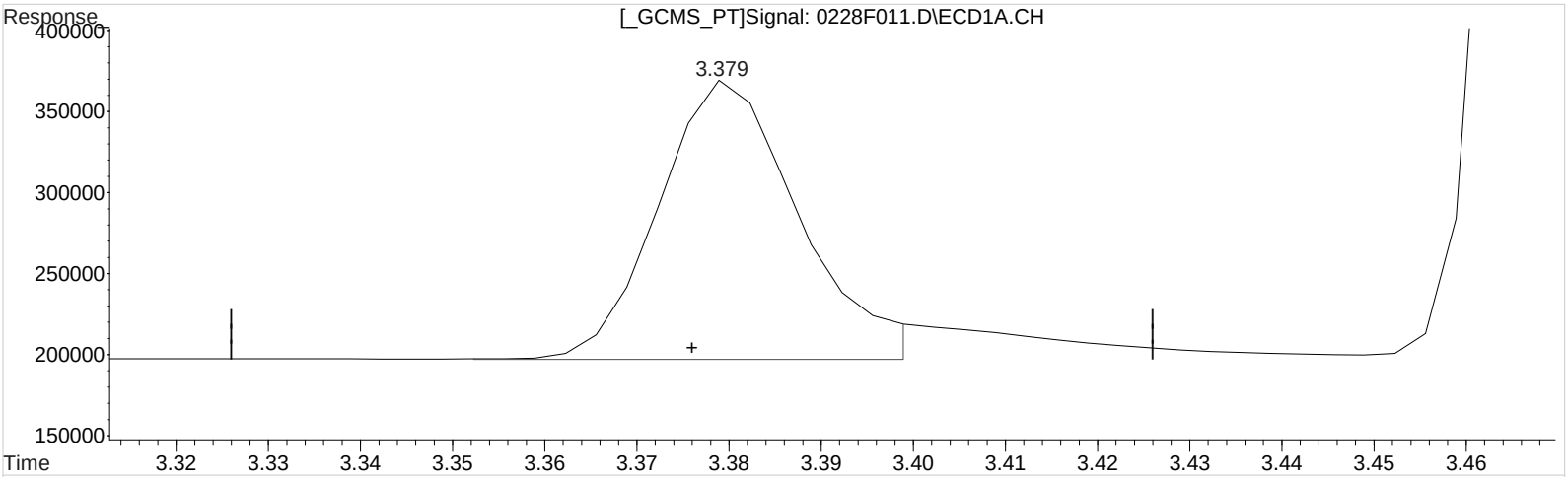
Quantitation Report (Qedit)

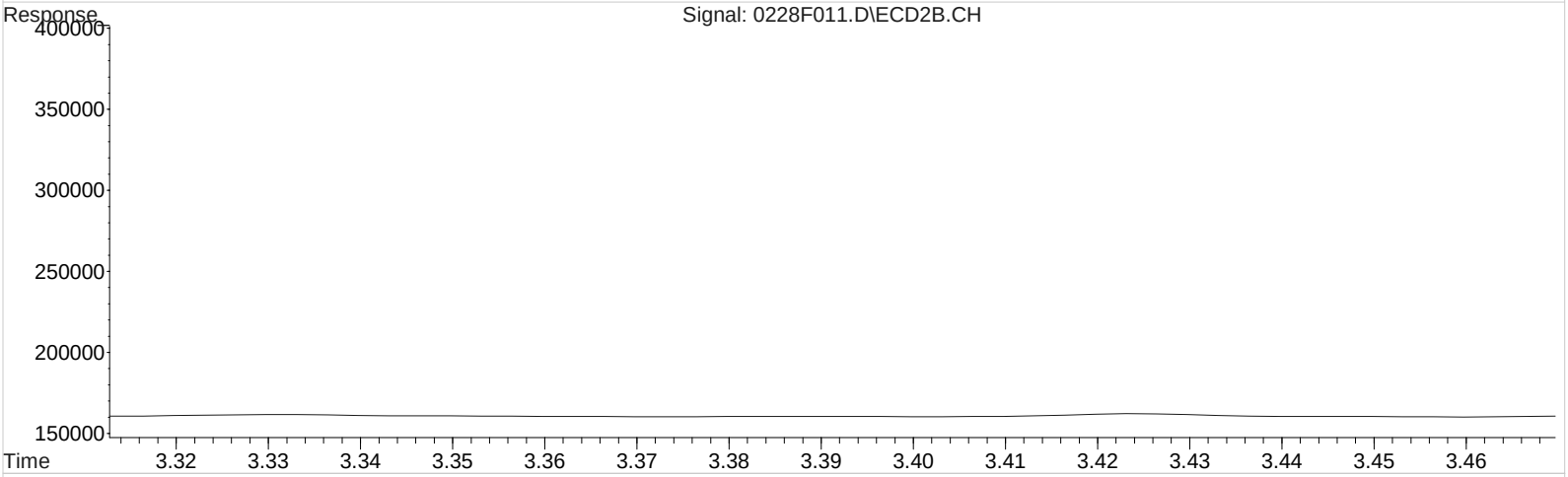
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 247.123 ug/L m

response 1819808

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 174.458 ug/L

response 2874954

(+) = Expected Retention Time

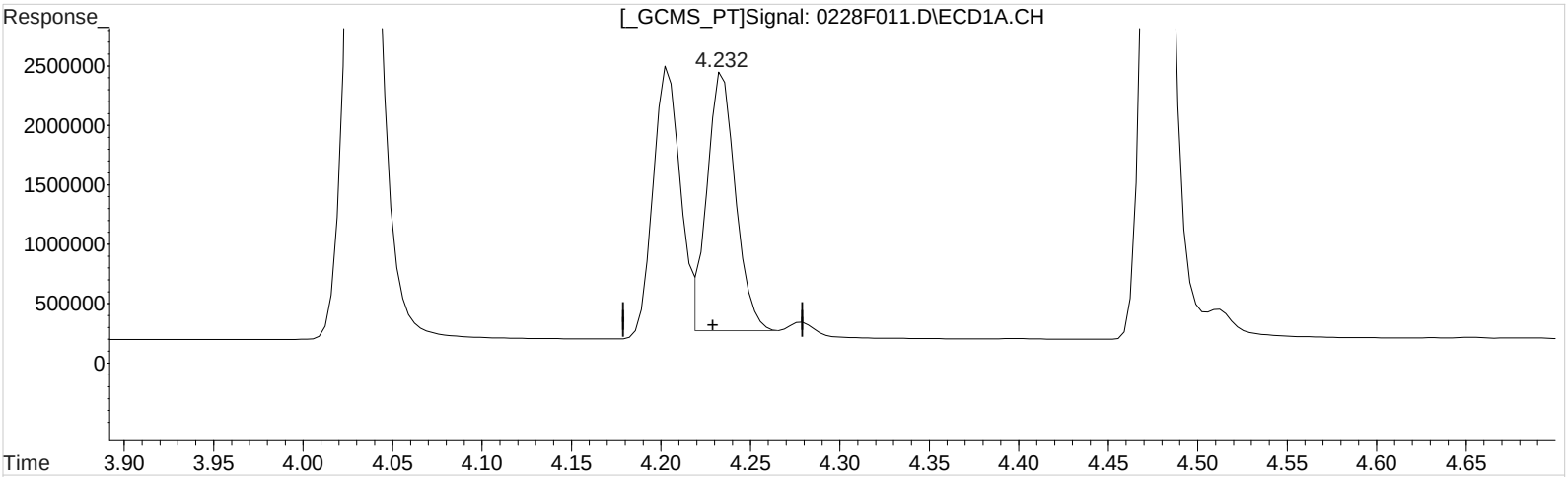
Quantitation Report (Qedit)

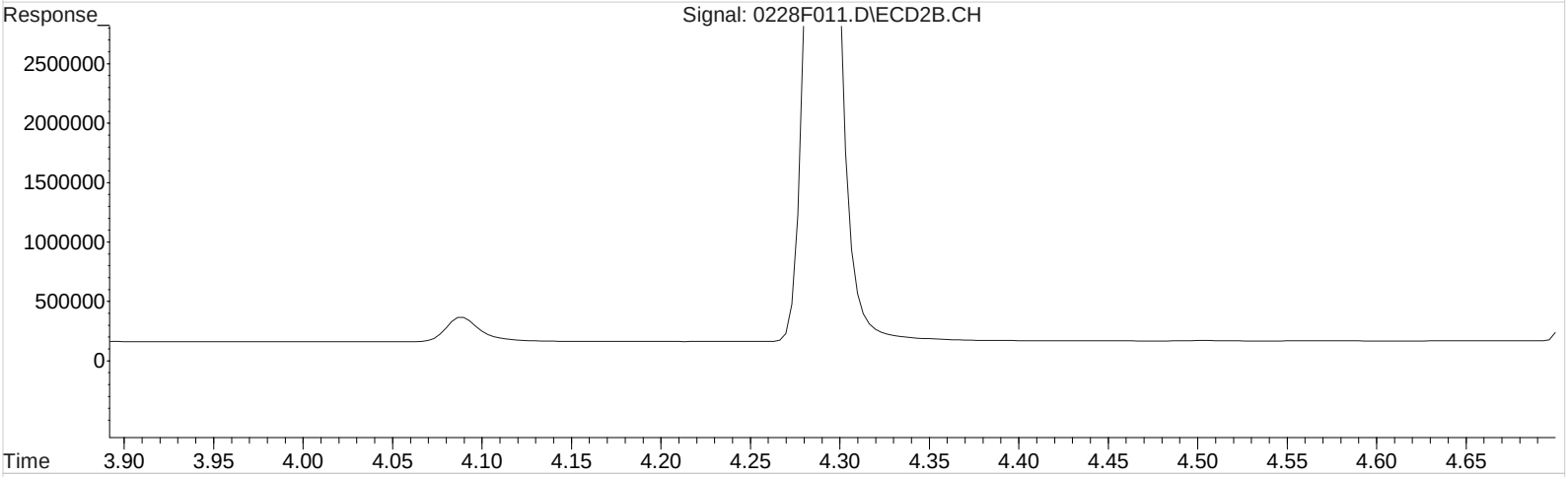
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min 214.424 ug/L

response 23588772

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.846min 193.992 ug/L

response 36413226

(+) = Expected Retention Time

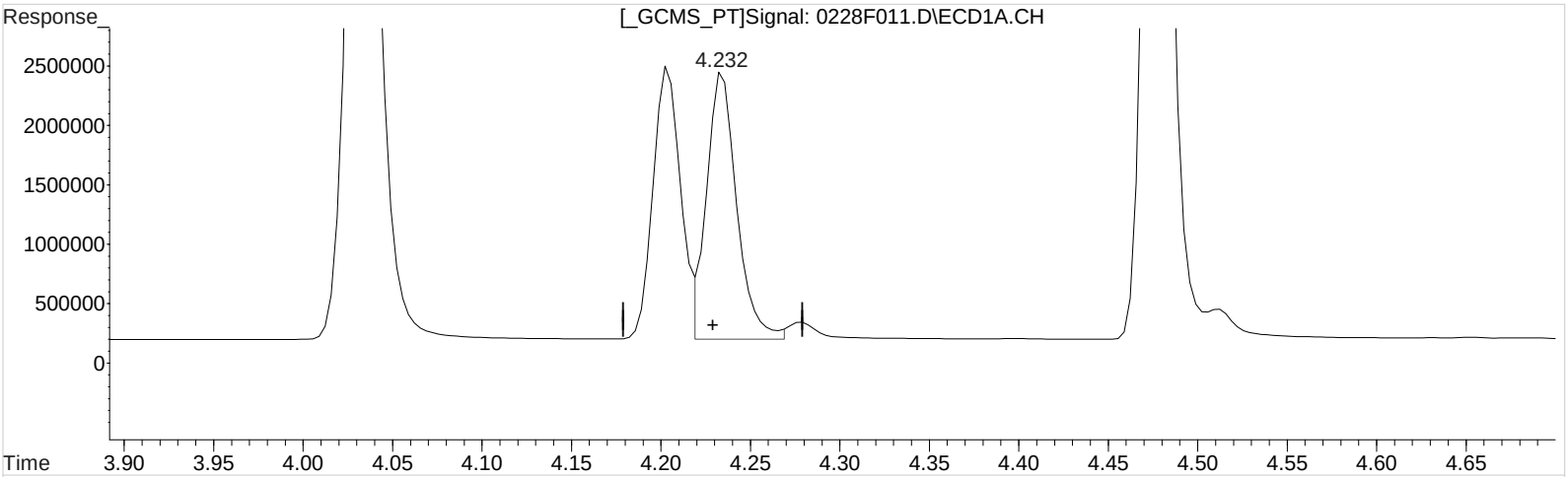
Quantitation Report (Qedit)

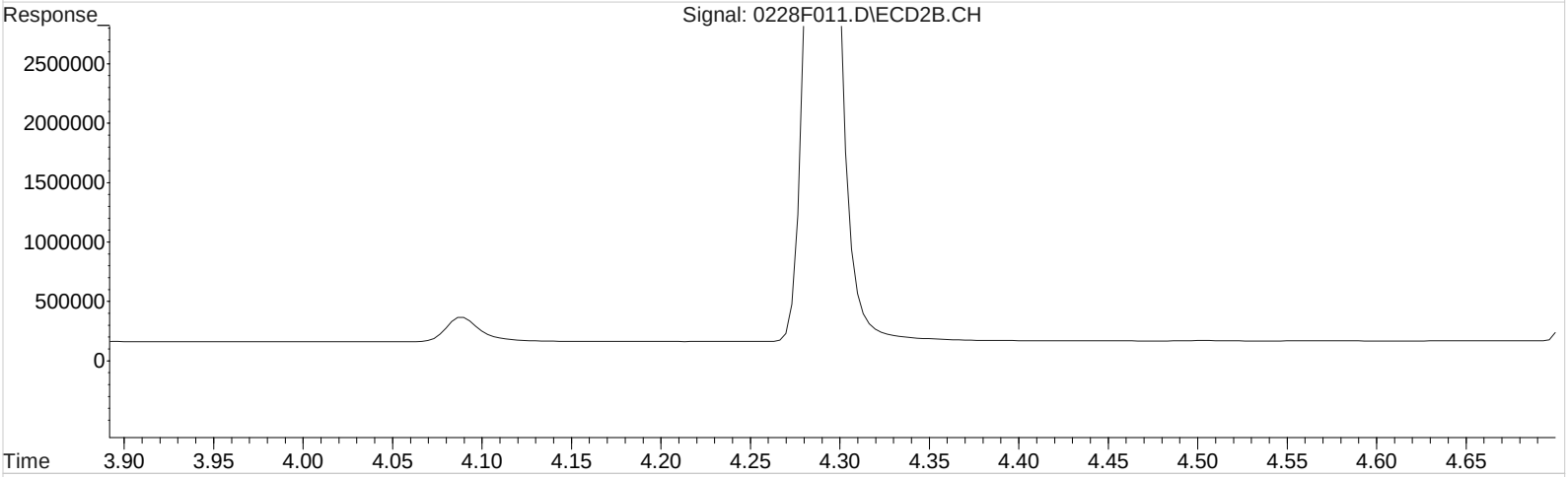
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min 245.950 ug/L m

response 25742104

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.846min 193.992 ug/L

response 36413226

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:02:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.034	4.718	148.9E6	219.7E6	481.796	505.496
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D. d
9)	M	Pentachlo...	5.154	5.658	187.0E6	302.6E6	453.396	440.083
10)		Pentachlo...	5.154	5.658	187.0E6	302.6E6	477.226	463.441

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

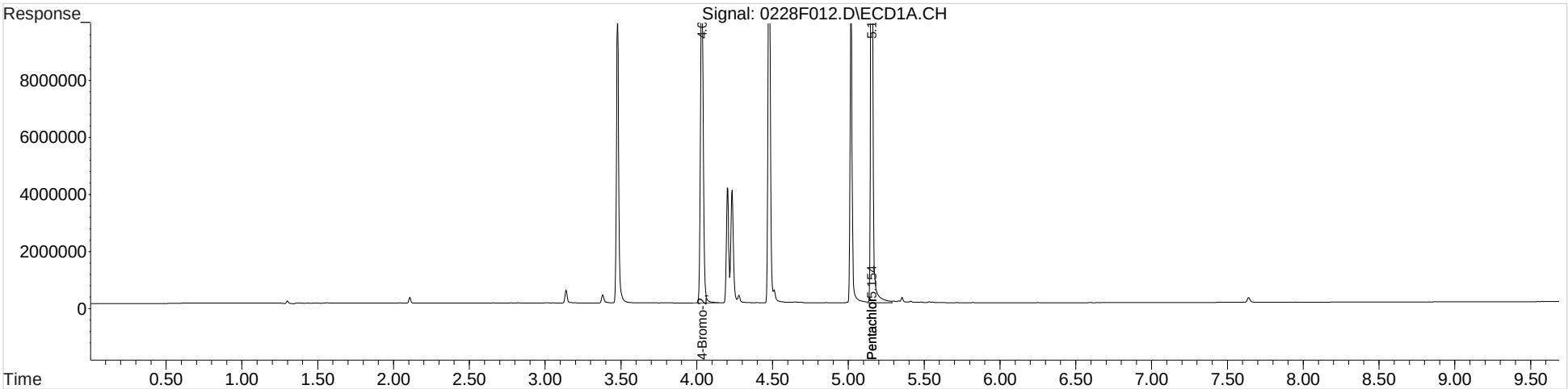
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:02:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



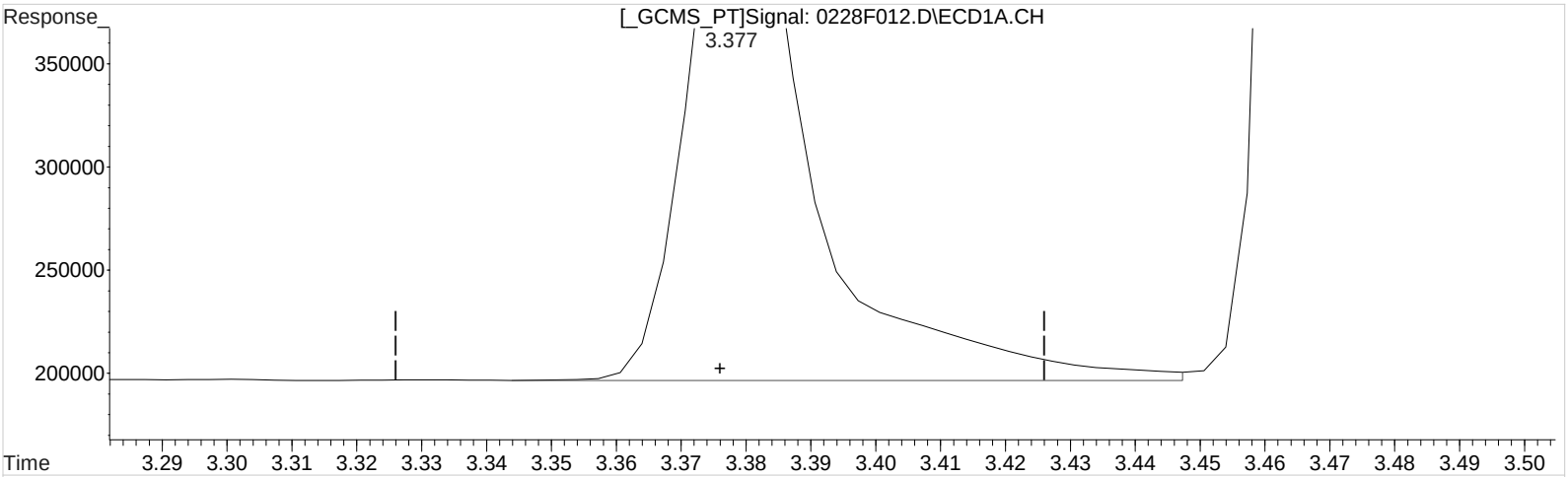
Quantitation Report (Qedit)

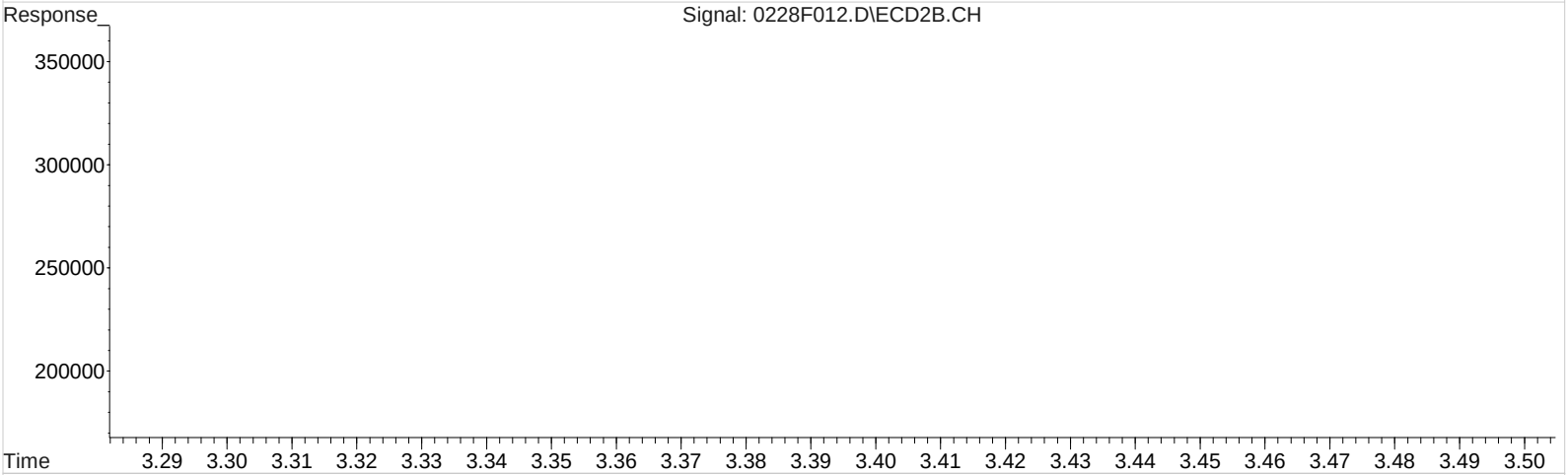
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:57:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min -1.000 ug/L

response 3515486

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 308.529 ug/L

response 5084362

(+) = Expected Retention Time

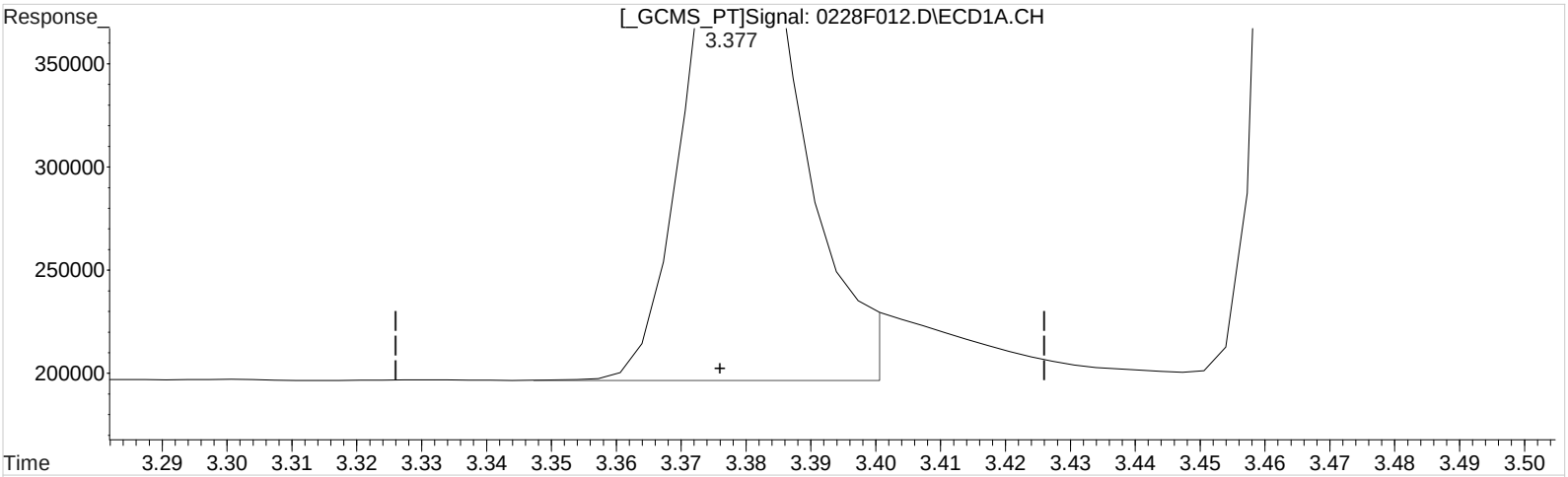
Quantitation Report (Qedit)

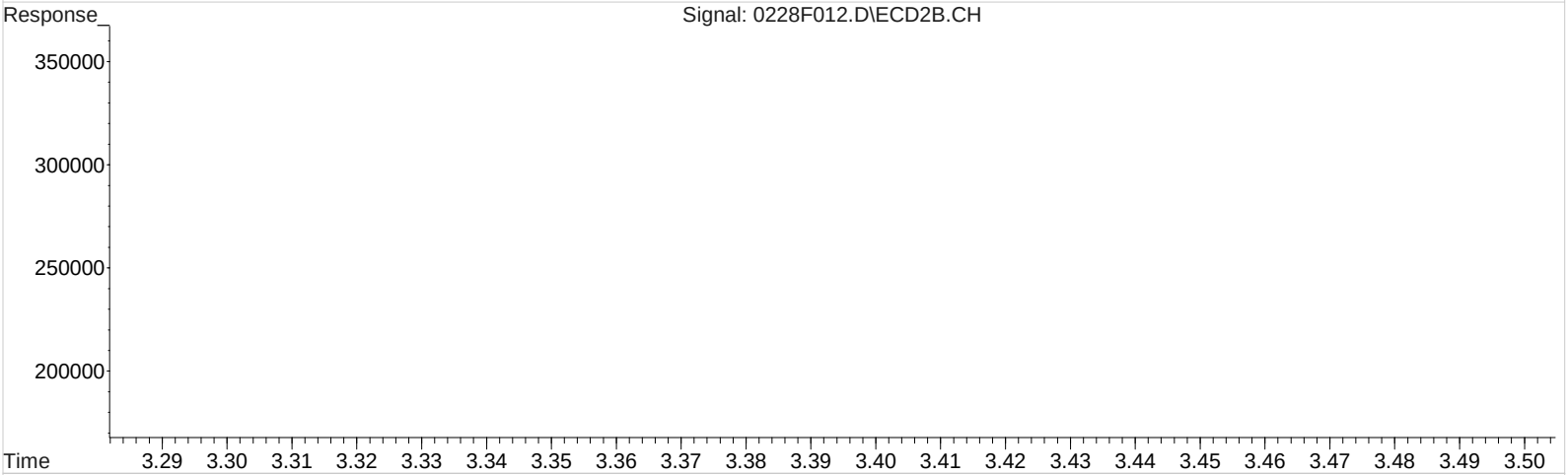
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:57:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min -1.000 ug/L m

response 3148268

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 308.529 ug/L

response 5084362

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:03:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.032	4.720	275.5E6	454.2E6	1004.956	1044.829
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D. d
9)	M	Pentachlo...	5.152	5.657	351.1E6	624.5E6	951.331	908.276
10)		Pentachlo...	5.152	5.657	351.1E6	624.5E6	1001.338	956.483

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

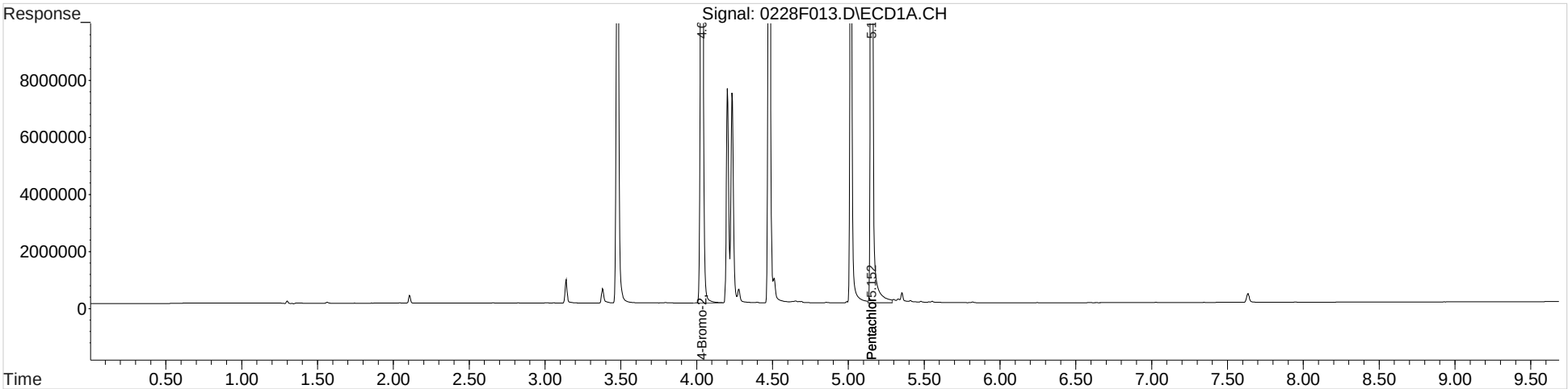
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:03:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



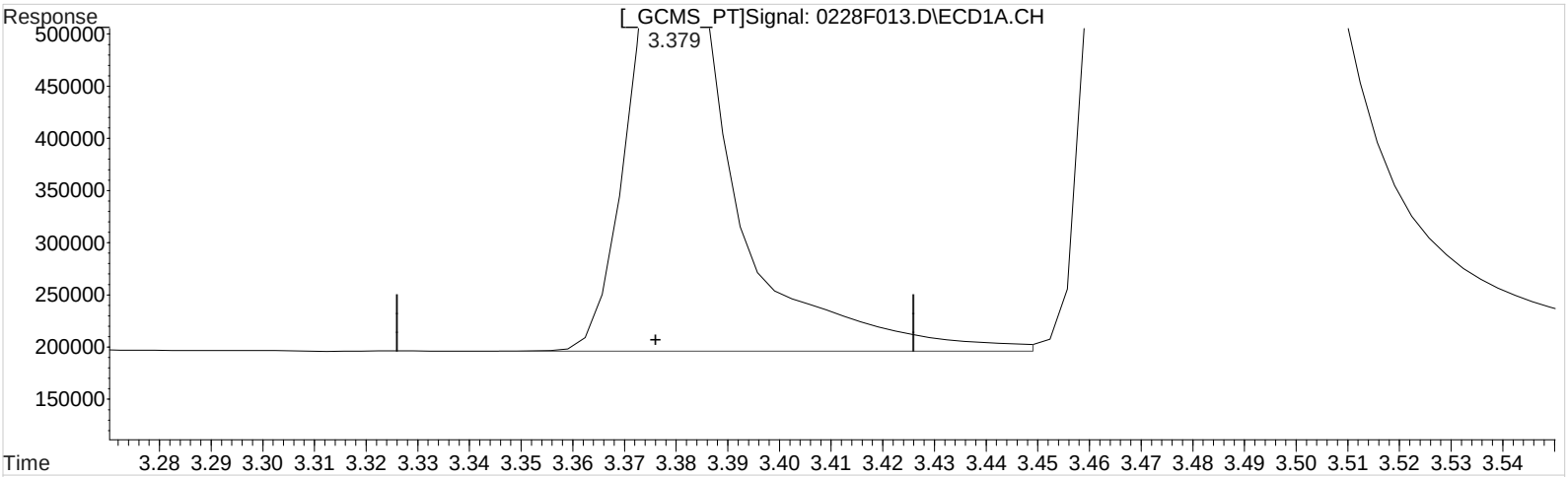
Quantitation Report (Qedit)

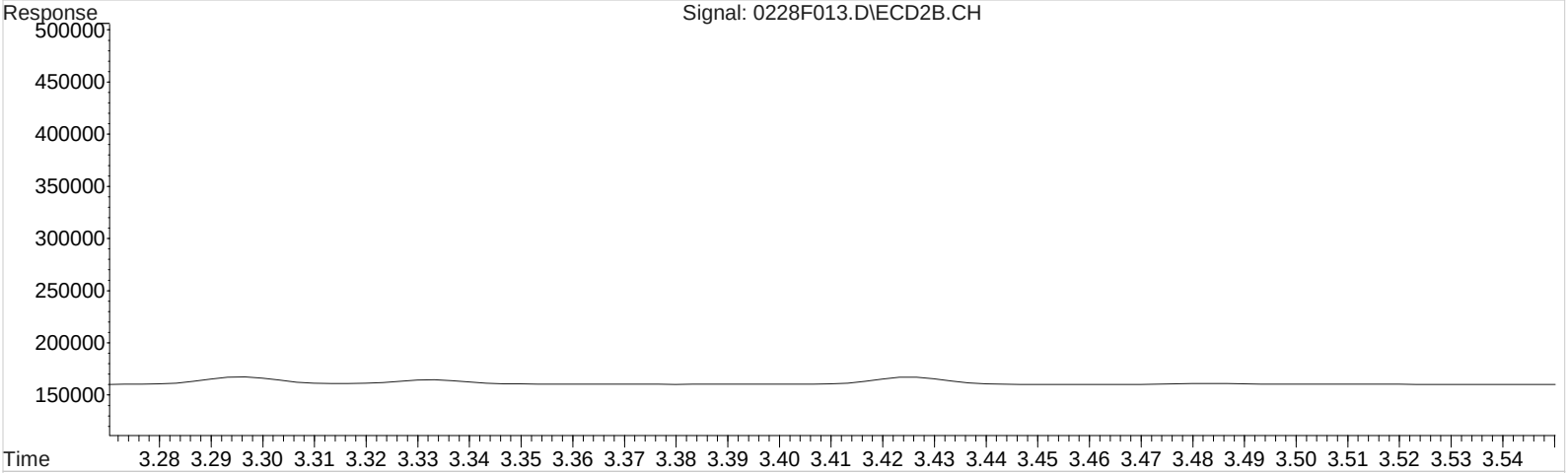
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min -1.000 ug/L

response 6094712

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 574.054 ug/L

response 9460033

(+) = Expected Retention Time

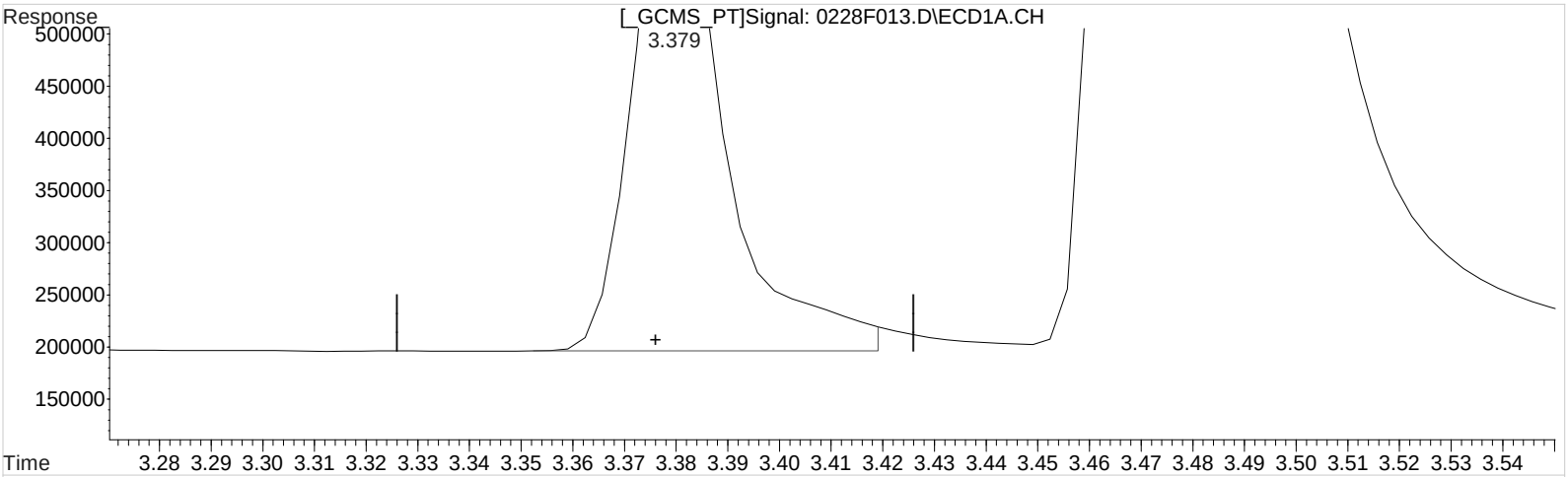
Quantitation Report (Qedit)

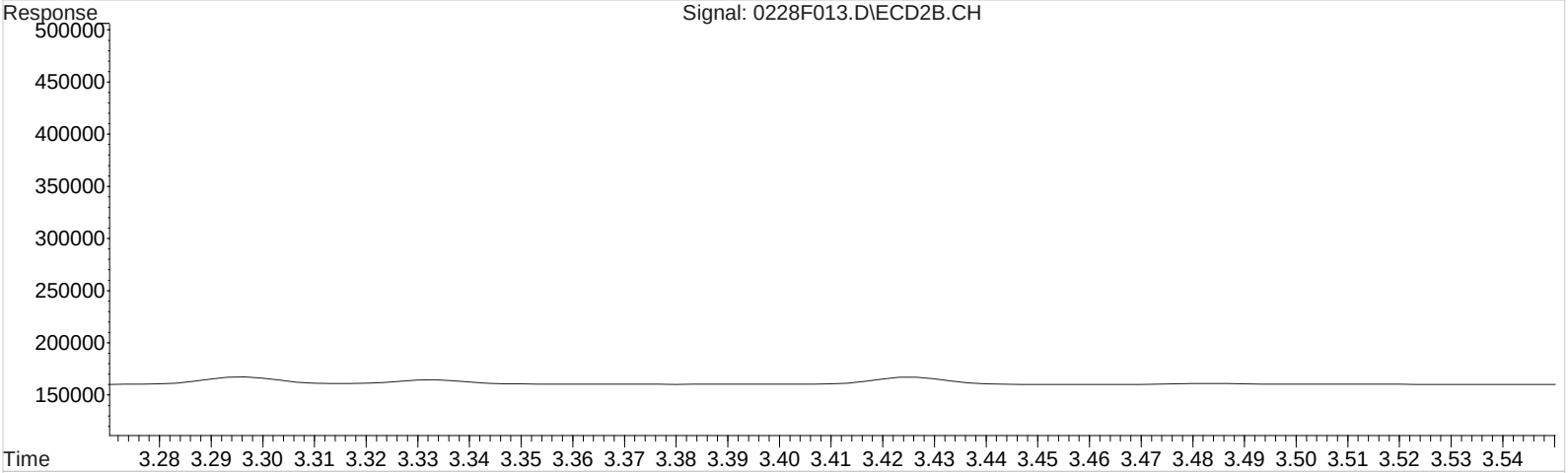
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min -1.000 ug/L m

response 5889814

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 574.054 ug/L

response 9460033

(+) = Expected Retention Time

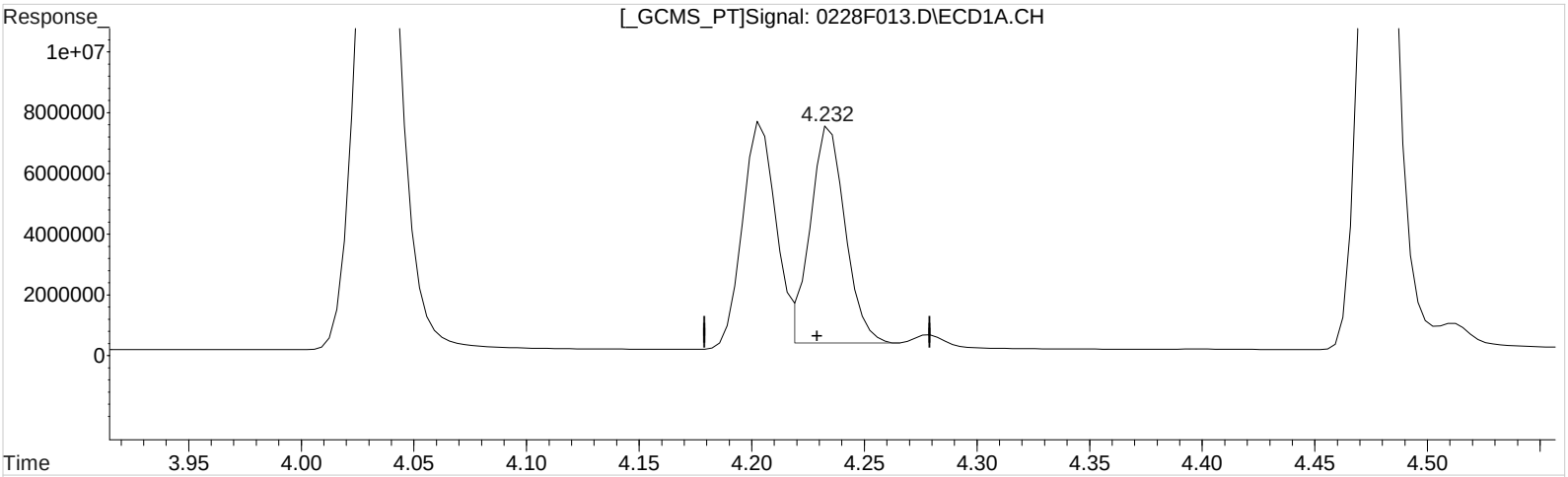
Quantitation Report (Qedit)

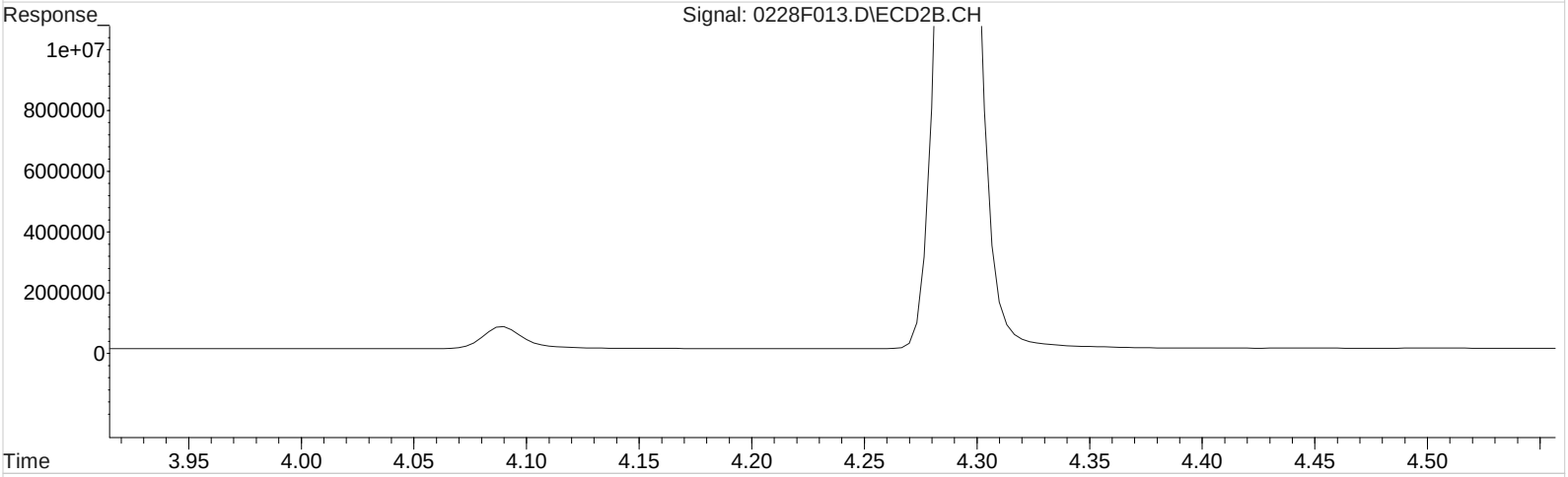
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min -1.000 ug/L

response 74934079

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 737.496 ug/L

response 138431346

(+) = Expected Retention Time

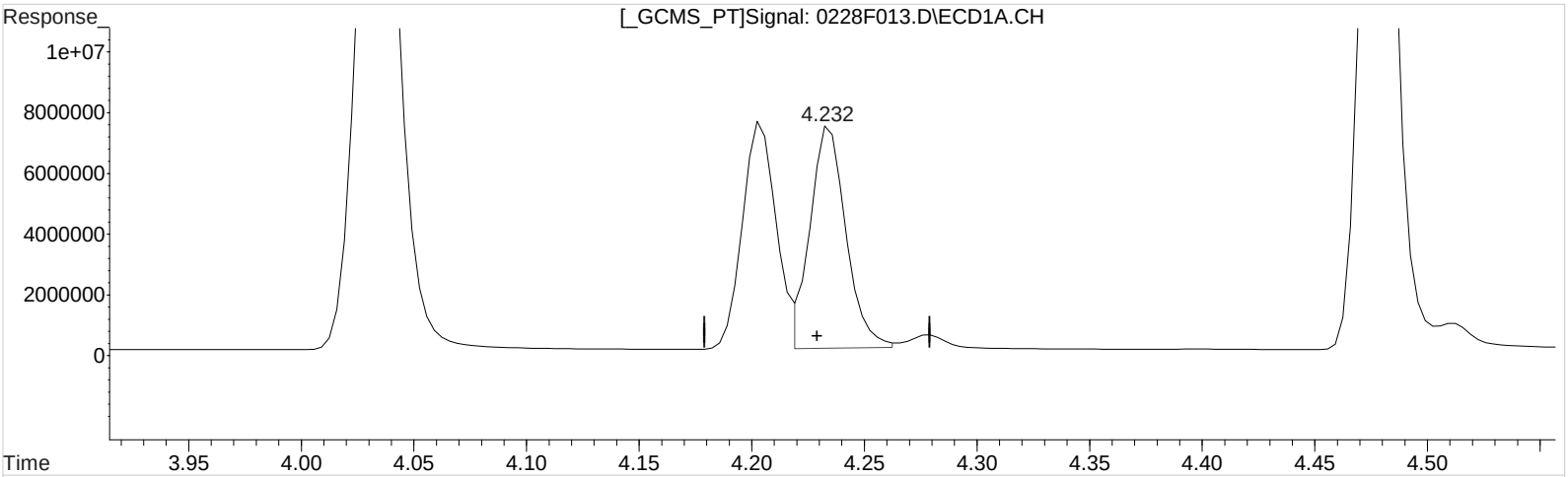
Quantitation Report (Qedit)

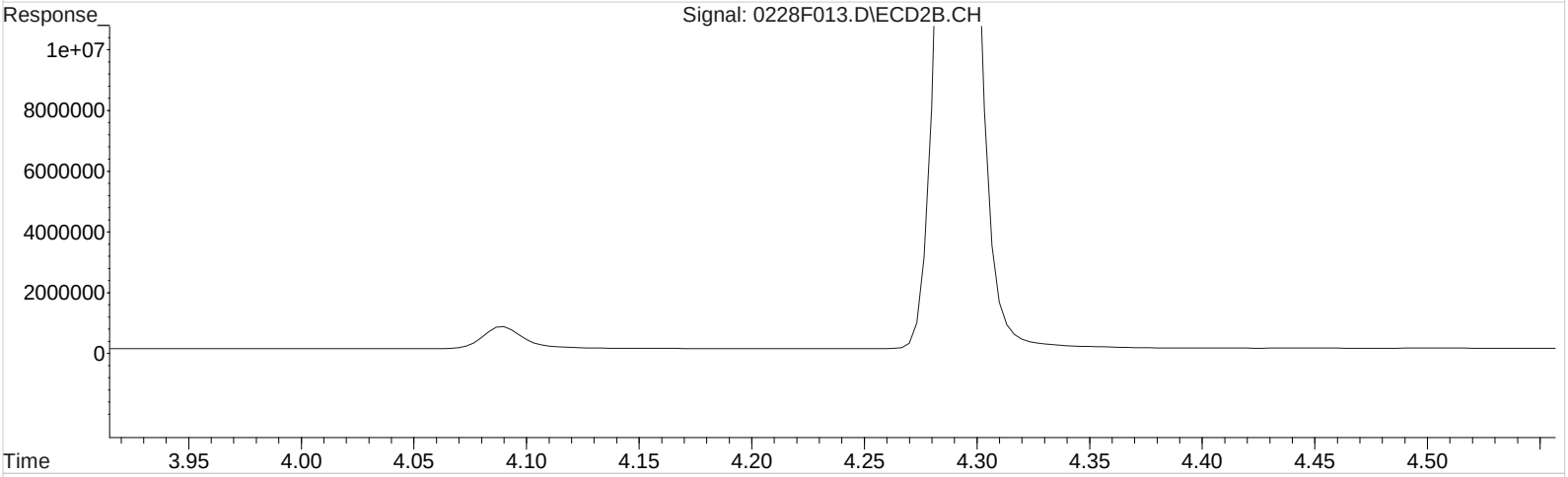
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min -1.000 ug/L m

response 79254186

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 737.496 ug/L

response 138431346

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:00:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.035	4.719	1168028	983474	2.544	2.262
		Target Compounds						
1)		3,4-Dichl...	3.138	3.832	45256	55247	2.218	2.501
2)		3,5-Dichl...	3.378	4.089	31638	44372	2.469m	2.693
3)		2,4,6-Tri...	3.478	4.289	951850	996024	2.425	2.388
5)		2,4,5-Tri...	4.205	4.785	468262	535226	2.569	2.678
6)		3,4,5-Tri...	4.235	4.849	464016	493606	2.630	2.630
7)	M	2,3,5,6-T...	4.478	5.079	1355696	1503718	2.848	2.436m
8)	M	2,3,4,5-T...	5.018	5.472	1121382	1115328	2.467m	2.701
9)	M	Pentachlo...	5.155	5.655	1532111	1786099	2.401	2.598m
10)		Pentachlo...	5.155	5.655	1532111	1782521	2.528	2.730m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

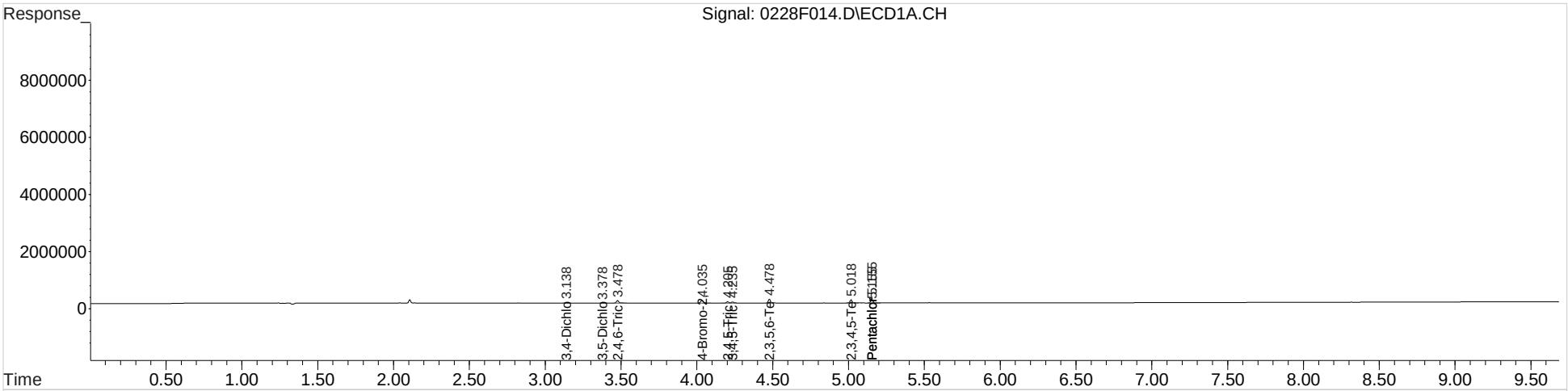
1st JMS 02/28/19
2nd MC 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:00:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



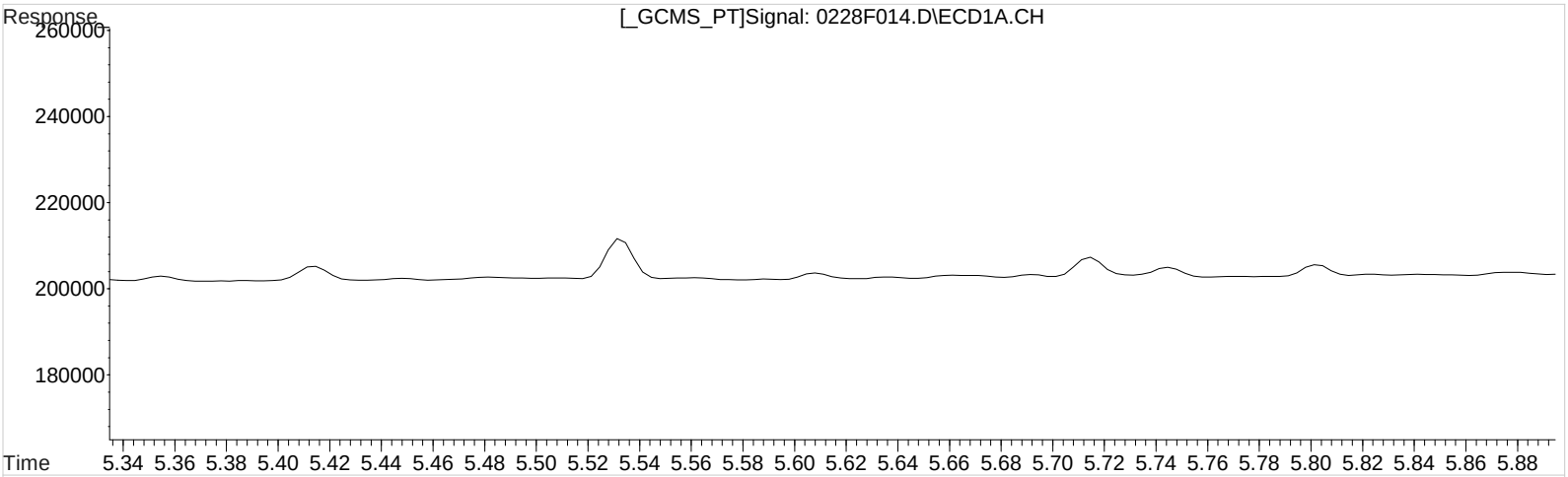
Quantitation Report (Qedit)

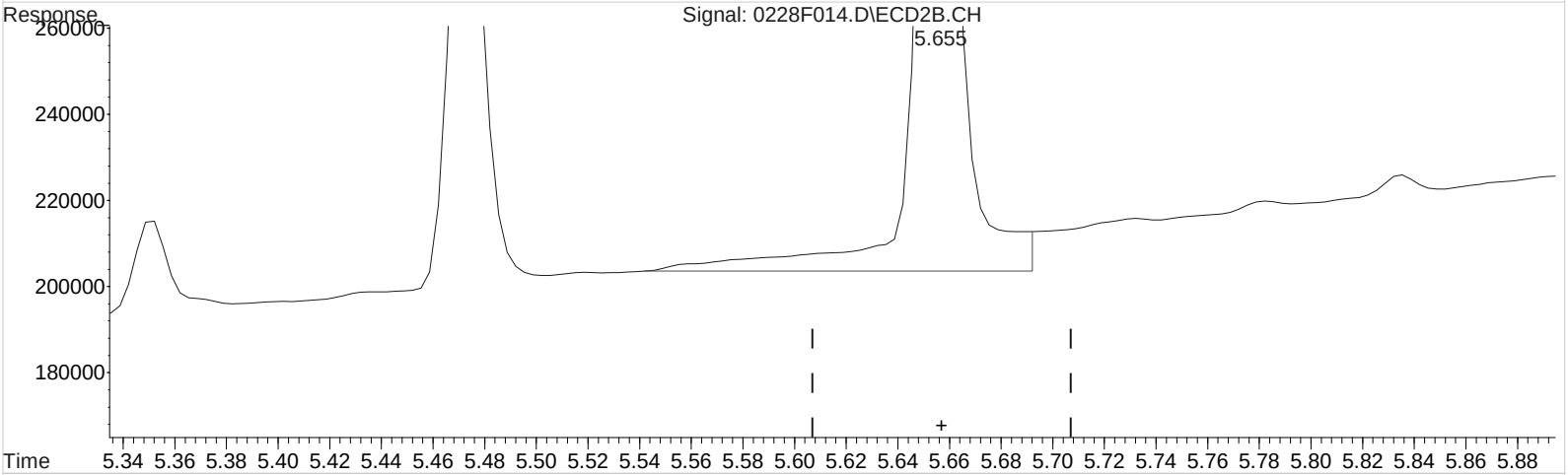
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.155min 2.528 ug/L

response 1532111

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.655min 3.364 ug/L

response 2196034

(+) = Expected Retention Time

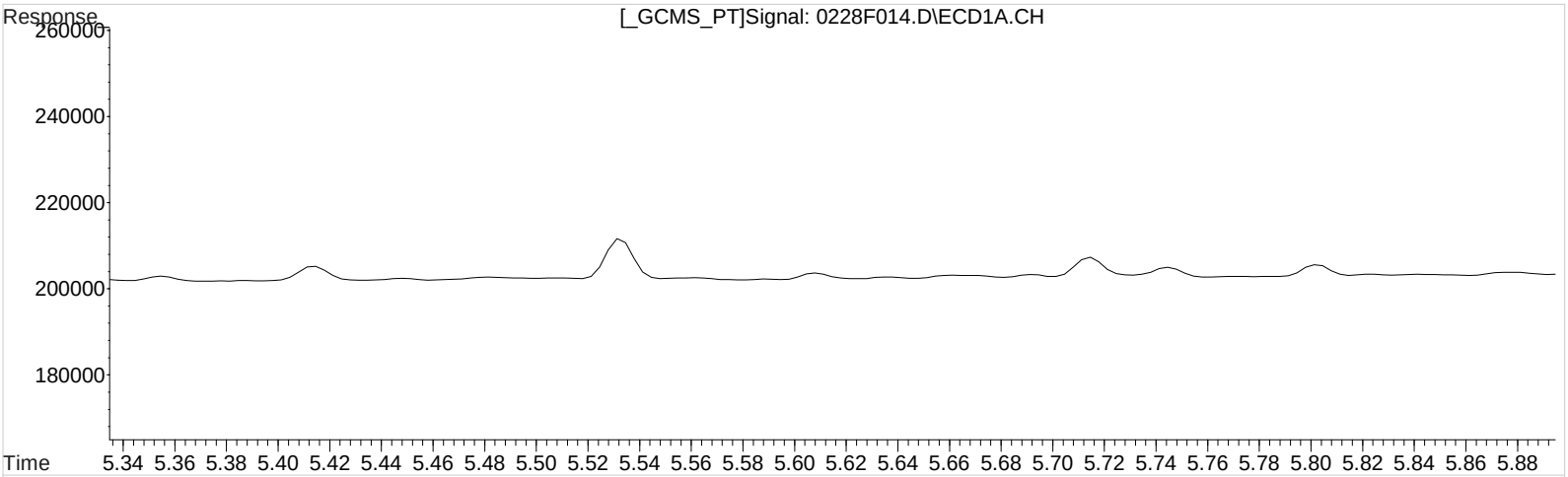
Quantitation Report (Qedit)

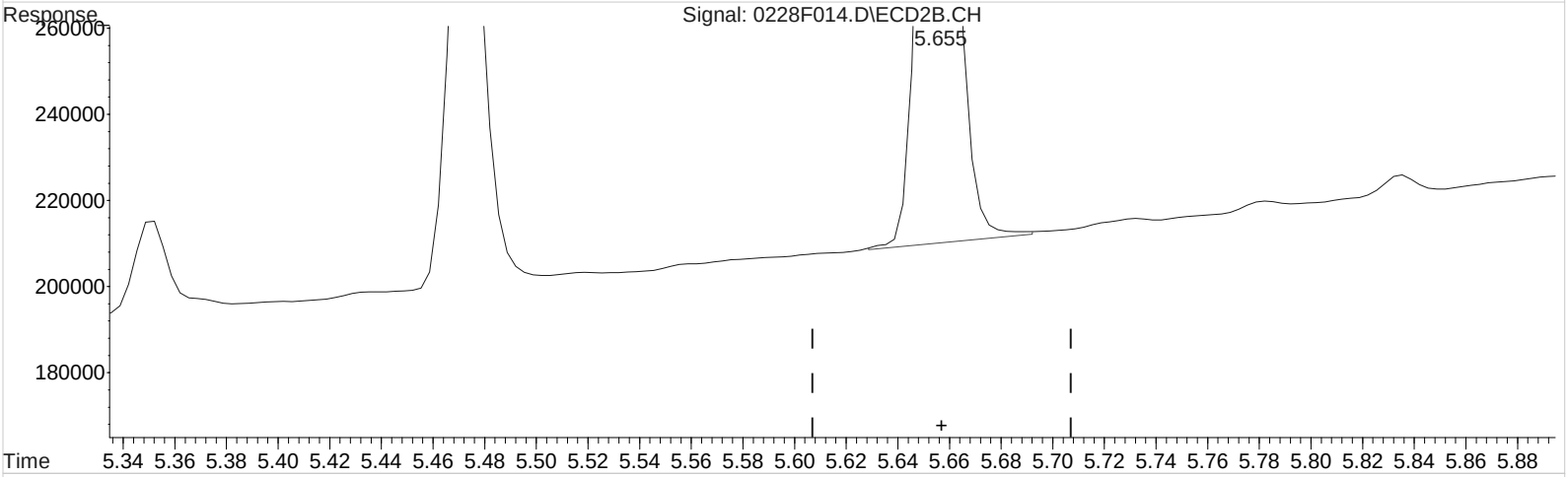
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.155min 2.528 ug/L

response 1532111

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.655min 2.730 ug/L m

response 1782521

(+) = Expected Retention Time

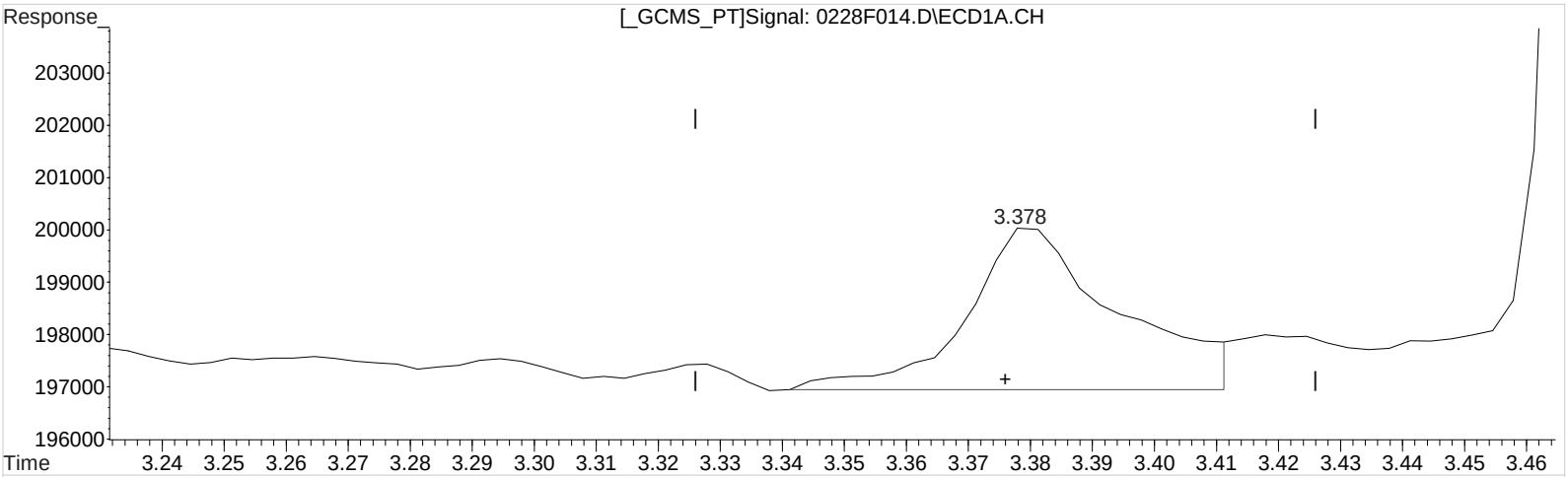
Quantitation Report (Qedit)

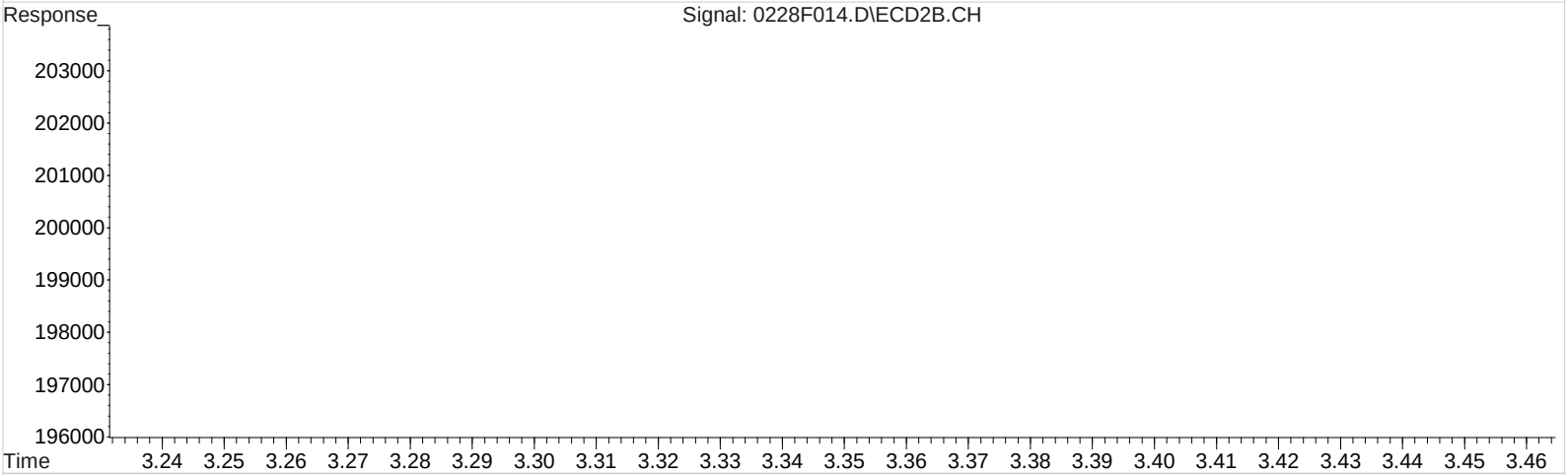
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 4.540 ug/L

response 53339

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 2.693 ug/L

response 44372

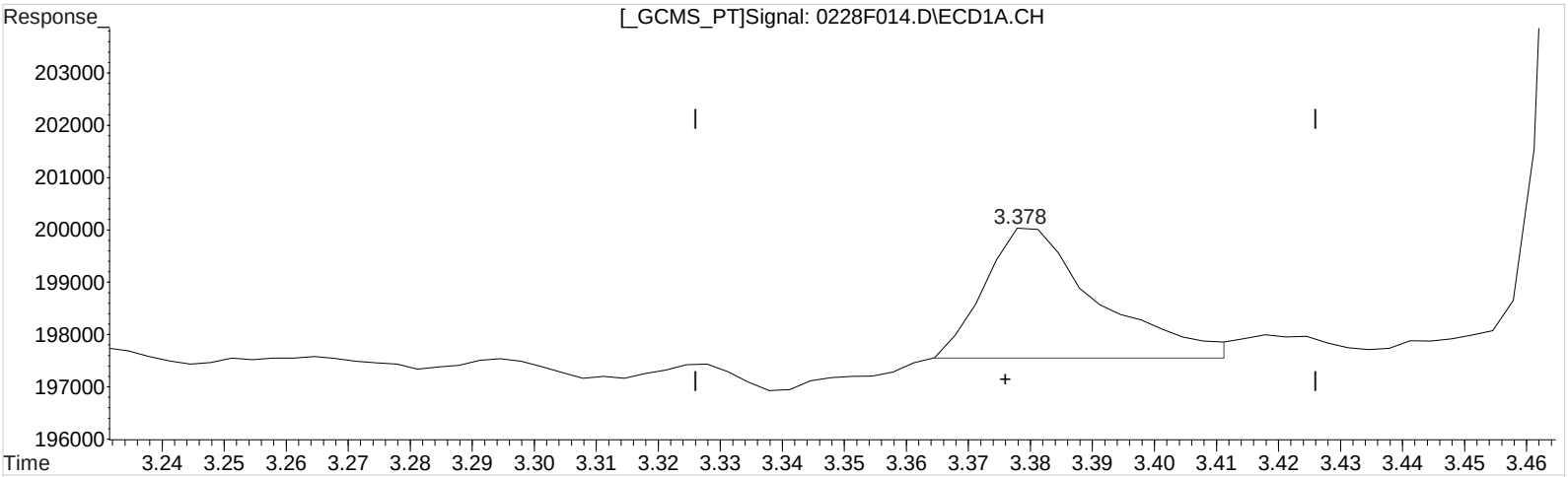
(+) = Expected Retention Time

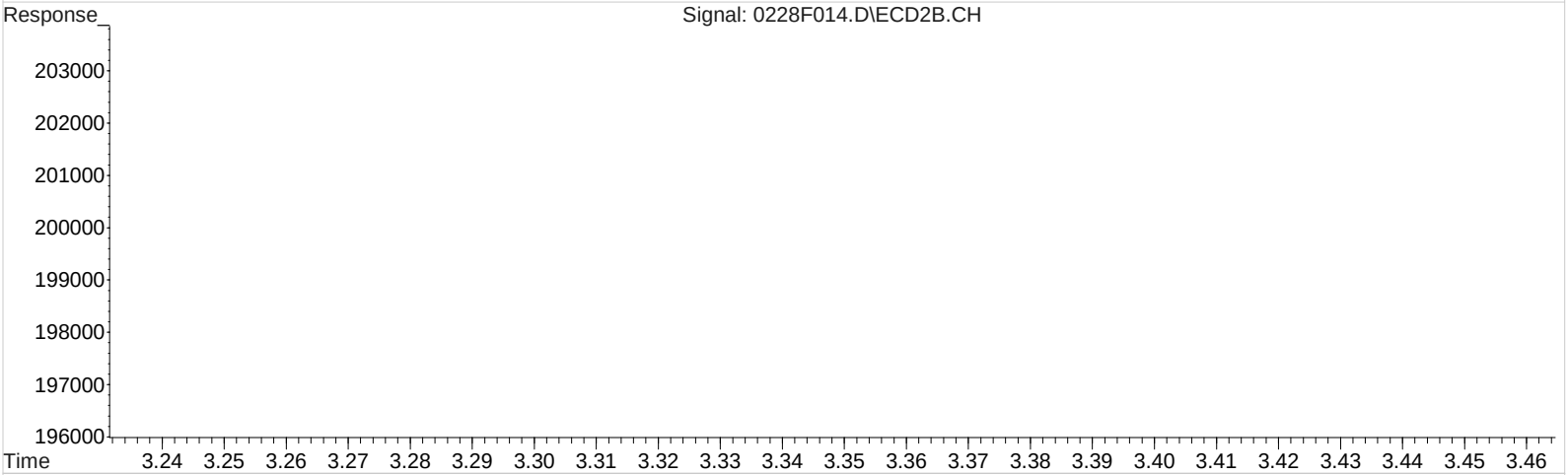
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 2.469 ug/L m

response 31638

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 2.693 ug/L

response 44372

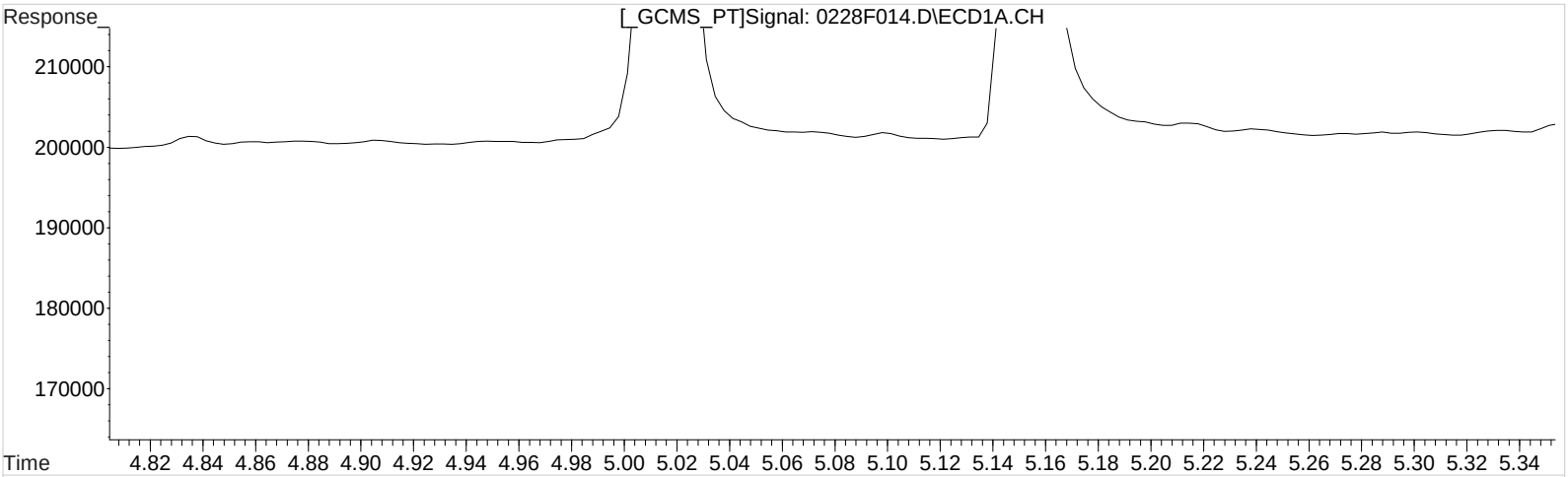
(+) = Expected Retention Time

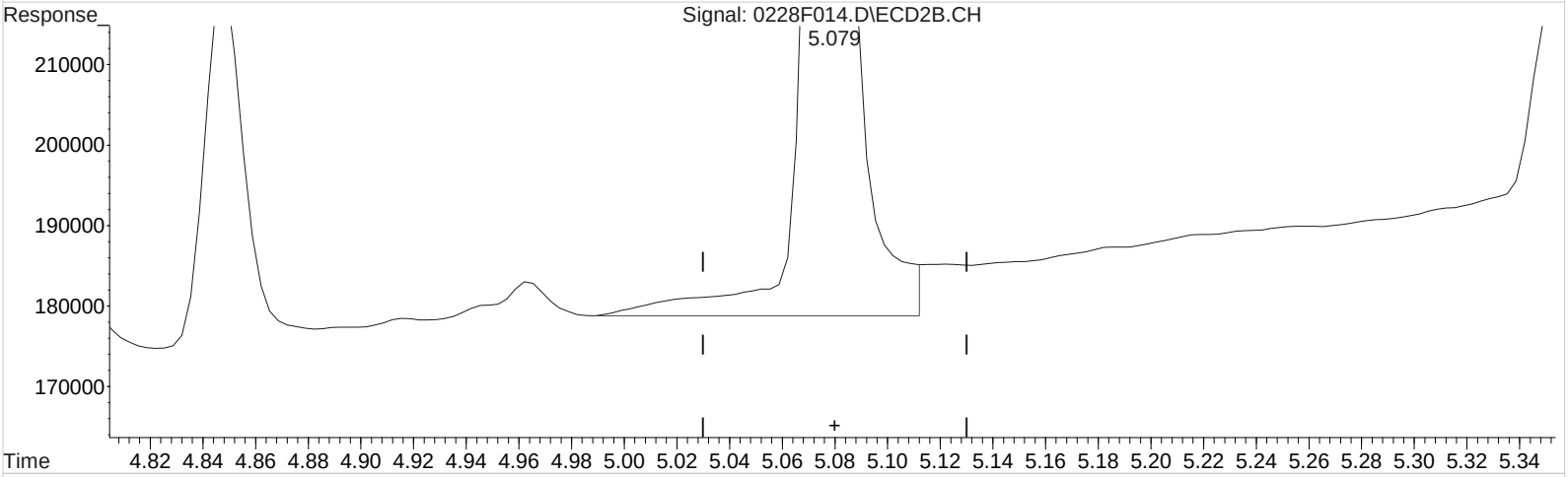
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 2.848 ug/L

response 1355696

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.079min 2.775 ug/L

response 1712944

(+) = Expected Retention Time

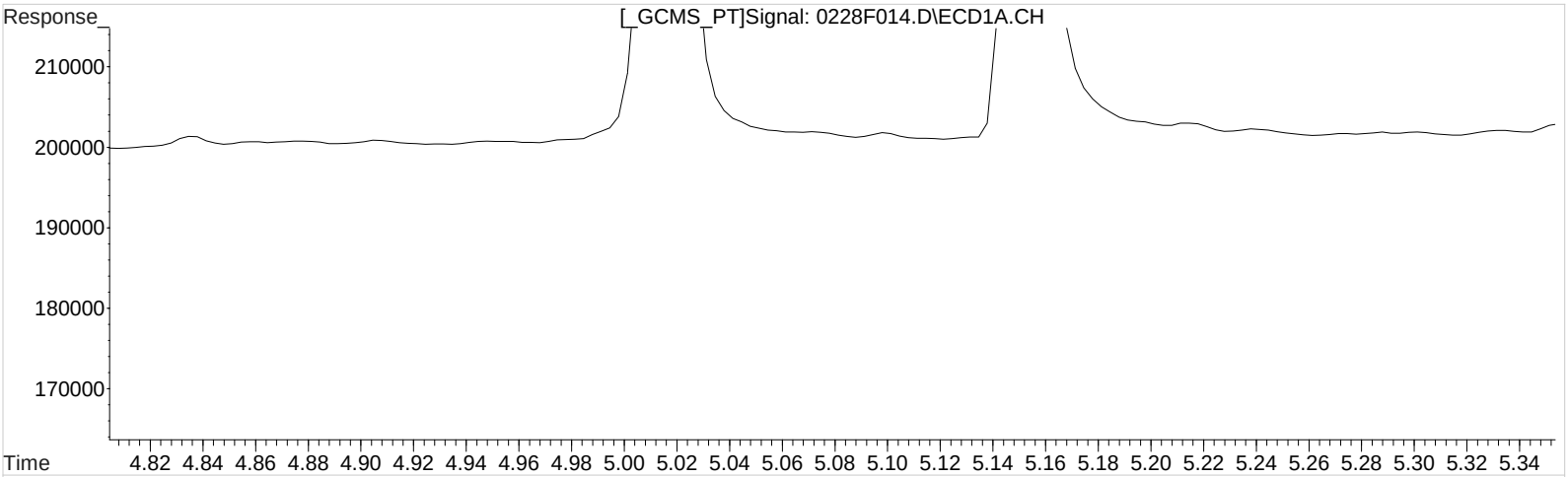
Quantitation Report (Qedit)

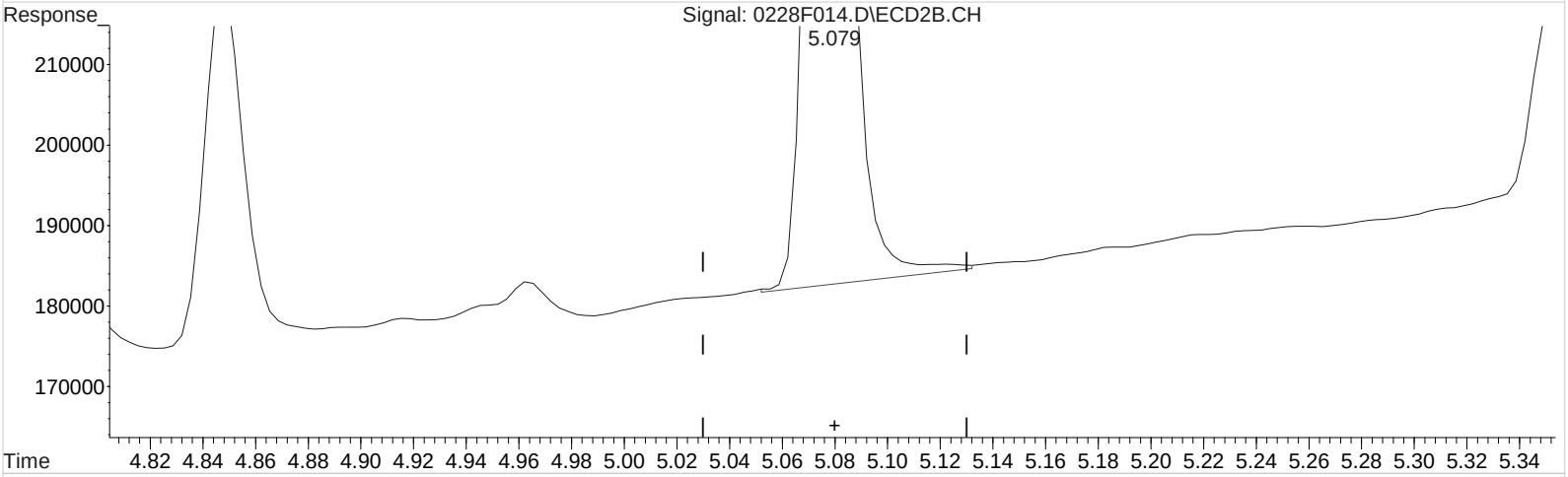
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 2.848 ug/L

response 1355696

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.079min 2.436 ug/L m

response 1503718

(+) = Expected Retention Time

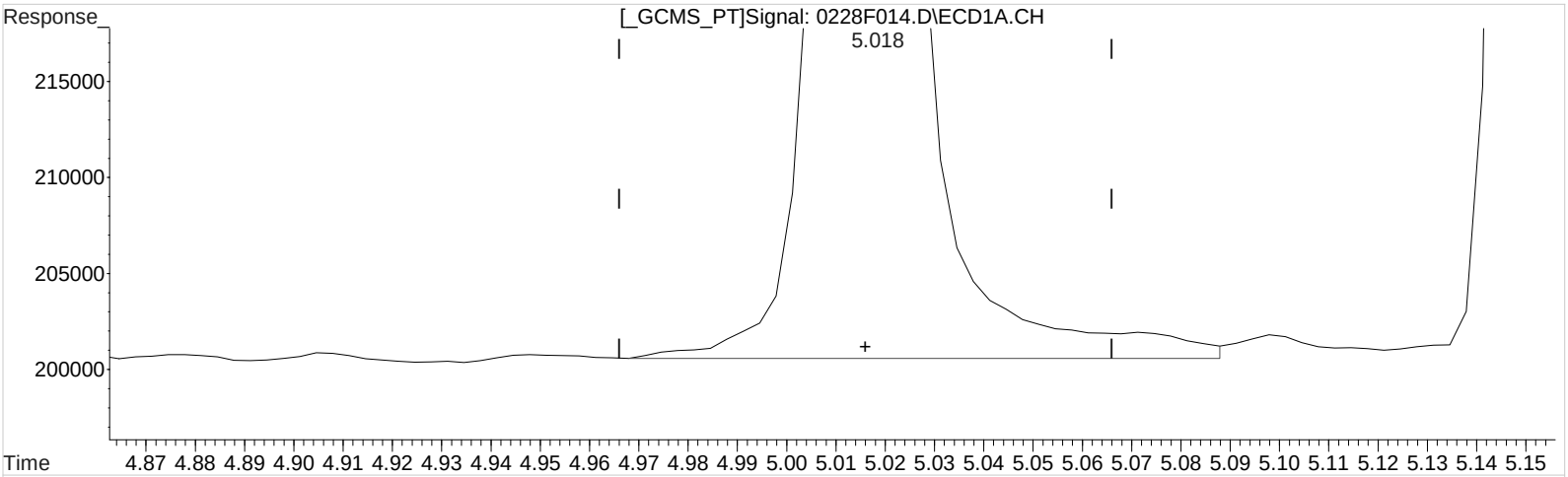
Quantitation Report (Qedit)

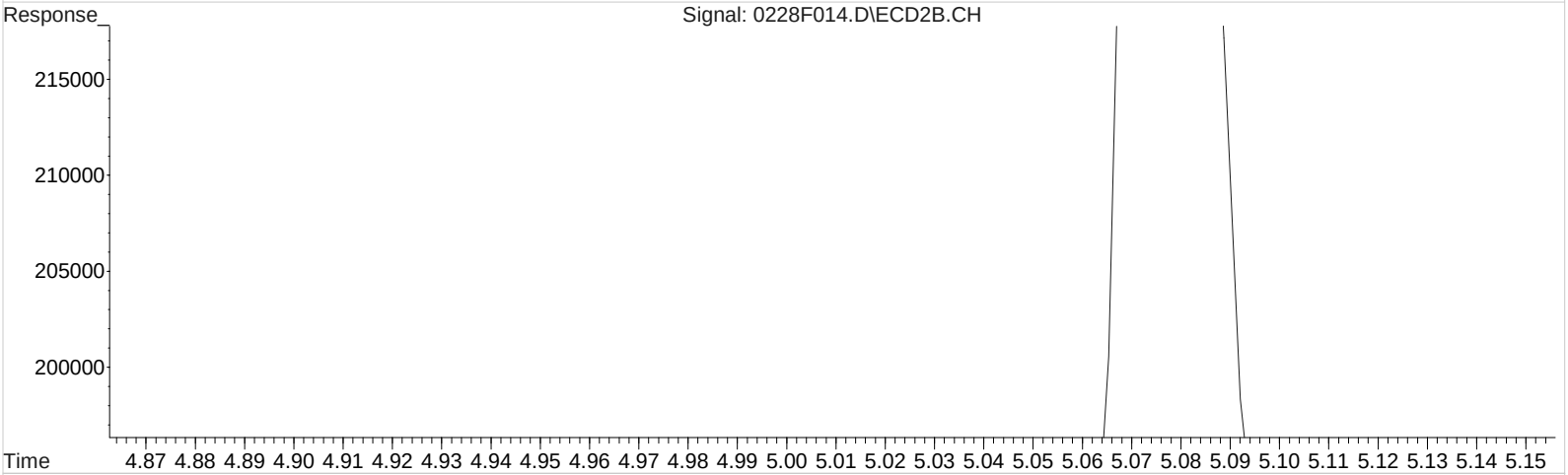
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.018min 2.609 ug/L

response 1164930

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.472min 2.701 ug/L

response 1115328

(+) = Expected Retention Time

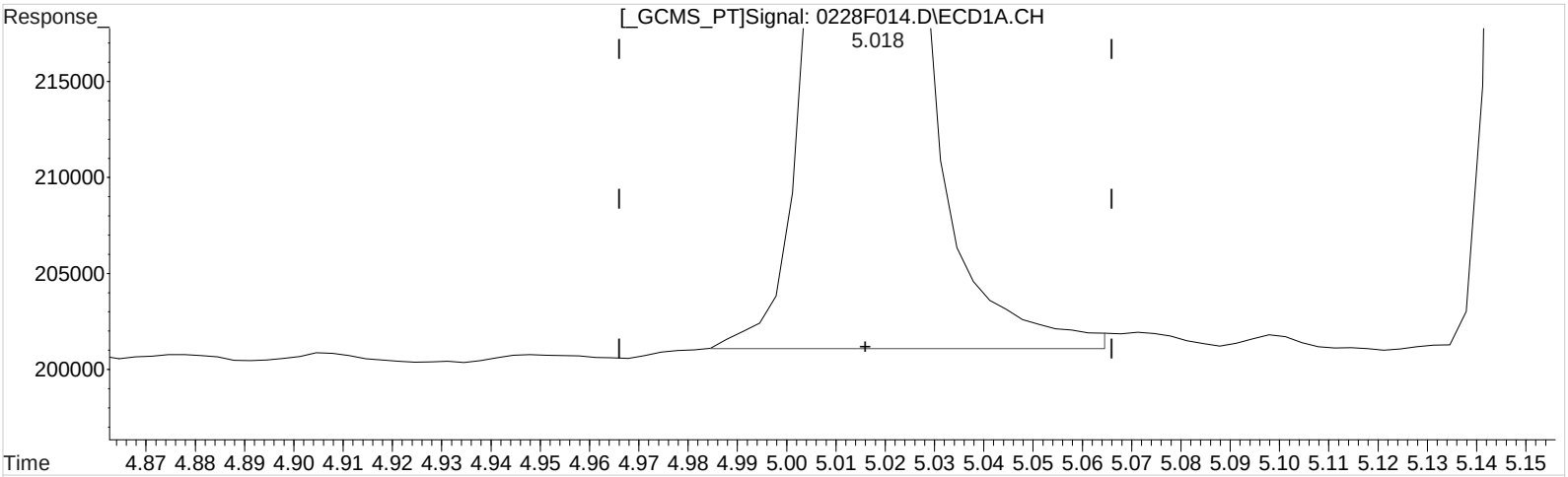
Quantitation Report (Qedit)

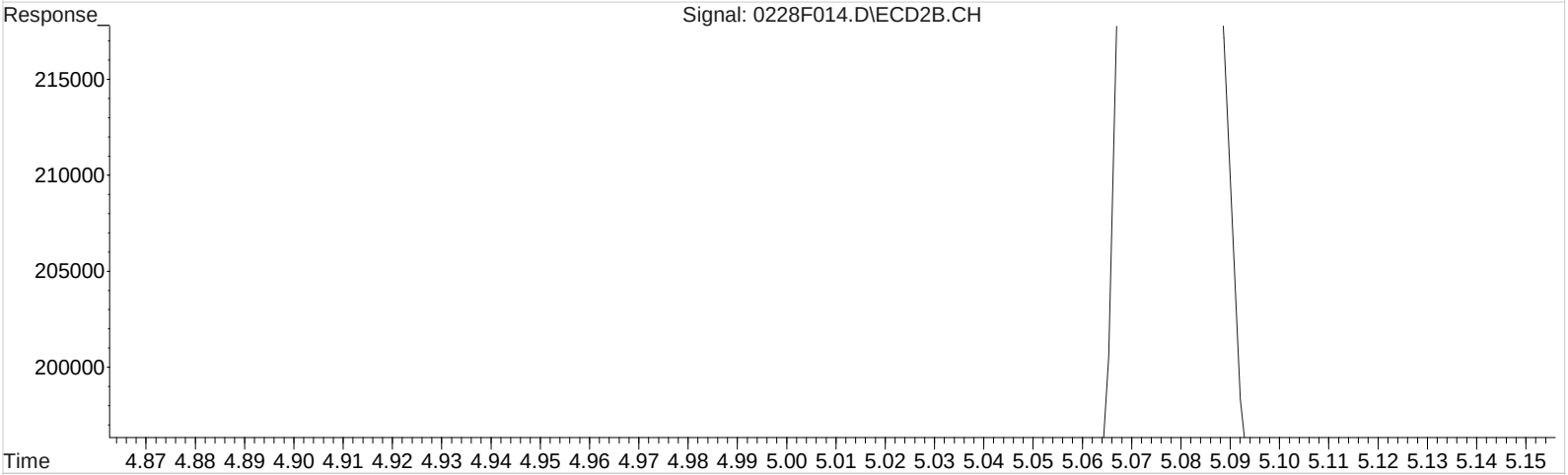
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.018min 2.467 ug/L m

response 1121382

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.472min 2.701 ug/L

response 1115328

(+) = Expected Retention Time

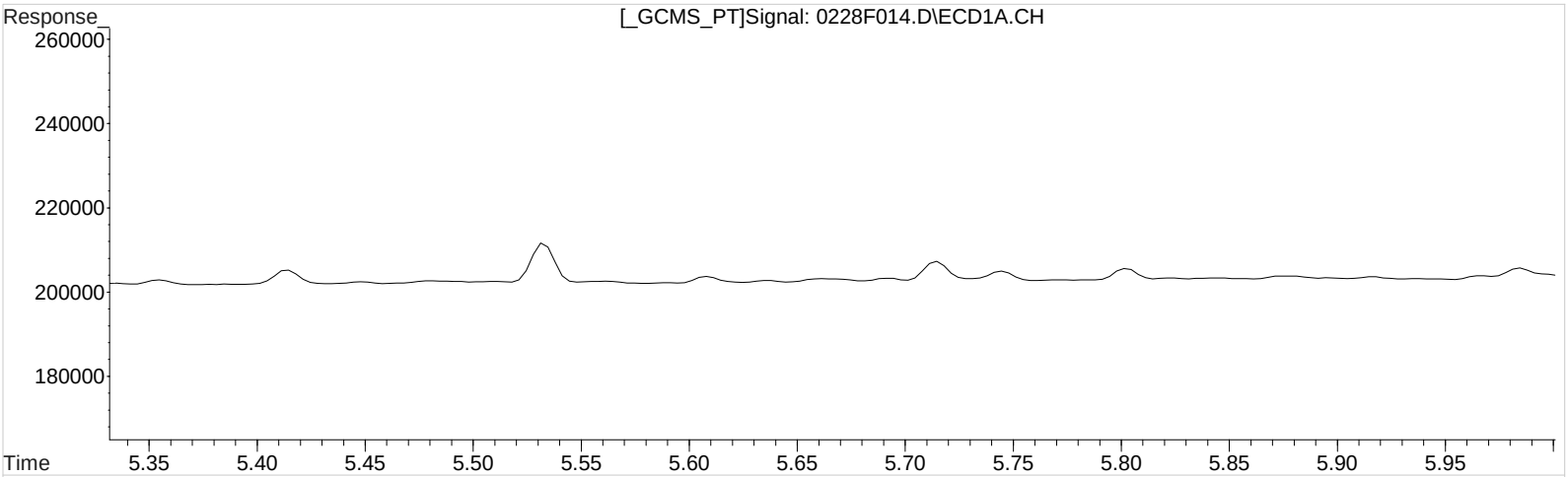
Quantitation Report (Qedit)

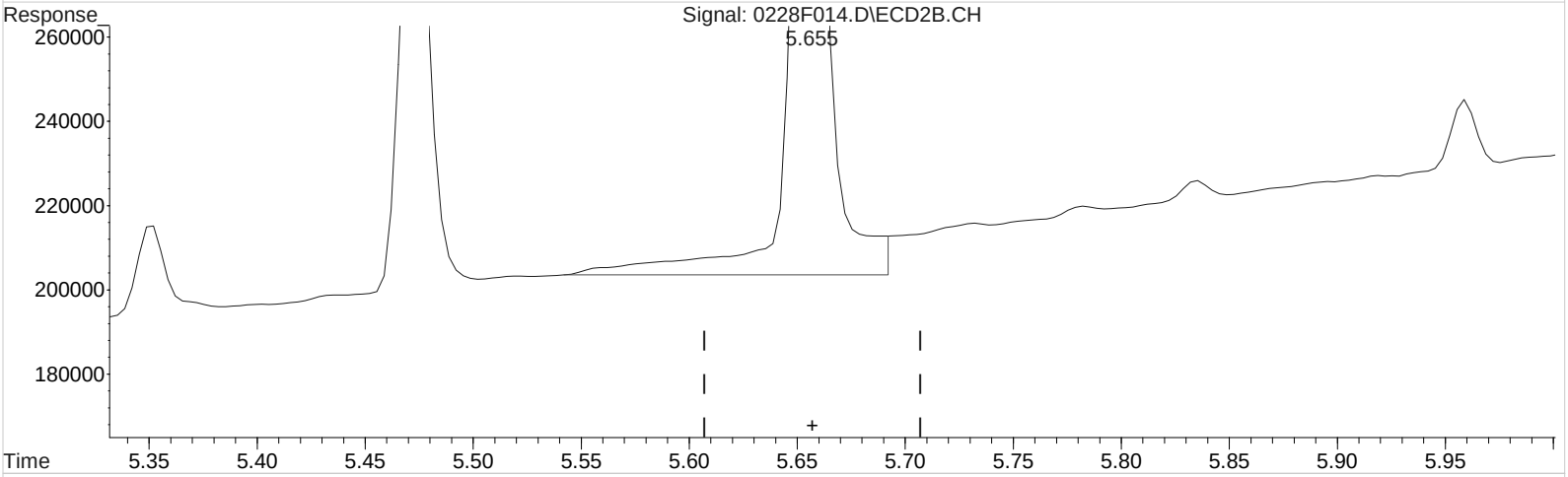
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.155min 2.401 ug/L

response 1532111

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.655min 3.194 ug/L

response 2196034

(+) = Expected Retention Time

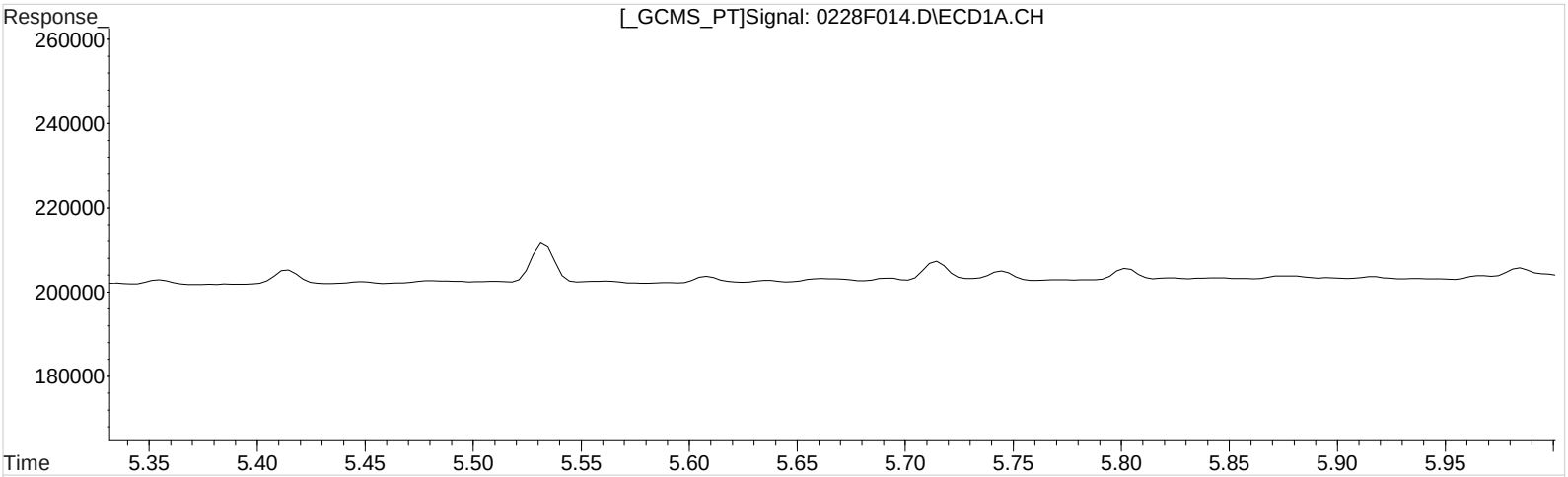
Quantitation Report (Qedit)

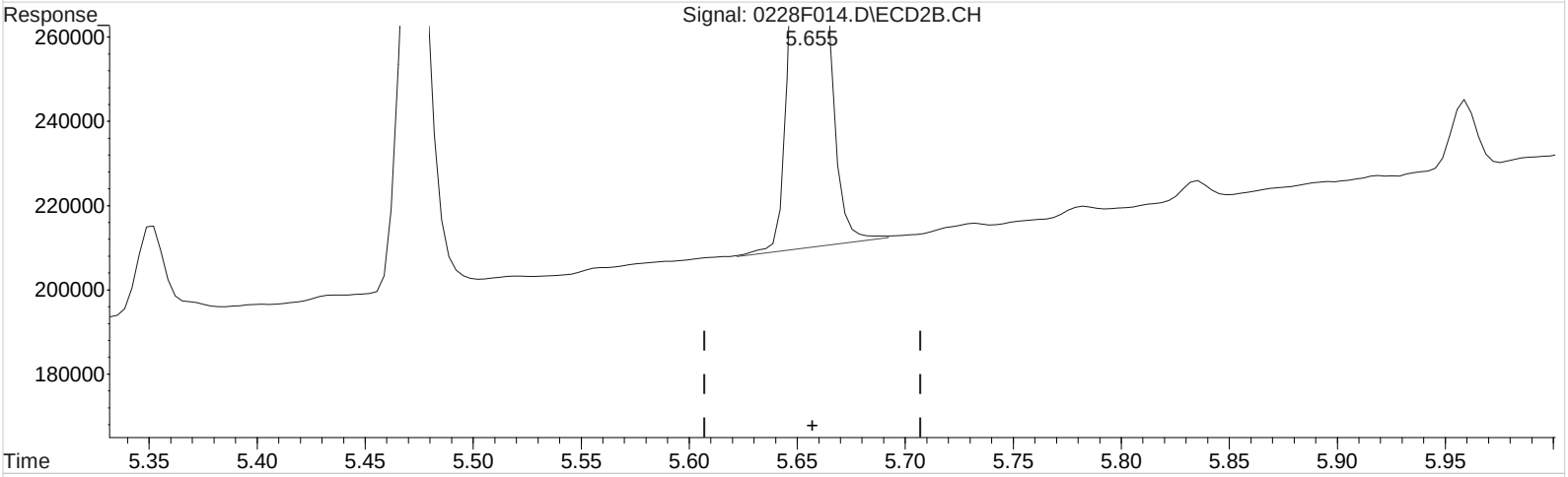
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.155min 2.401 ug/L

response 1532111

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.655min 2.598 ug/L m

response 1786099

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 12:00 pm Operator: MC
Sample : PENTA01-95D ICV Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:59:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	3.139	3.833	771944	1008155	50.405	46.475
2)		3,5-Dichl...	3.379	4.090	576261	745111	54.814	48.925
3)		2,4,6-Tri...	3.479	4.290	14461186	19074371	47.208	46.729
5)		2,4,5-Tri...	4.202	4.783	6741744	8923551	49.950	50.676
6)		3,4,5-Tri...	4.232	4.846	7001162	8168830	49.502	48.393
7)	M	2,3,5,6-T...	4.479	5.076	21719554	28913168	50.742	47.890
8)	M	2,3,4,5-T...	5.019	5.473	15112649	19440727	50.125	46.743
9)	M	Pentachlo...	5.152	5.656	25413518	33232162	55.308	48.834
10)		Pentachlo...	5.152	5.656	25413518	33232162	58.215	51.424

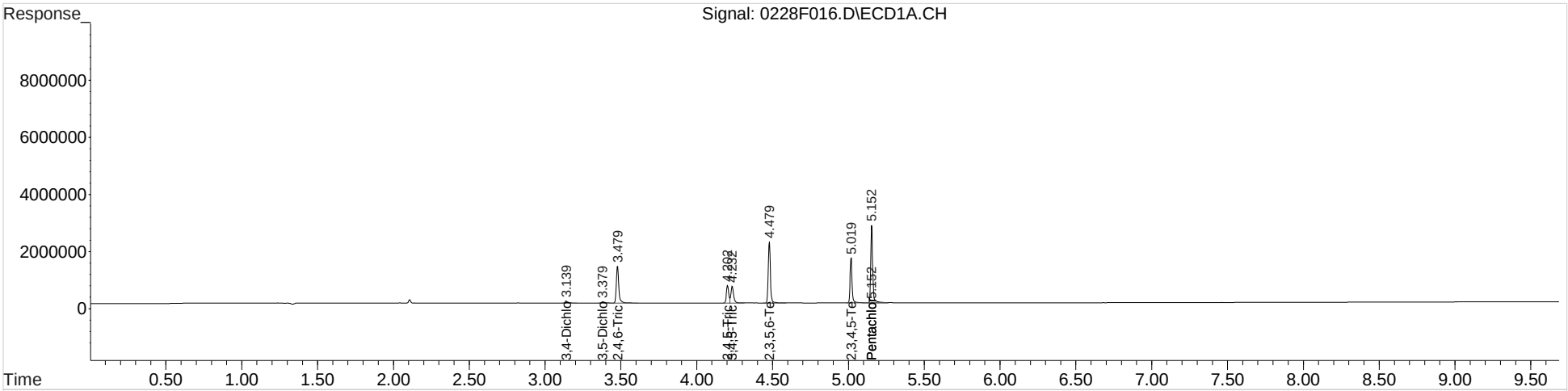
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 12:00 pm Operator: MC
Sample : PENTA01-95D ICV Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:59:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Sequence Name: C:\GC28\SEQUENCE\040119.S
Comment: Pentachlorophenol and Breakdown Products
Operator: SMS
Data Path: J:\GC28\DATA\040119\
Pre-Seq Cmd:
Post-Seq Cmd:

Run 630241
KC 900082 4/5

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0401F001	PENTHOT2	PRIMER
2	IB	100	0401F002	PENTHOT2	PRIMER
3	CCV	1	0401F003	PENTHOT2	CCV 50PPB PENTA01-94L
4	IB	2	0401F004	PENTHOT2	IB
5	SMPL	3	0401F005	PENTHOT2	K1902351-032
6	SMPL	4	0401F006	PENTHOT2	K1902351-032MS
7	MB	5	0401F007	PENTHOT2	K1902351-032DMS
8	MB	6	0401F008	PENTHOT2	KWG1903939-3LCS
9	MB	7	0401F009	PENTHOT2	KWG1903939-4MB
10	MB	8	0401F010	PENTHOT2	K1902601-001
11	MB	9	0401F011	PENTHOT2	K1902601-001MS
12	MB	10	0401F012	PENTHOT2	K1902601-001DMS
13	MB	11	0401F013	PENTHOT2	KWG1904010-3LCS
14	MB	12	0401F014	PENTHOT2	KWG1904010-4MB
15	CCV	1	0401F015	PENTHOT2	CCV 50PPB PENTA01-94L
16	IB	2	0401F016	PENTHOT2	IB
17					

Last Modified: Mon Apr 01 09:31:37 2019 Page: 1

Sequence Name: C:\GC28\SEQUENCE\032119B.S
Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\032119B\
Pre-Seq Cmd:
Post-Seq Cmd:

Run 629161

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0321F001	PENTHOT2	PRIMER
2	IB	100	0321F002	PENTHOT2	PRIMER
3	CCV	1	0321F003	PENTHOT2	CCV 50PPB PENTA01-94L ok
4	IB	2	0321F004	PENTHOT2	IB
5	MB	3	0321F005	PENTHOT2	KQ1903604-04 MB
6	LCS	4	0321F006	PENTHOT2	KQ1903604-03 LCS
7	SMPL	5	0321F007	PENTHOT2	K1902351-021
8	SMPL	6	0321F008	PENTHOT2	K1902351-022
9	SMPL	7	0321F009	PENTHOT2	K1902351-023
10	SMPL	8	0321F010	PENTHOT2	K1902351-024
11	SMPL	9	0321F011	PENTHOT2	K1902351-025
12	SMPL	10	0321F012	PENTHOT2	K1902351-026
13	SMPL	11	0321F013	PENTHOT2	K1902351-027
14	SMPL	12	0321F014	PENTHOT2	K1902351-028
15	SMPL	13	0321F015	PENTHOT2	K1902351-029
16	SMPL	14	0321F016	PENTHOT2	K1902351-030
17	CCV	1	0321F017	PENTHOT2	CCV 50PPB PENTA01-94L ok
18	IB	2	0321F018	PENTHOT2	IB
19	SMPL	15	0321F019	PENTHOT2	K1902359-004 - see also 5x PCP
20	SMPL	16	0321F020	PENTHOT2	K1902361-001
21	SMPL	17	0321F021	PENTHOT2	K1902361-002
22	MS	18	0321F022	PENTHOT2	K1902361-002 MS
23	DMS	19	0321F023	PENTHOT2	K1902361-002 DMS
24	CCV	1	0321F024	PENTHOT2	CCV 50PPB PENTA01-94L ok
25	IB	2	0321F025	PENTHOT2	IB
26					

Last Modified: Thu Mar 21 16:18:39 2019

Page: 1

Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\032219B\
Pre-Seq Cmd:
Post-Seq Cmd:

cal: KC1900082

Run# 629256

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0322F001	PENTHOT2	PRIMER
2	IB	100	0322F002	PENTHOT2	PRIMER
3	CCV	1	0322F003	PENTHOT2	CCV 50PPB PENTA01-94L
4	IB	2	0322F004	PENTHOT2	IB
5	MB	3	0322F005	PENTHOT2	KQ1903557-04 MB
6	LCS	4	0322F006	PENTHOT2	KQ1903557-03 LCS
7	SMPL	5	0322F007	PENTHOT2	K1902351-001
8	SMPL	6	0322F008	PENTHOT2	K1902351-002
9	SMPL	7	0322F009	PENTHOT2	K1902351-003
10	SMPL	8	0322F010	PENTHOT2	K1902351-004
11	SMPL	9	0322F011	PENTHOT2	K1902351-005
12	SMPL	10	0322F012	PENTHOT2	K1902351-006
13	SMPL	11	0322F013	PENTHOT2	K1902351-007
14	SMPL	12	0322F014	PENTHOT2	K1902351-008
15	SMPL	13	0322F015	PENTHOT2	K1902351-009 - also SX
16	SMPL	14	0322F016	PENTHOT2	K1902351-010
17	CCV	1	0322F017	PENTHOT2	CCV 50PPB PENTA01-94L
18	IB	2	0322F018	PENTHOT2	IB
19	SMPL	15	0322F019	PENTHOT2	K1902351-011
20	SMPL	16	0322F020	PENTHOT2	K1902351-012
21	SMPL	17	0322F021	PENTHOT2	K1902351-013
22	SMPL	18	0322F022	PENTHOT2	K1902351-014
23	SMPL	19	0322F023	PENTHOT2	K1902351-015
24	SMPL	20	0322F024	PENTHOT2	K1902351-016
25	SMPL	21	0322F025	PENTHOT2	K1902351-017 - also SX
26	SMPL	22	0322F026	PENTHOT2	K1902351-018
27	SMPL	23	0322F027	PENTHOT2	K1902351-019
28	SMPL	24	0322F028	PENTHOT2	K1902351-020
29	CCV	1	0322F029	PENTHOT2	CCV 50PPB PENTA01-94L
30	IB	2	0322F030	PENTHOT2	IB
31	MS	25	0322F031	PENTHOT2	K1902351-020 MS
32	DMS	26	0322F032	PENTHOT2	K1902351-020 DMS
33	CCV	1	0322F033	PENTHOT2	CCV 50PPB PENTA01-94L
34	IB	2	0322F034	PENTHOT2	IB
35					

Last Modified: Fri Mar 22 15:39:40 2019

Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\032519\
Pre-Seq Cmd:
Post-Seq Cmd:

cal: KC1900082

Run# 629403

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0325F001	PENTHOT2	PRIMER
2	IB	100	0325F002	PENTHOT2	PRIMER
3	CCV	1	0325F003	PENTHOT2	CCV 50PPB PENTA01-94L
4	IB	2	0325F004	PENTHOT2	IB
5	SMPL	3	0325F005	PENTHOT2	K1902351-009 @5X
6	SMPL	4	0325F006	PENTHOT2	K1902351-017 @5X
7	MB	5	0325F007	PENTHOT2	KQ1903678-04 MB
8	SMPL	6	0325F008	PENTHOT2	KQ1903678-03 LCS
9	SMPL	7	0325F009	PENTHOT2	K1902418-001
10	SMPL	8	0325F010	PENTHOT2	K1902418-002
11	SMPL	9	0325F011	PENTHOT2	K1902418-003
12	SMPL	10	0325F012	PENTHOT2	K1902418-004
13	SMPL	11	0325F013	PENTHOT2	K1902418-005
14	SMPL	12	0325F014	PENTHOT2	K1902418-006
15	CCV	1	0325F015	PENTHOT2	CCV 50PPB PENTA01-94L
16	IB	2	0325F016	PENTHOT2	IB
17	SMPL	13	0325F017	PENTHOT2	K1902418-007 @5X
18	MS	14	0325F018	PENTHOT2	K1902418-007 MS @5X
19	DMS	15	0325F019	PENTHOT2	K1902418-007 DMS @5X
20	CCV	1	0325F020	PENTHOT2	CCV 50PPB PENTA01-94L
21	IB	2	0325F021	PENTHOT2	IB
22					

RK STRAIGHT

NR

Last Modified: Mon Mar 25 12:46:00 2019 Page: 1

Sequence Name: C:\GC28\SEQUENCE\032219.S
Comment: Pentachlorophenol and Breakdown Products
Operator: SMS
Data Path: J:\GC28\DATA\032219\
Pre-Seq Cmd:
Post-Seq Cmd:

Run 629174

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0322F001	PENTHOT2	PRIMER
2	IB	100	0322F002	PENTHOT2	PRIMER
3	CCV	1	0322F003	PENTHOT2	CCV 50PPB PENTA01-94L
4	IB	2	0322F004	PENTHOT2	IB
5	MB	3	0322F005	PENTHOT2	K1902359-004 5X
6	CCV	1	0322F006	PENTHOT2	CCV 50PPB PENTA01-94L
7	IB	2	0322F007	PENTHOT2	IB

Last Modified: Fri Mar 22 08:35:55 2019

DILUTION LOG

LAB ID	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	DATE	ANALYST	SOLVENT LOT	COMMENTS
2359-4	200ul	1ml	5x	032219	[illegible]S	180	PCP over range

Polynuclear Aromatic Hydrocarbons

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Preparation Information Benchsheet

ID: 4/5

Prep Run#: 333285
Team: Semivoa GCMS/JDUNFIELD
Number of Copies to make: 2

Prep WorkFlow: OrgExtSimAq(7)
Prep Method: EPA 3511

Status: Prepped
Prep Date/Time: 3/20/19 12:39 PM

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1902351-002	MW-15	.02	8270D/PAH SIM	6	Water	450mL	2.00mL	
2	K1902351-003	MW-16	.02	8270D/PAH SIM	6	Water	450mL	2.00mL	
3	K1902351-004	MW-17	.02	8270D/PAH SIM	6	Water	450mL	2.00mL	
4	K1902351-014	MW-30	.02	8270D/PAH SIM	6	Water	450mL	4.00mL	
5	K1902351-019	MW-35	.02	8270D/PAH SIM	6	Water	450mL	4.00mL	
6	K1902351-020	MW-36	.02	8270D/PAH SIM	6	Water	450mL	4.00mL	
7	K1902351-021	MW-37	.02	8270D/PAH SIM	7	Water	450mL	2.00mL	
8	K1902351-027	MW-44	.02	8270D/PAH SIM	6	Water	450mL	2.00mL	
9	K1902351-028	FIELD BLANK RINSATE	.02	8270D/PAH SIM	6	Water	450mL	2.00mL	
10	K1902351-029	MW-3	.02	8270D/PAH SIM	7	Water	450mL	2.00mL	
11	K1902351-030	MW-2	.02	8270D/PAH SIM	7	Water	450mL	2.00mL	
12	K1902361-001	BXS-1	.03	8270D/PAH SIM	7	Water	450mL	2.00mL	
13	K1902361-002	BXS-2	.03	8270D/PAH SIM	7	Water	450mL	2.00mL	
14	KQ1903571-01	LCS	–	8270D/PAH SIM	5	Liquid	450mL	2.00mL	
15	KQ1903571-02	DLCS	–	8270D/PAH SIM	5	Liquid	450mL	2.00mL	
16	KQ1903571-03	MB	–	8270D/PAH SIM	5	Liquid	450mL	2.00mL	

Spiking Solutions

Name: 8270 ALL PURPOSE SURROGATE Inventory ID 189727 Logbook Ref: SVM60-15D Expires On: 06/21/2019

K1902351-002	20.00µL	K1902351-003	20.00µL	K1902351-004	20.00µL	K1902351-014	20.00µL	K1902351-019	20.00µL	K1902351-020	20.00µL
K1902351-021	20.00µL	K1902351-027	20.00µL	K1902351-028	20.00µL	K1902351-029	20.00µL	K1902351-030	20.00µL	K1902361-001	20.00µL
K1902361-002	20.00µL	KQ1903571-01	20.00µL	KQ1903571-02	20.00µL	KQ1903571-03	20.00µL				

Name: SIM PAH Matrix Spike Inventory ID 196650 Logbook Ref: SVM60-16M Expires On: 06/21/2019

K1902351-002	50.00µL	KQ1903571-01	50.00µL	KQ1903571-02	50.00µL

IS = SVM60-41D

Preparation Steps

Step:	Extraction	Step:	Final Volume
Started:	3/20/19 12:39	Started:	3/21/19 10:00
Finished:	3/20/19 13:09	Finished:	3/21/19 10:00
By:	JDUNFIELD	By:	JDUNFIELD
Comments		Comments	

Preparation Information Benchsheet

Prep Run#: 333285
Team: Semivoa GCMS/JDUNFIELD

Prep WorkFlow: OrgExtSimAq(7)
Prep Method: EPA 3511

Status: Prepped
Prep Date/Time: 3/20/19 12:39 PM

Comments: _____

Reviewed By: CWilliams Date: 3/25/19

Chain of Custody

Relinquished By: _____ Date: 3.21.19

Received By: _____ Date: 3/26/19

Extracts Examined: (Yes) No

Preparation Information Benchsheet

Prep Run#: 333285 **Prep WorkFlow:** OrgExtSimAq(7) **Status:** Draft
Team: Semivoa GCMS/JDUNFIELD **Prep Method:** EPA 3511 **Prep Date/Time:** 3/20/19 09:14 AM
Number of Copies to make: 2

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. mL	pH	Int. Vol mL	Final Vol mL	Surr Amt mL	Spike Amt mL
1	**K1902351-002**	MW-15	.02		8270D / PAH SIM	Water	450	6	N/A	2	20	—
2	**K1902351-003**	MW-16	.02		8270D / PAH SIM	Water	450	6		2		—
3	**K1902351-004**	MW-17	.02		8270D / PAH SIM	Water	450	6		2		—
4	**K1902351-014**	MW-30	.02		8270D / PAH SIM	Water	450	6		4		—
5	**K1902351-019**	MW-35	.02		8270D / PAH SIM	Water	450	6		4		—
6	**K1902351-020**	MW-36	.02		8270D / PAH SIM	Water	450	6		4		—
7	**K1902351-021**	MW-37	.02		8270D / PAH SIM	Water	450	7		2		—
8	**K1902351-027**	MW-44	.02		8270D / PAH SIM	Water	450	6		2		—
9	**K1902351-028**	FIELD BLANK RINSATE	.02		8270D / PAH SIM	Water	450	6		2		—
10	**K1902351-029**	MW-3	.02		8270D / PAH SIM	Water	450	7		2		—
11	**K1902351-030**	MW-2	.02		8270D / PAH SIM	Water	450	7		2		—
12	**K1902361-001**	BXS-1	.03		8270D / PAH SIM	Water	450	7		2		—
13	**K1902361-002**	BXS-2	.03		8270D / PAH SIM	Water	450	7		2		—
14	**KQ1903571-01**	LCS			8270D / PAH SIM	Liquid	450	5		2		50
15	**KQ1903571-02**	DLCS			8270D / PAH SIM	Liquid	450	5		2		1
16	**KQ1903571-03**	MB			8270D / PAH SIM	Liquid	450	5		2		—

Comments: K1902351-2 some sample loss during shaker table sequence, ~~Estimated~~ 2 mL loss. JD 3/20/19
extract from sample 2351-19 was turned to a dark yellow color TF 3.20.19 Insufficient sample volume for MS/DMS. JD 3/25/19

Surrogate ID: 189,727-SVM60-15D 189,727-SVM60-15D 189,727-SVM60-15D 189,727-SVM60-15D 189
200/150 ppm x2 6/21/19 20 mL syringe

Spike ID: 189,727-SVM60-15D 196,650-SVM60-16M 189,727-SVM60-15D 196,650-SVM60-16M
25 ppm x2 6/21/19 50 mL syringe

Witnessed By: BWillard 3/20/19

Analyst: [signature] 3/20/19

Assisted By: BWillard

Pest/PCB/PAH by 3511

Service Request # K1902351; K1902361 **Work Group # Pest:** —
PCB: —
PAH: KQ1903571

Solvent Lot # 195734

Extraction Start (time/date/initial): 12:39 3/20/19 JD

Extraction Stop (time/date/initial): 13:09 3/20/19 JD

NaCL Lot# 0000197939

Sulfate Lot # 2016105773

Carbon Clean-up (Ext-Car)(time/date/initial): — Carbon Lot # —

1:1 DCM/Hexane Lot # —

Sulfuric Acid Clean-up (3665) (time/date/initial): — Acid Lot # —

Other Clean-up (type/time/date/initial) —

Lot# —

Pipette (5 mL) Lot # — Pipette (2 mL) Lot # 1641874

Pipette (1mL) 20717645

Pest Vial: — Vial Storage: —

PCB Vial: — Vial Storage: —

PAH Vial: Green Vial Storage: K-Tundra

Archived Extract Storage: none

Additional Comments: _____

Bench Sheet Review Check List
☑ Hold times met; if no, reason: _____
☑ Prep date, time, method, department, product code correct
☑ Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☑ Weights/Volumes and units correct on raw and final bench sheets
☑ Sample IDs have been checked - bottle numbers appended if required
☑ Names present for: started by, completed by, relinquished by, and witnessed by
☑ Extract storage recorded
☑ Additional prep sheet completely filled out (NA or line out blanks)
☑ All clean-ups have been noted on additional prep sheet

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F026.D\
Lab ID: K1902351-002
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 19:02:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 3/25/19 8:54
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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F026.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 19:02:00	**Vial:**	9
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-002	**Raw Units:**	ng/mL

Bottle ID:	K1902351-002.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	K1902351
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		33413	200.00	NA
Chrysene-d12	10.17		64614	200.00	NA
Naphthalene-d8	4.79		69193	200.00	NA
Perylene-d12	13.39	-0.02	70770	200.00	NA
Phenanthrene-d10	7.60		64570	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		422938	1118.78	112	42 - 133	Y
Fluorene-d10	6.79		216784	936.46	94	42 - 131	Y
Terphenyl-d14	8.94		315751	1107.84	111	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		166	0.68	0.0030	J	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.17	+0.01	208	0.45	0.0020	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y
Fluorene	6.82		79	0.26	0.0012	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F026.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 19:02:00	**Vial:**	9
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-002	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.81		347	0.89	0.0040	J	Y
Phenanthrene	7.62		343	0.83	0.0037	J	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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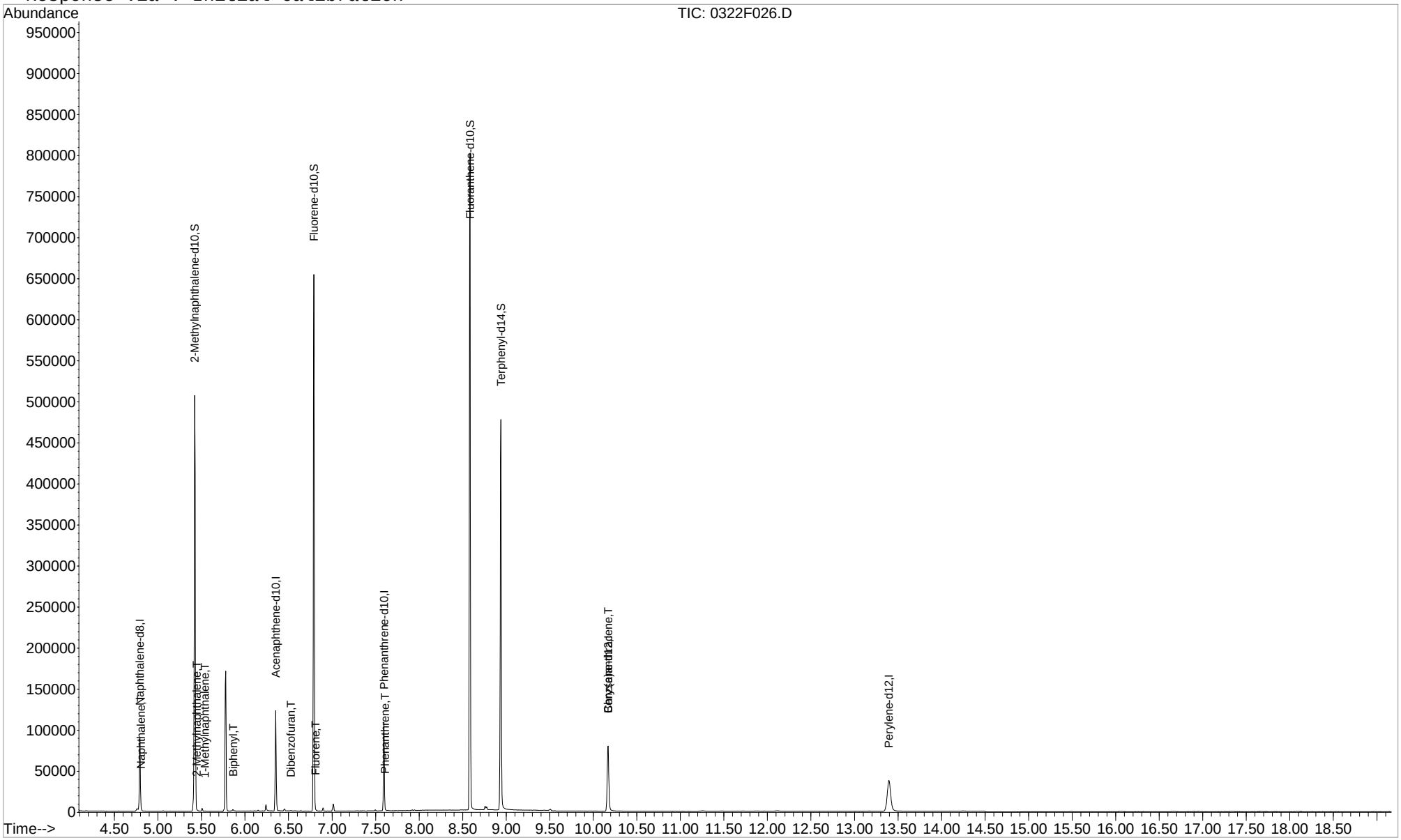
Quantitation Report (QT Reviewed)

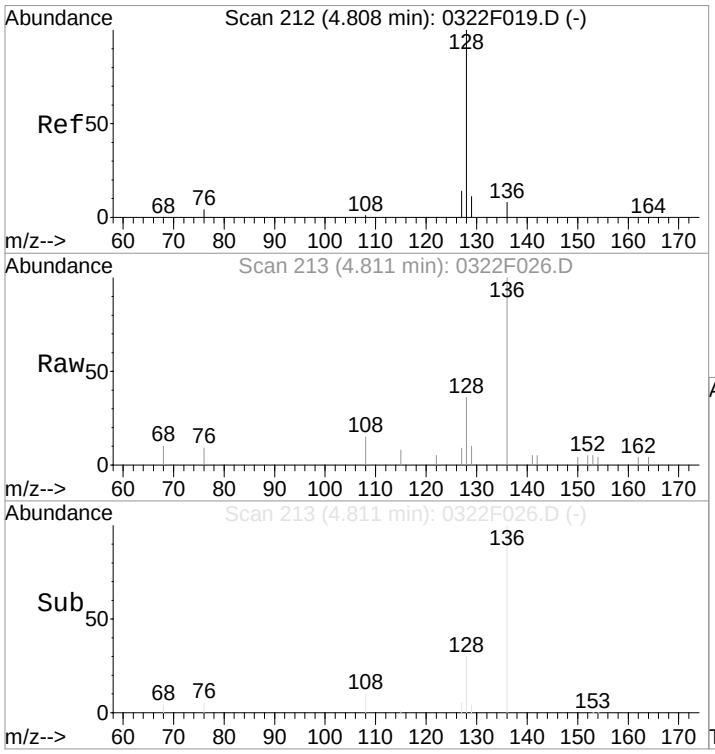
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F026.D Vial: 23
Acq On : 22 Mar 2019 7:02 pm Operator: LWeiskopf
Sample : K1902351-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:50 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



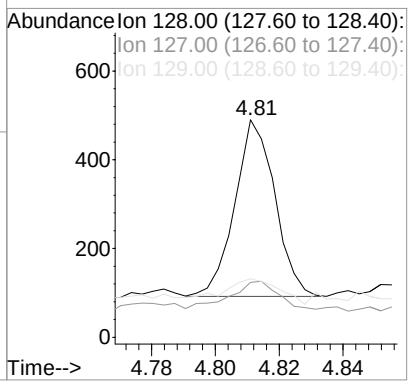
1st 03/25/19
2nd 03/26/19

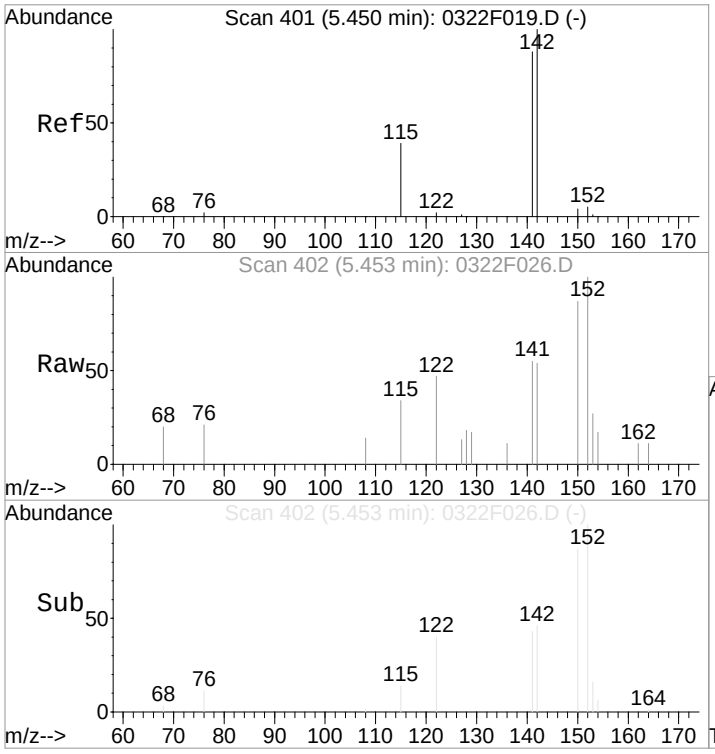


#2
Naphthalene
Concen: 0.89 ng/ml
RT: 4.81 min Scan# 213
Delta R.T. -0.02 min
Lab File: 0322F026.D
Acq: 22 Mar 2019 7:02 pm

Tgt Ion:128 Resp: 347

Ion	Ratio	Lower	Upper
128	100		
127	14.8	0.0	43.9
129	11.6	0.0	30.8

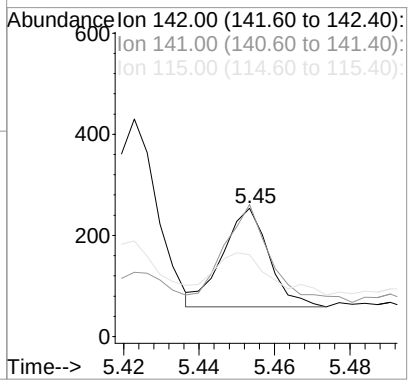




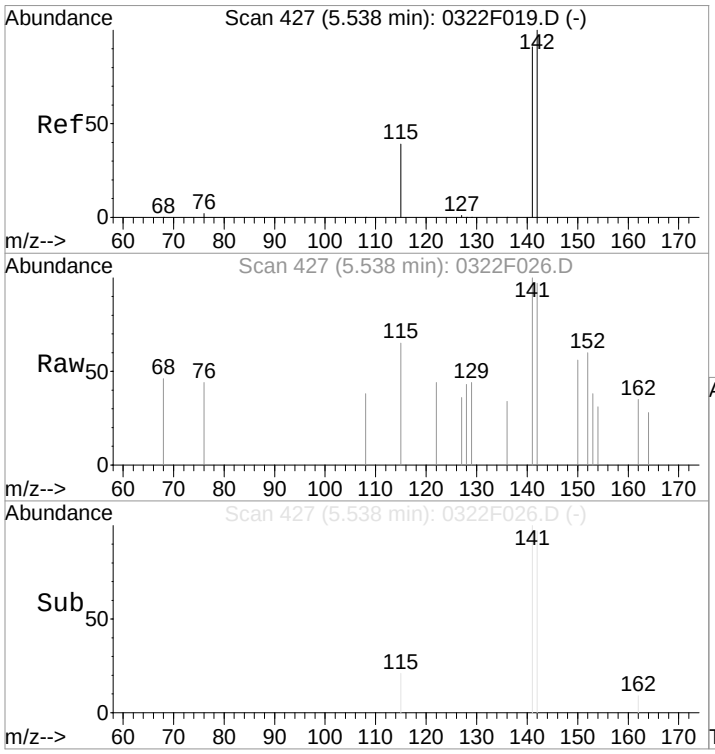
#4
2-Methylnaphthalene
Concen: 0.68 ng/ml
RT: 5.45 min Scan# 402
Delta R.T. -0.01 min
Lab File: 0322F026.D
Acq: 22 Mar 2019 7:02 pm

Tgt Ion:142 Resp: 166

Ion	Ratio	Lower	Upper
142	100		
141	92.8	57.4	117.4
115	41.0	21.9	61.9



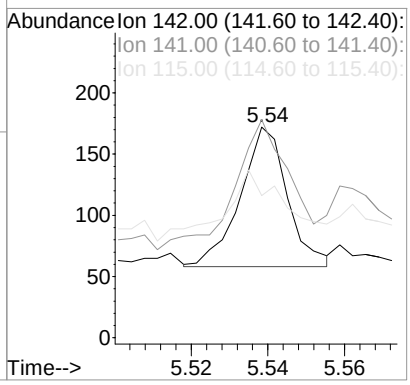
1st 03/25/19
2nd 03/26/19

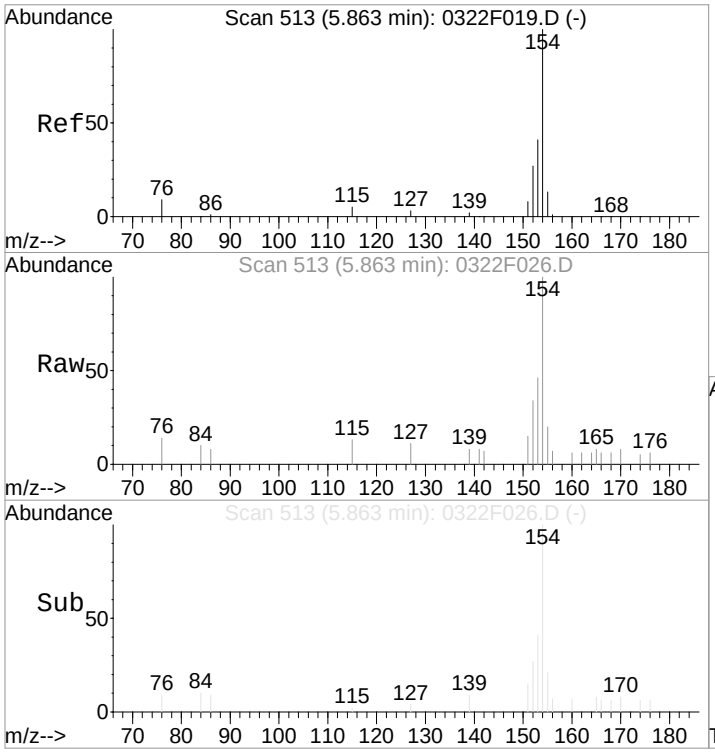


#5
1-Methylnaphthalene
Concen: 0.42 ng/ml m
RT: 5.54 min Scan# 427
Delta R.T. -0.01 min
Lab File: 0322F026.D
Acq: 22 Mar 2019 7:02 pm

Tgt Ion:142 Resp: 98

Ion	Ratio	Lower	Upper
142	100		
141	103.5	61.0	121.0
115	67.4	26.2	66.2#

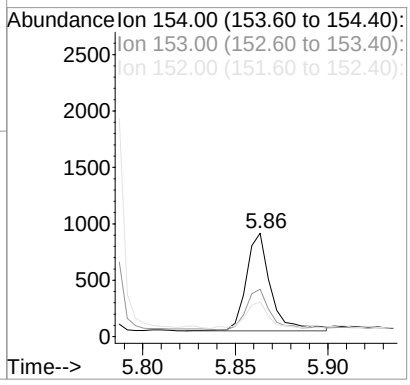




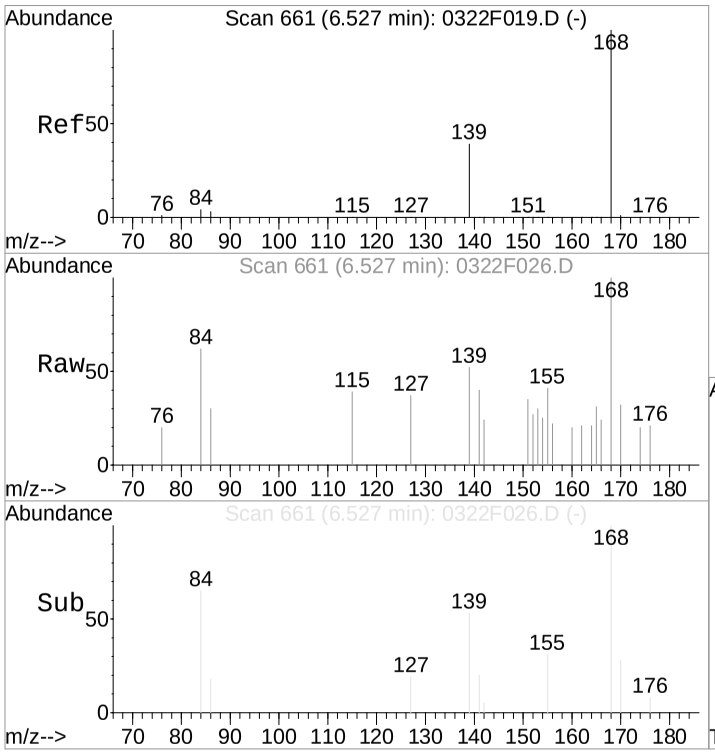
#6
Biphenyl
Concen: 2.52 ng/ml
RT: 5.86 min Scan# 513
Delta R.T. -0.01 min
Lab File: 0322F026.D
Acq: 22 Mar 2019 7:02 pm

Tgt Ion:154 Resp: 794

Ion	Ratio	Lower	Upper
154	100		
153	40.7	11.5	71.5
152	25.4	6.9	46.9



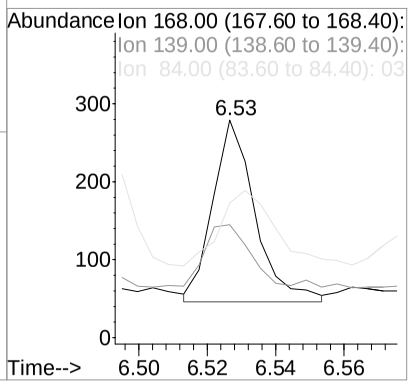
1st 03/25/19
2nd 03/26/19

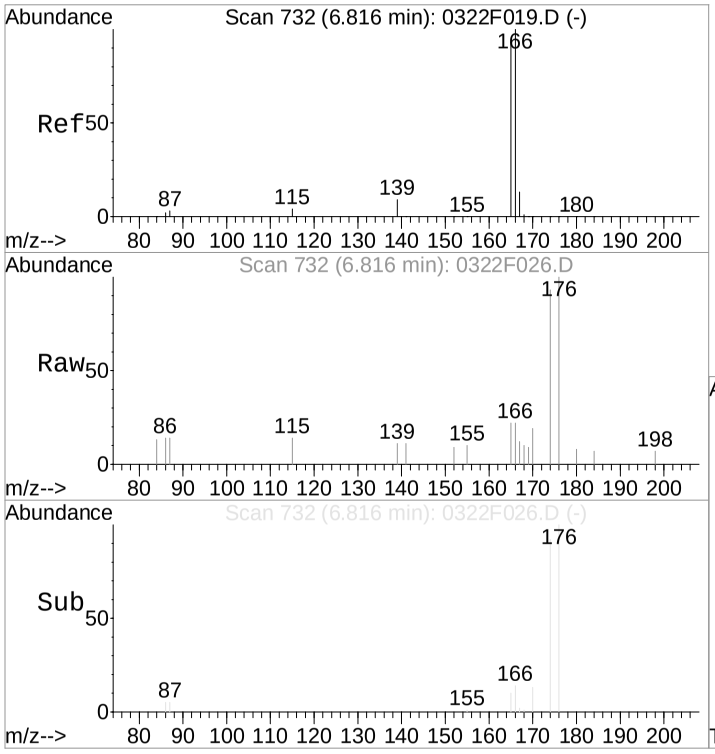


#11
Dibenzofuran
Concen: 0.52 ng/ml m
RT: 6.53 min Scan# 661
Delta R.T. -0.01 min
Lab File: 0322F026.D
Acq: 22 Mar 2019 7:02 pm

Tgt Ion:168 Resp: 200

Ion	Ratio	Lower	Upper
168	100		
139	52.0	1.8	61.8
84	62.0	0.0	23.2#

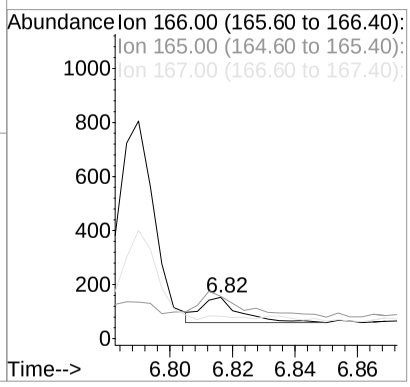


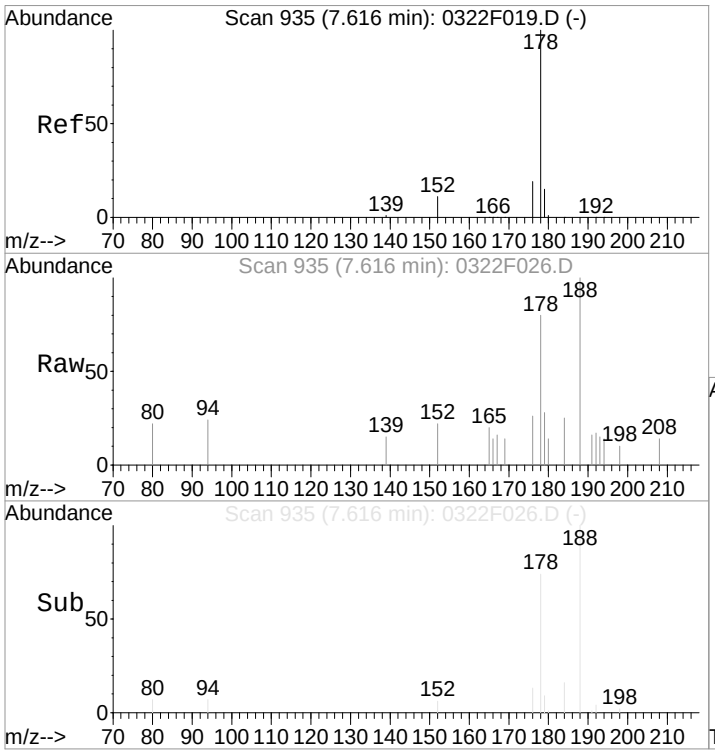


#14
Fluorene
Concen: 0.26 ng/ml
RT: 6.82 min Scan# 732
Delta R.T. -0.00 min
Lab File: 0322F026.D
Acq: 22 Mar 2019 7:02 pm

Tgt Ion:166 Resp: 79

Ion	Ratio	Lower	Upper
166	100		
165	82.8	65.3	125.3
167	19.4	0.0	33.1

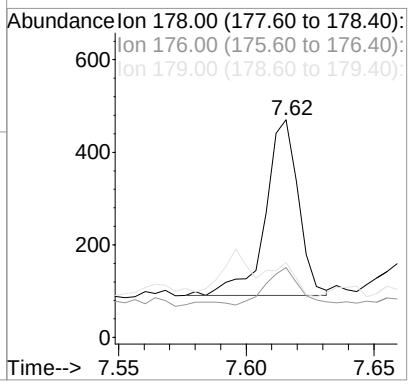


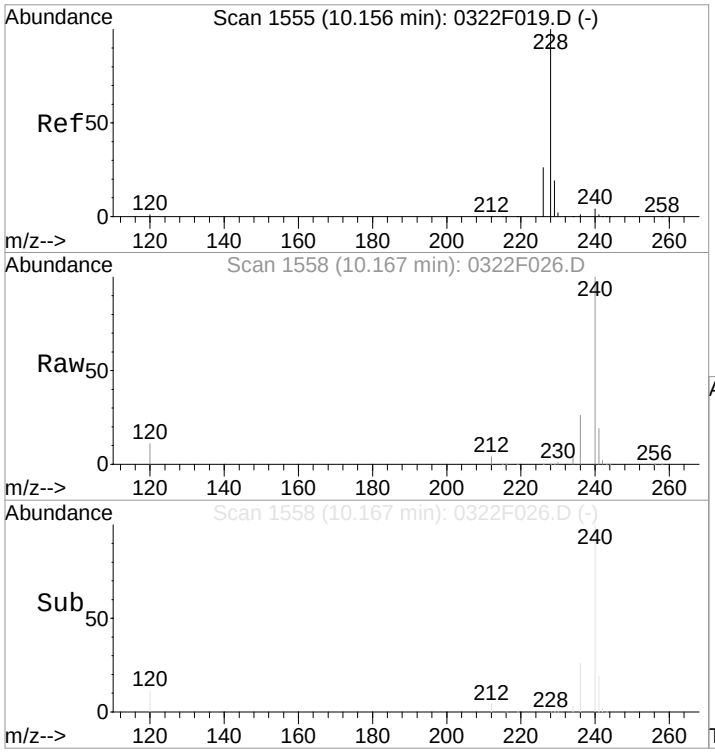


#17
Phenanthrene
Concen: 0.83 ng/ml
RT: 7.62 min Scan# 935
Delta R.T. -0.00 min
Lab File: 0322F026.D
Acq: 22 Mar 2019 7:02 pm

Tgt Ion:178 Resp: 343

Ion	Ratio	Lower	Upper
178	100		
176	21.1	0.0	48.6
179	17.4	0.0	35.2

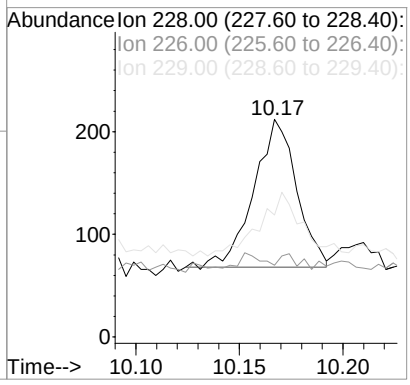




#26
Benz(a)anthracene
Concen: 0.45 ng/ml
RT: 10.17 min Scan# 1558
Delta R.T. -0.00 min
Lab File: 0322F026.D
Acq: 22 Mar 2019 7:02 pm

Tgt Ion:228 Resp: 208

Ion	Ratio	Lower	Upper
228	100		
226	4.9	0.0	56.6
229	24.3	0.0	39.5



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F026.D Vial: 23
Acq On : 22 Mar 2019 7:02 pm Operator: LWeiskopf
Sample : K1902351-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:54 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	69193m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	33413	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	64570	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	64614	200.00	ng/ml	-0.01
28) Perylene-d12	13.39	264	70770	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	165586	848.68	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 84.87%			
13) Fluorene-d10	6.79	176	216784	936.46	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 93.65%			
22) Fluoranthene-d10	8.58	212	422938	1118.78	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 111.88%			
25) Terphenyl-d14	8.94	244	315751	1107.84	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 110.78%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	347	0.89	ng/ml	98
4) 2-Methylnaphthalene	5.45	142	166	0.68	ng/ml	96
5) 1-Methylnaphthalene	5.54	142	98m	0.42	ng/ml	
6) Biphenyl	5.86	154	794	2.52	ng/ml	98
11) Dibenzofuran	6.53	168	200m	0.52	ng/ml	
14) Fluorene	6.82	166	79	0.26	ng/ml	87
17) Phenanthrene	7.62	178	343	0.83	ng/ml	95
26) Benz(a)anthracene	10.17	228	208	0.45	ng/ml	71

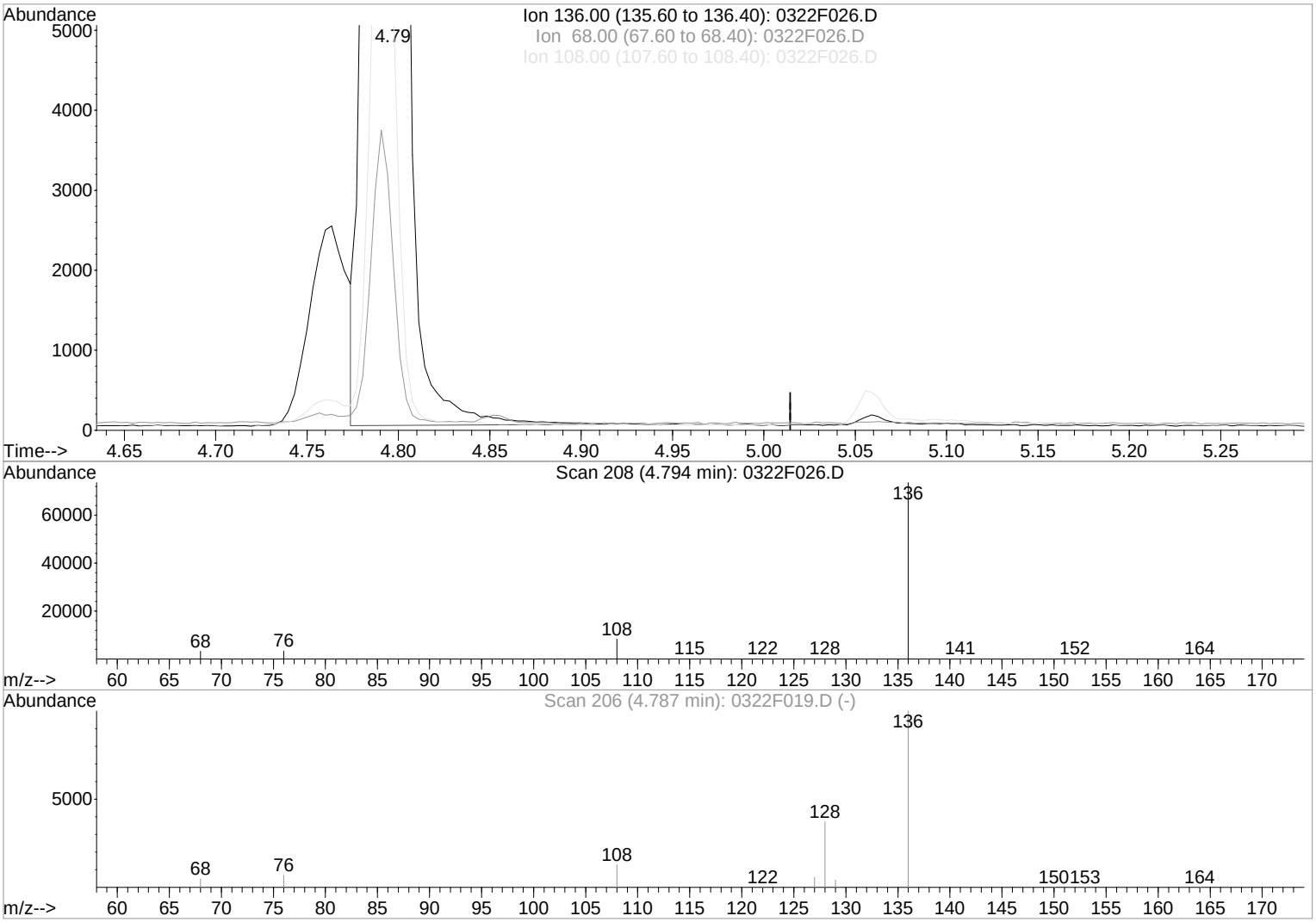
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F026.D Vial: 23
Acq On : 22 Mar 2019 7:02 pm Operator: LWeiskopf
Sample : K1902351-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F026.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 65538

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.22
108.00	13.60	11.22
0.00	0.00	0.00

Manual Integration:

Before

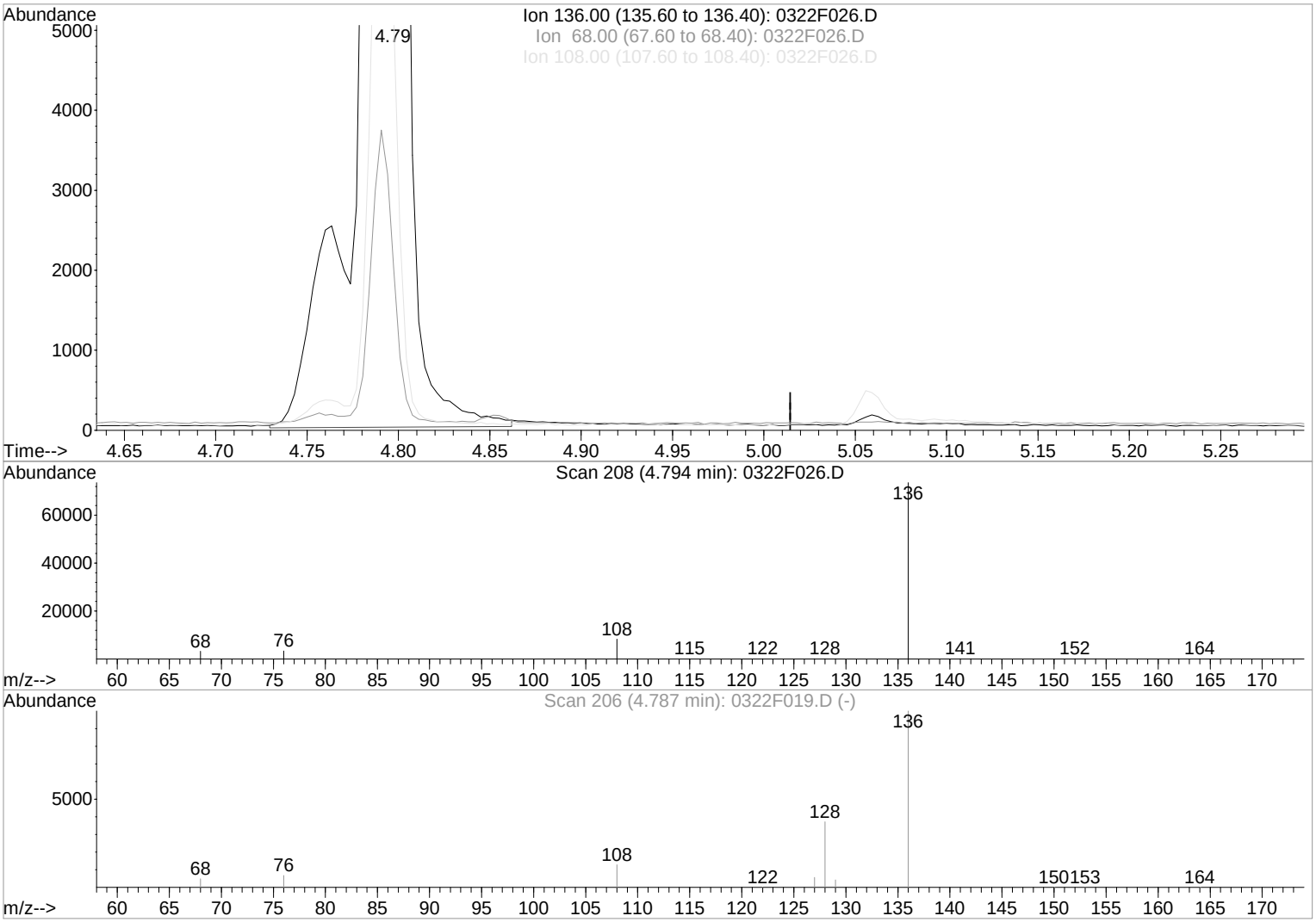
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F026.D Vial: 23
Acq On : 22 Mar 2019 7:02 pm Operator: LWeiskopf
Sample : K1902351-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:49 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F026.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 69193

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.35
108.00	13.60	11.30
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

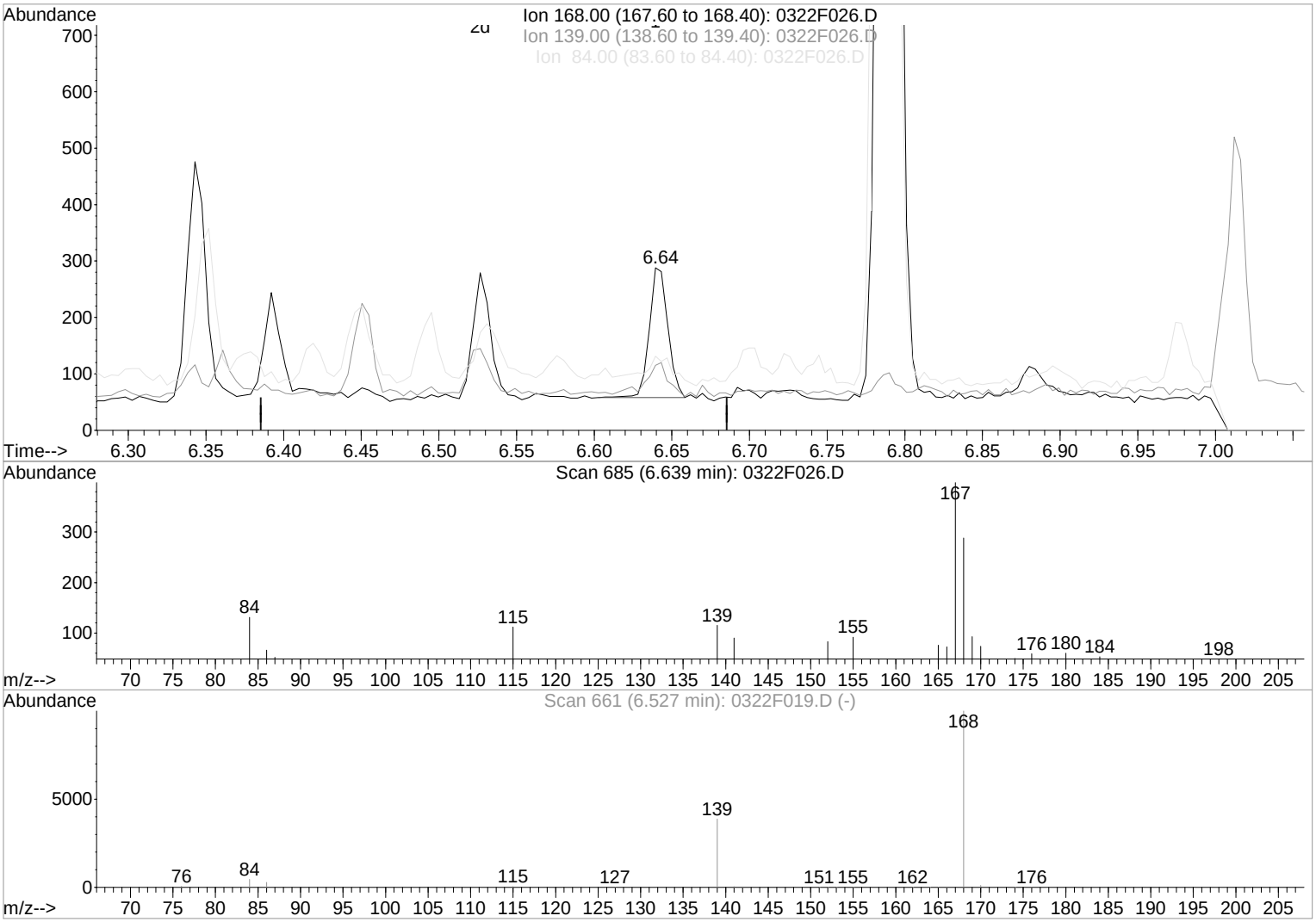
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F026.D Vial: 23
Acq On : 22 Mar 2019 7:02 pm Operator: LWeiskopf
Sample : K1902351-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:49 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F026.D

(11) Dibenzofuran (T)

6.64min 0.61ng/ml

response 234

Ion	Exp%	Act%
168.00	100	100
139.00	31.80	23.91
84.00	3.20	18.26
0.00	0.00	0.00

Manual Integration:

Before

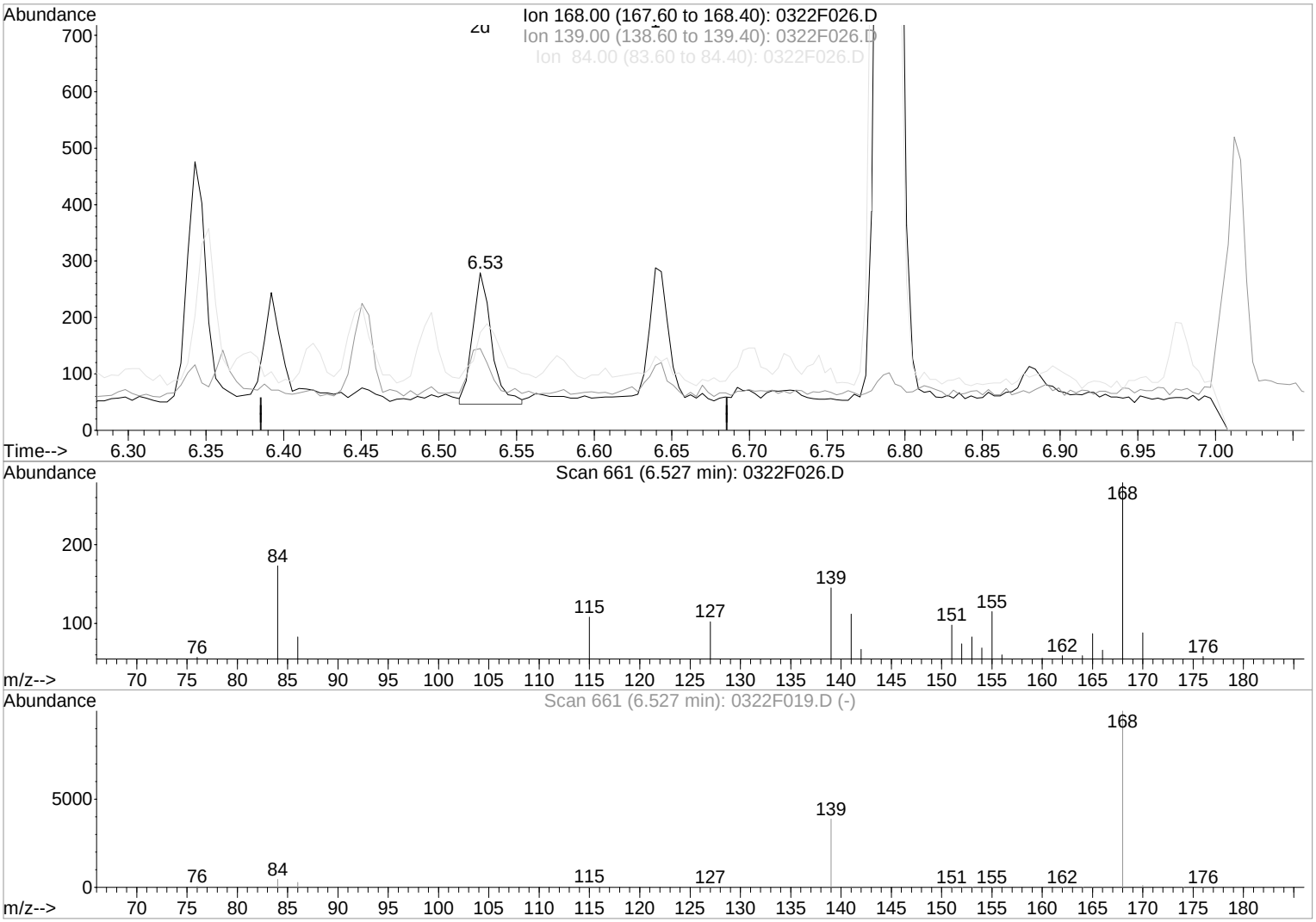
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F026.D Vial: 23
Acq On : 22 Mar 2019 7:02 pm Operator: LWeiskopf
Sample : K1902351-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:49 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F026.D

(11) Dibenzofuran (T)

6.53min 0.52ng/ml m

response 200

Ion	Exp%	Act%
168.00	100	100
139.00	31.80	51.97
84.00	3.20	62.01#
0.00	0.00	0.00

Manual Integration:

After

WP

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F027.D\
Lab ID: K1902351-003
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 19:34:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F027.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 19:34:00	**Vial:**	10
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-003	**Raw Units:**	ng/mL

Bottle ID:	K1902351-003.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	K1902351
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		33396	200.00	NA
Chrysene-d12	10.17		61941	200.00	NA
Naphthalene-d8	4.79		67893	200.00	NA
Perylene-d12	13.39	-0.02	68992	200.00	NA
Phenanthrene-d10	7.60		63960	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		390250	1042.15	104	42 - 133	Y
Fluorene-d10	6.79		205080	886.35	89	42 - 131	Y
Terphenyl-d14	8.94		278277	1018.49	102	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		168	0.70	0.0031	J	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.17	+0.01	201	0.45	0.0020	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	8.60		85	0.18	0.00080	U	Y
Fluorene	6.81	-0.01	51	0.17	0.00076	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F027.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 19:34:00	**Vial:**	10
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-003	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.81		375	0.98	0.0044	J	Y
Phenanthrene	7.61	-0.01	308	0.76	0.0034	J	Y
Pyrene	8.80		108	0.23	0.0010	J	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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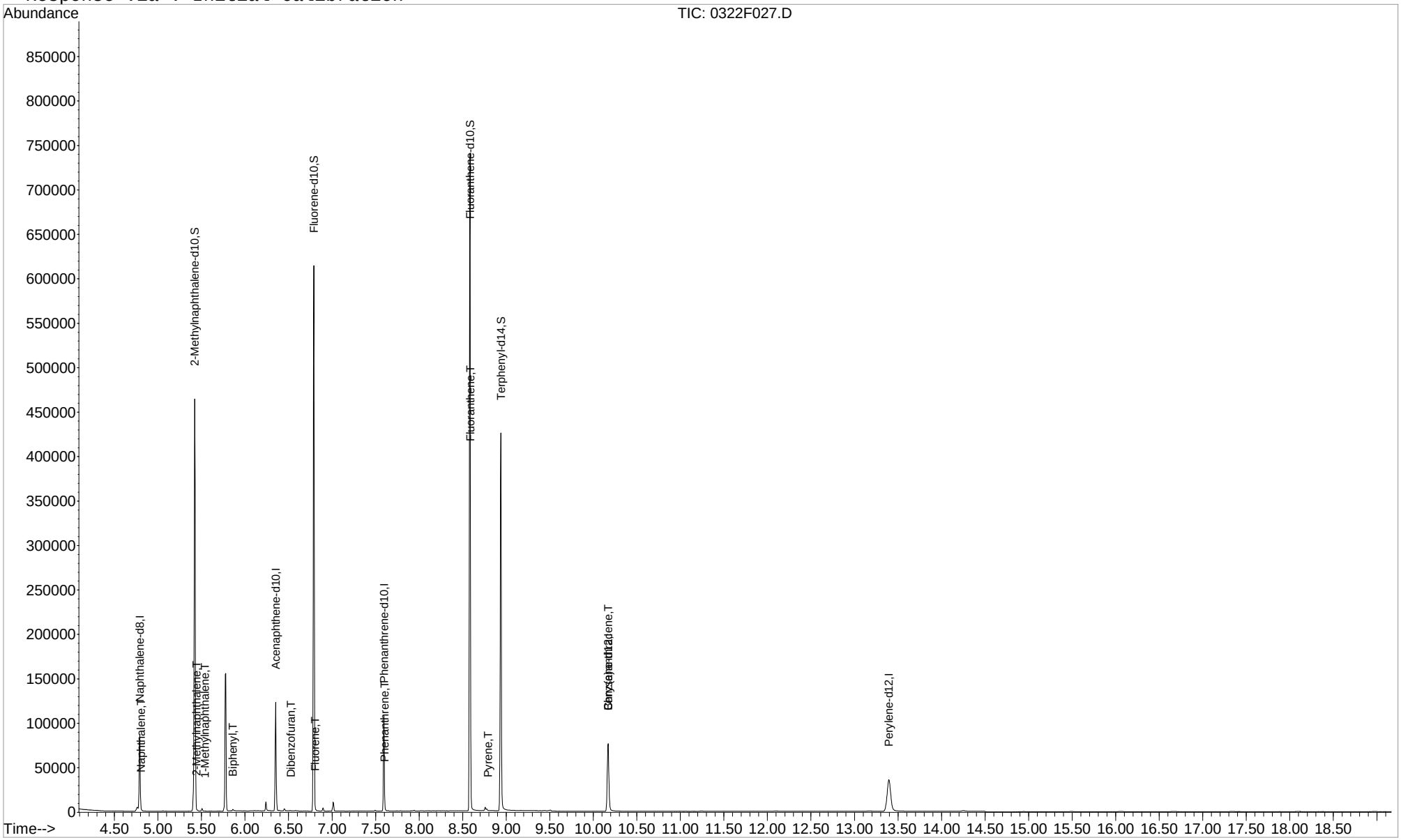
Quantitation Report (QT Reviewed)

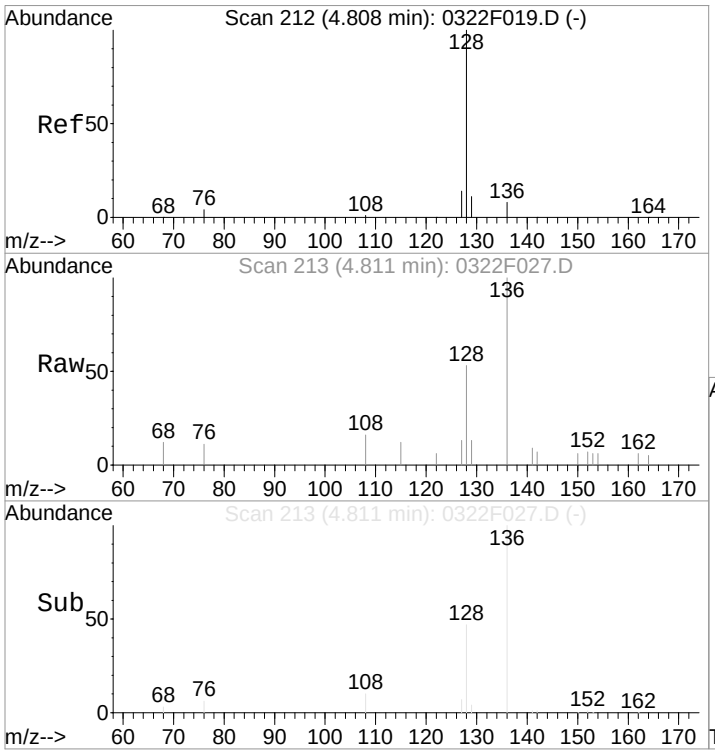
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F027.D Vial: 24
Acq On : 22 Mar 2019 7:34 pm Operator: LWeiskopf
Sample : K1902351-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:58 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



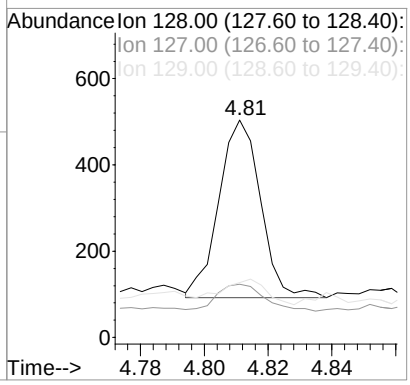
1st 03/25/19
2nd 03/26/19

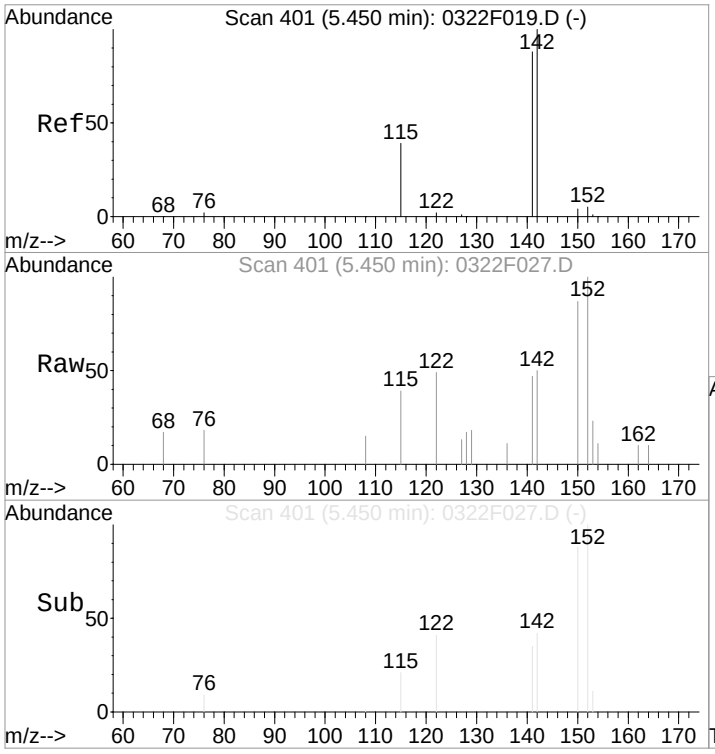


#2
Naphthalene
Concen: 0.98 ng/ml
RT: 4.81 min Scan# 213
Delta R.T. -0.02 min
Lab File: 0322F027.D
Acq: 22 Mar 2019 7:34 pm

Tgt Ion:128 Resp: 375

Ion	Ratio	Lower	Upper
128	100		
127	14.1	0.0	43.9
129	7.5	0.0	30.8

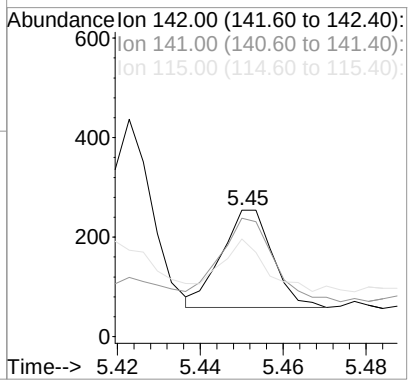




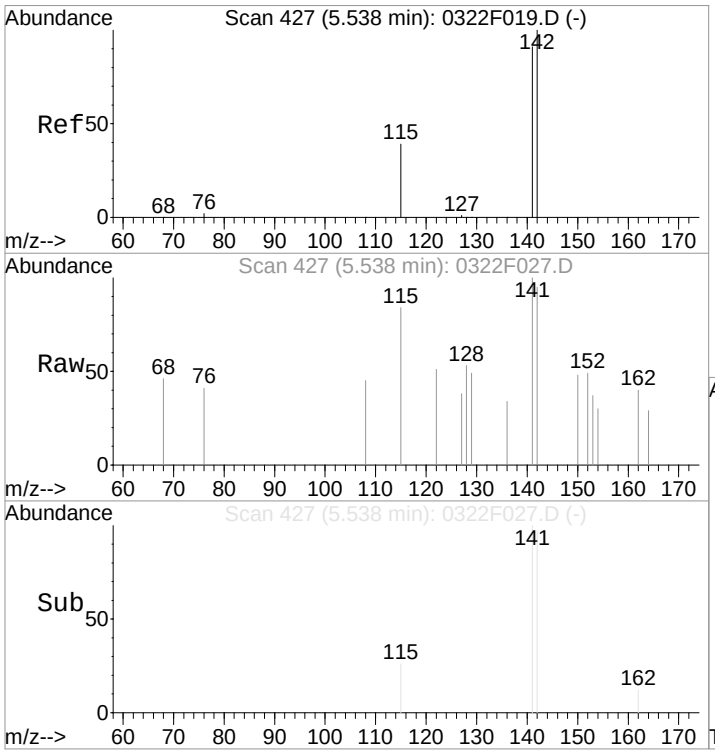
#4
2-Methylnaphthalene
Concen: 0.70 ng/ml
RT: 5.45 min Scan# 401
Delta R.T. -0.02 min
Lab File: 0322F027.D
Acq: 22 Mar 2019 7:34 pm

Tgt Ion:142 Resp: 168

Ion	Ratio	Lower	Upper
142	100		
141	81.5	57.4	117.4
115	48.2	21.9	61.9



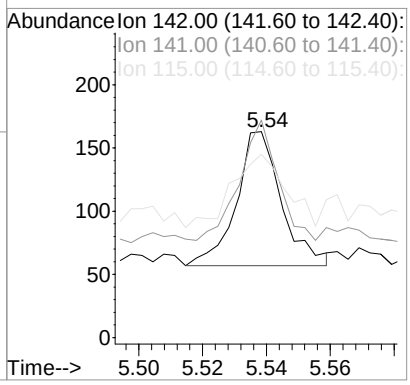
1st 03/25/19
2nd 03/26/19

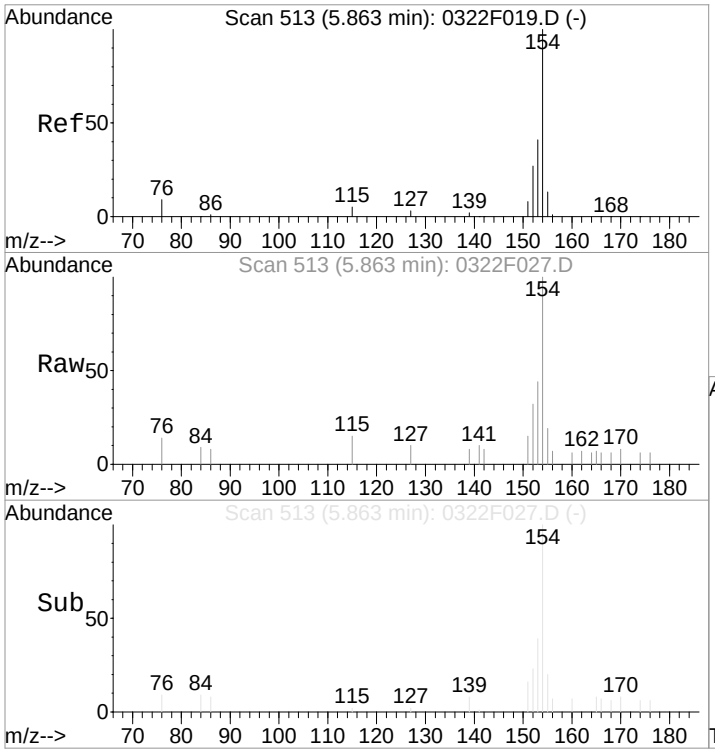


#5
1-Methylnaphthalene
Concen: 0.45 ng/ml
RT: 5.54 min Scan# 427
Delta R.T. -0.01 min
Lab File: 0322F027.D
Acq: 22 Mar 2019 7:34 pm

Tgt Ion:142 Resp: 104

Ion	Ratio	Lower	Upper
142	100		
141	88.7	61.0	121.0
115	54.7	26.2	66.2

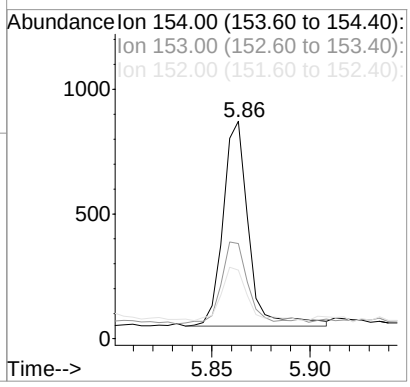




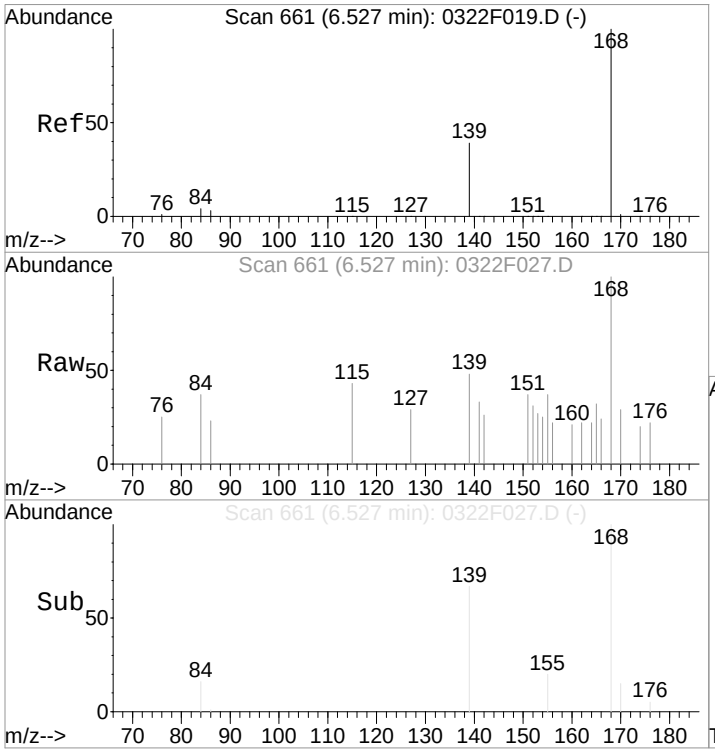
#6
Biphenyl
Concen: 2.41 ng/ml
RT: 5.86 min Scan# 513
Delta R.T. -0.01 min
Lab File: 0322F027.D
Acq: 22 Mar 2019 7:34 pm

Tgt Ion:154 Resp: 746

Ion	Ratio	Lower	Upper
154	100		
153	38.7	11.5	71.5
152	24.0	6.9	46.9



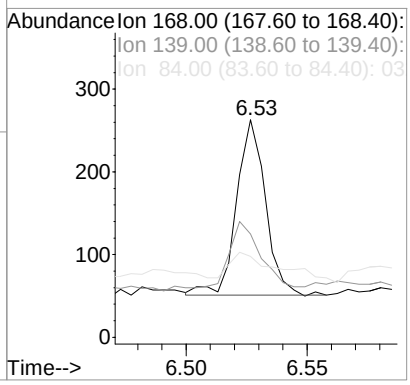
1st 03/25/19
2nd 03/26/19

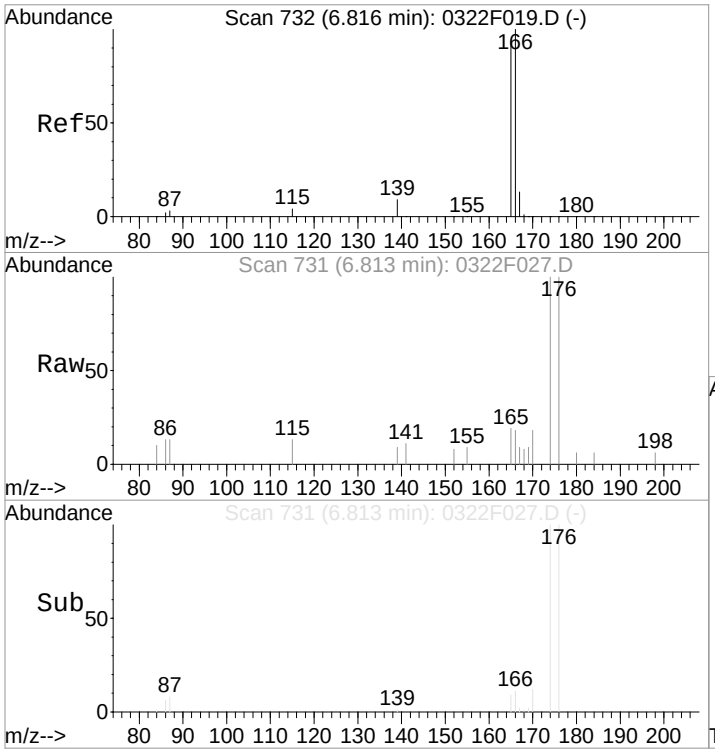


#11
Dibenzofuran
Concen: 0.46 ng/ml
RT: 6.53 min Scan# 661
Delta R.T. -0.01 min
Lab File: 0322F027.D
Acq: 22 Mar 2019 7:34 pm

Tgt Ion:168 Resp: 176

Ion	Ratio	Lower	Upper
168	100		
139	30.7	1.8	61.8
84	12.3	0.0	23.2

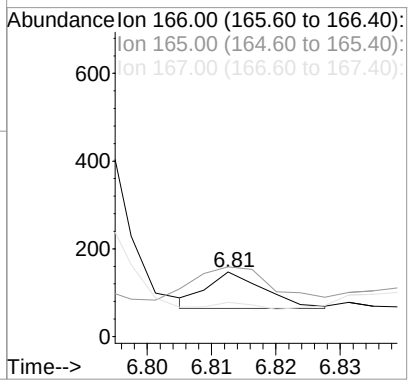




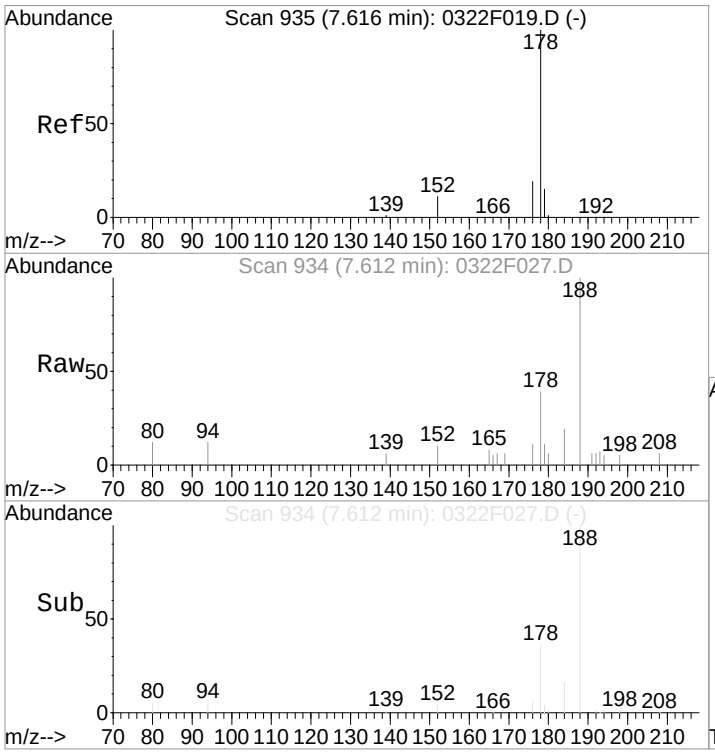
#14
Fluorene
Concen: 0.17 ng/ml m
RT: 6.81 min Scan# 731
Delta R.T. -0.01 min
Lab File: 0322F027.D
Acq: 22 Mar 2019 7:34 pm

Tgt Ion:166 Resp: 51

Ion	Ratio	Lower	Upper
166	100		
165	108.2	65.3	125.3
167	53.1	0.0	33.1#



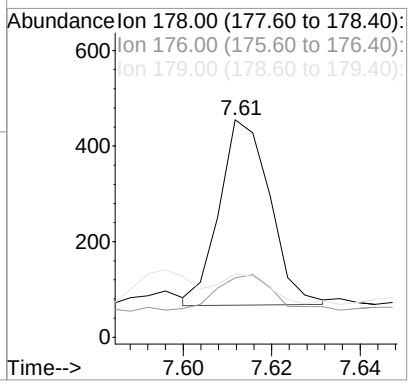
1st 03/25/19
2nd 03/26/19

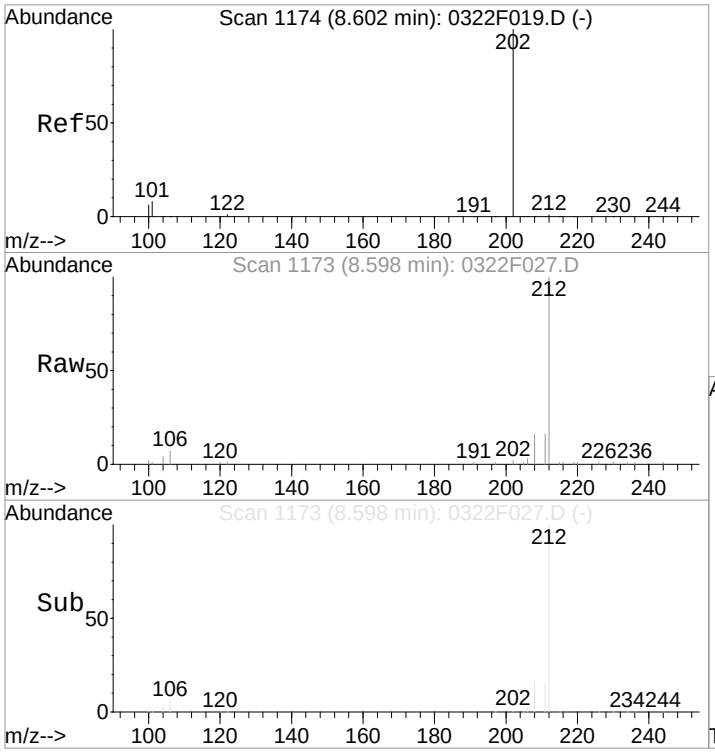


#17
Phenanthrene
Concen: 0.76 ng/ml m
RT: 7.61 min Scan# 934
Delta R.T. -0.01 min
Lab File: 0322F027.D
Acq: 22 Mar 2019 7:34 pm

Tgt Ion:178 Resp: 308

Ion	Ratio	Lower	Upper
178	100		
176	27.3	0.0	48.6
179	29.2	0.0	35.2

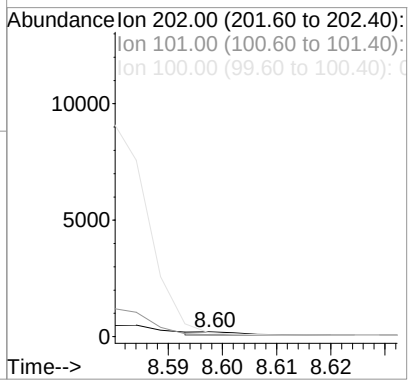




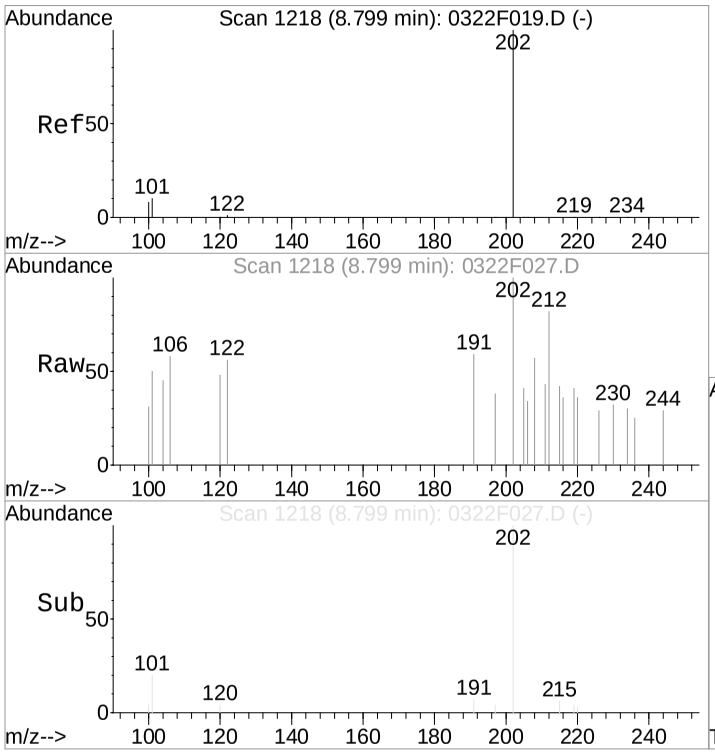
#21
Fluoranthene
Concen: 0.18 ng/ml m
RT: 8.60 min Scan# 1173
Delta R.T. -0.01 min
Lab File: 0322F027.D
Acq: 22 Mar 2019 7:34 pm

Tgt Ion:202 Resp: 85

Ion	Ratio	Lower	Upper
202	100		
101	36.9	0.0	39.1
100	76.6	0.0	26.8#



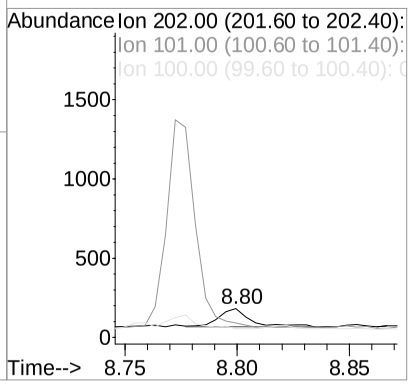
1st 03/25/19
2nd 03/26/19

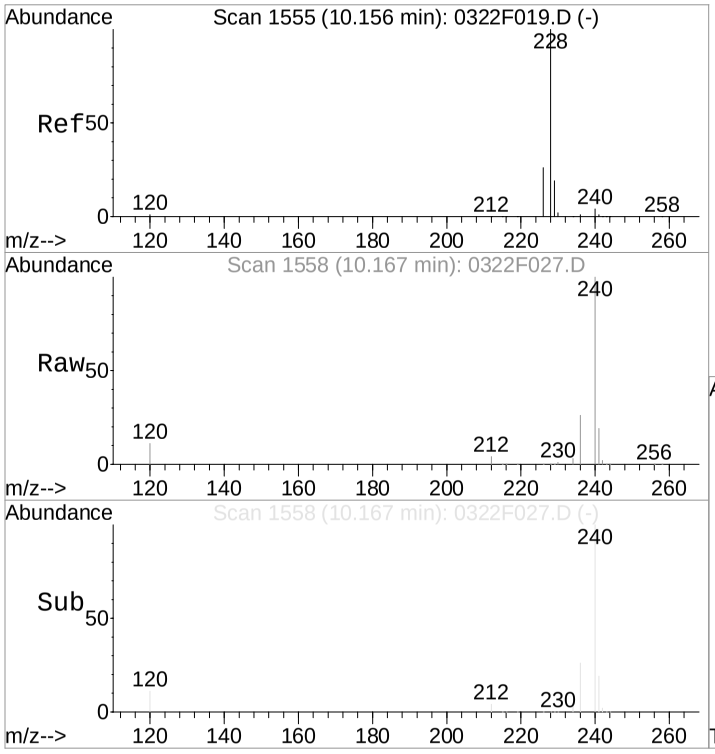


#24
Pyrene
Concen: 0.23 ng/ml
RT: 8.80 min Scan# 1218
Delta R.T. -0.01 min
Lab File: 0322F027.D
Acq: 22 Mar 2019 7:34 pm

Tgt Ion:202 Resp: 108

Ion	Ratio	Lower	Upper
202	100		
101	25.4	0.0	39.7
100	0.0	0.0	27.7

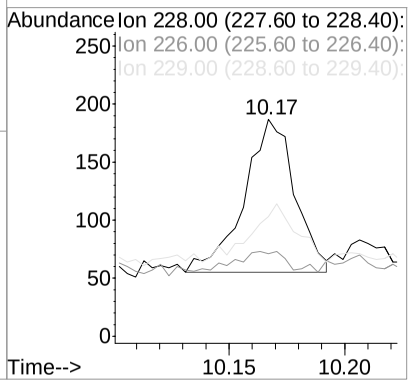




#26
Benz(a)anthracene
Concen: 0.45 ng/ml
RT: 10.17 min Scan# 1558
Delta R.T. -0.00 min
Lab File: 0322F027.D
Acq: 22 Mar 2019 7:34 pm

Tgt Ion:228 Resp: 201

Ion	Ratio	Lower	Upper
228	100		
226	10.6	0.0	56.6
229	29.5	0.0	39.5



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F027.D Vial: 24
Acq On : 22 Mar 2019 7:34 pm Operator: LWeiskopf
Sample : K1902351-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:56 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	67893m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	33396	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	63960	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	61941	200.00	ng/ml	-0.01
28) Perylene-d12	13.39	264	68992	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	156918	819.66	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 81.97%			
13) Fluorene-d10	6.79	176	205080	886.35	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 88.63%			
22) Fluoranthene-d10	8.58	212	390250	1042.15	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 104.22%			
25) Terphenyl-d14	8.94	244	278277	1018.49	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 101.85%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	375	0.98	ng/ml	96
4) 2-Methylnaphthalene	5.45	142	168	0.70	ng/ml	92
5) 1-Methylnaphthalene	5.54	142	104	0.45	ng/ml	94
6) Biphenyl	5.86	154	746	2.41	ng/ml	95
11) Dibenzofuran	6.53	168	176	0.46	ng/ml	96
14) Fluorene	6.81	166	51m	0.17	ng/ml	
17) Phenanthrene	7.61	178	308m	0.76	ng/ml	
21) Fluoranthene	8.60	202	85m	0.18	ng/ml	
24) Pyrene	8.80	202	108	0.23	ng/ml	66
26) Benz(a)anthracene	10.17	228	201	0.45	ng/ml	73

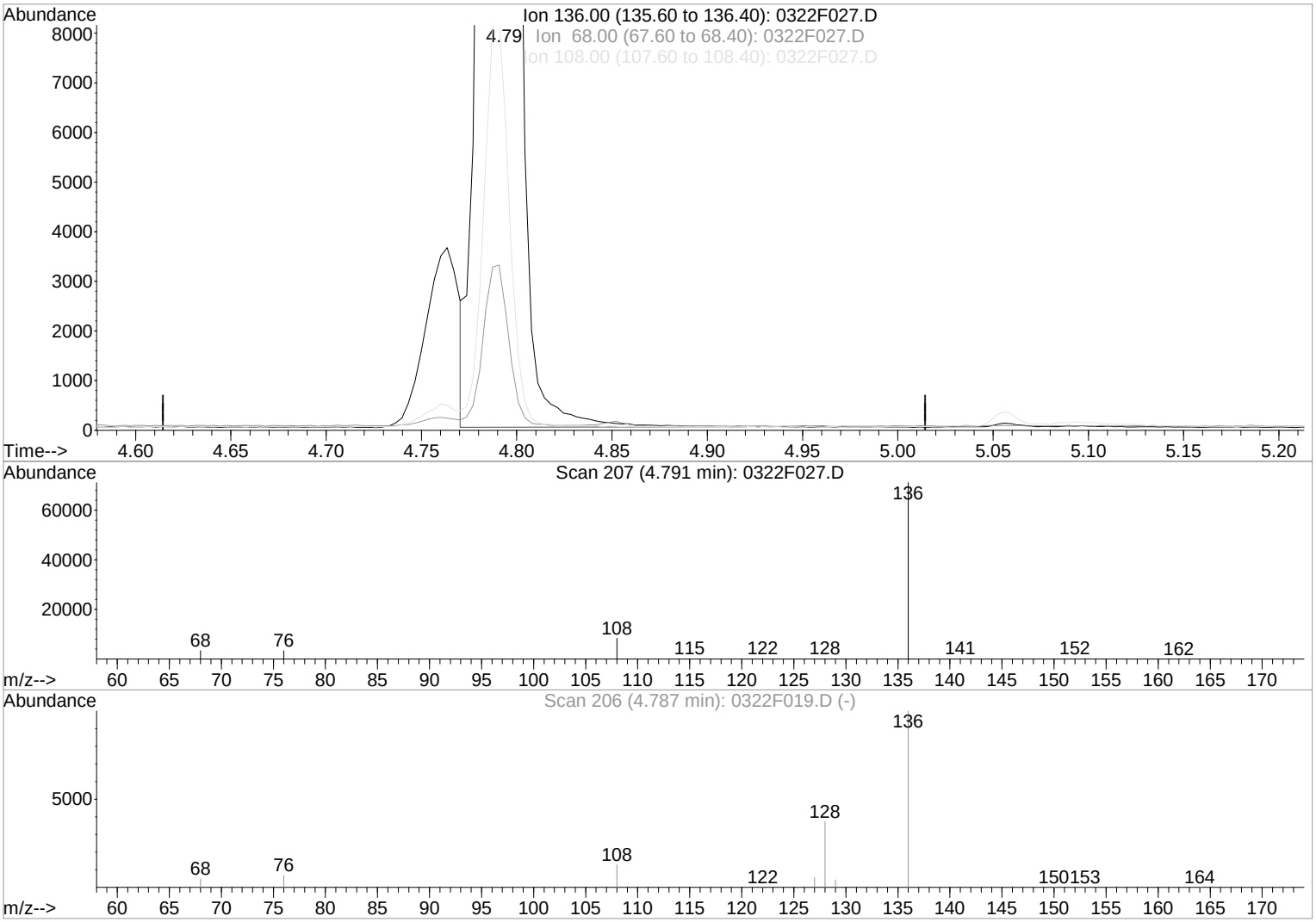
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F027.D Vial: 24
Acq On : 22 Mar 2019 7:34 pm Operator: LWeiskopf
Sample : K1902351-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F027.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 63610

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.57
108.00	13.60	11.62
0.00	0.00	0.00

Manual Integration:

Before

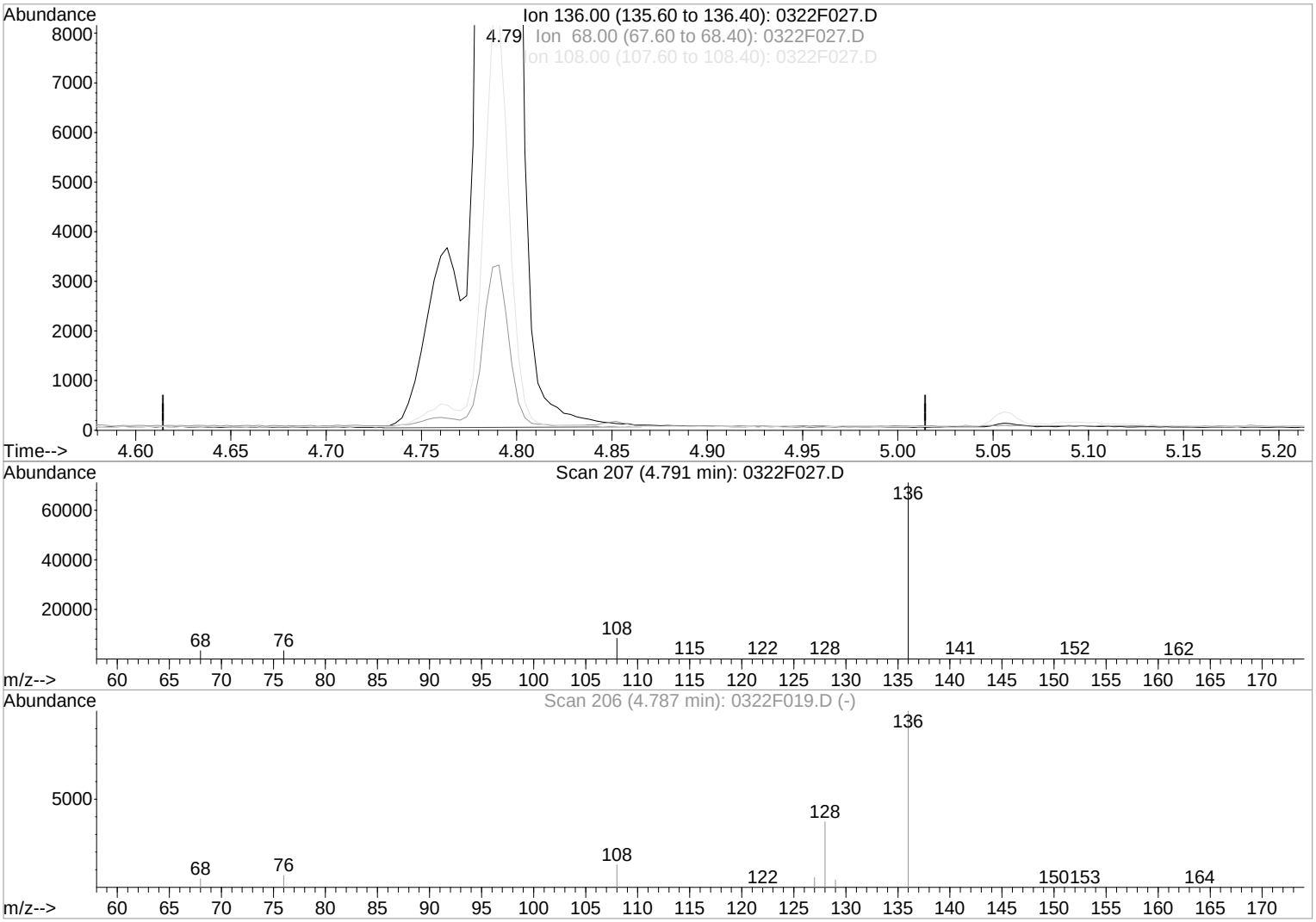
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F027.D Vial: 24
Acq On : 22 Mar 2019 7:34 pm Operator: LWeiskopf
Sample : K1902351-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:57 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F027.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 67893

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.68
108.00	13.60	11.71
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

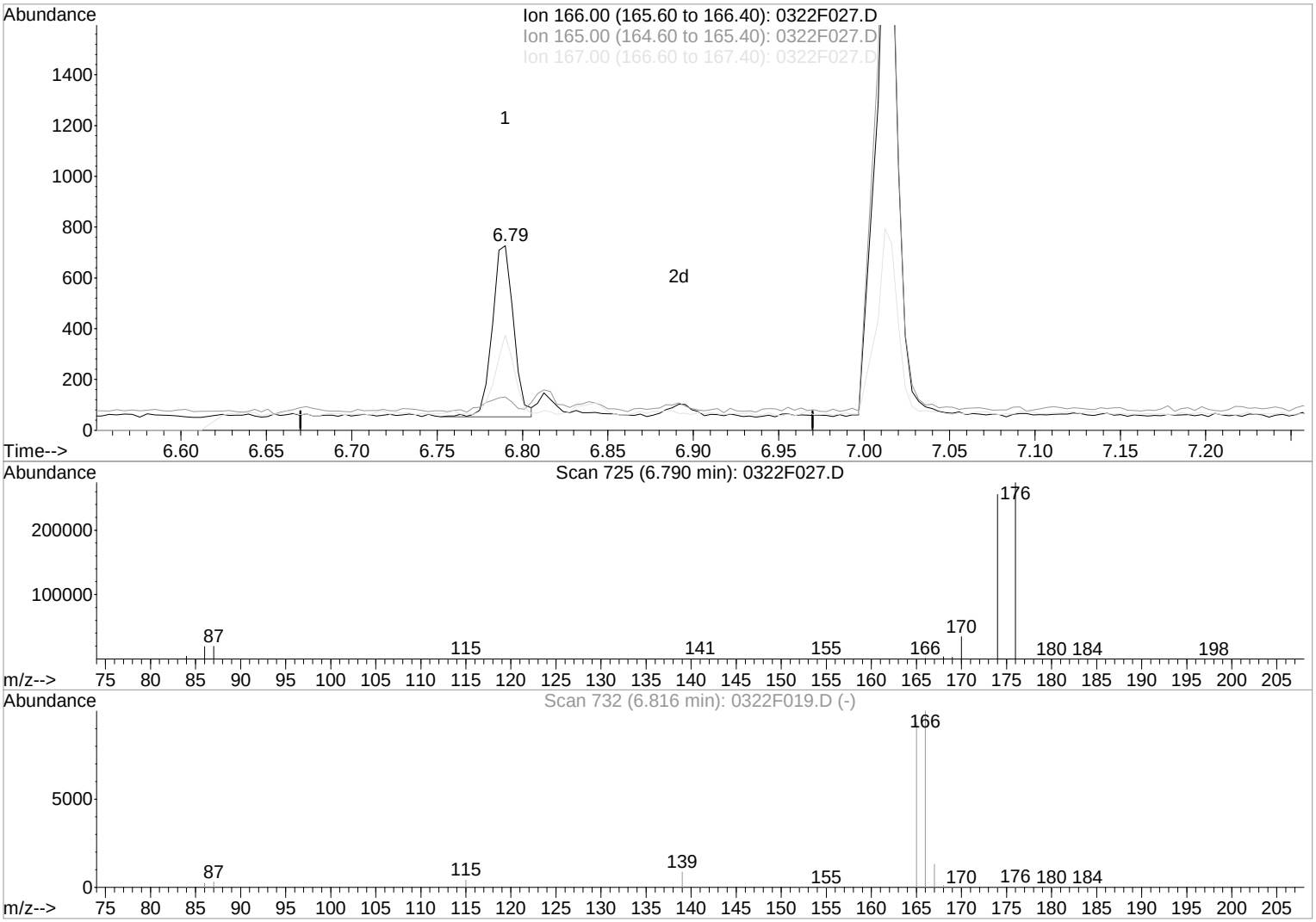
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F027.D Vial: 24
Acq On : 22 Mar 2019 7:34 pm Operator: LWeiskopf
Sample : K1902351-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:57 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F027.D

(14) Fluorene (T)

6.79min 1.90ng/ml

response 581

Ion	Exp%	Act%
166.00	100	100
165.00	95.30	8.01#
167.00	13.10	45.85#
0.00	0.00	0.00

Manual Integration:

Before

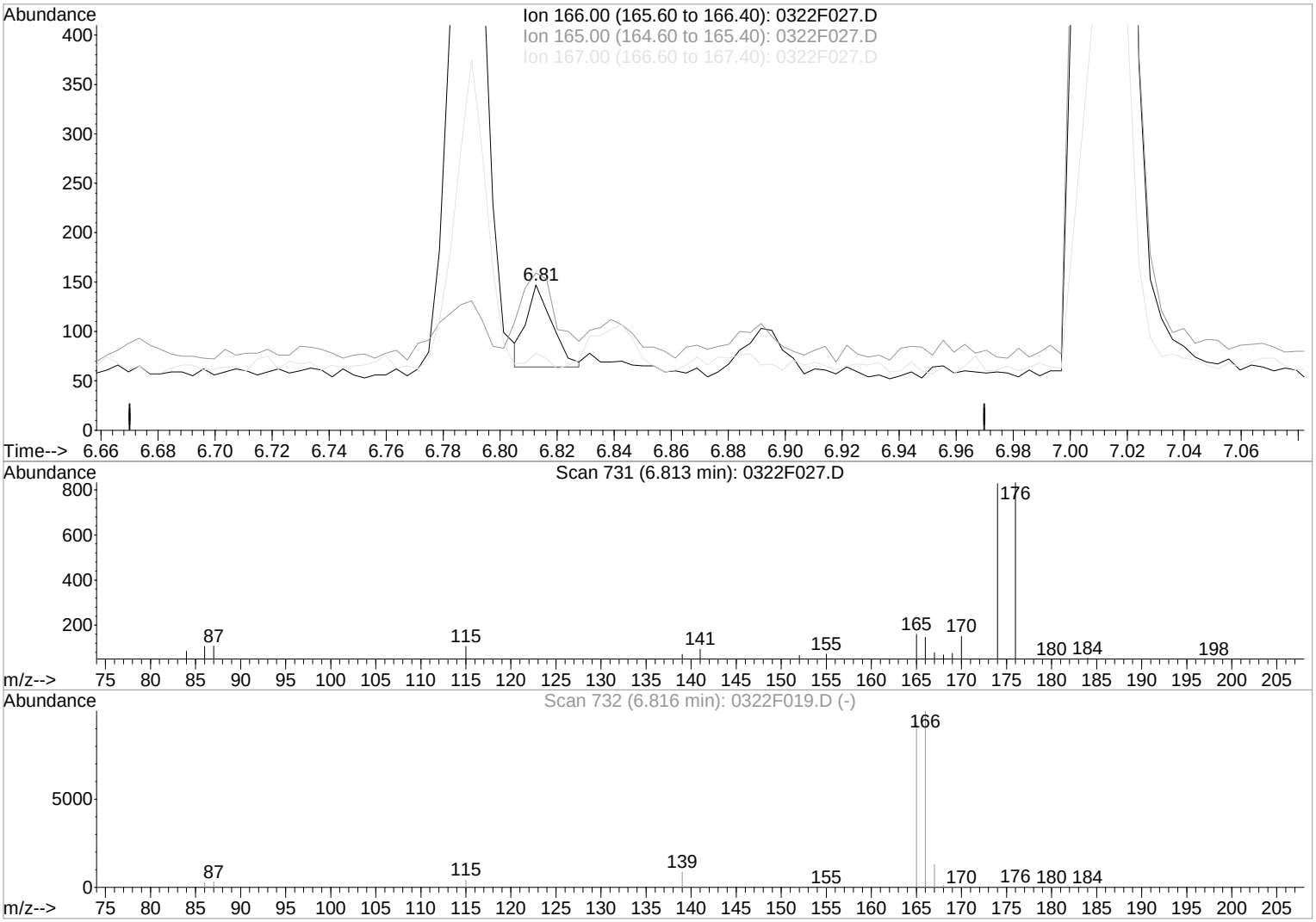
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F027.D Vial: 24
Acq On : 22 Mar 2019 7:34 pm Operator: LWeiskopf
Sample : K1902351-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:57 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F027.D

(14) Fluorene (T)

6.81min 0.17ng/ml m

response 51

Ion	Exp%	Act%
166.00	100	100
165.00	95.30	108.16
167.00	13.10	53.06#
0.00	0.00	0.00

Manual Integration:

After

WP

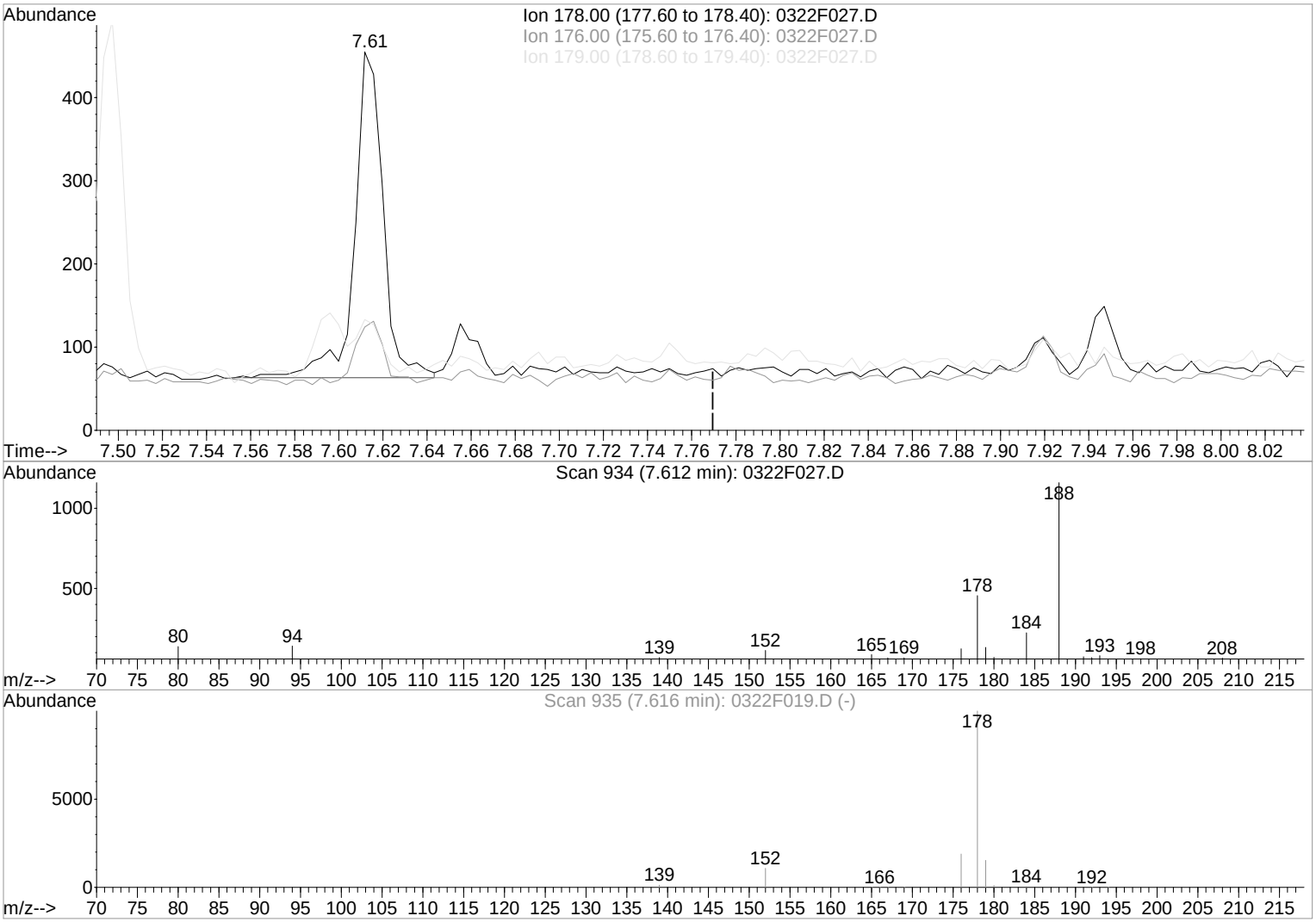
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F027.D Vial: 24
Acq On : 22 Mar 2019 7:34 pm Operator: LWeiskopf
Sample : K1902351-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:57 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F027.D

(17) Phenanthrene (T)

7.61min 0.87ng/ml

response 355

Ion	Exp%	Act%
178.00	100	100
176.00	18.60	16.07
179.00	15.20	19.39
0.00	0.00	0.00

Manual Integration:

Before

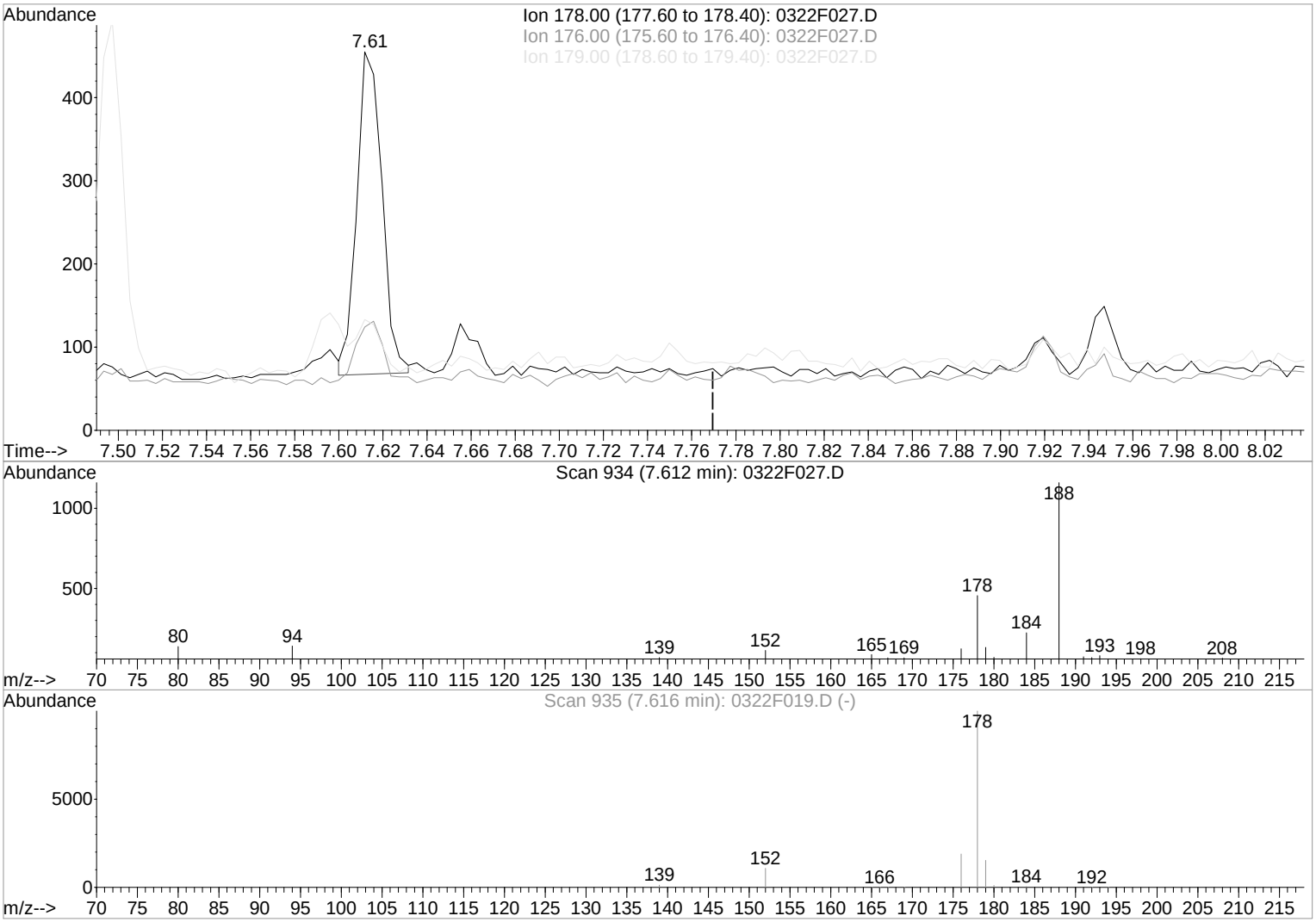
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F027.D Vial: 24
Acq On : 22 Mar 2019 7:34 pm Operator: LWeiskopf
Sample : K1902351-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:57 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F027.D

(17) Phenanthrene (T)

7.61min 0.76ng/ml m

response 308

Ion	Exp%	Act%
178.00	100	100
176.00	18.60	27.25
179.00	15.20	29.23
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

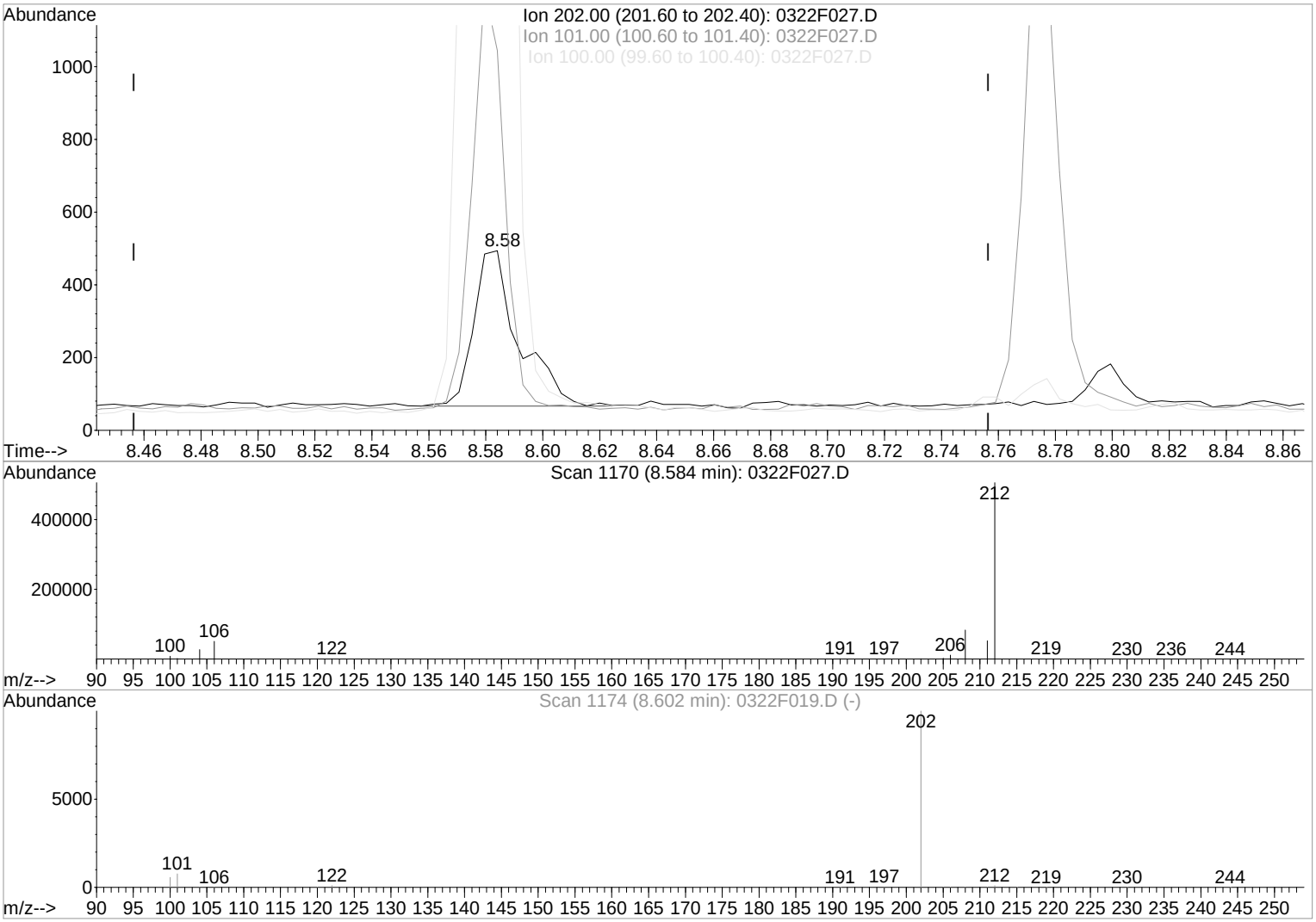
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F027.D Vial: 24
Acq On : 22 Mar 2019 7:34 pm Operator: LWeiskopf
Sample : K1902351-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:57 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F027.D

(21) Fluoranthene (T)

8.58min 1.01ng/ml

response 472

Ion	Exp%	Act%
202.00	100	100
101.00	9.10	230.14#
100.00	6.80	1755.84#
0.00	0.00	0.00

Manual Integration:

Before

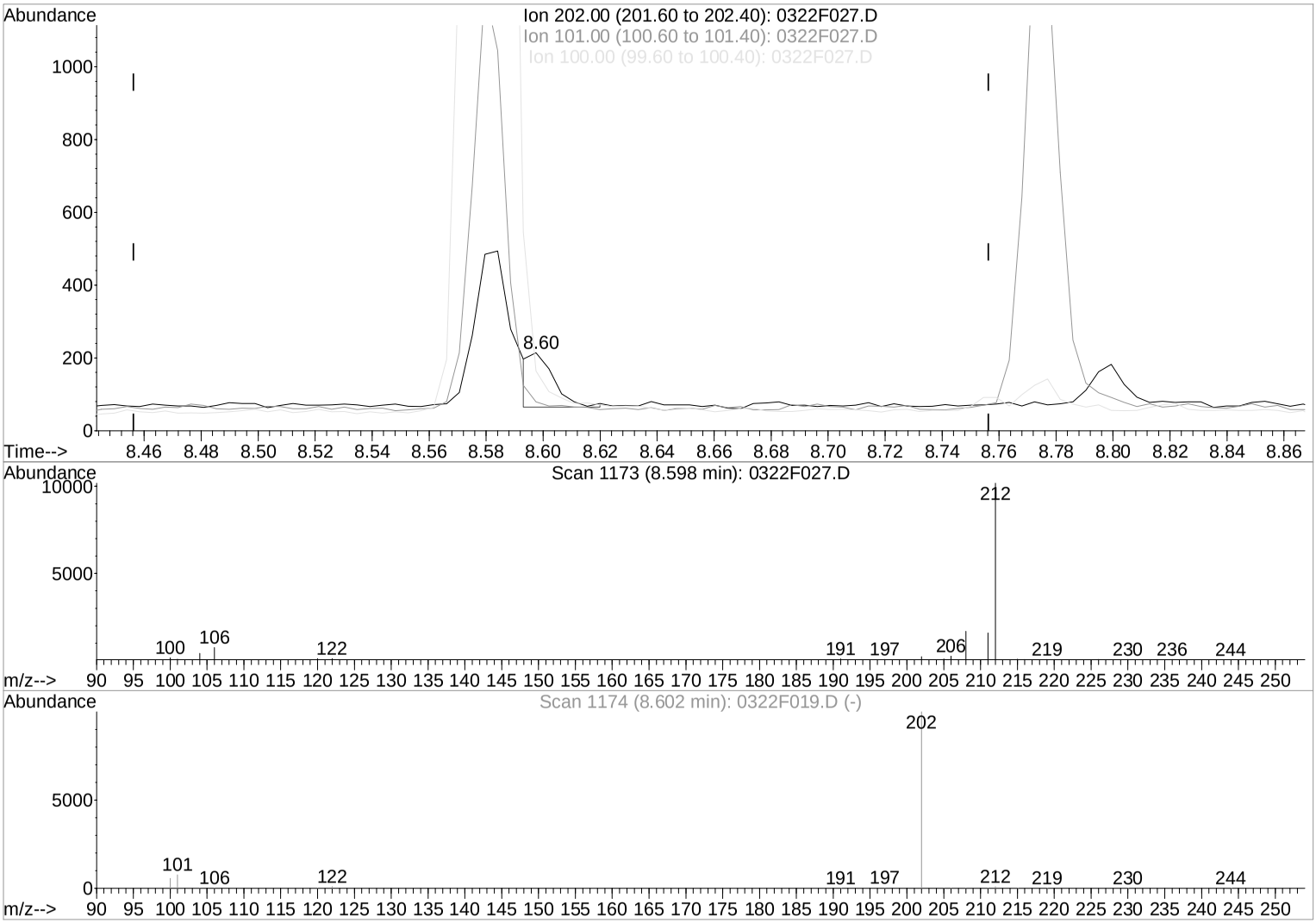
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F027.D Vial: 24
Acq On : 22 Mar 2019 7:34 pm Operator: LWeiskopf
Sample : K1902351-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:58 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F027.D

(21) Fluoranthene (T)

8.60min 0.18ng/ml m

response 85

Ion	Exp%	Act%
202.00	100	100
101.00	9.10	36.92
100.00	6.80	76.64#
0.00	0.00	0.00

Manual Integration:

After

WP

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F028.D\
Lab ID: K1902351-004
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 20:07:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 3/25/19 8:54
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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F028.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 20:07:00	**Vial:**	11
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-004	**Raw Units:**	ng/mL

Bottle ID:	K1902351-004.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	K1902351
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		32613	200.00	NA
Chrysene-d12	10.17		64692	200.00	NA
Naphthalene-d8	4.79		67495	200.00	NA
Perylene-d12	13.40	-0.01	72726	200.00	NA
Phenanthrene-d10	7.60		62697	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		370744	1010.01	101	42 - 133	Y
Fluorene-d10	6.79		190903	844.89	84	42 - 131	Y
Terphenyl-d14	8.94		273629	958.89	96	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		160	0.67	0.0030	J	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.17	+0.01	208	0.45	0.0020	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	8.60		121	0.27	0.0012	J	Y
Fluorene	6.81	-0.01	86	0.29	0.0013	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F028.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 20:07:00	**Vial:**	11
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-004	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.81		342	0.90	0.0040	J	Y
Phenanthrene	7.61	-0.01	309	0.77	0.0034	J	Y
Pyrene	8.80		139	0.28	0.0012	J	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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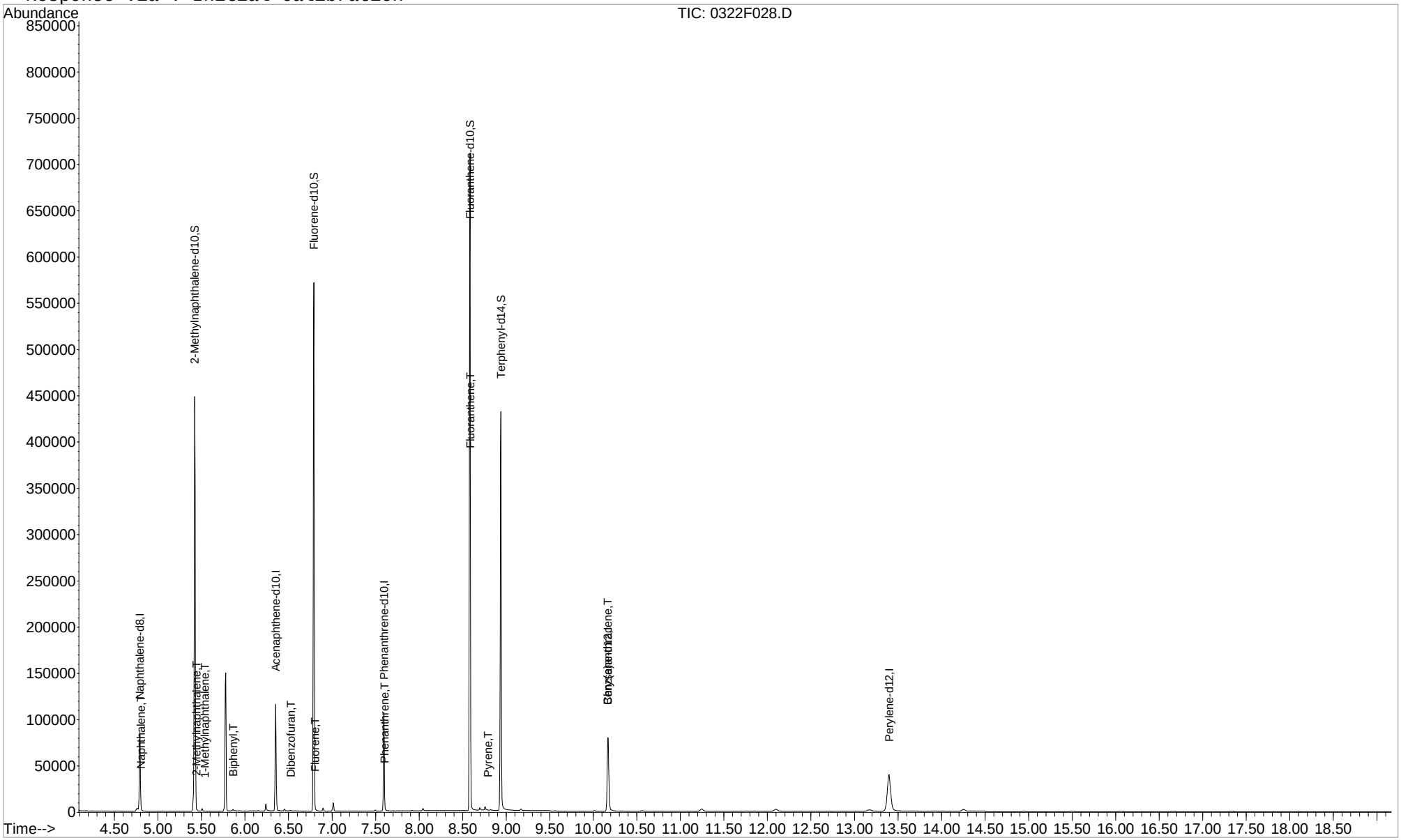
Quantitation Report (QT Reviewed)

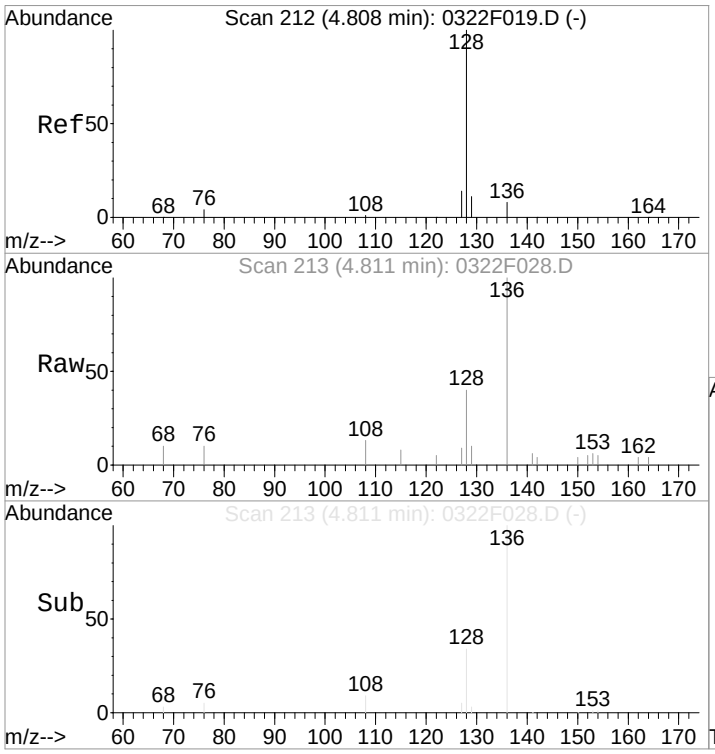
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F028.D Vial: 25
Acq On : 22 Mar 2019 8:07 pm Operator: LWeiskopf
Sample : K1902351-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:59 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



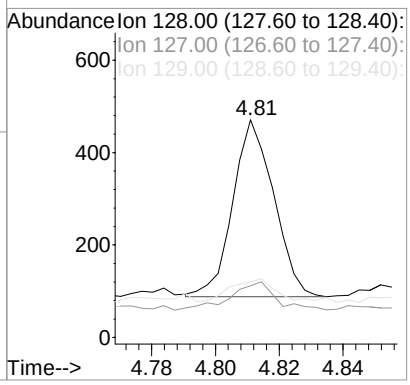
1st 03/25/19
2nd 03/26/19

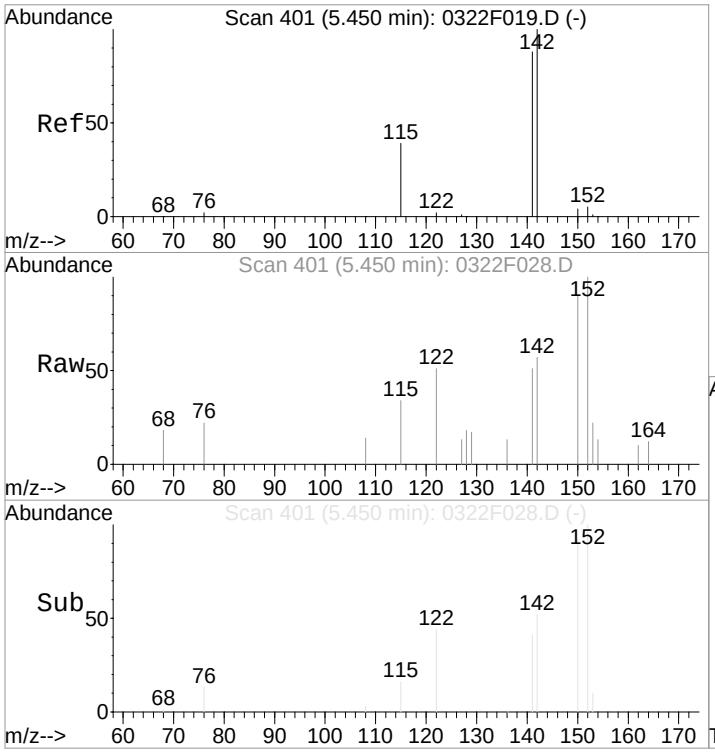


#2
Naphthalene
Concen: 0.90 ng/ml
RT: 4.81 min Scan# 213
Delta R.T. -0.02 min
Lab File: 0322F028.D
Acq: 22 Mar 2019 8:07 pm

Tgt Ion:128 Resp: 342

Ion	Ratio	Lower	Upper
128	100		
127	13.6	0.0	43.9
129	9.1	0.0	30.8

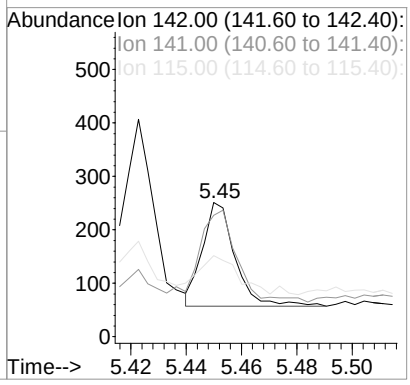


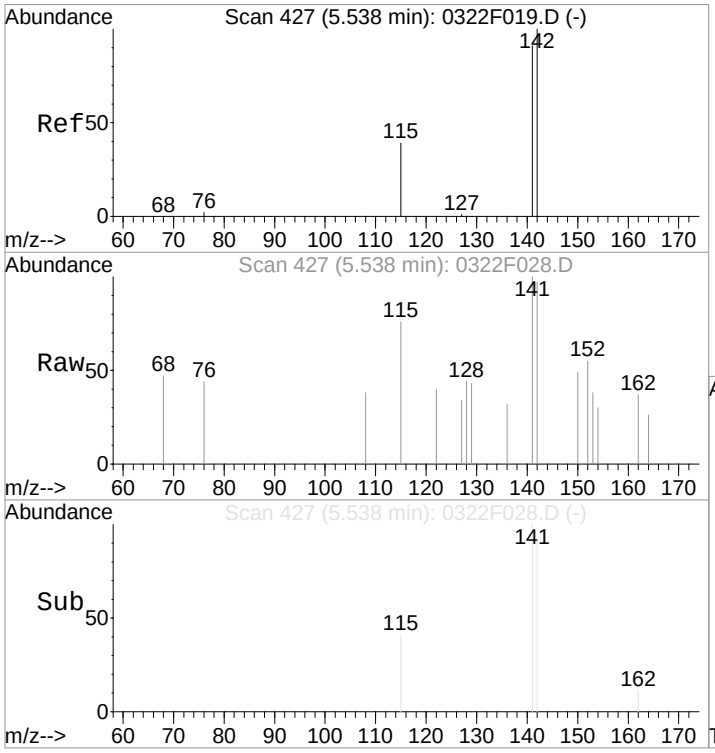


#4
2-Methylnaphthalene
Concen: 0.67 ng/ml
RT: 5.45 min Scan# 401
Delta R.T. -0.02 min
Lab File: 0322F028.D
Acq: 22 Mar 2019 8:07 pm

Tgt Ion:142 Resp: 160

Ion	Ratio	Lower	Upper
142	100		
141	78.9	57.4	117.4
115	34.0	21.9	61.9

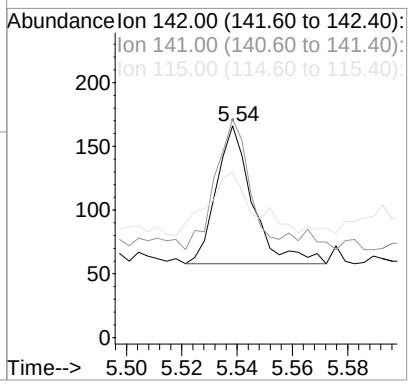


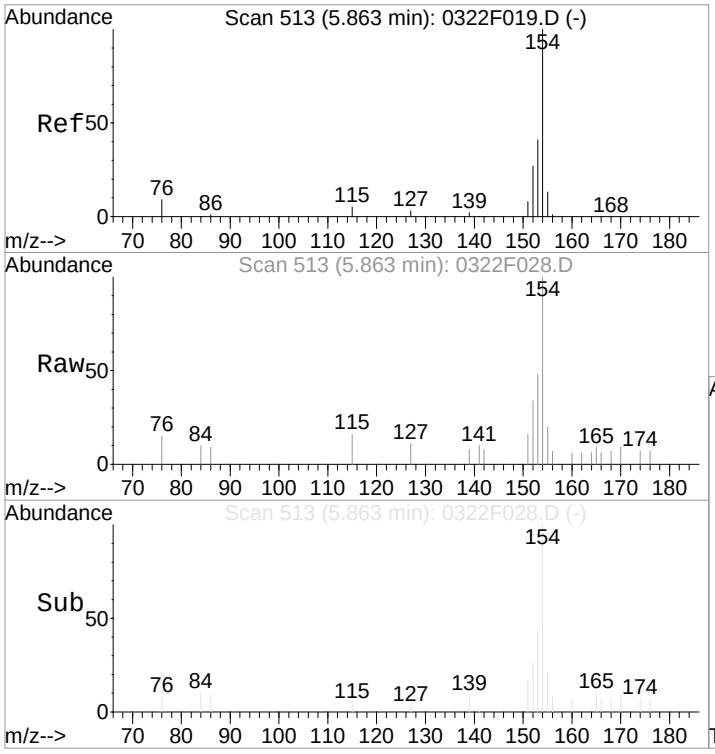


#5
1-Methylnaphthalene
Concen: 0.43 ng/ml
RT: 5.54 min Scan# 427
Delta R.T. -0.01 min
Lab File: 0322F028.D
Acq: 22 Mar 2019 8:07 pm

Tgt Ion:142 Resp: 98

Ion	Ratio	Lower	Upper
142	100		
141	94.4	61.0	121.0
115	40.7	26.2	66.2

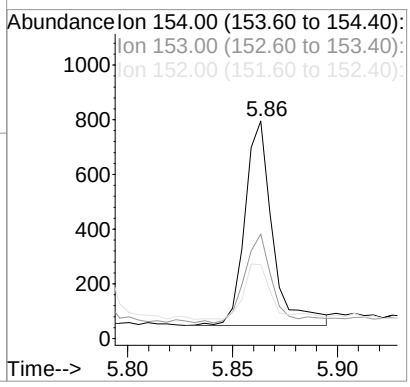


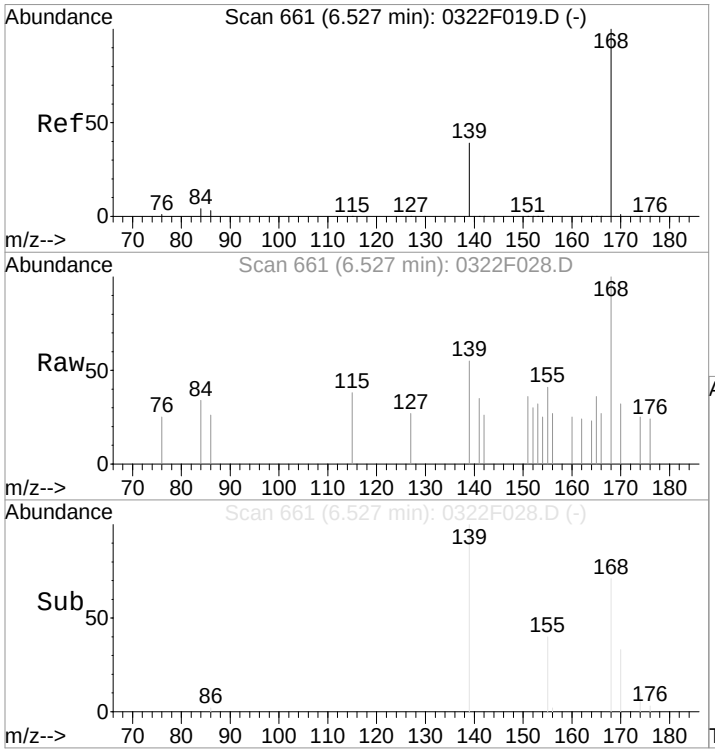


#6
Biphenyl
Concen: 2.24 ng/ml
RT: 5.86 min Scan# 513
Delta R.T. -0.01 min
Lab File: 0322F028.D
Acq: 22 Mar 2019 8:07 pm

Tgt Ion:154 Resp: 688

Ion	Ratio	Lower	Upper
154	100		
153	42.7	11.5	71.5
152	25.7	6.9	46.9

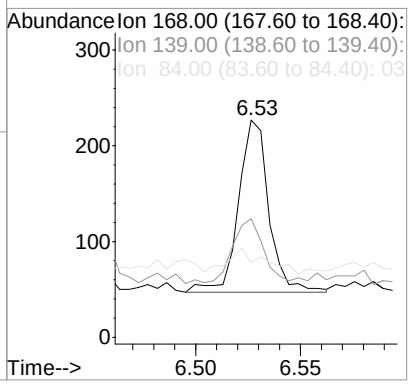


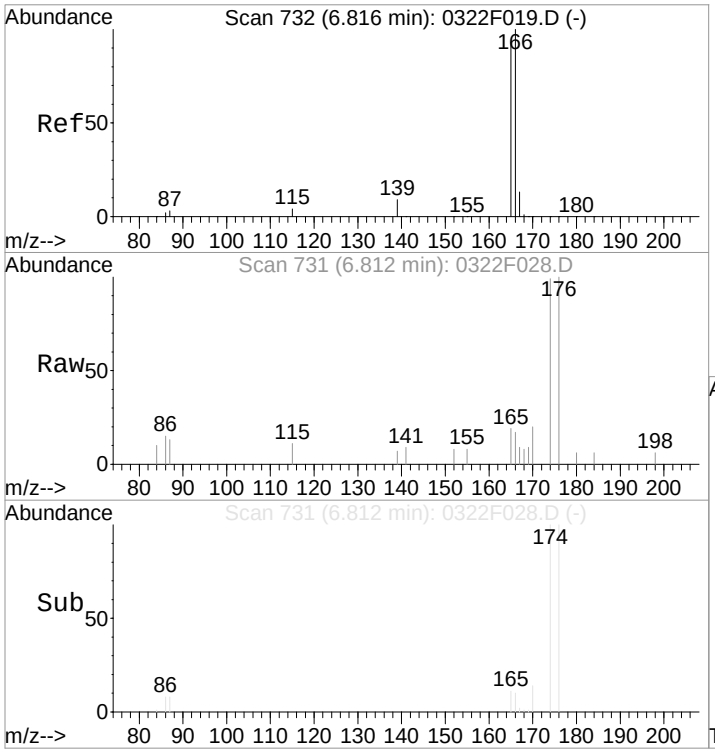


#11
Dibenzofuran
Concen: 0.49 ng/ml
RT: 6.53 min Scan# 661
Delta R.T. -0.01 min
Lab File: 0322F028.D
Acq: 22 Mar 2019 8:07 pm

Tgt Ion:168 Resp: 181

Ion	Ratio	Lower	Upper
168	100		
139	37.8	1.8	61.8
84	5.0	0.0	23.2

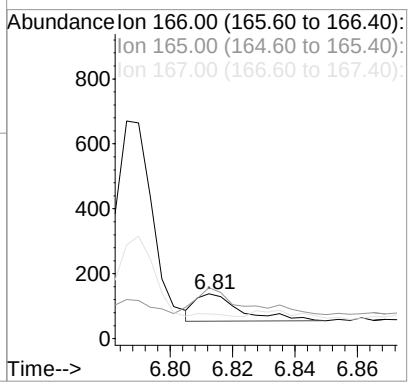




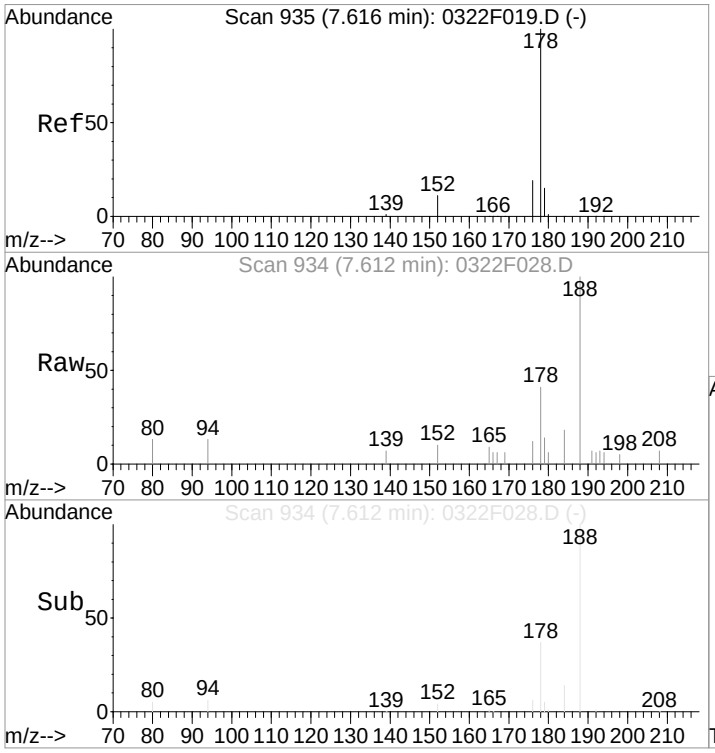
#14
Fluorene
Concen: 0.29 ng/ml
RT: 6.81 min Scan# 731
Delta R.T. -0.01 min
Lab File: 0322F028.D
Acq: 22 Mar 2019 8:07 pm

Tgt Ion:166 Resp: 86

Ion	Ratio	Lower	Upper
166	100		
165	100.0	65.3	125.3
167	15.7	0.0	33.1



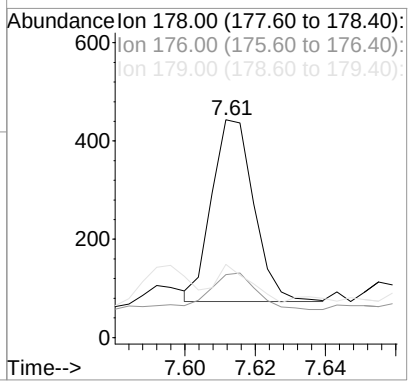
1st 03/25/19
2nd 03/26/19

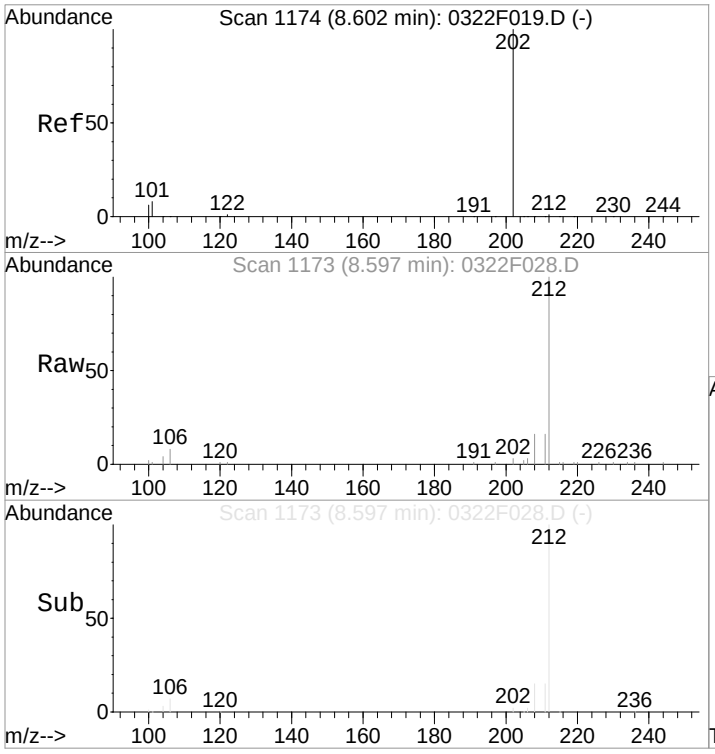


#17
Phenanthrene
Concen: 0.77 ng/ml m
RT: 7.61 min Scan# 934
Delta R.T. -0.01 min
Lab File: 0322F028.D
Acq: 22 Mar 2019 8:07 pm

Tgt Ion:178 Resp: 309

Ion	Ratio	Lower	Upper
178	100		
176	28.9	0.0	48.6
179	33.6	0.0	35.2

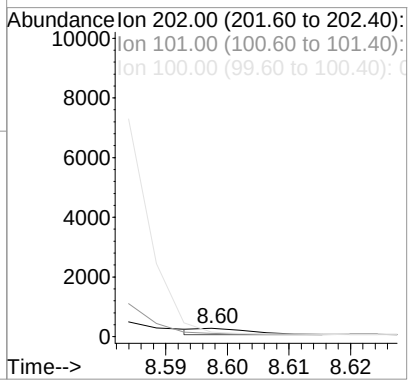


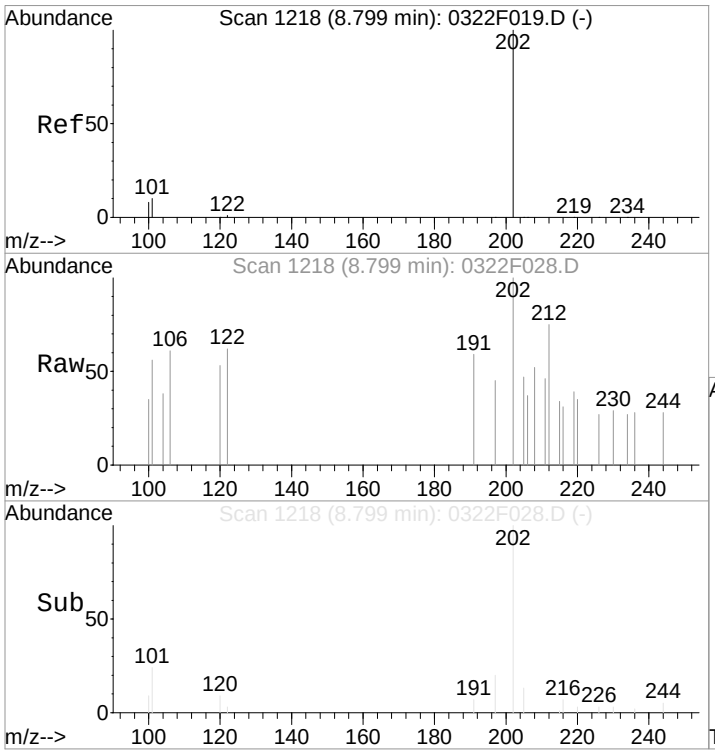


#21
Fluoranthene
Concen: 0.27 ng/ml m
RT: 8.60 min Scan# 1173
Delta R.T. -0.01 min
Lab File: 0322F028.D
Acq: 22 Mar 2019 8:07 pm

Tgt Ion:202 Resp: 121

Ion	Ratio	Lower	Upper
202	100		
101	37.6	0.0	39.1
100	55.2	0.0	26.8#

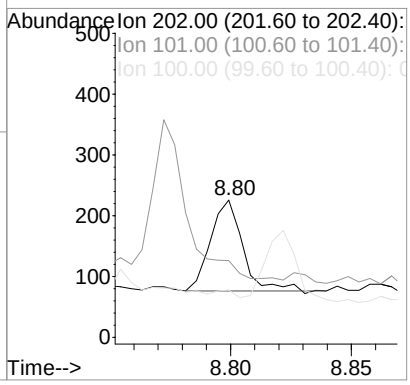


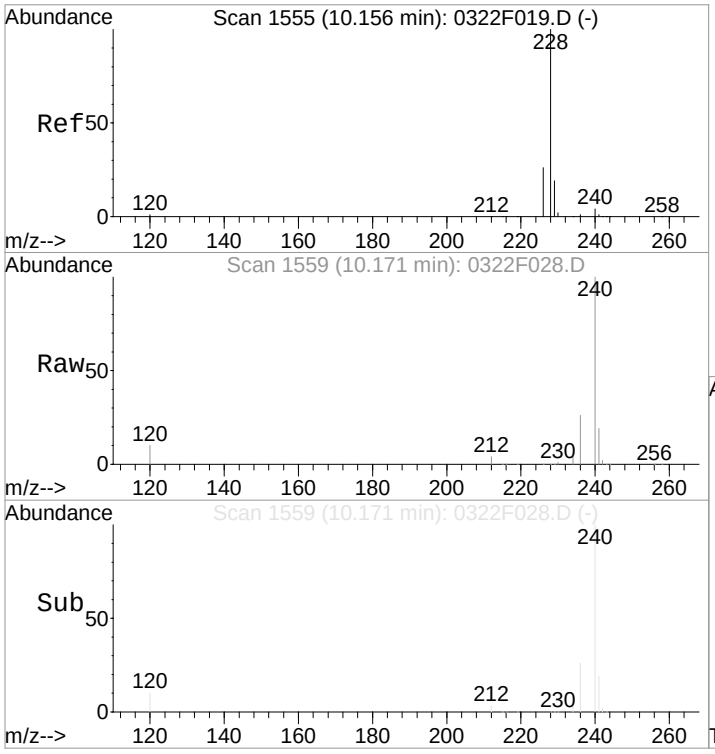


#24
Pyrene
Concen: 0.28 ng/ml
RT: 8.80 min Scan# 1218
Delta R.T. -0.01 min
Lab File: 0322F028.D
Acq: 22 Mar 2019 8:07 pm

Tgt Ion:202 Resp: 139

Ion	Ratio	Lower	Upper
202	100		
101	24.7	0.0	39.7
100	10.7	0.0	27.7

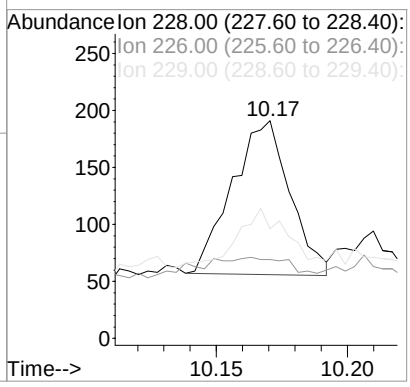




#26
Benz(a)anthracene
Concen: 0.45 ng/ml
RT: 10.17 min Scan# 1559
Delta R.T. 0.00 min
Lab File: 0322F028.D
Acq: 22 Mar 2019 8:07 pm

Tgt Ion:228 Resp: 208

Ion	Ratio	Lower	Upper
228	100		
226	6.7	0.0	56.6
229	22.4	0.0	39.5



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F028.D Vial: 25
Acq On : 22 Mar 2019 8:07 pm Operator: LWeiskopf
Sample : K1902351-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:58 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	67495m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	32613	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	62697	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	64692	200.00	ng/ml	-0.01
28) Perylene-d12	13.40	264	72726	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	142314	747.76	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 74.78%			
13) Fluorene-d10	6.79	176	190903	844.89	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 84.49%			
22) Fluoranthene-d10	8.58	212	370744	1010.01	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 101.00%			
25) Terphenyl-d14	8.94	244	273629	958.89	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 95.89%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	342	0.90	ng/ml	98
4) 2-Methylnaphthalene	5.45	142	160	0.67	ng/ml	90
5) 1-Methylnaphthalene	5.54	142	98	0.43	ng/ml	95
6) Biphenyl	5.86	154	688	2.24	ng/ml	98
11) Dibenzofuran	6.53	168	181	0.49	ng/ml	90
14) Fluorene	6.81	166	86	0.29	ng/ml	95
17) Phenanthrene	7.61	178	309m	0.77	ng/ml	
21) Fluoranthene	8.60	202	121m	0.27	ng/ml	
24) Pyrene	8.80	202	139	0.28	ng/ml	74
26) Benz(a)anthracene	10.17	228	208	0.45	ng/ml	75

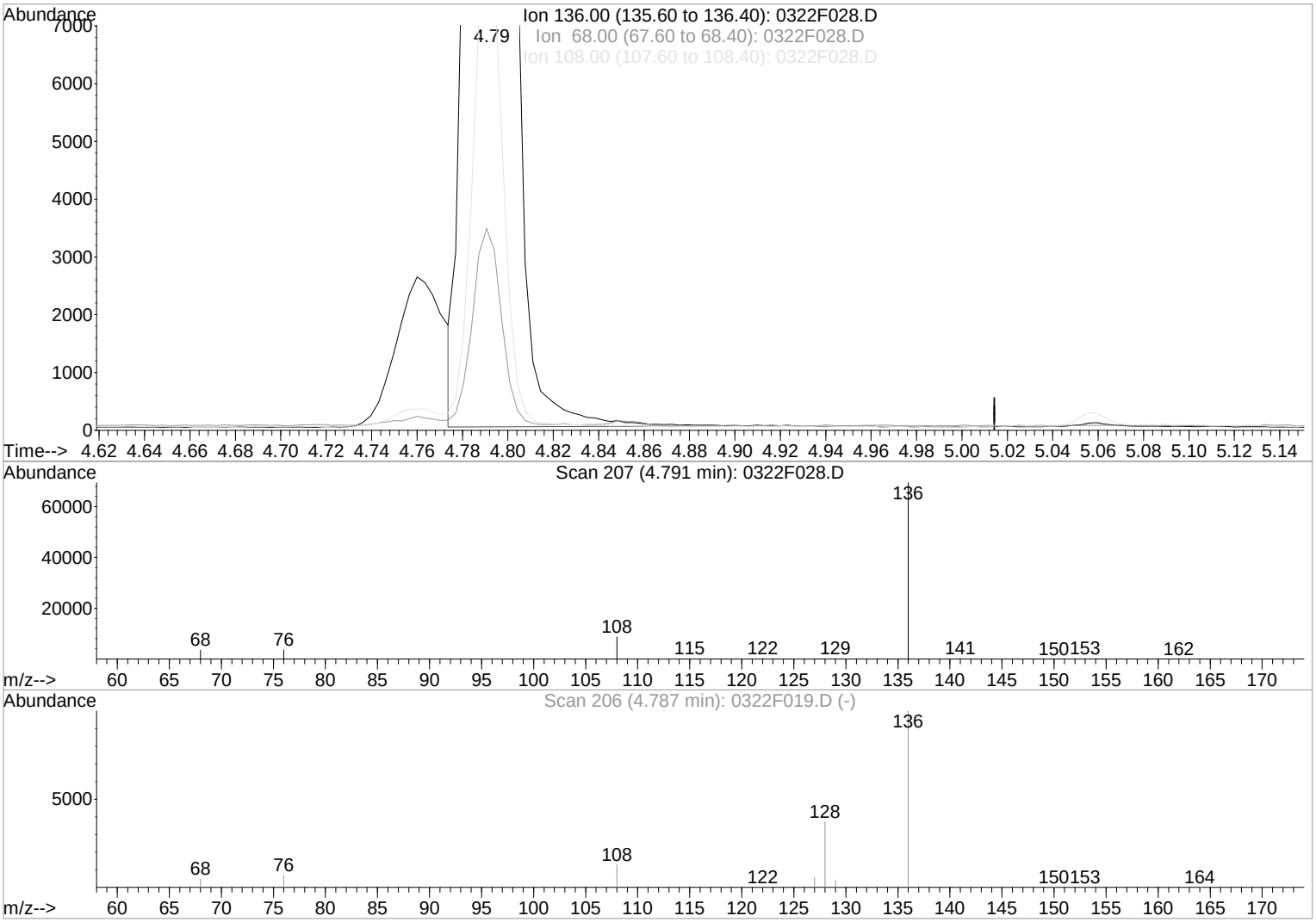
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F028.D Vial: 25
Acq On : 22 Mar 2019 8:07 pm Operator: LWeiskopf
Sample : K1902351-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F028.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 63698

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.91
108.00	13.60	12.43
0.00	0.00	0.00

Manual Integration:

Before

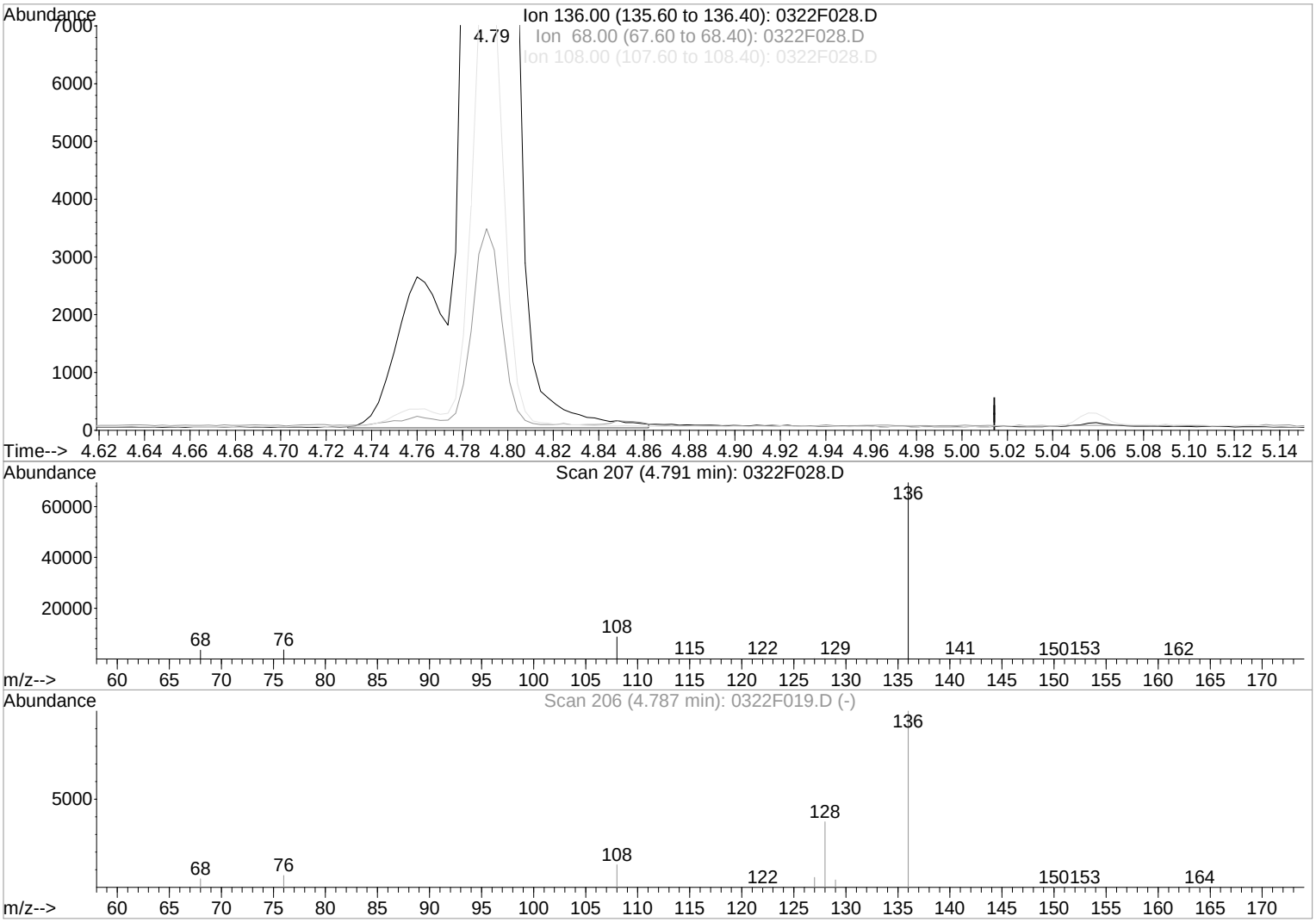
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F028.D Vial: 25
Acq On : 22 Mar 2019 8:07 pm Operator: LWeiskopf
Sample : K1902351-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:58 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F028.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 67495

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	5.02
108.00	13.60	12.50
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

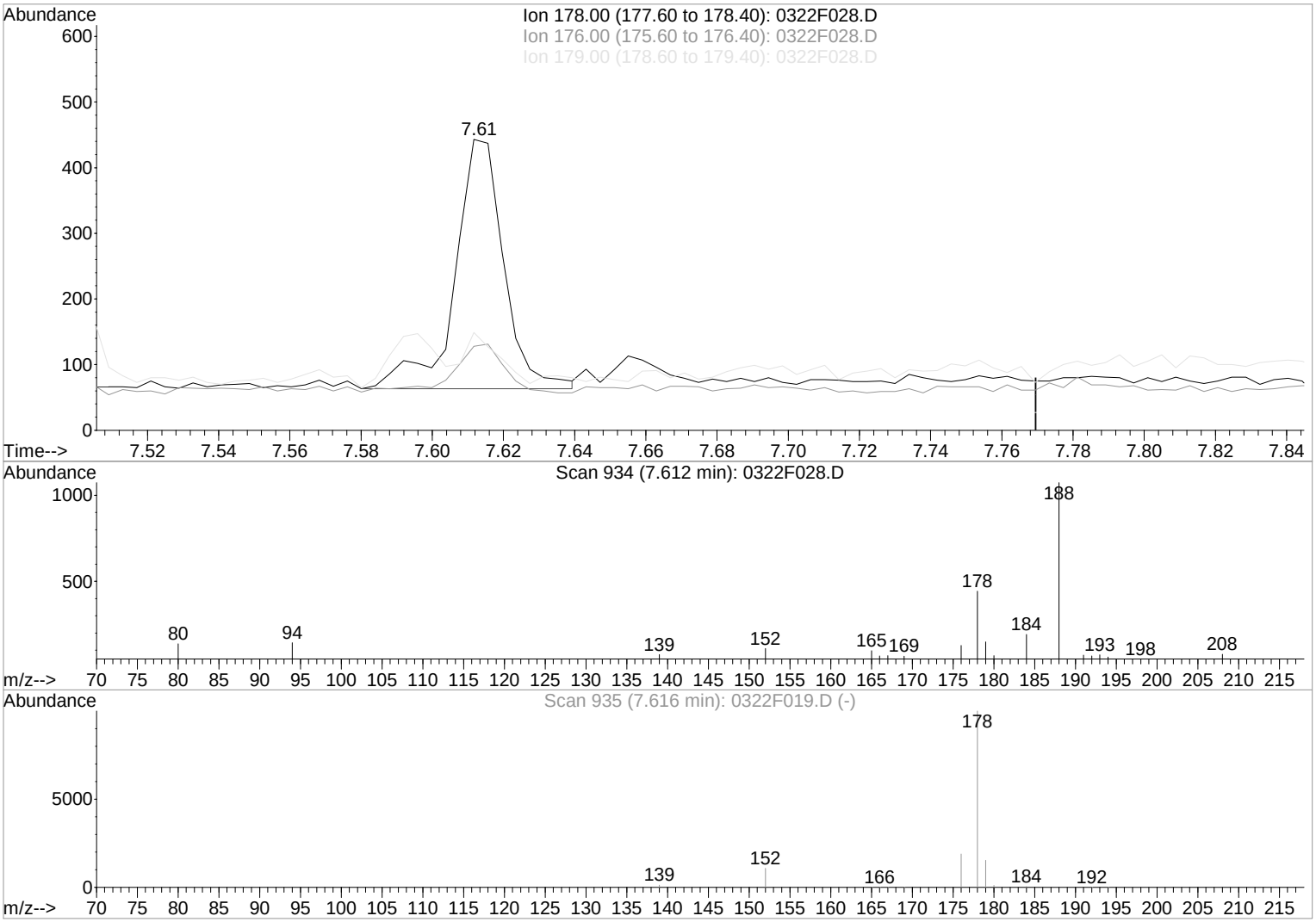
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F028.D Vial: 25
Acq On : 22 Mar 2019 8:07 pm Operator: LWeiskopf
Sample : K1902351-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:58 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F028.D

(17) Phenanthrene (T)

7.61min 0.92ng/ml

response 366

Ion	Exp%	Act%
178.00	100	100
176.00	18.60	18.68
179.00	15.20	22.11
0.00	0.00	0.00

Manual Integration:

Before

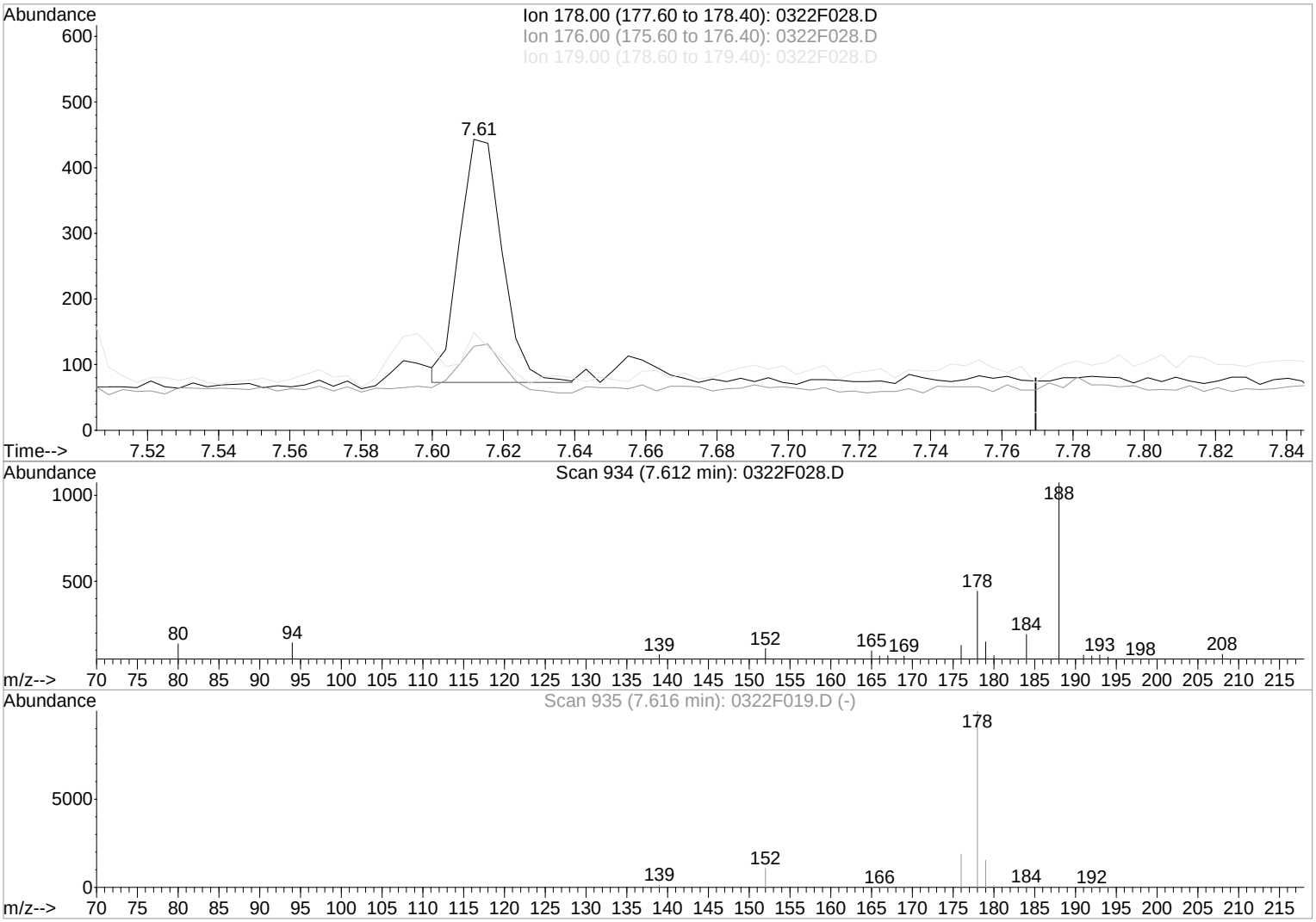
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F028.D Vial: 25
Acq On : 22 Mar 2019 8:07 pm Operator: LWeiskopf
Sample : K1902351-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:59 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F028.D

(17) Phenanthrene (T)

7.61min 0.77ng/ml m

response 309

Ion	Exp%	Act%
178.00	100	100
176.00	18.60	28.89
179.00	15.20	33.63
0.00	0.00	0.00

Manual Integration:

After

BLC

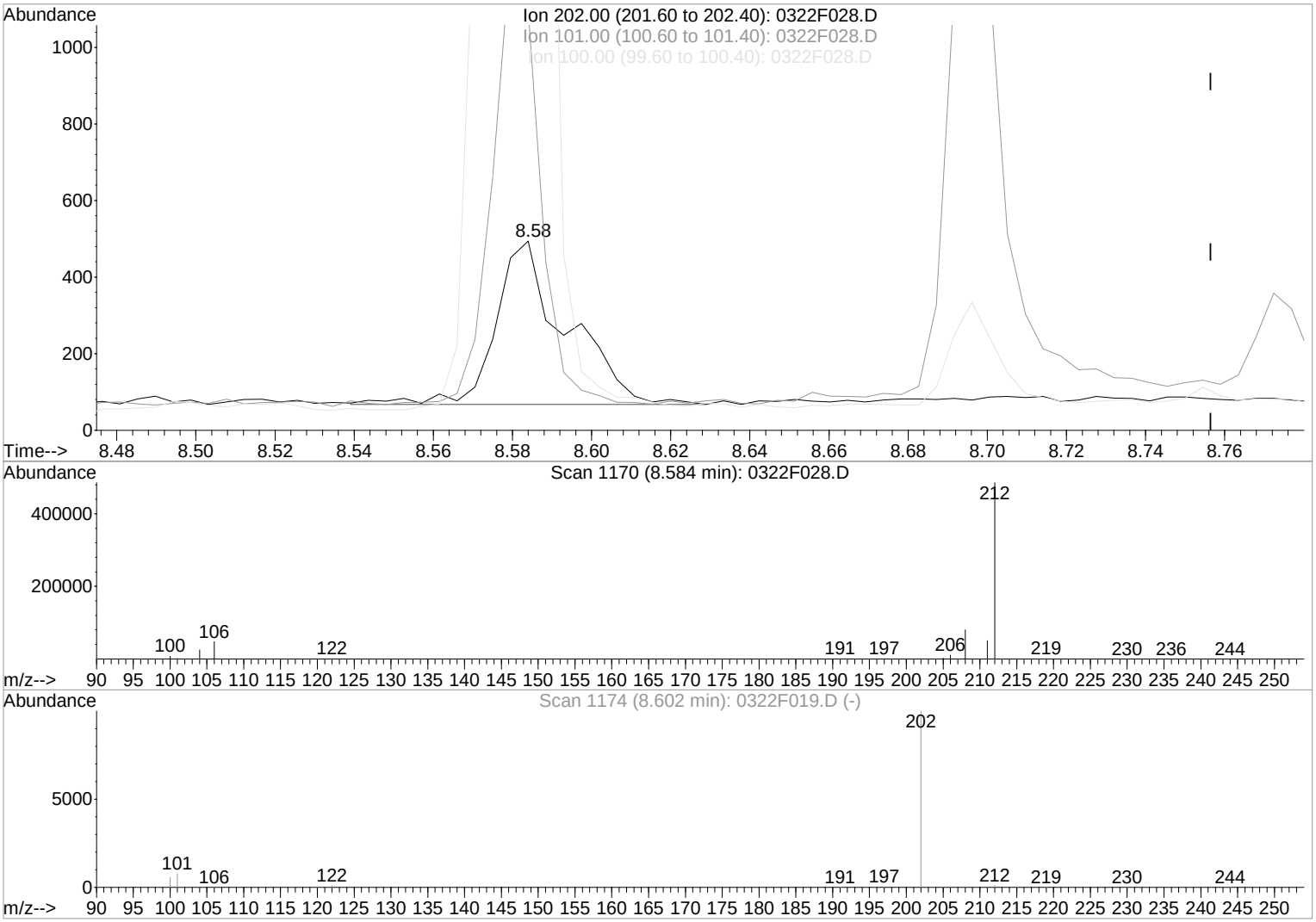
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F028.D Vial: 25
Acq On : 22 Mar 2019 8:07 pm Operator: LWeiskopf
Sample : K1902351-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:59 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F028.D

(21) Fluoranthene (T)

8.58min 1.17ng/ml

response 533

Ion	Exp%	Act%
202.00	100	100
101.00	9.10	240.98#
100.00	6.80	1693.68#
0.00	0.00	0.00

Manual Integration:

Before

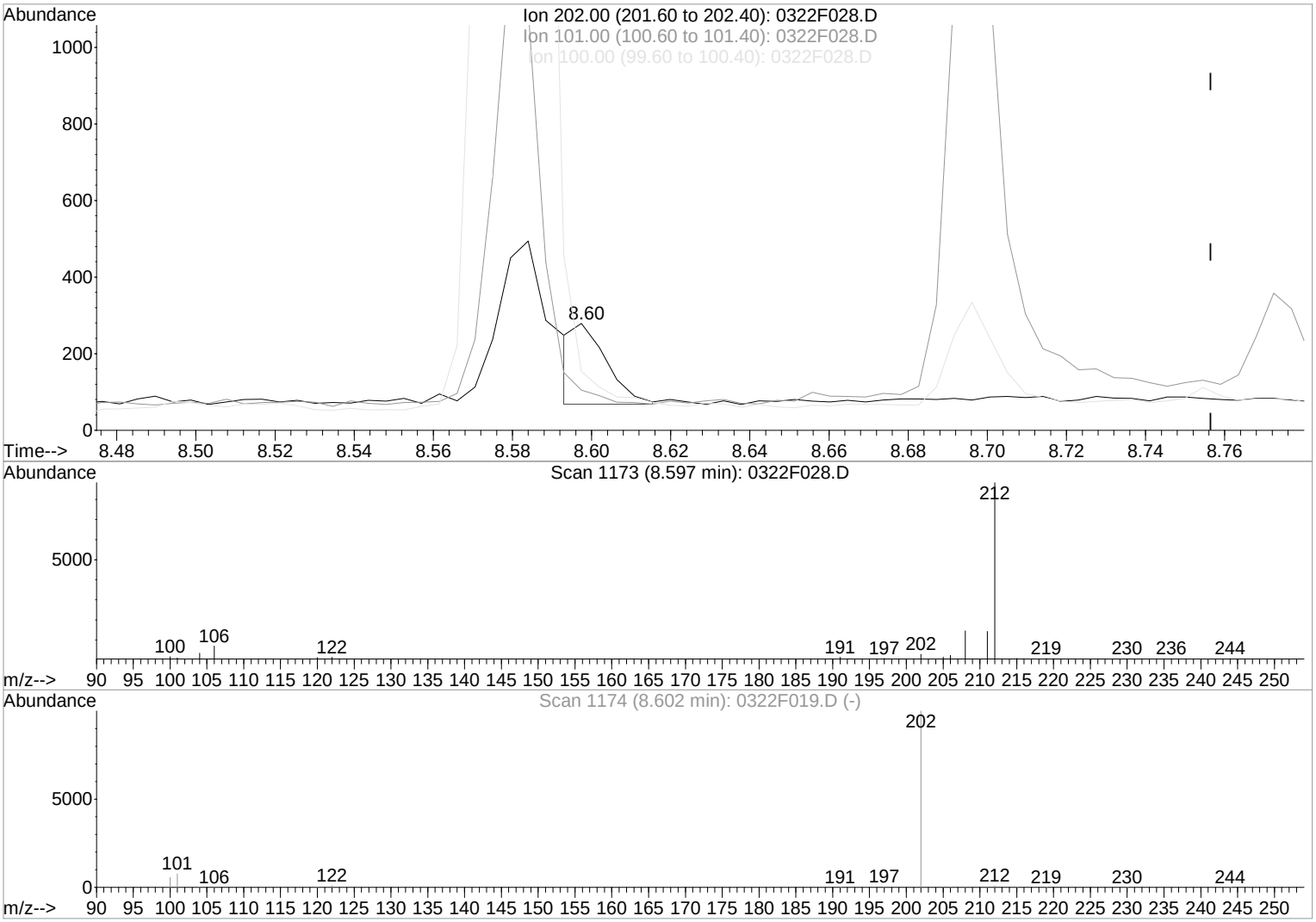
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F028.D Vial: 25
Acq On : 22 Mar 2019 8:07 pm Operator: LWeiskopf
Sample : K1902351-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:59 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F028.D

(21) Fluoranthene (T)

8.60min 0.27ng/ml m

response 121

Ion	Exp%	Act%
202.00	100	100
101.00	9.10	37.63
100.00	6.80	55.20#
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F029.D\
Lab ID: K1902351-014
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 20:39:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F029.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 20:39:00	**Vial:**	12
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-014	**Raw Units:**	ng/mL

Bottle ID:	K1902351-014.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	K1902351
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		33665	200.00	NA
Chrysene-d12	10.17		63506	200.00	NA
Naphthalene-d8	4.79		67995	200.00	NA
Perylene-d12	13.39	-0.02	70466	200.00	NA
Phenanthrene-d10	7.60		63866	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		181902	486.48	97	42 - 133	Y
Fluorene-d10	6.79		94837	406.61	81	42 - 131	Y
Terphenyl-d14	8.93	-0.01	87293	311.62	62	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		171	0.72	0.0064	J	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.16		233	0.51	0.0045	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	15.93	-0.01	100	0.21	0.0019	J	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	8.60		135	0.29	0.0026	J	Y
Fluorene	6.81	-0.01	107	0.35	0.0031	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F029.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 20:39:00	**Vial:**	12
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-014	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.81		283	0.74	0.0066	J	Y
Phenanthrene	7.61	-0.01	471	1.16	0.010	J	Y
Pyrene	8.80		148	0.31	0.0028	J	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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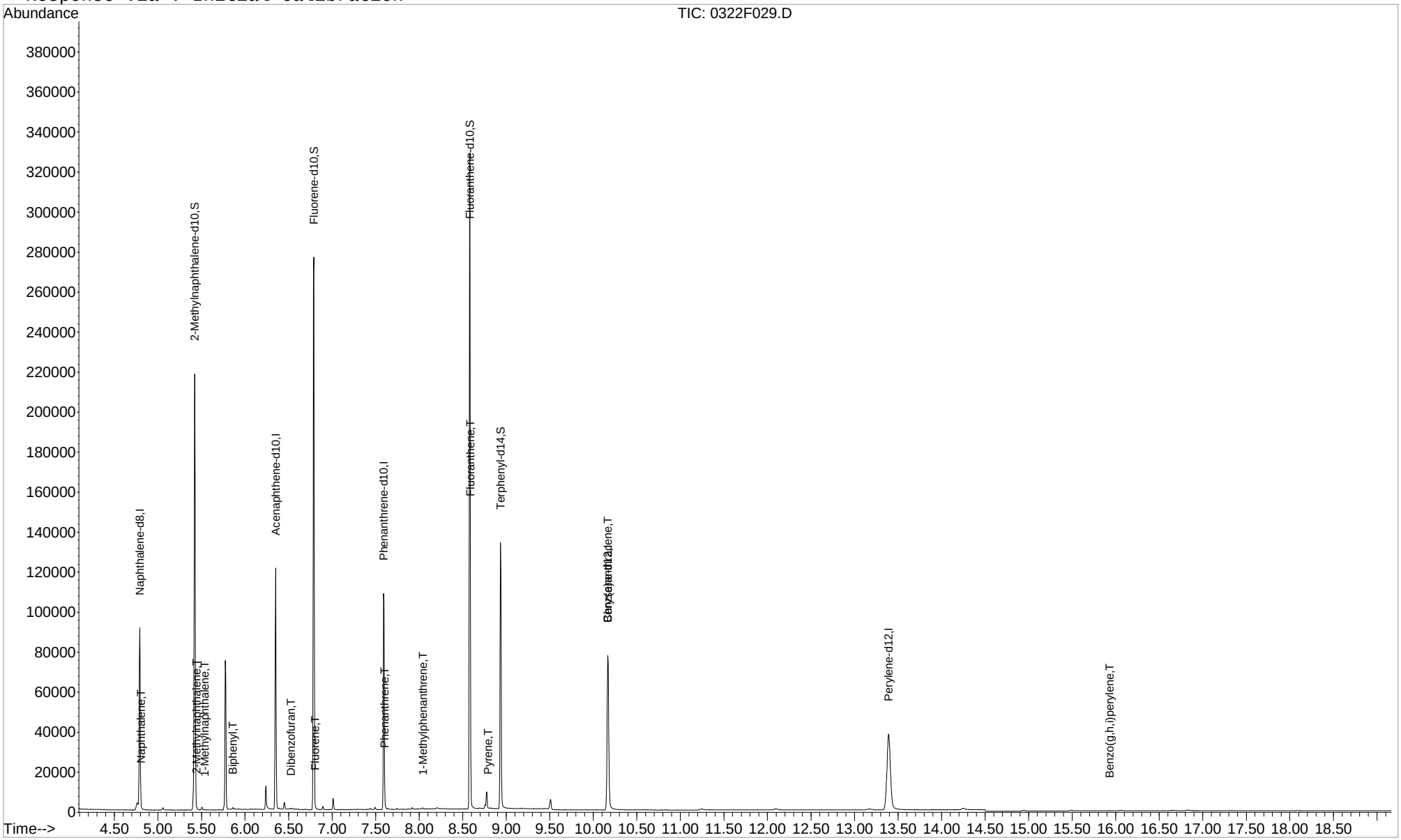
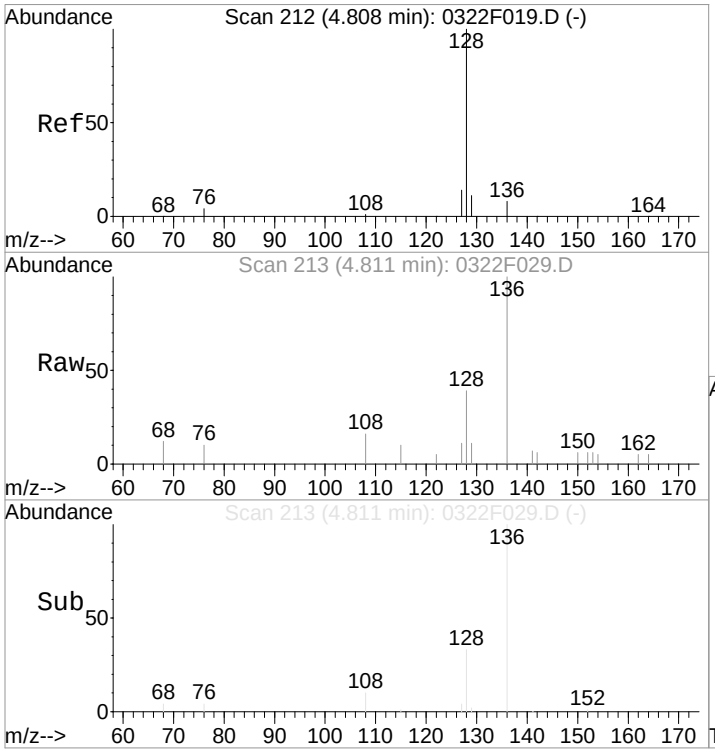
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F029.D Vial: 26
Acq On : 22 Mar 2019 8:39 pm Operator: LWeiskopf
Sample : K1902351-014 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:00 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



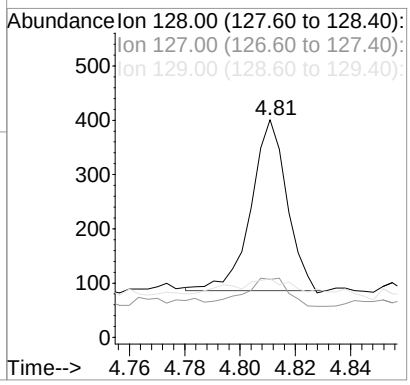
1st 03/25/19
2nd 03/26/19

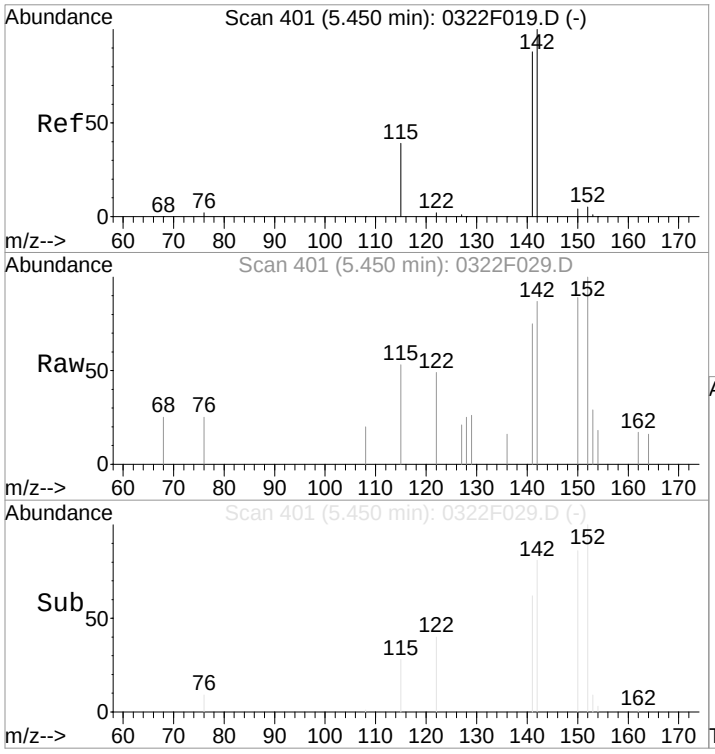


#2
Naphthalene
Concen: 0.74 ng/ml
RT: 4.81 min Scan# 213
Delta R.T. -0.02 min
Lab File: 0322F029.D
Acq: 22 Mar 2019 8:39 pm

Tgt Ion:128 Resp: 283

Ion	Ratio	Lower	Upper
128	100		
127	15.9	0.0	43.9
129	8.9	0.0	30.8

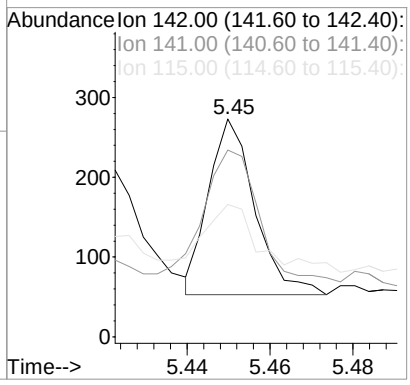




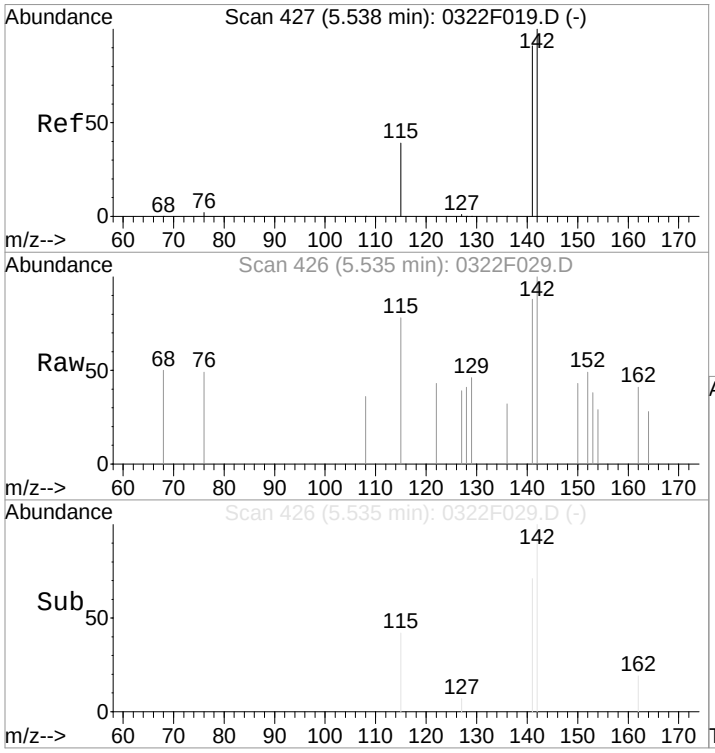
#4
2-Methylnaphthalene
Concen: 0.72 ng/ml
RT: 5.45 min Scan# 401
Delta R.T. -0.02 min
Lab File: 0322F029.D
Acq: 22 Mar 2019 8:39 pm

Tgt Ion:142 Resp: 171

Ion	Ratio	Lower	Upper
142	100		
141	72.7	57.4	117.4
115	33.2	21.9	61.9



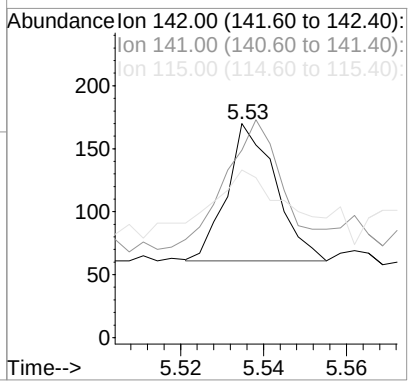
1st 03/25/19
2nd 03/26/19

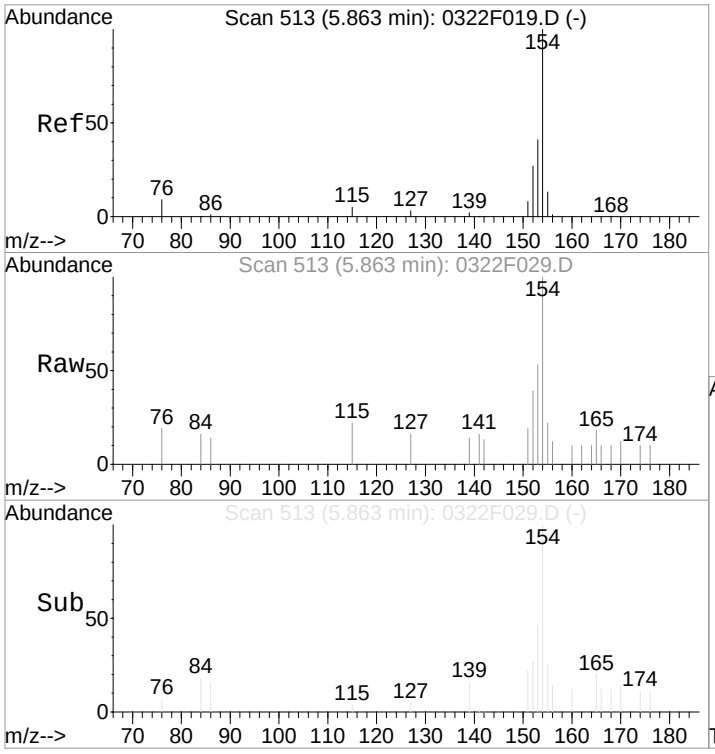


#5
1-Methylnaphthalene
Concen: 0.39 ng/ml
RT: 5.53 min Scan# 426
Delta R.T. -0.02 min
Lab File: 0322F029.D
Acq: 22 Mar 2019 8:39 pm

Tgt Ion:142 Resp: 89

Ion	Ratio	Lower	Upper
142	100		
141	65.1	61.0	121.0
115	38.5	26.2	66.2

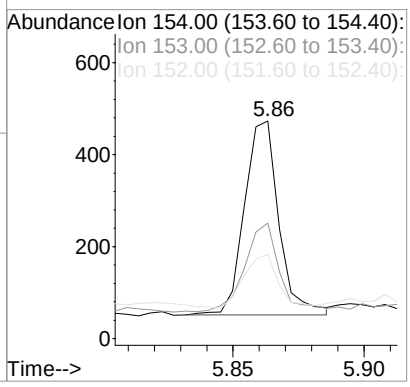


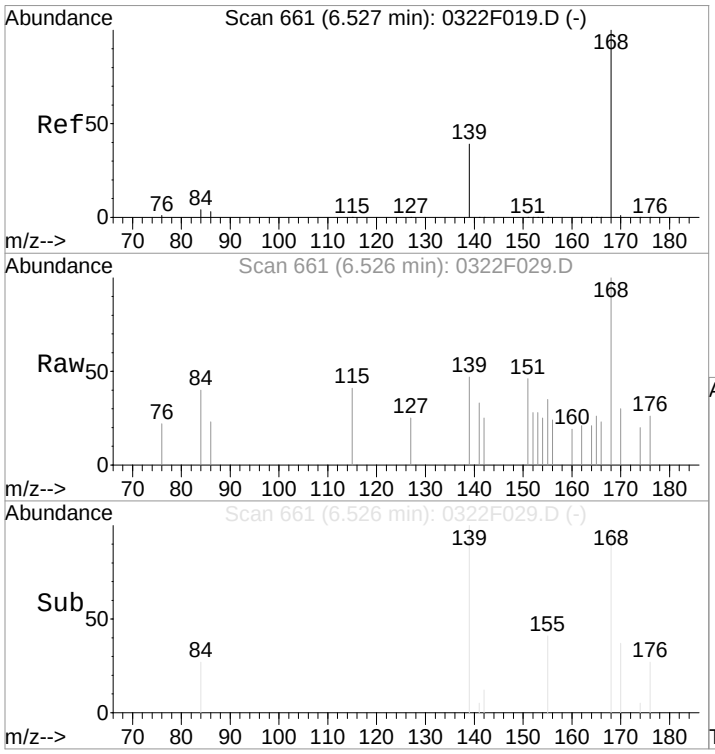


#6
Biphenyl
Concen: 1.24 ng/ml
RT: 5.86 min Scan# 513
Delta R.T. -0.01 min
Lab File: 0322F029.D
Acq: 22 Mar 2019 8:39 pm

Tgt Ion:154 Resp: 383

Ion	Ratio	Lower	Upper
154	100		
153	45.4	11.5	71.5
152	26.1	6.9	46.9

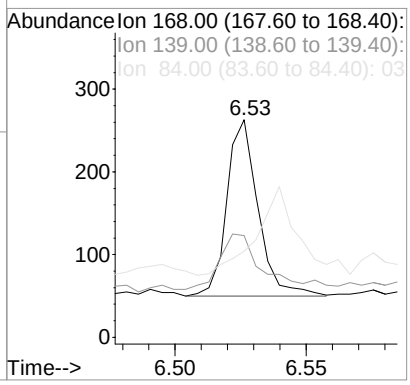


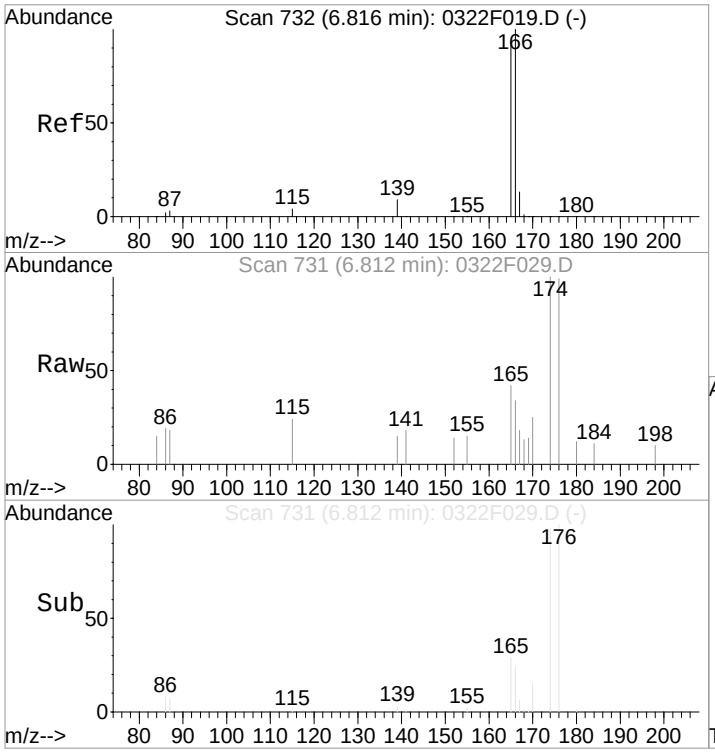


#11
Dibenzofuran
Concen: 0.46 ng/ml
RT: 6.53 min Scan# 661
Delta R.T. -0.01 min
Lab File: 0322F029.D
Acq: 22 Mar 2019 8:39 pm

Tgt Ion:168 Resp: 176

Ion	Ratio	Lower	Upper
168	100		
139	30.5	1.8	61.8
84	11.3	0.0	23.2

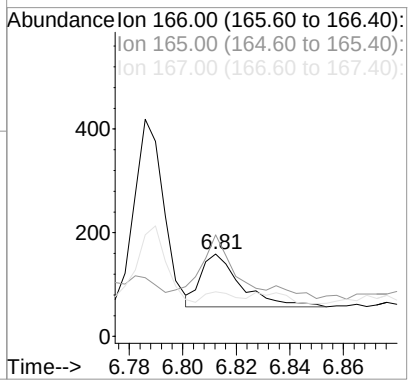




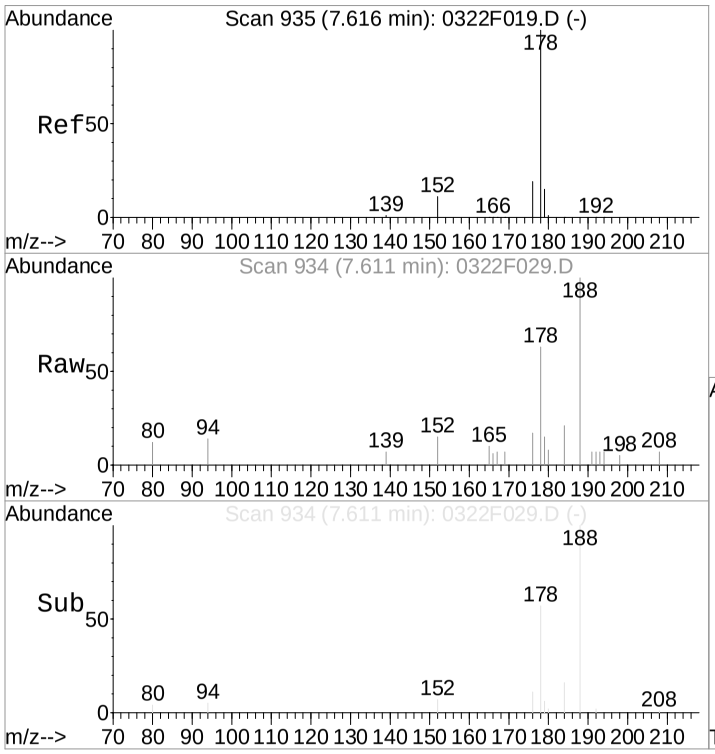
#14
Fluorene
Concen: 0.35 ng/ml
RT: 6.81 min Scan# 731
Delta R.T. -0.01 min
Lab File: 0322F029.D
Acq: 22 Mar 2019 8:39 pm

Tgt Ion:166 Resp: 107

Ion	Ratio	Lower	Upper
166	100		
165	115.7	65.3	125.3
167	21.6	0.0	33.1



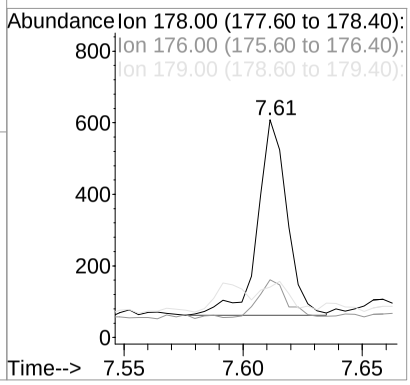
1st 03/25/19
2nd 03/26/19

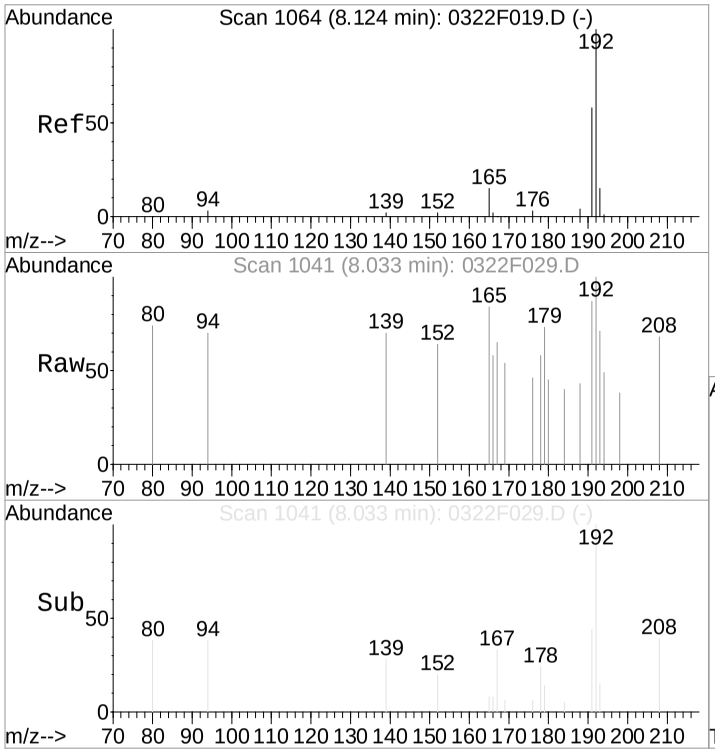


#17
Phenanthrene
Concen: 1.16 ng/ml
RT: 7.61 min Scan# 934
Delta R.T. -0.01 min
Lab File: 0322F029.D
Acq: 22 Mar 2019 8:39 pm

Tgt Ion:178 Resp: 471

Ion	Ratio	Lower	Upper
178	100		
176	18.7	0.0	48.6
179	11.9	0.0	35.2

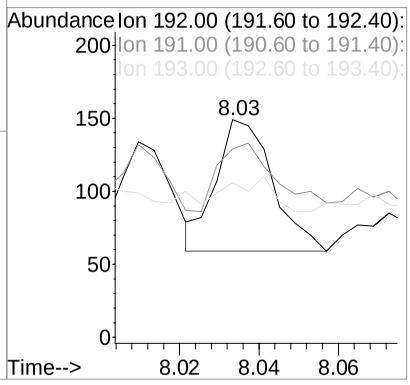




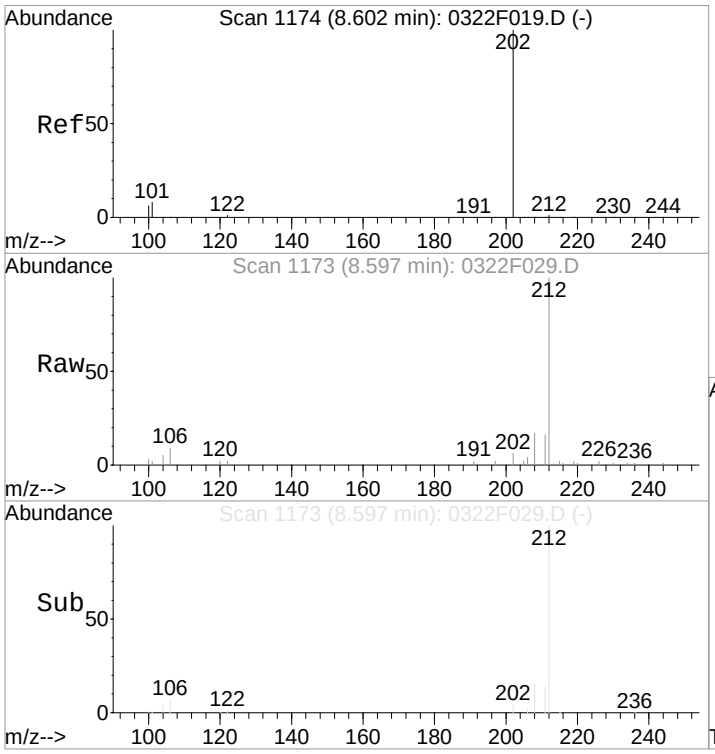
#20
1-Methylphenanthrene
Concen: 0.29 ng/ml
RT: 8.03 min Scan# 1041
Delta R.T. -0.10 min
Lab File: 0322F029.D
Acq: 22 Mar 2019 8:39 pm

Tgt Ion:192 Resp: 89

Ion	Ratio	Lower	Upper
192	100		
191	46.7	27.2	87.2
193	15.6	0.0	45.6



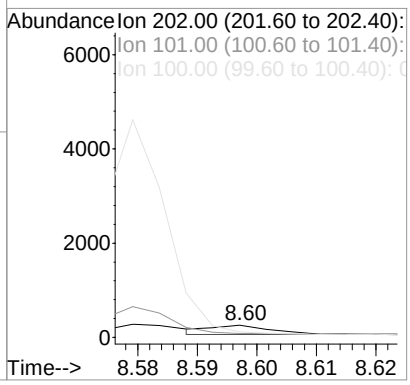
1st 03/25/19
2nd 03/26/19

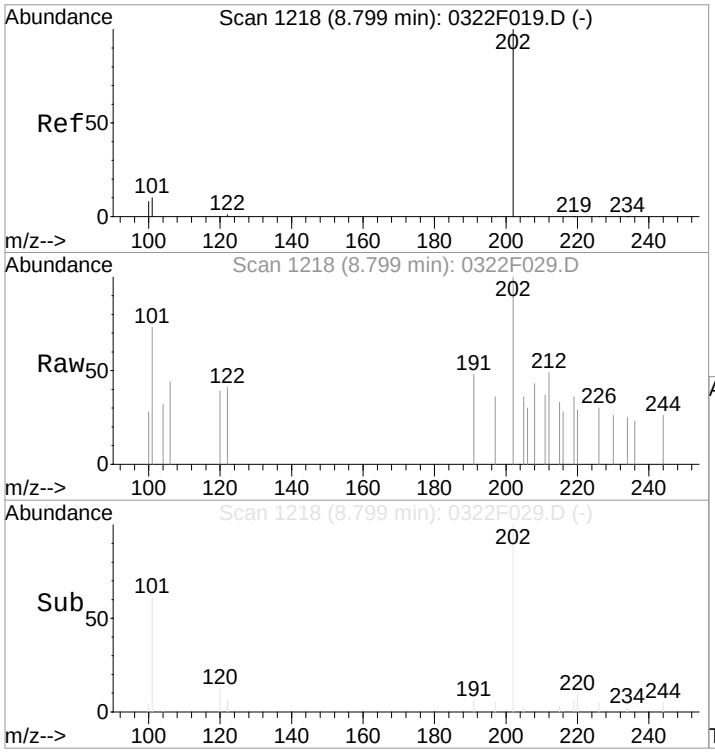


#21
Fluoranthene
Concen: 0.29 ng/ml m
RT: 8.60 min Scan# 1173
Delta R.T. -0.01 min
Lab File: 0322F029.D
Acq: 22 Mar 2019 8:39 pm

Tgt Ion:202 Resp: 135

Ion	Ratio	Lower	Upper
202	100		
101	32.4	0.0	39.1
100	44.0	0.0	26.8#

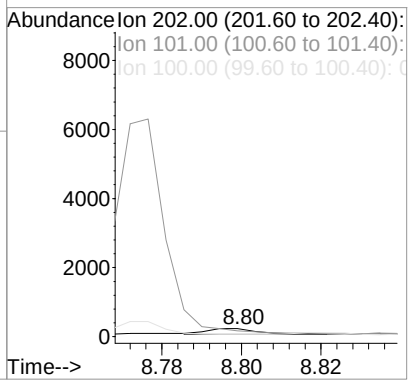




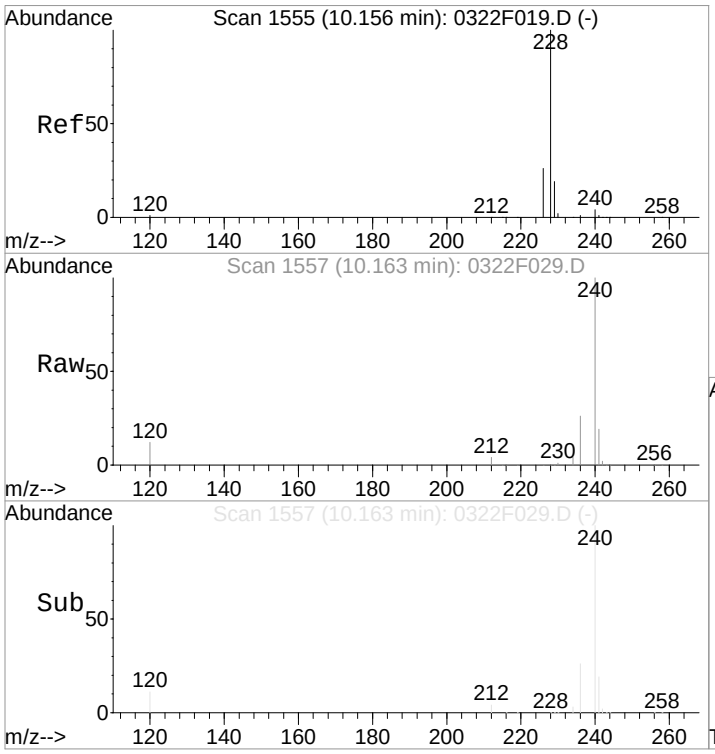
#24
Pyrene
Concen: 0.31 ng/ml m
RT: 8.80 min Scan# 1218
Delta R.T. -0.01 min
Lab File: 0322F029.D
Acq: 22 Mar 2019 8:39 pm

Tgt Ion:202 Resp: 148

Ion	Ratio	Lower	Upper
202	100		
101	72.6	0.0	39.7#
100	27.8	0.0	27.7#



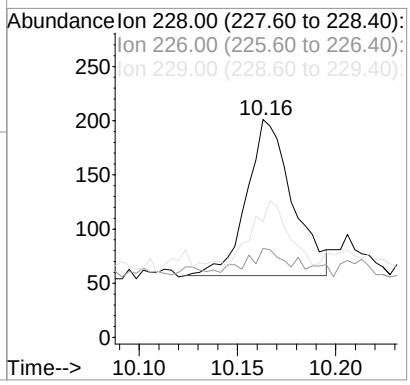
1st 03/25/19
2nd 03/26/19

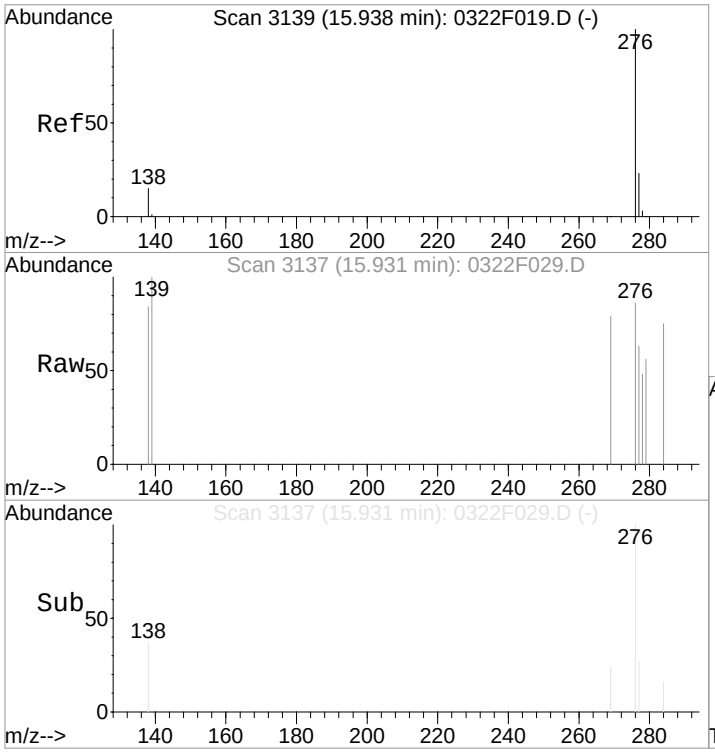


#26
Benz(a)anthracene
Concen: 0.51 ng/ml
RT: 10.16 min Scan# 1557
Delta R.T. -0.01 min
Lab File: 0322F029.D
Acq: 22 Mar 2019 8:39 pm

Tgt Ion:228 Resp: 233

Ion	Ratio	Lower	Upper
228	100		
226	11.8	0.0	56.6
229	19.4	0.0	39.5

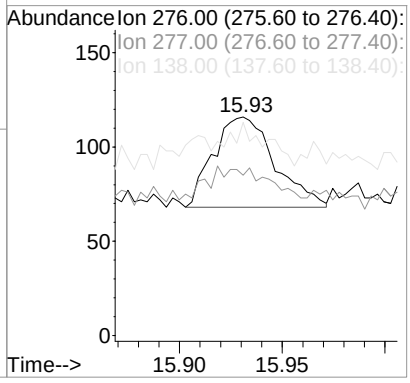




#36
Benzo(g,h,i)perylene
Concen: 0.21 ng/ml
RT: 15.93 min Scan# 3137
Delta R.T. -0.00 min
Lab File: 0322F029.D
Acq: 22 Mar 2019 8:39 pm

Tgt Ion:276 Resp: 100

Ion	Ratio	Lower	Upper
276	100		
277	20.8	0.0	53.6
138	45.8	0.0	36.7#



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F029.D Vial: 26
Acq On : 22 Mar 2019 8:39 pm Operator: LWeiskopf
Sample : K1902351-014 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:22:00 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	67995m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	33665	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	63866	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	63506	200.00	ng/ml	-0.02
28) Perylene-d12	13.39	264	70466	200.00	ng/ml	-0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	73037	380.93	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	38.09%		
13) Fluorene-d10	6.79	176	94837	406.61	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	40.66%		
22) Fluoranthene-d10	8.58	212	181902	486.48	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	48.65%		
25) Terphenyl-d14	8.93	244	87293	311.62	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	31.16%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	283	0.74	ng/ml	95
4) 2-Methylnaphthalene	5.45	142	171	0.72	ng/ml	85
5) 1-Methylnaphthalene	5.53	142	89	0.39	ng/ml	78
6) Biphenyl	5.86	154	383	1.24	ng/ml	96
11) Dibenzofuran	6.53	168	176	0.46	ng/ml	96
14) Fluorene	6.81	166	107	0.35	ng/ml	79
17) Phenanthrene	7.61	178	471	1.16	ng/ml	96
20) 1-Methylphenanthrene	8.03	192	89	0.29	ng/ml	89
21) Fluoranthene	8.60	202	135m	0.29	ng/ml	
24) Pyrene	8.80	202	148m	0.31	ng/ml	
26) Benz(a)anthracene	10.16	228	233	0.51	ng/ml	83
36) Benzo(g,h,i)perylene	15.93	276	100	0.21	ng/ml#	69

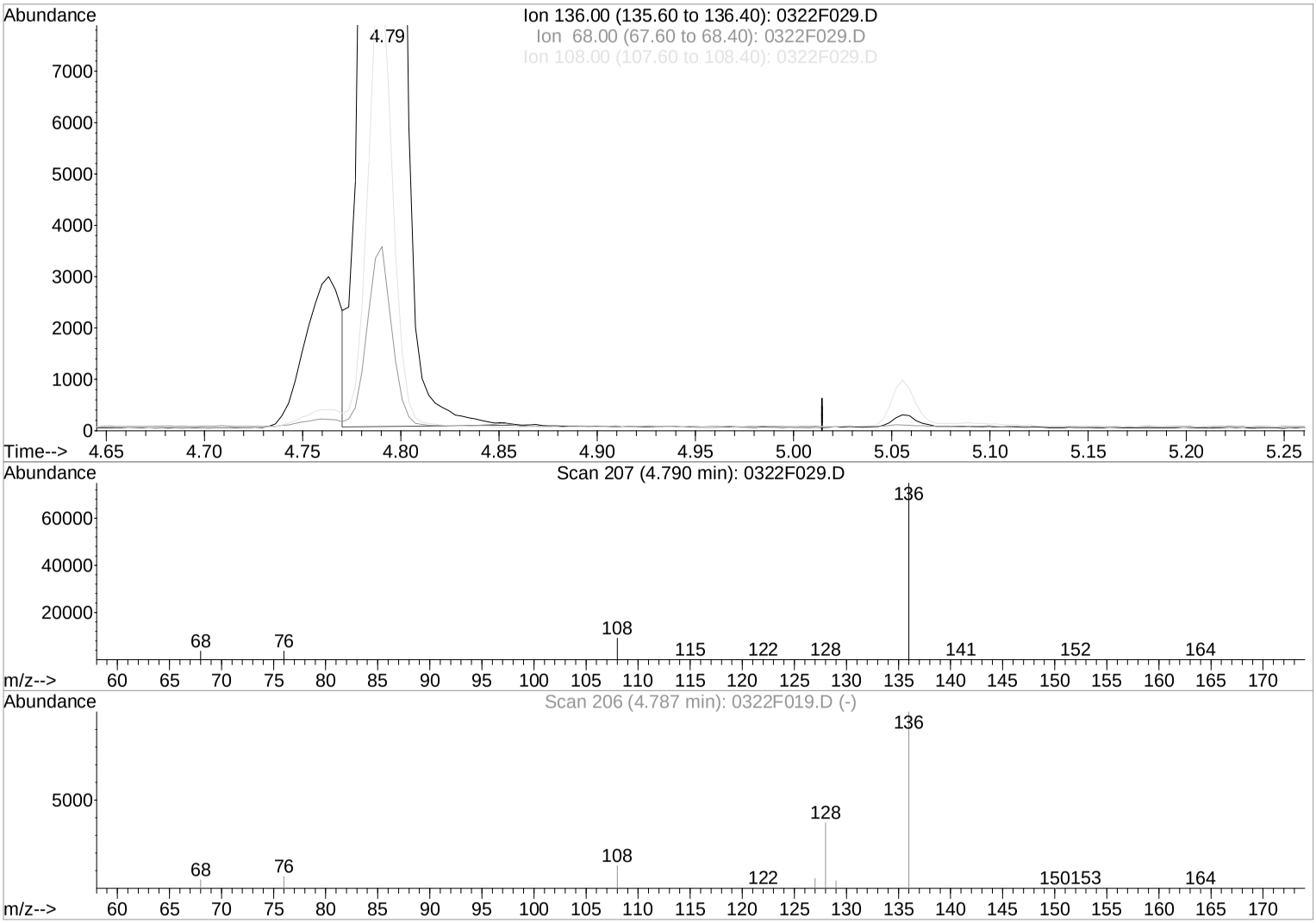
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F029.D Vial: 26
Acq On : 22 Mar 2019 8:39 pm Operator: LWeiskopf
Sample : K1902351-014 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:22 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F029.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 64112

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.67
108.00	13.60	12.06
0.00	0.00	0.00

Manual Integration:

Before

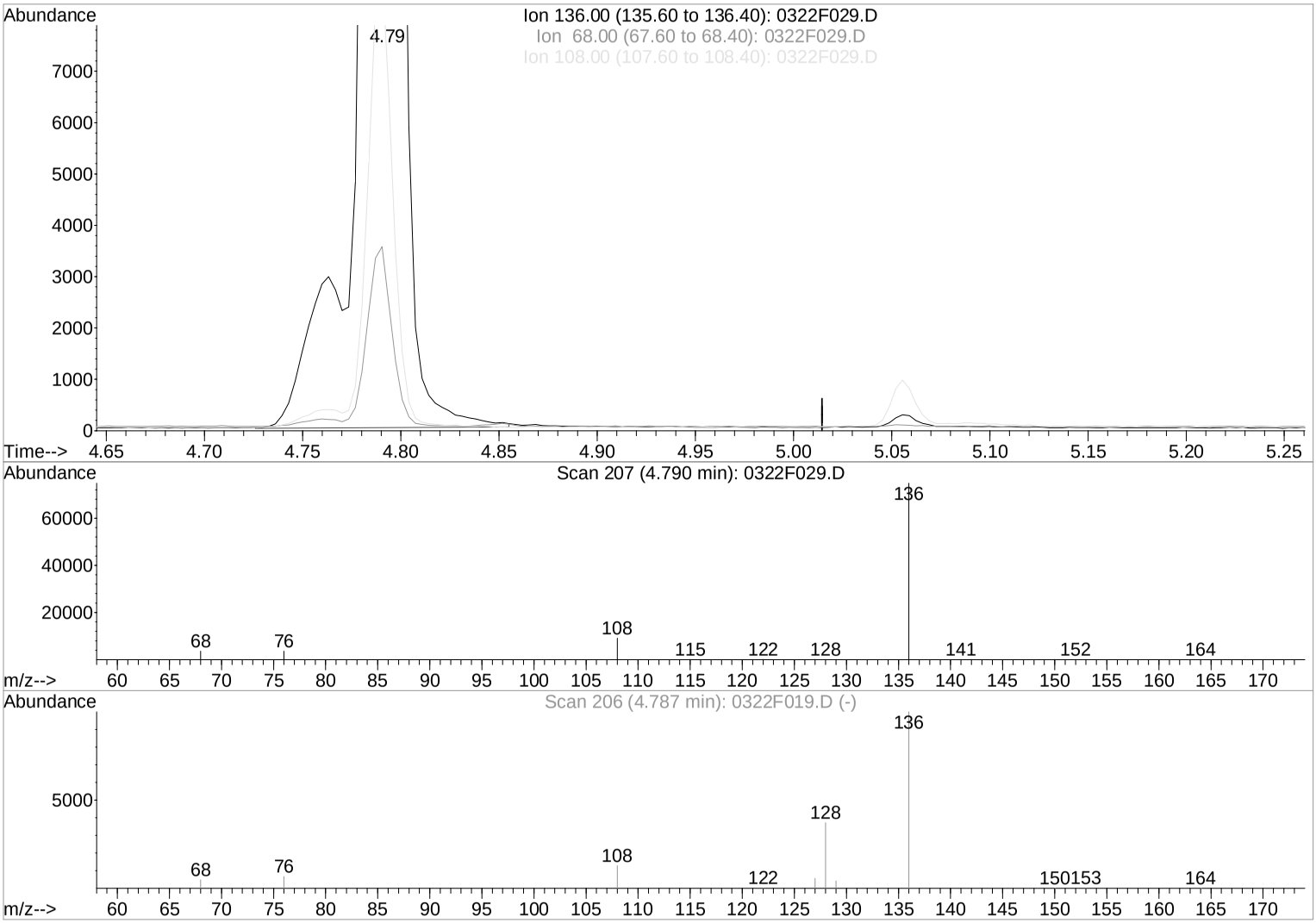
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F029.D Vial: 26
Acq On : 22 Mar 2019 8:39 pm Operator: LWeiskopf
Sample : K1902351-014 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:59 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F029.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 67995

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.79
108.00	13.60	12.14
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

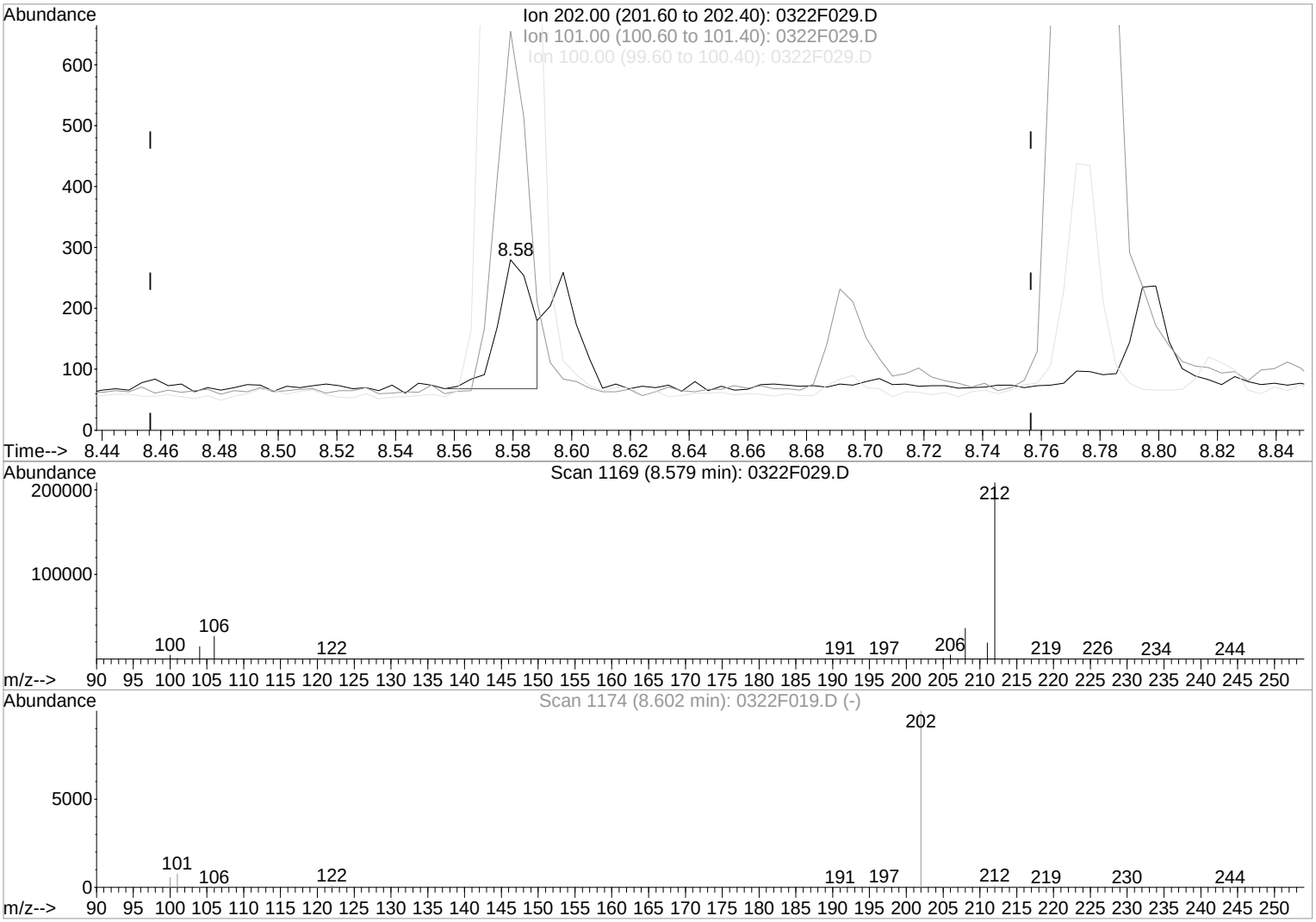
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F029.D Vial: 26
Acq On : 22 Mar 2019 8:39 pm Operator: LWeiskopf
Sample : K1902351-014 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:00 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F029.D

(21) Fluoranthene (T)

8.58min 0.38ng/ml

response 176

Ion	Exp%	Act%
202.00	100	100
101.00	9.10	280.66#
100.00	6.80	2151.89#
0.00	0.00	0.00

Manual Integration:

Before

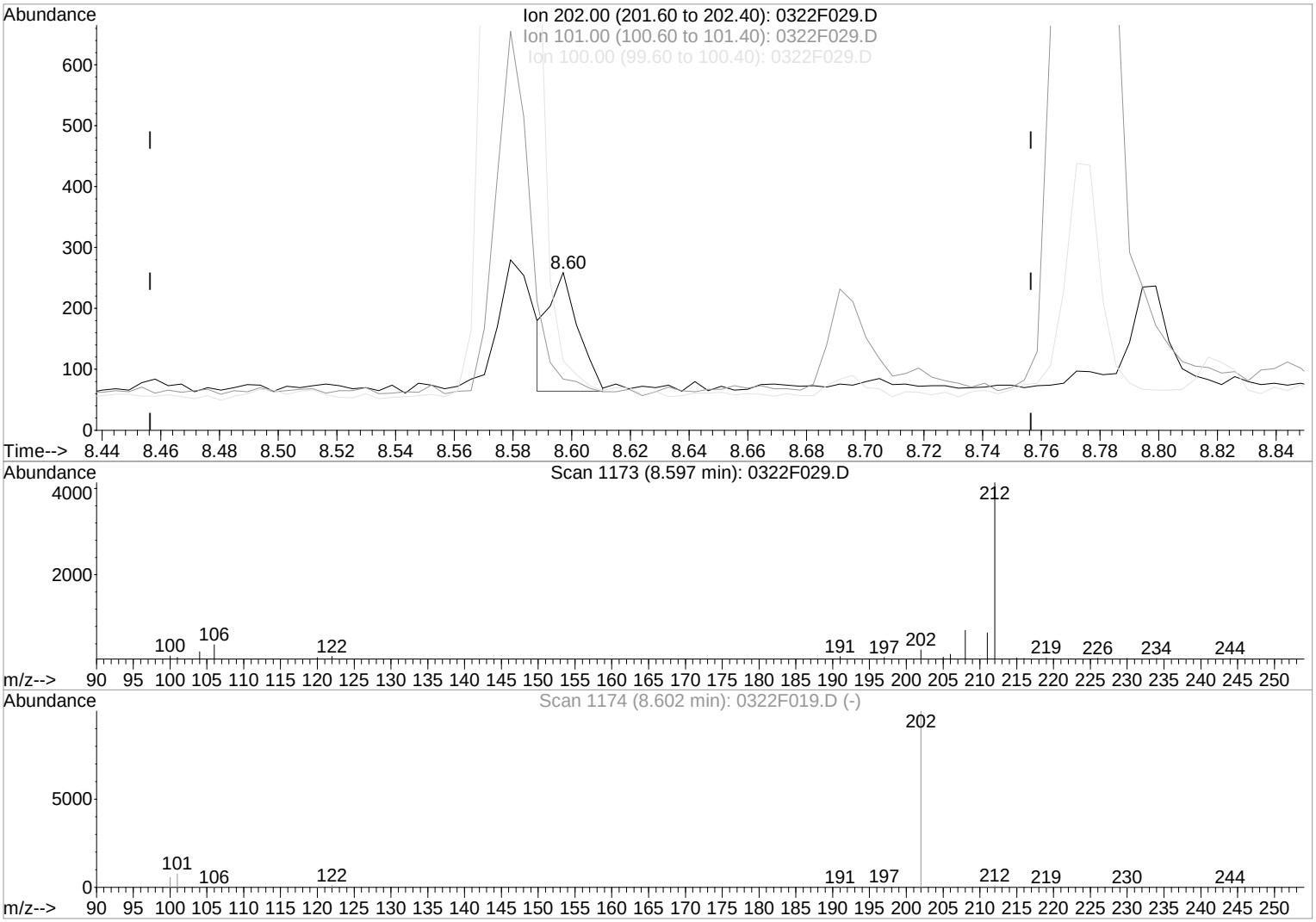
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F029.D Vial: 26
Acq On : 22 Mar 2019 8:39 pm Operator: LWeiskopf
Sample : K1902351-014 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:00 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F029.D

(21) Fluoranthene (T)

8.60min 0.29ng/ml m

response 135

Ion	Exp%	Act%
202.00	100	100
101.00	9.10	32.43
100.00	6.80	44.02#
0.00	0.00	0.00

Manual Integration:

After

WP

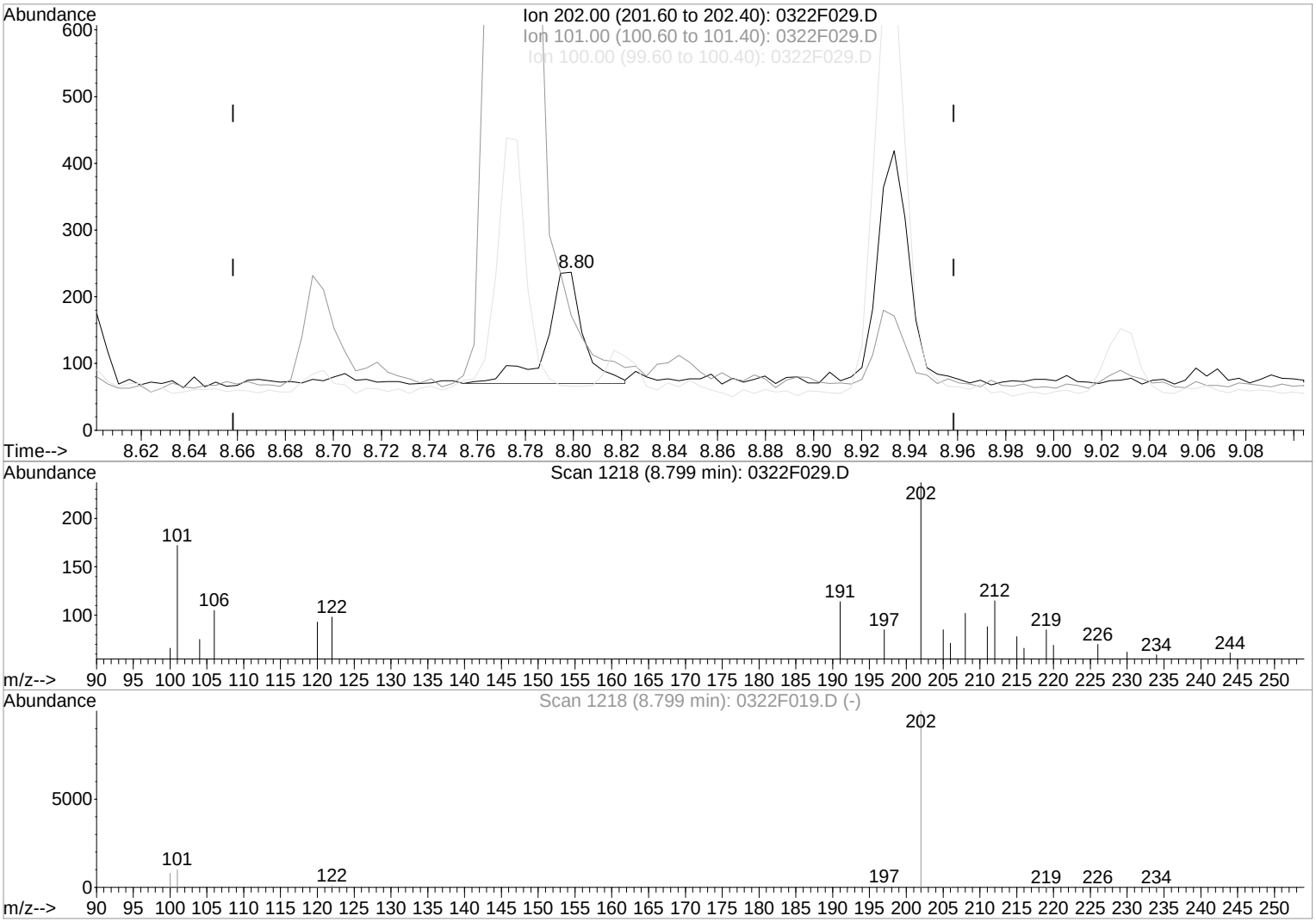
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F029.D Vial: 26
Acq On : 22 Mar 2019 8:39 pm Operator: LWeiskopf
Sample : K1902351-014 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:00 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F029.D

(24) Pyrene (T)

8.80min 0.37ng/ml

response 178

Ion	Exp%	Act%
202.00	100	100
101.00	9.70	53.89#
100.00	7.70	0.00
0.00	0.00	0.00

Manual Integration:

Before

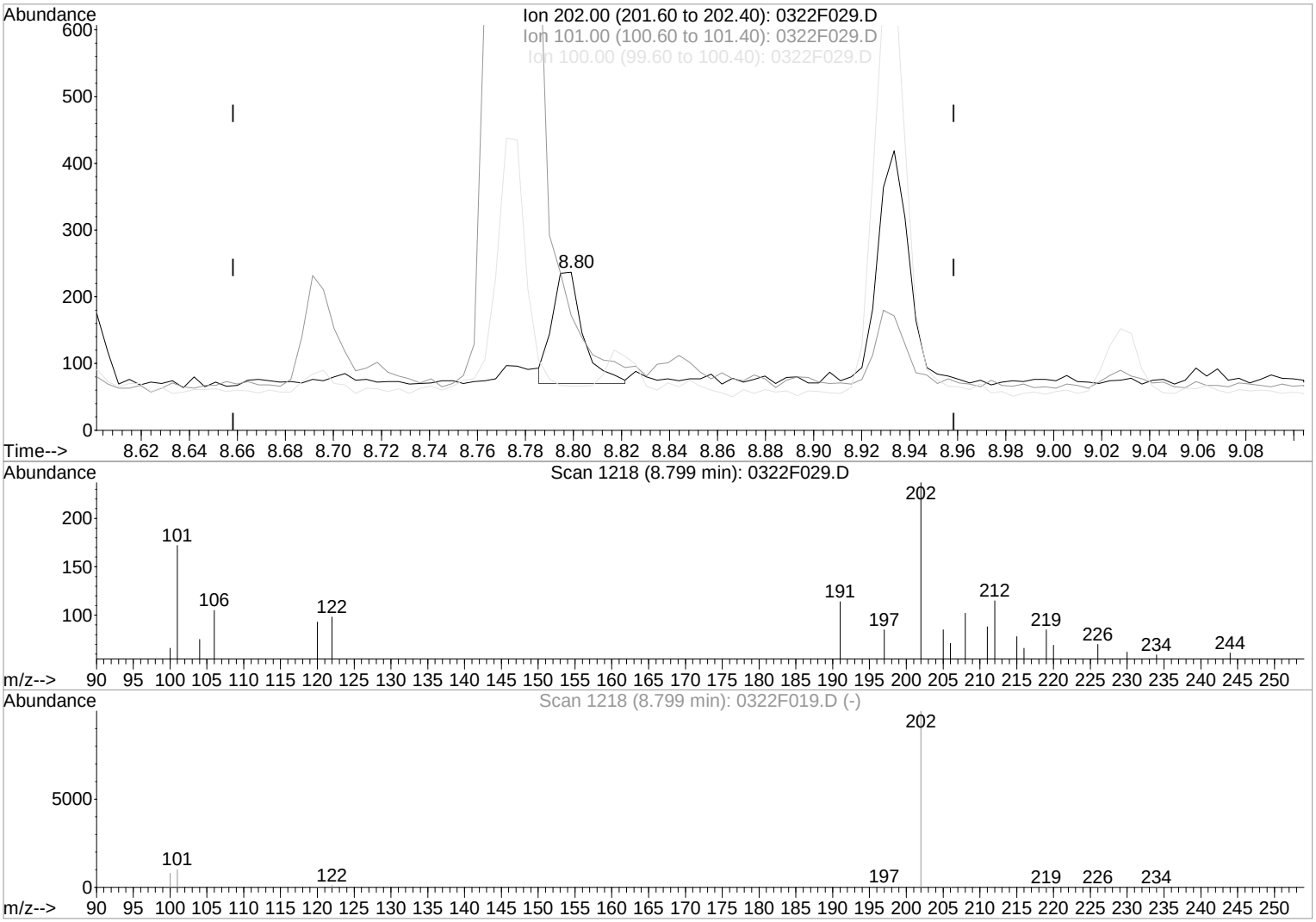
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F029.D Vial: 26
Acq On : 22 Mar 2019 8:39 pm Operator: LWeiskopf
Sample : K1902351-014 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:00 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F029.D

(24) Pyrene (T)

8.80min 0.31ng/ml m

response 148

Ion	Exp%	Act%
202.00	100	100
101.00	9.70	72.57#
100.00	7.70	27.85#
0.00	0.00	0.00

Manual Integration:

After

BLC

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F030.D\
Lab ID: K1902351-020
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 21:11:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 3/25/19 8:54
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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F030.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 21:11:00	**Vial:**	13
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-020	**Raw Units:**	ng/mL

Bottle ID:	K1902351-020.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	K1902351
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		33043	200.00	NA
Chrysene-d12	10.17		62208	200.00	NA
Naphthalene-d8	4.79		67570	200.00	NA
Perylene-d12	13.39	-0.02	70244	200.00	NA
Phenanthrene-d10	7.60		62992	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		180990	490.76	98	42 - 133	Y
Fluorene-d10	6.79		95193	415.82	83	42 - 131	Y
Terphenyl-d14	8.93	-0.01	133915	488.02	98	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		124	0.52	0.0046	J	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.17	+0.01	247	0.55	0.0049	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	8.60		93	0.20	0.0018	J	Y
Fluorene	6.81	-0.01	81	0.27	0.0024	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 3/25/19 8:54
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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F030.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 21:11:00	**Vial:**	13
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-020	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.81		251	0.66	0.0059	J	Y
Phenanthrene	7.61	-0.01	274	0.68	0.0060	J	Y
Pyrene	8.80		119	0.25	0.0022	J	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 3/25/19 8:54
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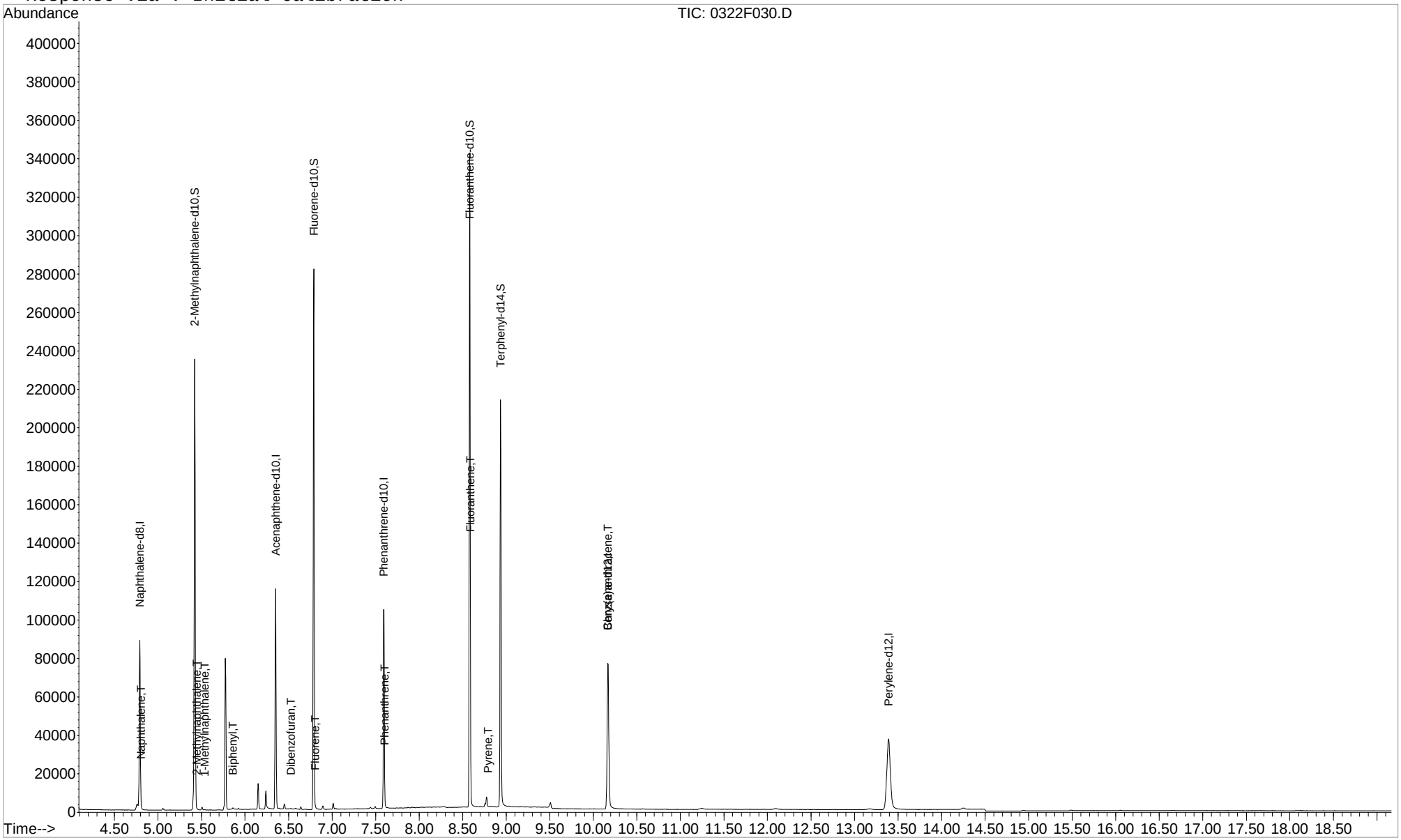
Quantitation Report (QT Reviewed)

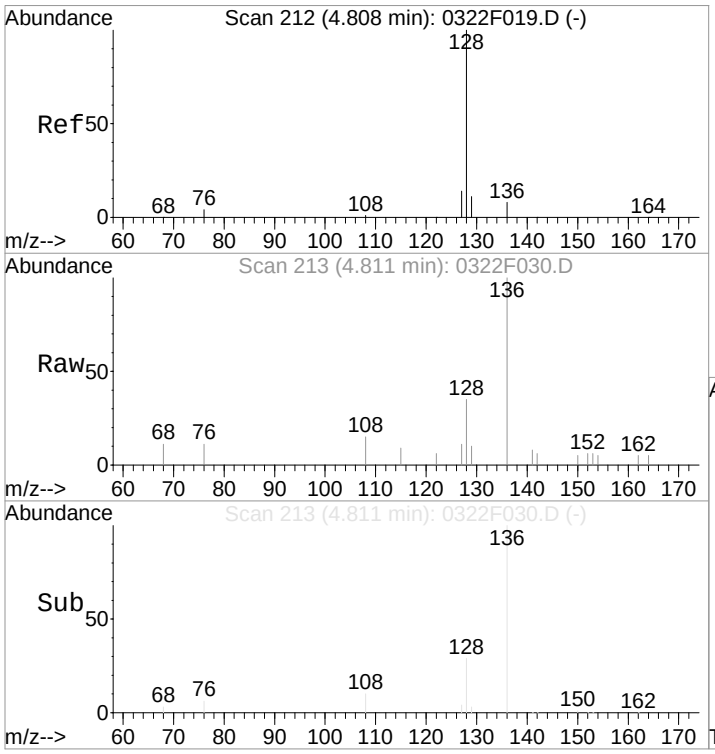
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F030.D Vial: 27
Acq On : 22 Mar 2019 9:11 pm Operator: LWeiskopf
Sample : K1902351-020 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:05 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



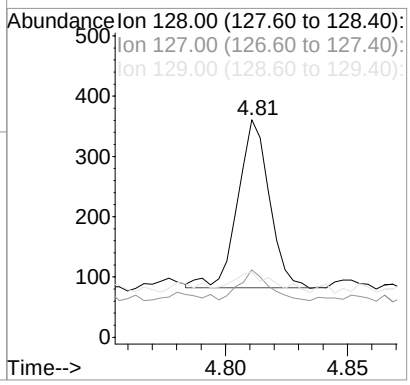
1st 03/25/19
2nd 03/26/19

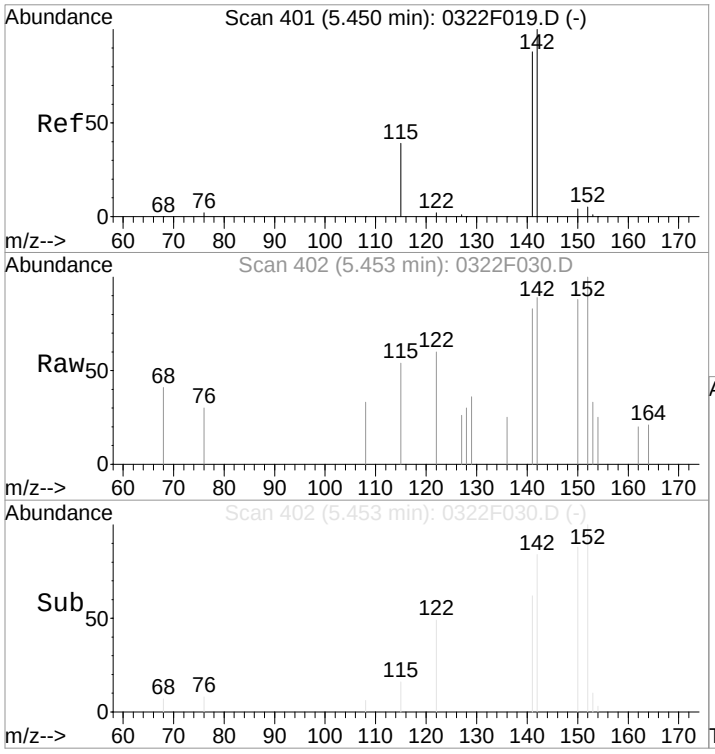


#2
Naphthalene
Concen: 0.66 ng/ml
RT: 4.81 min Scan# 213
Delta R.T. -0.02 min
Lab File: 0322F030.D
Acq: 22 Mar 2019 9:11 pm

Tgt Ion:128 Resp: 251

Ion	Ratio	Lower	Upper
128	100		
127	16.8	0.0	43.9
129	7.2	0.0	30.8

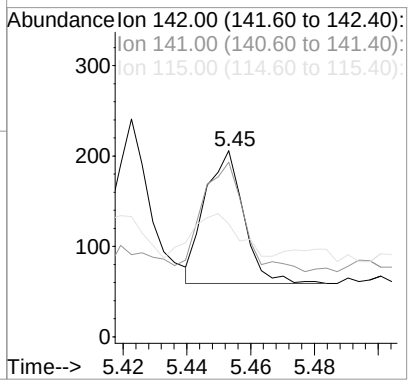




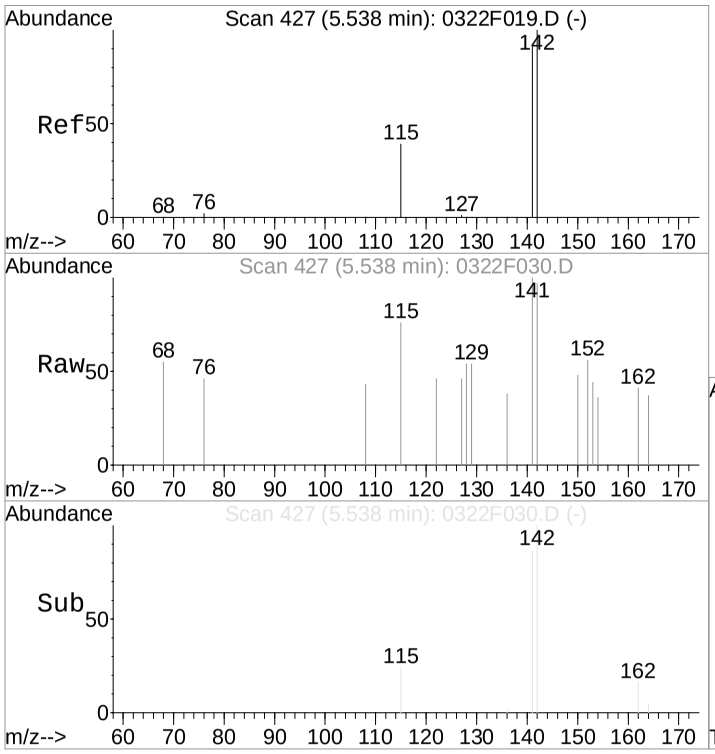
#4
2-Methylnaphthalene
Concen: 0.52 ng/ml
RT: 5.45 min Scan# 402
Delta R.T. -0.01 min
Lab File: 0322F030.D
Acq: 22 Mar 2019 9:11 pm

Tgt Ion:142 Resp: 124

Ion	Ratio	Lower	Upper
142	100		
141	79.6	57.4	117.4
115	19.0	21.9	61.9#



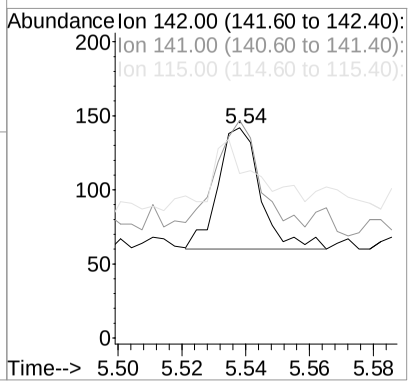
1st 03/25/19
2nd 03/26/19

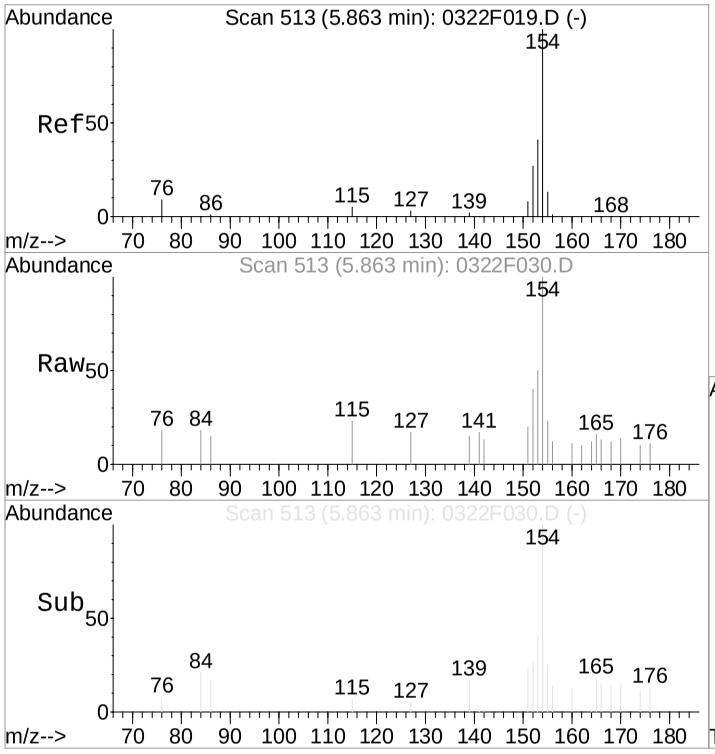


#5
1-Methylnaphthalene
Concen: 0.33 ng/ml
RT: 5.54 min Scan# 427
Delta R.T. -0.01 min
Lab File: 0322F030.D
Acq: 22 Mar 2019 9:11 pm

Tgt Ion:142 Resp: 76

Ion	Ratio	Lower	Upper
142	100		
141	84.1	61.0	121.0
115	18.3	26.2	66.2#

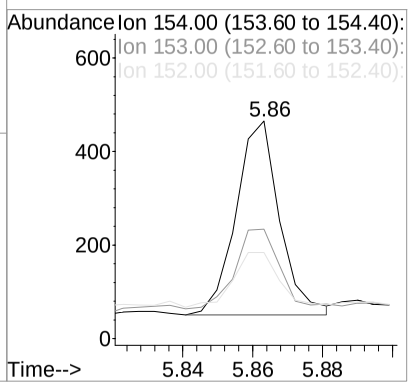




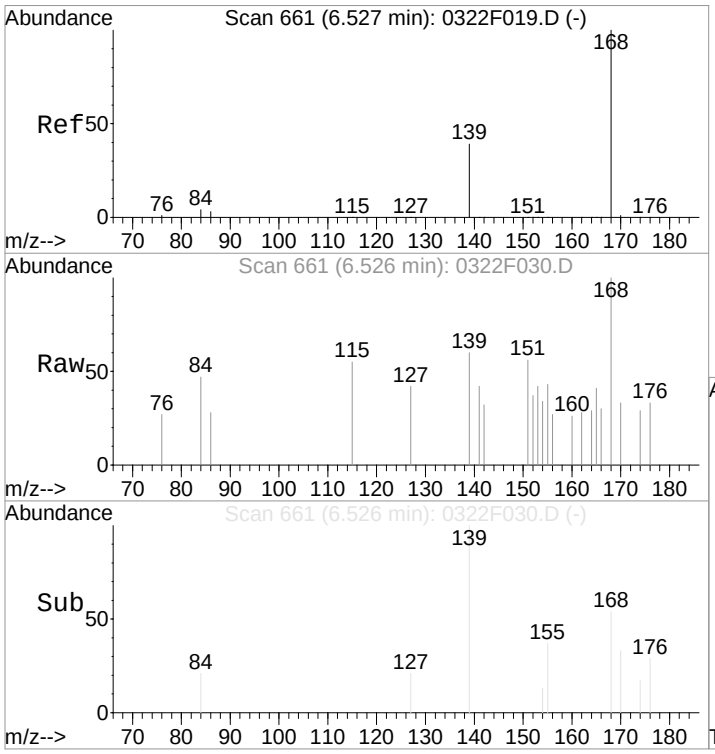
#6
Biphenyl
Concen: 1.17 ng/ml
RT: 5.86 min Scan# 513
Delta R.T. -0.01 min
Lab File: 0322F030.D
Acq: 22 Mar 2019 9:11 pm

Tgt Ion:154 Resp: 359

Ion	Ratio	Lower	Upper
154	100		
153	41.1	11.5	71.5
152	28.3	6.9	46.9



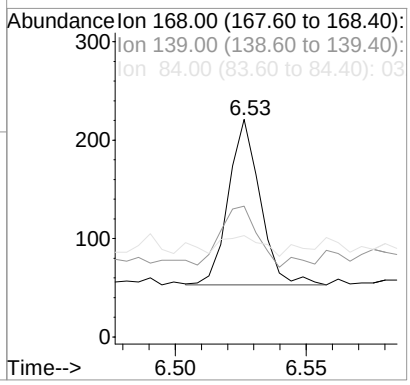
1st 03/25/19
2nd 03/26/19

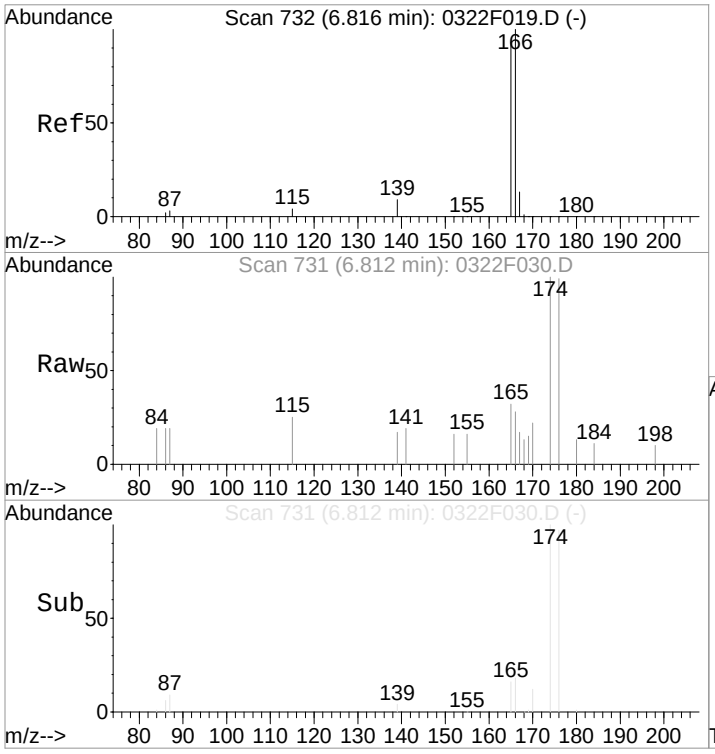


#11
Dibenzofuran
Concen: 0.37 ng/ml
RT: 6.53 min Scan# 661
Delta R.T. -0.01 min
Lab File: 0322F030.D
Acq: 22 Mar 2019 9:11 pm

Tgt Ion:168 Resp: 141

Ion	Ratio	Lower	Upper
168	100		
139	32.7	1.8	61.8
84	4.2	0.0	23.2

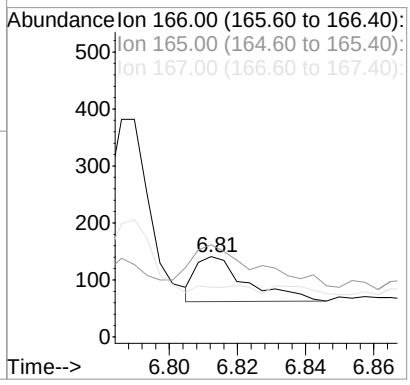




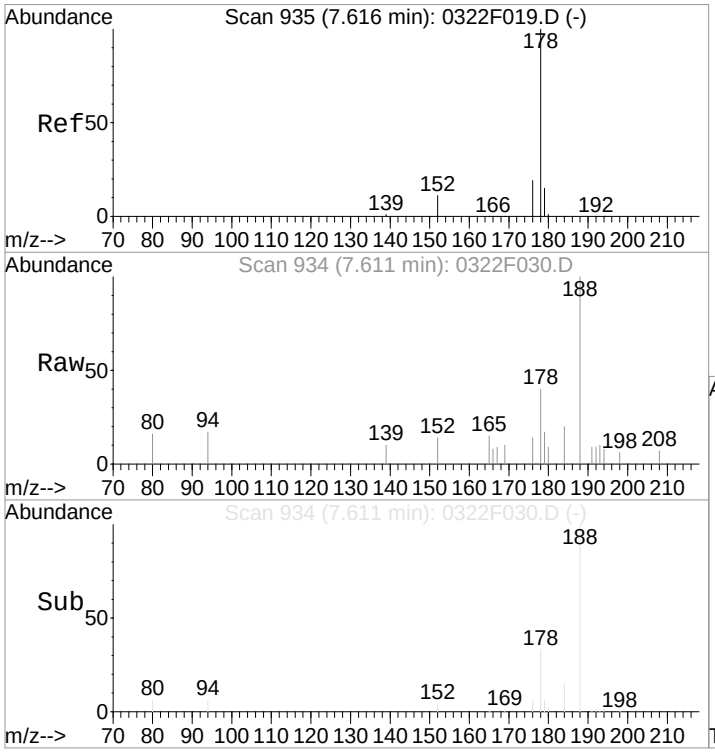
#14
Fluorene
Concen: 0.27 ng/ml
RT: 6.81 min Scan# 731
Delta R.T. -0.01 min
Lab File: 0322F030.D
Acq: 22 Mar 2019 9:11 pm

Tgt Ion:166 Resp: 81

Ion	Ratio	Lower	Upper
166	100		
165	92.3	65.3	125.3
167	14.1	0.0	33.1



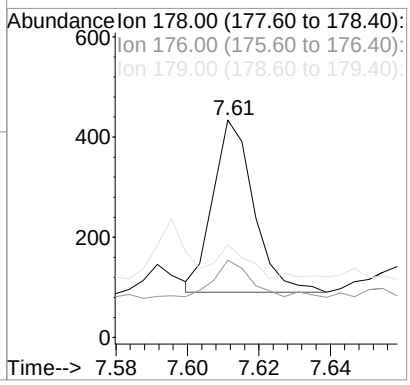
1st 03/25/19
2nd 03/26/19

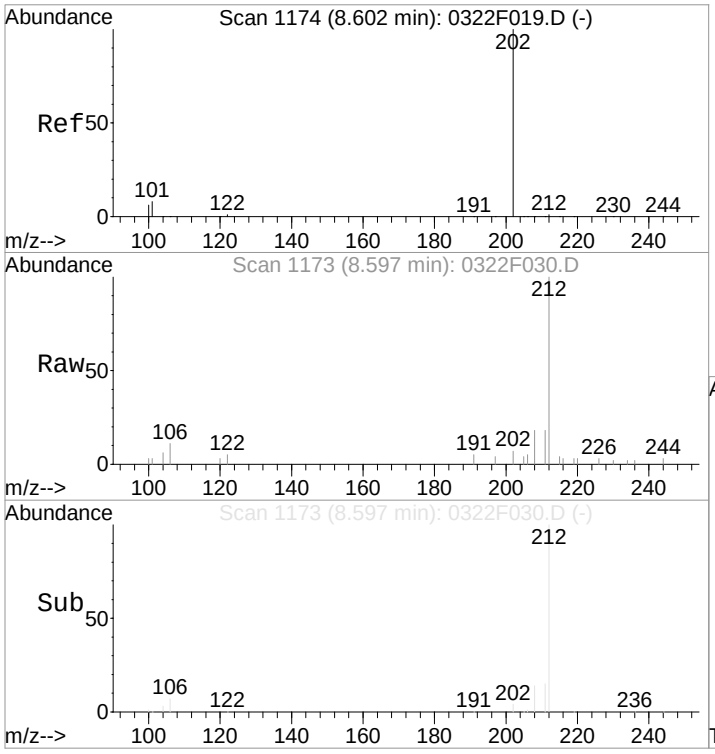


#17
Phenanthrene
Concen: 0.68 ng/ml
RT: 7.61 min Scan# 934
Delta R.T. -0.01 min
Lab File: 0322F030.D
Acq: 22 Mar 2019 9:11 pm

Tgt Ion:178 Resp: 274

Ion	Ratio	Lower	Upper
178	100		
176	21.5	0.0	48.6
179	18.6	0.0	35.2

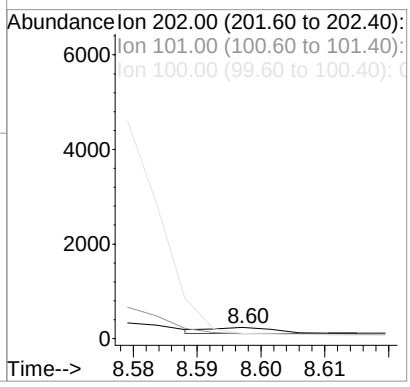




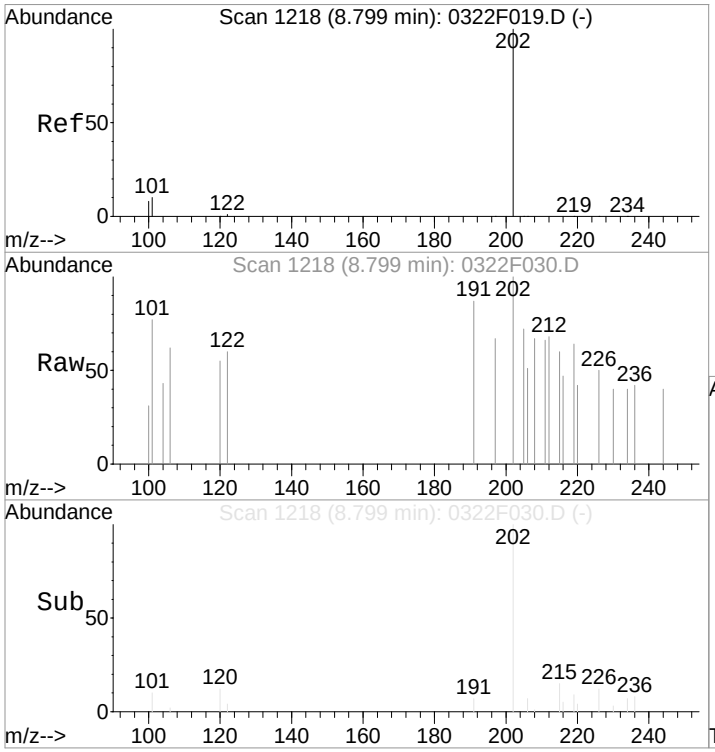
#21
Fluoranthene
Concen: 0.20 ng/ml m
RT: 8.60 min Scan# 1173
Delta R.T. -0.01 min
Lab File: 0322F030.D
Acq: 22 Mar 2019 9:11 pm

Tgt Ion:202 Resp: 93

Ion	Ratio	Lower	Upper
202	100		
101	41.8	0.0	39.1#
100	44.8	0.0	26.8#



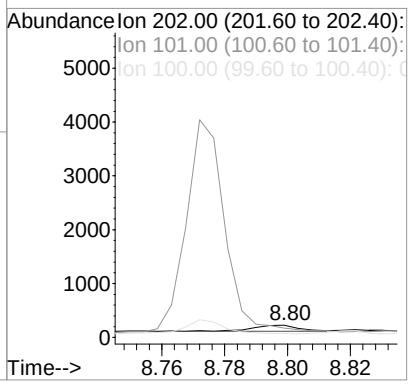
1st 03/25/19
2nd 03/26/19

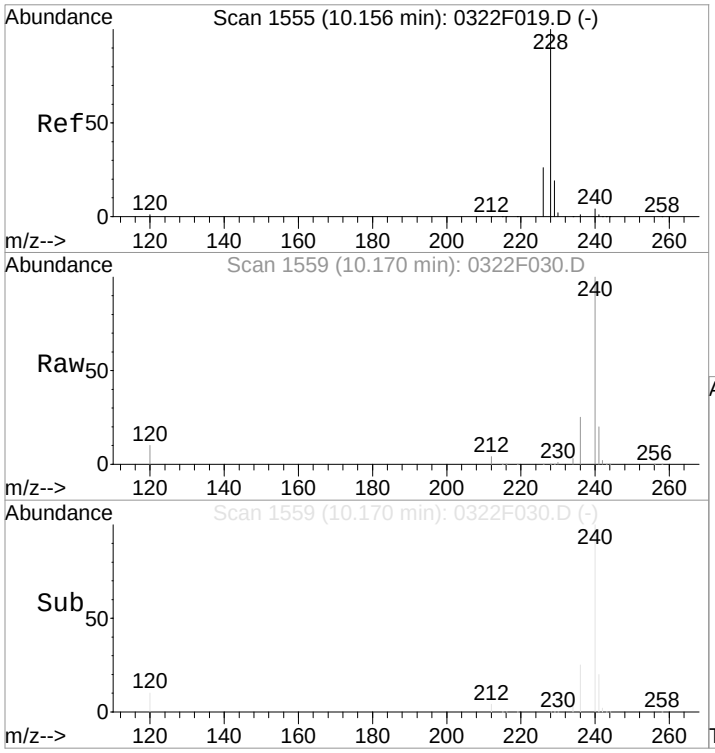


#24
Pyrene
Concen: 0.25 ng/ml
RT: 8.80 min Scan# 1218
Delta R.T. -0.01 min
Lab File: 0322F030.D
Acq: 22 Mar 2019 9:11 pm

Tgt Ion:202 Resp: 119

Ion	Ratio	Lower	Upper
202	100		
101	41.6	0.0	39.7#
100	0.0	0.0	27.7

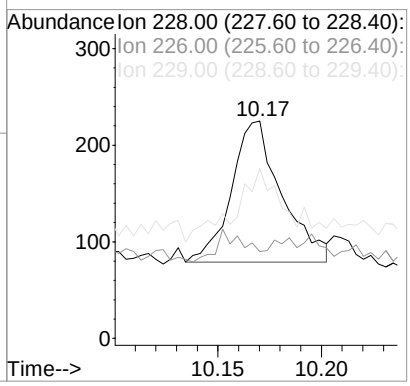




#26
Benz(a)anthracene
Concen: 0.55 ng/ml
RT: 10.17 min Scan# 1559
Delta R.T. -0.00 min
Lab File: 0322F030.D
Acq: 22 Mar 2019 9:11 pm

Tgt Ion:228 Resp: 247

Ion	Ratio	Lower	Upper
228	100		
226	5.5	0.0	56.6
229	52.1	0.0	39.5#



1st 03/25/19
2nd 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\032219\0322F030.D Vial: 27
Acq On : 22 Mar 2019 9:11 pm Operator: LWeiskopf
Sample : K1902351-020 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:22:02 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	67570m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	33043	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	62992	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	62208	200.00	ng/ml	-0.02
28) Perylene-d12	13.39	264	70244	200.00	ng/ml	-0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	76081	399.31	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	39.93%		
13) Fluorene-d10	6.79	176	95193	415.82	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	41.58%		
22) Fluoranthene-d10	8.58	212	180990	490.76	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	49.08%		
25) Terphenyl-d14	8.93	244	133915	488.02	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	48.80%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	251	0.66	ng/ml	92
4) 2-Methylnaphthalene	5.45	142	124	0.52	ng/ml#	83
5) 1-Methylnaphthalene	5.54	142	76	0.33	ng/ml#	81
6) Biphenyl	5.86	154	359	1.17	ng/ml	99
11) Dibenzofuran	6.53	168	141	0.37	ng/ml	98
14) Fluorene	6.81	166	81	0.27	ng/ml	97
17) Phenanthrene	7.61	178	274	0.68	ng/ml	93
21) Fluoranthene	8.60	202	93m	0.20	ng/ml	
24) Pyrene	8.80	202	119	0.25	ng/ml#	42
26) Benz(a)anthracene	10.17	228	247	0.55	ng/ml#	46

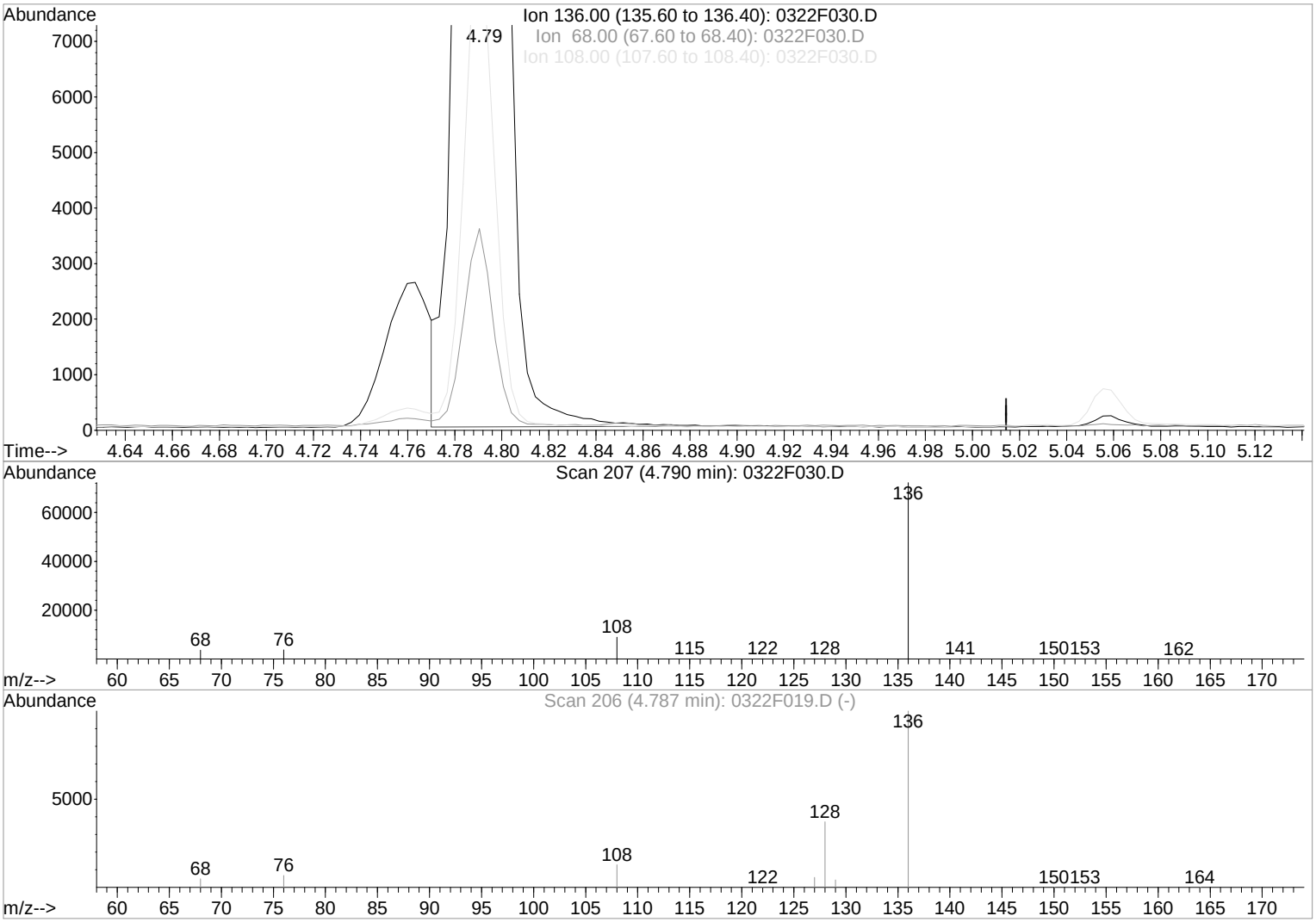
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F030.D Vial: 27
Acq On : 22 Mar 2019 9:11 pm Operator: LWeiskopf
Sample : K1902351-020 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:22 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F030.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 64062

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.91
108.00	13.60	12.31
0.00	0.00	0.00

Manual Integration:

Before

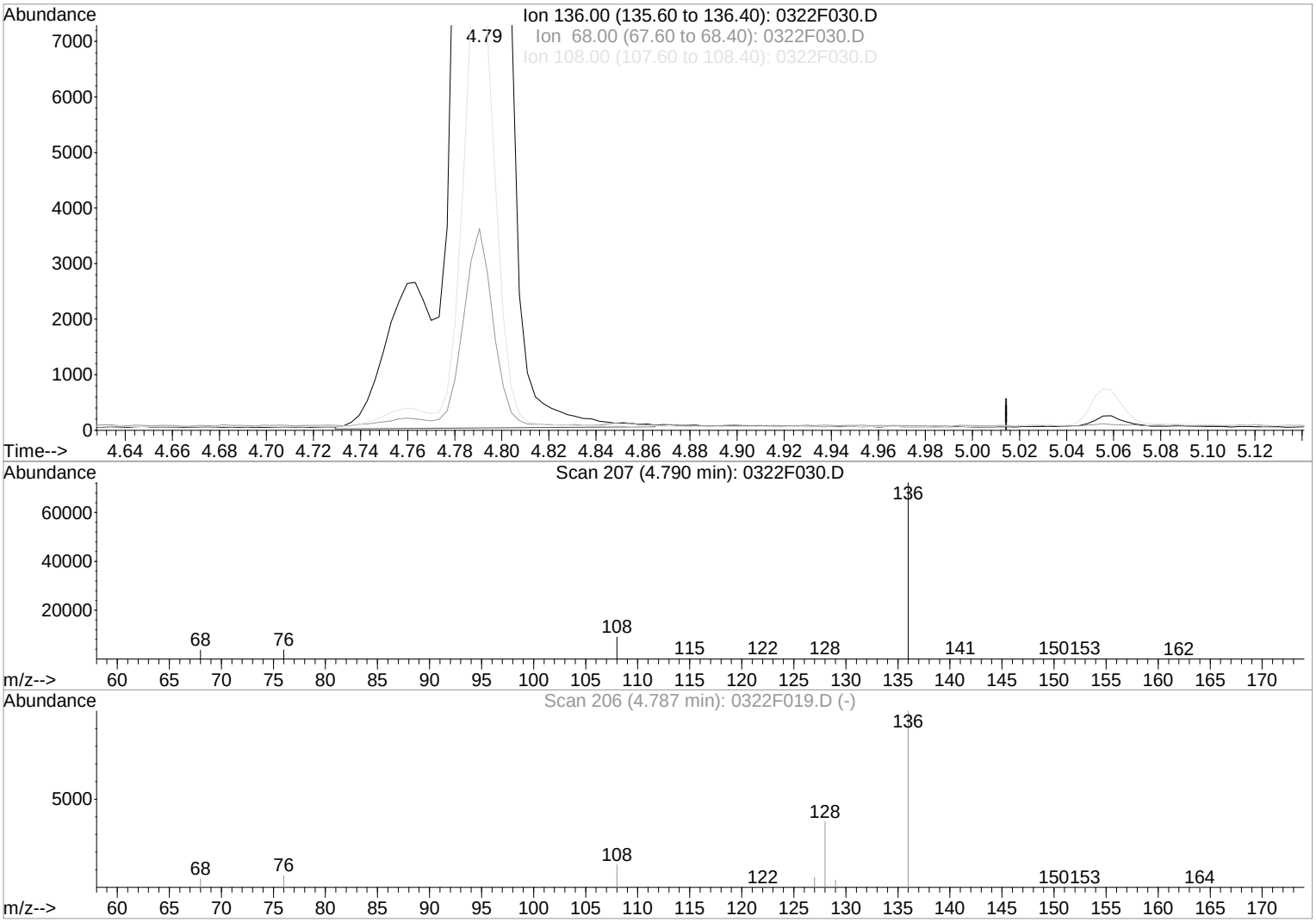
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F030.D Vial: 27
Acq On : 22 Mar 2019 9:11 pm Operator: LWeiskopf
Sample : K1902351-020 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:04 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F030.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 67570

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	5.02
108.00	13.60	12.38
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

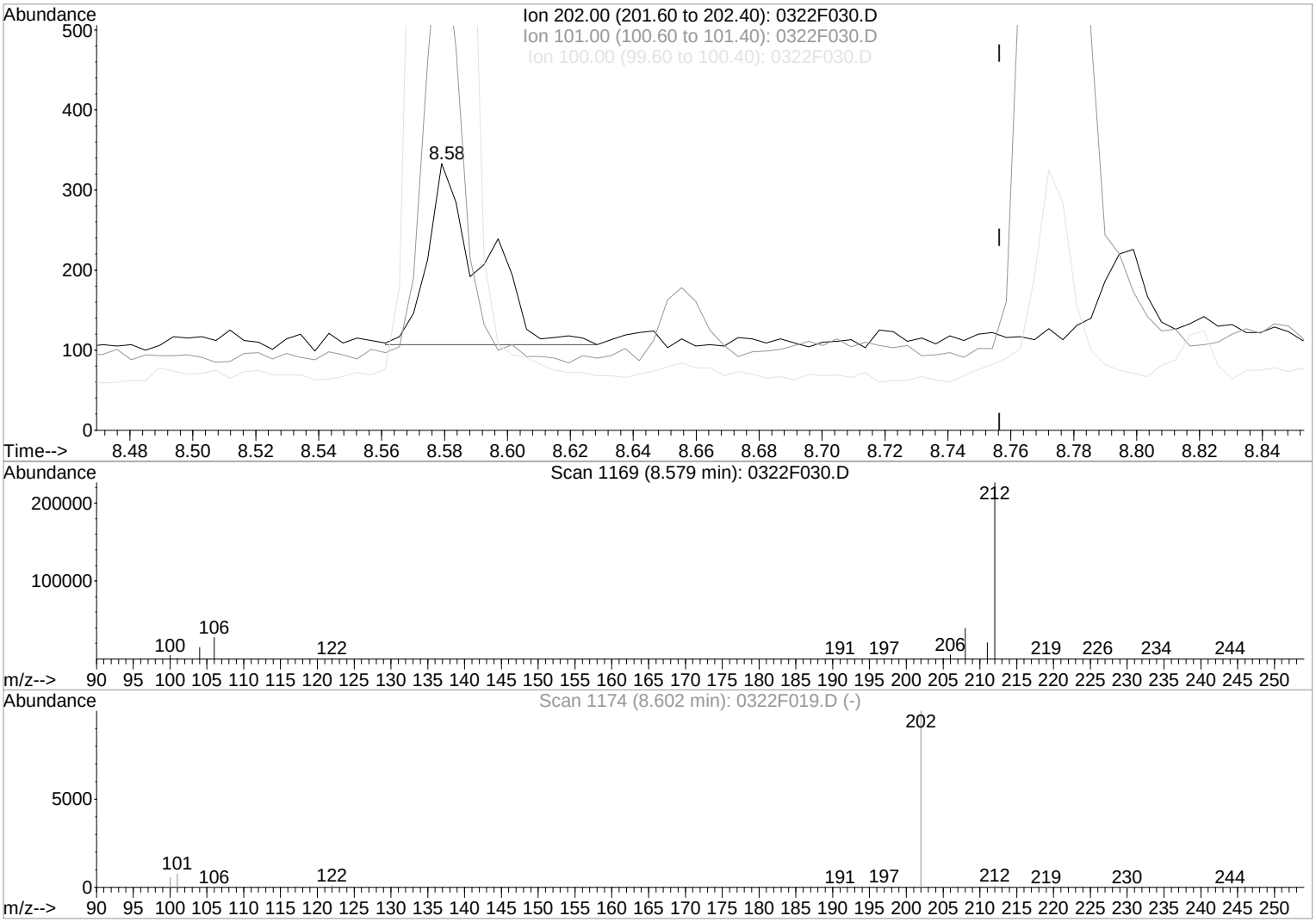
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F030.D Vial: 27
Acq On : 22 Mar 2019 9:11 pm Operator: LWeiskopf
Sample : K1902351-020 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:04 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F030.D

(21) Fluoranthene (T)

8.58min 0.60ng/ml

response 274

Ion	Exp%	Act%
202.00	100	100
101.00	9.10	252.65#
100.00	6.80	2004.87#
0.00	0.00	0.00

Manual Integration:

Before

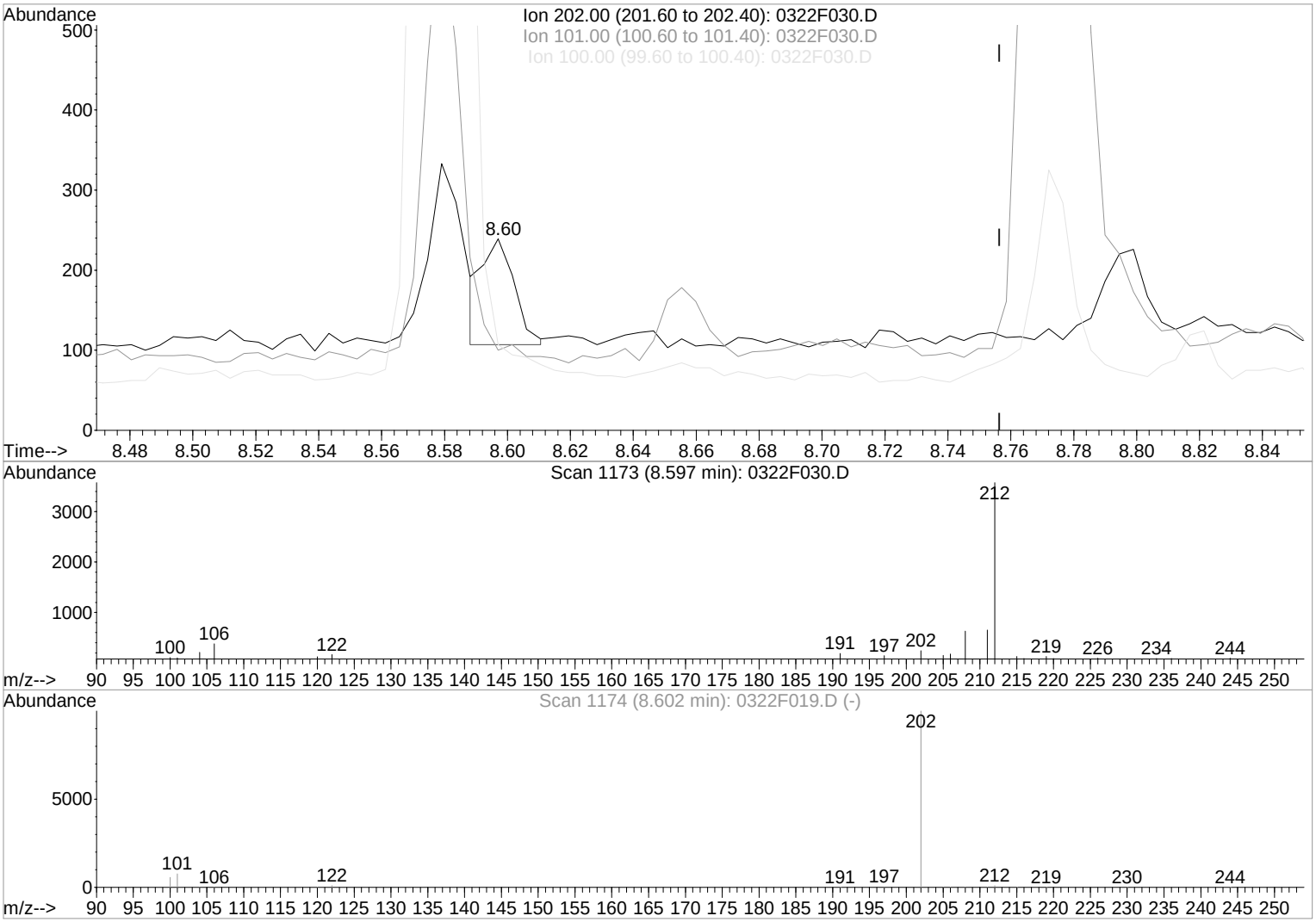
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F030.D Vial: 27
Acq On : 22 Mar 2019 9:11 pm Operator: LWeiskopf
Sample : K1902351-020 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:05 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F030.D

(21) Fluoranthene (T)

8.60min 0.20ng/ml m

response 93

Ion	Exp%	Act%
202.00	100	100
101.00	9.10	41.84#
100.00	6.80	44.77#
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F031.D\
Lab ID: K1902351-021
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 21:43:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F031.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 21:43:00	**Vial:**	14
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-021	**Raw Units:**	ng/mL

Bottle ID:	K1902351-021.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	K1902351
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		32286	200.00	NA
Chrysene-d12	10.17		62489	200.00	NA
Naphthalene-d8	4.79		66872	200.00	NA
Perylene-d12	13.39	-0.02	69141	200.00	NA
Phenanthrene-d10	7.59	-0.01	61658	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		386734	1071.32	107	42 - 133	Y
Fluorene-d10	6.79		200830	897.83	90	42 - 131	Y
Terphenyl-d14	8.94		288230	1045.67	105	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		93	0.40	0.0018	J	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.17	+0.01	198	0.44	0.0020	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y
Fluorene	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F031.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 21:43:00	**Vial:**	14
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-021	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.81		264	0.70	0.0031	J	Y
Phenanthrene	0.00		0	0.00	0	U	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

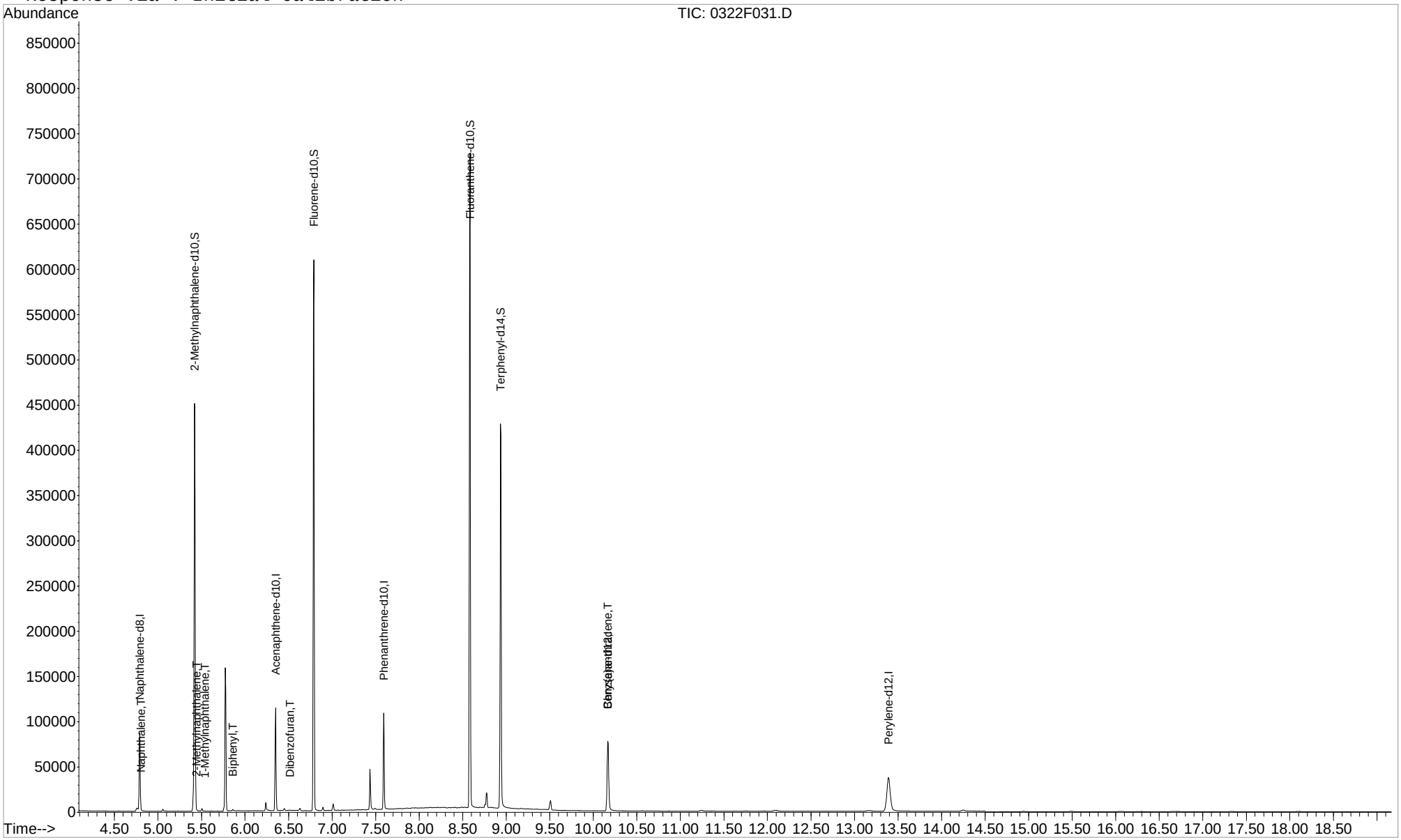
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

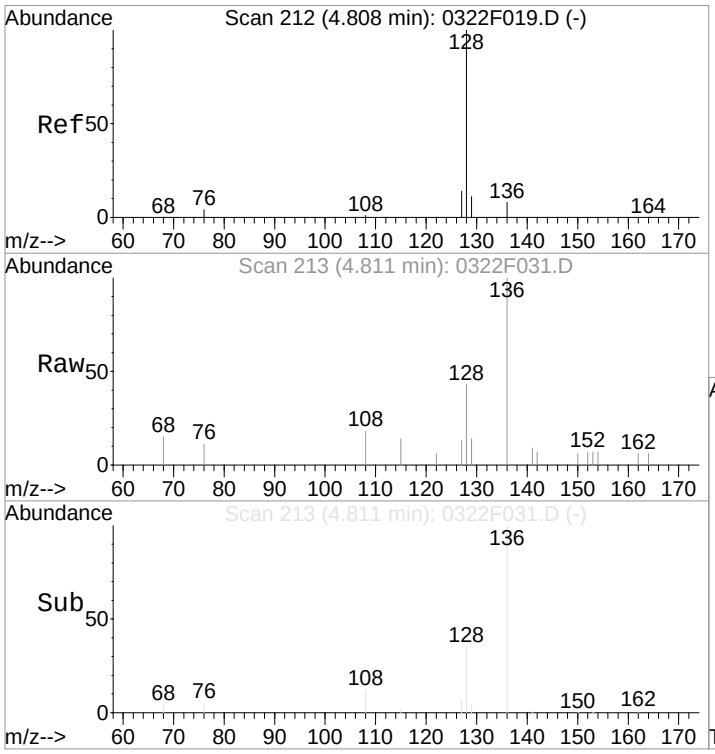
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F031.D Vial: 28
Acq On : 22 Mar 2019 9:43 pm Operator: LWeiskopf
Sample : K1902351-021 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:07 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



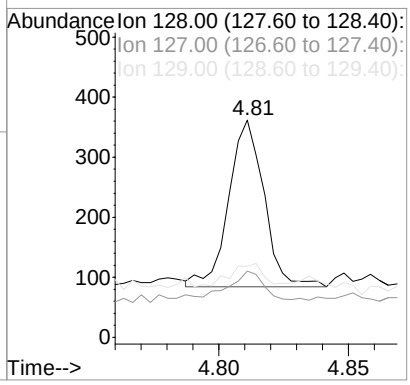
1st 03/25/19
2nd 03/26/19

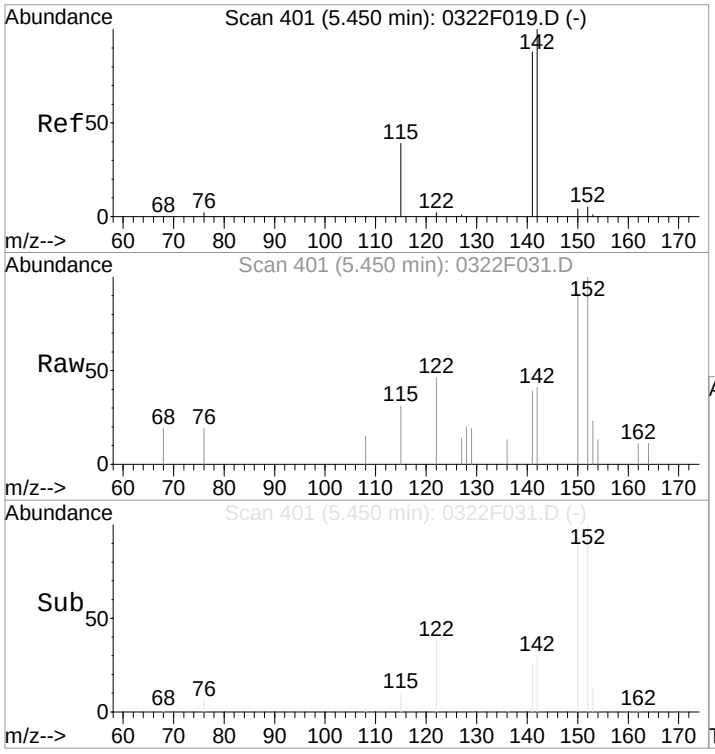


#2
Naphthalene
Concen: 0.70 ng/ml
RT: 4.81 min Scan# 213
Delta R.T. -0.02 min
Lab File: 0322F031.D
Acq: 22 Mar 2019 9:43 pm

Tgt Ion:128 Resp: 264

Ion	Ratio	Lower	Upper
128	100		
127	16.2	0.0	43.9
129	10.4	0.0	30.8

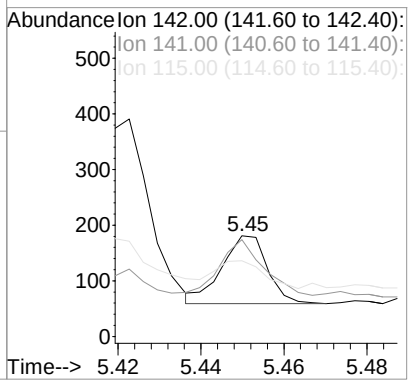




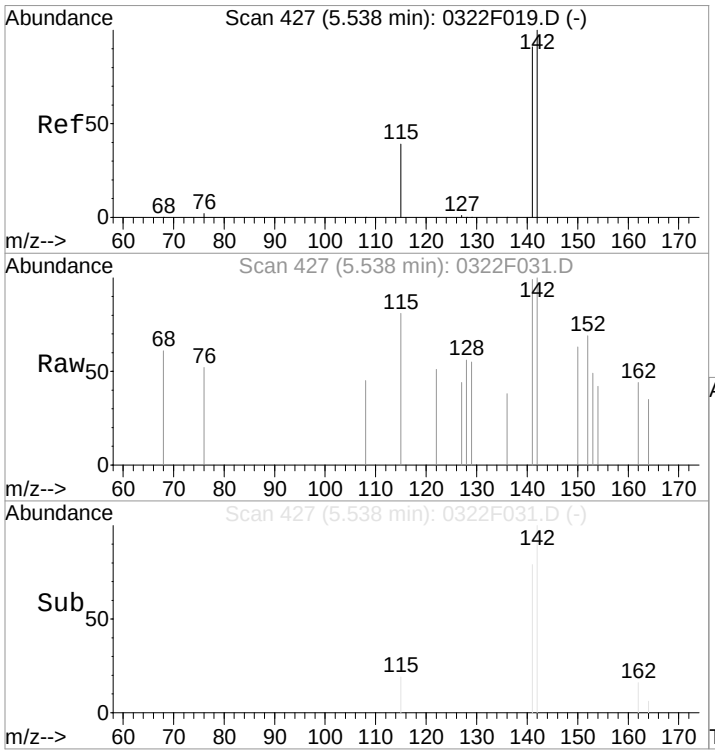
#4
2-Methylnaphthalene
Concen: 0.40 ng/ml
RT: 5.45 min Scan# 401
Delta R.T. -0.02 min
Lab File: 0322F031.D
Acq: 22 Mar 2019 9:43 pm

Tgt Ion:142 Resp: 93

Ion	Ratio	Lower	Upper
142	100		
141	79.5	57.4	117.4
115	39.3	21.9	61.9



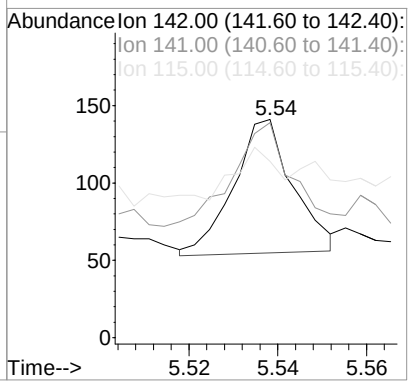
1st 03/25/19
2nd 03/26/19

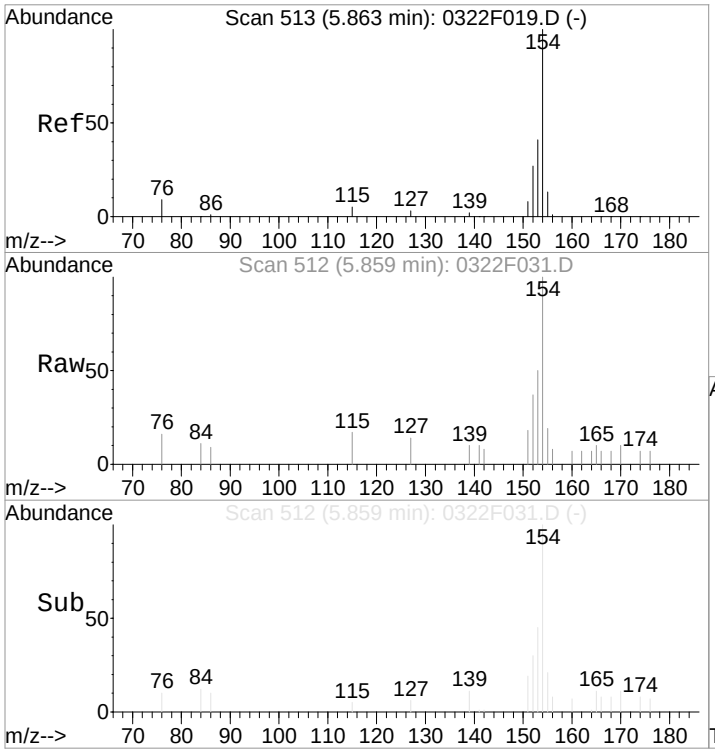


#5
1-Methylnaphthalene
Concen: 0.36 ng/ml m
RT: 5.54 min Scan# 427
Delta R.T. -0.01 min
Lab File: 0322F031.D
Acq: 22 Mar 2019 9:43 pm

Tgt Ion:142 Resp: 81

Ion	Ratio	Lower	Upper
142	100		
141	98.6	61.0	121.0
115	80.9	26.2	66.2#

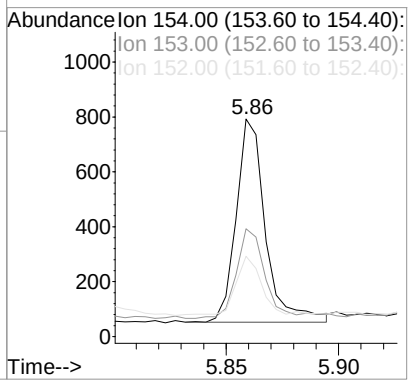




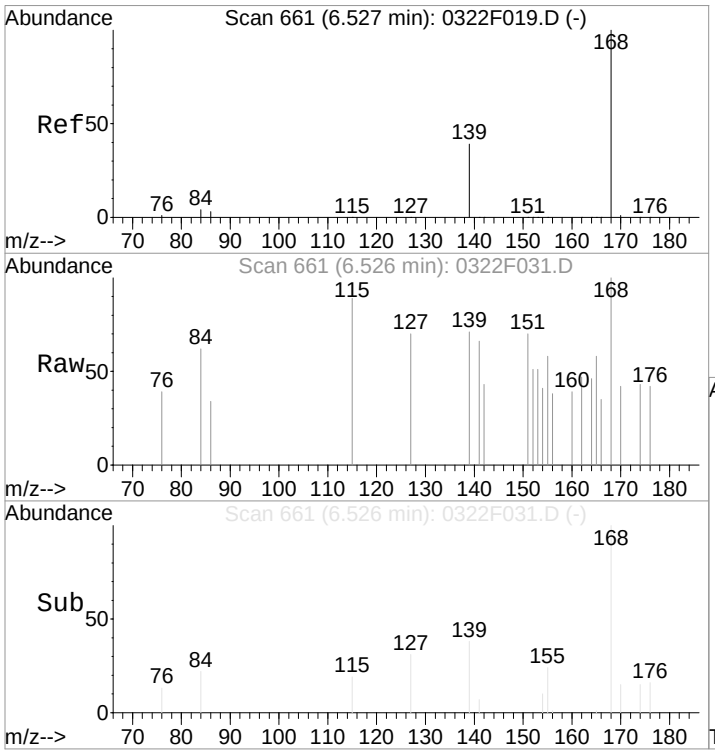
#6
Biphenyl
Concen: 2.21 ng/ml
RT: 5.86 min Scan# 512
Delta R.T. -0.01 min
Lab File: 0322F031.D
Acq: 22 Mar 2019 9:43 pm

Tgt Ion:154 Resp: 672

Ion	Ratio	Lower	Upper
154	100		
153	44.2	11.5	71.5
152	28.8	6.9	46.9



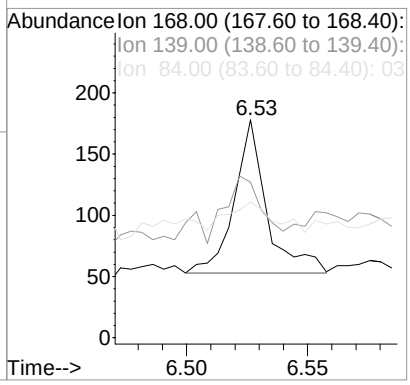
1st 03/25/19
2nd 03/26/19

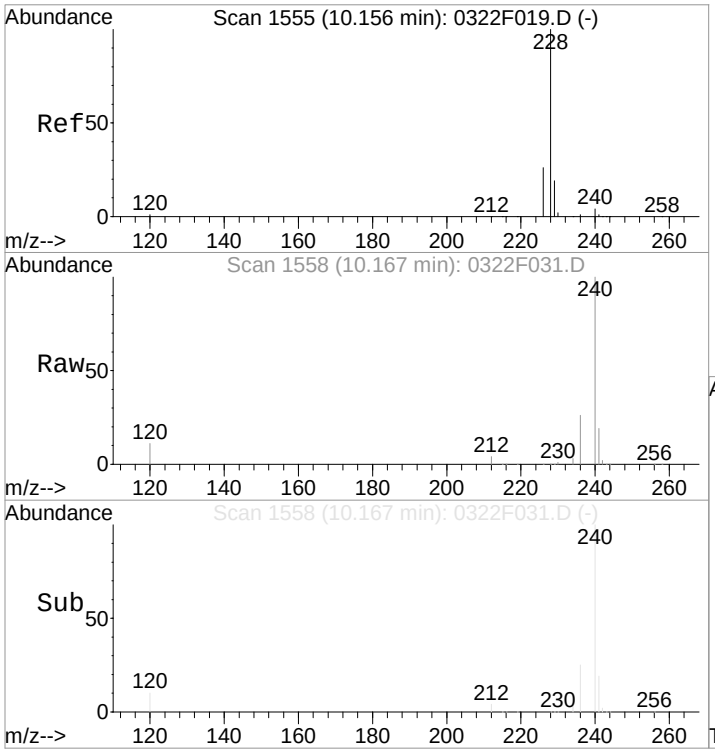


#11
Dibenzofuran
Concen: 0.31 ng/ml
RT: 6.53 min Scan# 661
Delta R.T. -0.01 min
Lab File: 0322F031.D
Acq: 22 Mar 2019 9:43 pm

Tgt Ion:168 Resp: 116

Ion	Ratio	Lower	Upper
168	100		
139	26.4	1.8	61.8
84	14.4	0.0	23.2

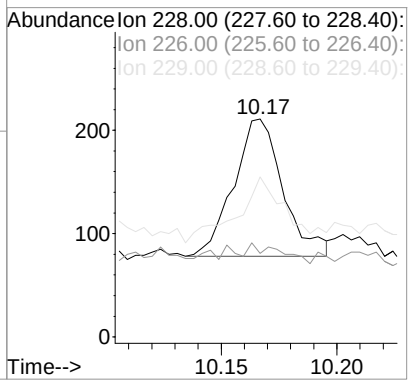




#26
Benz(a)anthracene
Concen: 0.44 ng/ml
RT: 10.17 min Scan# 1558
Delta R.T. -0.00 min
Lab File: 0322F031.D
Acq: 22 Mar 2019 9:43 pm

Tgt Ion:228 Resp: 198

Ion	Ratio	Lower	Upper
228	100		
226	3.8	0.0	56.6
229	48.1	0.0	39.5#



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F031.D Vial: 28
Acq On : 22 Mar 2019 9:43 pm Operator: LWeiskopf
Sample : K1902351-021 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:22:04 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	66872m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	32286	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.59	188	61658	200.00	ng/ml	-0.01
23) Chrysene-d12	10.17	240	62489	200.00	ng/ml	-0.02
28) Perylene-d12	13.39	264	69141	200.00	ng/ml	-0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	151700	804.50	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 80.45%			
13) Fluorene-d10	6.79	176	200830	897.83	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 89.78%			
22) Fluoranthene-d10	8.58	212	386734	1071.32	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 107.13%			
25) Terphenyl-d14	8.94	244	288230	1045.67	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 104.57%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	264	0.70	ng/ml	96
4) 2-Methylnaphthalene	5.45	142	93	0.40	ng/ml	93
5) 1-Methylnaphthalene	5.54	142	81m	0.36	ng/ml	
6) Biphenyl	5.86	154	672	2.21	ng/ml	96
11) Dibenzofuran	6.53	168	116	0.31	ng/ml	88
26) Benz(a)anthracene	10.17	228	198	0.44	ng/ml#	48

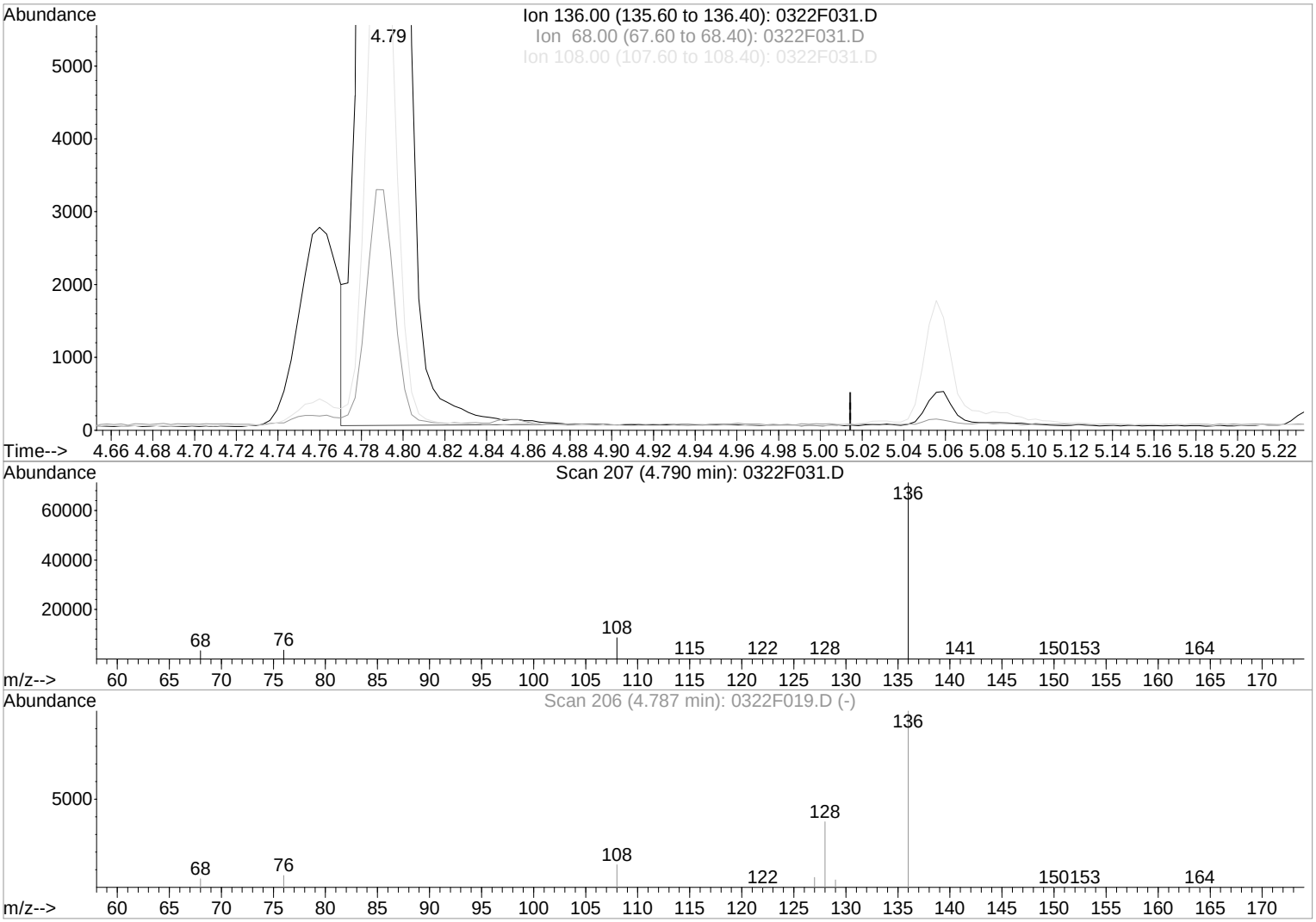
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F031.D Vial: 28
Acq On : 22 Mar 2019 9:43 pm Operator: LWeiskopf
Sample : K1902351-021 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:22 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F031.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 63060

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.51
108.00	13.60	11.93
0.00	0.00	0.00

Manual Integration:

Before

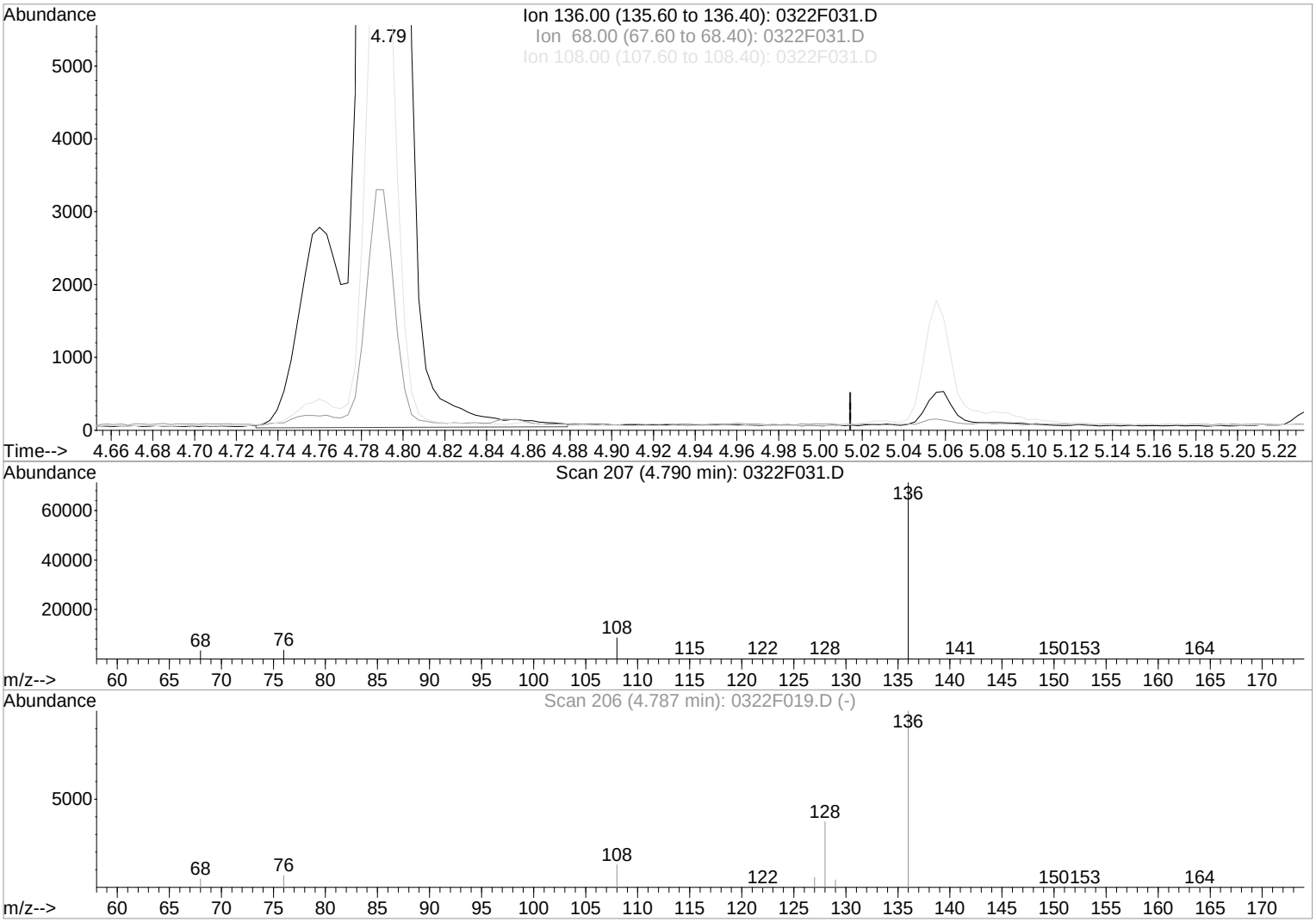
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F031.D Vial: 28
Acq On : 22 Mar 2019 9:43 pm Operator: LWeiskopf
Sample : K1902351-021 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:06 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F031.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 66872

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.63
108.00	13.60	12.01
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F032.D\
Lab ID: K1902351-027
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 22:15:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F032.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 22:15:00	**Vial:**	15
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-027	**Raw Units:**	ng/mL

Bottle ID:	K1902351-027.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	K1902351
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		32569	200.00	NA
Chrysene-d12	10.17		60926	200.00	NA
Naphthalene-d8	4.79		67083	200.00	NA
Perylene-d12	13.39	-0.02	66650	200.00	NA
Phenanthrene-d10	7.59	-0.01	62312	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		408405	1119.48	112	42 - 133	Y
Fluorene-d10	6.79		212589	942.14	94	42 - 131	Y
Terphenyl-d14	8.93	-0.01	287891	1071.23	107	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		98	0.42	0.0019	J	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.16		202	0.46	0.0020	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y
Fluorene	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F032.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 22:15:00	**Vial:**	15
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-027	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.81		220	0.58	0.0026	J	Y
Phenanthrene	7.61	-0.01	82	0.21	0.00093	U	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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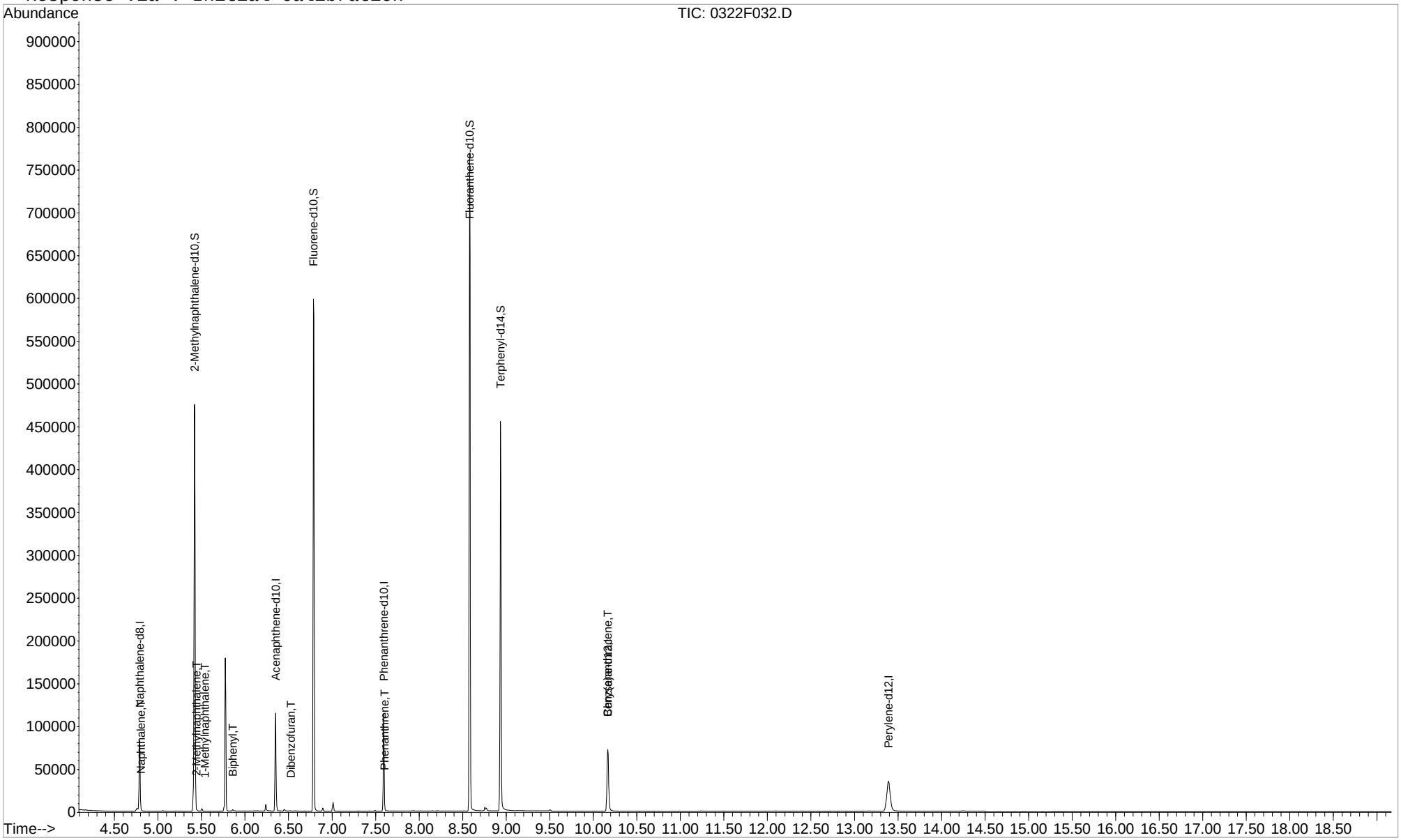
Quantitation Report (QT Reviewed)

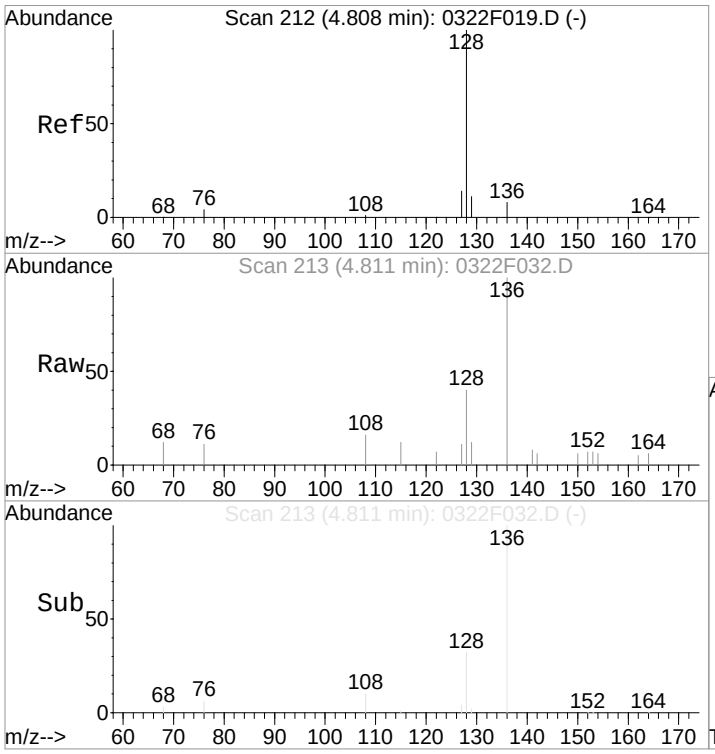
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F032.D Vial: 29
Acq On : 22 Mar 2019 10:15 pm Operator: LWeiskopf
Sample : K1902351-027 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:13 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



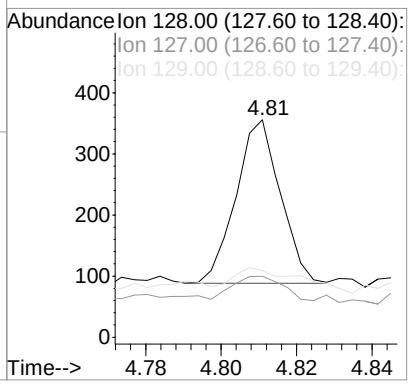
1st 03/25/19
2nd 03/26/19

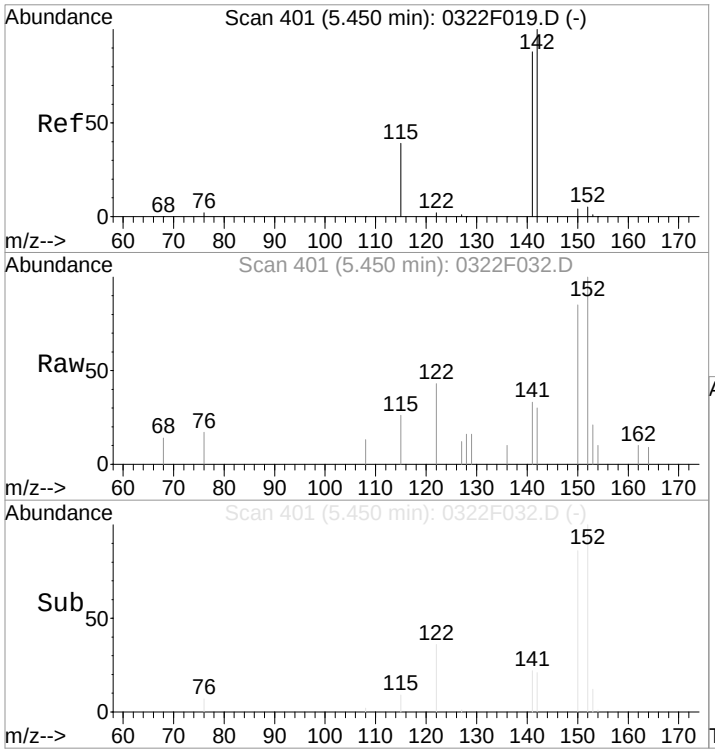


#2
Naphthalene
Concen: 0.58 ng/ml
RT: 4.81 min Scan# 213
Delta R.T. -0.02 min
Lab File: 0322F032.D
Acq: 22 Mar 2019 10:15 pm

Tgt Ion:128 Resp: 220

Ion	Ratio	Lower	Upper
128	100		
127	12.3	0.0	43.9
129	7.8	0.0	30.8

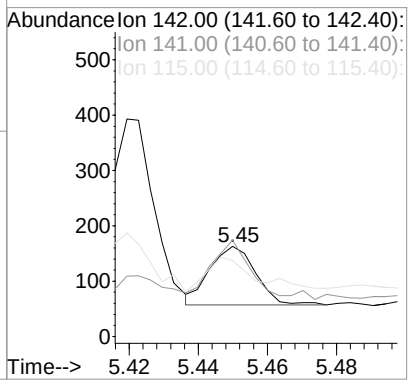




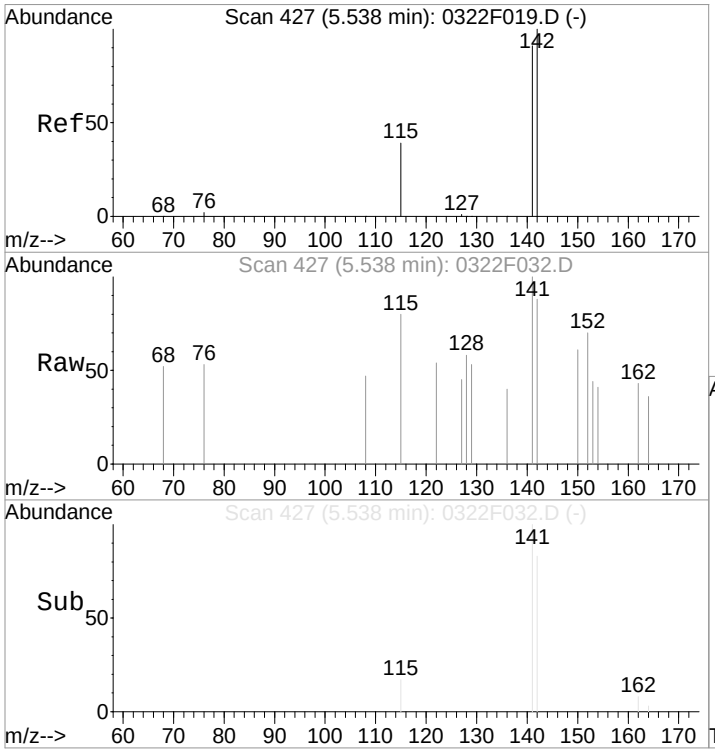
#4
2-Methylnaphthalene
Concen: 0.42 ng/ml
RT: 5.45 min Scan# 401
Delta R.T. -0.02 min
Lab File: 0322F032.D
Acq: 22 Mar 2019 10:15 pm

Tgt Ion:142 Resp: 98

Ion	Ratio	Lower	Upper
142	100		
141	92.5	57.4	117.4
115	52.8	21.9	61.9



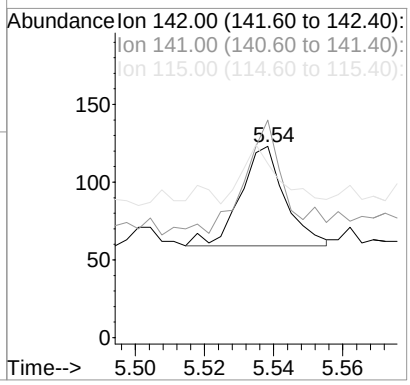
1st 03/25/19
2nd 03/26/19

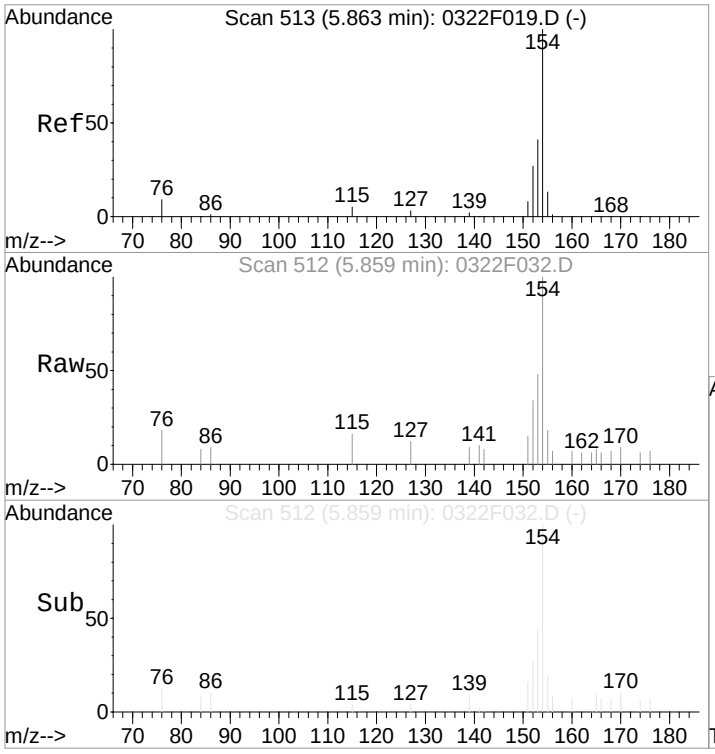


#5
1-Methylnaphthalene
Concen: 0.26 ng/ml
RT: 5.54 min Scan# 427
Delta R.T. -0.01 min
Lab File: 0322F032.D
Acq: 22 Mar 2019 10:15 pm

Tgt Ion:142 Resp: 58

Ion	Ratio	Lower	Upper
142	100		
141	109.4	61.0	121.0
115	37.5	26.2	66.2

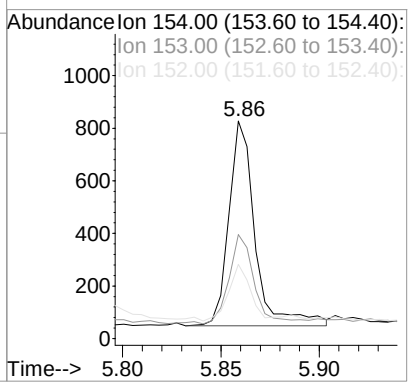




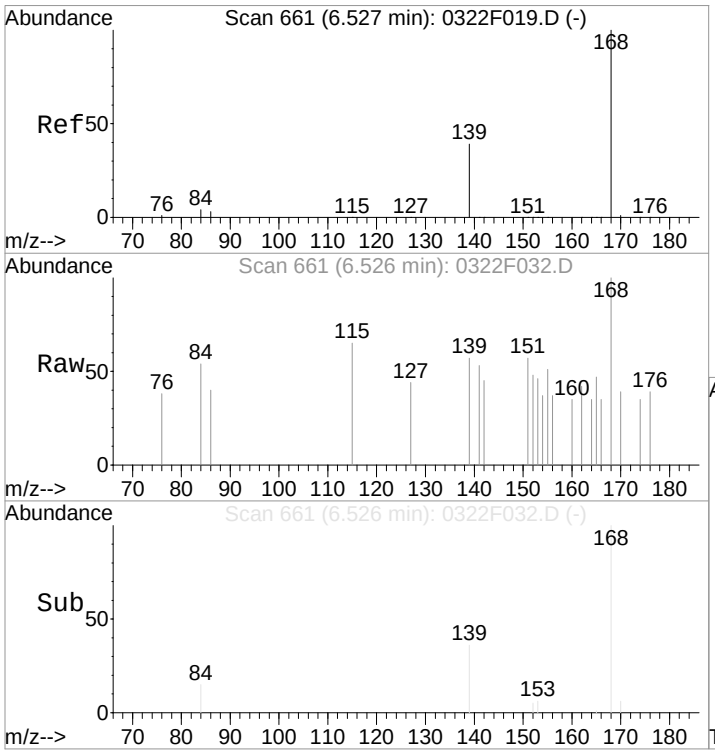
#6
Biphenyl
Concen: 2.36 ng/ml
RT: 5.86 min Scan# 512
Delta R.T. -0.01 min
Lab File: 0322F032.D
Acq: 22 Mar 2019 10:15 pm

Tgt Ion:154 Resp: 720

Ion	Ratio	Lower	Upper
154	100		
153	42.9	11.5	71.5
152	26.6	6.9	46.9



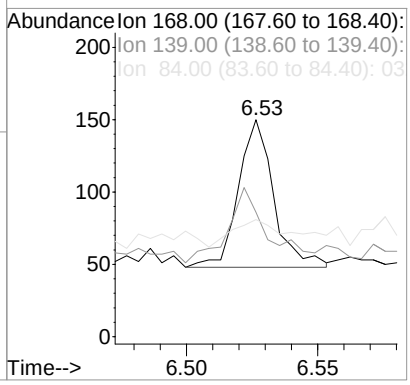
1st 03/25/19
2nd 03/26/19

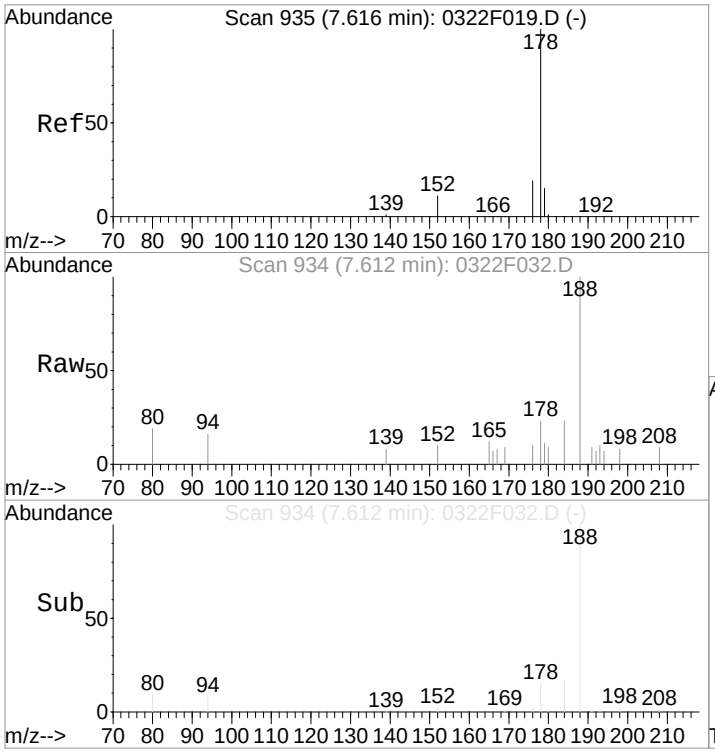


#11
Dibenzofuran
Concen: 0.26 ng/ml
RT: 6.53 min Scan# 661
Delta R.T. -0.01 min
Lab File: 0322F032.D
Acq: 22 Mar 2019 10:15 pm

Tgt Ion:168 Resp: 95

Ion	Ratio	Lower	Upper
168	100		
139	34.3	1.8	61.8
84	10.8	0.0	23.2

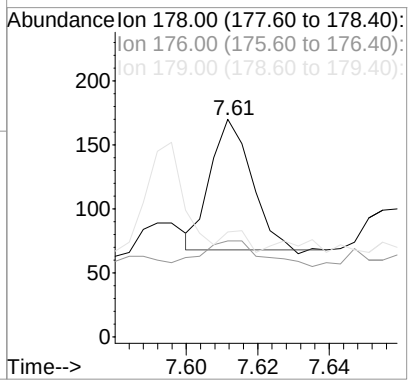




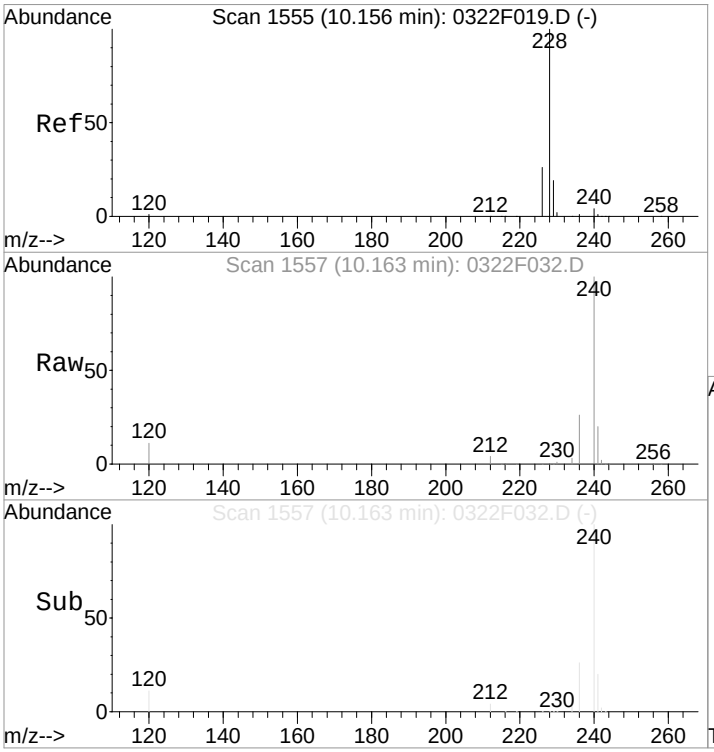
#17
Phenanthrene
Concen: 0.21 ng/ml
RT: 7.61 min Scan# 934
Delta R.T. -0.01 min
Lab File: 0322F032.D
Acq: 22 Mar 2019 10:15 pm

Tgt Ion:178 Resp: 82

Ion	Ratio	Lower	Upper
178	100		
176	16.7	0.0	48.6
179	15.7	0.0	35.2



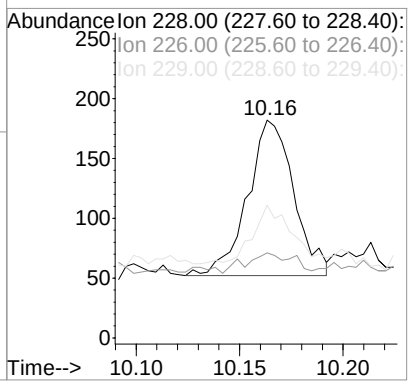
1st 03/25/19
2nd 03/26/19



#26
Benz(a)anthracene
Concen: 0.46 ng/ml
RT: 10.16 min Scan# 1557
Delta R.T. -0.01 min
Lab File: 0322F032.D
Acq: 22 Mar 2019 10:15 pm

Tgt Ion:228 Resp: 202

Ion	Ratio	Lower	Upper
228	100		
226	12.3	0.0	56.6
229	35.4	0.0	39.5



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F032.D Vial: 29
Acq On : 22 Mar 2019 10:15 pm Operator: LWeiskopf
Sample : K1902351-027 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:22:06 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	67083m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	32569	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.59	188	62312	200.00	ng/ml	-0.01
23) Chrysene-d12	10.17	240	60926	200.00	ng/ml	-0.02
28) Perylene-d12	13.39	264	66650	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	160862	850.40	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 85.04%			
13) Fluorene-d10	6.79	176	212589	942.14	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 94.21%			
22) Fluoranthene-d10	8.58	212	408405	1119.48	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 111.95%			
25) Terphenyl-d14	8.93	244	287891	1071.23	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 107.12%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	220	0.58	ng/ml	94
4) 2-Methylnaphthalene	5.45	142	98	0.42	ng/ml	91
5) 1-Methylnaphthalene	5.54	142	58	0.26	ng/ml	83
6) Biphenyl	5.86	154	720	2.36	ng/ml	98
11) Dibenzofuran	6.53	168	95	0.26	ng/ml	94
17) Phenanthrene	7.61	178	82	0.21	ng/ml	97
26) Benz(a)anthracene	10.16	228	202	0.46	ng/ml	69

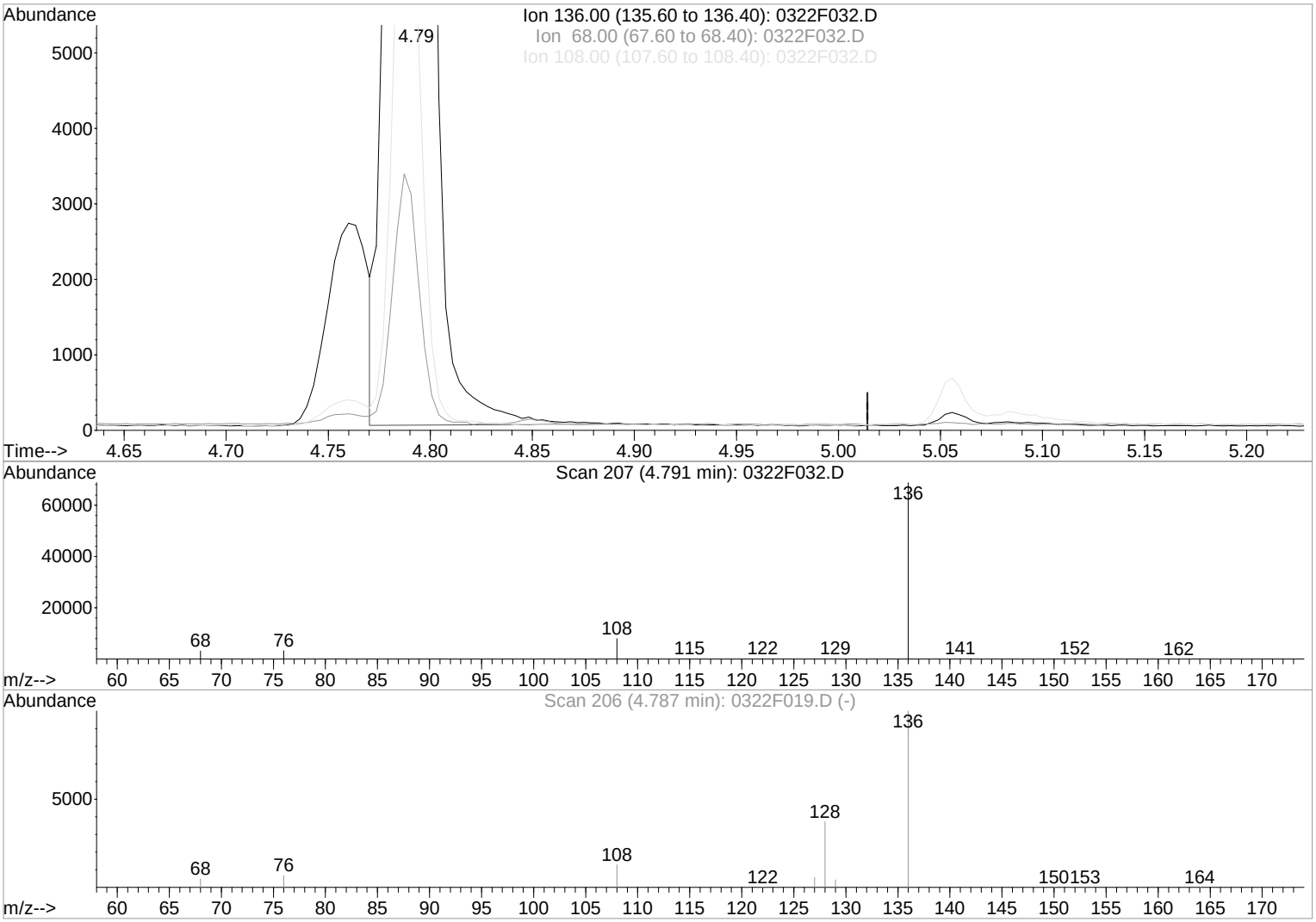
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F032.D Vial: 29
Acq On : 22 Mar 2019 10:15 pm Operator: LWeiskopf
Sample : K1902351-027 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:22 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F032.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 63283

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.43
108.00	13.60	11.40
0.00	0.00	0.00

Manual Integration:

Before

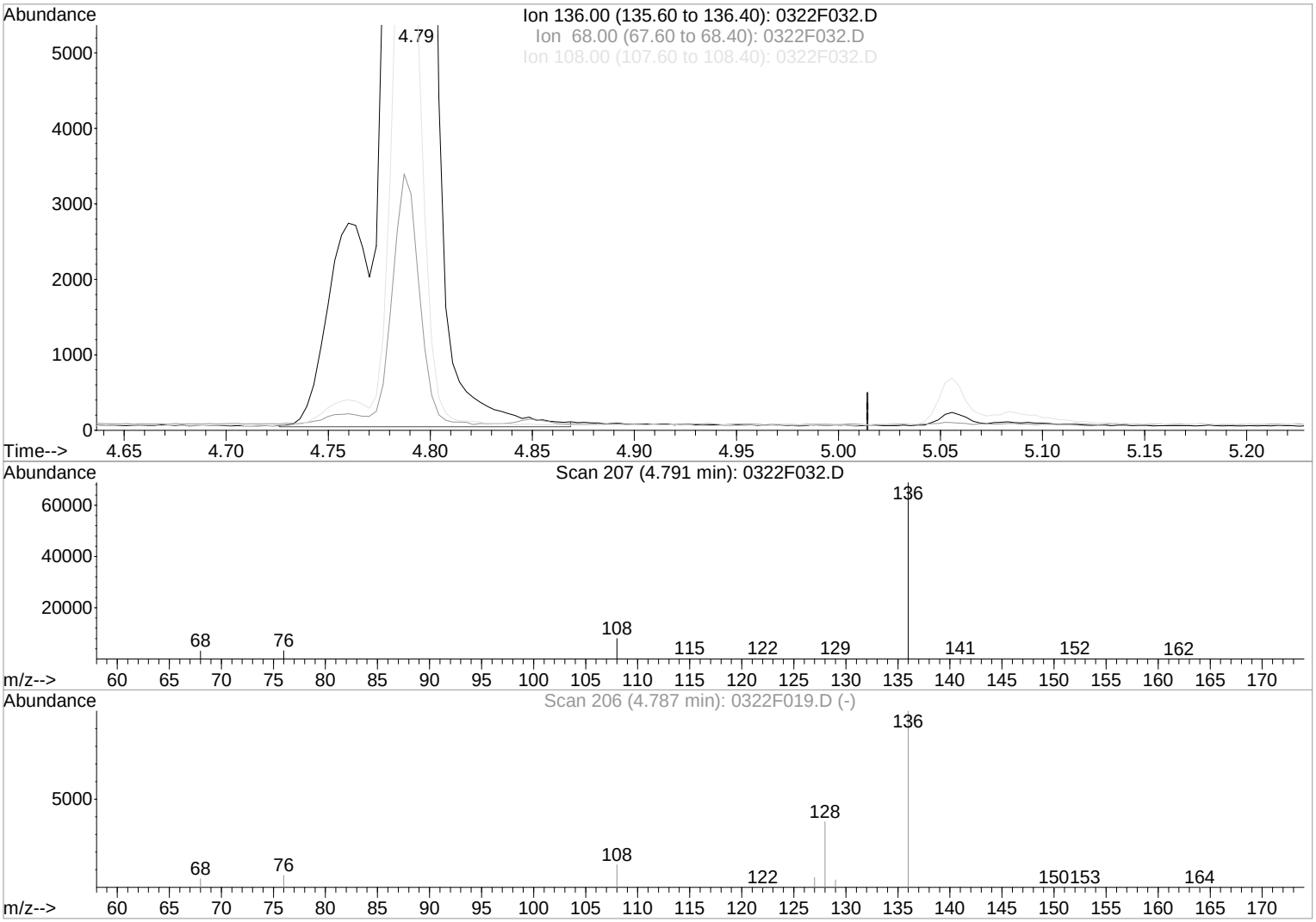
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F032.D Vial: 29
Acq On : 22 Mar 2019 10:15 pm Operator: LWeiskopf
Sample : K1902351-027 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:12 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F032.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 67083

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.54
108.00	13.60	11.48
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F033.D\
Lab ID: K1902351-028
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 22:48:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 3/25/19 8:54
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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F033.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 22:48:00	**Vial:**	16
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-028	**Raw Units:**	ng/mL

Bottle ID:	K1902351-028.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	K1902351
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		33666	200.00	NA
Chrysene-d12	10.17		59882	200.00	NA
Naphthalene-d8	4.79		66653	200.00	NA
Perylene-d12	13.39	-0.02	65353	200.00	NA
Phenanthrene-d10	7.59	-0.01	62369	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		400605	1097.10	110	42 - 133	Y
Fluorene-d10	6.79		203605	872.92	87	42 - 131	Y
Terphenyl-d14	8.93	-0.01	259284	981.60	98	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		11500	49.11	0.22		Y
Acenaphthene	6.39	+0.01	1160	4.87	0.022		Y
Acenaphthylene	6.24		1041	2.49	0.011	J	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.17	+0.01	171	0.40	0.0018	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y
Fluorene	6.81	-0.01	607	1.97	0.0088	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 3/25/19 8:54
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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F033.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 22:48:00	**Vial:**	16
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-028	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.81		31406	83.89	0.37		Y
Phenanthrene	7.61	-0.01	736	1.85	0.0082	J	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 3/25/19 8:54
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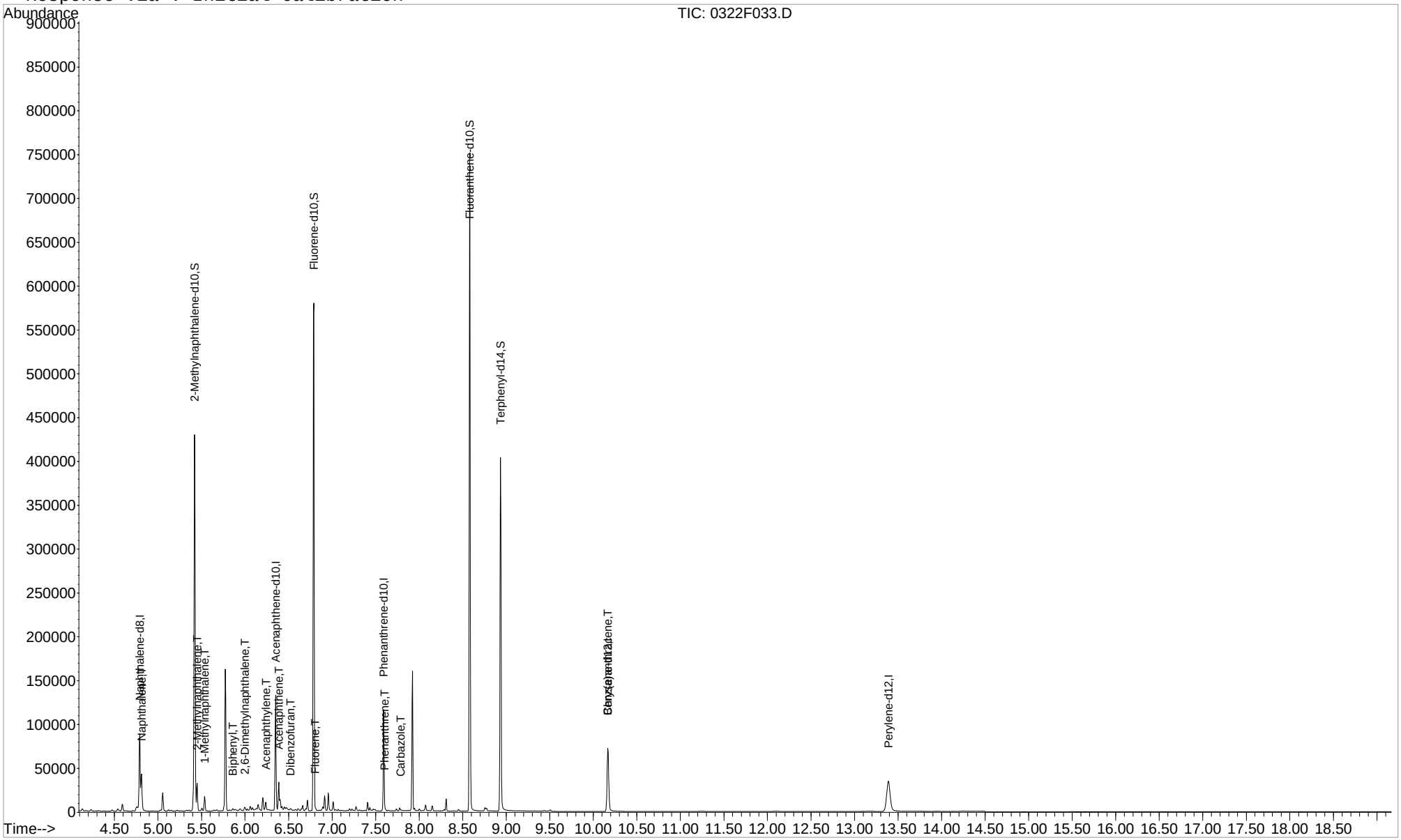
Quantitation Report (QT Reviewed)

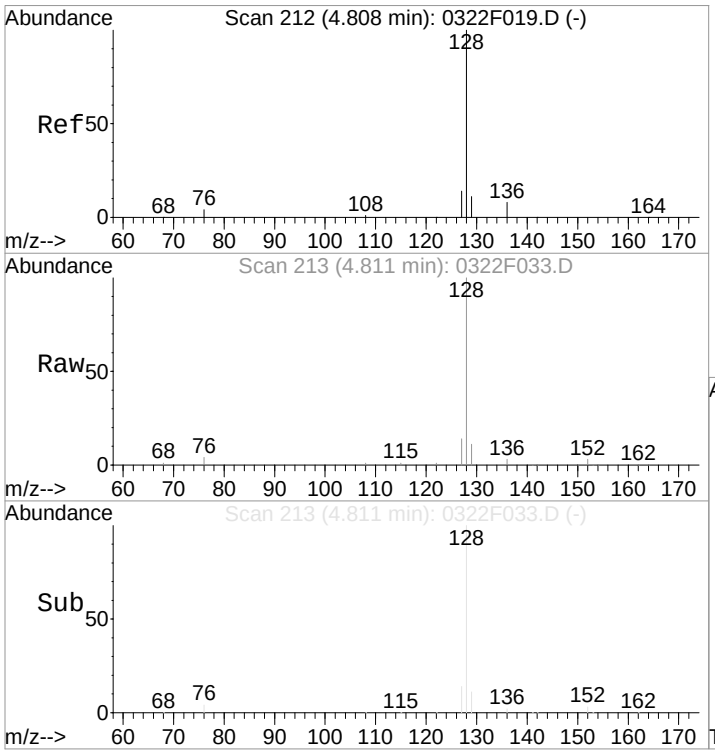
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F033.D Vial: 30
Acq On : 22 Mar 2019 10:48 pm Operator: LWeiskopf
Sample : K1902351-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:19 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



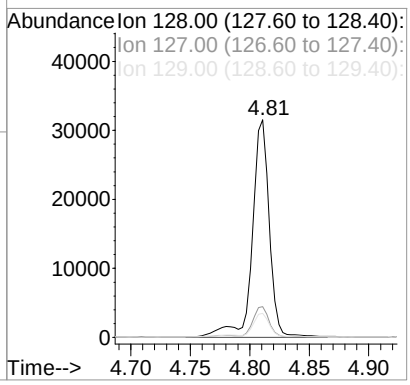
1st 03/25/19
2nd 03/26/19

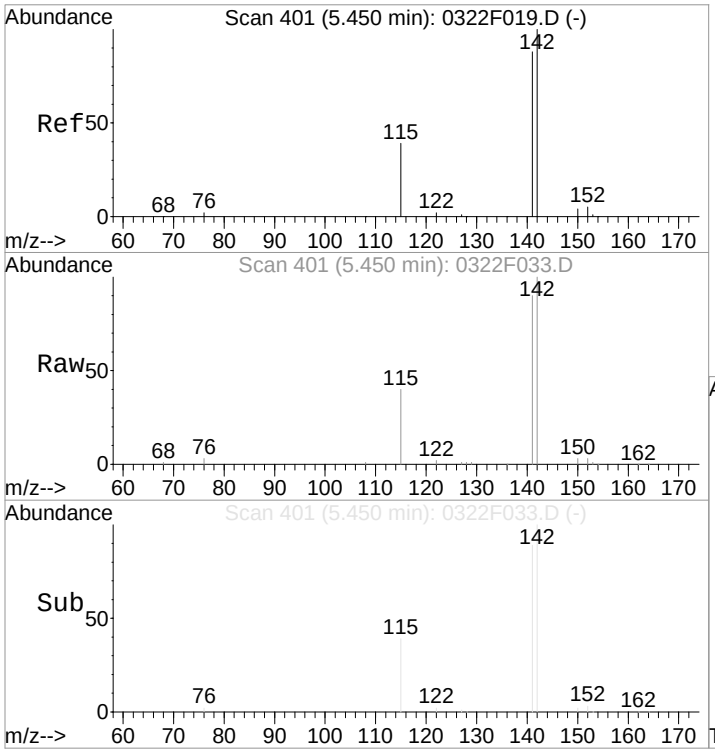


#2
Naphthalene
Concen: 83.89 ng/ml m
RT: 4.81 min Scan# 213
Delta R.T. -0.02 min
Lab File: 0322F033.D
Acq: 22 Mar 2019 10:48 pm

Tgt Ion:128 Resp: 31406

Ion	Ratio	Lower	Upper
128	100		
127	14.1	0.0	43.9
129	11.1	0.0	30.8

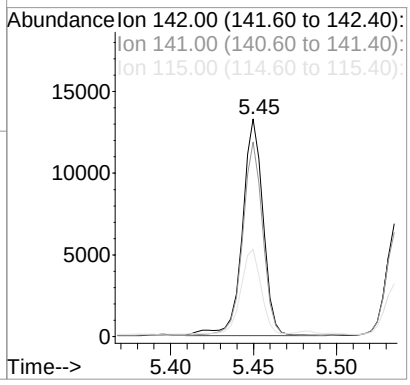




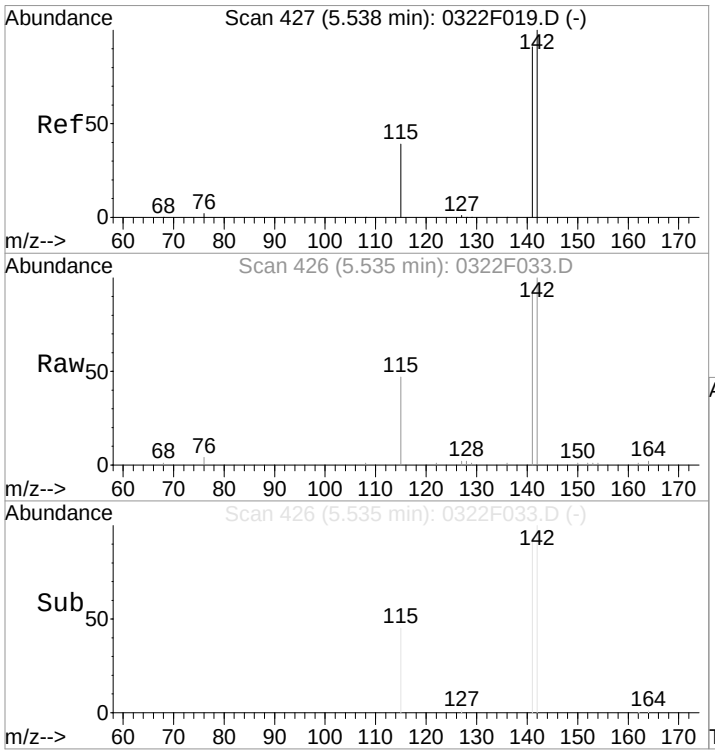
#4
2-Methylnaphthalene
Concen: 49.11 ng/ml
RT: 5.45 min Scan# 401
Delta R.T. -0.02 min
Lab File: 0322F033.D
Acq: 22 Mar 2019 10:48 pm

Tgt Ion:142 Resp: 11500

Ion	Ratio	Lower	Upper
142	100		
141	89.4	57.4	117.4
115	39.2	21.9	61.9



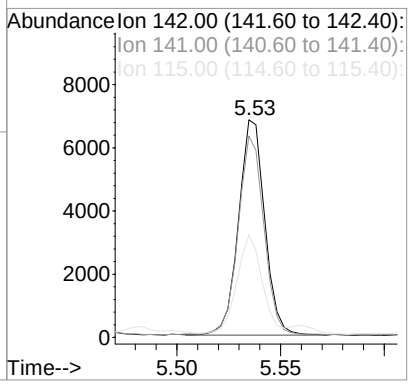
1st 03/25/19
2nd 03/26/19

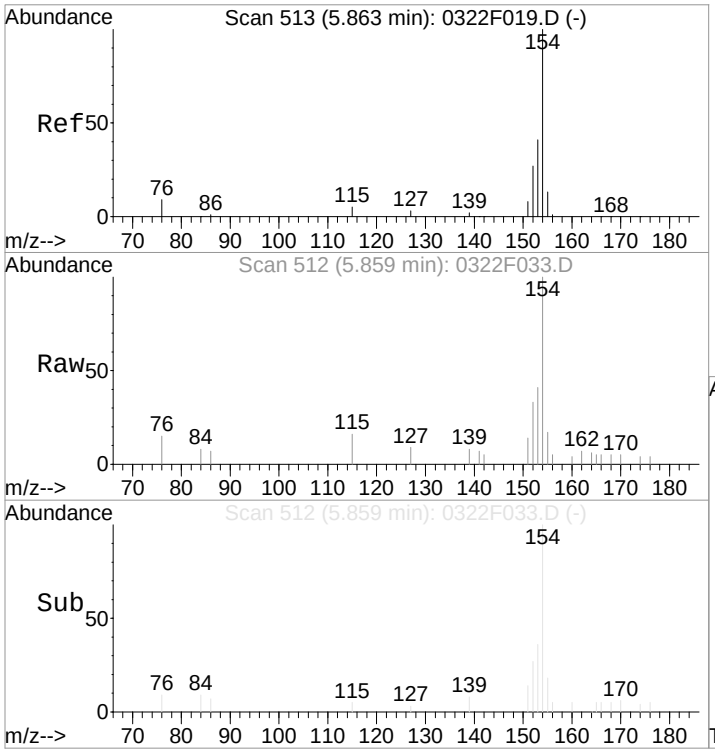


#5
1-Methylnaphthalene
Concen: 26.54 ng/ml
RT: 5.53 min Scan# 426
Delta R.T. -0.02 min
Lab File: 0322F033.D
Acq: 22 Mar 2019 10:48 pm

Tgt Ion:142 Resp: 5990

Ion	Ratio	Lower	Upper
142	100		
141	92.2	61.0	121.0
115	45.4	26.2	66.2

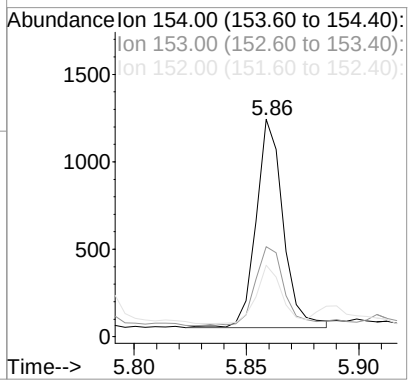




#6
Biphenyl
Concen: 3.33 ng/ml
RT: 5.86 min Scan# 512
Delta R.T. -0.01 min
Lab File: 0322F033.D
Acq: 22 Mar 2019 10:48 pm

Tgt Ion:154 Resp: 1009

Ion	Ratio	Lower	Upper
154	100		
153	37.7	11.5	71.5
152	27.0	6.9	46.9



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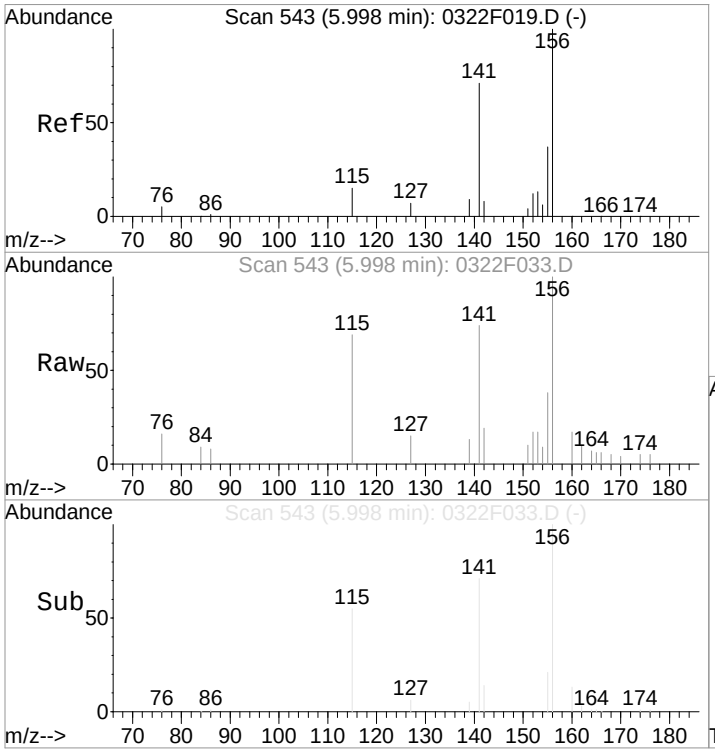
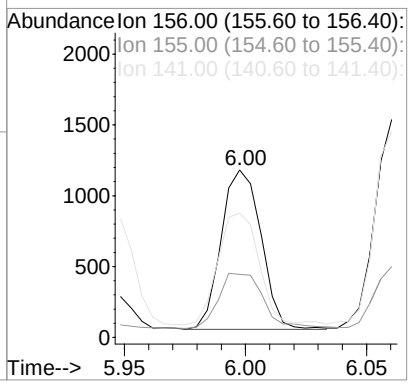
2nd 03/26/19

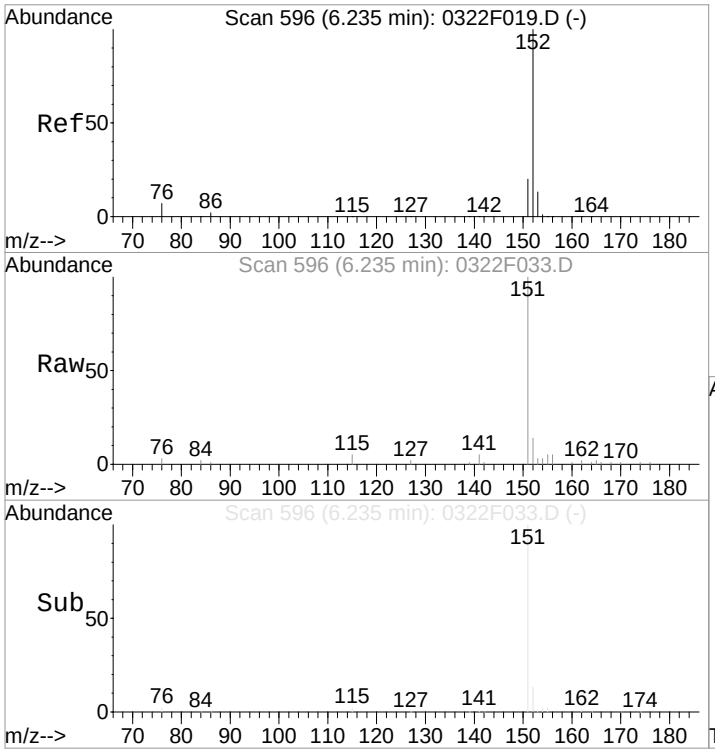


#7
2,6-Dimethylnaphthalene
Concen: 6.04 ng/ml
RT: 6.00 min Scan# 543
Delta R.T. -0.01 min
Lab File: 0322F033.D
Acq: 22 Mar 2019 10:48 pm

Tgt Ion:156 Resp: 1291

Ion	Ratio	Lower	Upper
156	100		
155	33.9	7.6	67.6
141	70.0	60.6	100.6

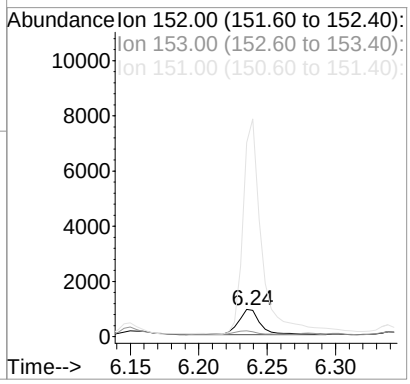




#9
Acenaphthylene
Concen: 2.49 ng/ml
RT: 6.24 min Scan# 596
Delta R.T. -0.00 min
Lab File: 0322F033.D
Acq: 22 Mar 2019 10:48 pm

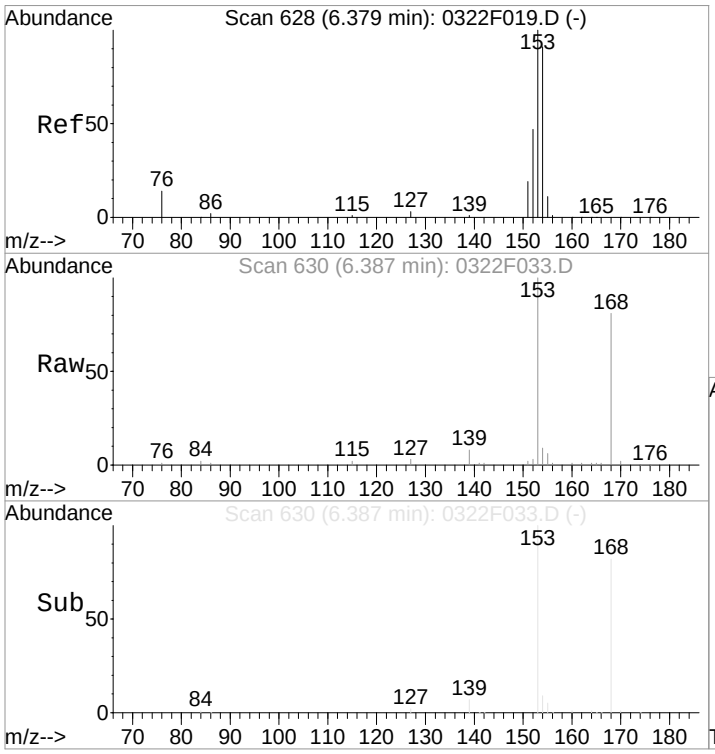
Tgt Ion:152 Resp: 1041

Ion	Ratio	Lower	Upper
152	100		
153	12.7	0.0	43.0
151	757.1	0.5	40.5#



x

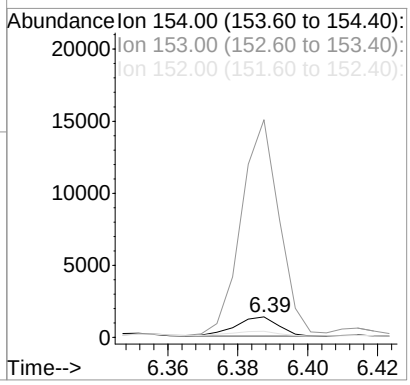
1st 03/25/19
2nd 03/26/19

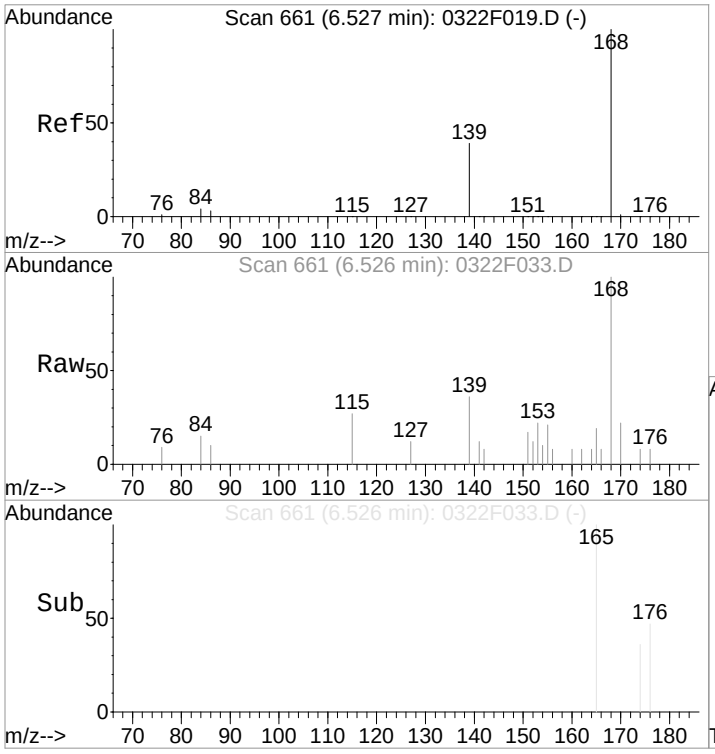


#10
Acenaphthene
Concen: 4.87 ng/ml
RT: 6.39 min Scan# 630
Delta R.T. -0.00 min
Lab File: 0322F033.D
Acq: 22 Mar 2019 10:48 pm

Tgt Ion:154 Resp: 1160

Ion	Ratio	Lower	Upper
154	100		
153	1125.0	77.6	137.6#
152	23.2	19.9	79.9

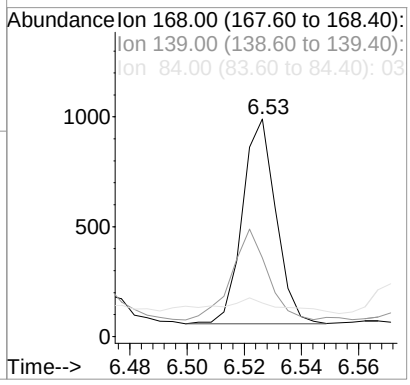




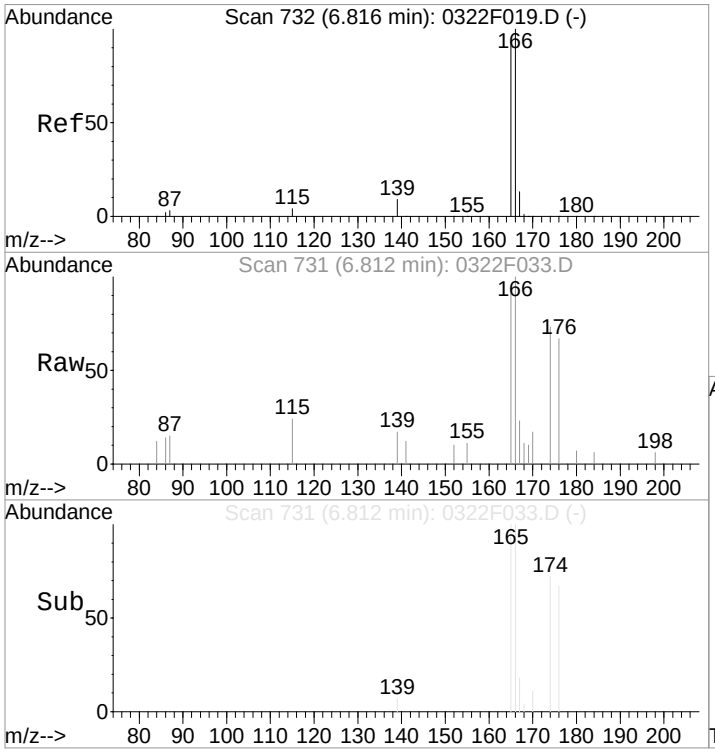
#11
Dibenzofuran
Concen: 1.98 ng/ml
RT: 6.53 min Scan# 661
Delta R.T. -0.01 min
Lab File: 0322F033.D
Acq: 22 Mar 2019 10:48 pm

Tgt Ion:168 Resp: 760

Ion	Ratio	Lower	Upper
168	100		
139	30.5	1.8	61.8
84	4.1	0.0	23.2



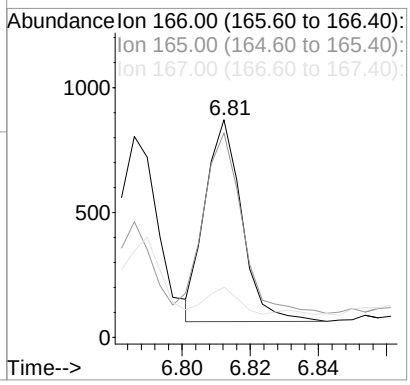
1st 03/25/19
2nd 03/26/19

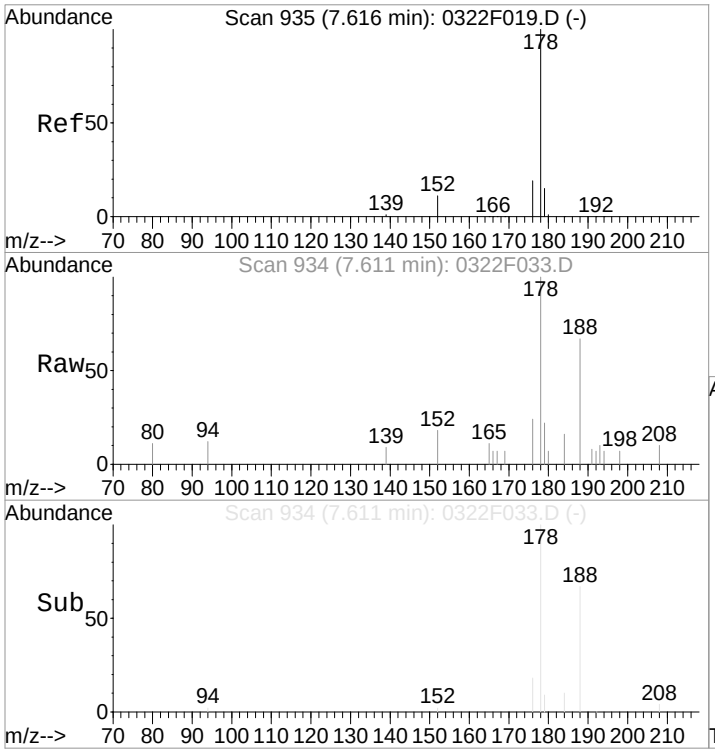


#14
Fluorene
Concen: 1.97 ng/ml
RT: 6.81 min Scan# 731
Delta R.T. -0.01 min
Lab File: 0322F033.D
Acq: 22 Mar 2019 10:48 pm

Tgt Ion:166 Resp: 607

Ion	Ratio	Lower	Upper
166	100		
165	89.6	65.3	125.3
167	13.3	0.0	33.1

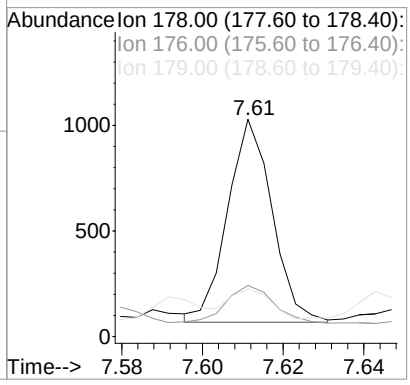




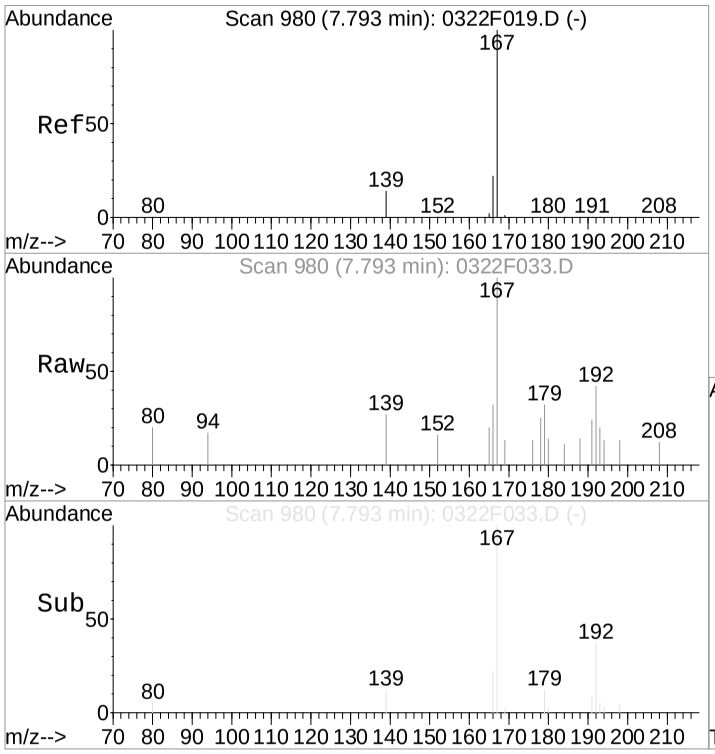
#17
Phenanthrene
Concen: 1.85 ng/ml m
RT: 7.61 min Scan# 934
Delta R.T. -0.01 min
Lab File: 0322F033.D
Acq: 22 Mar 2019 10:48 pm

Tgt Ion:178 Resp: 736

Ion	Ratio	Lower	Upper
178	100		
176	23.6	0.0	48.6
179	21.9	0.0	35.2



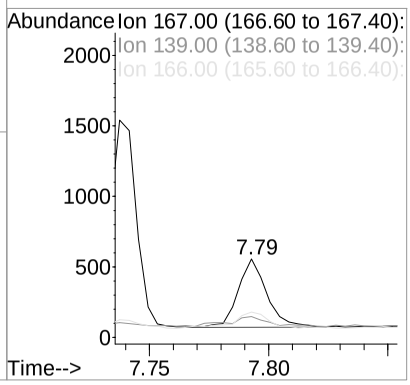
1st 03/25/19
2nd 03/26/19

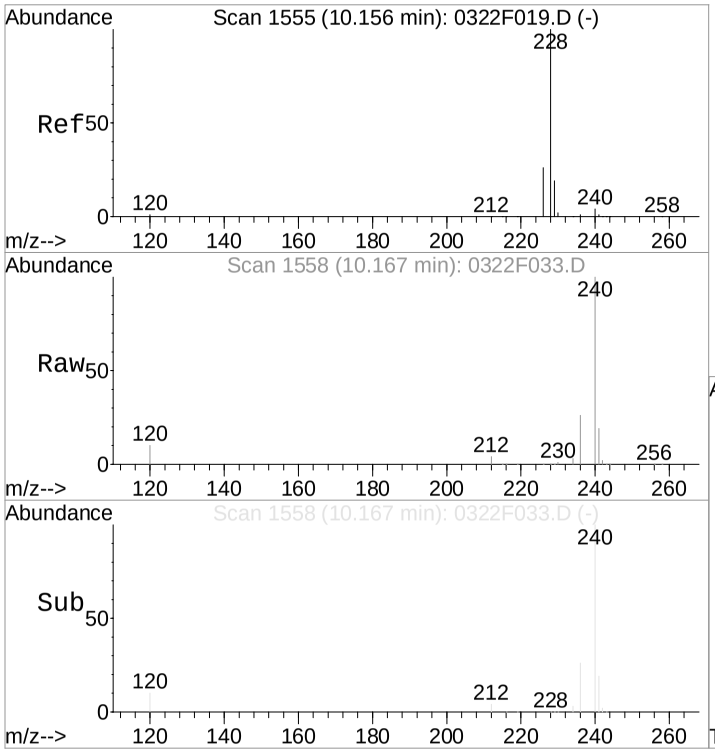


#19
Carbazole
Concen: 1.16 ng/ml
RT: 7.79 min Scan# 980
Delta R.T. -0.01 min
Lab File: 0322F033.D
Acq: 22 Mar 2019 10:48 pm

Tgt Ion:167 Resp: 404

Ion	Ratio	Lower	Upper
167	100		
139	14.9	0.0	43.5
166	22.6	1.2	41.2

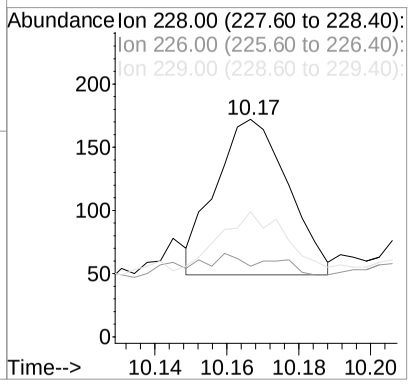




#26
Benz(a)anthracene
Concen: 0.40 ng/ml m
RT: 10.17 min Scan# 1558
Delta R.T. -0.00 min
Lab File: 0322F033.D
Acq: 22 Mar 2019 10:48 pm

Tgt Ion:228 Resp: 171

Ion	Ratio	Lower	Upper
228	100		
226	32.6	0.0	56.6
229	57.6	0.0	39.5#



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F033.D Vial: 30
Acq On : 22 Mar 2019 10:48 pm Operator: LWeiskopf
Sample : K1902351-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 08:17:22 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	66653m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	33666	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.59	188	62369	200.00	ng/ml	-0.01
23) Chrysene-d12	10.17	240	59882	200.00	ng/ml	-0.02
28) Perylene-d12	13.39	264	65353	200.00	ng/ml	-0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	148799	791.71	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	79.17%		
13) Fluorene-d10	6.79	176	203605	872.92	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	87.29%		
22) Fluoranthene-d10	8.58	212	400605	1097.10	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	109.71%		
25) Terphenyl-d14	8.93	244	259284	981.60	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	98.16%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	31406m	83.89	ng/ml	
4) 2-Methylnaphthalene	5.45	142	11500	49.11	ng/ml	97
5) 1-Methylnaphthalene	5.53	142	5990	26.54	ng/ml	99
6) Biphenyl	5.86	154	1009	3.33	ng/ml	96
7) 2,6-Dimethylnaphthalene	6.00	156	1291	6.04	ng/ml	90
9) Acenaphthylene	6.24	152	1041	2.49	ng/ml#	1
10) Acenaphthene	6.39	154	1160	4.87	ng/ml#	1
11) Dibenzofuran	6.53	168	760	1.98	ng/ml	98
14) Fluorene	6.81	166	607	1.97	ng/ml	95
17) Phenanthrene	7.61	178	736m	1.85	ng/ml	
19) Carbazole	7.79	167	404	1.16	ng/ml	97
26) Benz(a)anthracene	10.17	228	171m	0.40	ng/ml	

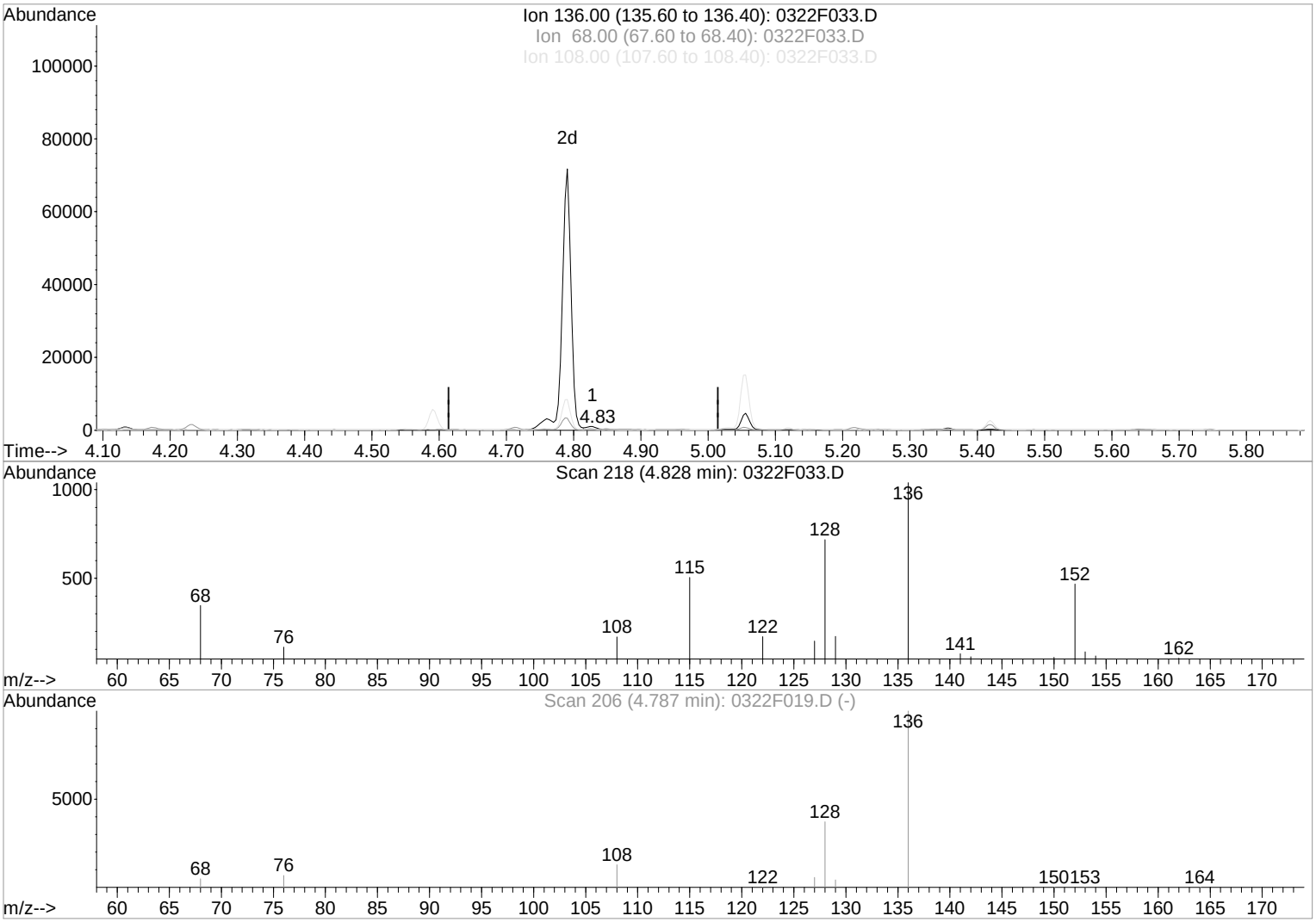
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F033.D Vial: 30
Acq On : 22 Mar 2019 10:48 pm Operator: LWeiskopf
Sample : K1902351-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:17 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F033.D

(1) Naphthalene-d8 (I)

4.83min 200.00ng/ml

response 1141

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	22.00
108.00	13.60	10.42
0.00	0.00	0.00

Manual Integration:

Before

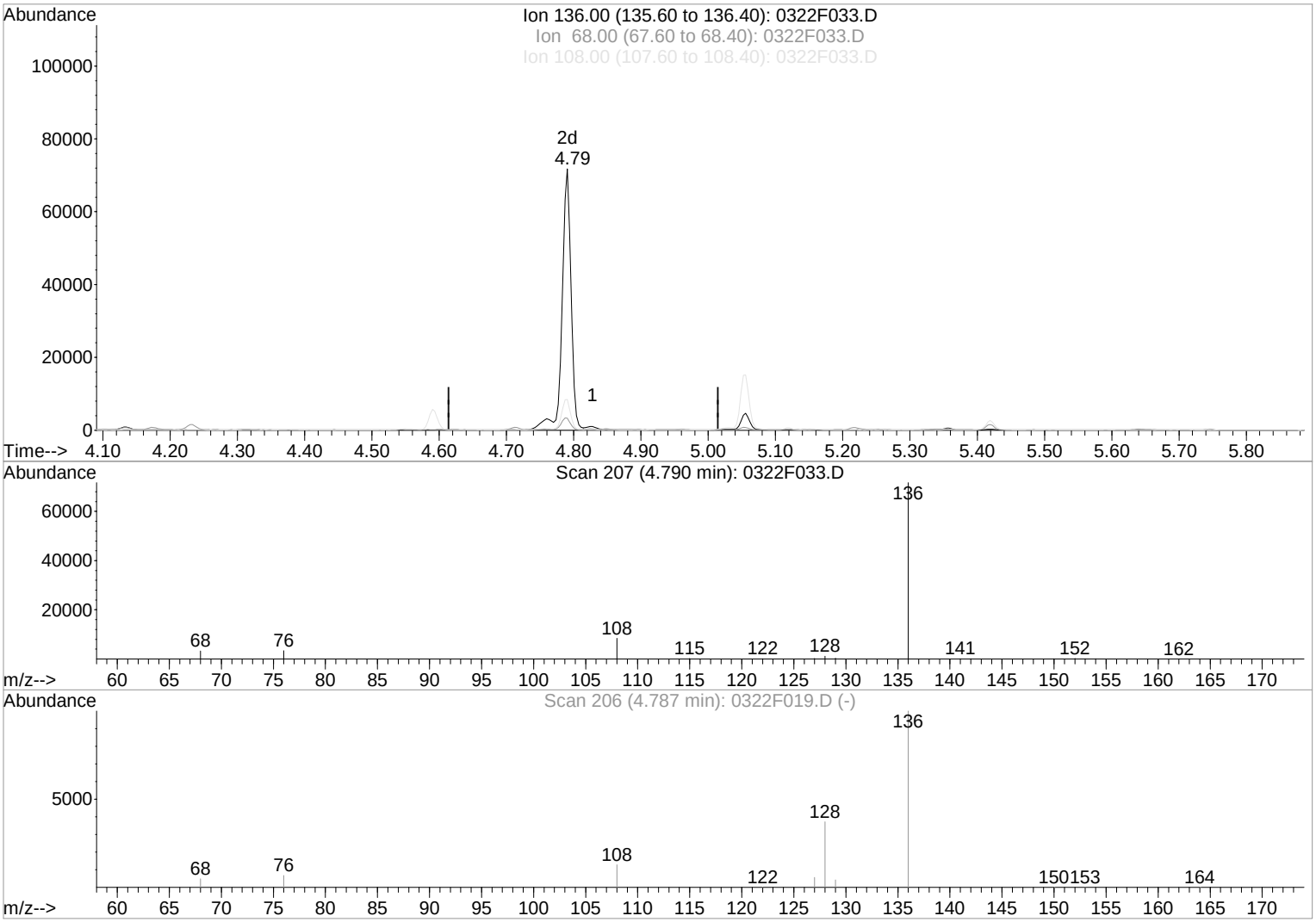
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F033.D Vial: 30
Acq On : 22 Mar 2019 10:48 pm Operator: LWeiskopf
Sample : K1902351-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:17 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F033.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 66653

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.59
108.00	13.60	11.72
0.00	0.00	0.00

Manual Integration:

After

WP

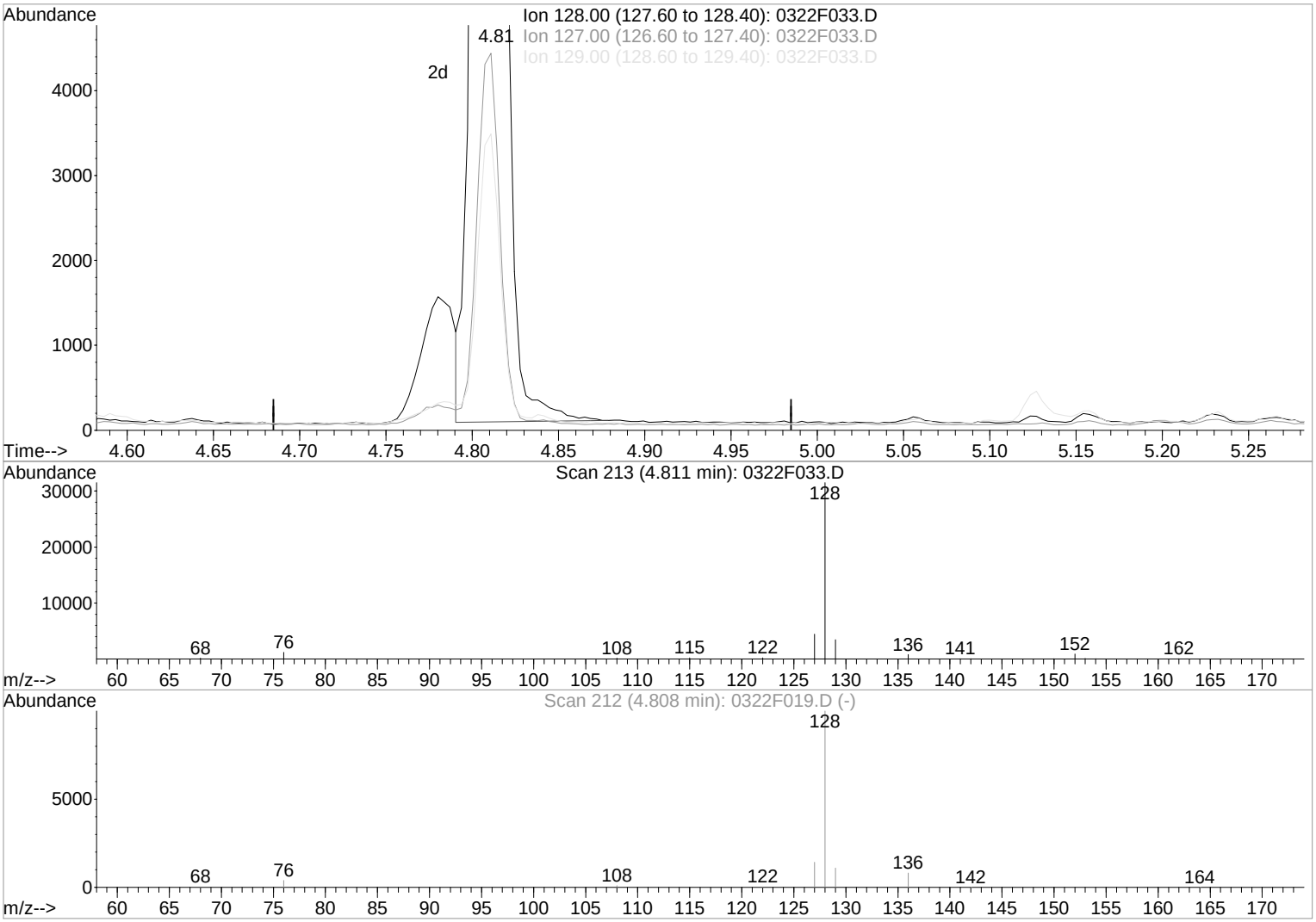
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F033.D Vial: 30
Acq On : 22 Mar 2019 10:48 pm Operator: LWeiskopf
Sample : K1902351-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:17 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F033.D

(2) Naphthalene (T)

4.81min 77.36ng/ml

response 28964

Ion	Exp%	Act%
128.00	100	100
127.00	13.90	13.90
129.00	10.80	10.84
0.00	0.00	0.00

Manual Integration:

Before

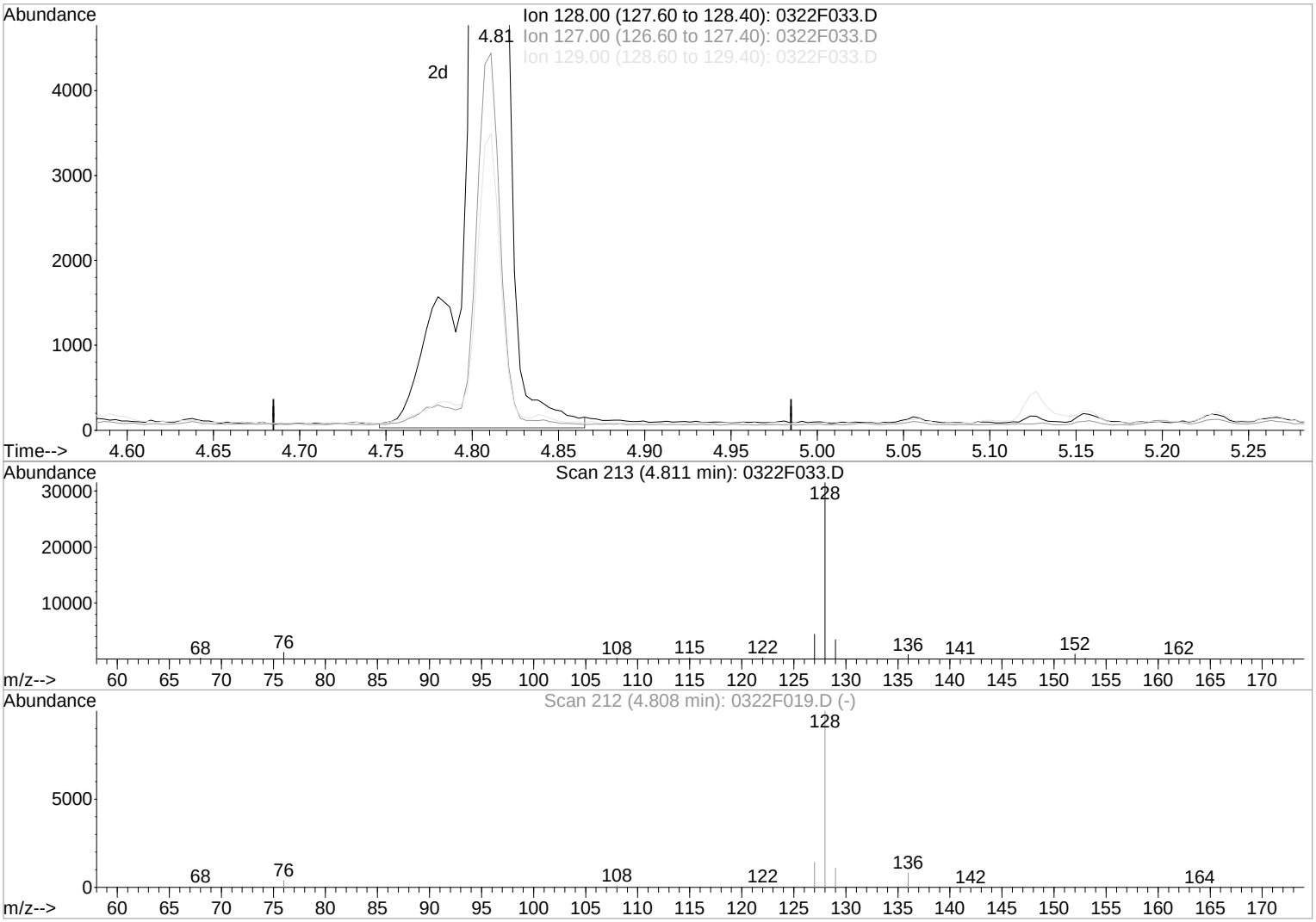
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F033.D Vial: 30
Acq On : 22 Mar 2019 10:48 pm Operator: LWeiskopf
Sample : K1902351-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:17 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F033.D

(2) Naphthalene (T)

4.81min 83.89ng/ml m

response 31406

Ion	Exp%	Act%
128.00	100	100
127.00	13.90	14.09
129.00	10.80	11.07
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

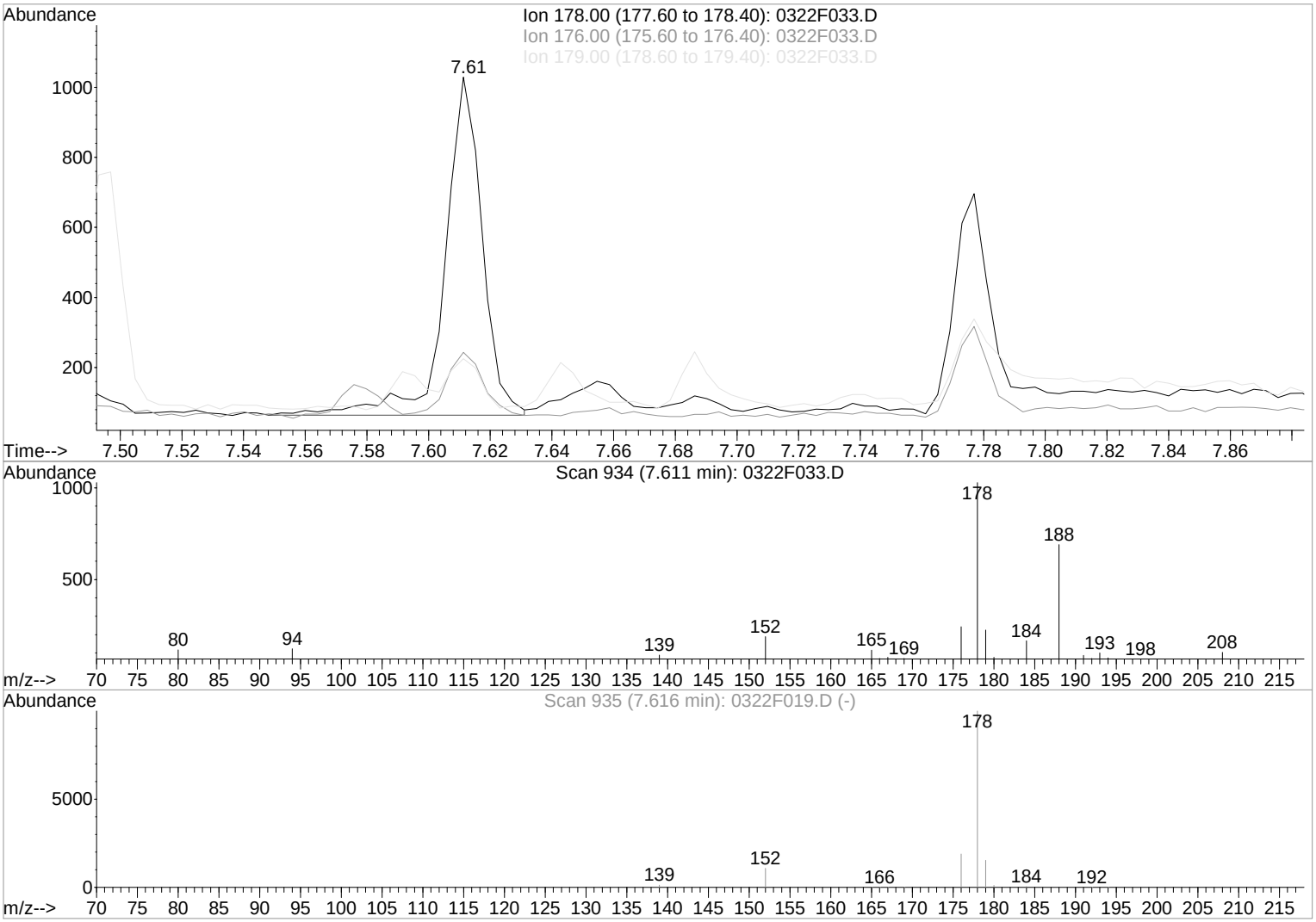
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F033.D Vial: 30
Acq On : 22 Mar 2019 10:48 pm Operator: LWeiskopf
Sample : K1902351-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:18 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F033.D

(17) Phenanthrene (T)

7.61min 2.05ng/ml

response 816

Ion	Exp%	Act%
178.00	100	100
176.00	18.60	18.65
179.00	15.20	14.61
0.00	0.00	0.00

Manual Integration:

Before

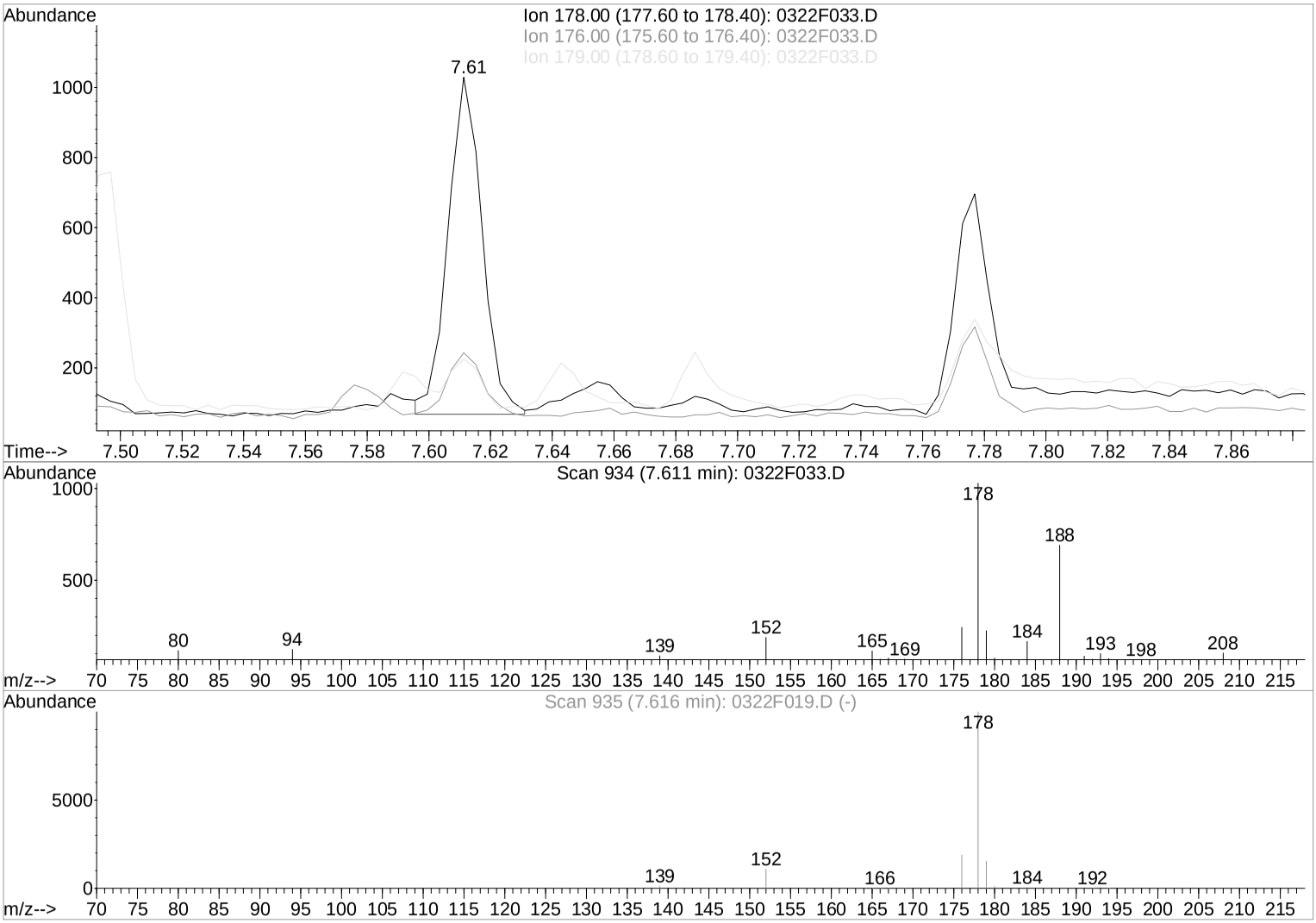
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F033.D Vial: 30
Acq On : 22 Mar 2019 10:48 pm Operator: LWeiskopf
Sample : K1902351-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:18 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F033.D

(17) Phenanthrene (T)

7.61min 1.85ng/ml m

response 736

Ion	Exp%	Act%
178.00	100	100
176.00	18.60	23.62
179.00	15.20	21.87
0.00	0.00	0.00

Manual Integration:

After

BLC

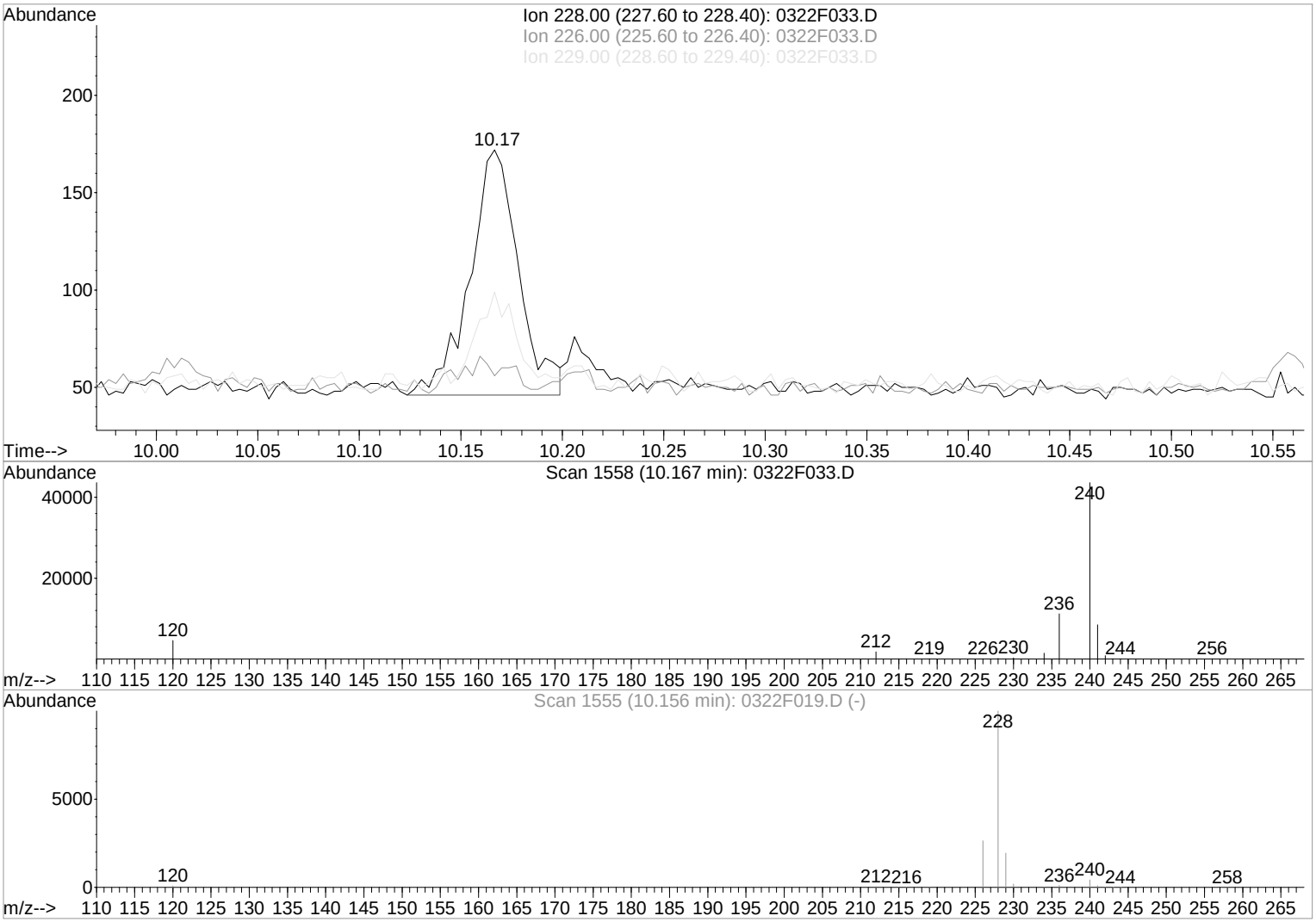
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F033.D Vial: 30
Acq On : 22 Mar 2019 10:48 pm Operator: LWeiskopf
Sample : K1902351-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:18 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F033.D

(26) Benz(a)anthracene (T)

10.17min 0.49ng/ml

response 210

Ion	Exp%	Act%
228.00	100	100
226.00	26.60	6.35
229.00	19.50	38.10
0.00	0.00	0.00

Manual Integration:

Before

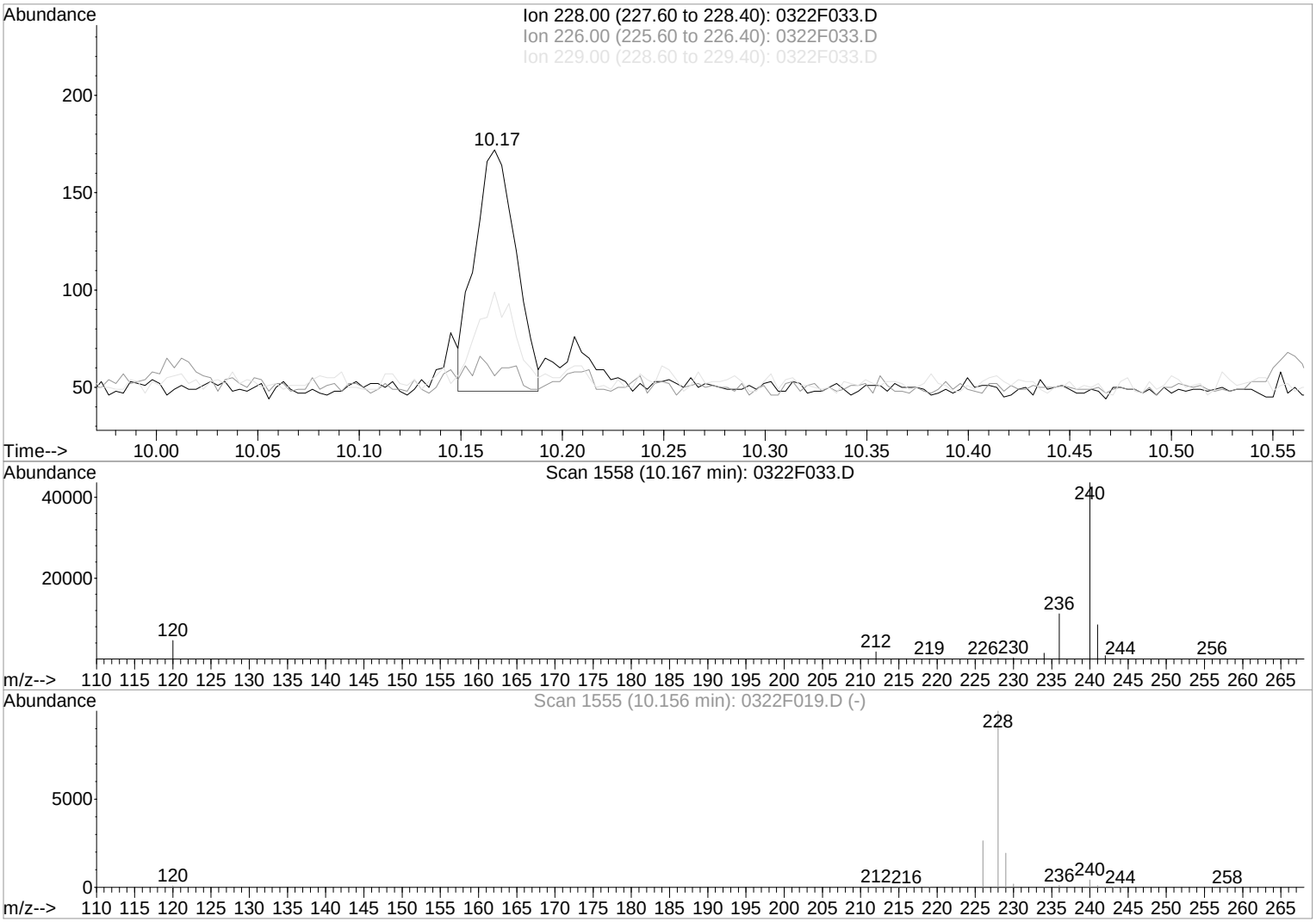
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F033.D Vial: 30
Acq On : 22 Mar 2019 10:48 pm Operator: LWeiskopf
Sample : K1902351-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:18 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F033.D

(26) Benz(a)anthracene (T)

10.17min 0.49ng/ml

response 210

Ion	Exp%	Act%
228.00	100	100
226.00	26.60	6.35
229.00	19.50	38.10
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

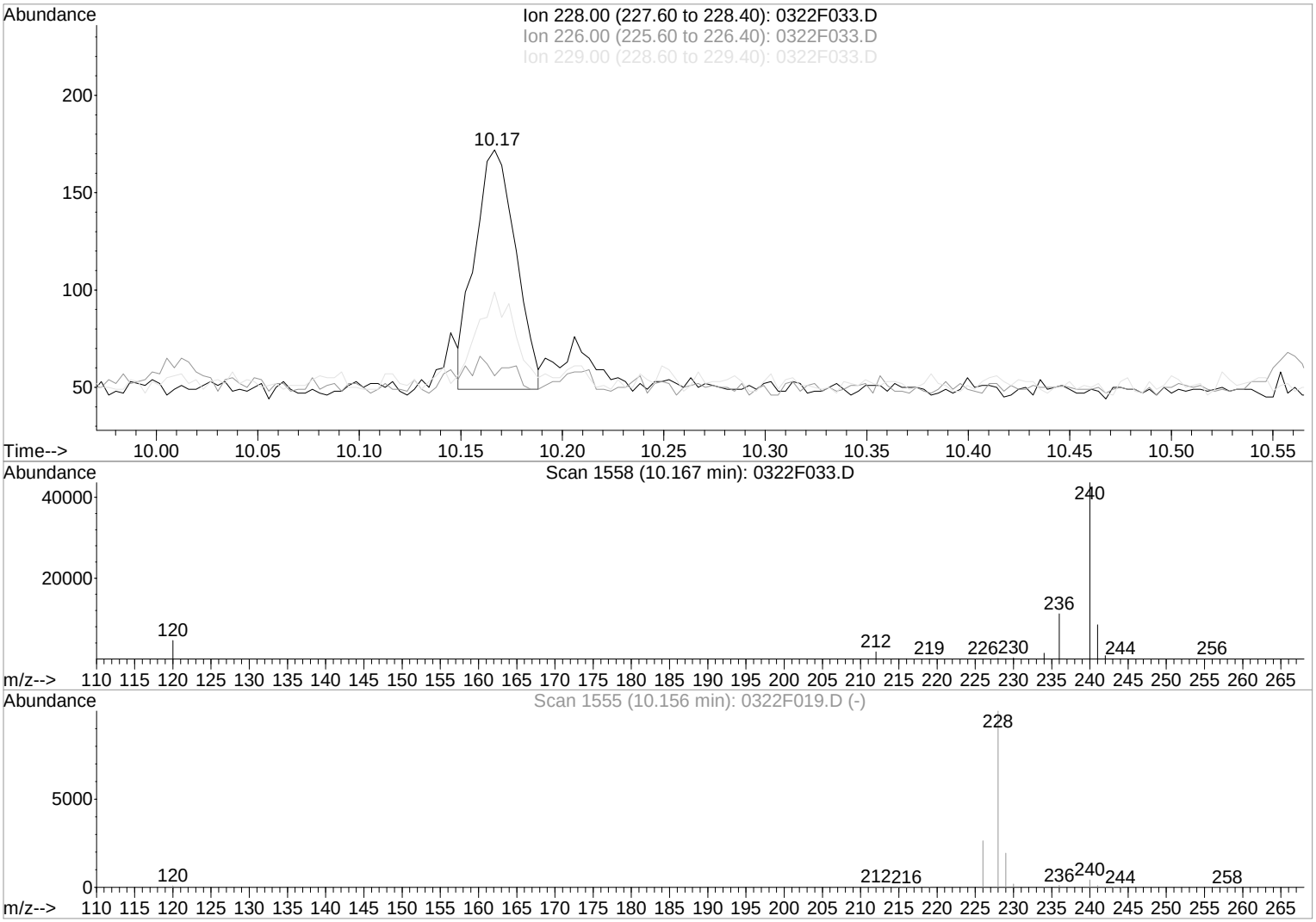
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F033.D Vial: 30
Acq On : 22 Mar 2019 10:48 pm Operator: LWeiskopf
Sample : K1902351-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:19 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F033.D

(26) Benz(a)anthracene (T)

10.17min 0.40ng/ml m

response 171

Ion	Exp%	Act%
228.00	100	100
226.00	26.60	32.56
229.00	19.50	57.56#
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F034.D\
Lab ID: K1902351-029
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 23:20:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F034.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 23:20:00	**Vial:**	17
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-029	**Raw Units:**	ng/mL

Bottle ID:	K1902351-029.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	K1902351
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		31056	200.00	NA
Chrysene-d12	10.17		59583	200.00	NA
Naphthalene-d8	4.79		64735	200.00	NA
Perylene-d12	13.39	-0.02	65304	200.00	NA
Phenanthrene-d10	7.59	-0.01	59796	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		418449	1195.27	120	42 - 133	Y
Fluorene-d10	6.79		222207	1032.74	103	42 - 131	Y
Terphenyl-d14	8.93	-0.01	301461	1147.01	115	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		102	0.45	0.0020	J	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.16		224	0.52	0.0023	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y
Fluorene	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F034.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 23:20:00	**Vial:**	17
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-029	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.81		299	0.82	0.0036	J	Y
Phenanthrene	0.00		0	0.00	0	U	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

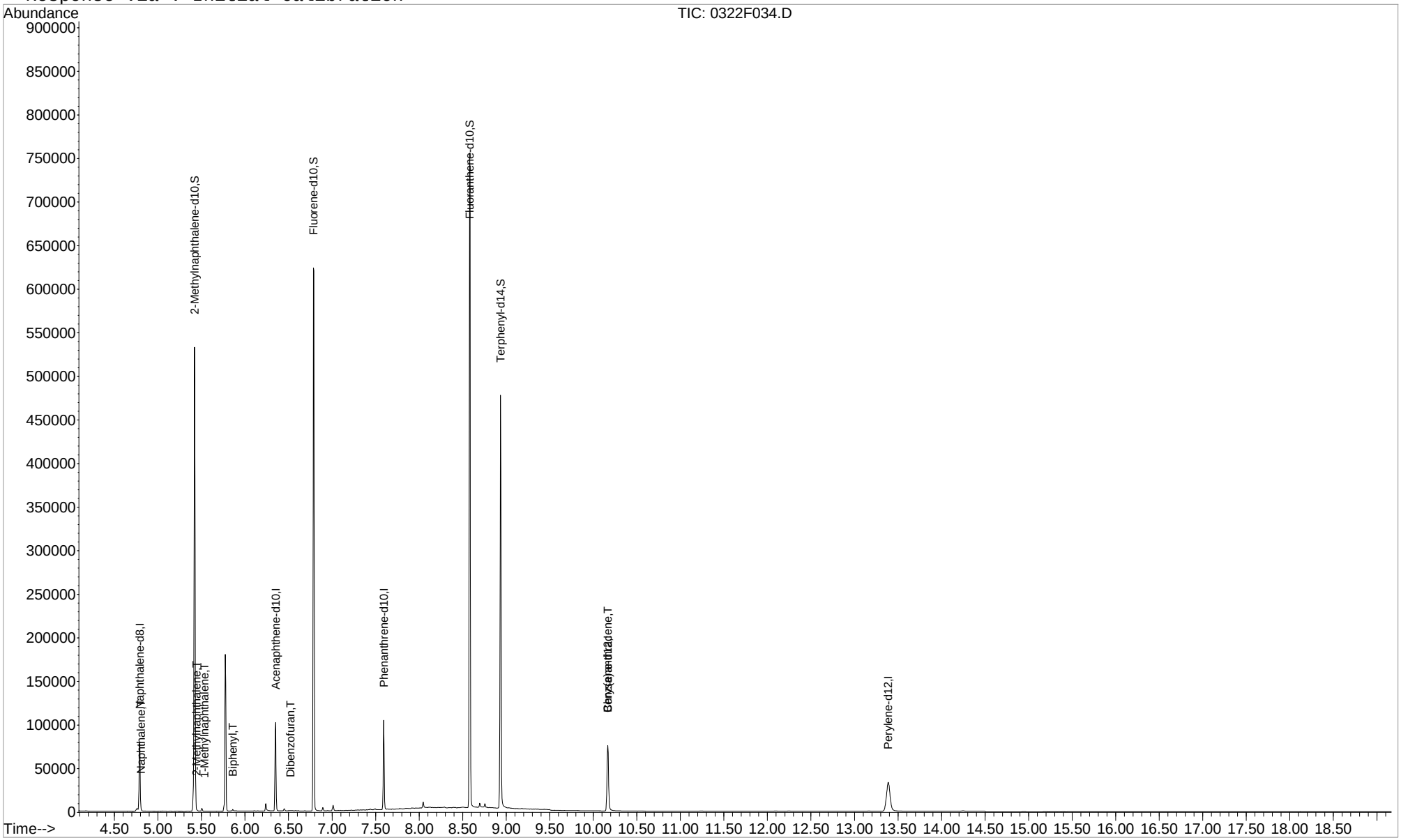
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

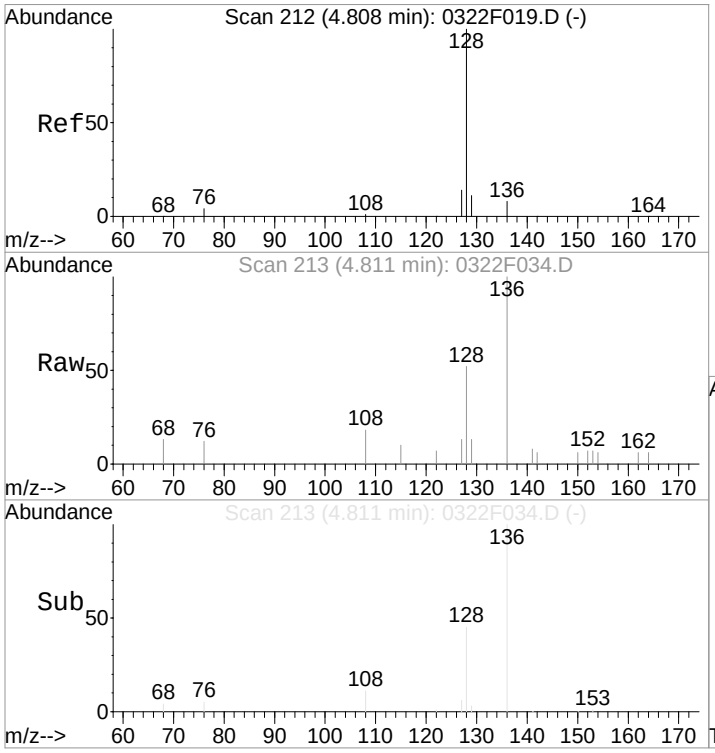
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F034.D Vial: 31
Acq On : 22 Mar 2019 11:20 pm Operator: LWeiskopf
Sample : K1902351-029 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:20 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



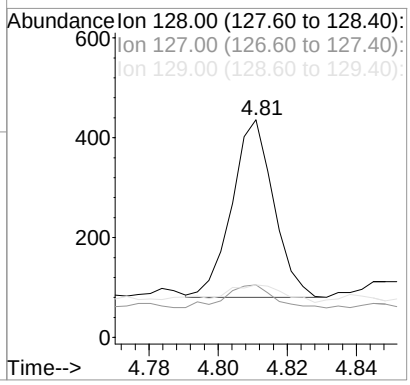
1st 03/25/19
2nd 03/26/19

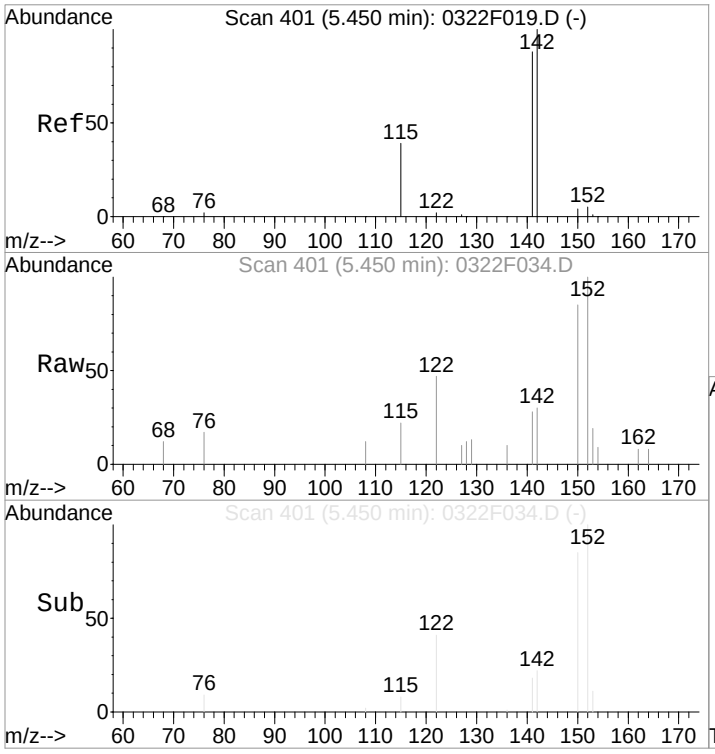


#2
Naphthalene
Concen: 0.82 ng/ml
RT: 4.81 min Scan# 213
Delta R.T. -0.02 min
Lab File: 0322F034.D
Acq: 22 Mar 2019 11:20 pm

Tgt Ion:128 Resp: 299

Ion	Ratio	Lower	Upper
128	100		
127	12.9	0.0	43.9
129	8.4	0.0	30.8

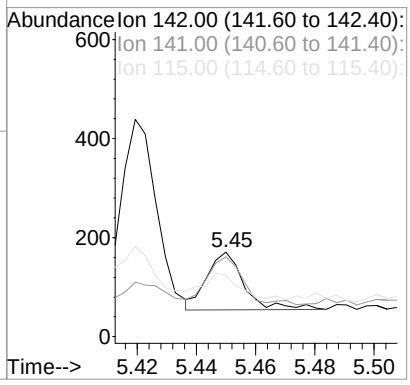




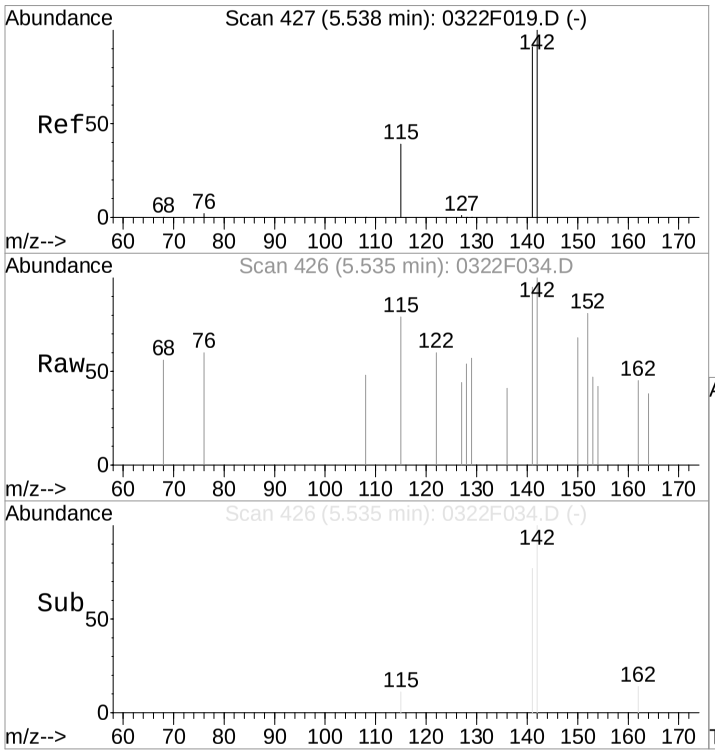
#4
2-Methylnaphthalene
Concen: 0.45 ng/ml
RT: 5.45 min Scan# 401
Delta R.T. -0.02 min
Lab File: 0322F034.D
Acq: 22 Mar 2019 11:20 pm

Tgt Ion:142 Resp: 102

Ion	Ratio	Lower	Upper
142	100		
141	74.1	57.4	117.4
115	39.7	21.9	61.9



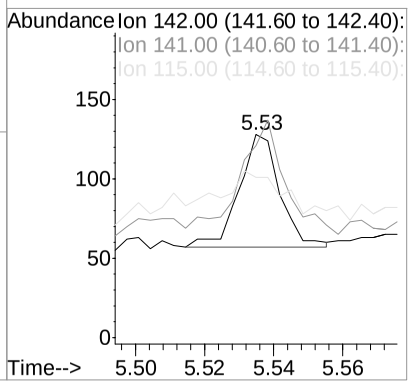
1st 03/25/19
2nd 03/26/19

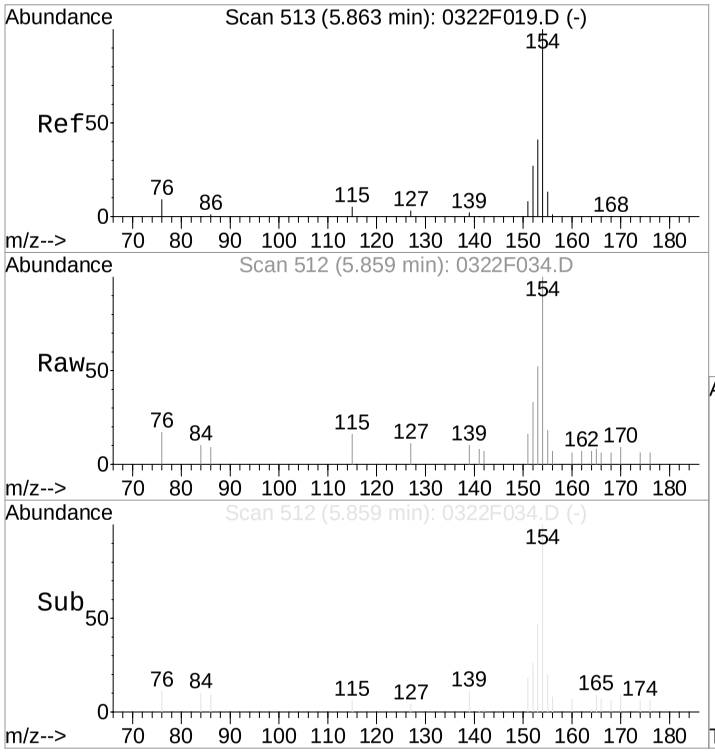


#5
1-Methylnaphthalene
Concen: 0.26 ng/ml
RT: 5.53 min Scan# 426
Delta R.T. -0.02 min
Lab File: 0322F034.D
Acq: 22 Mar 2019 11:20 pm

Tgt Ion:142 Resp: 58

Ion	Ratio	Lower	Upper
142	100		
141	73.2	61.0	121.0
115	29.6	26.2	66.2

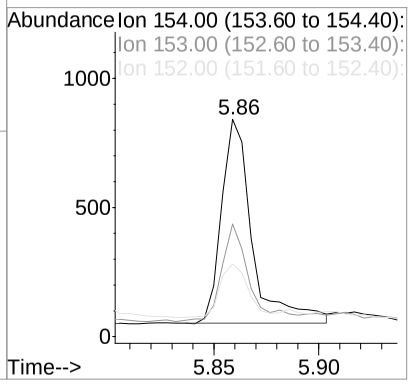




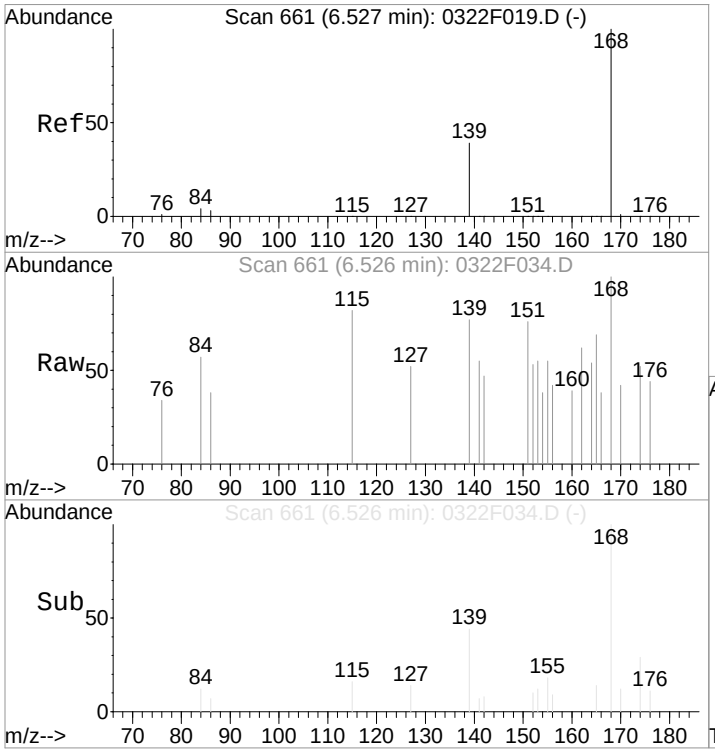
#6
Biphenyl
Concen: 2.75 ng/ml
RT: 5.86 min Scan# 512
Delta R.T. -0.01 min
Lab File: 0322F034.D
Acq: 22 Mar 2019 11:20 pm

Tgt Ion:154 Resp: 811

Ion	Ratio	Lower	Upper
154	100		
153	47.1	11.5	71.5
152	26.2	6.9	46.9



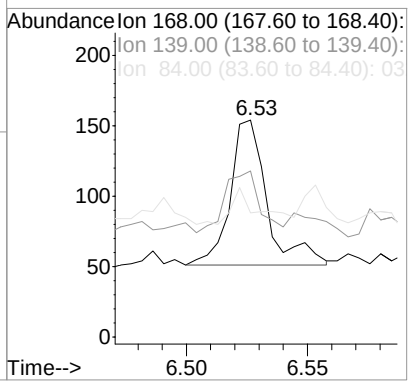
1st 03/25/19
2nd 03/26/19

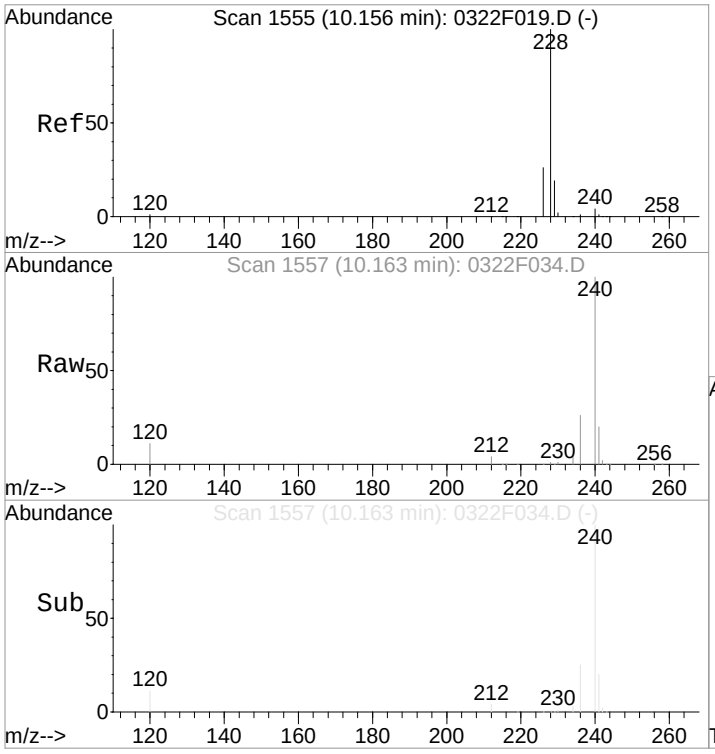


#11
Dibenzofuran
Concen: 0.31 ng/ml
RT: 6.53 min Scan# 661
Delta R.T. -0.01 min
Lab File: 0322F034.D
Acq: 22 Mar 2019 11:20 pm

Tgt Ion:168 Resp: 109

Ion	Ratio	Lower	Upper
168	100		
139	35.9	1.8	61.8
84	2.9	0.0	23.2

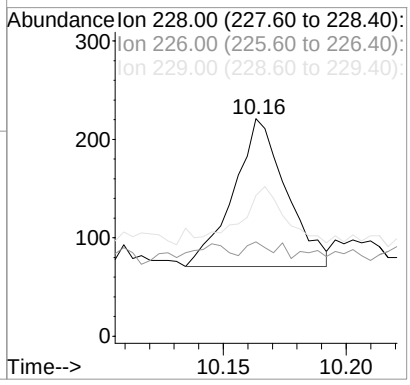




#26
Benz(a)anthracene
Concen: 0.52 ng/ml
RT: 10.16 min Scan# 1557
Delta R.T. -0.01 min
Lab File: 0322F034.D
Acq: 22 Mar 2019 11:20 pm

Tgt Ion:228 Resp: 224

Ion	Ratio	Lower	Upper
228	100		
226	10.0	0.0	56.6
229	32.0	0.0	39.5



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F034.D Vial: 31
Acq On : 22 Mar 2019 11:20 pm Operator: LWeiskopf
Sample : K1902351-029 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:22:10 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	64735m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	31056	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.59	188	59796	200.00	ng/ml	-0.01
23) Chrysene-d12	10.17	240	59583	200.00	ng/ml	-0.02
28) Perylene-d12	13.39	264	65304	200.00	ng/ml	-0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	173703	951.59	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 95.16%			
13) Fluorene-d10	6.79	176	222207	1032.74	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 103.27%			
22) Fluoranthene-d10	8.58	212	418449	1195.27	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 119.53%			
25) Terphenyl-d14	8.93	244	301461	1147.01	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 114.70%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	299	0.82	ng/ml	96
4) 2-Methylnaphthalene	5.45	142	102	0.45	ng/ml	89
5) 1-Methylnaphthalene	5.53	142	58	0.26	ng/ml	79
6) Biphenyl	5.86	154	811	2.75	ng/ml	94
11) Dibenzofuran	6.53	168	109	0.31	ng/ml	93
26) Benz(a)anthracene	10.16	228	224	0.52	ng/ml	70

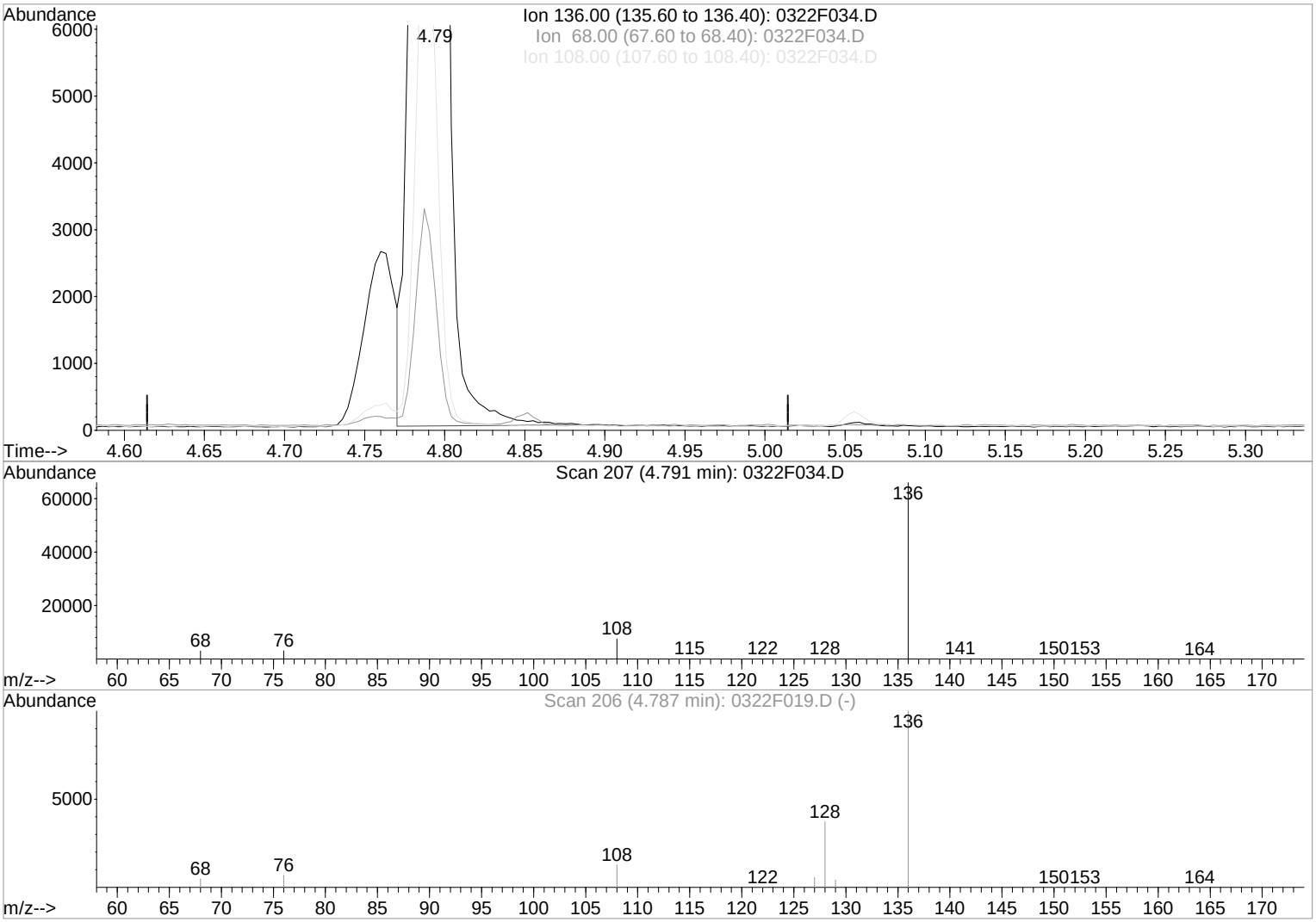
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F034.D Vial: 31
Acq On : 22 Mar 2019 11:20 pm Operator: LWeiskopf
Sample : K1902351-029 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:22 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F034.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 61145

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.38
108.00	13.60	11.27
0.00	0.00	0.00

Manual Integration:

Before

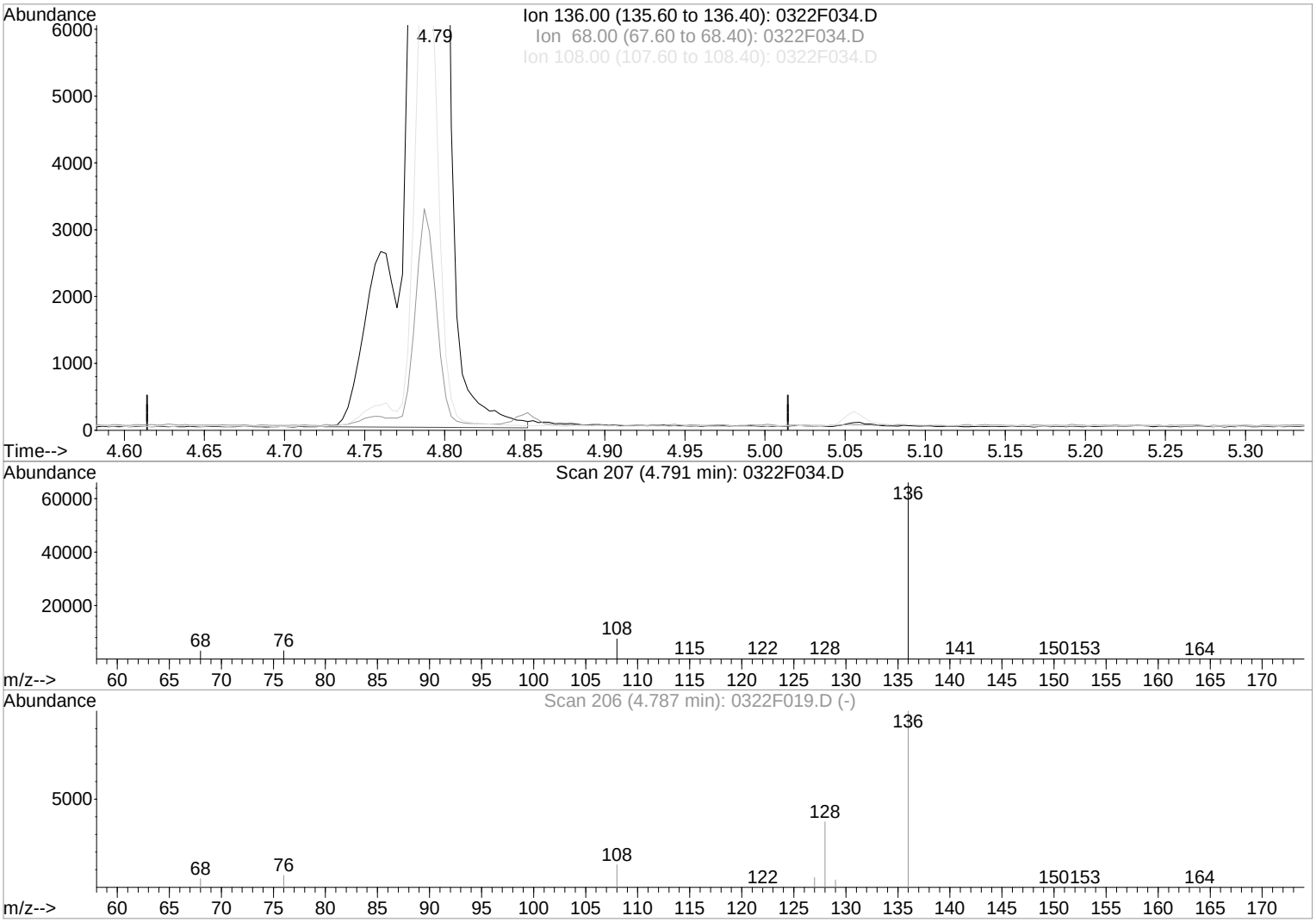
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F034.D Vial: 31
Acq On : 22 Mar 2019 11:20 pm Operator: LWeiskopf
Sample : K1902351-029 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:20 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F034.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 64735

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.48
108.00	13.60	11.35
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F035.D\
Lab ID: K1902351-030
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 23:52:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F035.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 23:52:00	**Vial:**	18
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-030	**Raw Units:**	ng/mL

Bottle ID:	K1902351-030.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	K1902351
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		32008	200.00	NA
Chrysene-d12	10.17		61571	200.00	NA
Naphthalene-d8	4.79		66445	200.00	NA
Perylene-d12	13.38	-0.03	67555	200.00	NA
Phenanthrene-d10	7.59	-0.01	61260	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		387284	1079.82	108	42 - 133	Y
Fluorene-d10	6.79		199720	900.62	90	42 - 131	Y
Terphenyl-d14	8.93	-0.01	282234	1039.18	104	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		91	0.39	0.0017	J	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.16		202	0.46	0.0020	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y
Fluorene	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 3/25/19 8:54
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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F035.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 23:52:00	**Vial:**	18
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902351-030	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.81		246	0.66	0.0029	J	Y
Phenanthrene	7.61	-0.01	122	0.31	0.0014	J	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

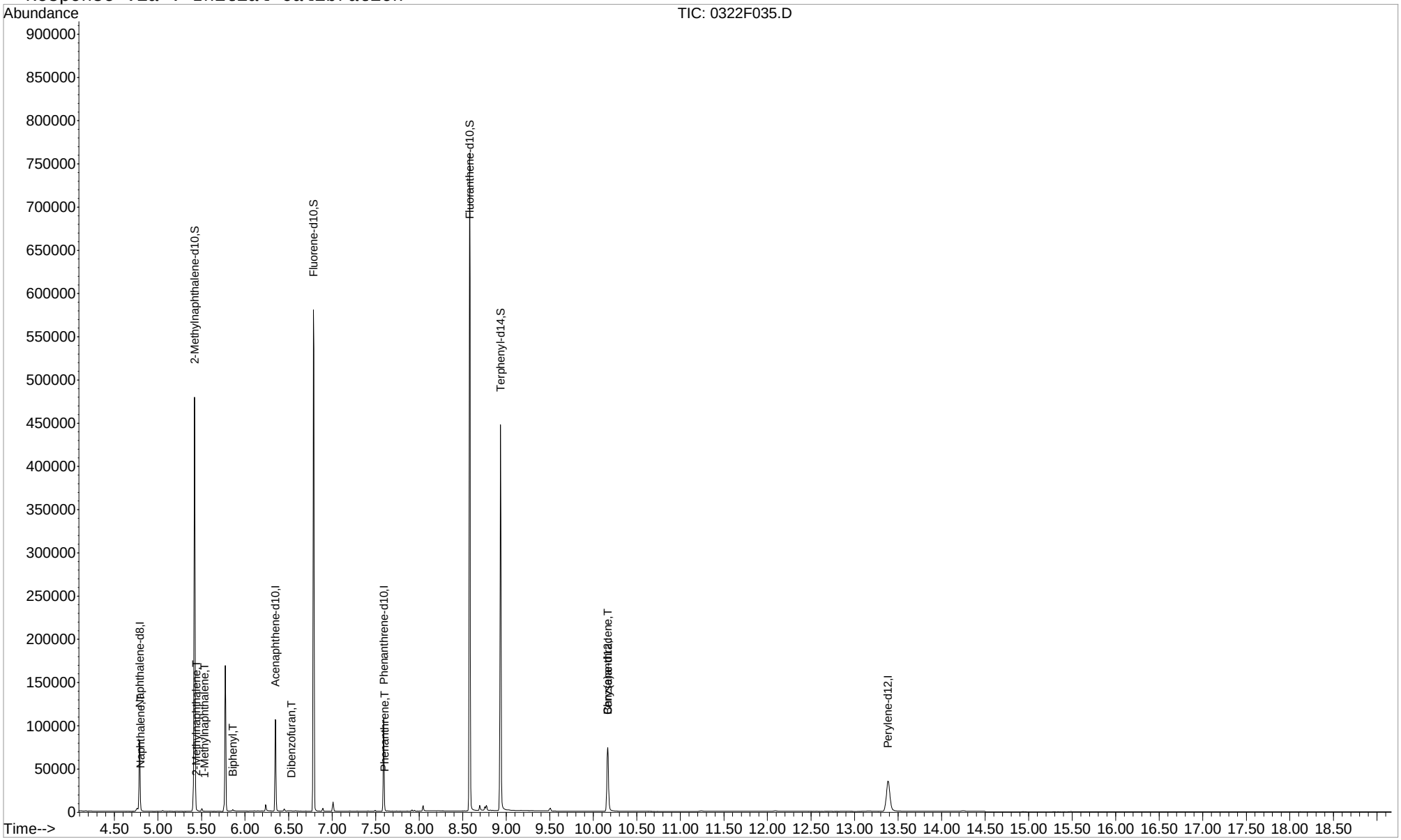
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

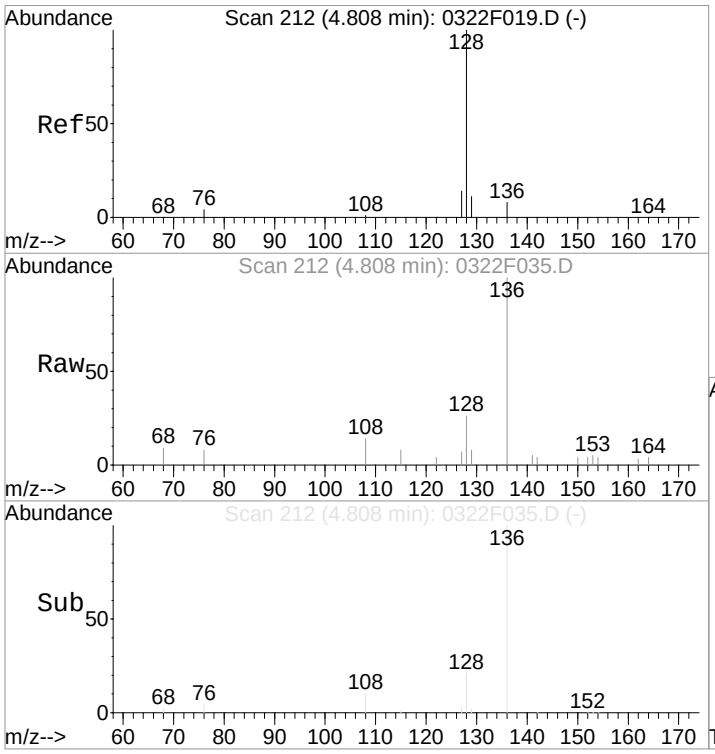
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F035.D Vial: 32
Acq On : 22 Mar 2019 11:52 pm Operator: LWeiskopf
Sample : K1902351-030 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:21 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



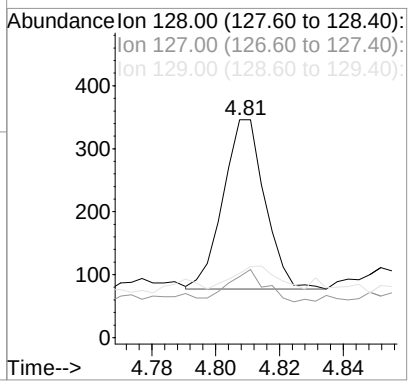
1st 03/25/19
2nd 03/26/19

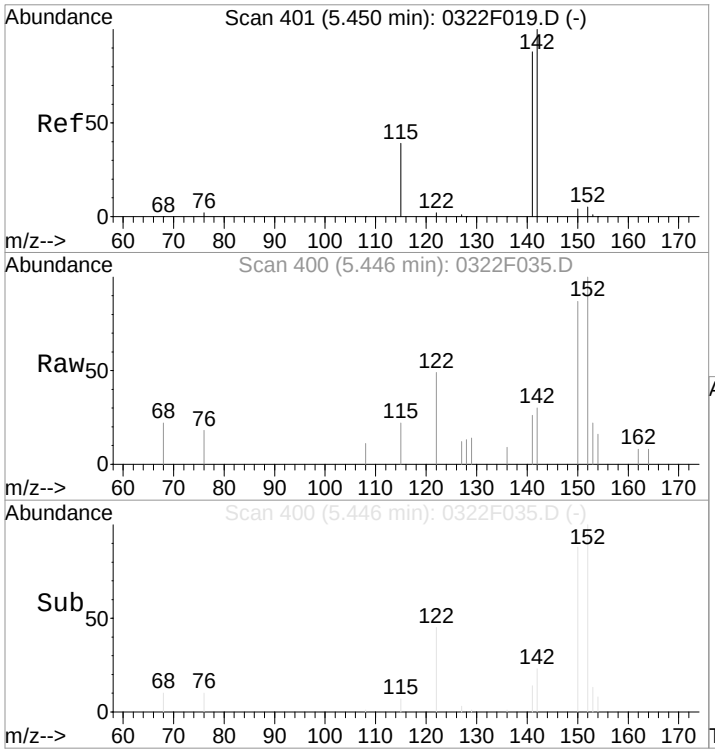


#2
Naphthalene
Concen: 0.66 ng/ml
RT: 4.81 min Scan# 212
Delta R.T. -0.03 min
Lab File: 0322F035.D
Acq: 22 Mar 2019 11:52 pm

Tgt Ion:128 Resp: 246

Ion	Ratio	Lower	Upper
128	100		
127	11.2	0.0	43.9
129	8.6	0.0	30.8

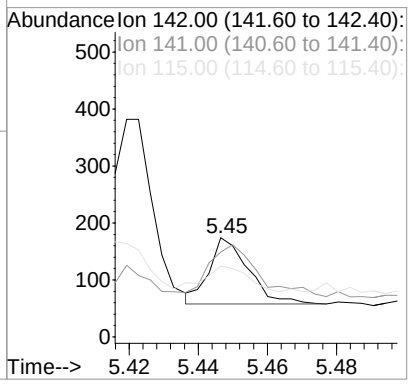




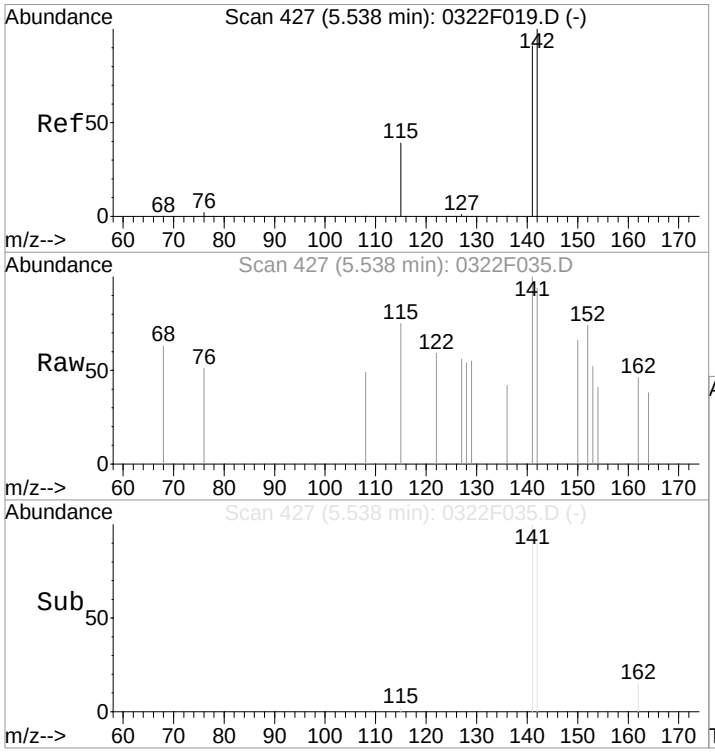
#4
2-Methylnaphthalene
Concen: 0.39 ng/ml
RT: 5.45 min Scan# 400
Delta R.T. -0.02 min
Lab File: 0322F035.D
Acq: 22 Mar 2019 11:52 pm

Tgt Ion:142 Resp: 91

Ion	Ratio	Lower	Upper
142	100		
141	67.2	57.4	117.4
115	25.0	21.9	61.9



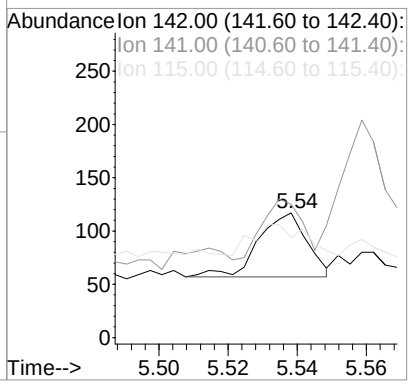
1st 03/25/19
2nd 03/26/19

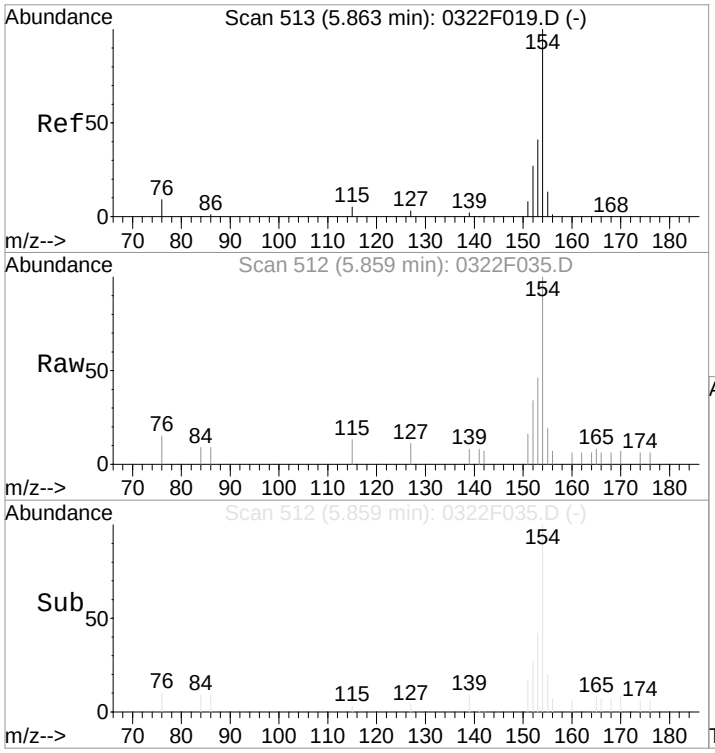


#5
1-Methylnaphthalene
Concen: 0.26 ng/ml
RT: 5.54 min Scan# 427
Delta R.T. -0.01 min
Lab File: 0322F035.D
Acq: 22 Mar 2019 11:52 pm

Tgt Ion:142 Resp: 58

Ion	Ratio	Lower	Upper
142	100		
141	76.7	61.0	121.0
115	26.7	26.2	66.2

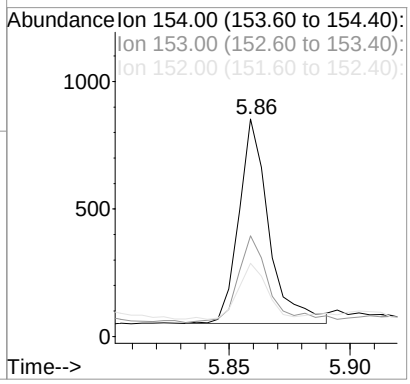




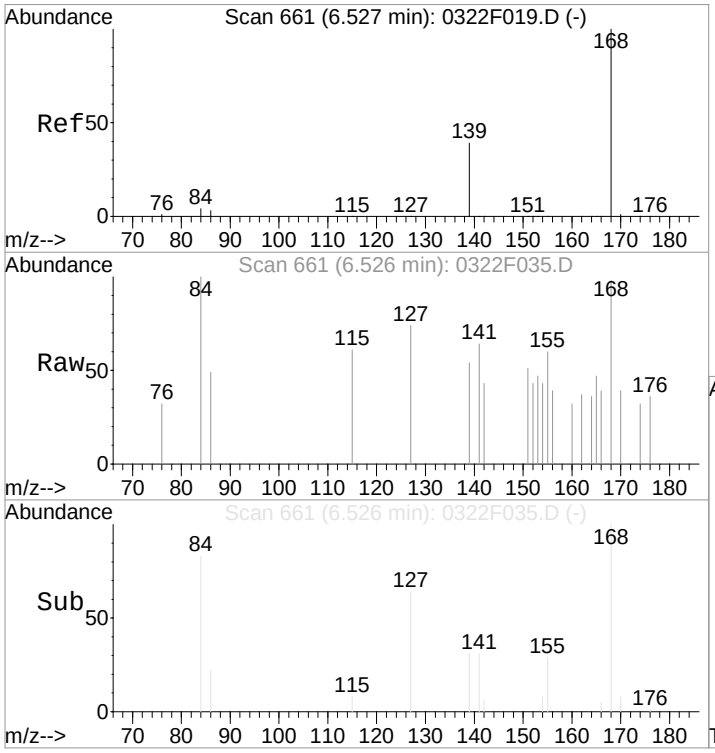
#6
Biphenyl
Concen: 2.31 ng/ml
RT: 5.86 min Scan# 512
Delta R.T. -0.01 min
Lab File: 0322F035.D
Acq: 22 Mar 2019 11:52 pm

Tgt Ion:154 Resp: 697

Ion	Ratio	Lower	Upper
154	100		
153	42.4	11.5	71.5
152	27.2	6.9	46.9



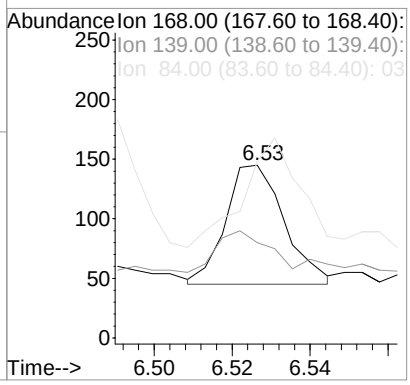
1st 03/25/19
2nd 03/26/19

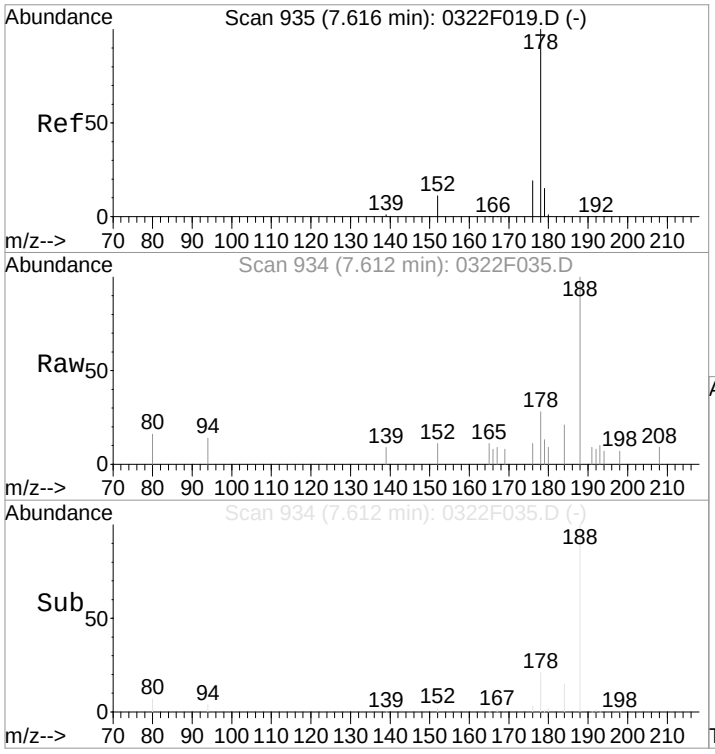


#11
Dibenzofuran
Concen: 0.29 ng/ml m
RT: 6.53 min Scan# 661
Delta R.T. -0.01 min
Lab File: 0322F035.D
Acq: 22 Mar 2019 11:52 pm

Tgt Ion:168 Resp: 105

Ion	Ratio	Lower	Upper
168	100		
139	55.2	1.8	61.8
84	102.1	0.0	23.2#

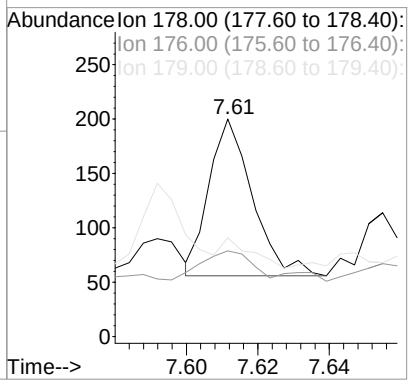




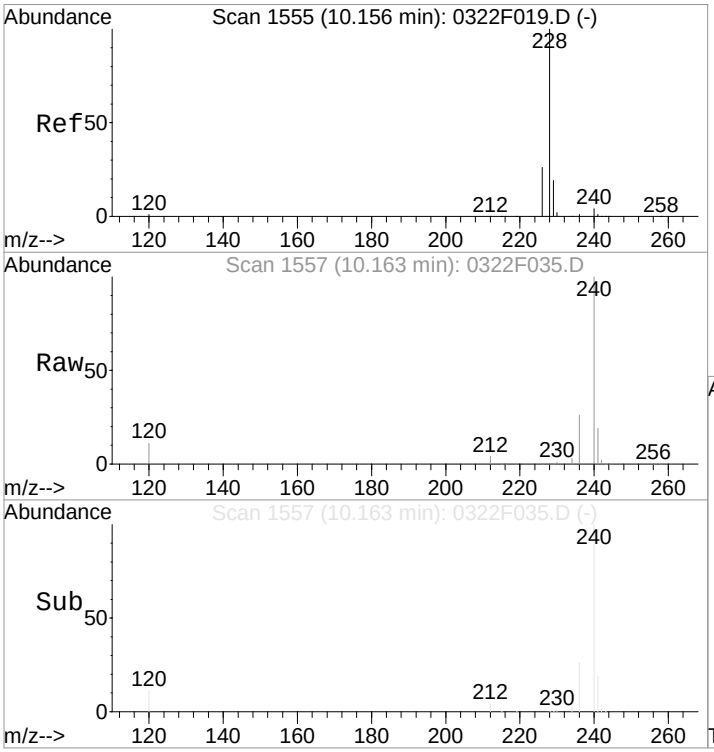
#17
Phenanthrene
Concen: 0.31 ng/ml
RT: 7.61 min Scan# 934
Delta R.T. -0.01 min
Lab File: 0322F035.D
Acq: 22 Mar 2019 11:52 pm

Tgt Ion:178 Resp: 122

Ion	Ratio	Lower	Upper
178	100		
176	19.4	0.0	48.6
179	18.1	0.0	35.2



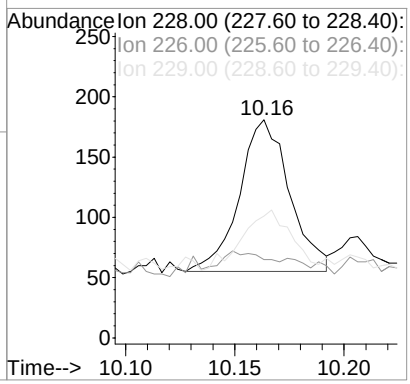
1st 03/25/19
2nd 03/26/19



#26
Benz(a)anthracene
Concen: 0.46 ng/ml
RT: 10.16 min Scan# 1557
Delta R.T. -0.01 min
Lab File: 0322F035.D
Acq: 22 Mar 2019 11:52 pm

Tgt Ion:228 Resp: 202

Ion	Ratio	Lower	Upper
228	100		
226	8.7	0.0	56.6
229	27.8	0.0	39.5



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F035.D Vial: 32
Acq On : 22 Mar 2019 11:52 pm Operator: LWeiskopf
Sample : K1902351-030 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:22:12 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	66445m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	32008	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.59	188	61260	200.00	ng/ml	-0.01
23) Chrysene-d12	10.17	240	61571	200.00	ng/ml	-0.02
28) Perylene-d12	13.38	264	67555	200.00	ng/ml	-0.04
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	155381	829.31	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	82.93%		
13) Fluorene-d10	6.79	176	199720	900.62	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	90.06%		
22) Fluoranthene-d10	8.58	212	387284	1079.82	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	107.98%		
25) Terphenyl-d14	8.93	244	282234	1039.18	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	103.92%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	246	0.66	ng/ml	94
4) 2-Methylnaphthalene	5.45	142	91	0.39	ng/ml	77
5) 1-Methylnaphthalene	5.54	142	58	0.26	ng/ml	80
6) Biphenyl	5.86	154	697	2.31	ng/ml	99
11) Dibenzofuran	6.53	168	105m	0.29	ng/ml	
17) Phenanthrene	7.61	178	122	0.31	ng/ml	96
26) Benz(a)anthracene	10.16	228	202	0.46	ng/ml	72

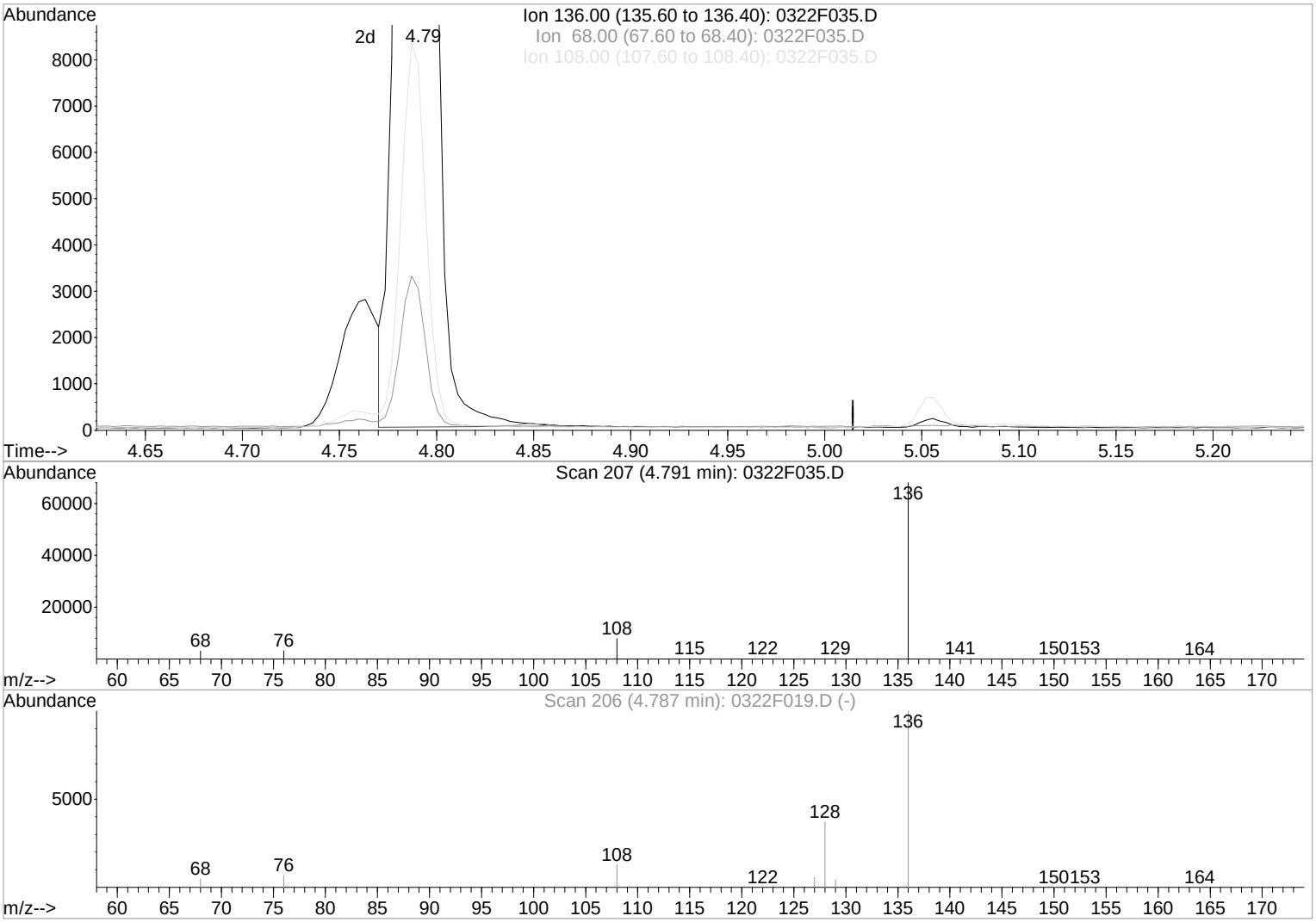
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F035.D Vial: 32
Acq On : 22 Mar 2019 11:52 pm Operator: LWeiskopf
Sample : K1902351-030 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:22 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F035.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 62589

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.38
108.00	13.60	11.53
0.00	0.00	0.00

Manual Integration:

Before

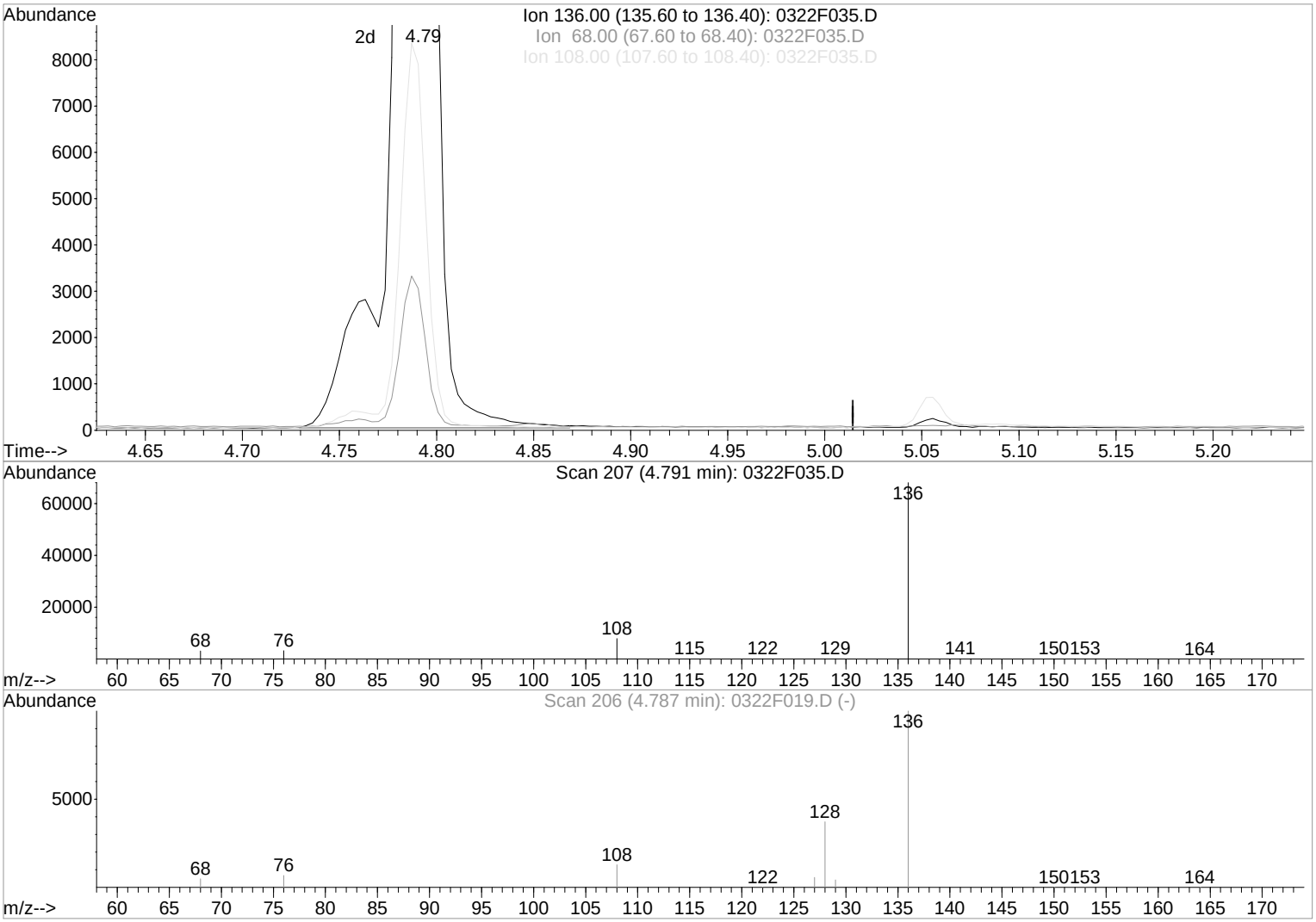
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F035.D Vial: 32
Acq On : 22 Mar 2019 11:52 pm Operator: LWeiskopf
Sample : K1902351-030 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:20 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F035.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 66445

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.50
108.00	13.60	11.61
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

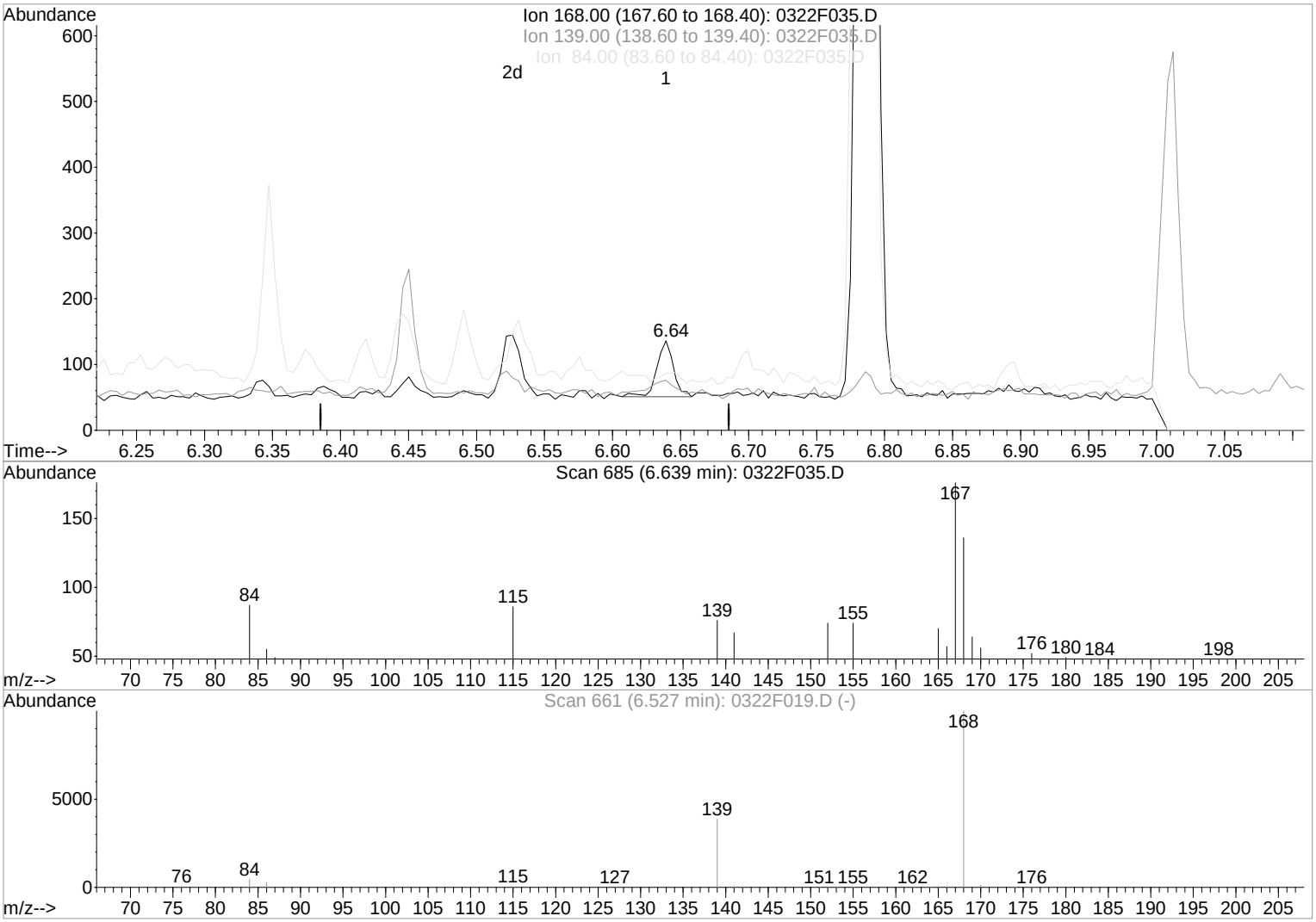
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F035.D Vial: 32
Acq On : 22 Mar 2019 11:52 pm Operator: LWeiskopf
Sample : K1902351-030 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:20 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F035.D

(11) Dibenzofuran (T)

6.64min 0.24ng/ml

response 87

Ion	Exp%	Act%
168.00	100	100
139.00	31.80	21.18
84.00	3.20	11.76
0.00	0.00	0.00

Manual Integration:

Before

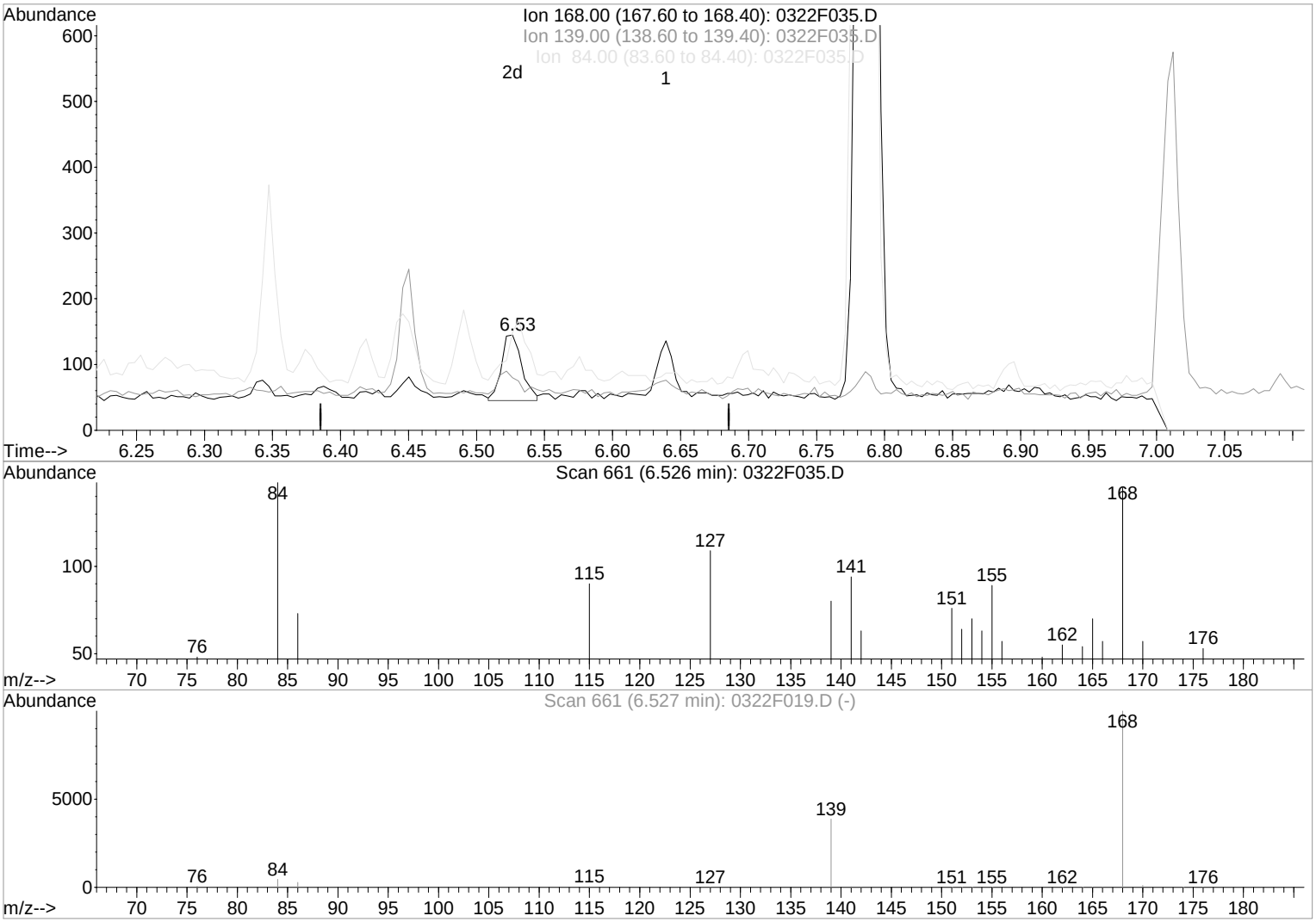
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F035.D Vial: 32
Acq On : 22 Mar 2019 11:52 pm Operator: LWeiskopf
Sample : K1902351-030 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 8:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F035.D

(11) Dibenzofuran (T)

6.53min 0.29ng/ml m

response 105

Ion	Exp%	Act%
168.00	100	100
139.00	31.80	55.17
84.00	3.20	102.07#
0.00	0.00	0.00

Manual Integration:

After

WP

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F020.D\
Lab ID: KQ1903571-03
RunType: MB
Matrix: Water

Date Acquired: 3/22/19 15:50:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F020.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 15:50:00	**Vial:**	3
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1903571-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	KQ1903571
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		32909	200.00	NA
Chrysene-d12	10.17		64957	200.00	NA
Naphthalene-d8	4.79		67353	200.00	NA
Perylene-d12	13.40	-0.01	71936	200.00	NA
Phenanthrene-d10	7.60		63268	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		435863	1176.69	118	42 - 133	Y
Fluorene-d10	6.79		222308	975.03	98	42 - 131	Y
Terphenyl-d14	8.94		312004	1088.91	109	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		110	0.46	0.0020	J	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.17	+0.01	237	0.51	0.0023	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	15.93	-0.01	233	0.48	0.0021	J	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y
Fluorene	0.00		0	0.00	0	U	Y

1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F020.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 15:50:00	**Vial:**	3
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1903571-03	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	15.53	-0.01	134	0.31	0.0014	J	Y
Naphthalene	4.81		264	0.70	0.0031	J	Y
Phenanthrene	7.62		261	0.65	0.0029	J	Y
Pyrene	8.80		104	0.21	0.00093	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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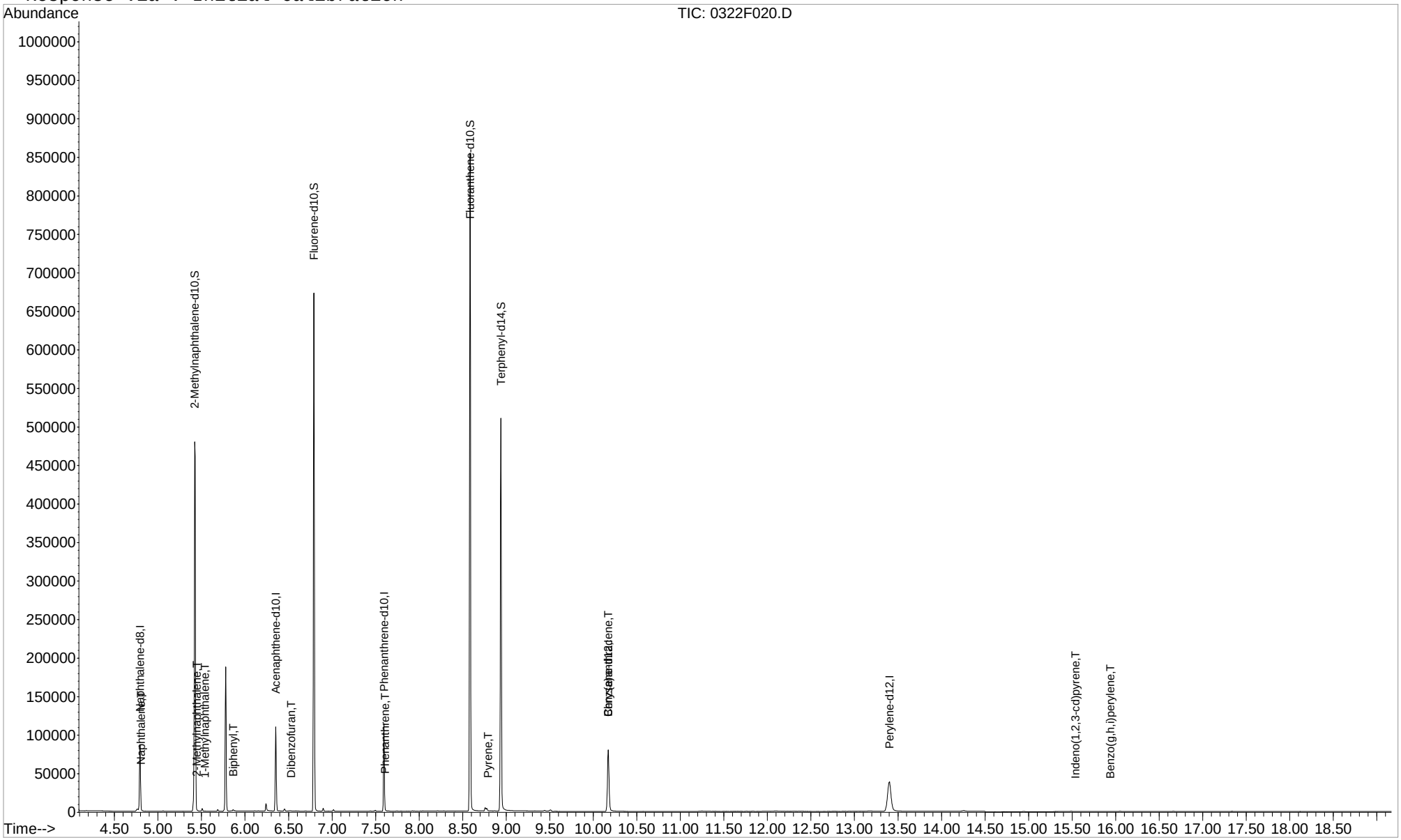
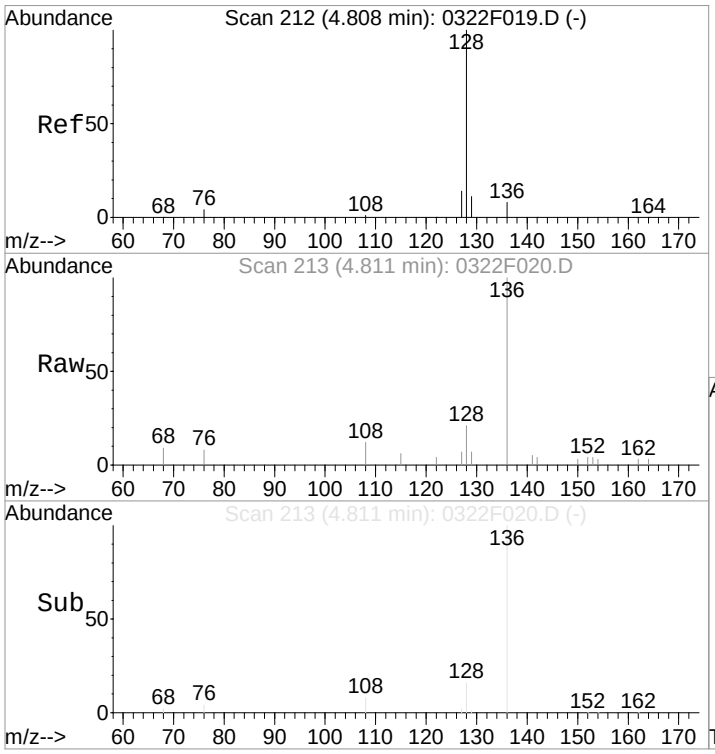
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F020.D Vial: 17
Acq On : 22 Mar 2019 3:50 pm Operator: LWeiskopf
Sample : KQ1903571-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:23 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



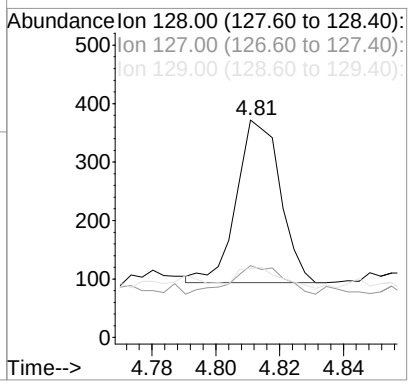
1st 03/25/19
2nd 03/26/19

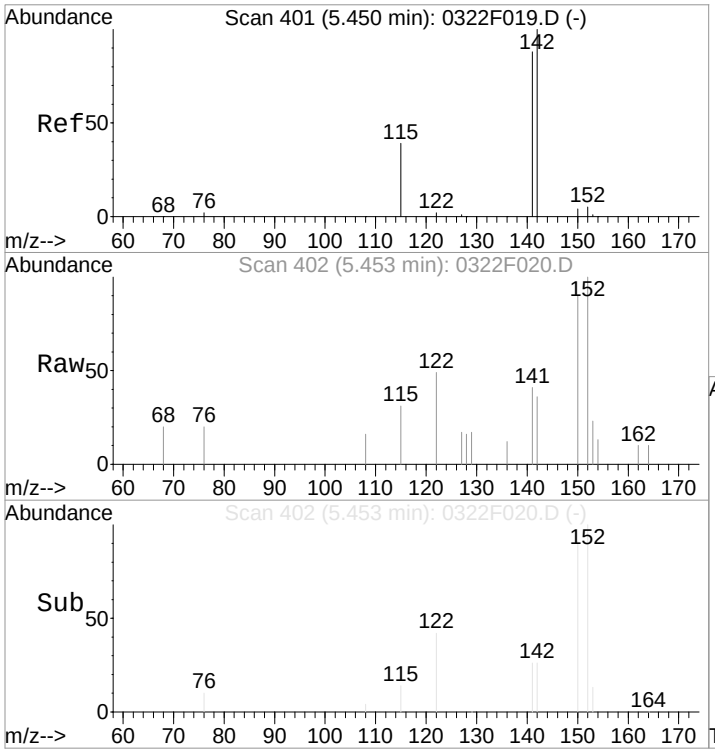


#2
Naphthalene
Concen: 0.70 ng/ml
RT: 4.81 min Scan# 213
Delta R.T. -0.02 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:128 Resp: 264

Ion	Ratio	Lower	Upper
128	100		
127	17.6	0.0	43.9
129	10.1	0.0	30.8

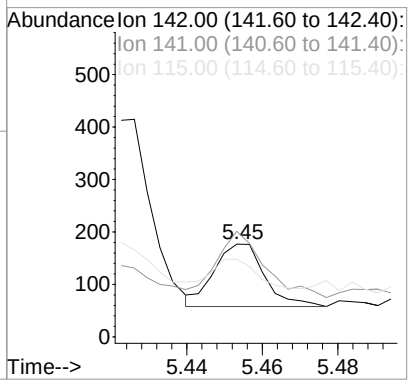


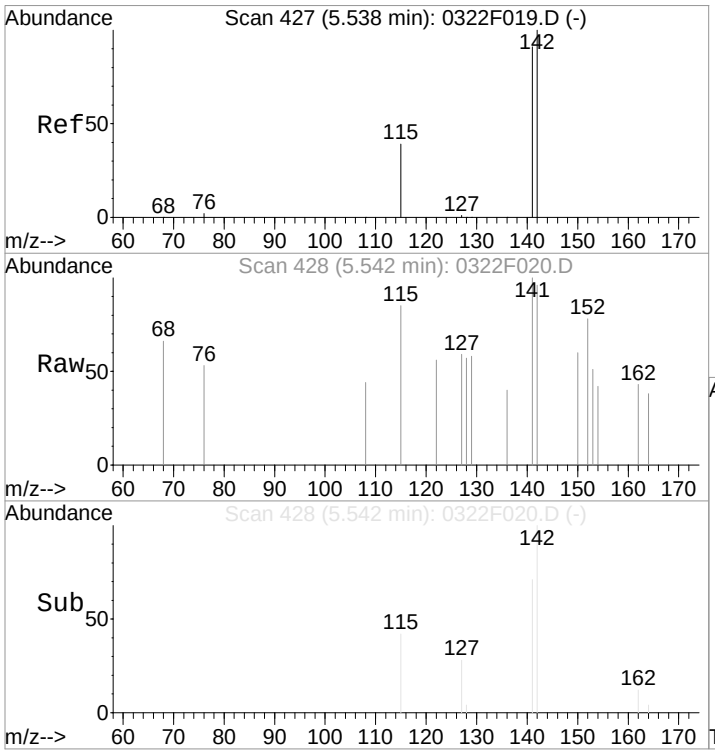


#4
2-Methylnaphthalene
Concen: 0.46 ng/ml
RT: 5.45 min Scan# 402
Delta R.T. -0.01 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:142 Resp: 110

Ion	Ratio	Lower	Upper
142	100		
141	105.9	57.4	117.4
115	36.1	21.9	61.9

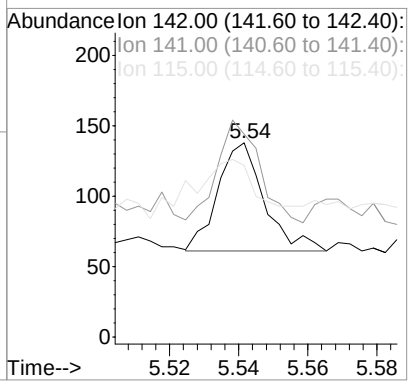


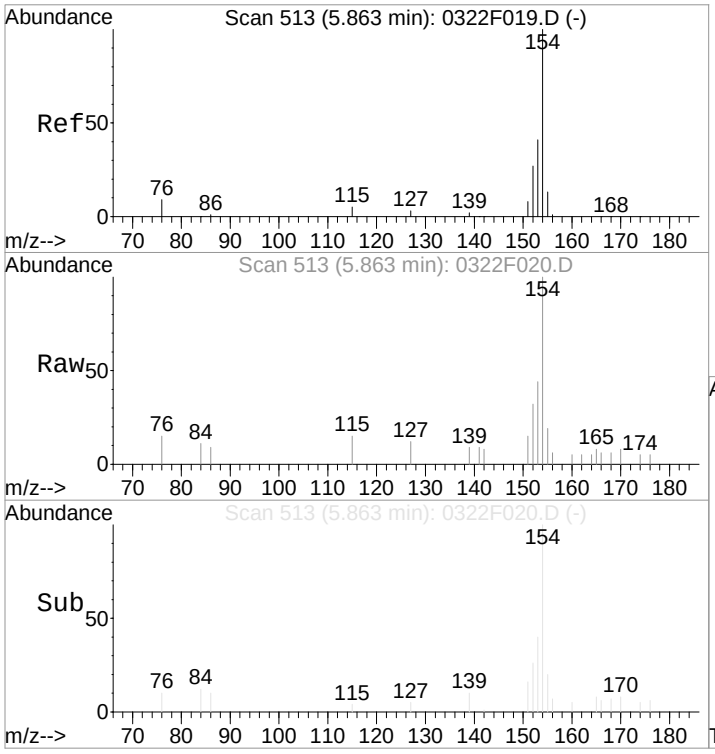


#5
1-Methylnaphthalene
Concen: 0.32 ng/ml
RT: 5.54 min Scan# 428
Delta R.T. -0.01 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:142 Resp: 72

Ion	Ratio	Lower	Upper
142	100		
141	79.2	61.0	121.0
115	36.4	26.2	66.2

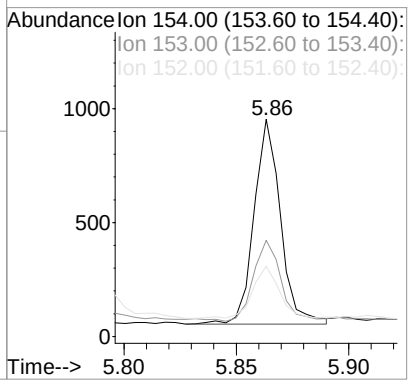




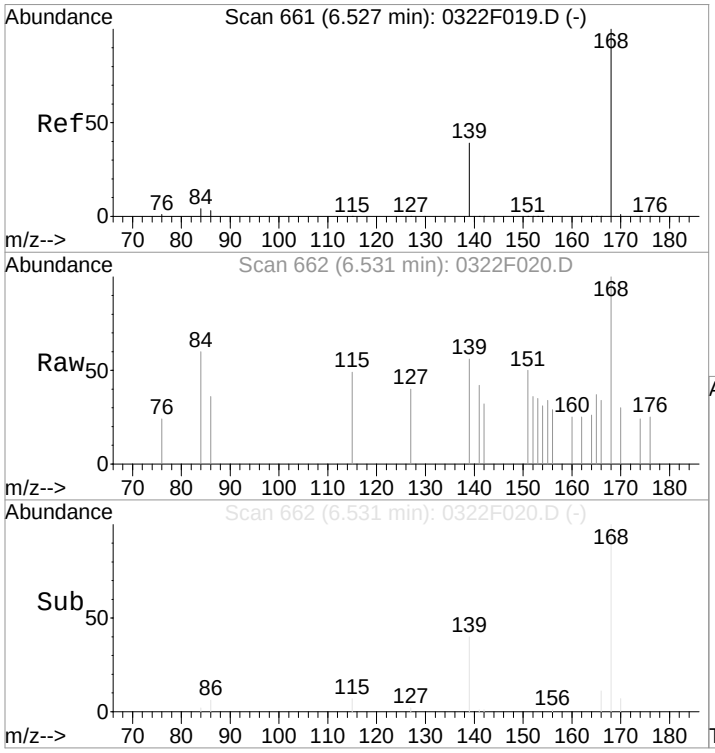
#6
Biphenyl
Concen: 2.41 ng/ml
RT: 5.86 min Scan# 513
Delta R.T. -0.01 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:154 Resp: 739

Ion	Ratio	Lower	Upper
154	100		
153	38.7	11.5	71.5
152	25.4	6.9	46.9



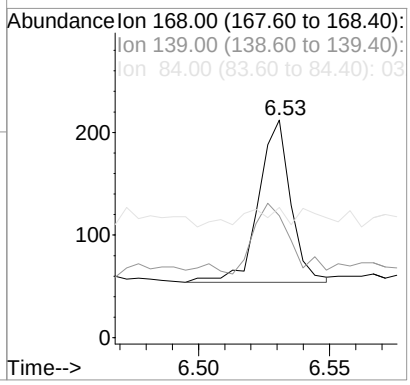
1st 03/25/19
2nd 03/26/19

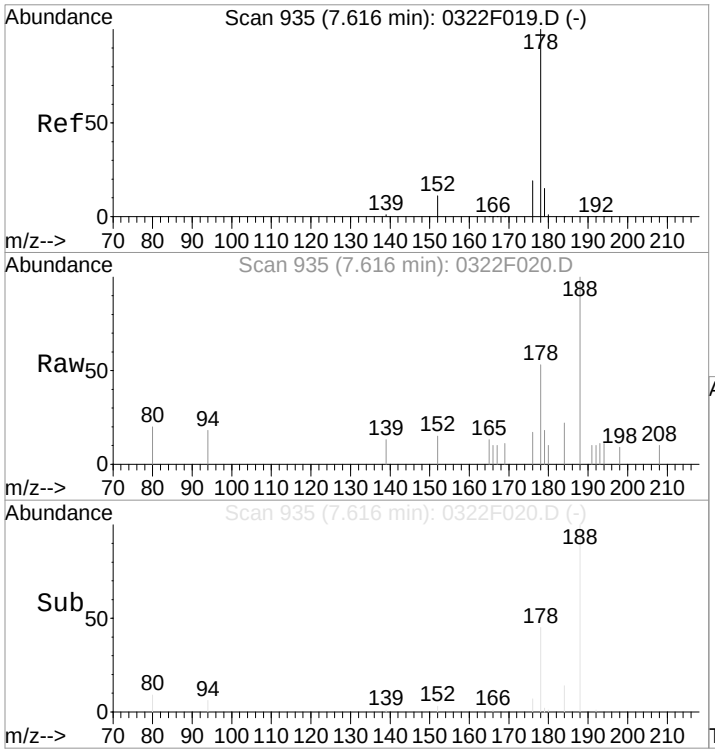


#11
Dibenzofuran
Concen: 0.36 ng/ml
RT: 6.53 min Scan# 662
Delta R.T. -0.00 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:168 Resp: 135

Ion	Ratio	Lower	Upper
168	100		
139	33.5	1.8	61.8
84	6.3	0.0	23.2

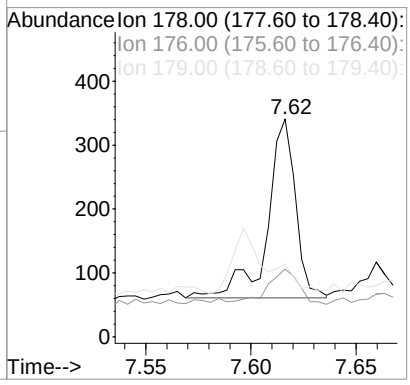




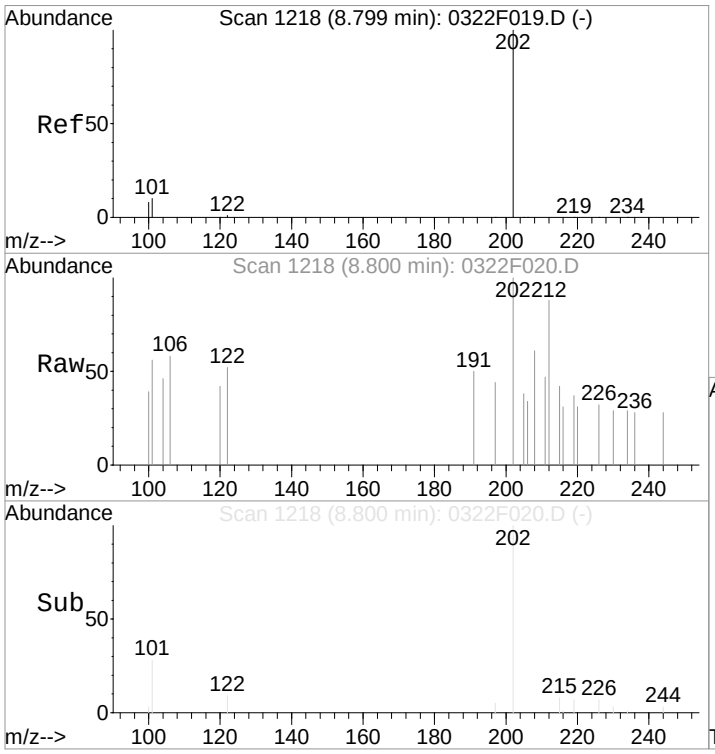
#17
Phenanthrene
Concen: 0.65 ng/ml
RT: 7.62 min Scan# 935
Delta R.T. -0.00 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:178 Resp: 261

Ion	Ratio	Lower	Upper
178	100		
176	19.6	0.0	48.6
179	14.6	0.0	35.2



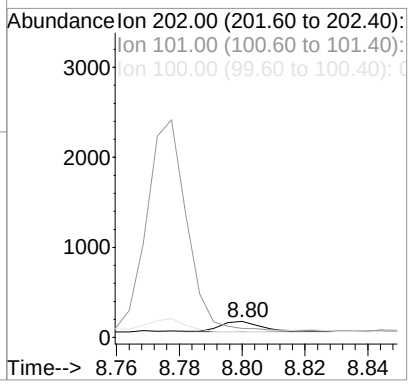
1st 03/25/19
2nd 03/26/19

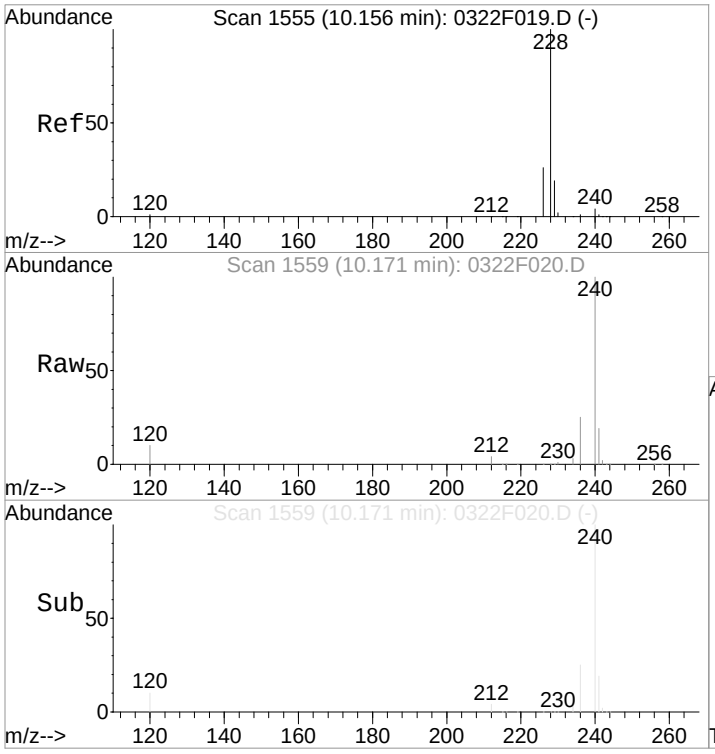


#24
Pyrene
Concen: 0.21 ng/ml
RT: 8.80 min Scan# 1218
Delta R.T. -0.01 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:202 Resp: 104

Ion	Ratio	Lower	Upper
202	100		
101	25.0	0.0	39.7
100	0.0	0.0	27.7

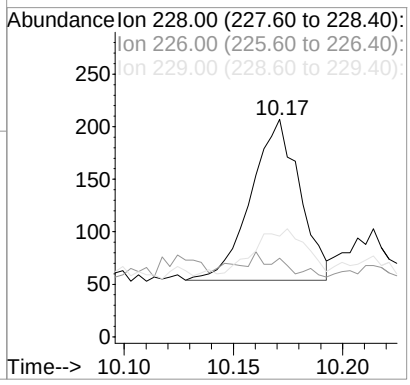




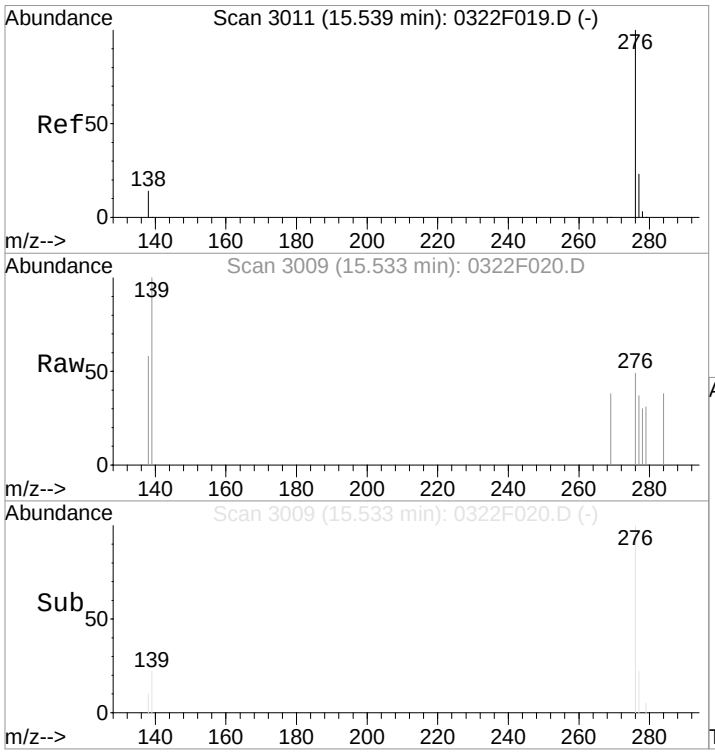
#26
Benz(a)anthracene
Concen: 0.51 ng/ml
RT: 10.17 min Scan# 1559
Delta R.T. 0.00 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:228 Resp: 237

Ion	Ratio	Lower	Upper
228	100		
226	11.8	0.0	56.6
229	22.2	0.0	39.5



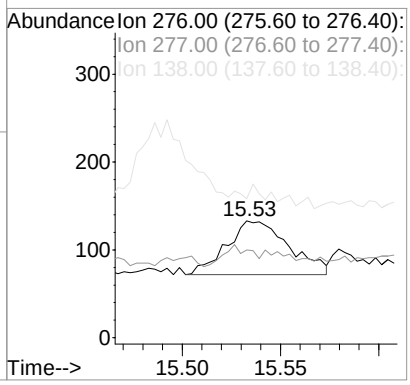
1st 03/25/19
2nd 03/26/19

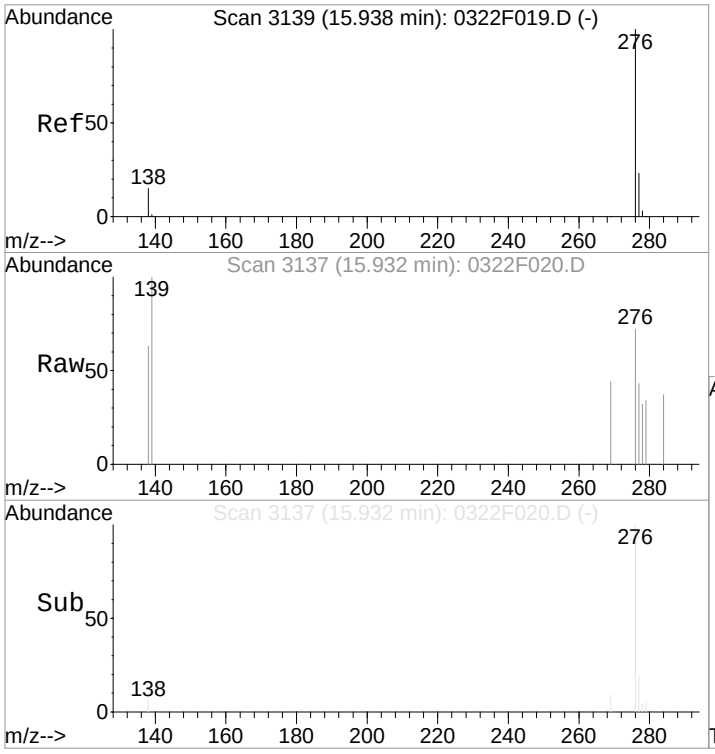


#34
Indeno(1,2,3-cd)pyrene
Concen: 0.31 ng/ml
RT: 15.53 min Scan# 3009
Delta R.T. -0.00 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:276 Resp: 134

Ion	Ratio	Lower	Upper
276	100		
277	21.3	0.0	53.4
138	8.2	0.0	35.7

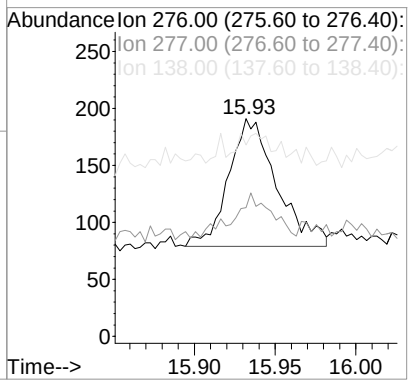




#36
Benzo(g,h,i)perylene
Concen: 0.48 ng/ml
RT: 15.93 min Scan# 3137
Delta R.T. -0.00 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:276 Resp: 233

Ion	Ratio	Lower	Upper
276	100		
277	18.8	0.0	53.6
138	12.5	0.0	36.7



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F020.D Vial: 17
Acq On : 22 Mar 2019 3:50 pm Operator: LWeiskopf
Sample : KQ1903571-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:42 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	67353m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	32909	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	63268	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	64957	200.00	ng/ml	-0.01
28) Perylene-d12	13.40	264	71936	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	165788	872.93	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 87.29%			
13) Fluorene-d10	6.79	176	222308	975.03	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 97.50%			
22) Fluoranthene-d10	8.58	212	435863	1176.69	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 117.67%			
25) Terphenyl-d14	8.94	244	312004	1088.91	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 108.89%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	264	0.70	ng/ml	94
4) 2-Methylnaphthalene	5.45	142	110	0.46	ng/ml	84
5) 1-Methylnaphthalene	5.54	142	72	0.32	ng/ml	87
6) Biphenyl	5.86	154	739	2.41	ng/ml	96
11) Dibenzofuran	6.53	168	135	0.36	ng/ml	96
17) Phenanthrene	7.62	178	261	0.65	ng/ml	98
24) Pyrene	8.80	202	104	0.21	ng/ml	67
26) Benz(a)anthracene	10.17	228	237	0.51	ng/ml	81
34) Indeno(1,2,3-cd)pyrene	15.53	276	134	0.31	ng/ml	90
36) Benzo(g,h,i)perylene	15.93	276	233	0.48	ng/ml	90

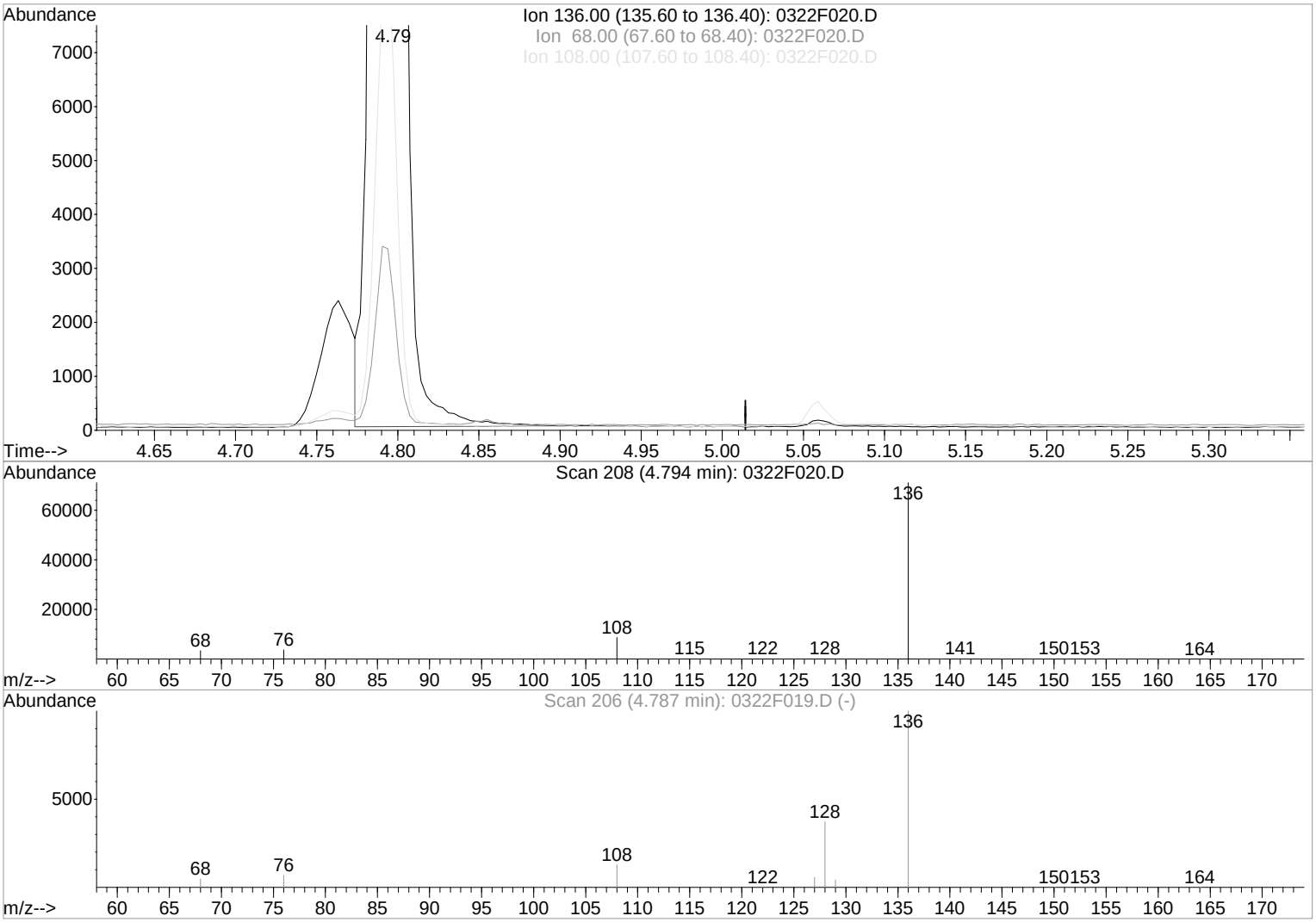
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F020.D Vial: 17
Acq On : 22 Mar 2019 3:50 pm Operator: LWeiskopf
Sample : KQ1903571-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F020.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 63801

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.58
108.00	13.60	12.12
0.00	0.00	0.00

Manual Integration:

Before

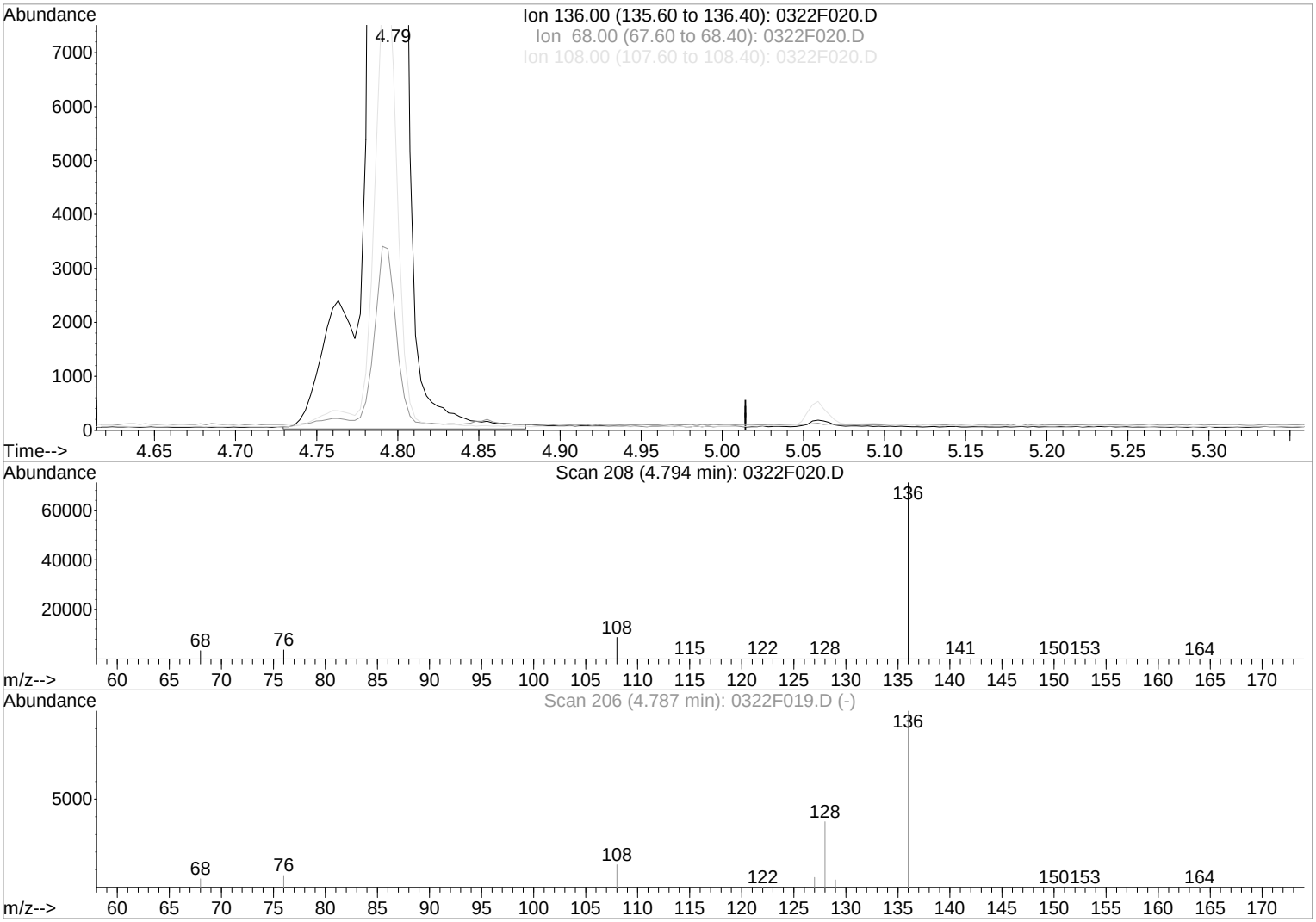
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F020.D Vial: 17
Acq On : 22 Mar 2019 3:50 pm Operator: LWeiskopf
Sample : KQ1903571-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:22 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F020.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 67353

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.72
108.00	13.60	12.21
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F021.D\
Lab ID: KQ1903571-01
RunType: LCS
Matrix: Water

Date Acquired: 3/22/19 16:22:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F021.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 16:22:00	**Vial:**	4
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1903571-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	KQ1903571
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		31222	200.00	NA
Chrysene-d12	10.17		63468	200.00	NA
Naphthalene-d8	4.79		69740	200.00	NA
Perylene-d12	13.40	-0.01	69603	200.00	NA
Phenanthrene-d10	7.60		60572	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		421510	1188.59	119	42 - 133	Y
Fluorene-d10	6.79		208990	966.15	97	42 - 131	Y
Terphenyl-d14	8.94		274918	981.99	98	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		141123	575.92	2.56		Y
Acenaphthene	6.38		134696	609.24	2.71		Y
Acenaphthylene	6.24		227656	587.39	2.61		Y
Anthracene	7.66		248773	672.13	2.99		Y
Benz(a)anthracene	10.16		284387	624.40	2.78		Y
Benzo(a)pyrene	13.23	+0.01	267177	612.61	2.72		Y
Benzo(b)fluoranthene	12.31		309065	665.97	2.96		Y
Benzo(g,h,i)perylene	15.94		296617	631.44	2.81		Y
Benzo(k)fluoranthene	12.39		299439	682.37	3.03		Y
Chrysene	10.21		274644	663.55	2.95		Y
Dibenz(a,h)anthracene	15.59		242174	626.15	2.78		Y
Fluoranthene	8.60		283335	643.23	2.86		Y
Fluorene	6.82		159612	558.64	2.48		Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F021.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 16:22:00	**Vial:**	4
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1903571-01	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	15.54		245084	590.85	2.63		Y
Naphthalene	4.81		233178	595.25	2.65		Y
Phenanthrene	7.62		246153	638.22	2.84		Y
Pyrene	8.80		312390	652.82	2.90		Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

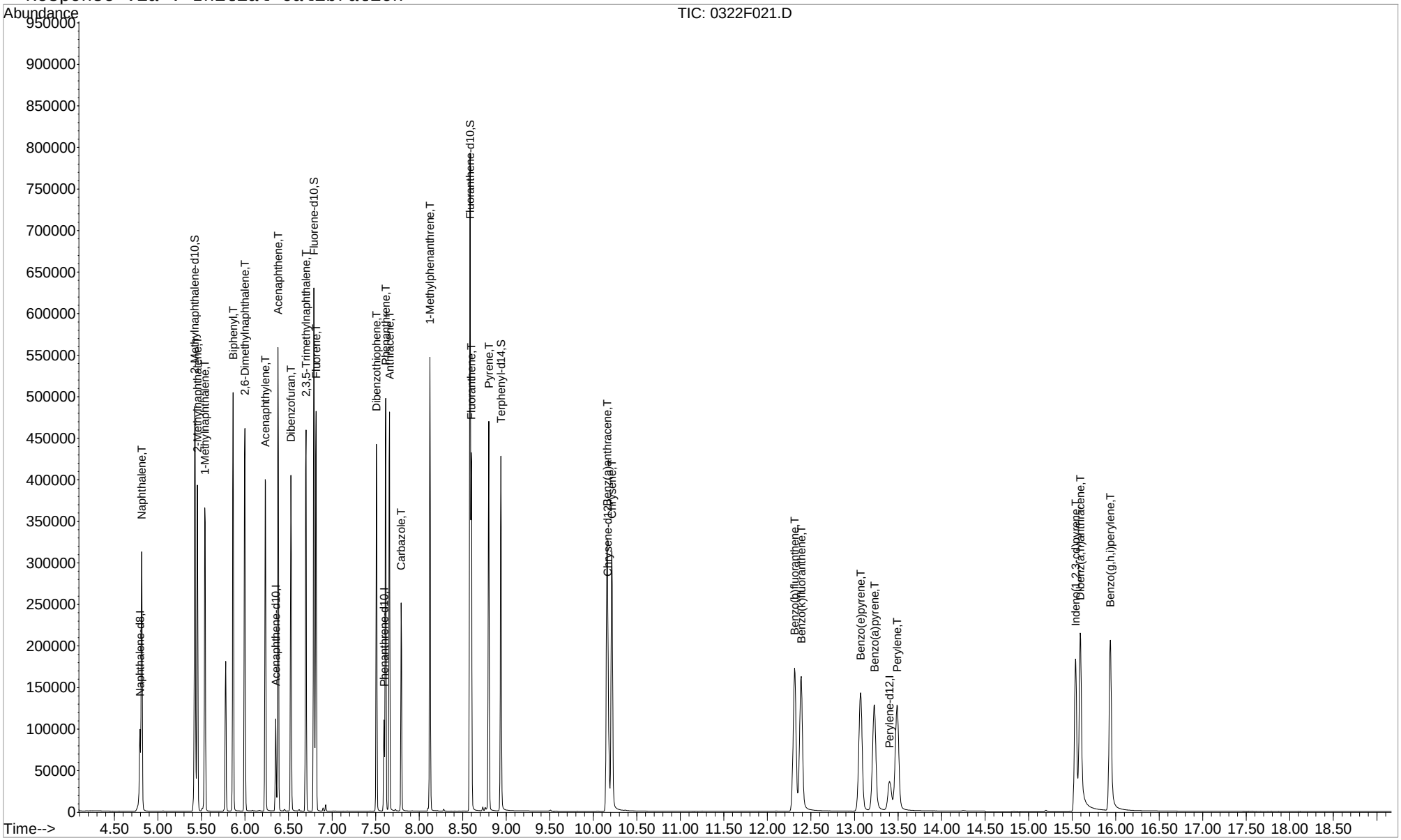
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:23 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:44 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	69740m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	31222	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	60572	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	63468	200.00	ng/ml	-0.01
28) Perylene-d12	13.40	264	69603	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	163949	833.70	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	83.37%		
13) Fluorene-d10	6.79	176	208990	966.15	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	96.61%		
22) Fluoranthene-d10	8.58	212	421510	1188.59	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	118.86%		
25) Terphenyl-d14	8.94	244	274918	981.99	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	98.20%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	233178m	595.25	ng/ml	
4) 2-Methylnaphthalene	5.45	142	141123	575.92	ng/ml	98
5) 1-Methylnaphthalene	5.54	142	132191	559.85	ng/ml	98
6) Biphenyl	5.86	154	178686	563.03	ng/ml	100
7) 2,6-Dimethylnaphthalene	6.00	156	127175	568.86	ng/ml	91
9) Acenaphthylene	6.24	152	227656	587.39	ng/ml	98
10) Acenaphthene	6.38	154	134696	609.24	ng/ml	98
11) Dibenzofuran	6.53	168	221161	620.29	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.70	170	125442	595.80	ng/ml	98
14) Fluorene	6.82	166	159612	558.64	ng/ml	98
16) Dibenzothiophene	7.51	184	262908	665.52	ng/ml	96
17) Phenanthrene	7.62	178	246153	638.22	ng/ml	99
18) Anthracene	7.66	178	248773	672.13	ng/ml	100
19) Carbazole	7.79	167	131855	388.23	ng/ml	99
20) 1-Methylphenanthrene	8.12	192	191271	667.86	ng/ml	100
21) Fluoranthene	8.60	202	283335	643.23	ng/ml	96
24) Pyrene	8.80	202	312390	652.82	ng/ml	100
26) Benz(a)anthracene	10.16	228	284387	624.40	ng/ml	100
27) Chrysene	10.21	228	274644	663.55	ng/ml	100
29) Benzo(b)fluoranthene	12.31	252	309065	665.97	ng/ml	99
30) Benzo(k)fluoranthene	12.39	252	299439	682.37	ng/ml	100
31) Benzo(e)pyrene	13.07	252	293497	674.48	ng/ml	99
32) Benzo(a)pyrene	13.23	252	267177	612.61	ng/ml	98
33) Perylene	13.49	252	272030	657.56	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.54	276	245084	590.85	ng/ml	100
35) Dibenz(a,h)anthracene	15.59	278	242174	626.15	ng/ml	100
36) Benzo(g,h,i)perylene	15.94	276	296617	631.44	ng/ml	100

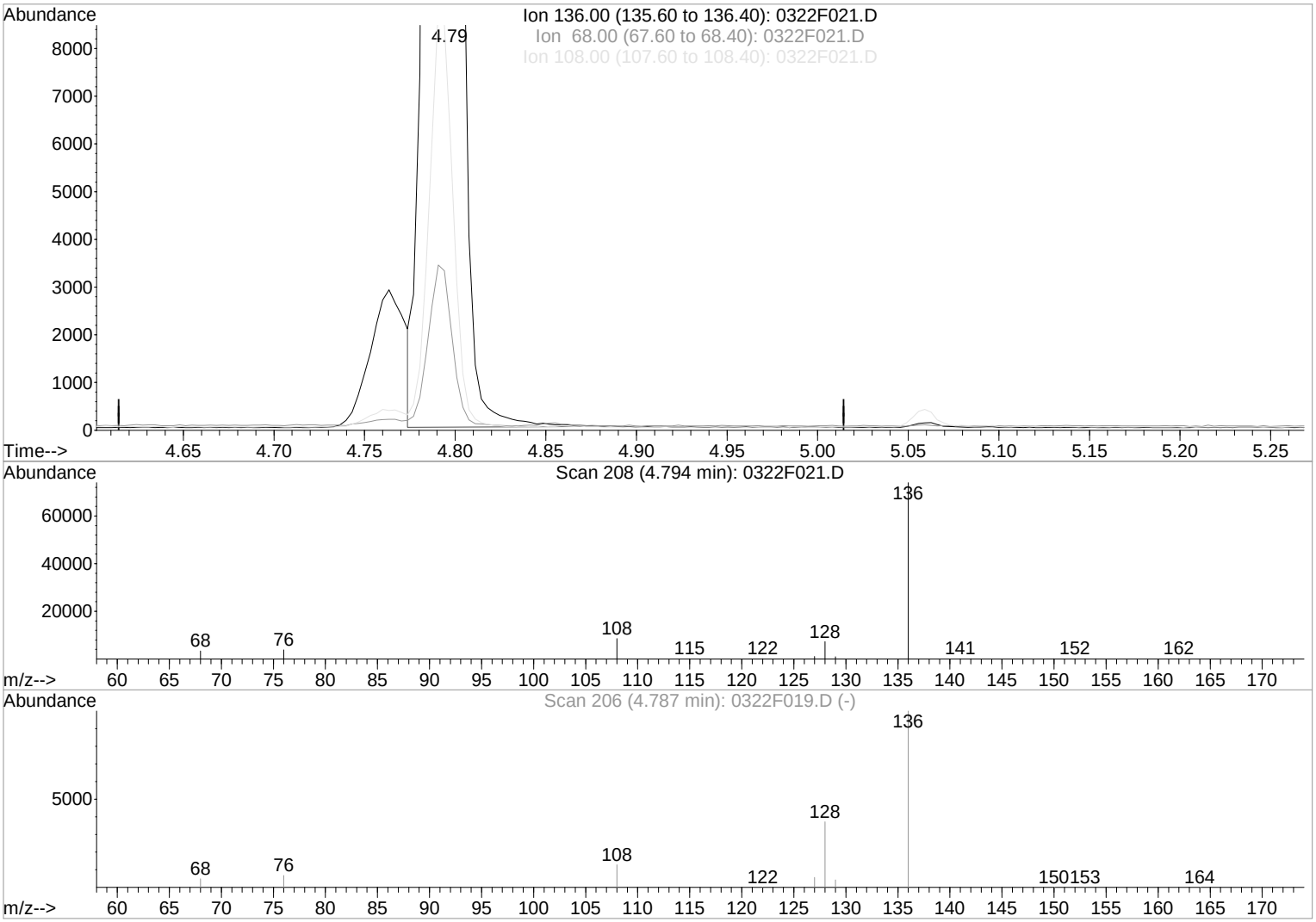
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F021.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 65927

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.39
108.00	13.60	11.39
0.00	0.00	0.00

Manual Integration:

Before

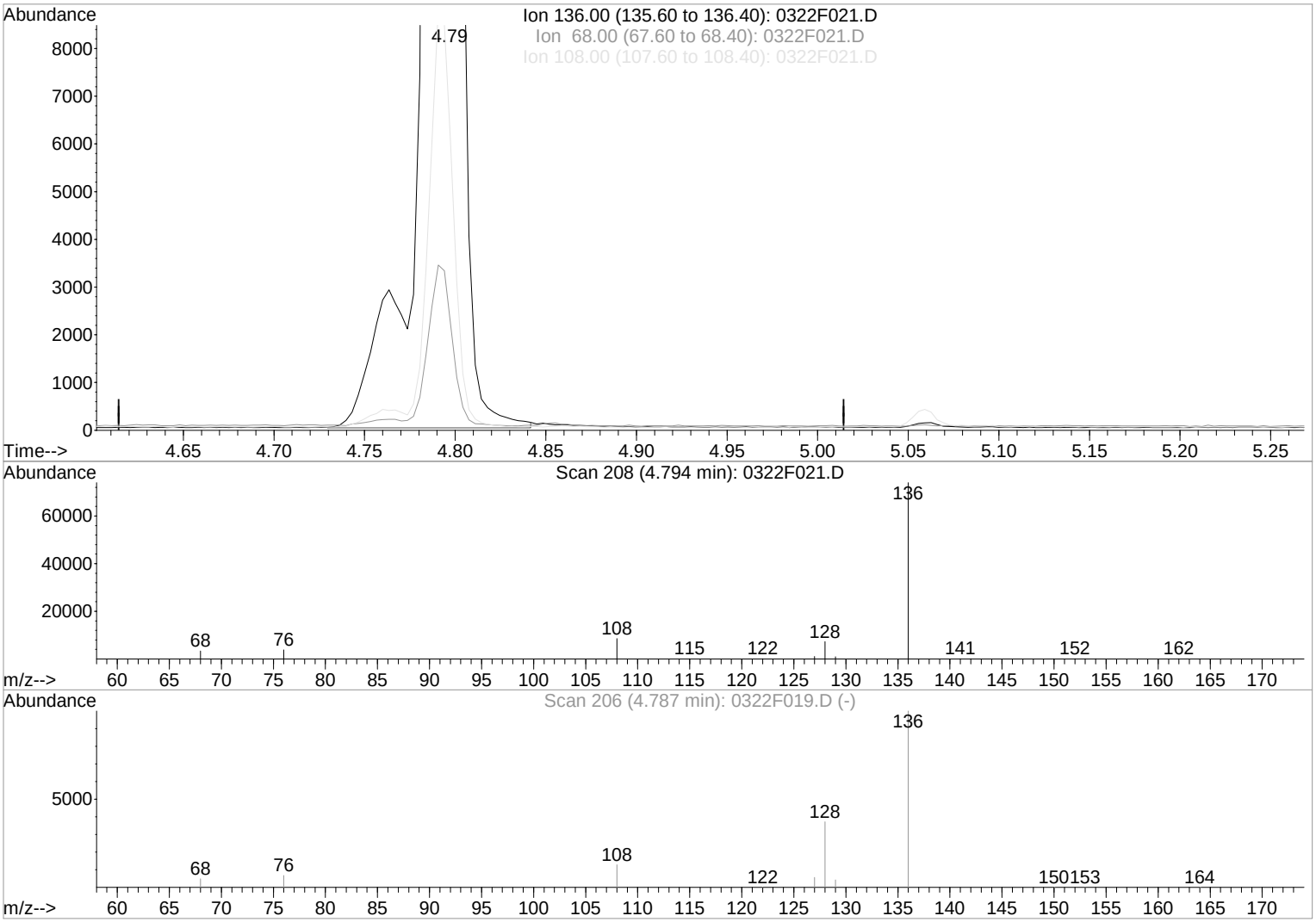
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:23 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F021.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 69740

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.51
108.00	13.60	11.47
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

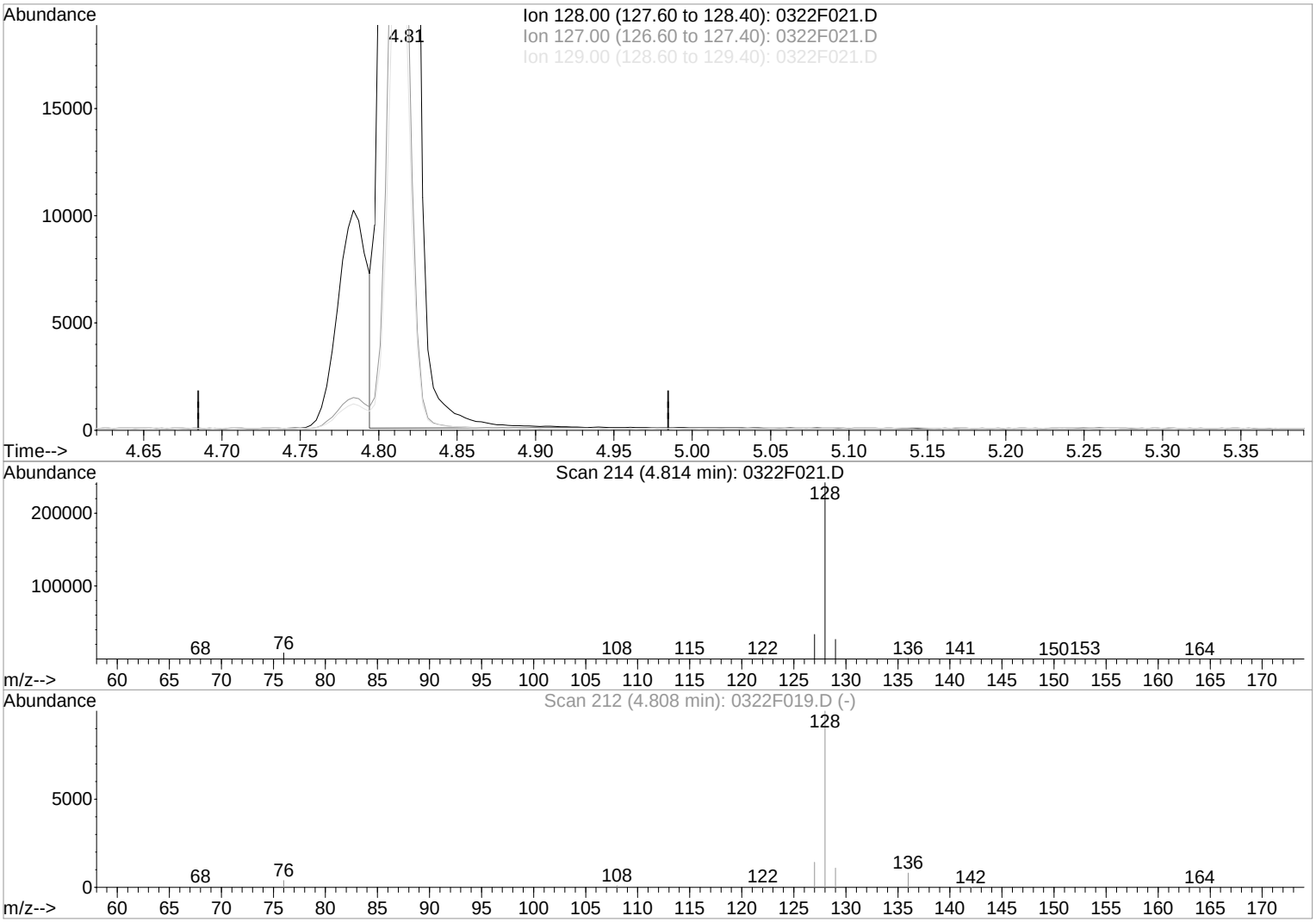
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:23 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F021.D

(2) Naphthalene (T)

4.81min 560.00ng/ml

response 219368

Ion	Exp%	Act%
128.00	100	100
127.00	13.90	13.80
129.00	10.80	11.04
0.00	0.00	0.00

Manual Integration:

Before

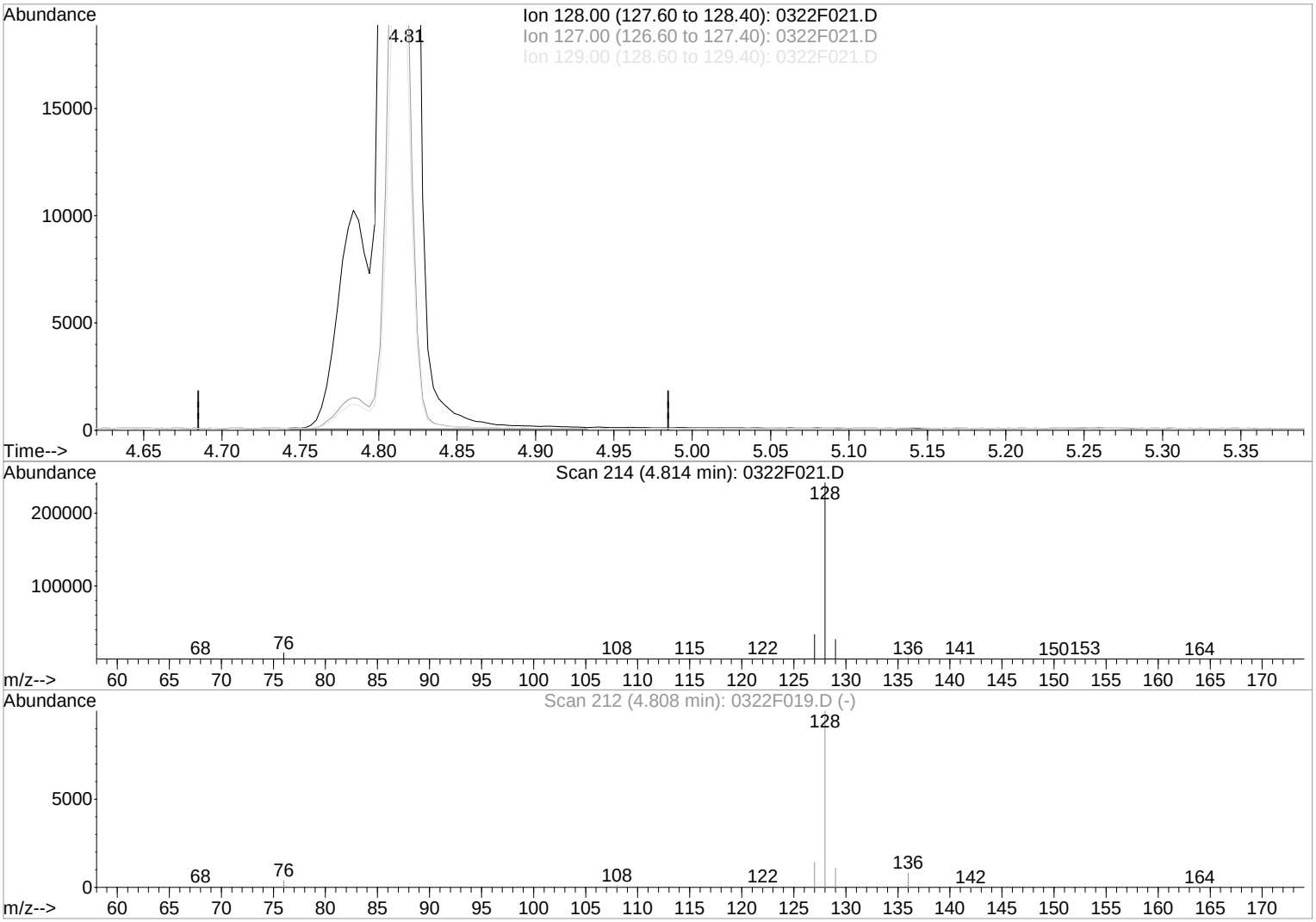
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:23 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F021.D

(2) Naphthalene (T)

4.81min 595.25ng/ml m

response 233178

Ion	Exp%	Act%
128.00	100	100
127.00	13.90	13.82
129.00	10.80	11.06
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F022.D\
Lab ID: KQ1903571-02
RunType: DLCS
Matrix: Water

Date Acquired: 3/22/19 16:54:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F022.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 16:54:00	**Vial:**	5
Run Type:	DLCS	**Dilution:**	1
Lab ID:	KQ1903571-02	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	KQ1903571
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		30977	200.00	NA
Chrysene-d12	10.17		62330	200.00	NA
Naphthalene-d8	4.79		67848	200.00	NA
Perylene-d12	13.40	-0.01	67518	200.00	NA
Phenanthrene-d10	7.60		59921	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		370383	1055.77	106	42 - 133	Y
Fluorene-d10	6.79		181500	845.70	85	42 - 131	Y
Terphenyl-d14	8.94		245532	893.03	89	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		143124	600.38	2.67		Y
Acenaphthene	6.38		135845	619.29	2.75		Y
Acenaphthylene	6.24		229490	596.81	2.65		Y
Anthracene	7.66		252106	688.54	3.06		Y
Benz(a)anthracene	10.16		283160	633.06	2.81		Y
Benzo(a)pyrene	13.22		266787	630.61	2.80		Y
Benzo(b)fluoranthene	12.31		310824	690.45	3.07		Y
Benzo(g,h,i)perylene	15.94		298117	654.23	2.91		Y
Benzo(k)fluoranthene	12.38	-0.01	297423	698.71	3.11		Y
Chrysene	10.21		273159	672.01	2.99		Y
Dibenz(a,h)anthracene	15.59		245438	654.19	2.91		Y
Fluoranthene	8.60		285158	654.40	2.91		Y
Fluorene	6.82		161447	569.53	2.53		Y

1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F022.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 16:54:00	**Vial:**	5
Run Type:	DLCS	**Dilution:**	1
Lab ID:	KQ1903571-02	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	15.54		241794	600.92	2.67		Y
Naphthalene	4.81		234434	615.15	2.73		Y
Phenanthrene	7.62		250793	657.31	2.92		Y
Pyrene	8.80		314806	669.88	2.98		Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

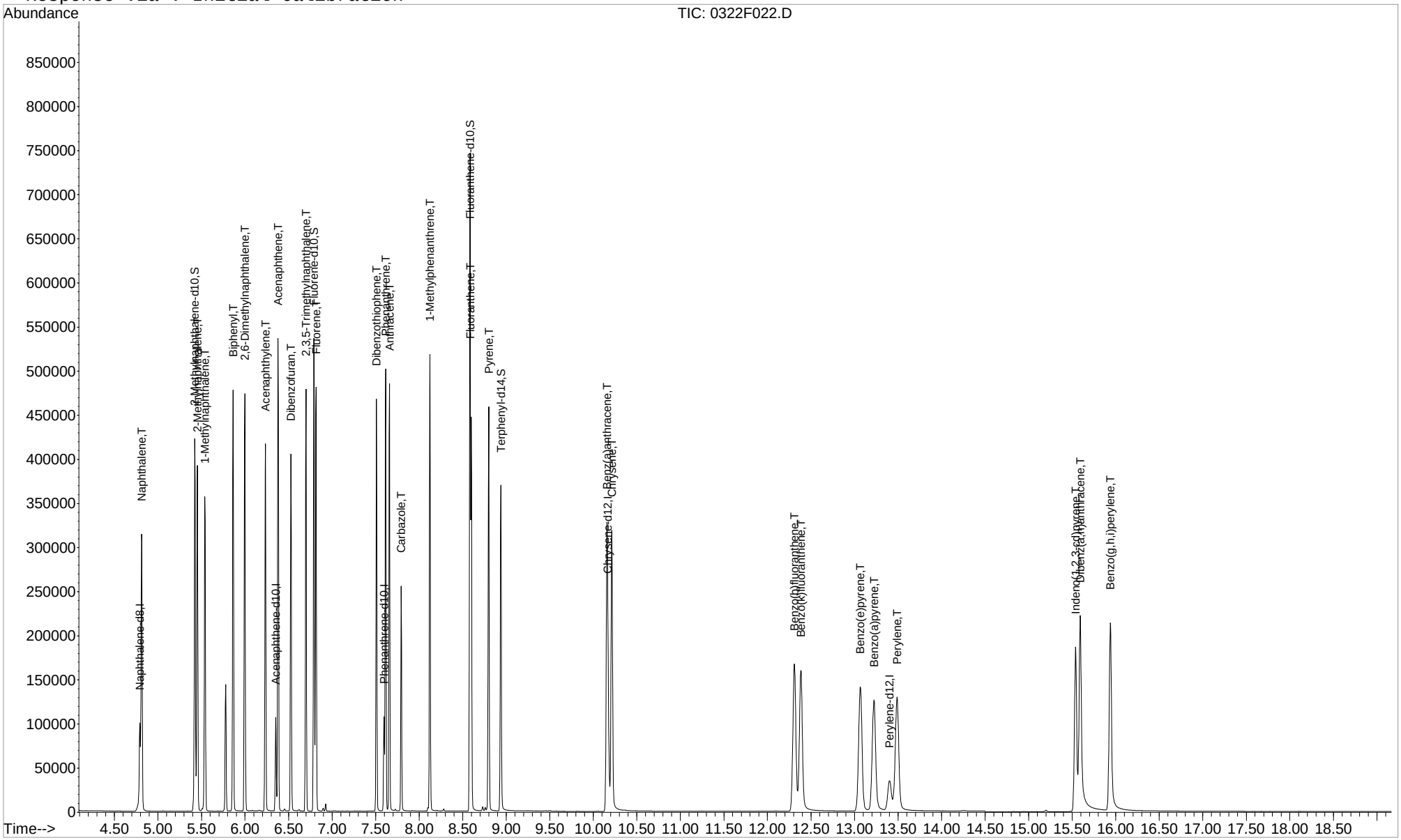
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:24 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



0322F022.D 122618PAH.M Mon Mar 25 07:25:11 2019 Page 2

Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:46 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	67848m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	30977	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	59921	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	62330	200.00	ng/ml	-0.01
28) Perylene-d12	13.40	264	67518	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	135390	707.67	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 70.77%			
13) Fluorene-d10	6.79	176	181500	845.70	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 84.57%			
22) Fluoranthene-d10	8.58	212	370383	1055.77	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 105.58%			
25) Terphenyl-d14	8.94	244	245532	893.03	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 89.30%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	234434m	615.15	ng/ml	
4) 2-Methylnaphthalene	5.45	142	143124	600.38	ng/ml	97
5) 1-Methylnaphthalene	5.54	142	133217	579.92	ng/ml	98
6) Biphenyl	5.86	154	180368	584.18	ng/ml	100
7) 2,6-Dimethylnaphthalene	6.00	156	128121	589.08	ng/ml	92
9) Acenaphthylene	6.24	152	229490	596.81	ng/ml	98
10) Acenaphthene	6.38	154	135845	619.29	ng/ml	98
11) Dibenzofuran	6.53	168	216364	611.63	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.70	170	127129	608.59	ng/ml	98
14) Fluorene	6.82	166	161447	569.53	ng/ml	98
16) Dibenzothiophene	7.51	184	265331	678.95	ng/ml	97
17) Phenanthrene	7.62	178	250793	657.31	ng/ml	100
18) Anthracene	7.66	178	252106	688.54	ng/ml	100
19) Carbazole	7.79	167	134330	399.82	ng/ml	99
20) 1-Methylphenanthrene	8.12	192	192099	678.04	ng/ml	100
21) Fluoranthene	8.60	202	285158	654.40	ng/ml	99
24) Pyrene	8.80	202	314806	669.88	ng/ml	100
26) Benz(a)anthracene	10.16	228	283160	633.06	ng/ml	100
27) Chrysene	10.21	228	273159	672.01	ng/ml	100
29) Benzo(b)fluoranthene	12.31	252	310824	690.45	ng/ml	100
30) Benzo(k)fluoranthene	12.38	252	297423	698.71	ng/ml	99
31) Benzo(e)pyrene	13.07	252	294845	698.50	ng/ml	99
32) Benzo(a)pyrene	13.22	252	266787	630.61	ng/ml	98
33) Perylene	13.49	252	272636	679.37	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.54	276	241794	600.92	ng/ml	99
35) Dibenz(a,h)anthracene	15.59	278	245438	654.19	ng/ml	99
36) Benzo(g,h,i)perylene	15.94	276	298117	654.23	ng/ml	100

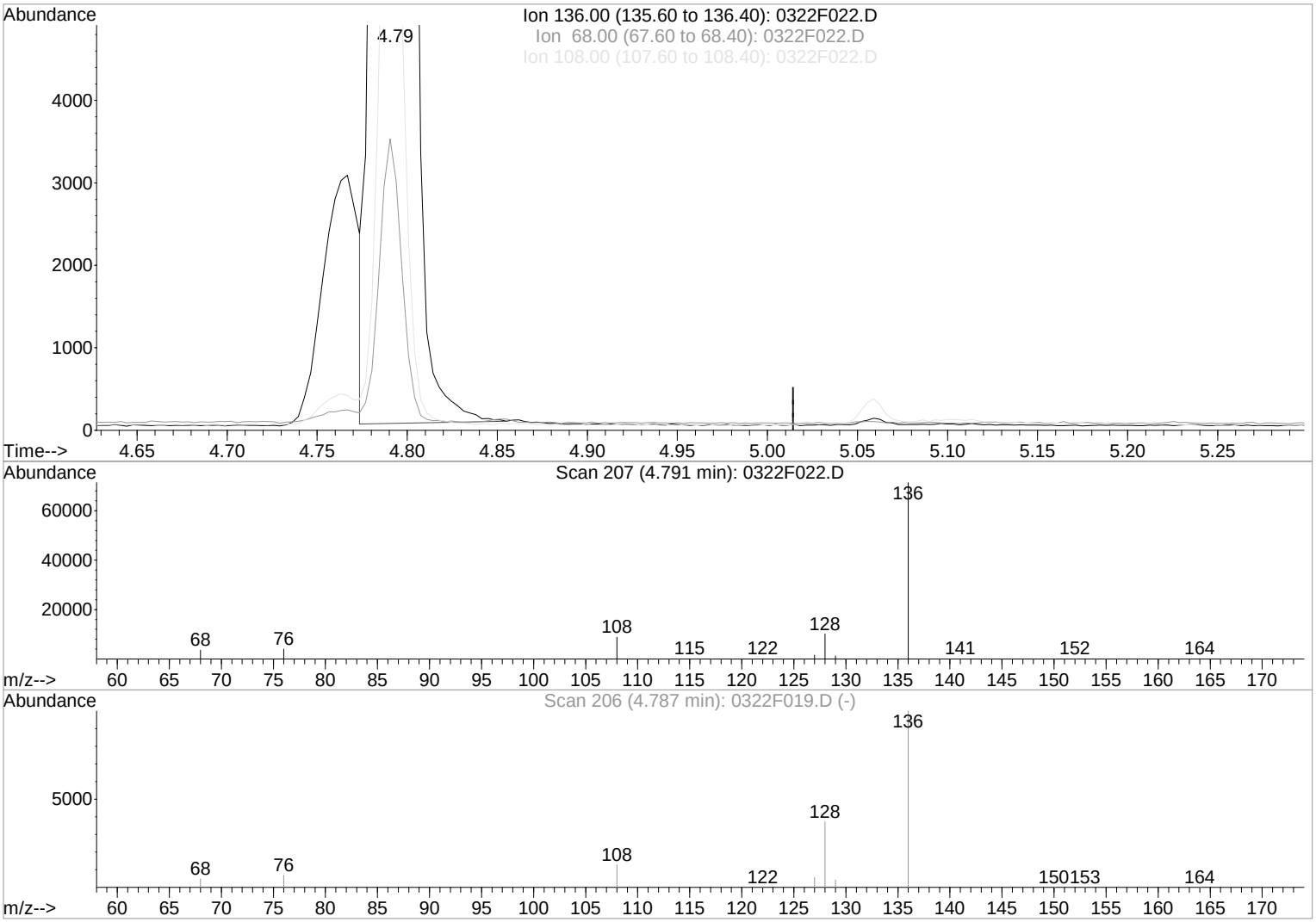
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F022.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 63653

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.77
108.00	13.60	12.23
0.00	0.00	0.00

Manual Integration:

Before

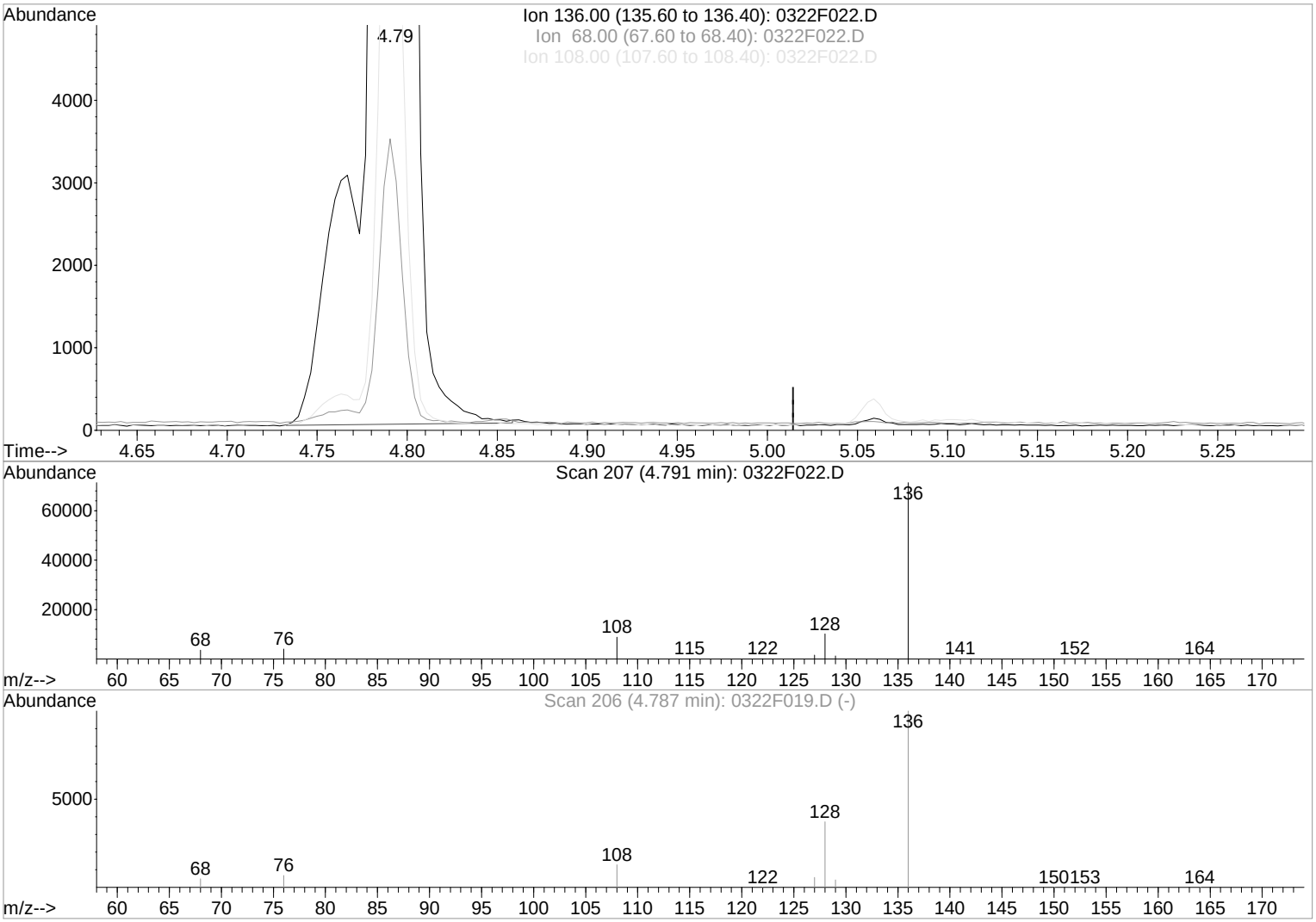
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:24 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F022.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 67848

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.95
108.00	13.60	12.32
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

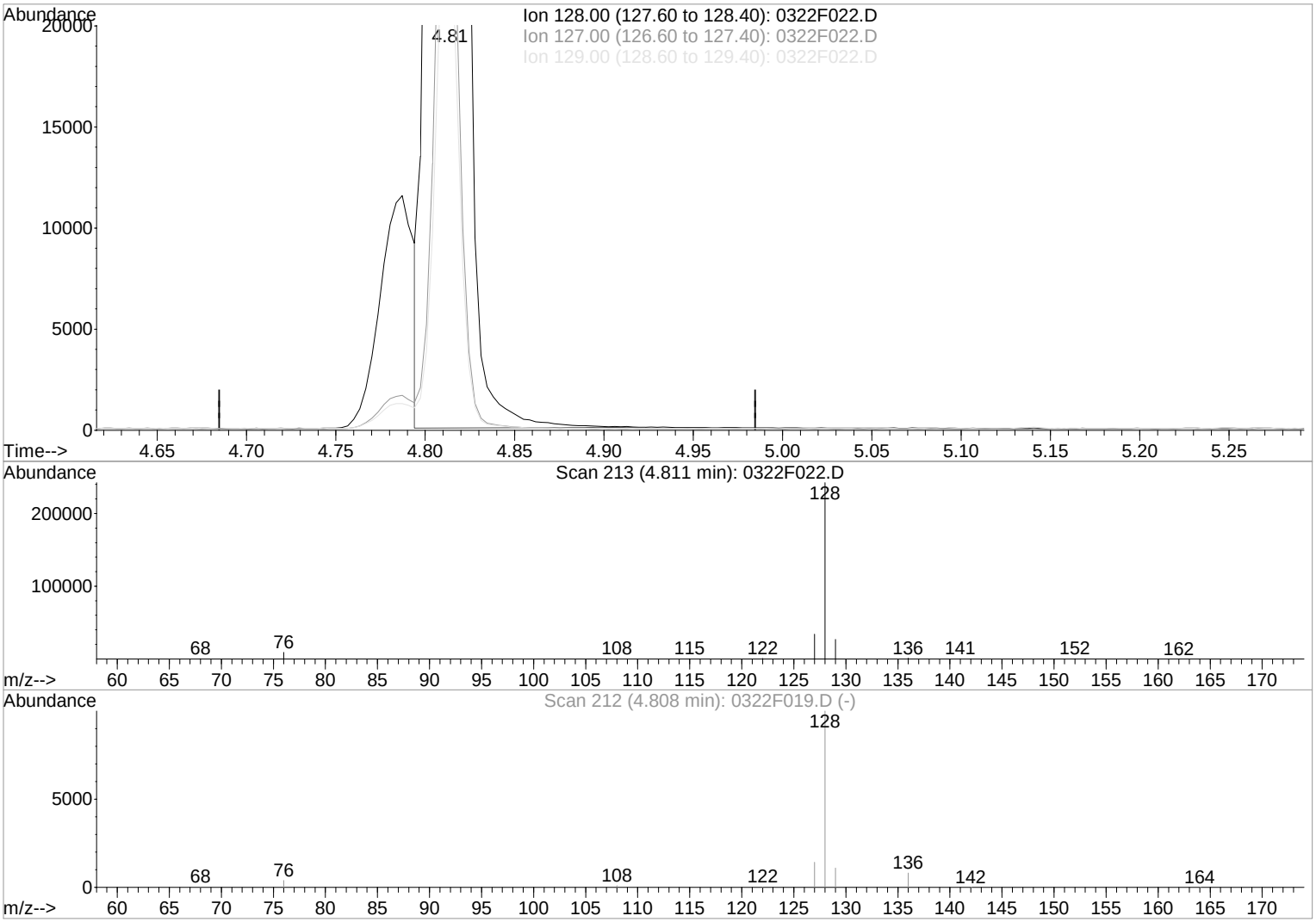
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:24 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F022.D

(2) Naphthalene (T)

4.81min 574.42ng/ml

response 218911

Ion	Exp%	Act%
128.00	100	100
127.00	13.90	13.98
129.00	10.80	11.02
0.00	0.00	0.00

Manual Integration:

Before

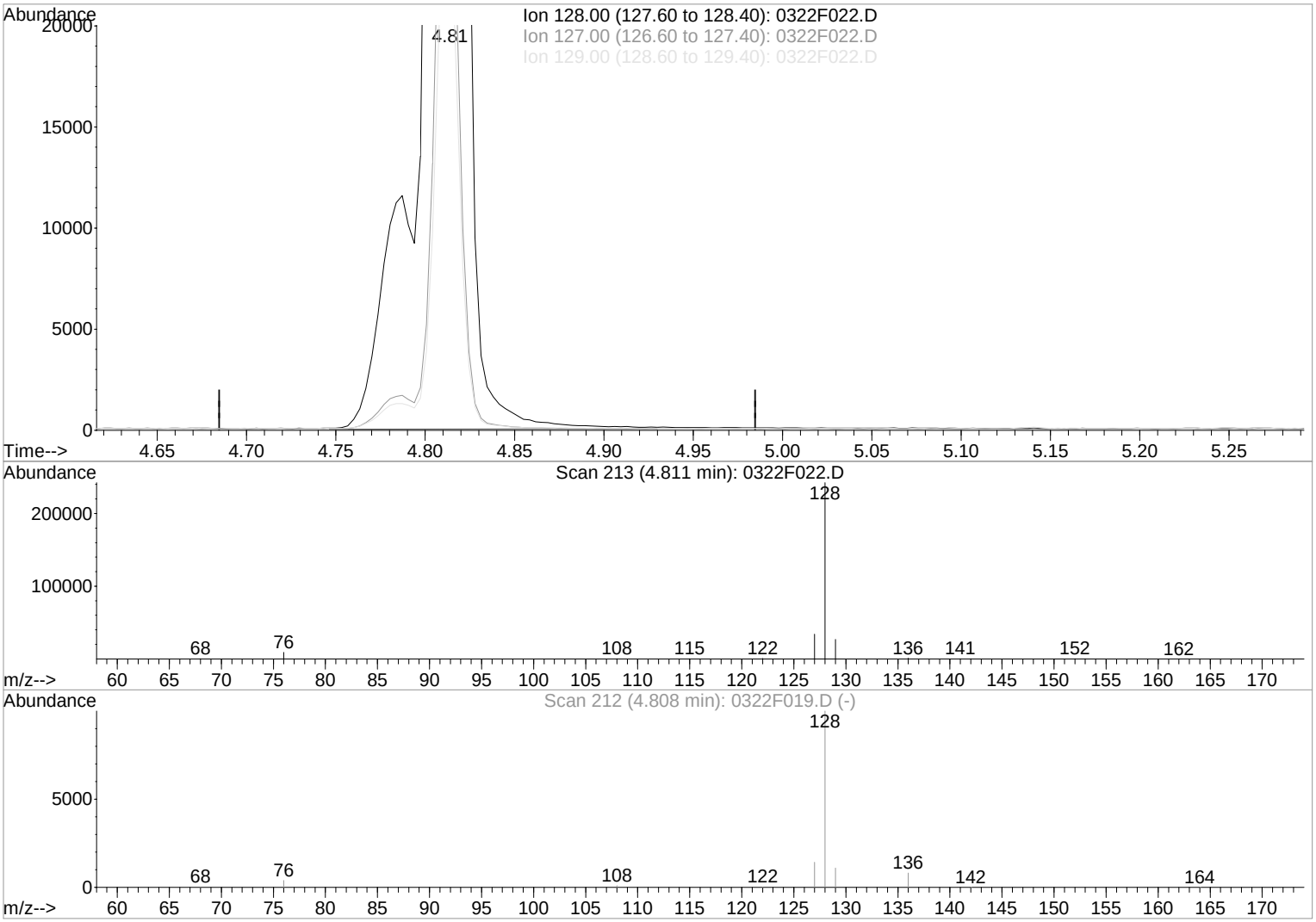
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:24 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F022.D

(2) Naphthalene (T)

4.81min 615.15ng/ml m

response 234434

Ion	Exp%	Act%
128.00	100	100
127.00	13.90	14.00
129.00	10.80	11.05
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F019.D\
Lab ID: KQ1903805-01
RunType: CCV
Matrix: Water

Date Acquired: 3/22/19 15:18:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Internal Standards	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F019.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 15:18:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903805-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**		**Report Group:**	KQ1903805
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		26263	200.00	NA
Chrysene-d12	10.17		65229	200.00	NA
Naphthalene-d8	4.79		55165	200.00	NA
Perylene-d12	13.41		72282	200.00	NA
Phenanthrene-d10	7.60		53755	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Fluoranthene-d10	8.58		146906	466.79	Y
Fluorene-d10	6.79		62782	345.04	Y
Terphenyl-d14	8.94		120322	418.18	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2-Methylnaphthalene	5.45		72907	376.14	Y
Acenaphthene	6.38		67725	364.16	Y
Acenaphthylene	6.24		110527	339.03	Y
Anthracene	7.66		124987	380.51	Y
Benz(a)anthracene	10.16		170993	365.30	Y
Benzo(a)pyrene	13.22		163737	361.52	Y
Benzo(b)fluoranthene	12.31		187092	388.20	Y
Benzo(g,h,i)perylene	15.94		170337	349.17	Y
Benzo(k)fluoranthene	12.39		182390	400.23	Y
Chrysene	10.21		165907	390.02	Y
Dibenz(a,h)anthracene	15.59		145011	361.04	Y
Fluoranthene	8.60		170037	434.97	Y
Fluorene	6.82		81004	337.05	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F019.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 15:18:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903805-01	**Raw Units:**	ng/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Indeno(1,2,3-cd)pyrene	15.54		137214	318.54	Y
Naphthalene	4.81		116275	375.25	Y
Phenanthrene	7.62		131211	383.34	Y
Pyrene	8.80		183372	372.86	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

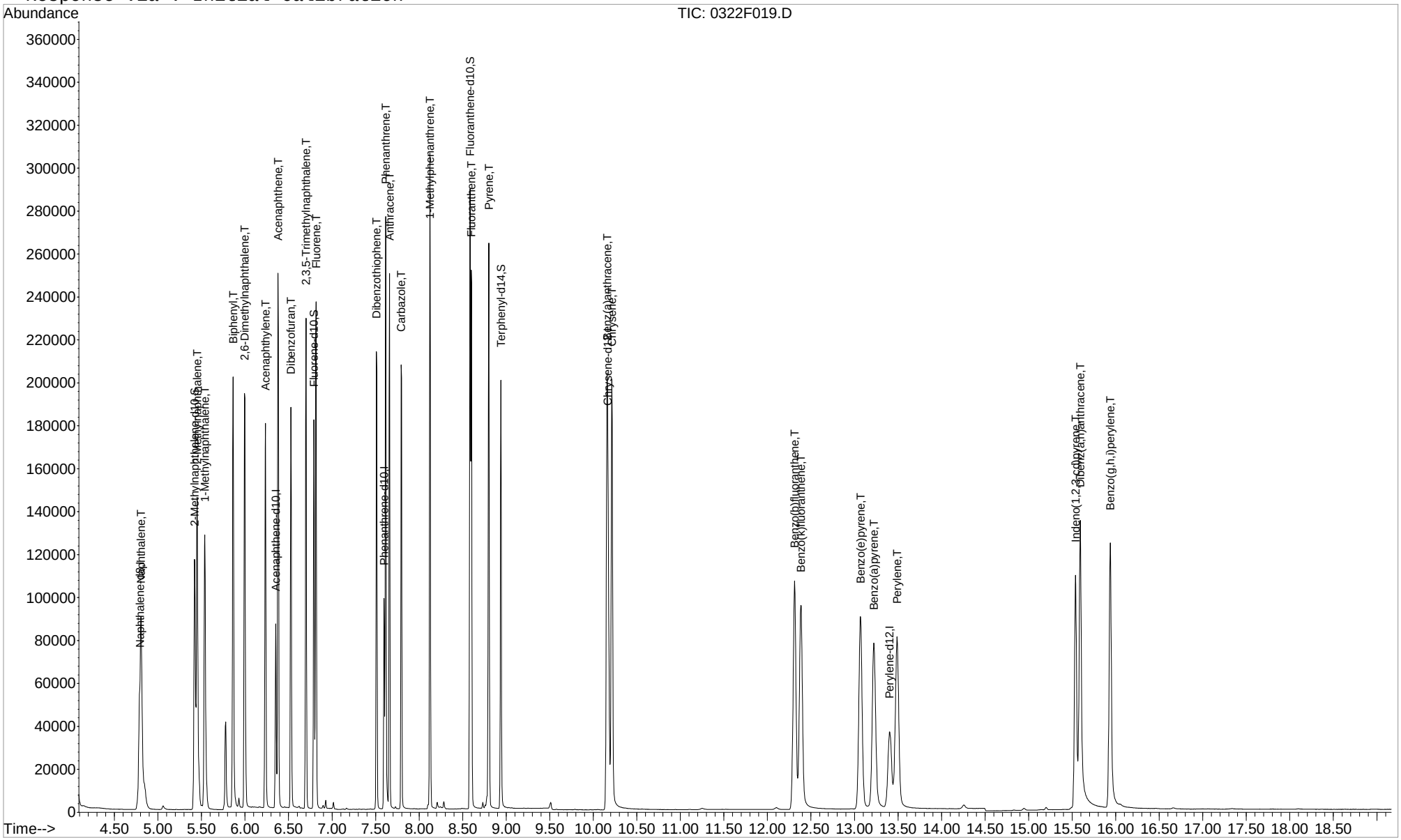
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F019.D Vial: 2
Acq On : 22 Mar 2019 3:18 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL | SVM60-69C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:20 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F019.D Vial: 2
Acq On : 22 Mar 2019 3:18 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL | SVM60-69C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:20:47 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	55165	200.00	ng/ml	-0.03
8) Acenaphthene-d10	6.35	164	26263	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	53755	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	65229	200.00	ng/ml	-0.01
28) Perylene-d12	13.41	264	72282	200.00	ng/ml	-0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	58346	375.09	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	37.51%		
13) Fluorene-d10	6.79	176	62782	345.04	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	34.50%		
22) Fluoranthene-d10	8.58	212	146906	466.79	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	46.68%		
25) Terphenyl-d14	8.94	244	120322	418.18	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	41.82%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	116275	375.25	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	72907	376.14	ng/ml	98
5) 1-Methylnaphthalene	5.54	142	66905	358.21	ng/ml	97
6) Biphenyl	5.86	154	89085	354.87	ng/ml	100
7) 2,6-Dimethylnaphthalene	6.00	156	63162	357.18	ng/ml	93
9) Acenaphthylene	6.24	152	110527	339.03	ng/ml	99
10) Acenaphthene	6.38	154	67725	364.16	ng/ml	98
11) Dibenzofuran	6.53	168	105824	352.85	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.70	170	62733	354.22	ng/ml	94
14) Fluorene	6.82	166	81004	337.05	ng/ml	98
16) Dibenzothiophene	7.51	184	135127	385.44	ng/ml	98
17) Phenanthrene	7.62	178	131211	383.34	ng/ml	100
18) Anthracene	7.66	178	124987	380.51	ng/ml	100
19) Carbazole	7.79	167	118731	393.92	ng/ml	99
20) 1-Methylphenanthrene	8.12	192	106933	420.73	ng/ml	99
21) Fluoranthene	8.60	202	170037	434.97	ng/ml	96
24) Pyrene	8.80	202	183372	372.86	ng/ml	99
26) Benz(a)anthracene	10.16	228	170993	365.30	ng/ml	100
27) Chrysene	10.21	228	165907	390.02	ng/ml	100
29) Benzo(b)fluoranthene	12.31	252	187092	388.20	ng/ml	99
30) Benzo(k)fluoranthene	12.39	252	182390	400.23	ng/ml	99
31) Benzo(e)pyrene	13.07	252	179399	396.99	ng/ml	99
32) Benzo(a)pyrene	13.22	252	163737	361.52	ng/ml	98
33) Perylene	13.49	252	163527	380.63	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.54	276	137214	318.54	ng/ml	98
35) Dibenz(a,h)anthracene	15.59	278	145011	361.04	ng/ml	99
36) Benzo(g,h,i)perylene	15.94	276	170337	349.17	ng/ml	98

(#) = qualifier out of range (m) = manual integration

Evaluate Continuing Calibration Report

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F019.D Vial: 2
Acq On : 22 Mar 2019 3:18 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL | SVM60-69C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 06:51:50 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	1.000	1.000	0.0	110	-0.03
2	T	Naphthalene	1.123	1.054	6.1	106	-0.03
3	S	2-Methylnaphthalene-d10	0.564	0.529	6.2	110	-0.02
4	T	2-Methylnaphthalene	0.703	0.661	6.0	110	-0.02
5	T	1-Methylnaphthalene	0.677	0.606	10.5	106	-0.01
6	T	Biphenyl	0.910	0.807	11.3	104	0.00
7	T	2,6-Dimethylnaphthalene	0.641	0.572	10.8	104	0.00
8	I	Acenaphthene-d10	1.000	1.000	0.0	113	0.00
9	T	Acenaphthylene	2.483	2.104	15.3	97	0.00
10	T	Acenaphthene	1.416	1.289	9.0	103	0.00
11	T	Dibenzofuran	2.284	2.015	11.8	102	0.00
12	T	2,3,5-Trimethylnaphthalene	1.349	1.194	11.5	101	0.00
13	S	Fluorene-d10	1.386	1.195	13.8	103	0.00
14	T	Fluorene	1.830	1.542	15.7	99	0.00
15	I	Phenanthrene-d10	1.000	1.000	0.0	105	0.00
16	T	Dibenzothiophene	1.304	1.257	3.6	101	0.00
17	T	Phenanthrene	1.273	1.220	4.2	103	0.00
18	T	Anthracene	1.222	1.163	4.8	100	0.00
19	T	Carbazole	1.121	1.104	1.5	103	-0.01
20	T	1-Methylphenanthrene	0.946	0.995	-5.2	109	0.00
21	T	Fluoranthene	1.454	1.582	-8.8	115	0.00
22	S	Fluoranthene-d10	1.171	1.366	-16.7	121	0.00
23	I	Chrysene-d12	1.000	1.000	0.0	121	-0.01
24	T	Pyrene	1.508	1.406	6.8	117	0.00
25	S	Terphenyl-d14	0.882	0.922	-4.5	135	0.00
26	T	Benz(a)anthracene	1.435	1.311	8.6	114	-0.01
27	T	Chrysene	1.304	1.272	2.5	118	-0.01
28	I	Perylene-d12	1.000	1.000	0.0	122	-0.01
29	T	Benzo(b)fluoranthene	1.334	1.294	3.0	116	-0.01
30	T	Benzo(k)fluoranthene	1.261	1.262	-0.1	118	0.00
31	T	Benzo(e)pyrene	1.250	1.241	0.7	121	0.00
32	T	Benzo(a)pyrene	1.253	1.133	9.6	115	-0.02
33	T	Perylene	1.189	1.131	4.9	115	0.00
34	T	Indeno(1,2,3-cd)pyrene	1.192	0.949	20.4#	96	0.00
35	T	Dibenz(a,h)anthracene	1.111	1.003	9.7	111	0.00
36	T	Benzo(g,h,i)perylene	1.350	1.178	12.7	109	0.00

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

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F018.D\
Lab ID: KQ1903805-02
RunType: TUNE
Matrix: Water

Date Acquired: 3/22/19 14:45:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Tune Ion Ratio	X	

Primary Review: _____

Printed: 3/25/19 8:54
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F018.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 14:45:00	**Vial:**	1
Run Type:	TUNE	**Dilution:**	1
Lab ID:	KQ1903805-02	**Raw Units:**	

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**		**Report Group:**	KQ1903805
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	30.23	53530	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	32.42	57420	Pass
70	69	0	2	0.57	327	Pass
127	198	10	80	40.85	72333	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	48.26	177088	Pass
199	198	5	9	6.55	11598	Pass
275	198	10	60	34.59	61253	Pass
365	442	1	50	2.63	9658	Pass
441	443	0.01	100	74.70	53258	Pass
442	442	30	100	100.00	366933	Pass
443	442	15	24	19.43	71298	Pass

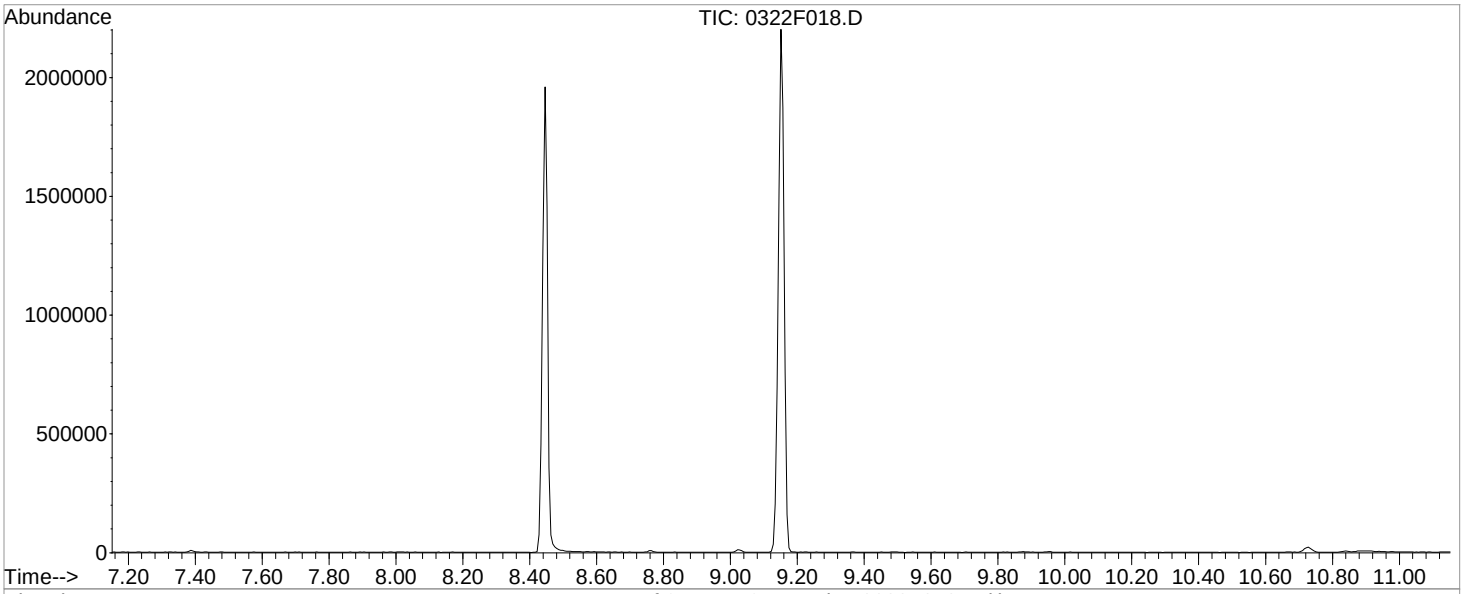
U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

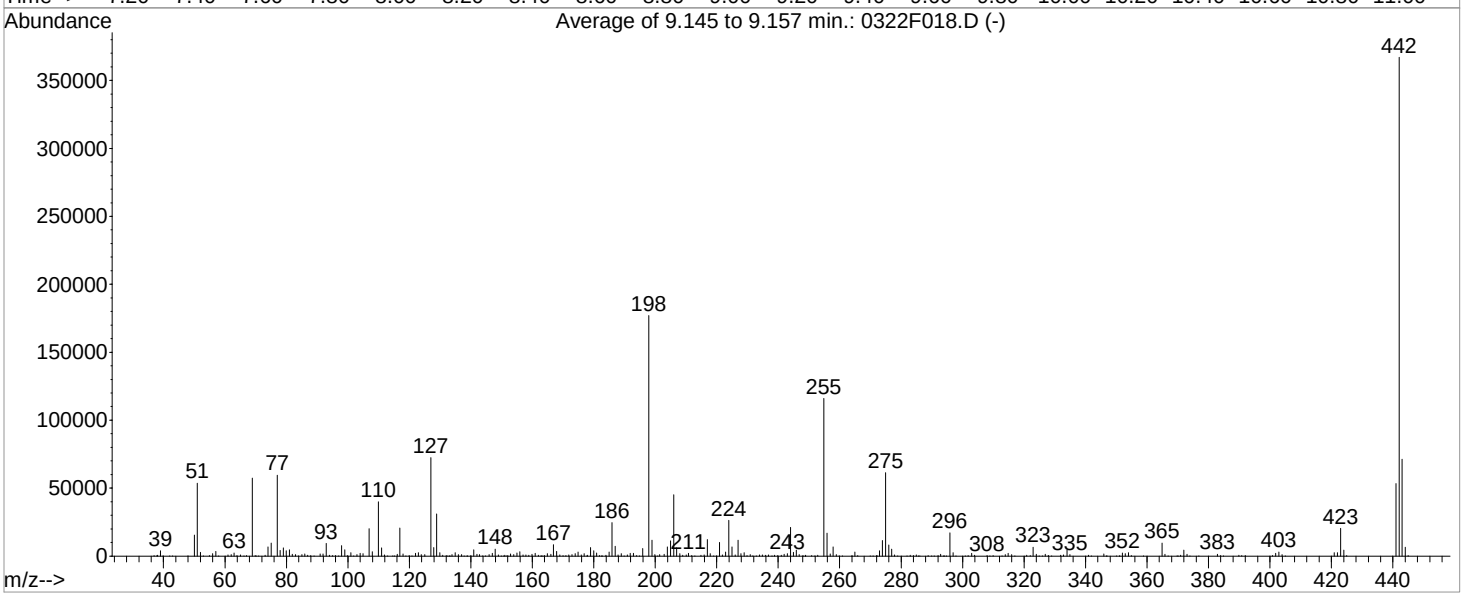
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F018.D Vial: 1
Acq On : 22 Mar 2019 2:45 pm Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix





AutoFind: Scans 520, 521, 522; Background Corrected with Scan 513

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	30.2	53530	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	32.4	57420	PASS
70	69	0.00	2	0.6	327	PASS
127	198	10	80	40.8	72333	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	48.3	177088	PASS
199	198	5	9	6.5	11598	PASS
275	198	10	60	34.6	61253	PASS
365	442	1	50	2.6	9658	PASS
441	443	0.01	100	74.7	53258	PASS
442	442	30	100	100.0	366933	PASS
443	442	15	24	19.4	71298	PASS

1st 03/25/19
2nd 03/26/19

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.90	362	53.00	141	67.05	314	79.95	3866
37.90	296	54.95	410	68.90	57420	80.95	4589
38.05	706	55.95	1704	69.85	327	81.95	1265
39.00	3970	57.00	3374	70.10	167	82.95	1069
39.90	249	58.00	58	71.00	43	83.85	199
42.05	159	60.95	745	73.10	564	85.00	961
43.00	117	62.00	999	74.00	6676	85.95	1589
47.95	126	63.00	2243	75.00	9575	86.95	679
50.05	15395	63.95	351	77.00	59426	87.80	57
51.00	53530	65.05	857	78.00	4066	87.95	180
52.00	2684	66.20	77	78.95	5978	89.00	50

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
90.95	1488	101.90	135	115.10	150	126.95	72333
91.95	1450	102.95	1166	116.05	1225	127.95	6189
92.90	9371	103.95	2041	116.90	20528	128.90	30957
93.95	582	104.95	1754	117.90	1430	129.90	2594
95.05	308	106.95	20189	118.90	169	130.90	499
95.95	356	107.95	3276	119.95	294	131.95	271
97.00	54	109.95	39981	120.90	227	132.50	66
97.95	7669	110.95	6063	121.95	2003	133.00	67
98.95	4537	111.95	759	122.95	2400	133.20	53
99.85	441	112.95	244	123.90	1034	133.90	1165
100.95	2542	114.60	81	125.00	1036	134.95	2464

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
135.95	1121	145.95	976	155.00	2166	164.00	337
136.95	1177	146.95	2030	155.95	3234	164.90	1799
137.85	139	147.90	5062	156.95	835	166.00	1327
138.75	187	148.95	921	157.90	854	166.90	8261
139.00	78	149.90	254	158.85	593	167.90	3462
140.05	452	150.70	120	159.90	1309	168.95	807
140.90	4600	151.00	536	160.90	1916	170.00	256
141.95	1395	151.80	275	161.95	586	170.90	462
142.85	975	152.10	119	162.80	59	171.90	759
143.85	189	152.90	1638	163.00	59	172.90	1018
144.85	233	153.95	1049	163.40	55	173.95	1796

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.90	3059	183.95	661	194.90	83	206.95	6015
175.95	952	184.95	2945	195.90	5563	207.95	1883
176.90	1734	185.95	24549	197.90	177088	208.90	648
177.80	229	186.95	7222	198.90	11598	210.05	757
177.95	503	187.95	865	199.85	978	210.85	1969
178.90	6317	188.95	1770	200.80	154	211.80	283
179.95	3969	189.85	195	201.40	972	212.90	83
180.90	2180	190.90	777	202.90	1385	214.85	613
181.85	315	191.90	1985	203.95	6609	215.95	807
182.50	67	192.95	2114	204.95	11100	216.90	12052
182.85	171	193.95	469	206.00	45186	217.90	1813

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
219.05	192	229.85	355	240.95	718	250.85	272
220.00	181	230.90	999	241.95	1420	251.90	221
220.90	10030	231.75	203	243.00	1801	252.90	611
221.80	859	232.85	147	244.00	21208	254.90	116042
222.90	2912	233.90	741	244.95	2810	255.90	16962
223.95	26192	234.90	813	245.90	4467	256.95	1464
224.95	6758	235.85	553	246.85	982	257.90	6653
226.00	820	236.85	843	247.90	85	258.90	1144
226.90	11782	237.95	149	248.20	54	259.80	61
227.90	1717	238.85	579	248.80	229	260.85	233
228.90	2397	239.90	362	248.95	578	263.90	51

Average of 9.145 to 9.157 min.: 0322F018.D

1st 03/25/19
2nd 03/26/19

DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
264.10	55	276.90	5199	290.80	51	302.95	2085
264.90	2888	277.90	873	292.00	350	303.90	610
265.85	473	278.90	247	292.85	1341	307.95	290
269.90	136	281.90	212	293.80	97	308.85	172
270.85	250	282.95	482	294.05	160	309.95	257
272.00	277	284.00	380	294.70	127	312.80	207
272.20	194	284.95	729	295.90	17104	313.90	1088
272.95	3920	285.70	90	296.90	2515	314.85	2045
273.95	11339	286.10	104	297.85	156	315.95	1143
274.90	61253	288.80	290	300.90	230	317.00	249
275.95	8139	289.90	50	301.85	368	320.90	598

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
321.95	340	334.00	4275	352.95	1666	373.00	1205
322.95	6392	334.95	1138	353.95	2527	373.95	113
323.95	1321	340.90	713	354.90	440	376.90	82
324.90	201	341.90	77	358.85	119	382.90	1279
326.00	134	345.95	1615	364.90	9658	383.95	261
326.90	1265	346.75	172	365.85	1372	384.90	51
327.80	147	347.00	75	366.90	54	389.90	613
327.95	398	350.10	61	369.80	83	390.85	390
329.00	127	351.00	147	370.05	221	391.95	310
331.90	533	351.20	56	370.95	556	400.85	321
332.85	736	351.95	2242	372.00	4433	401.90	1982

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
402.90	2951	444.00	6520				
403.90	1060	444.95	391				
405.00	117						
420.95	2419						
421.95	2516						
423.00	20340						
424.00	4269						
425.00	359						
441.00	53258						
442.00	366933						
443.00	71298						

Injection Log

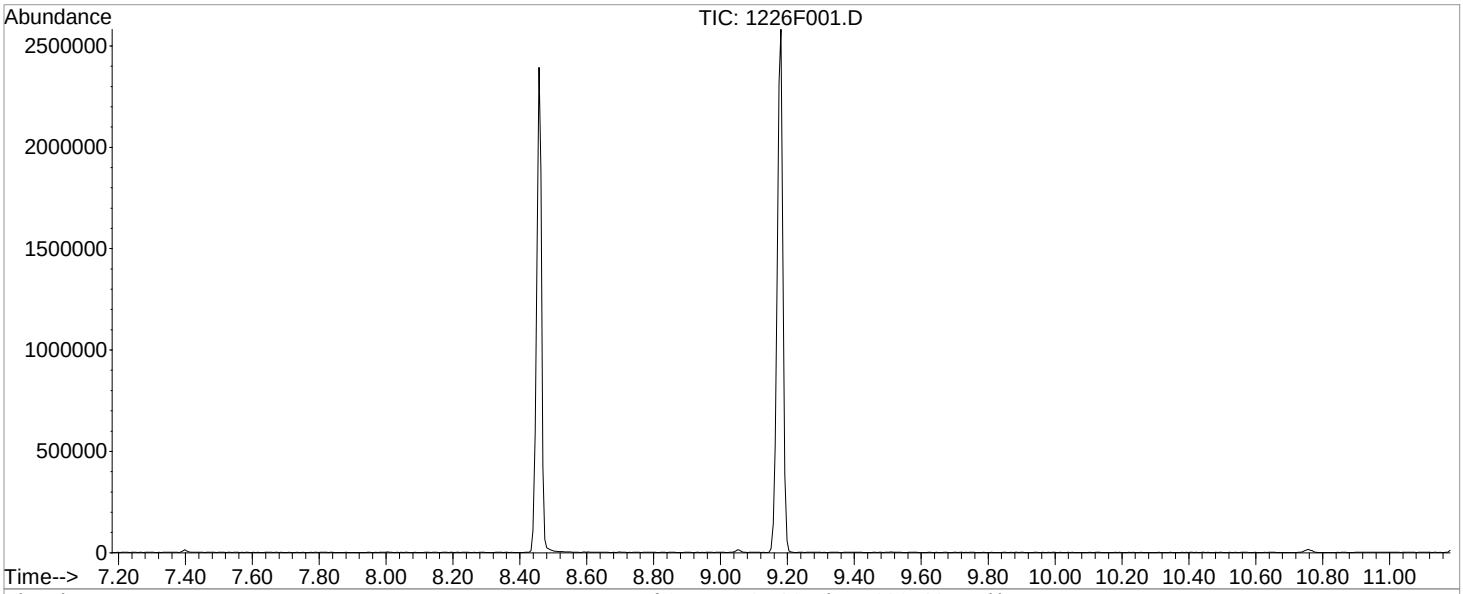
Directory: J:\MS14\DATA\122618a

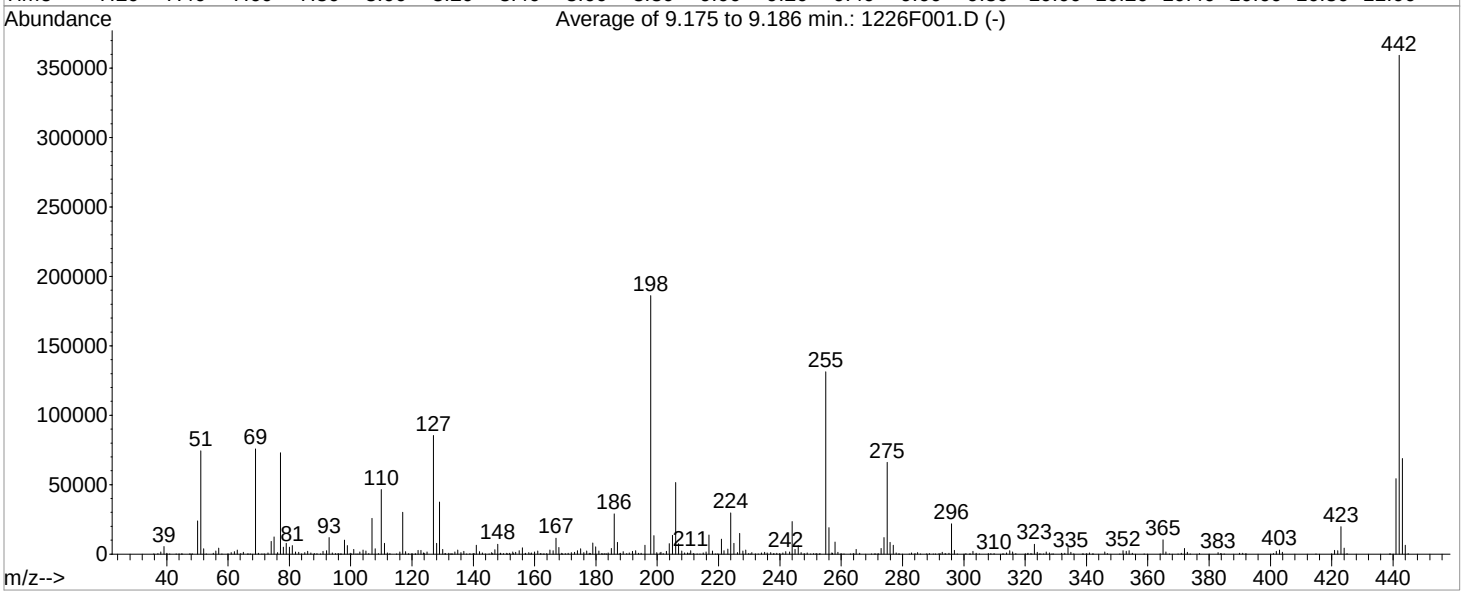
Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1226F001.D	1.	DFTPP @ 10ug/mL | SVM60-10C		26 Dec 2018 06:05
2	20	1226F005.D	1.	IB		26 Dec 2018 07:49
3	5	1226F006.D	1.	SIM-PAH ICAL @.002ug/mL | SVM59-4A		26 Dec 2018 08:15
4	6	1226F007.D	1.	SIM-PAH ICAL @.004ug/mL | SVM59-4B		26 Dec 2018 08:41
5	7	1226F008.D	1.	SIM-PAH ICAL @.008ug/mL | SVM59-4C		26 Dec 2018 09:07
6	8	1226F009.D	1.	SIM-PAH ICAL @0.02ug/mL | SVM59-4D		26 Dec 2018 09:33
7	9	1226F010.D	1.	SIM-PAH ICAL @0.1ug/mL | SVM59-4E		26 Dec 2018 09:59
8	10	1226F011.D	1.	SIM-PAH ICAL @0.2ug/mL | SVM59-4F		26 Dec 2018 10:26
9	11	1226F012.D	1.	SIM-PAH ICAL @0.4ug/mL | SVM59-4G		26 Dec 2018 10:52
10	12	1226F013.D	1.	SIM-PAH ICAL @1.0ug/mL | SVM59-4H		26 Dec 2018 11:18
11	13	1226F014.D	1.	SIM-PAH ICAL @1.6ug/mL | SVM59-4I		26 Dec 2018 11:45
12	14	1226F015.D	1.	SIM-PAH ICAL @2.0ug/mL | SVM59-4J		26 Dec 2018 12:12
13	15	1226F016.D	1.	SIM-PAH ICV @0.4ug/mL | SVM60-14A		26 Dec 2018 12:38

CAL 15930
12/27/18
1/2/19

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F001.D Vial: 1
Acq On : 26 Dec 2018 6:05 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-10C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix





AutoFind: Scans 525, 526, 527; Background Corrected with Scan 518

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	40.0	74400	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	40.7	75770	PASS
70	69	0.00	2	0.8	589	PASS
127	198	10	80	45.9	85370	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	51.8	186133	PASS
199	198	5	9	7.1	13267	PASS
275	198	10	60	35.5	66066	PASS
365	442	1	50	2.9	10321	PASS
441	443	0.01	100	79.1	54346	PASS
442	442	30	100	100.0	359232	PASS
443	442	15	24	19.1	68744	PASS

1st 12/27/18
2nd 01/02/19

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.80	52	47.90	85	61.00	1060	71.80	57
37.10	435	48.35	233	62.10	1747	73.05	712
38.05	1590	50.10	23997	63.05	2883	74.05	9088
39.10	5483	51.10	74400	64.20	313	75.00	12266
40.05	681	52.00	3813	65.00	1318	76.20	1125
41.00	186	52.90	103	66.30	77	77.10	73082
43.10	143	55.15	650	66.80	198	78.05	5050
44.00	51	56.05	2212	67.30	147	79.00	7632
44.90	75	56.95	4247	68.95	75770	80.00	5022
45.10	51	58.05	157	69.85	589	81.00	6215
47.50	70	60.00	50	71.00	63	82.05	1547

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
83.00	1241	94.05	821	101.70	88	111.95	816
84.00	230	95.10	241	102.40	96	112.85	321
85.00	1040	95.85	262	103.00	1458	115.00	66
86.00	1947	96.10	123	104.00	3005	116.00	1396
87.00	742	96.65	211	105.00	2231	117.00	30189
88.15	248	96.90	70	105.90	409	117.95	1791
89.00	301	98.00	10132	107.00	25710	118.80	106
90.20	101	98.95	6219	108.00	3887	119.00	127
91.00	1991	99.85	531	109.00	355	119.85	220
92.10	2328	100.30	218	110.00	46525	120.10	103
93.00	11883	101.00	3289	111.00	7803	121.00	80

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
121.20	126	131.00	425	139.90	399	148.80	521
121.95	2684	132.00	531	140.20	309	148.95	650
122.95	2780	132.60	87	140.95	6348	149.85	302
123.80	902	132.90	171	142.00	1743	150.90	560
124.00	700	133.20	115	142.95	923	151.20	121
124.95	1472	133.95	1407	143.95	207	151.85	686
127.00	85370	134.95	2948	145.20	139	152.90	1481
128.00	7660	135.95	1078	145.95	1080	153.10	283
129.00	37552	136.95	2079	146.30	260	153.85	1268
130.00	3284	137.90	148	147.00	3020	154.95	2414
130.80	267	138.90	315	148.00	6949	156.00	4535

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
156.90	660	163.90	441	174.00	2417	182.60	159
157.10	273	164.95	2918	175.00	3713	182.95	260
158.05	1099	166.00	2436	176.05	1061	183.50	181
158.50	67	166.95	11400	177.00	2284	184.00	881
158.95	792	167.90	4636	177.80	565	185.00	4149
159.95	1599	168.85	511	178.20	326	186.00	28840
161.00	2288	169.10	137	178.95	7955	187.00	8506
161.85	460	170.00	336	179.95	5251	187.80	292
162.10	335	170.90	495	181.00	2194	188.00	574
162.80	222	171.95	1161	181.85	388	188.90	1852
163.10	77	173.00	1242	182.10	187	190.00	472

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
190.90	814	201.95	398	211.75	391	221.75	2502
191.95	2014	203.00	2095	212.00	114	223.00	3688
192.95	2478	203.90	7549	213.00	159	224.00	29669
193.95	521	205.00	13568	213.90	57	225.00	7747
194.70	489	206.00	51632	215.00	755	226.10	1144
195.95	6339	206.95	7510	215.90	1417	226.90	14999
197.90	186133	208.00	2307	216.90	13853	227.95	2280
198.90	13267	208.95	759	218.00	2256	228.90	2974
199.90	1106	209.90	937	219.00	51	229.85	319
200.90	921	210.35	603	219.55	164	230.30	117
201.25	1179	210.90	2426	220.95	10624	230.90	989

Average of 9.175 to 9.186 min.: 1226F001.D

1st 12/27/18
2nd 01/02/19

DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
231.95	126	241.90	1852	251.70	53	260.20	68
232.90	113	243.15	1559	252.00	297	260.95	221
233.95	901	244.00	23329	252.90	156	263.00	121
235.00	1234	244.90	3332	253.05	430	263.90	241
235.90	909	246.00	6049	255.00	131357	264.10	151
237.00	972	246.90	1152	256.00	19096	264.90	3459
237.90	161	247.90	141	256.90	942	266.00	566
238.05	322	248.10	126	257.10	647	269.85	178
238.95	648	248.90	901	257.95	8693	270.85	221
239.90	337	250.10	55	258.90	1256	271.20	104
240.95	748	250.95	271	259.90	118	272.00	232

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
272.20	238	284.05	453	294.10	142	307.95	270
273.00	3956	284.90	1138	295.15	700	308.85	245
273.95	11909	285.90	186	295.95	21709	309.90	349
275.00	66066	287.85	180	296.95	2553	312.70	69
275.95	8495	288.75	241	297.85	145	313.00	90
276.95	6309	290.05	183	300.70	265	313.90	901
277.95	940	290.80	56	301.80	183	314.95	2444
278.80	75	291.95	299	302.10	95	315.90	1575
279.00	81	292.40	74	302.95	2076	316.95	304
282.20	77	293.00	1326	304.00	656	320.05	115
282.95	757	293.90	247	305.05	151	320.80	155

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

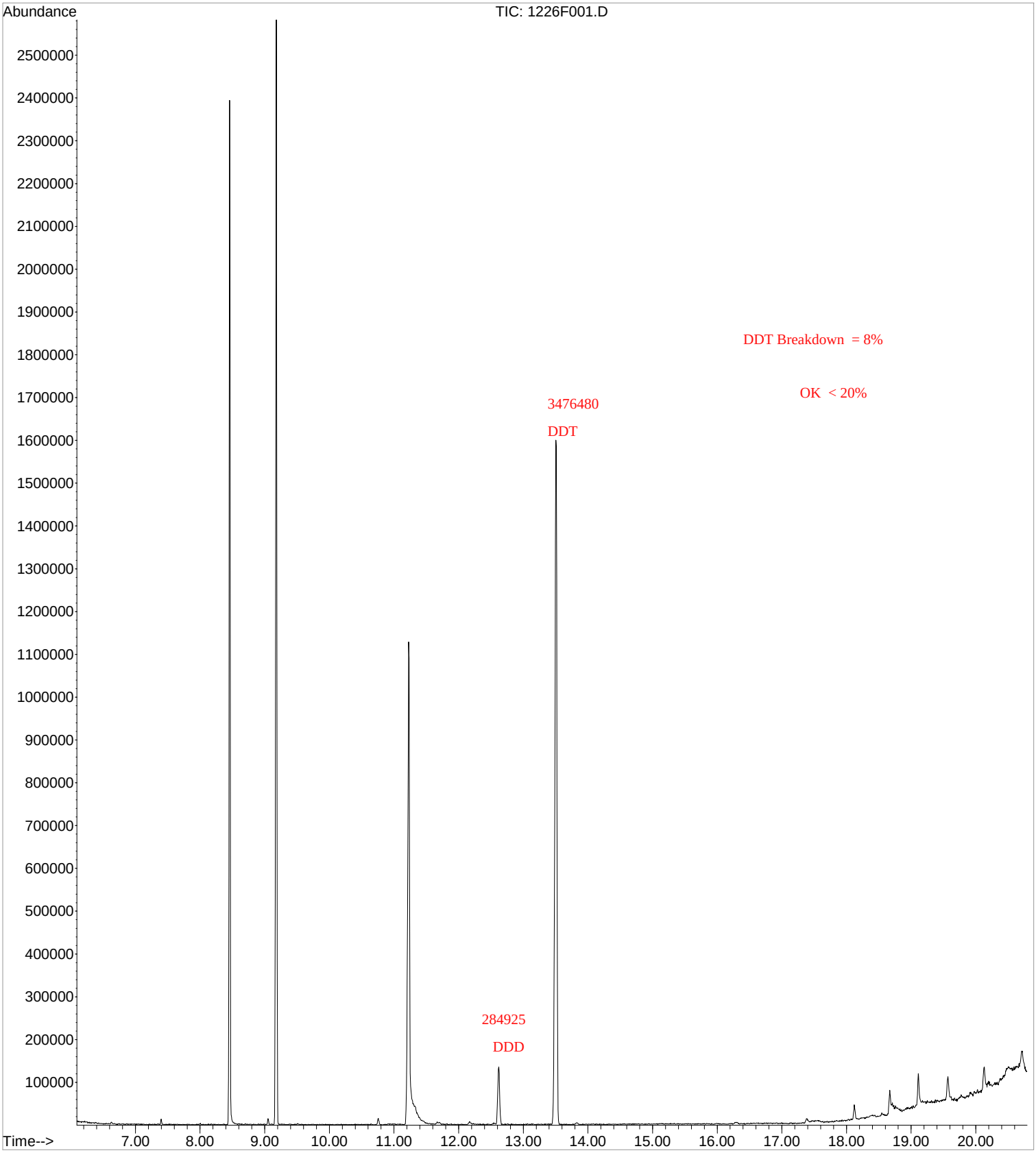
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
320.95	481	329.20	63	342.00	114	364.95	10321
321.90	350	331.85	503	342.20	53	365.95	1603
322.20	105	332.90	586	345.95	1558	367.10	73
323.00	7101	334.00	4806	346.85	271	369.85	168
323.95	1329	334.90	1366	350.90	84	370.95	666
324.70	81	335.90	209	351.90	2362	371.95	4141
325.10	65	338.70	60	353.00	2011	372.90	1252
326.00	133	339.00	77	353.95	2540	373.80	67
326.85	1430	339.90	82	355.00	563	376.85	284
327.95	719	340.10	69	358.85	138	382.95	1115
328.80	71	341.00	808	364.00	140	383.80	290

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
384.10	94	419.95	112	444.00	6337		
384.90	97	420.95	2561	444.95	452		
389.95	631	422.00	2465				
390.95	614	423.00	19650				
391.85	210	424.00	4242				
392.10	65	425.00	256				
400.95	408	438.90	125				
401.90	1882	439.20	143				
402.95	2817	441.00	54346				
403.95	1182	442.00	359232				
414.85	117	443.00	68744				

1st 12/27/18
2nd 01/02/19

File : J:\MS14\DATA\122618A\1226F001.D
Operator : LWeiskopf
Acquired : 26 Dec 2018 6:05 am using AcqMethod SIMLOC
Instrument : MS14
Sample Name: DFTPP @ 10ug/mL | SVM60-10C
Misc Info :
Vial Number: 1

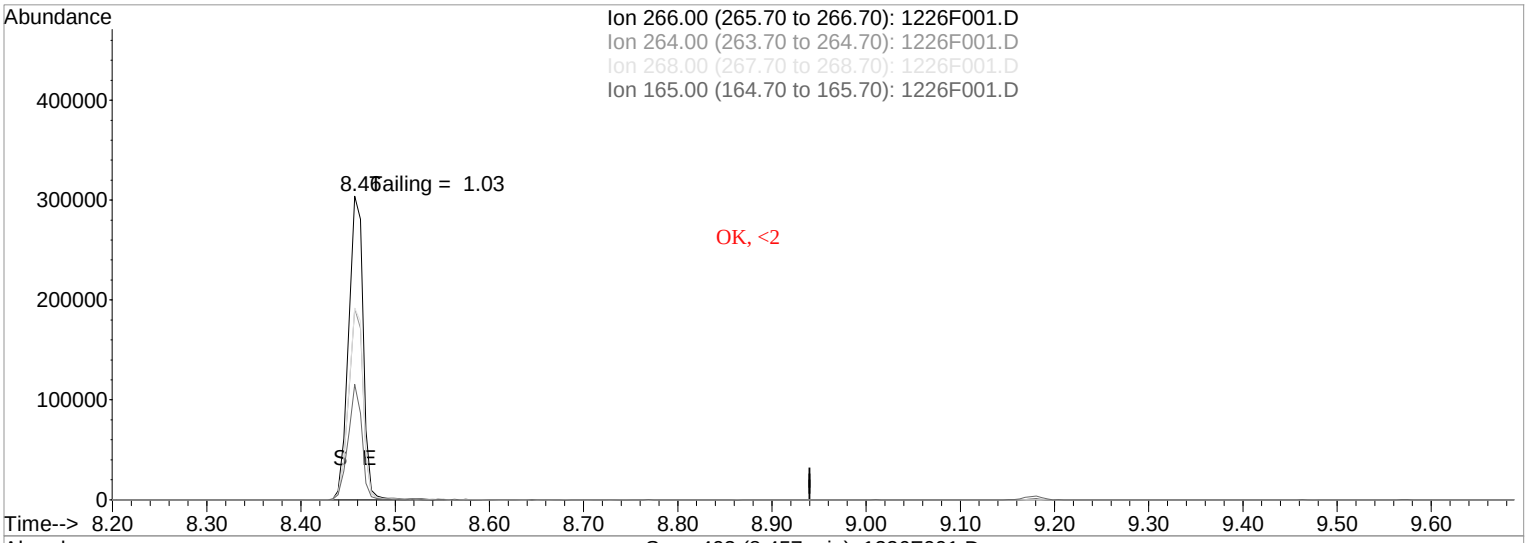


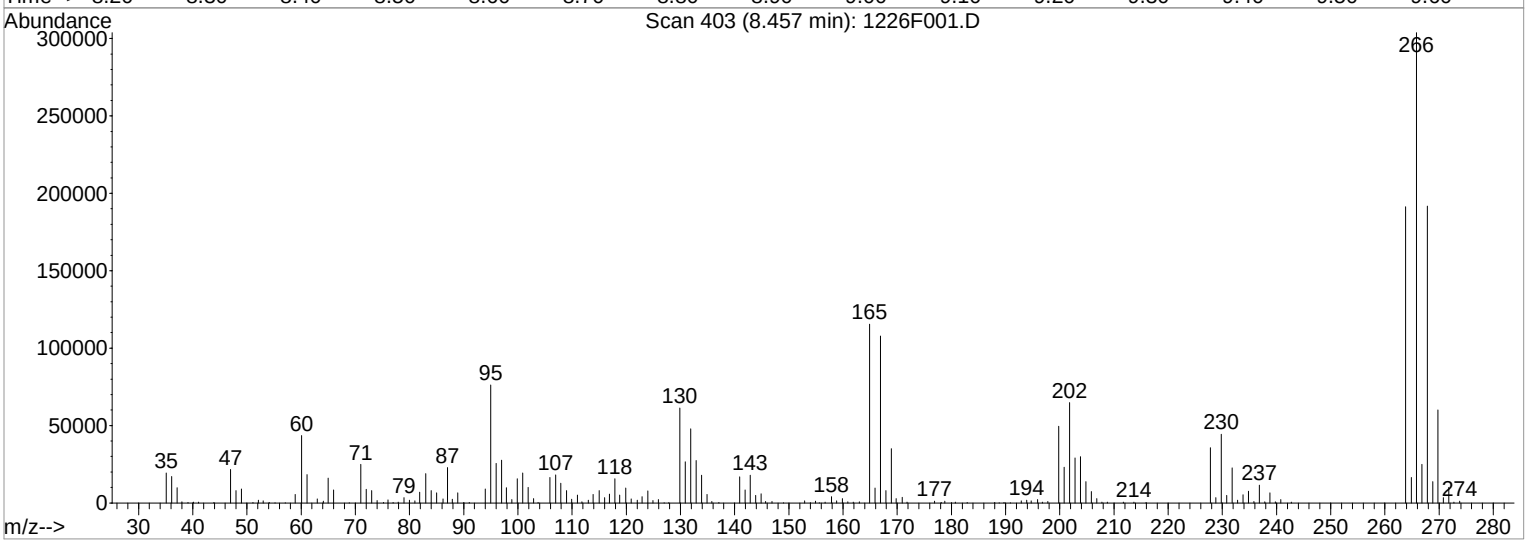
Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F001.D Vial: 1
Acq On : 26 Dec 2018 6:05 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-10C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 26 6:54 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Thu Sep 20 12:42:13 2018
Response via : Single Level Calibration





TIC: 1226F001.D

(1) Pentachlorophenol

8.46min 14.27ng/ml

response 328335

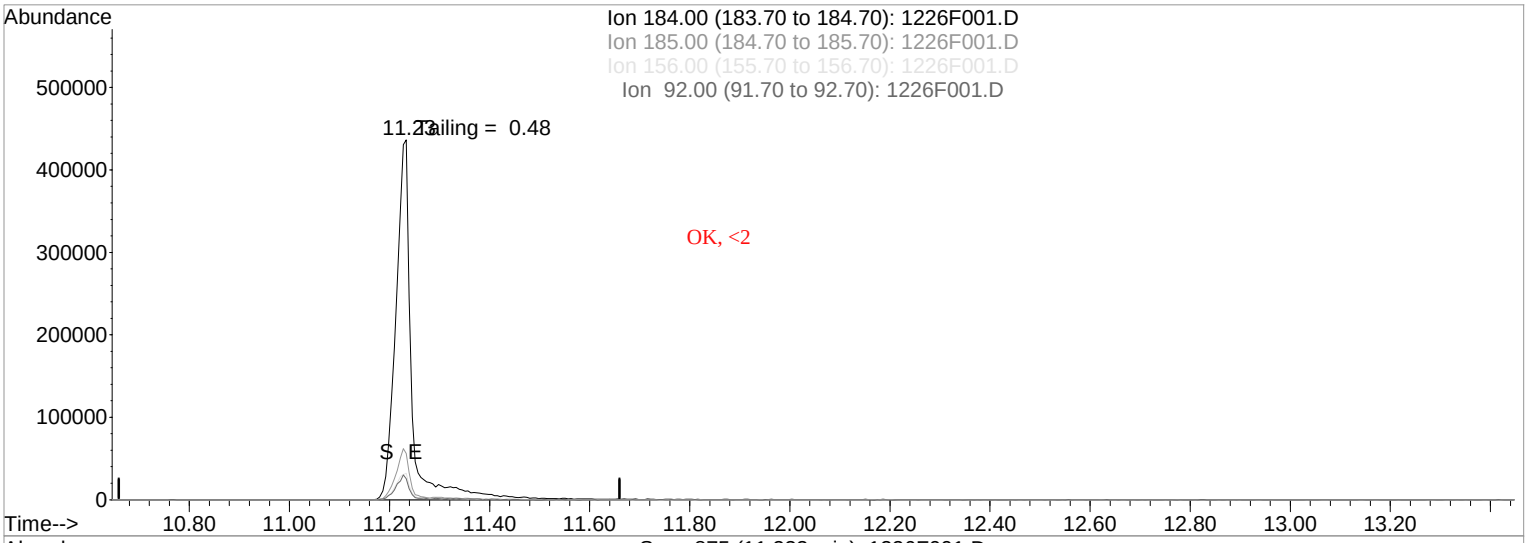
Ion	Exp%	Act%
266.00	100	100
264.00	62.30	62.95
268.00	72.30	63.08
165.00	42.00	37.99

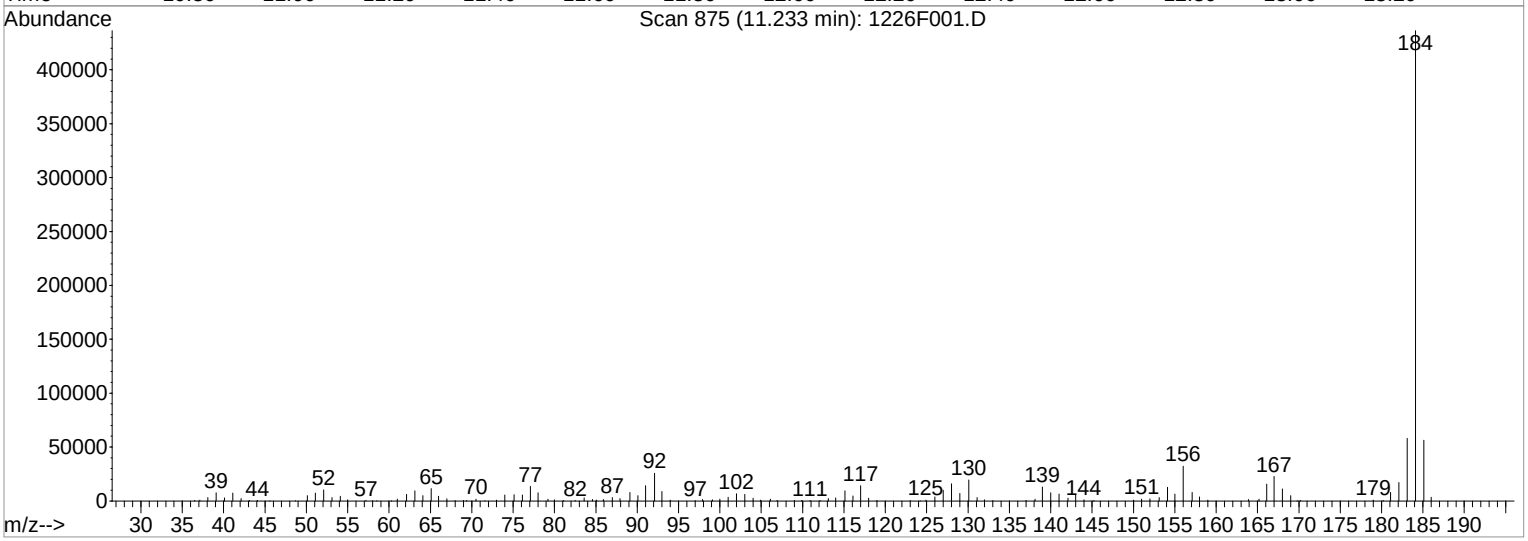
Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F001.D Vial: 1
Acq On : 26 Dec 2018 6:05 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-10C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 26 6:54 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Thu Sep 20 12:42:13 2018
Response via : Single Level Calibration





TIC: 1226F001.D

(3) Benzidine (T)

11.23min 15.43ug/ml

response 889431

Ion	Exp%	Act%
184.00	100	100
185.00	14.70	12.87
156.00	9.50	7.38
92.00	7.60	5.86

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F005.D Vial: 20
Acq On : 26 Dec 2018 7:49 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:47 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

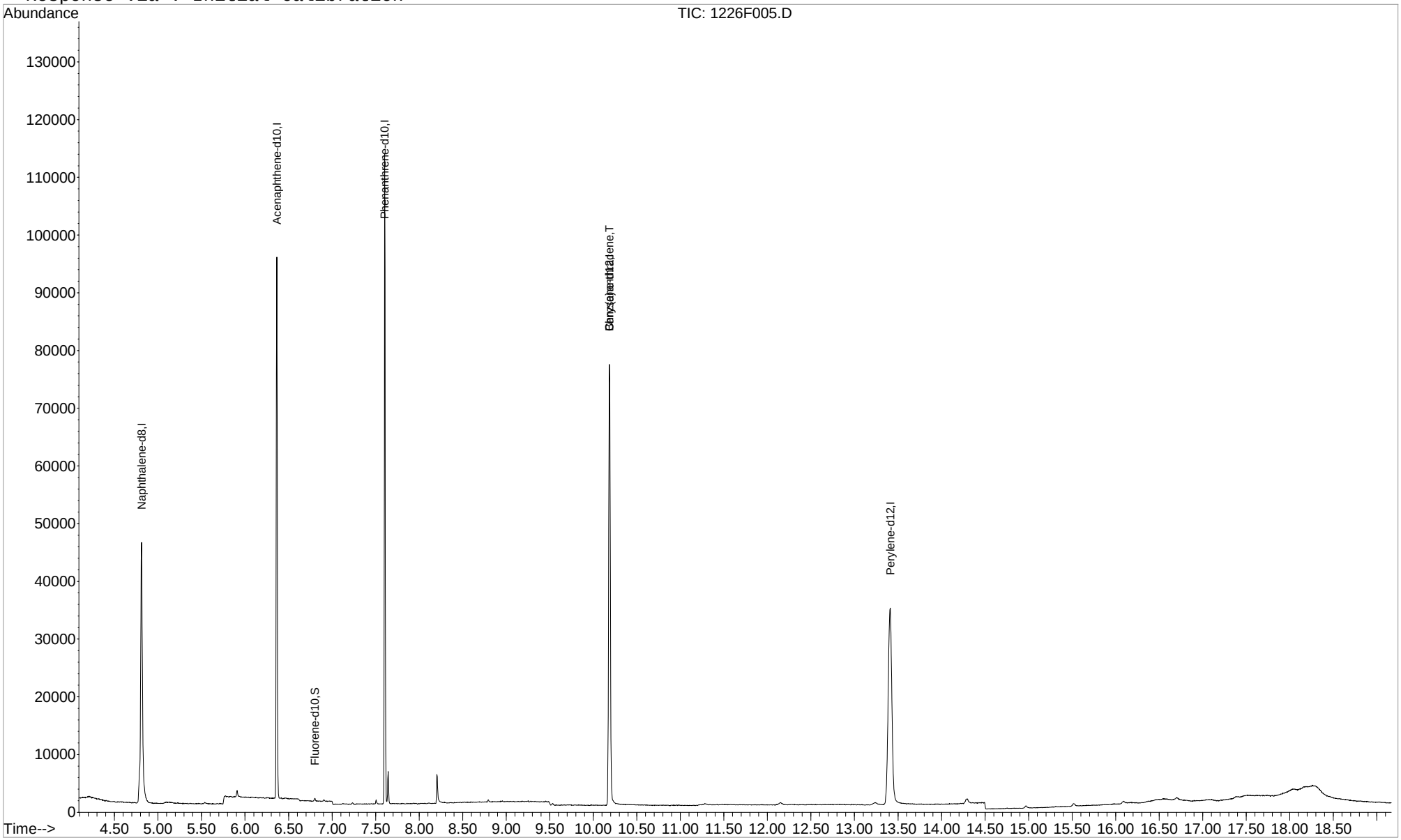
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)	
1) Naphthalene-d8	4.81	136	54203	200.00	ng/ml	0.00	
8) Acenaphthene-d10	6.37	164	26925	200.00	ng/ml	0.00	
15) Phenanthrene-d10	7.60	188	59493	200.00	ng/ml	0.00	
23) Chrysene-d12	10.19	240	60805	200.00	ng/ml	0.00	
28) Perylene-d12	13.41	264	65678	200.00	ng/ml	0.00	
System Monitoring Compounds							
3) 2-Methylnaphthalene-d10	0.00	152	0	0.00	ng/ml		
Spiked Amount 1000.000			Recovery =	0.00%			
13) Fluorene-d10	6.80	176	187	1.06	ng/ml	0.00	
Spiked Amount 1000.000			Recovery =	0.11%			
22) Fluoranthene-d10	0.00	212	0d	0.00	ng/ml		
Spiked Amount 1000.000			Recovery =	0.00%			
25) Terphenyl-d14	0.00	244	0d	0.00	ng/ml		
Spiked Amount 1000.000			Recovery =	0.00%			
Target Compounds						Qvalue	
26) Benz(a)anthracene	10.19	228	168	0.39	ng/ml#	36	< 1/2 MRL

(#) = qualifier out of range (m) = manual integration

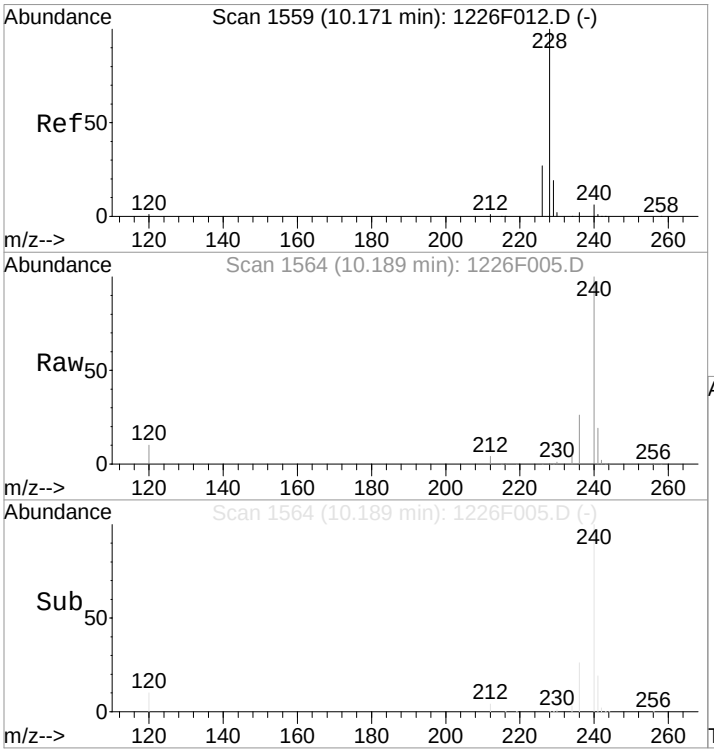
1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F005.D Vial: 20
Acq On : 26 Dec 2018 7:49 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:08 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 27 07:07:12 2018
Response via : Initial Calibration



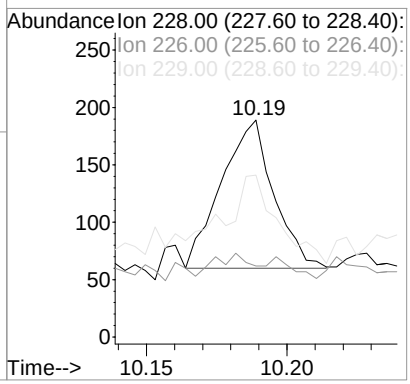
1st 12/27/18
2nd 01/02/19



#26
Benz(a)anthracene
Concen: 0.39 ng/ml
RT: 10.19 min Scan# 1564
Delta R.T. 0.01 min
Lab File: 1226F005.D
Acq: 26 Dec 2018 7:49 am

Tgt Ion:228 Resp: 168

Ion	Ratio	Lower	Upper
228	100		
226	3.1	0.0	56.1
229	59.7	0.0	39.2#



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:48 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	54693	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	27097	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	58181	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	59563	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	64363	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	376	2.49	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.25%		
13) Fluorene-d10	6.80	176	583	3.27	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.33%		
22) Fluoranthene-d10	8.59	212	693	1.87	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.19%		
25) Terphenyl-d14	8.95	244	867	3.31	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.33%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	691	2.21	ng/ml	96
4) 2-Methylnaphthalene	5.46	142	405m	2.12	ng/ml	
5) 1-Methylnaphthalene	5.55	142	439m	2.43	ng/ml	
6) Biphenyl	5.88	154	593	2.48	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	409	2.48	ng/ml	93
9) Acenaphthylene	6.24	152	735	2.16	ng/ml	99
10) Acenaphthene	6.39	154	416	2.18	ng/ml	100
11) Dibenzofuran	6.54	168	690	2.26	ng/ml	84
12) 2,3,5-Trimethylnaphthalene	6.71	170	397	2.25	ng/ml	89
14) Fluorene	6.82	166	572	2.46	ng/ml	96
16) Dibenzothiophene	7.52	184	819	2.21	ng/ml	99
17) Phenanthrene	7.62	178	782m	2.11	ng/ml	
18) Anthracene	7.67	178	718	1.98	ng/ml	96
19) Carbazole	7.80	167	699	2.02	ng/ml	96
20) 1-Methylphenanthrene	8.13	192	566	1.92	ng/ml	90
21) Fluoranthene	8.61	202	910	1.97	ng/ml	97
24) Pyrene	8.81	202	946	2.04	ng/ml	98
26) Benz(a)anthracene	10.17	228	1044	2.47	ng/ml	94
27) Chrysene	10.22	228	790	2.01	ng/ml	97
29) Benzo(b)fluoranthene	12.32	252	901	2.14	ng/ml	91
30) Benzo(k)fluoranthene	12.39	252	794	1.95	ng/ml	97
31) Benzo(e)pyrene	13.07	252	850	2.13	ng/ml	91
32) Benzo(a)pyrene	13.23	252	1147	2.86	ng/ml#	1
33) Perylene	13.49	252	814	2.16	ng/ml	96
34) Indeno(1,2,3-cd)pyrene	15.53	276	808	2.40	ng/ml#	52
35) Dibenz(a,h)anthracene	15.58	278	691	2.10	ng/ml	93
36) Benzo(g,h,i)perylene	15.93	276	949	2.36	ng/ml	88

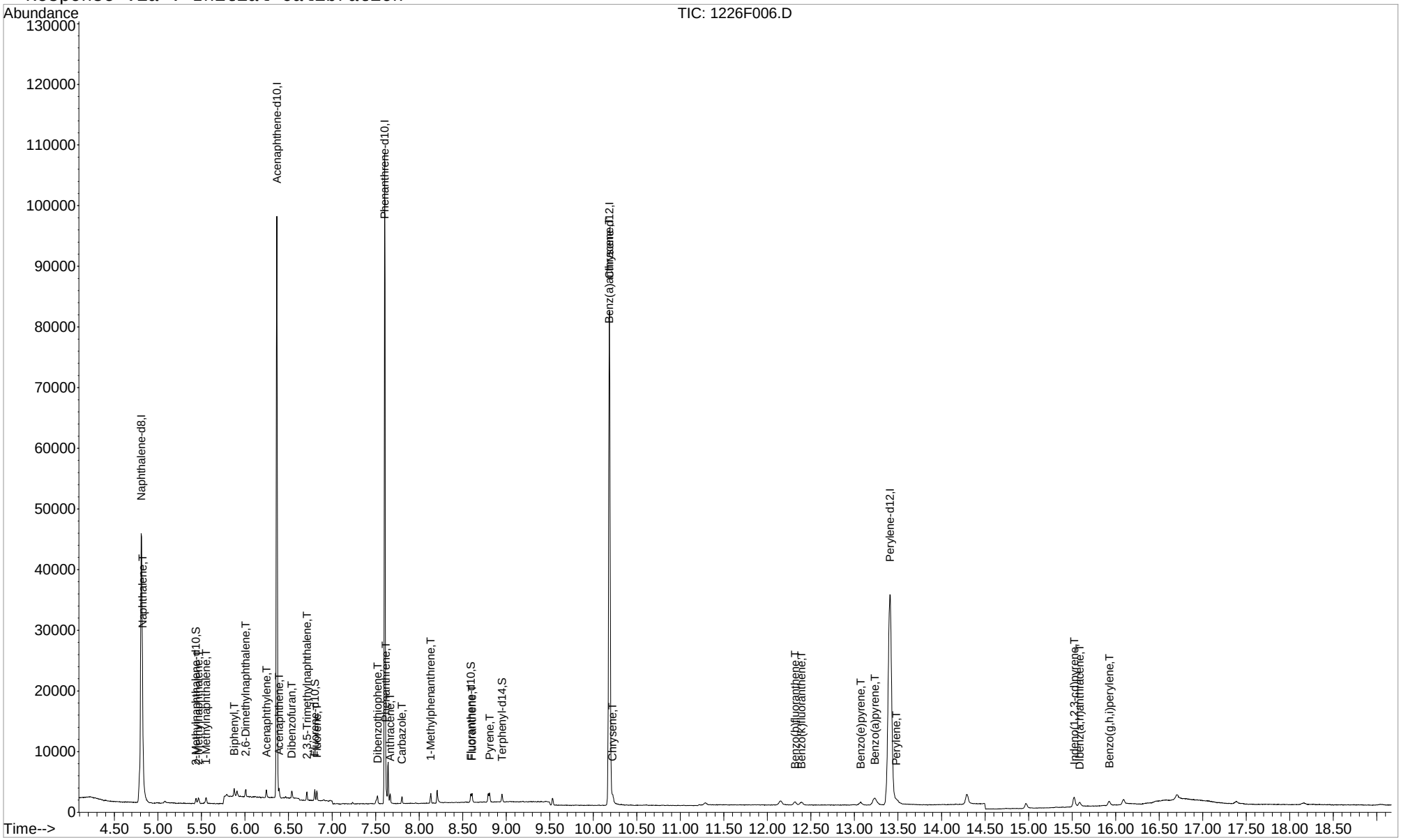
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:58 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration

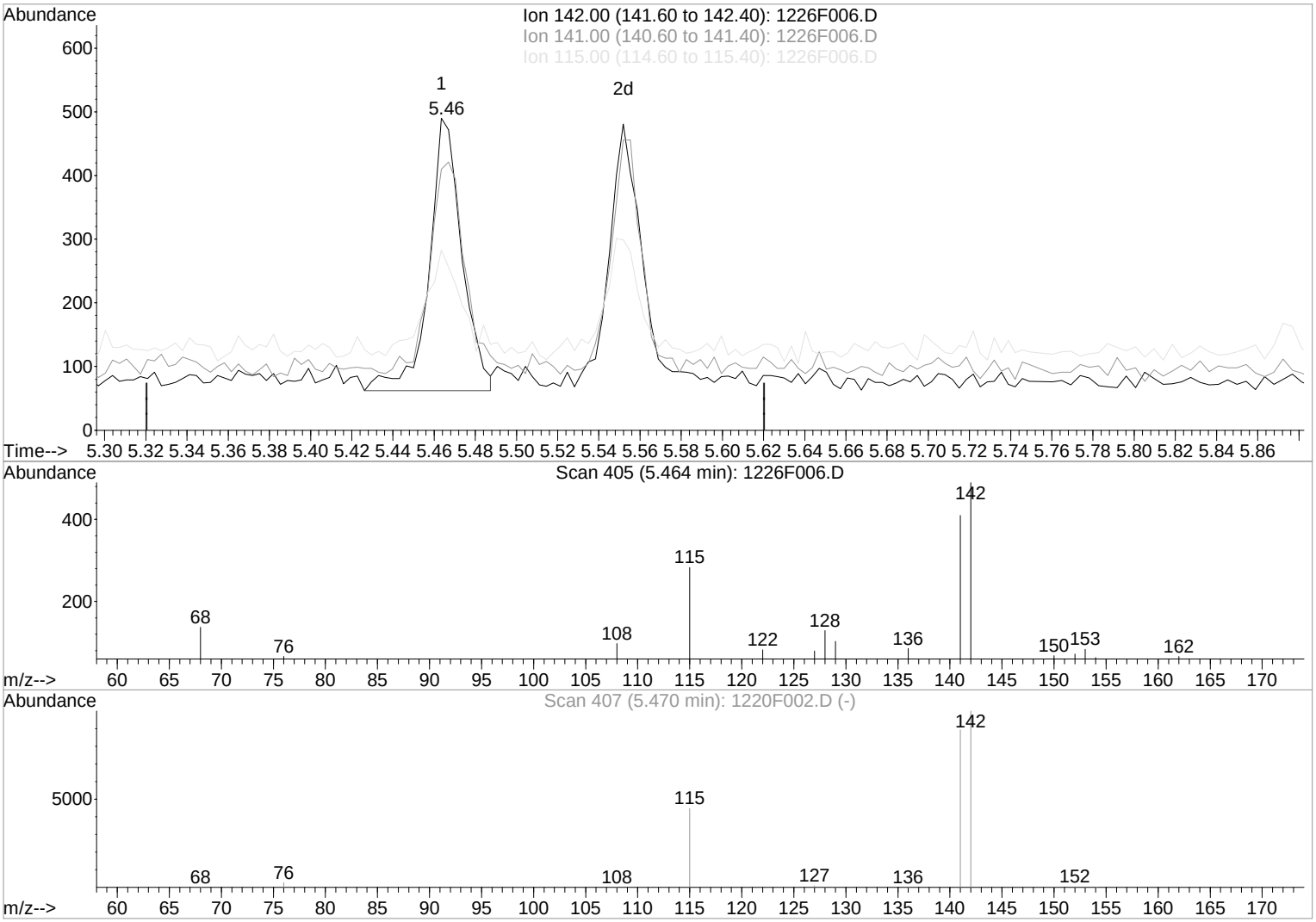


Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(4) 2-Methylnaphthalene (T)

5.46min 2.48ng/ml

response 474

Ion	Exp%	Act%
142.00	100	100
141.00	87.30	73.13
115.00	39.10	36.45
0.00	0.00	0.00

Manual Integration:

Before

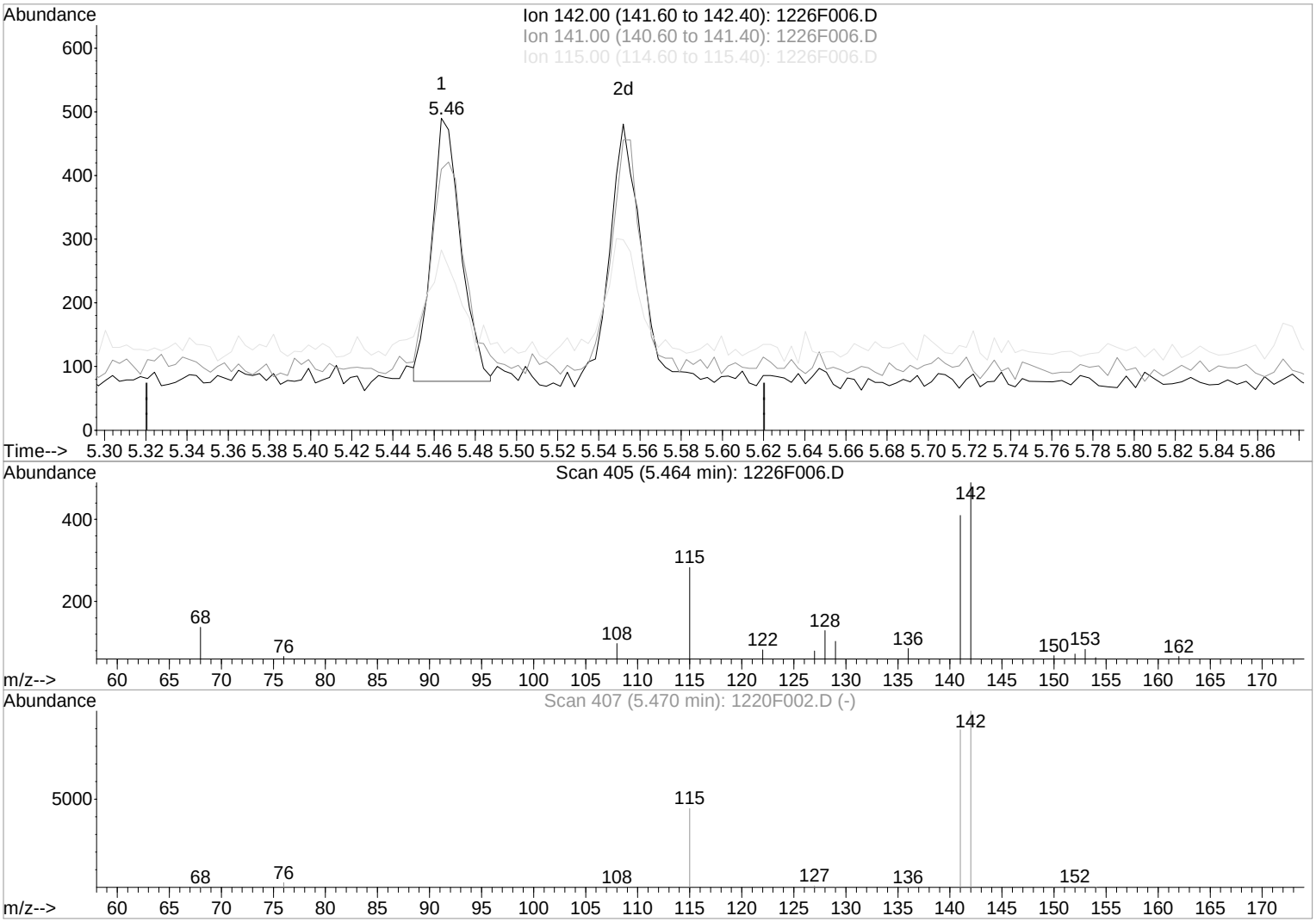
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:57 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(4) 2-Methylnaphthalene (T)

5.46min 2.12ng/ml m

response 405

Ion	Exp%	Act%
142.00	100	100
141.00	87.30	83.67
115.00	39.10	57.76
0.00	0.00	0.00

Manual Integration:

After

BLC

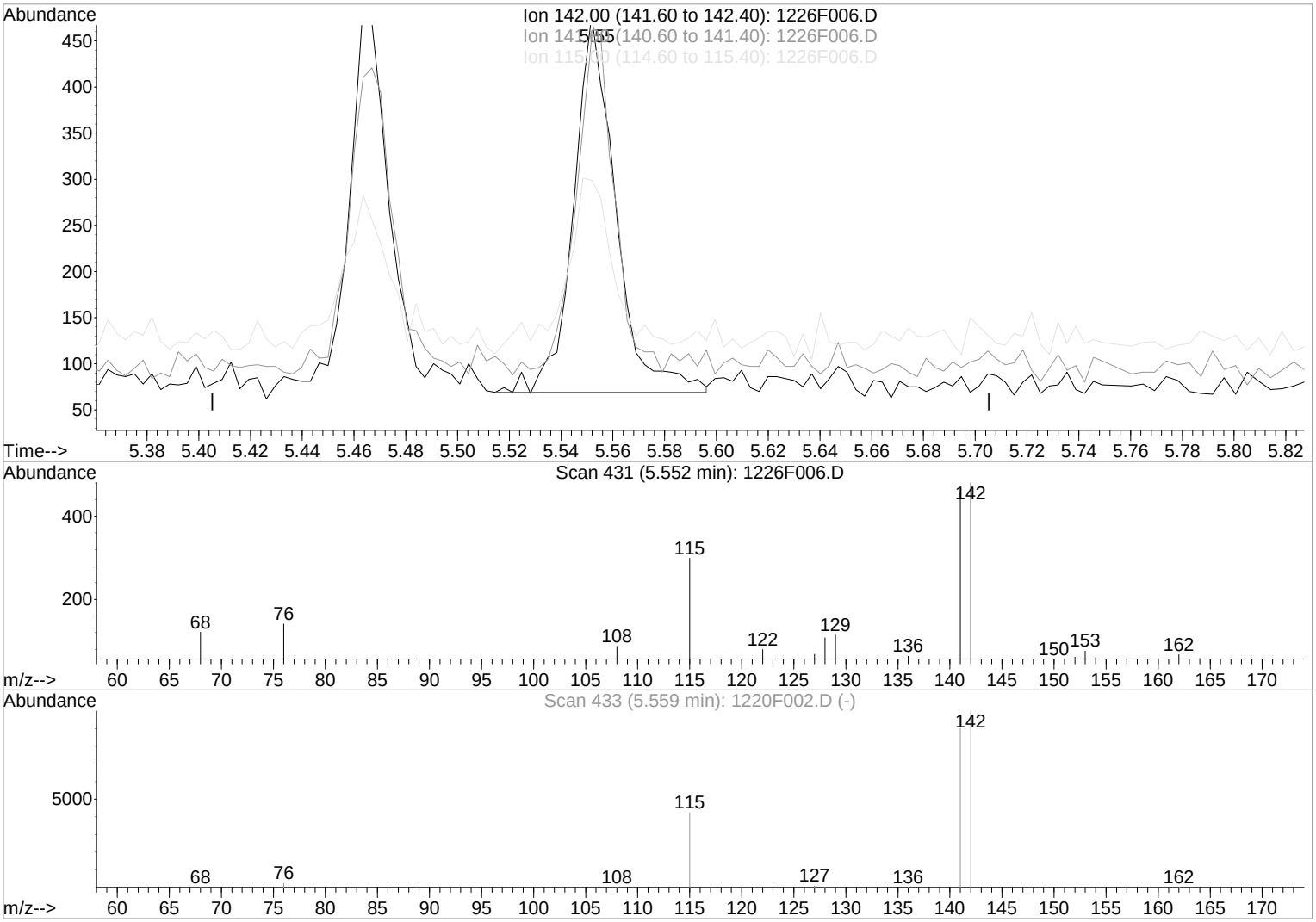
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:57 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(5) 1-Methylnaphthalene (T)

5.55min 2.55ng/ml

response 461

Ion	Exp%	Act%
142.00	100	100
141.00	91.90	84.47
115.00	42.60	45.63
0.00	0.00	0.00

Manual Integration:

Before

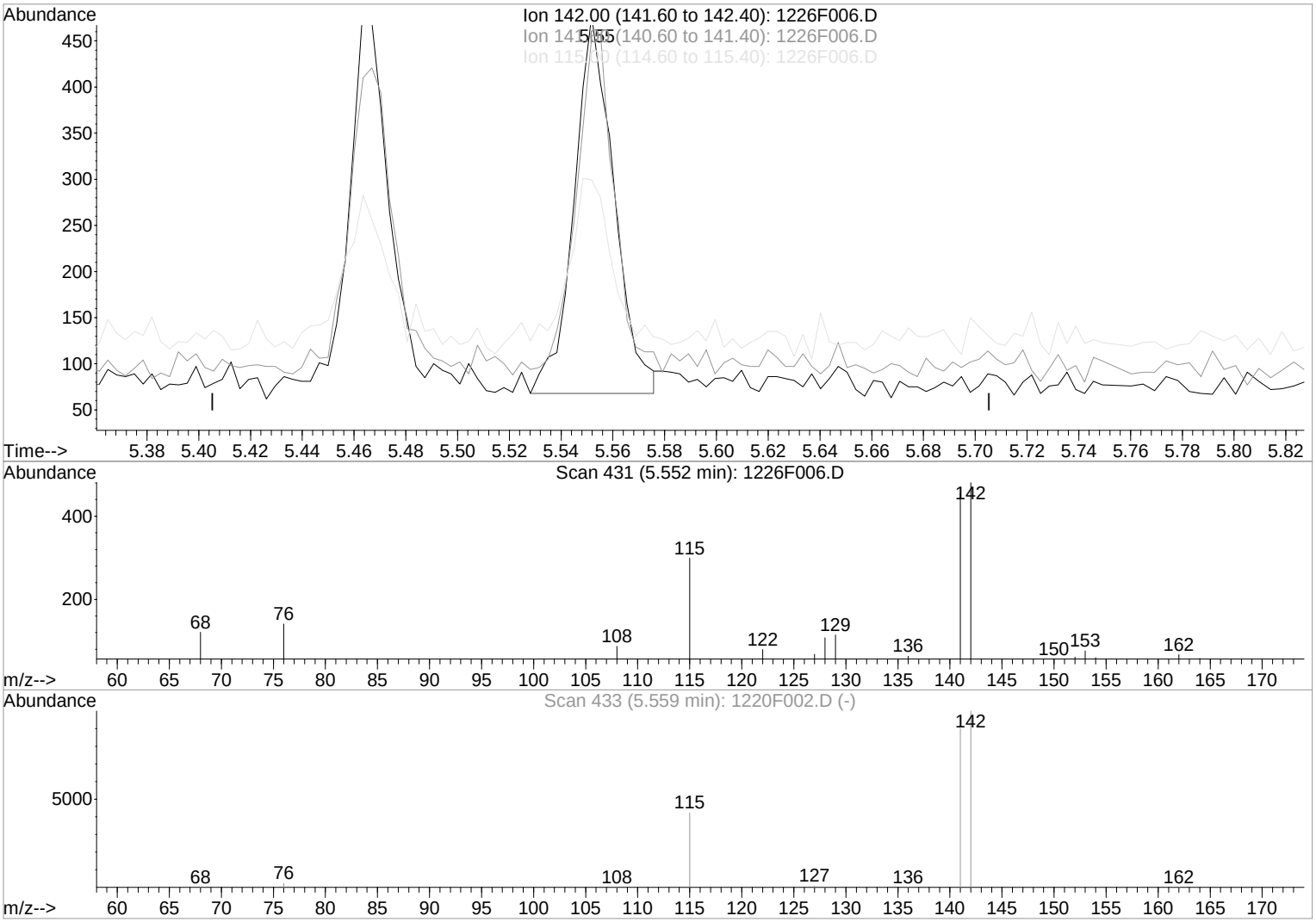
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:58 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(5) 1-Methylnaphthalene (T)

5.55min 2.43ng/ml m

response 439

Ion	Exp%	Act%
142.00	100	100
141.00	91.90	94.80
115.00	42.60	62.16
0.00	0.00	0.00

Manual Integration:

After

BLC

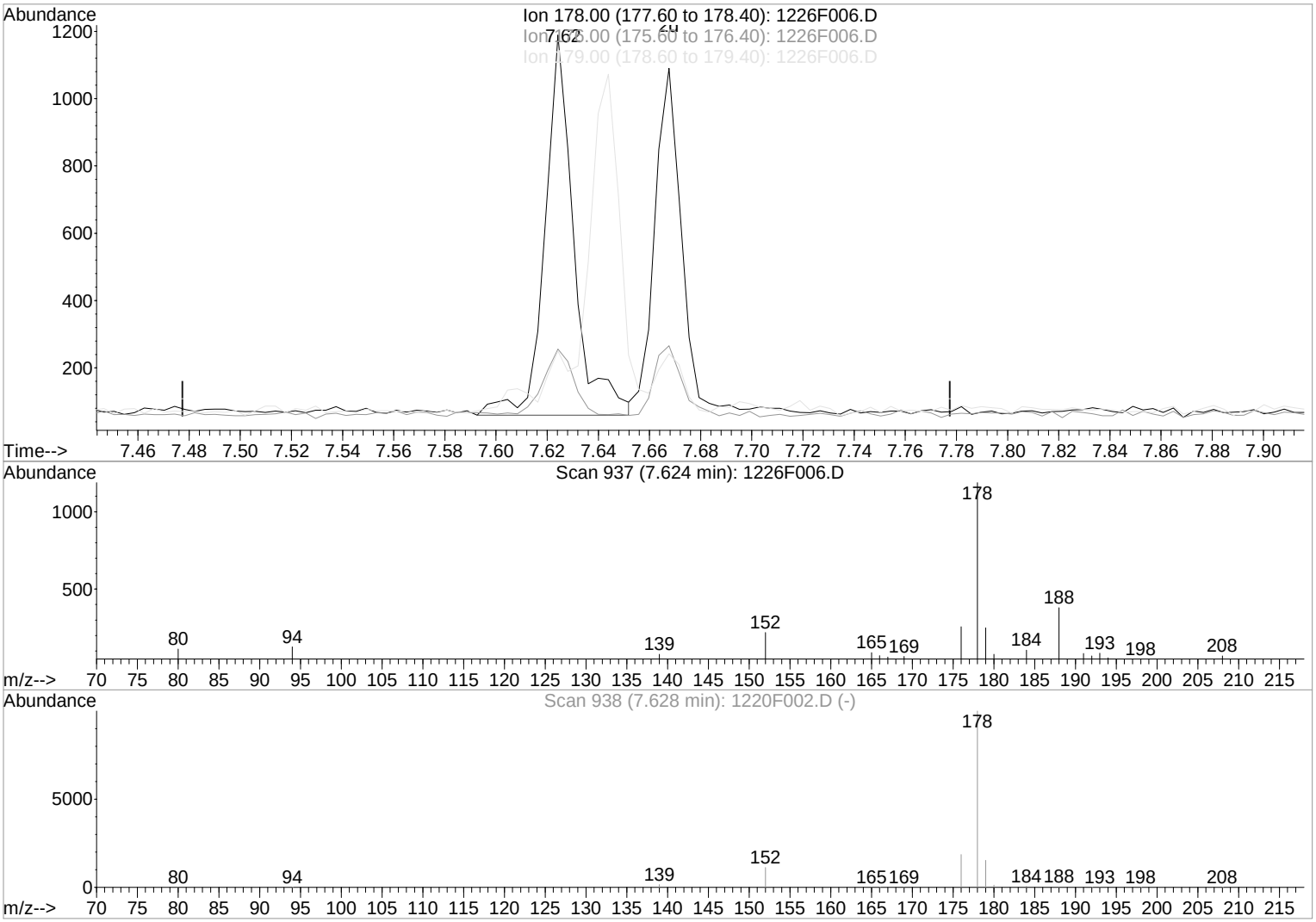
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:58 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(17) Phenanthrene (T)

7.62min 2.41ng/ml

response 890

Ion	Exp%	Act%
178.00	100	100
176.00	18.70	17.45
179.00	15.20	15.68
0.00	0.00	0.00

Manual Integration:

Before

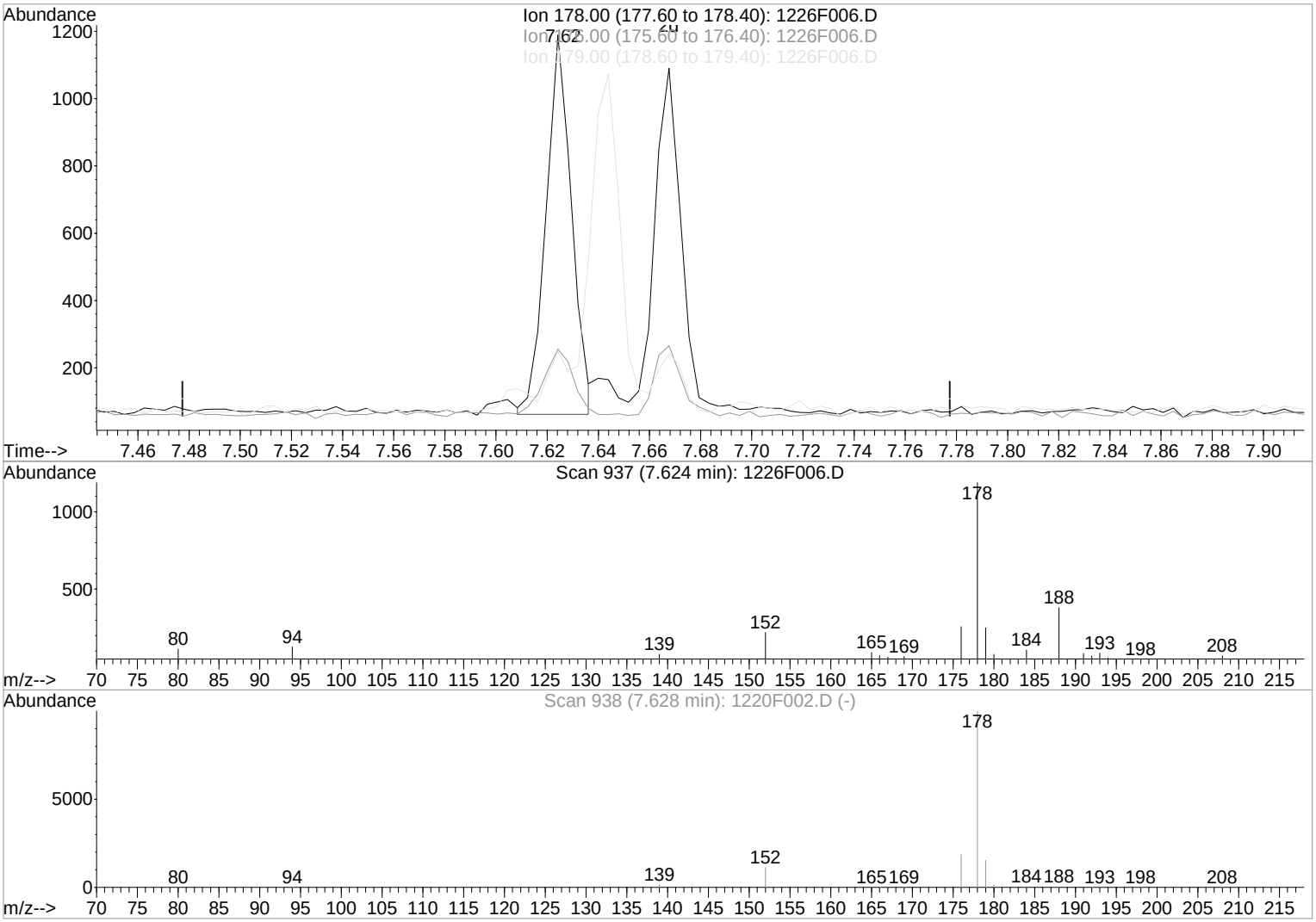
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:58 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(17) Phenanthrene (T)

7.62min 2.11ng/ml m

response 782

Ion	Exp%	Act%
178.00	100	100
176.00	18.70	21.53
179.00	15.20	21.03
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

12/27/18

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:48 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

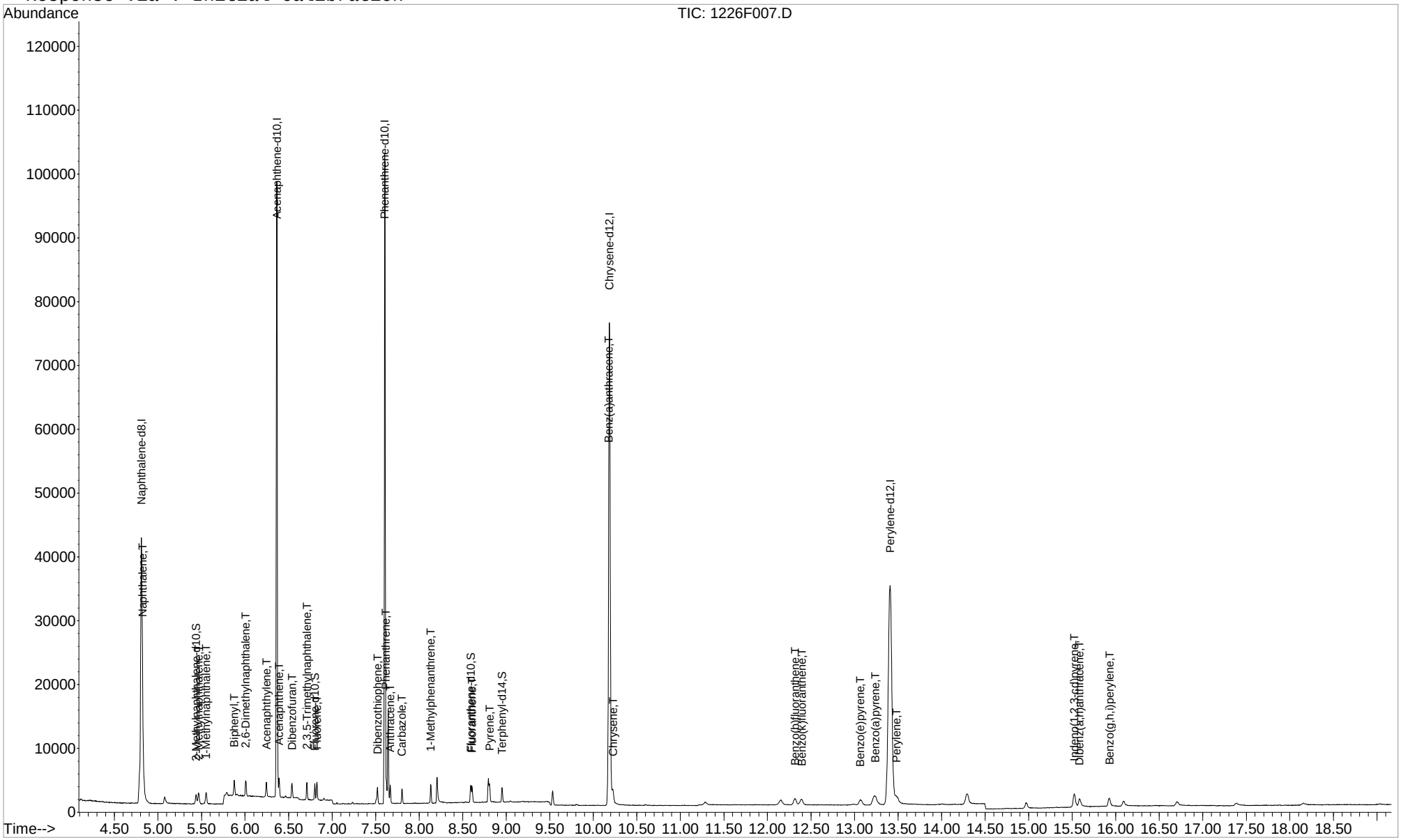
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	52196	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	26431	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.61	188	58714	200.00	ng/ml	0.00
23) Chrysene-d12	10.18	240	59892	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	64816	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	626	4.35	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.43%		
13) Fluorene-d10	6.80	176	872	5.02	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.50%		
22) Fluoranthene-d10	8.59	212	1335	3.57	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.36%		
25) Terphenyl-d14	8.95	244	1338	5.08	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.51%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	1173m	3.94	ng/ml	
4) 2-Methylnaphthalene	5.47	142	842	4.61	ng/ml	97
5) 1-Methylnaphthalene	5.55	142	768	4.45	ng/ml	89
6) Biphenyl	5.88	154	1038	4.54	ng/ml	96
7) 2,6-Dimethylnaphthalene	6.01	156	694	4.41	ng/ml	96
9) Acenaphthylene	6.24	152	1343	4.06	ng/ml	98
10) Acenaphthene	6.39	154	753	4.05	ng/ml	96
11) Dibenzofuran	6.54	168	1192	4.00	ng/ml	94
12) 2,3,5-Trimethylnaphthalene	6.71	170	712	4.14	ng/ml	89
14) Fluorene	6.82	166	985	4.34	ng/ml	96
16) Dibenzothiophene	7.52	184	1507	4.03	ng/ml	96
17) Phenanthrene	7.62	178	1550m	4.15	ng/ml	
18) Anthracene	7.67	178	1427	3.90	ng/ml	97
19) Carbazole	7.80	167	1301	3.73	ng/ml	95
20) 1-Methylphenanthrene	8.14	192	1092	3.67	ng/ml	99
21) Fluoranthene	8.61	202	1687	3.62	ng/ml	94
24) Pyrene	8.81	202	1889	4.05	ng/ml	94
26) Benz(a)anthracene	10.17	228	1762	4.15	ng/ml	98
27) Chrysene	10.22	228	1524	3.85	ng/ml	94
29) Benzo(b)fluoranthene	12.32	252	1679	3.96	ng/ml	99
30) Benzo(k)fluoranthene	12.39	252	1616m	3.94	ng/ml	
31) Benzo(e)pyrene	13.07	252	1644	4.08	ng/ml	94
32) Benzo(a)pyrene	13.23	252	1918	4.75	ng/ml#	12
33) Perylene	13.48	252	1443	3.81	ng/ml	96
34) Indeno(1,2,3-cd)pyrene	15.53	276	1475	4.35	ng/ml#	70
35) Dibenz(a,h)anthracene	15.58	278	1339	4.05	ng/ml	95
36) Benzo(g,h,i)perylene	15.92	276	1762	4.34	ng/ml	97

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration

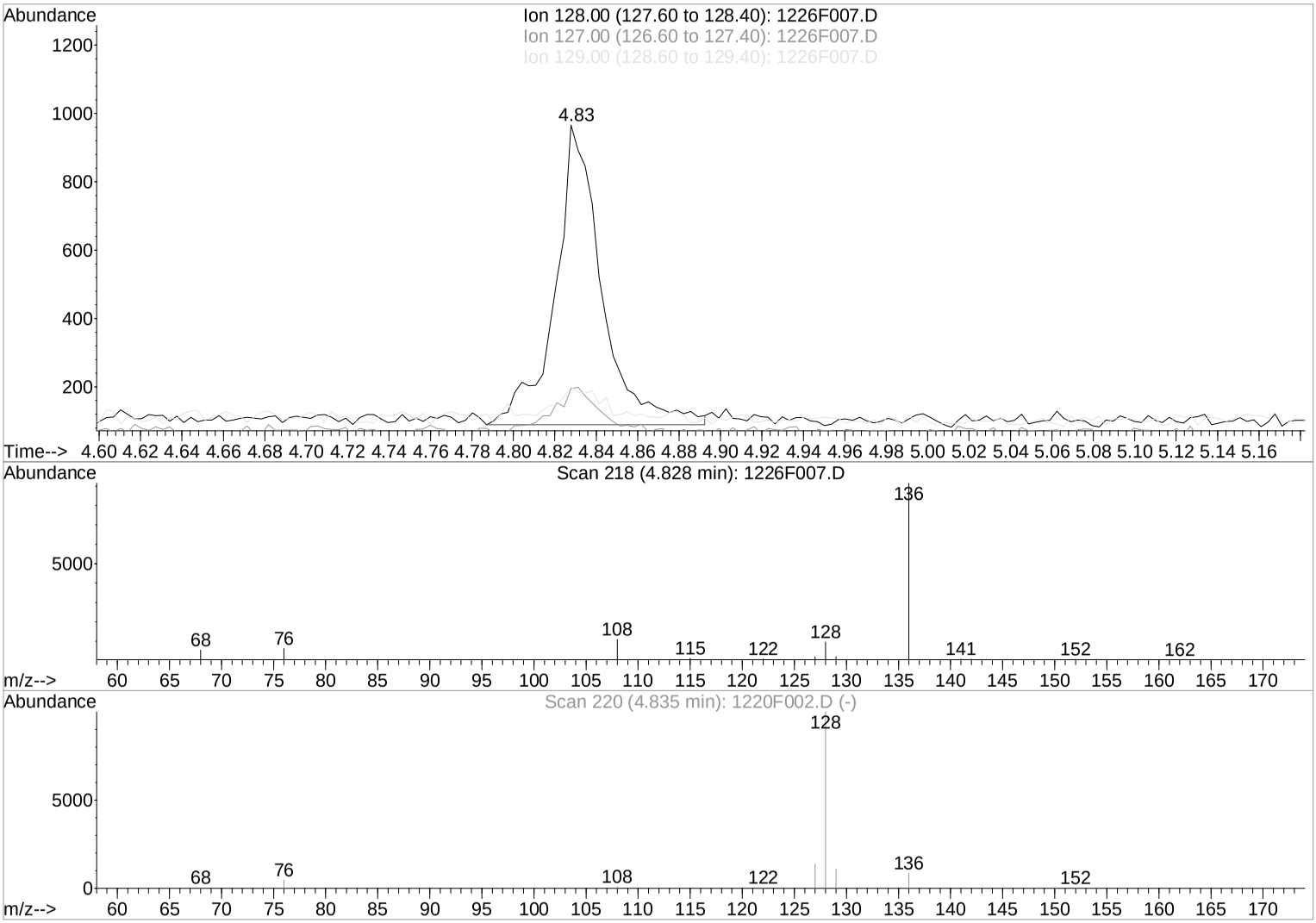


Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(2) Naphthalene (T)

4.83min 4.61ng/ml

response 1374

Ion	Exp%	Act%
128.00	100	100
127.00	13.70	13.91
129.00	10.90	10.38
0.00	0.00	0.00

Manual Integration:

Before

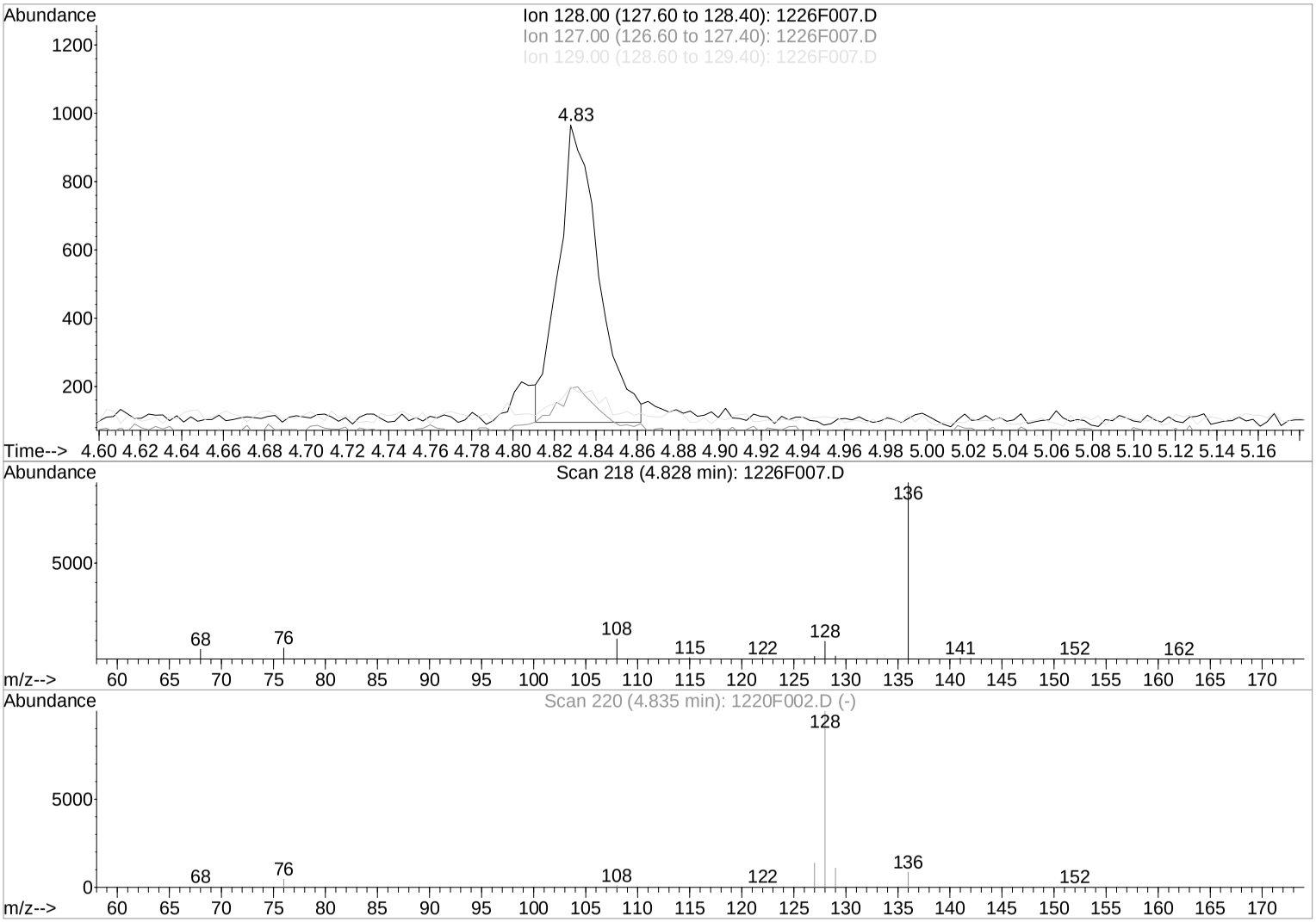
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(2) Naphthalene (T)

4.83min 3.94ng/ml m

response 1173

Ion	Exp%	Act%
128.00	100	100
127.00	13.70	20.19
129.00	10.90	20.70
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

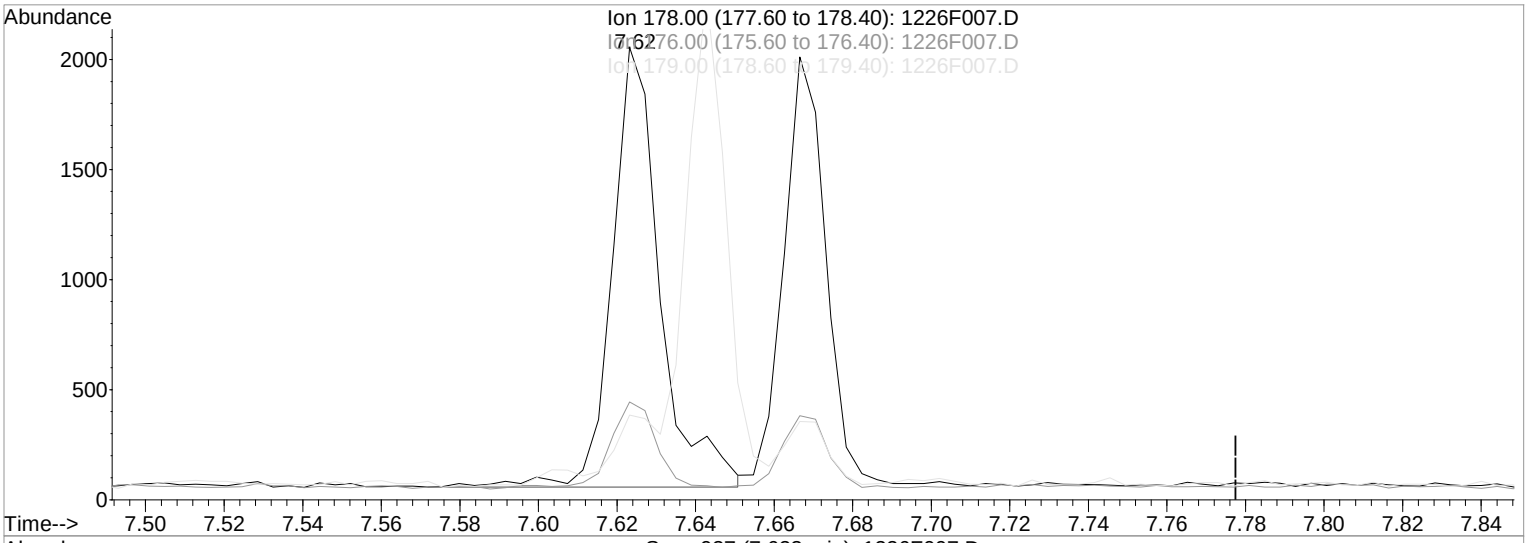
12/27/18

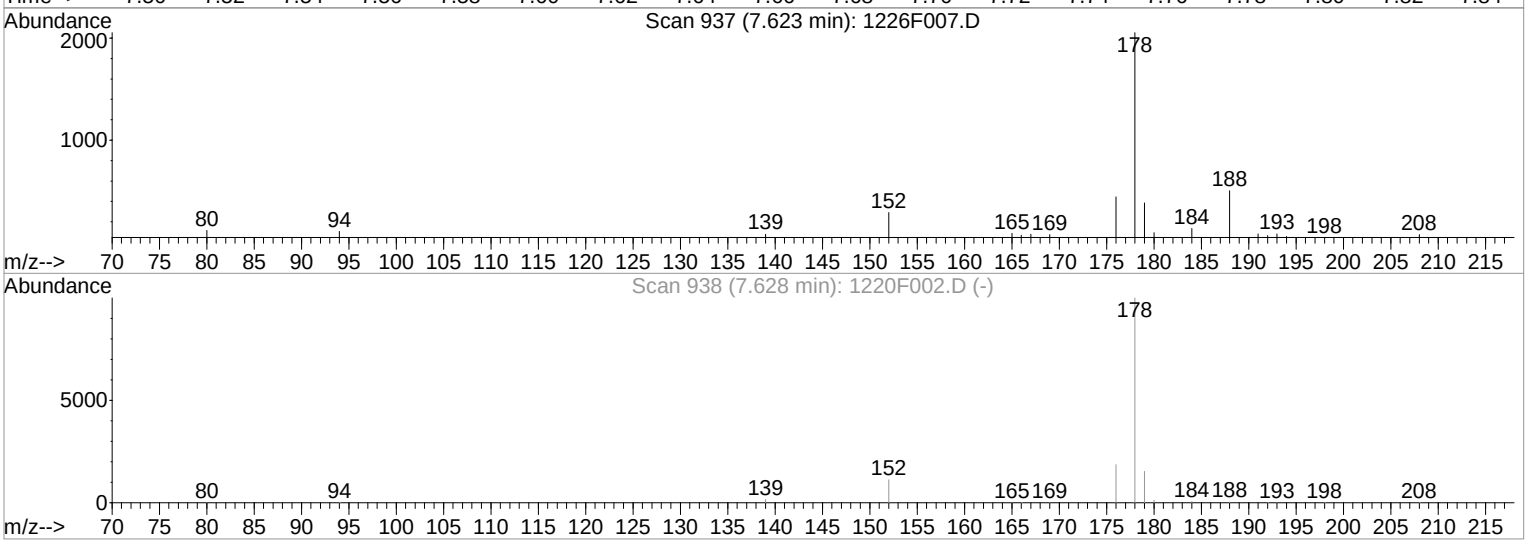
Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration





TIC: 1226F007.D

(17) Phenanthrene (T)

7.62min 4.53ng/ml

response 1692

Ion	Exp%	Act%
178.00	100	100
176.00	18.70	19.33
179.00	15.20	15.07
0.00	0.00	0.00

Manual Integration:

Before

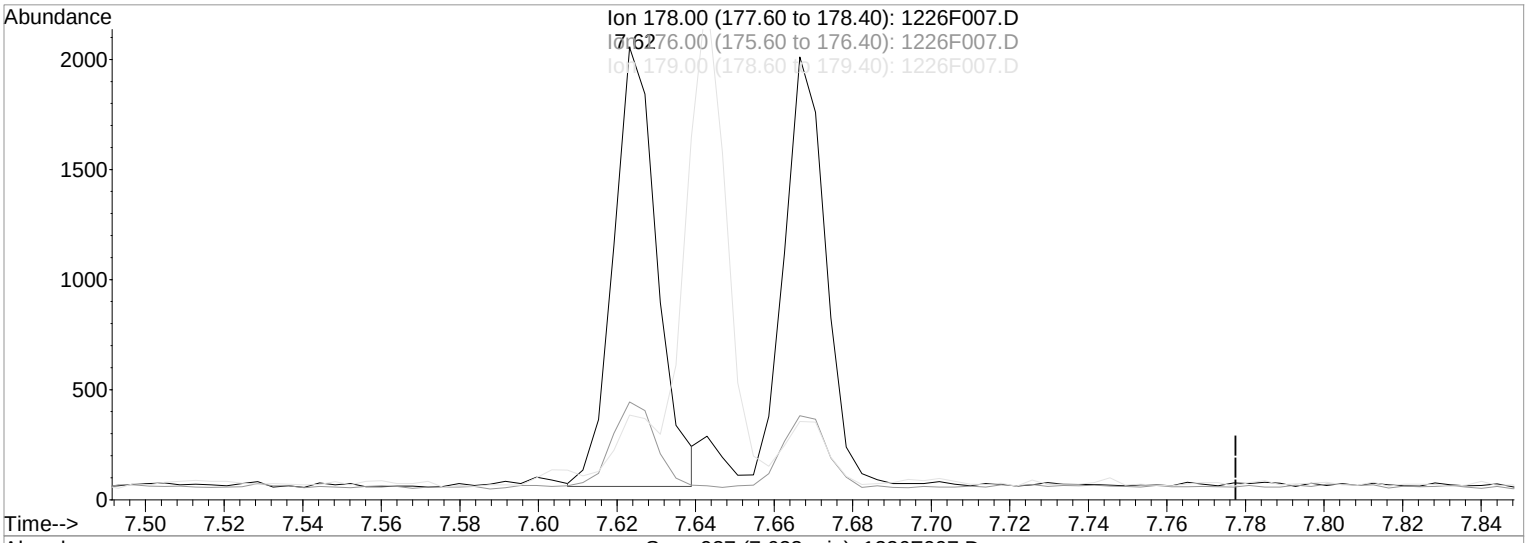
12/27/18

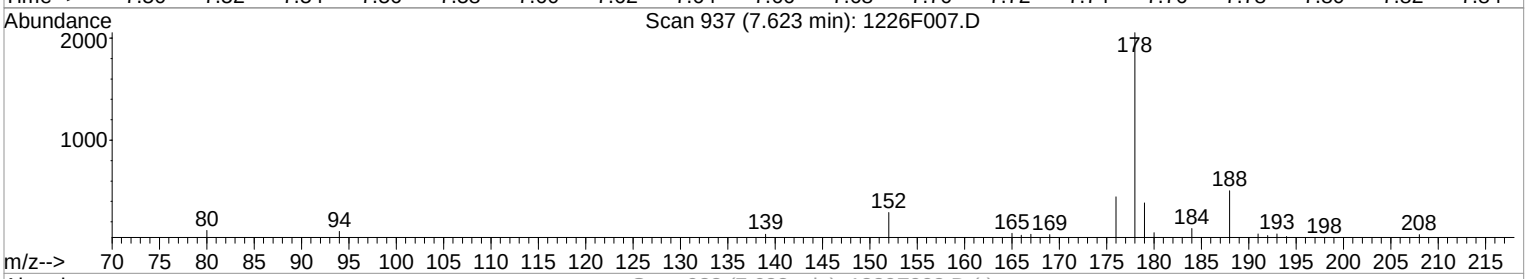
Quantitation Report (Qedit)

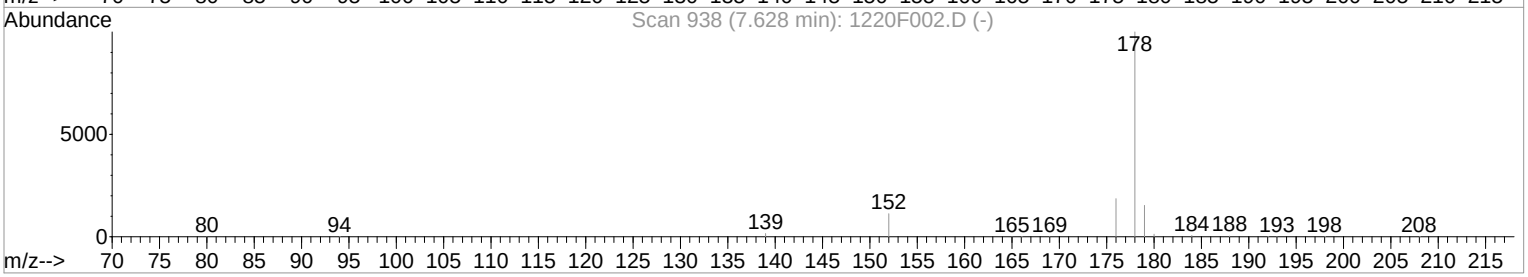
1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration







TIC: 1226F007.D

(17) Phenanthrene (T)

7.62min 4.15ng/ml m

response 1550

Ion	Exp%	Act%
178.00	100	100
176.00	18.70	21.61
179.00	15.20	18.69
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

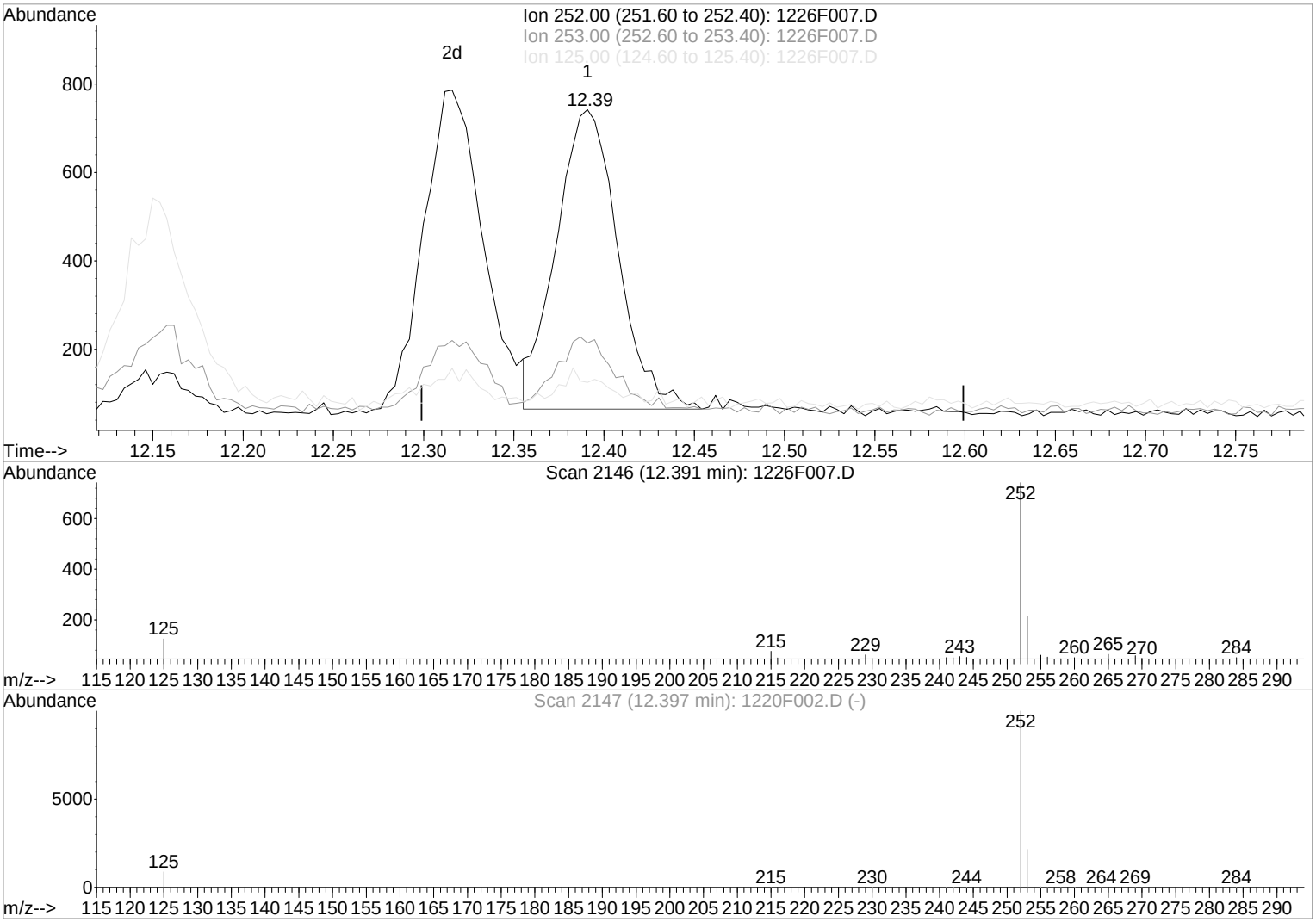
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(30) Benzo(k)fluoranthene (T)

12.39min 3.91ng/ml

response 1607

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.01
125.00	9.00	6.35
0.00	0.00	0.00

Manual Integration:

Before

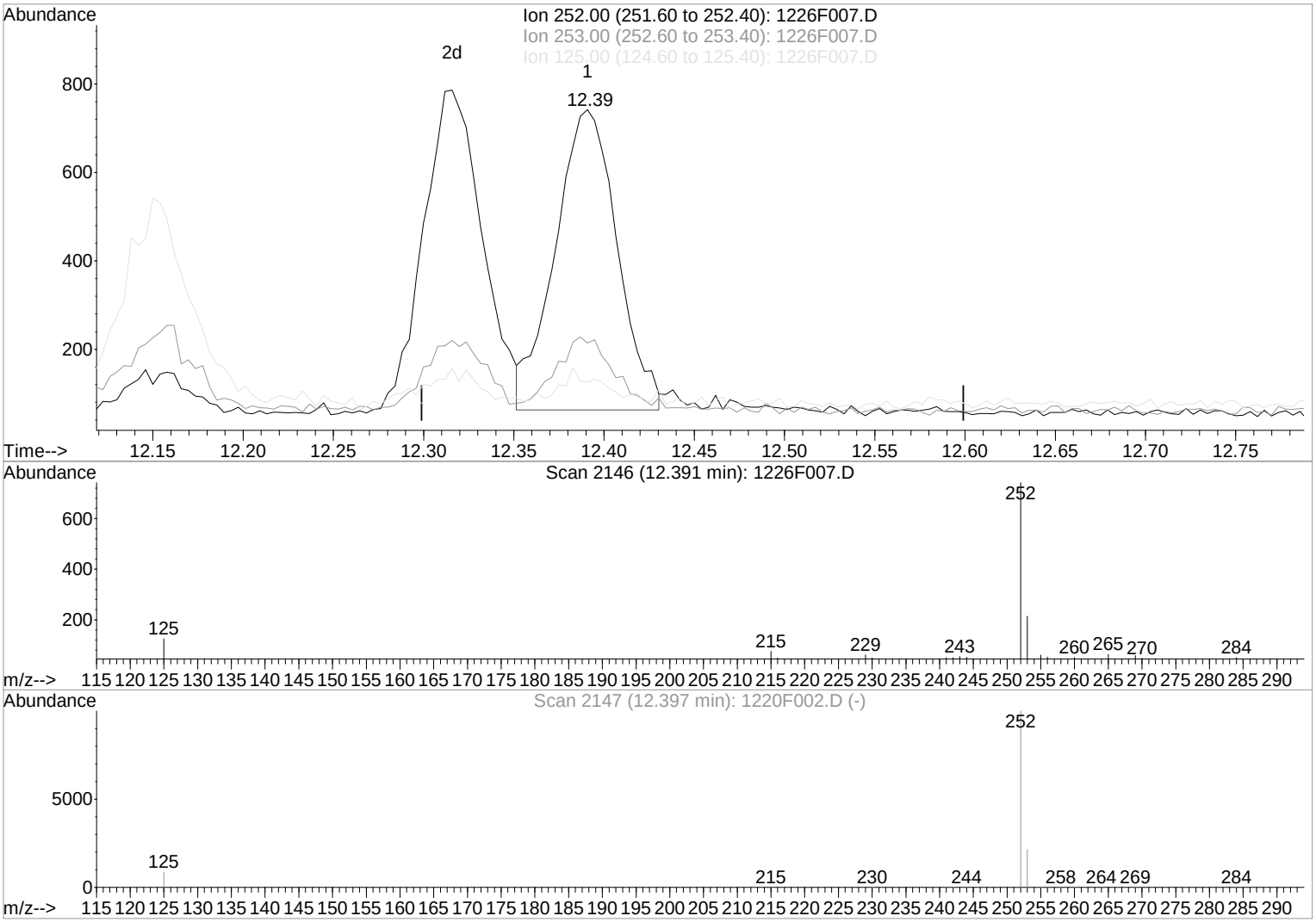
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(30) Benzo(k)fluoranthene (T)

12.39min 3.94ng/ml m

response 1616

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	28.84
125.00	9.00	16.85
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

12/27/18

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F008.D Vial: 7
Acq On : 26 Dec 2018 9:07 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008ug/mL | SVM59-4C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:49 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

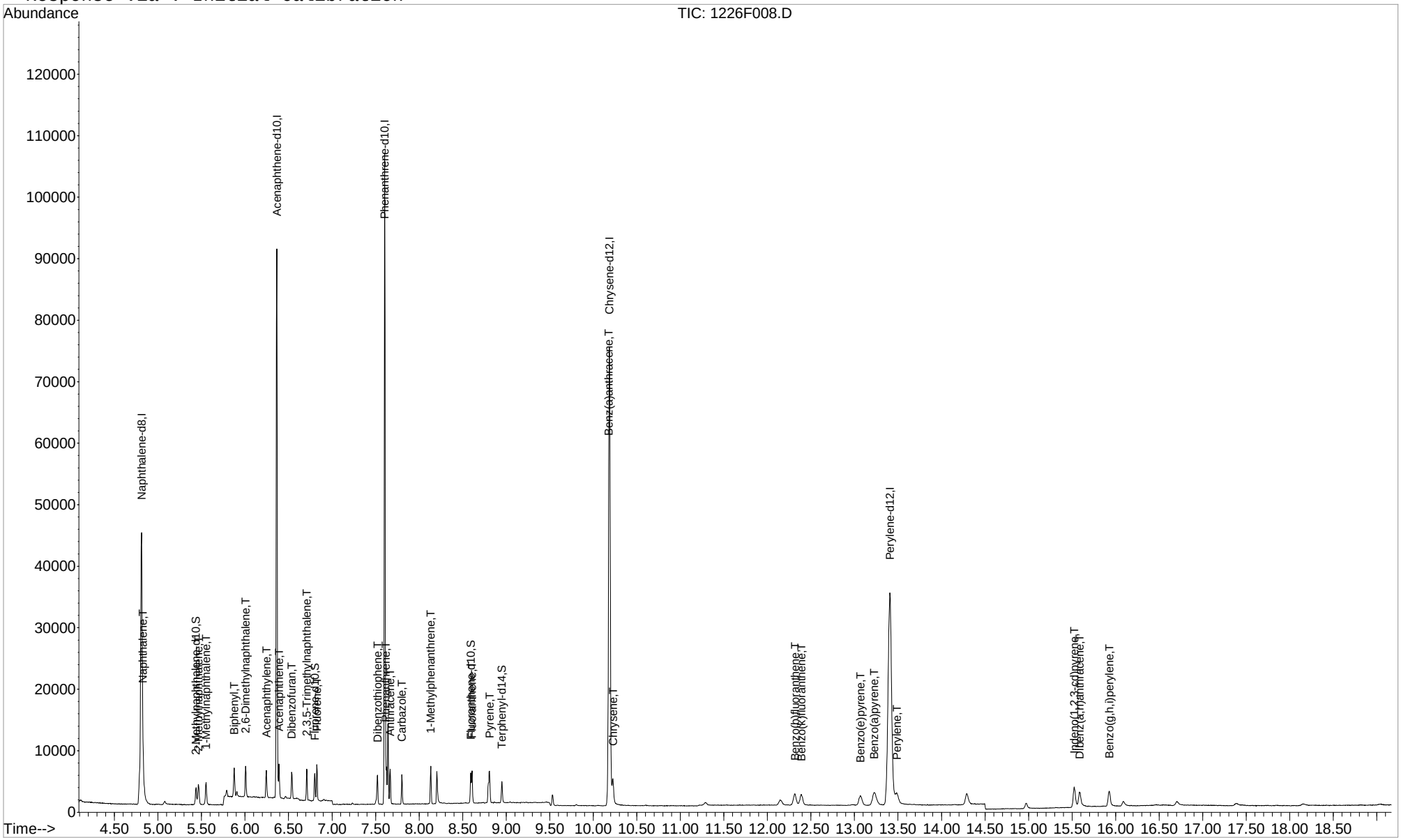
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	51817	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	25763	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	57163	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	59253	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	63871	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	1225	8.57	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.86%		
13) Fluorene-d10	6.80	176	1531	9.04	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.90%		
22) Fluoranthene-d10	8.59	212	2584	7.10	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.71%		
25) Terphenyl-d14	8.95	244	2317	8.90	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.89%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	2453	8.30	ng/ml	94
4) 2-Methylnaphthalene	5.47	142	1556	8.58	ng/ml	97
5) 1-Methylnaphthalene	5.55	142	1472	8.58	ng/ml	94
6) Biphenyl	5.88	154	1988	8.76	ng/ml	97
7) 2,6-Dimethylnaphthalene	6.01	156	1398	8.95	ng/ml	90
9) Acenaphthylene	6.24	152	2484	7.70	ng/ml	97
10) Acenaphthene	6.39	154	1435	7.93	ng/ml	96
11) Dibenzofuran	6.54	168	2371	8.16	ng/ml	86
12) 2,3,5-Trimethylnaphthalene	6.71	170	1346	8.03	ng/ml	94
14) Fluorene	6.82	166	1903	8.60	ng/ml	97
16) Dibenzothiophene	7.52	184	2900	7.96	ng/ml	96
17) Phenanthrene	7.62	178	3109	8.55	ng/ml	99
18) Anthracene	7.67	178	2819	7.91	ng/ml	99
19) Carbazole	7.80	167	2427	7.15	ng/ml	97
20) 1-Methylphenanthrene	8.13	192	2099	7.25	ng/ml	96
21) Fluoranthene	8.61	202	3294	7.27	ng/ml	98
24) Pyrene	8.81	202	3700	8.03	ng/ml	97
26) Benz(a)anthracene	10.17	228	3351	7.97	ng/ml	96
27) Chrysene	10.22	228	3010	7.68	ng/ml	99
29) Benzo(b)fluoranthene	12.32	252	3252	7.78	ng/ml	97
30) Benzo(k)fluoranthene	12.39	252	2983	7.37	ng/ml	96
31) Benzo(e)pyrene	13.07	252	3133	7.90	ng/ml	98
32) Benzo(a)pyrene	13.22	252	3364	8.46	ng/ml#	51
33) Perylene	13.49	252	3027	8.11	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.52	276	2907	8.69	ng/ml	83
35) Dibenz(a,h)anthracene	15.59	278	2542	7.80	ng/ml	97
36) Benzo(g,h,i)perylene	15.93	276	3424	8.57	ng/ml	98

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F008.D Vial: 7
Acq On : 26 Dec 2018 9:07 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008ug/mL | SVM59-4C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:49 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	51004	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	25448	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	55640	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	57575	200.00	ng/ml	0.00
28) Perylene-d12	13.40	264	61399	200.00	ng/ml	-0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	2904	20.64	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	2.06%		
13) Fluorene-d10	6.80	176	3478	20.80	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	2.08%		
22) Fluoranthene-d10	8.59	212	6256	17.66	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	1.77%		
25) Terphenyl-d14	8.95	244	5039	19.91	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	1.99%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	5944	20.43	ng/ml	98
4) 2-Methylnaphthalene	5.47	142	3784	21.21	ng/ml	97
5) 1-Methylnaphthalene	5.55	142	3614	21.41	ng/ml	96
6) Biphenyl	5.88	154	4702	21.05	ng/ml	95
7) 2,6-Dimethylnaphthalene	6.01	156	3363	21.87	ng/ml	96
9) Acenaphthylene	6.24	152	6146	19.28	ng/ml	97
10) Acenaphthene	6.39	154	3546	19.83	ng/ml	99
11) Dibenzofuran	6.54	168	5644	19.65	ng/ml	89
12) 2,3,5-Trimethylnaphthalene	6.71	170	3325	20.09	ng/ml	97
14) Fluorene	6.82	166	4564	20.88	ng/ml	96
16) Dibenzothiophene	7.52	184	6983	19.70	ng/ml	97
17) Phenanthrene	7.62	178	7015	19.83	ng/ml	99
18) Anthracene	7.67	178	6618	19.09	ng/ml	99
19) Carbazole	7.80	167	5887	17.82	ng/ml	98
20) 1-Methylphenanthrene	8.13	192	5058	17.95	ng/ml	99
21) Fluoranthene	8.61	202	7949	18.02	ng/ml	99
24) Pyrene	8.81	202	8446	18.86	ng/ml	98
26) Benz(a)anthracene	10.17	228	7867	19.26	ng/ml	99
27) Chrysene	10.22	228	7474	19.63	ng/ml	98
29) Benzo(b)fluoranthene	12.32	252	8010	19.94	ng/ml	98
30) Benzo(k)fluoranthene	12.39	252	7737m	19.90	ng/ml	
31) Benzo(e)pyrene	13.07	252	7584	19.89	ng/ml	99
32) Benzo(a)pyrene	13.22	252	7674	20.08	ng/ml	81
33) Perylene	13.49	252	6855	19.11	ng/ml	99
34) Indeno(1,2,3-cd)pyrene	15.53	276	7152	22.25	ng/ml	95
35) Dibenz(a,h)anthracene	15.59	278	6875m	21.93	ng/ml	
36) Benzo(g,h,i)perylene	15.93	276	8516	22.17	ng/ml	97

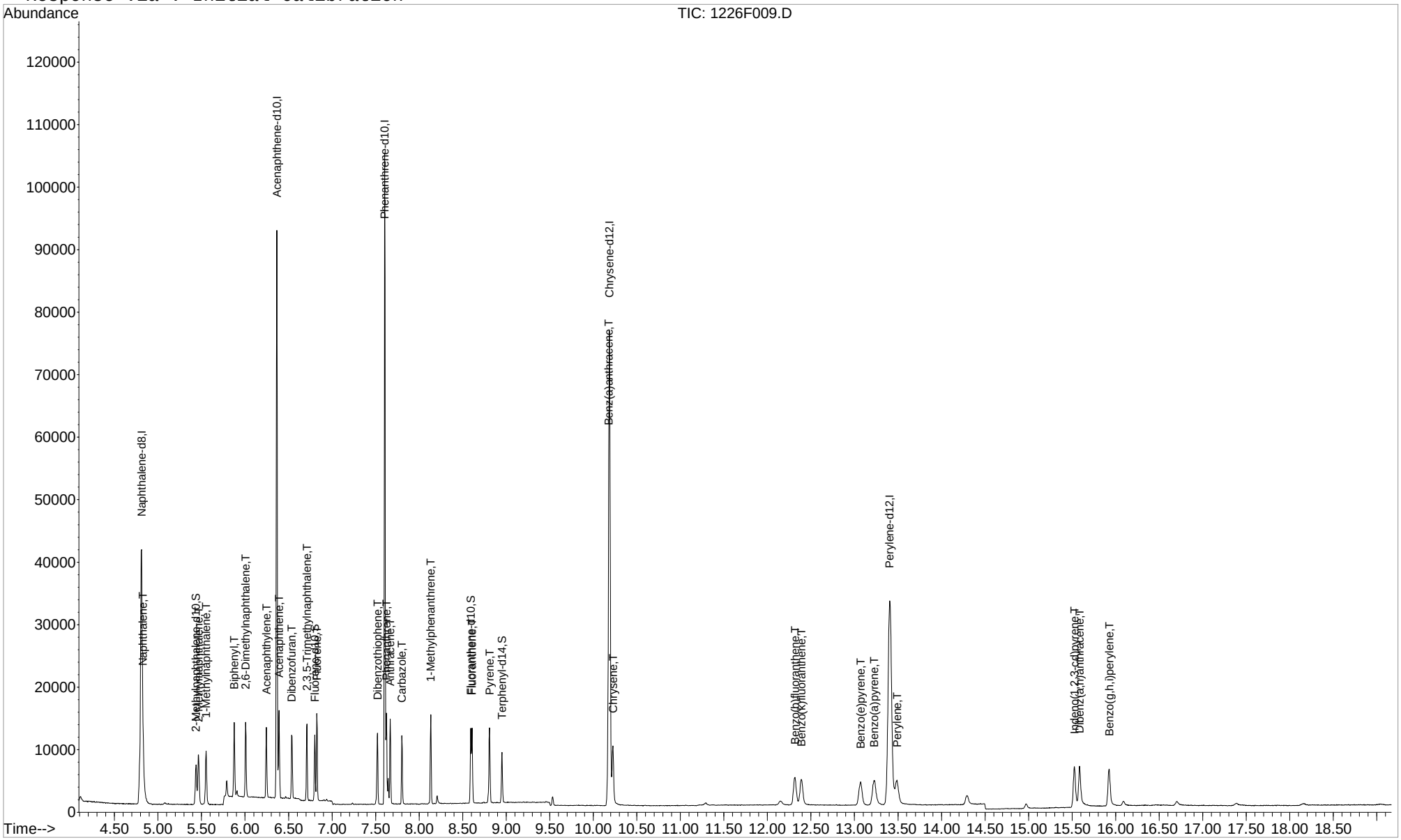
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration

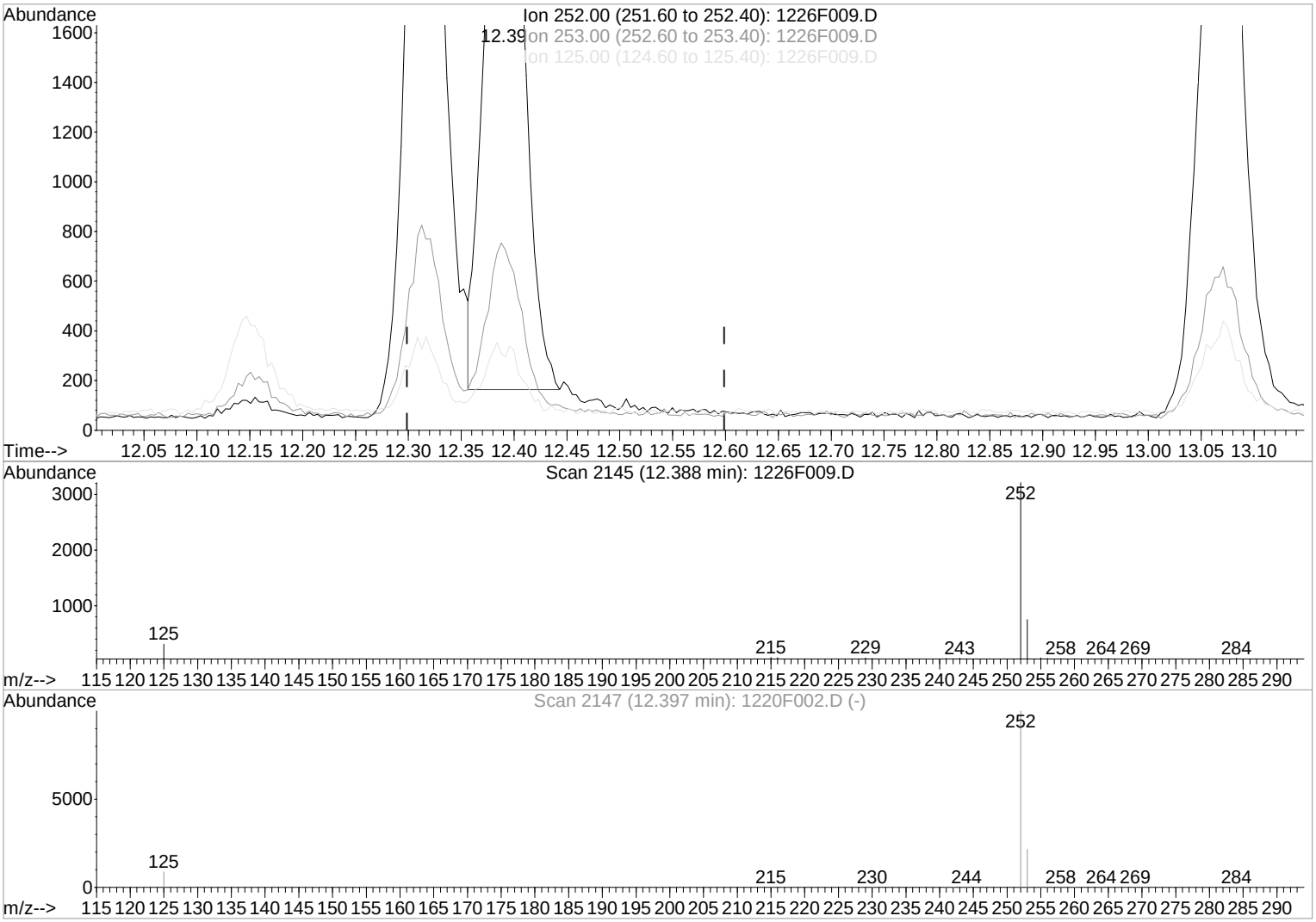


Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F009.D

(30) Benzo(k)fluoranthene (T)

12.39min 18.09ng/ml

response 7036

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	21.44
125.00	9.00	7.44
0.00	0.00	0.00

Manual Integration:

Before

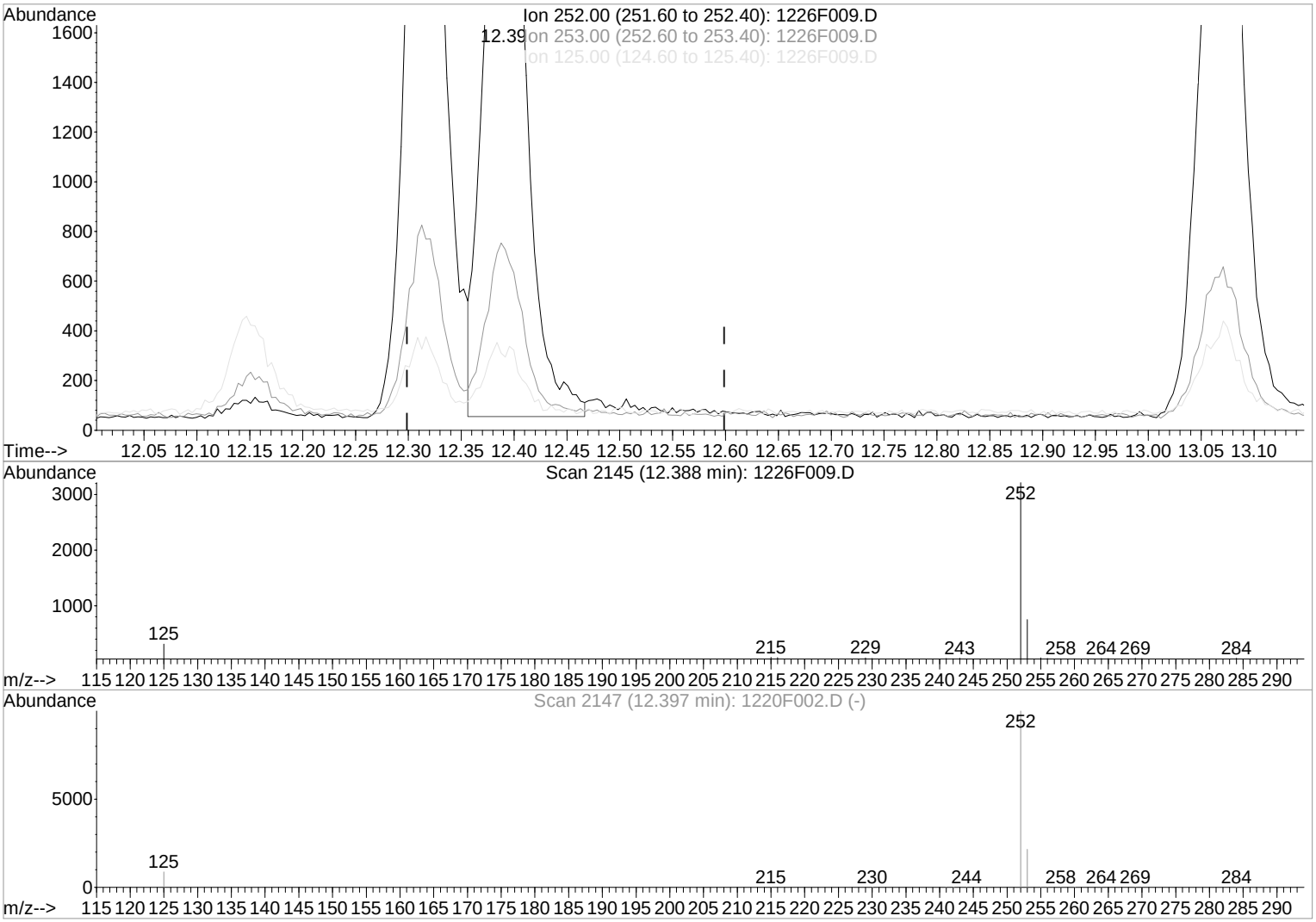
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F009.D

(30) Benzo(k)fluoranthene (T)

12.39min 19.90ng/ml m

response 7737

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	23.45
125.00	9.00	9.64
0.00	0.00	0.00

Manual Integration:

After

BLC

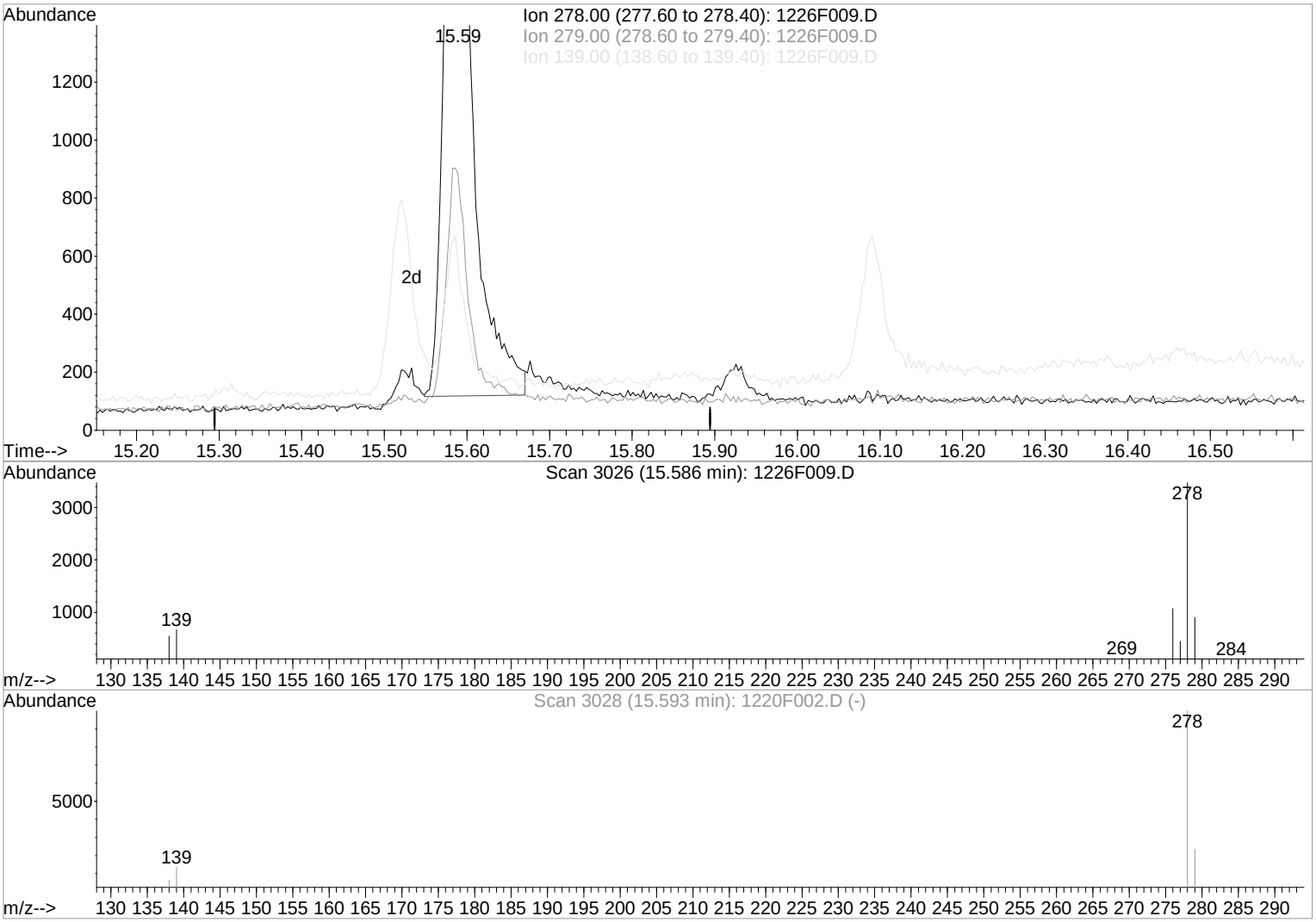
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F009.D

(35) Dibenz(a,h)anthracene (T)

15.59min 20.26ng/ml

response 6351

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	24.12
139.00	14.40	15.21
0.00	0.00	0.00

Manual Integration:

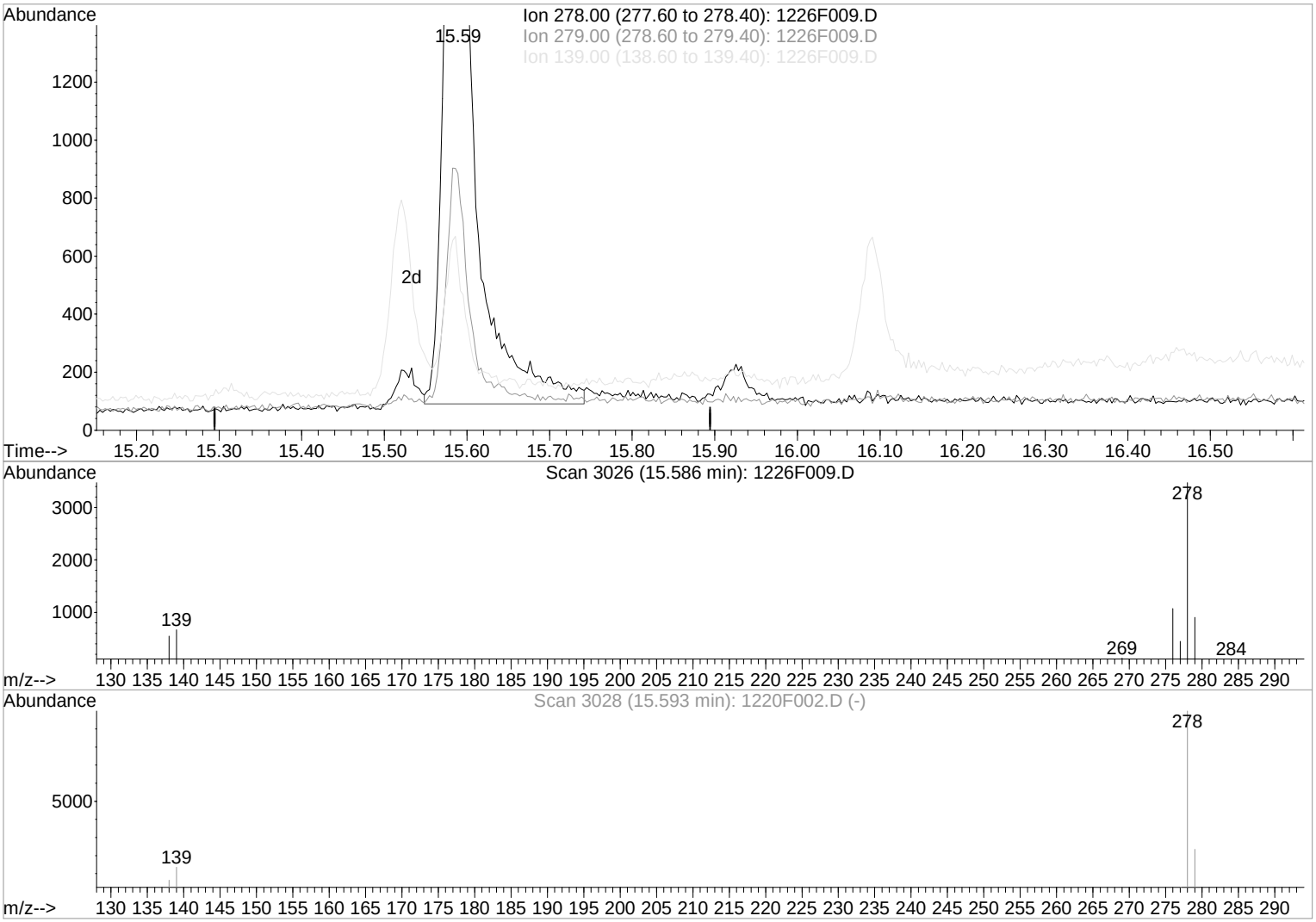
Before

12/27/18

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F009.D

(35) Dibenz(a,h)anthracene (T)

15.59min 21.93ng/ml m

response 6875

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	25.99
139.00	14.40	19.22
0.00	0.00	0.00

Manual Integration:

After

BLC

12/27/18

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F010.D Vial: 9
Acq On : 26 Dec 2018 9:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:50 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

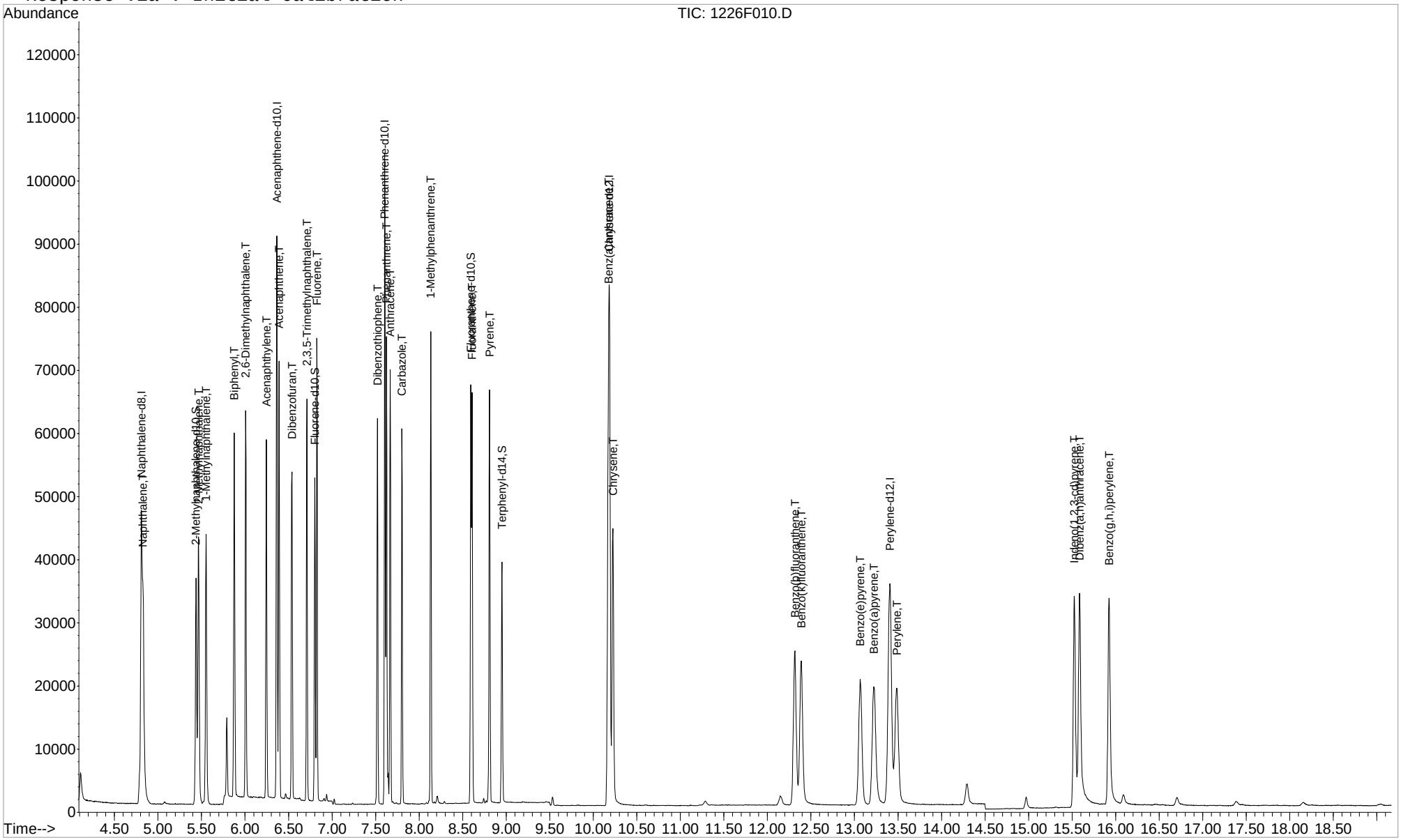
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	51839	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	25109	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	55657	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	58564	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	63691	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	14535	101.64	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	10.16%		
13) Fluorene-d10	6.80	176	16914	102.50	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	10.25%		
22) Fluoranthene-d10	8.59	212	32194	90.87	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	9.09%		
25) Terphenyl-d14	8.95	244	24735	96.09	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	9.61%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	29213	98.78	ng/ml	99
4) 2-Methylnaphthalene	5.47	142	18698	103.11	ng/ml	98
5) 1-Methylnaphthalene	5.55	142	17723	103.31	ng/ml	97
6) Biphenyl	5.88	154	23653	104.21	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	16719	107.00	ng/ml	93
9) Acenaphthylene	6.24	152	31050	98.70	ng/ml	99
10) Acenaphthene	6.39	154	17625	99.90	ng/ml	99
11) Dibenzofuran	6.54	168	28706	101.31	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.71	170	16719	102.36	ng/ml	90
14) Fluorene	6.82	166	23134	107.28	ng/ml	99
16) Dibenzothiophene	7.52	184	35874	101.17	ng/ml	98
17) Phenanthrene	7.62	178	35182	99.43	ng/ml	100
18) Anthracene	7.67	178	34718	100.11	ng/ml	100
19) Carbazole	7.80	167	30666	92.79	ng/ml	98
20) 1-Methylphenanthrene	8.13	192	26122	92.67	ng/ml	100
21) Fluoranthene	8.61	202	40741	92.31	ng/ml	99
24) Pyrene	8.81	202	43281	95.01	ng/ml	98
26) Benz(a)anthracene	10.17	228	39526	95.15	ng/ml	99
27) Chrysene	10.22	228	37625	97.13	ng/ml	100
29) Benzo(b)fluoranthene	12.32	252	42420	101.79	ng/ml	99
30) Benzo(k)fluoranthene	12.39	252	41322	102.44	ng/ml	99
31) Benzo(e)pyrene	13.07	252	39446	99.71	ng/ml	98
32) Benzo(a)pyrene	13.22	252	39445	99.48	ng/ml	94
33) Perylene	13.49	252	38191	102.61	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.52	276	38698	116.06	ng/ml	99
35) Dibenz(a,h)anthracene	15.59	278	38770m	119.24	ng/ml	
36) Benzo(g,h,i)perylene	15.92	276	44393	111.39	ng/ml	98

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F010.D Vial: 9
Acq On : 26 Dec 2018 9:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration

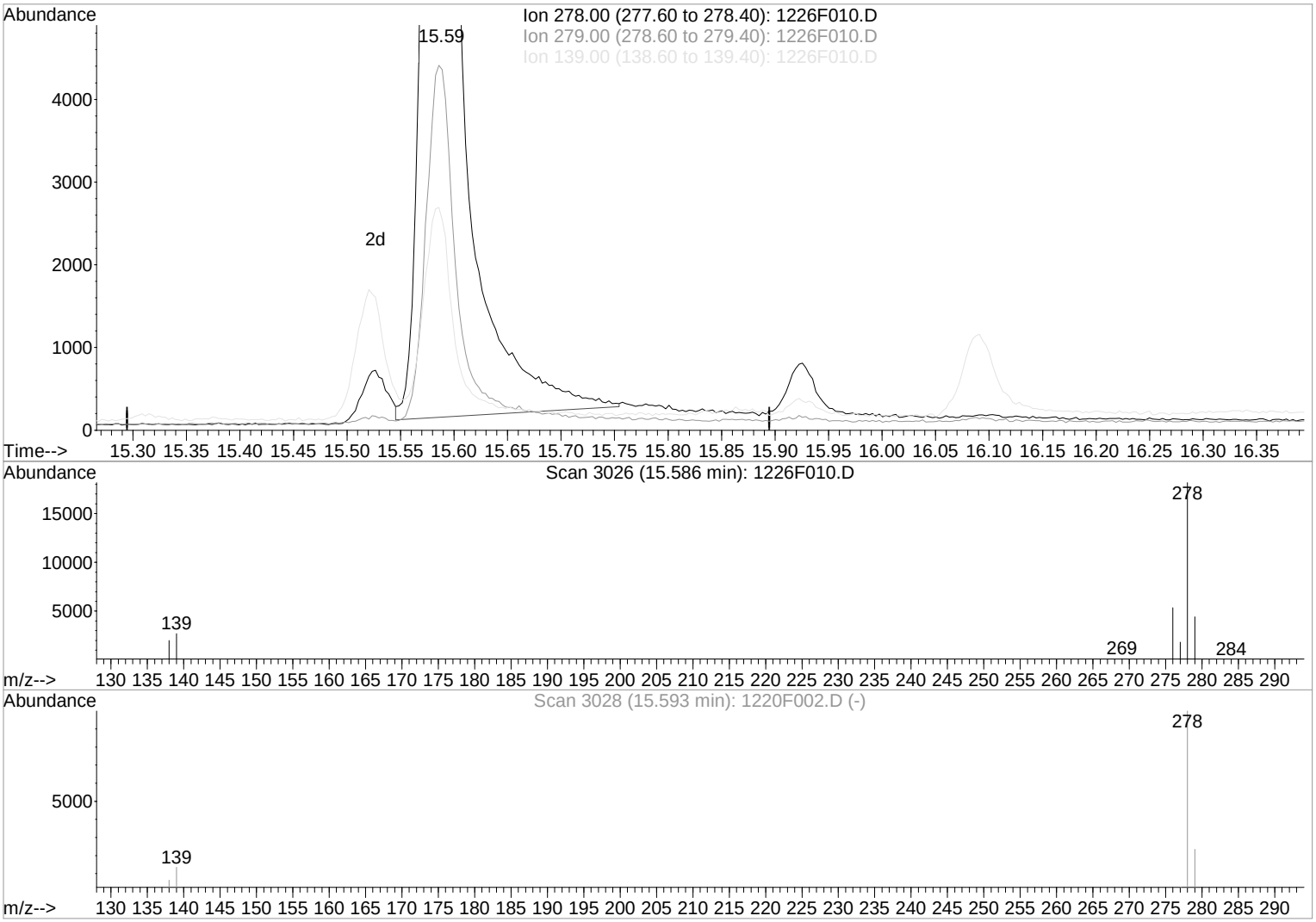


Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F010.D Vial: 9
Acq On : 26 Dec 2018 9:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F010.D

(35) Dibenz(a,h)anthracene (T)

15.59min 111.75ng/ml

response 36335

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	24.02
139.00	14.40	14.00
0.00	0.00	0.00

Manual Integration:

Before

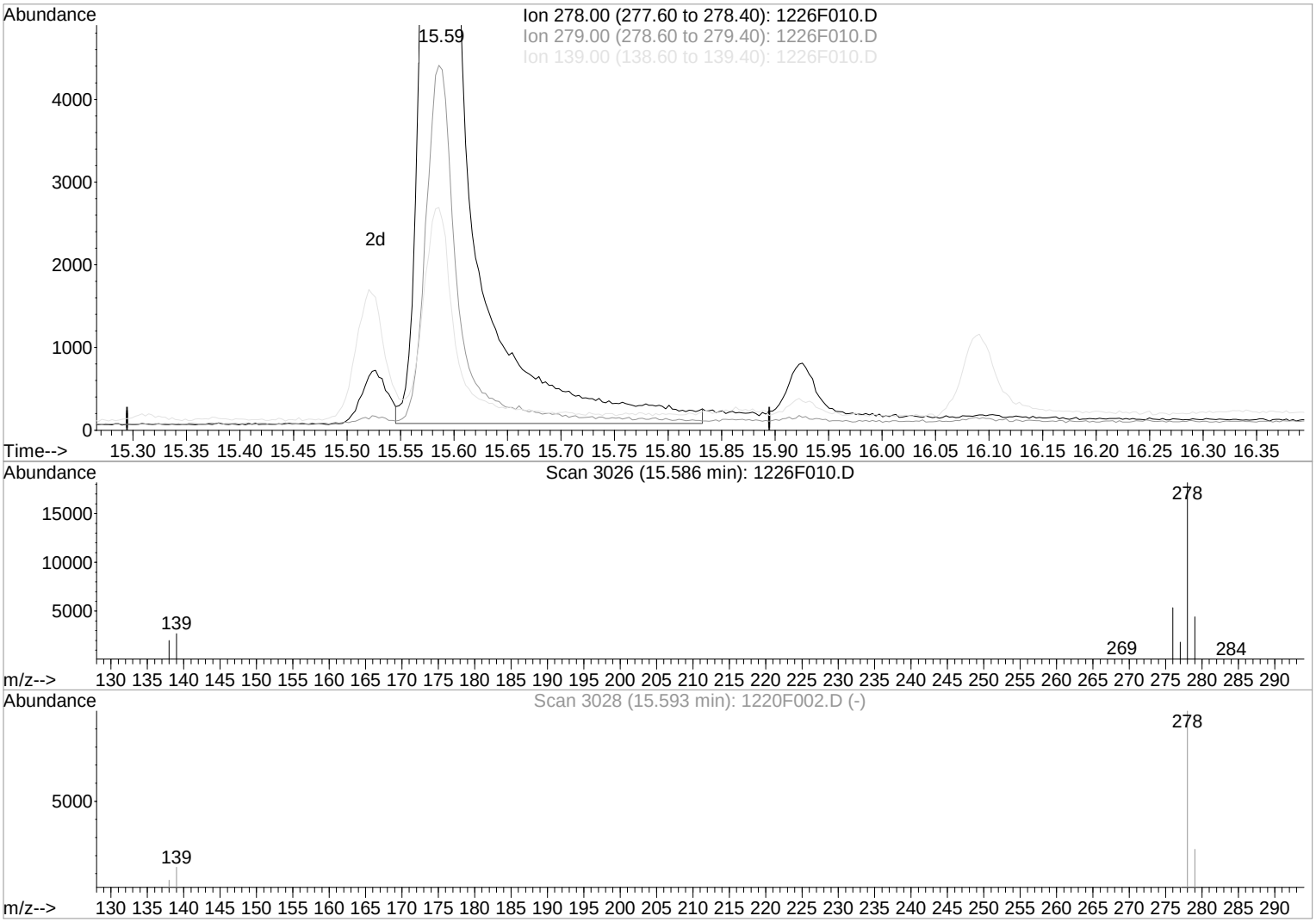
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F010.D Vial: 9
Acq On : 26 Dec 2018 9:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F010.D

(35) Dibenz(a,h)anthracene (T)

15.59min 119.24ng/ml m

response 38770

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	24.26
139.00	14.40	14.81
0.00	0.00	0.00

Manual Integration:

After

BLC

12/27/18

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F011.D Vial: 10
Acq On : 26 Dec 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:50 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	51736	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	23610	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	52814	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	55726	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	60878	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	26892	188.43	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	18.84%		
13) Fluorene-d10	6.80	176	31672	204.11	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	20.41%		
22) Fluoranthene-d10	8.59	212	61808	183.85	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	18.38%		
25) Terphenyl-d14	8.95	244	46697	190.64	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	19.06%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	57141	193.59	ng/ml	100
4) 2-Methylnaphthalene	5.47	142	34360	189.85	ng/ml	98
5) 1-Methylnaphthalene	5.55	142	32324	188.79	ng/ml	98
6) Biphenyl	5.88	154	43385	191.52	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	30635	196.45	ng/ml	95
9) Acenaphthylene	6.24	152	57845	195.54	ng/ml	99
10) Acenaphthene	6.39	154	32981	198.81	ng/ml	98
11) Dibenzofuran	6.54	168	53549	200.99	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.71	170	31773	206.88	ng/ml	96
14) Fluorene	6.82	166	42714	210.66	ng/ml	98
16) Dibenzothiophene	7.52	184	68128	202.48	ng/ml	99
17) Phenanthrene	7.62	178	65711	195.70	ng/ml	100
18) Anthracene	7.67	178	65177	198.05	ng/ml	100
19) Carbazole	7.80	167	58950	187.98	ng/ml	99
20) 1-Methylphenanthrene	8.13	192	49881	186.48	ng/ml	98
21) Fluoranthene	8.61	202	77131	184.17	ng/ml	98
24) Pyrene	8.81	202	81524	188.07	ng/ml	96
26) Benz(a)anthracene	10.17	228	75800	191.77	ng/ml	100
27) Chrysene	10.22	228	72536	196.78	ng/ml	100
29) Benzo(b)fluoranthene	12.32	252	80595	202.34	ng/ml	99
30) Benzo(k)fluoranthene	12.39	252	77403	200.75	ng/ml	98
31) Benzo(e)pyrene	13.07	252	74680	197.51	ng/ml	99
32) Benzo(a)pyrene	13.22	252	73346	193.53	ng/ml	98
33) Perylene	13.49	252	72298	203.23	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.53	276	74117	232.56	ng/ml	99
35) Dibenz(a,h)anthracene	15.59	278	72212m	232.36	ng/ml	
36) Benzo(g,h,i)perylene	15.93	276	82328	216.12	ng/ml	98

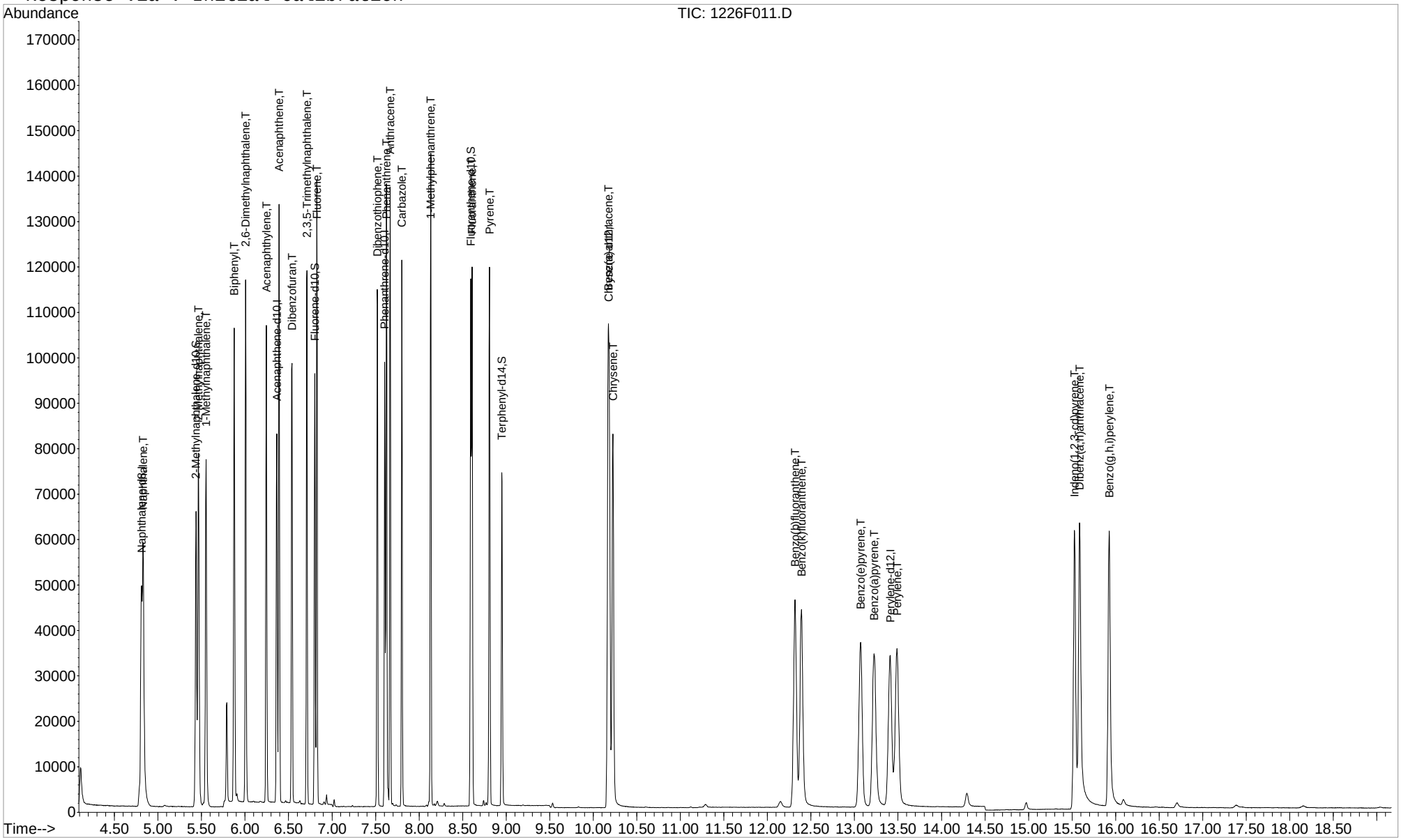
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F011.D Vial: 10
Acq On : 26 Dec 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:02 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration

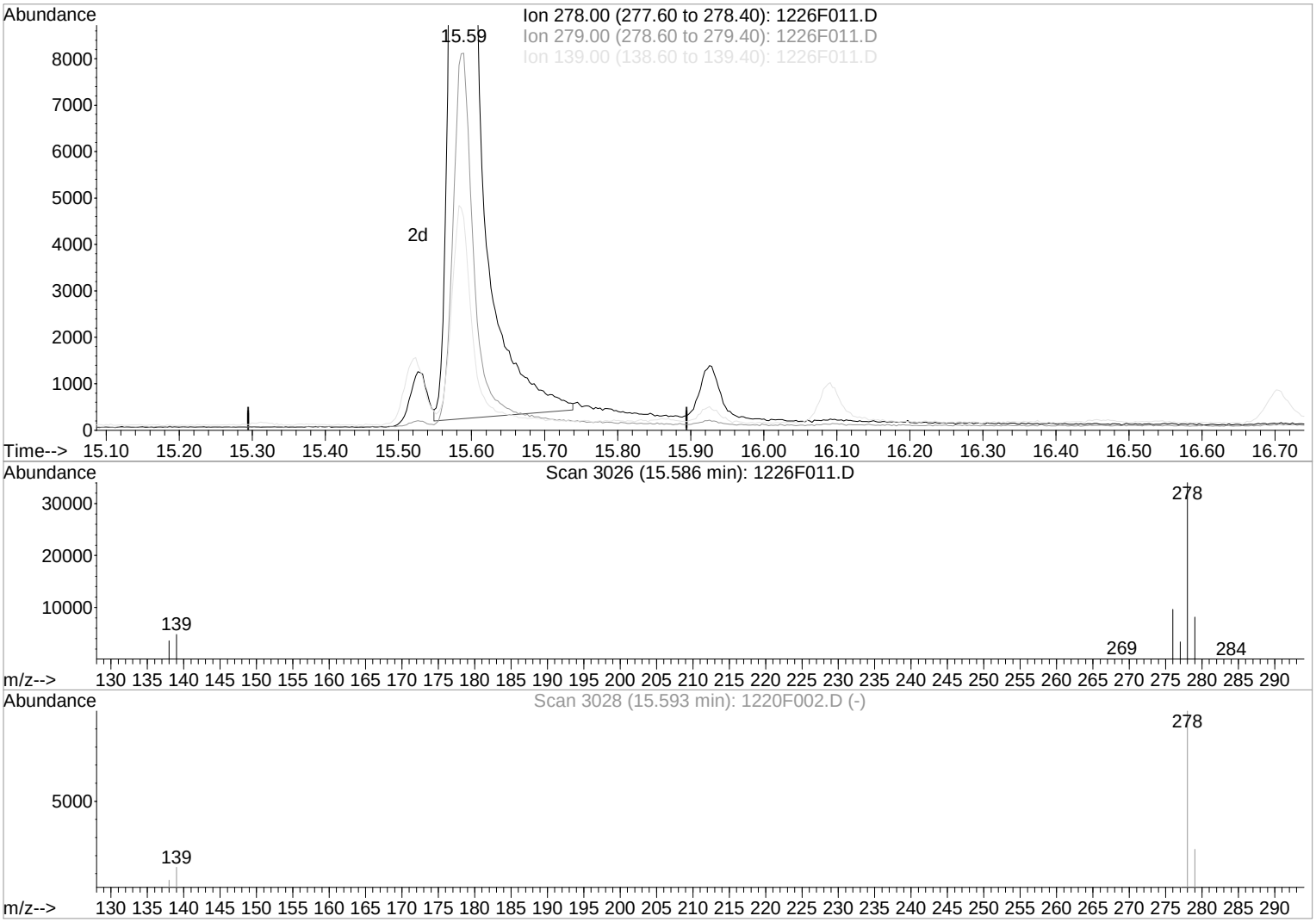


Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F011.D Vial: 10
Acq On : 26 Dec 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F011.D

(35) Dibenz(a,h)anthracene (T)

15.59min 218.83ng/ml

response 68009

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	23.77
139.00	14.40	13.66
0.00	0.00	0.00

Manual Integration:

Before

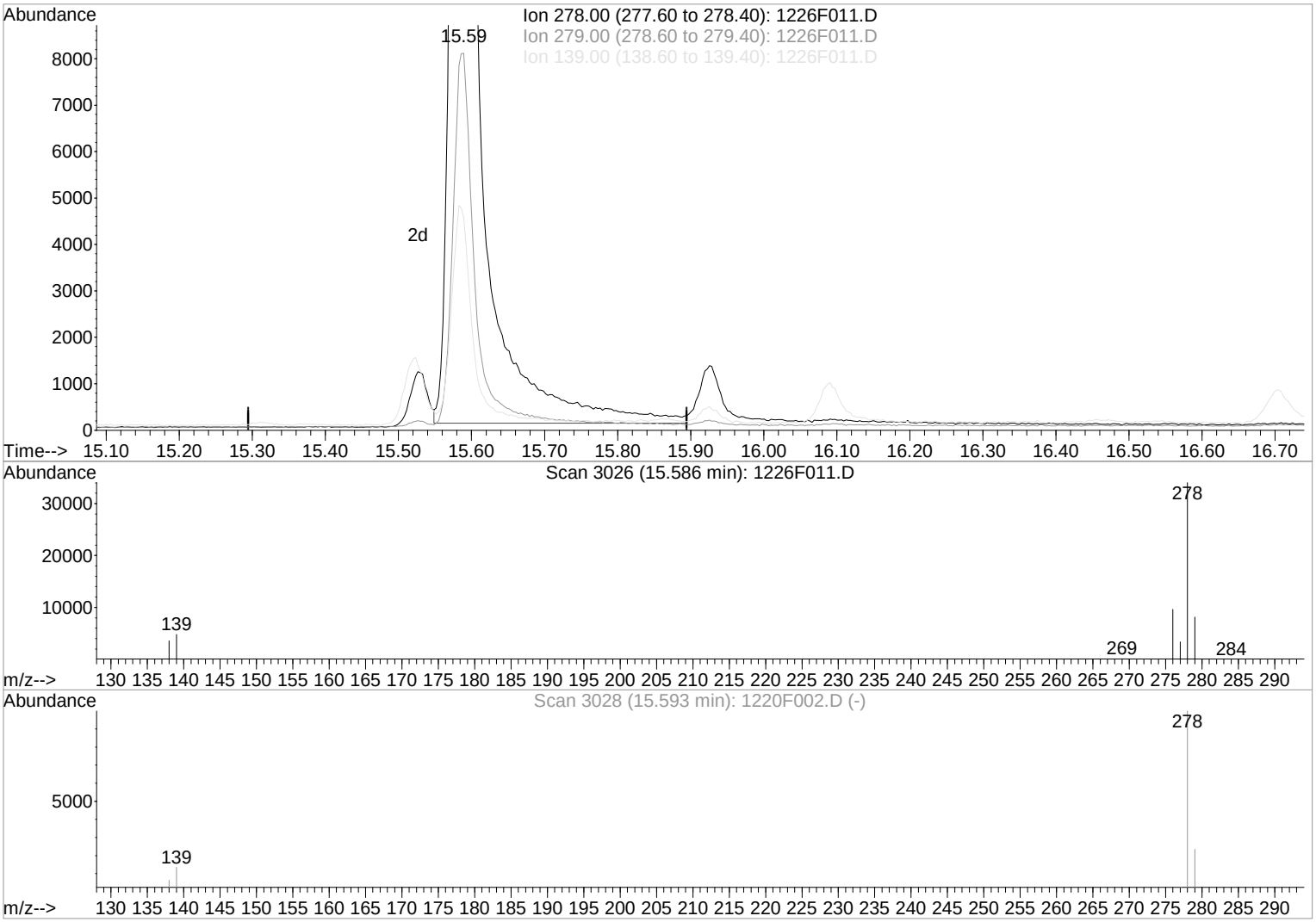
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F011.D Vial: 10
Acq On : 26 Dec 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:02 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F011.D

(35) Dibenz(a,h)anthracene (T)

15.59min 232.36ng/ml m

response 72212

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	23.82
139.00	14.40	14.04
0.00	0.00	0.00

Manual Integration:

After

BLC

12/27/18

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F012.D Vial: 11
Acq On : 26 Dec 2018 10:52 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.4ug/mL | SVM59-4G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:51 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

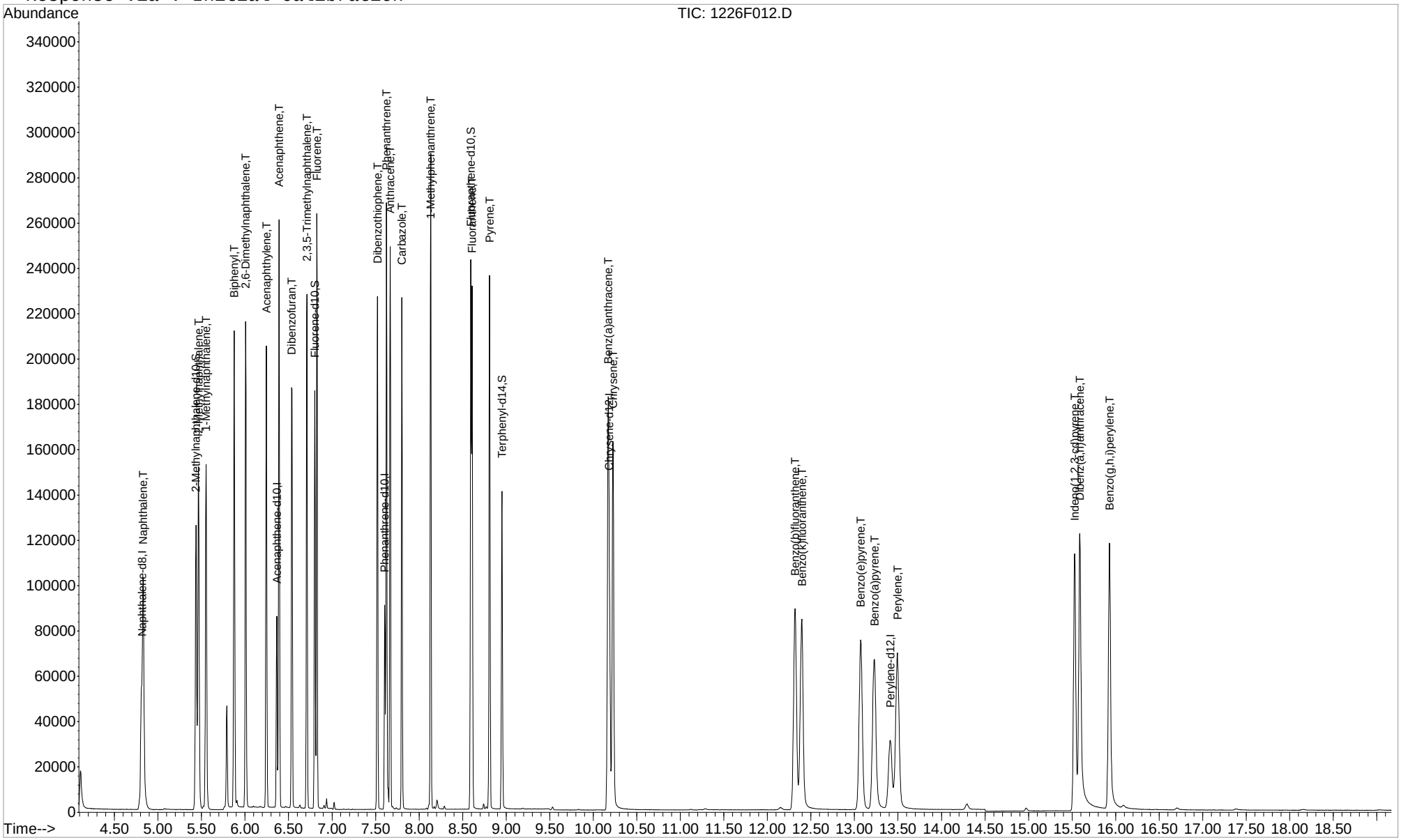
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	50298	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	23233	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	51353	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	53837	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	59038	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	52888	381.18	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	38.12%		
13) Fluorene-d10	6.80	176	60873	398.67	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	39.87%		
22) Fluoranthene-d10	8.59	212	121121	370.52	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.05%		
25) Terphenyl-d14	8.95	244	89163	376.78	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.68%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	109374	381.15	ng/ml	99
4) 2-Methylnaphthalene	5.47	142	66559	378.27	ng/ml	99
5) 1-Methylnaphthalene	5.55	142	62999	378.48	ng/ml	98
6) Biphenyl	5.88	154	85579	388.59	ng/ml	100
7) 2,6-Dimethylnaphthalene	6.01	156	60811	401.10	ng/ml	94
9) Acenaphthylene	6.24	152	114293	392.63	ng/ml	99
10) Acenaphthene	6.39	154	65480	401.11	ng/ml	99
11) Dibenzofuran	6.54	168	104158	397.28	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.71	170	62192	411.51	ng/ml	96
14) Fluorene	6.82	166	81916	410.55	ng/ml	100
16) Dibenzothiophene	7.52	184	133739	408.79	ng/ml	98
17) Phenanthrene	7.62	178	127302	389.92	ng/ml	100
18) Anthracene	7.67	178	125540	392.32	ng/ml	100
19) Carbazole	7.80	167	115791	379.74	ng/ml	100
20) 1-Methylphenanthrene	8.13	192	97724	375.74	ng/ml	99
21) Fluoranthene	8.61	202	148438	364.51	ng/ml	99
24) Pyrene	8.81	202	156841	374.51	ng/ml	98
26) Benz(a)anthracene	10.17	228	149815	392.33	ng/ml	99
27) Chrysene	10.23	228	140906	395.68	ng/ml	100
29) Benzo(b)fluoranthene	12.32	252	161471	418.01	ng/ml	99
30) Benzo(k)fluoranthene	12.40	252	154351	412.80	ng/ml	99
31) Benzo(e)pyrene	13.07	252	148292	404.41	ng/ml	98
32) Benzo(a)pyrene	13.23	252	142631	388.07	ng/ml	99
33) Perylene	13.49	252	141758	410.89	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.53	276	142915	462.40	ng/ml	97
35) Dibenz(a,h)anthracene	15.59	278	131224	435.40	ng/ml	98
36) Benzo(g,h,i)perylene	15.93	276	156747	424.31	ng/ml	98

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F012.D Vial: 11
Acq On : 26 Dec 2018 10:52 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.4ug/mL | SVM59-4G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration



1st 12/27/18
2nd 01/02/19

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\122618A\1226F013.D Vial: 12
Acq On : 26 Dec 2018 11:18 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.0ug/mL | SVM59-4H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:51 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

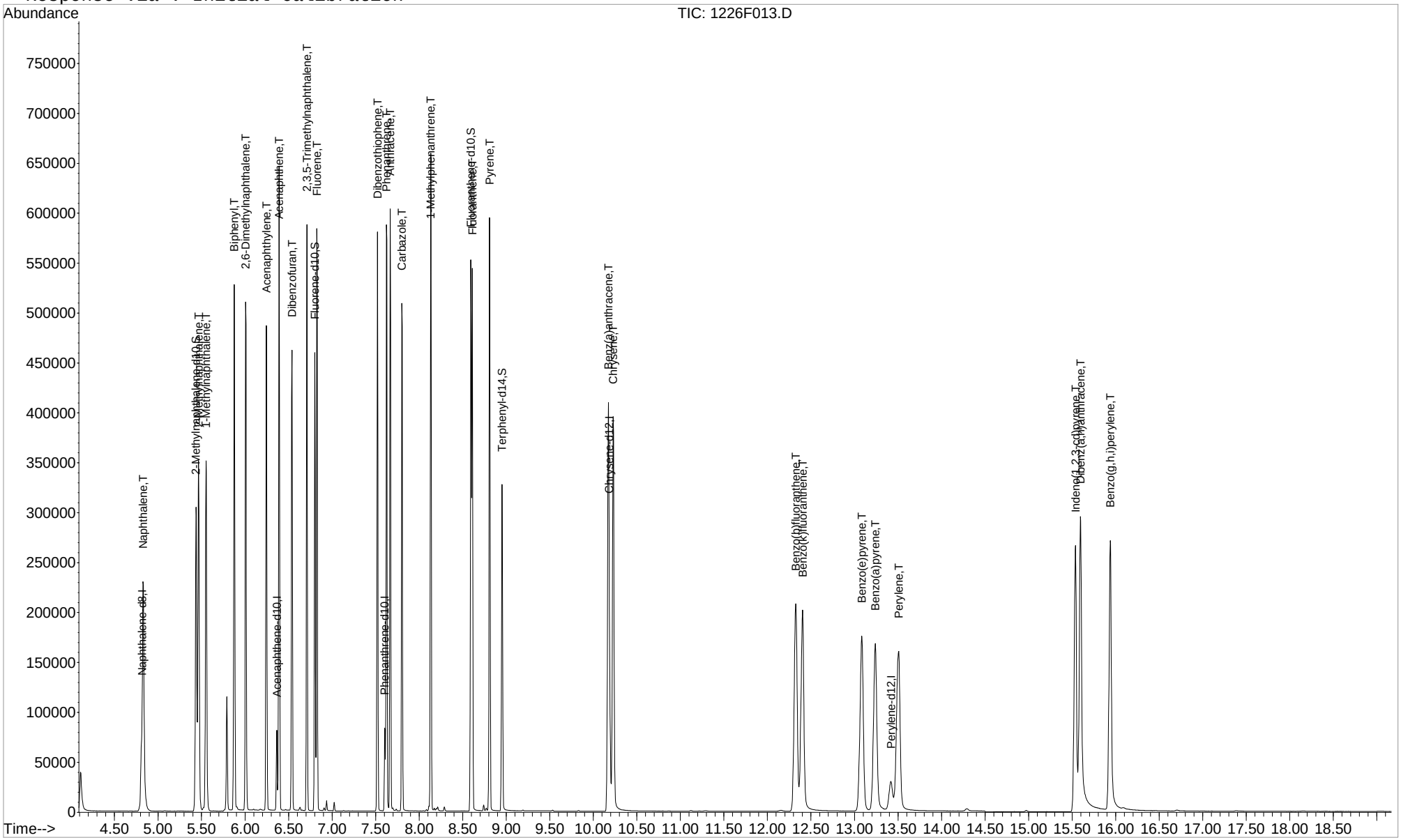
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	48061	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.36	164	21900	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	48218	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	50779	200.00	ng/ml	0.00
28) Perylene-d12	13.42	264	56617	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	127145	959.01	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	95.90%		
13) Fluorene-d10	6.80	176	143873	999.61	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	99.96%		
22) Fluoranthene-d10	8.59	212	292174	951.90	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	95.19%		
25) Terphenyl-d14	8.95	244	208534	934.28	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	93.43%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	256996	937.28	ng/ml	100
4) 2-Methylnaphthalene	5.47	142	156202	929.05	ng/ml	98
5) 1-Methylnaphthalene	5.55	142	149994	943.06	ng/ml	98
6) Biphenyl	5.88	154	201213	956.17	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	143187	988.39	ng/ml	97
9) Acenaphthylene	6.24	152	270667	986.40	ng/ml	99
10) Acenaphthene	6.39	154	153742	999.11	ng/ml	99
11) Dibenzofuran	6.54	168	245681	994.12	ng/ml	91
12) 2,3,5-Trimethylnaphthalene	6.71	170	147248	1033.60	ng/ml	93
14) Fluorene	6.82	166	191435	1017.83	ng/ml	100
16) Dibenzothiophene	7.52	184	320696	1043.99	ng/ml	96
17) Phenanthrene	7.62	178	300375	979.86	ng/ml	99
18) Anthracene	7.67	178	295966	985.04	ng/ml	99
19) Carbazole	7.80	167	278541	972.89	ng/ml	97
20) 1-Methylphenanthrene	8.13	192	233518	956.23	ng/ml	100
21) Fluoranthene	8.61	202	349699	914.57	ng/ml	96
24) Pyrene	8.81	202	375224	949.94	ng/ml	99
26) Benz(a)anthracene	10.17	228	359290	997.56	ng/ml	99
27) Chrysene	10.23	228	333982	994.33	ng/ml	99
29) Benzo(b)fluoranthene	12.33	252	389805	1052.27	ng/ml	99
30) Benzo(k)fluoranthene	12.40	252	366215	1021.30	ng/ml	99
31) Benzo(e)pyrene	13.08	252	358764	1020.23	ng/ml	99
32) Benzo(a)pyrene	13.24	252	342350	971.30	ng/ml	98
33) Perylene	13.51	252	345613	1044.62	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.54	276	340025	1147.18	ng/ml	97
35) Dibenz(a,h)anthracene	15.60	278	313374	1084.24	ng/ml	99
36) Benzo(g,h,i)perylene	15.94	276	370765	1046.57	ng/ml	98

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F013.D Vial: 12
Acq On : 26 Dec 2018 11:18 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.0ug/mL | SVM59-4H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F014.D Vial: 13
Acq On : 26 Dec 2018 11:45 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.6ug/mL | SVM59-4I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:52 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

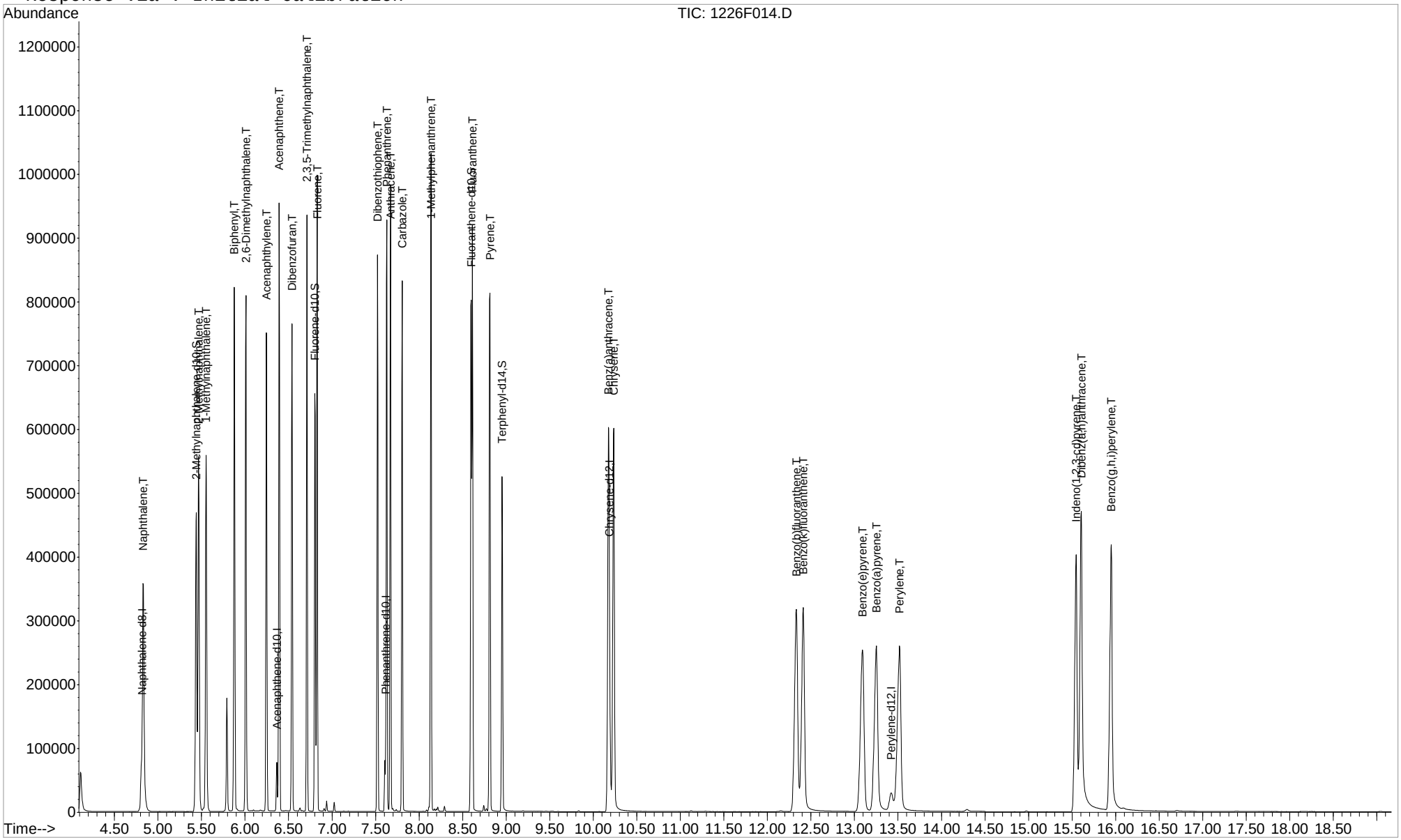
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	45755	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	21412	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.61	188	47325	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	48800	200.00	ng/ml	0.00
28) Perylene-d12	13.42	264	56541	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	196010	1552.95	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 155.30%			
13) Fluorene-d10	6.80	176	230058	1634.84	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 163.48%			
22) Fluoranthene-d10	8.60	212	461126	1530.69	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 153.07%			
25) Terphenyl-d14	8.95	244	325396	1516.98	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 151.70%			
Target Compounds						Qvalue
2) Naphthalene	4.83	128	393657	1508.05	ng/ml	100
4) 2-Methylnaphthalene	5.47	142	239873	1498.60	ng/ml	97
5) 1-Methylnaphthalene	5.55	142	232713	1536.88	ng/ml	97
6) Biphenyl	5.88	154	314968	1572.17	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	225875	1637.74	ng/ml	98
9) Acenaphthylene	6.24	152	424501	1582.29	ng/ml	99
10) Acenaphthene	6.39	154	242452	1611.51	ng/ml	99
11) Dibenzofuran	6.54	168	387050	1601.84	ng/ml	96
12) 2,3,5-Trimethylnaphthalene	6.71	170	234098	1680.70	ng/ml	90
14) Fluorene	6.83	166	304453	1655.62	ng/ml	99
16) Dibenzothiophene	7.52	184	504811	1674.37	ng/ml	92
17) Phenanthrene	7.63	178	471272	1566.36	ng/ml	99
18) Anthracene	7.67	178	463250	1570.89	ng/ml	99
19) Carbazole	7.81	167	436555	1553.57	ng/ml	100
20) 1-Methylphenanthrene	8.14	192	370089	1544.07	ng/ml	98
21) Fluoranthene	8.61	202	547946	1460.09	ng/ml	99
24) Pyrene	8.81	202	593813	1564.29	ng/ml	96
26) Benz(a)anthracene	10.17	228	560151	1618.31	ng/ml	99
27) Chrysene	10.24	228	527325	1633.62	ng/ml	100
29) Benzo(b)fluoranthene	12.33	252	611068	1651.79	ng/ml	98
30) Benzo(k)fluoranthene	12.41	252	580914	1622.23	ng/ml	98
31) Benzo(e)pyrene	13.09	252	567014	1614.60	ng/ml	98
32) Benzo(a)pyrene	13.25	252	544462	1546.80	ng/ml	98
33) Perylene	13.52	252	551208	1668.27	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.55	276	545483	1842.83	ng/ml	98
35) Dibenz(a,h)anthracene	15.60	278	521906	1808.16	ng/ml	99
36) Benzo(g,h,i)perylene	15.95	276	588805	1664.27	ng/ml	98

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F014.D Vial: 13
Acq On : 26 Dec 2018 11:45 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.6ug/mL | SVM59-4I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F015.D Vial: 14
Acq On : 26 Dec 2018 12:12 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @2.0ug/mL | SVM59-4J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:52 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

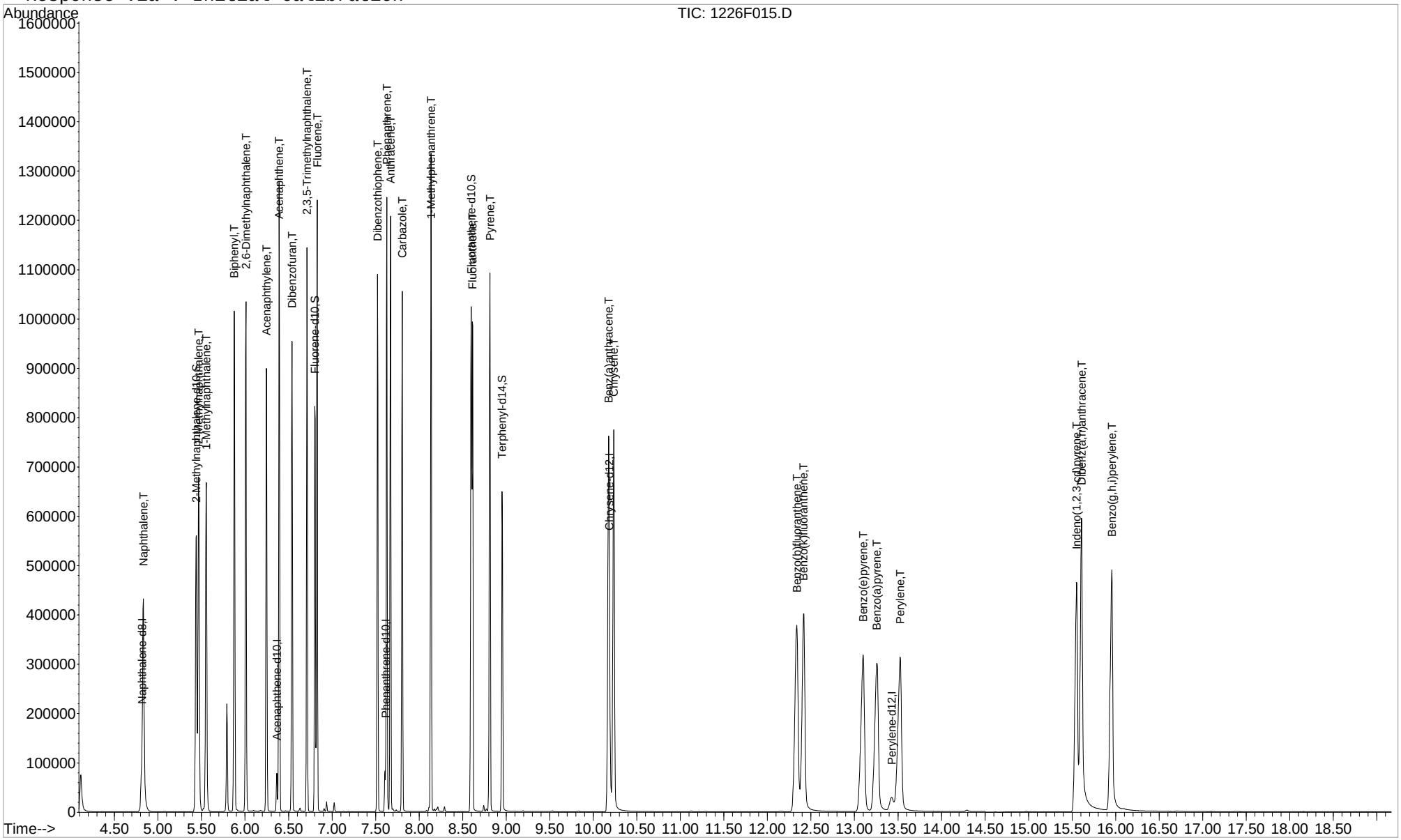
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	46539	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	21976	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.61	188	48765	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	50367	200.00	ng/ml	0.00
28) Perylene-d12	13.43	264	57984	200.00	ng/ml	0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	242539	1889.22	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 188.92%			
13) Fluorene-d10	6.81	176	288571	1998.01	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 199.80%			
22) Fluoranthene-d10	8.60	212	580582	1870.31	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 187.03%			
25) Terphenyl-d14	8.95	244	405199	1830.24	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 183.02%			
Target Compounds						Qvalue
2) Naphthalene	4.83	128	481353	1812.94	ng/ml	99
4) 2-Methylnaphthalene	5.47	142	295515	1815.12	ng/ml	97
5) 1-Methylnaphthalene	5.56	142	288346	1872.21	ng/ml	98
6) Biphenyl	5.88	154	391885	1923.15	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	283955	2024.18	ng/ml	98
9) Acenaphthylene	6.25	152	530763	1927.59	ng/ml	99
10) Acenaphthene	6.39	154	304898	1974.56	ng/ml	99
11) Dibenzofuran	6.54	168	487867	1967.27	ng/ml	99
12) 2,3,5-Trimethylnaphthalene	6.71	170	293341	2051.98	ng/ml	86
14) Fluorene	6.83	166	383996	2034.58	ng/ml	98
16) Dibenzothiophene	7.52	184	626389	2016.27	ng/ml	91
17) Phenanthrene	7.63	178	590908	1906.00	ng/ml	99
18) Anthracene	7.67	178	582356	1916.47	ng/ml	99
19) Carbazole	7.81	167	551652	1905.19	ng/ml	99
20) 1-Methylphenanthrene	8.14	192	461166	1867.24	ng/ml	99
21) Fluoranthene	8.62	202	686084	1774.20	ng/ml	95
24) Pyrene	8.81	202	750182	1914.73	ng/ml	98
26) Benz(a)anthracene	10.18	228	703557	1969.38	ng/ml	99
27) Chrysene	10.24	228	662200	1987.63	ng/ml	99
29) Benzo(b)fluoranthene	12.34	252	760244	2003.88	ng/ml	98
30) Benzo(k)fluoranthene	12.42	252	723170	1969.23	ng/ml	99
31) Benzo(e)pyrene	13.10	252	702317	1950.12	ng/ml	98
32) Benzo(a)pyrene	13.26	252	677296	1876.30	ng/ml	98
33) Perylene	13.52	252	684988	2021.57	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.55	276	680156	2240.62	ng/ml	97
35) Dibenz(a,h)anthracene	15.61	278	647356	2186.97	ng/ml	99
36) Benzo(g,h,i)perylene	15.96	276	725843	2000.56	ng/ml	98

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F015.D Vial: 14
Acq On : 26 Dec 2018 12:12 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @2.0ug/mL | SVM59-4J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F016.D Vial: 15
Acq On : 26 Dec 2018 12:38 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @0.4ug/mL | SVM60-14A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 07:07:26 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 27 07:07:12 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

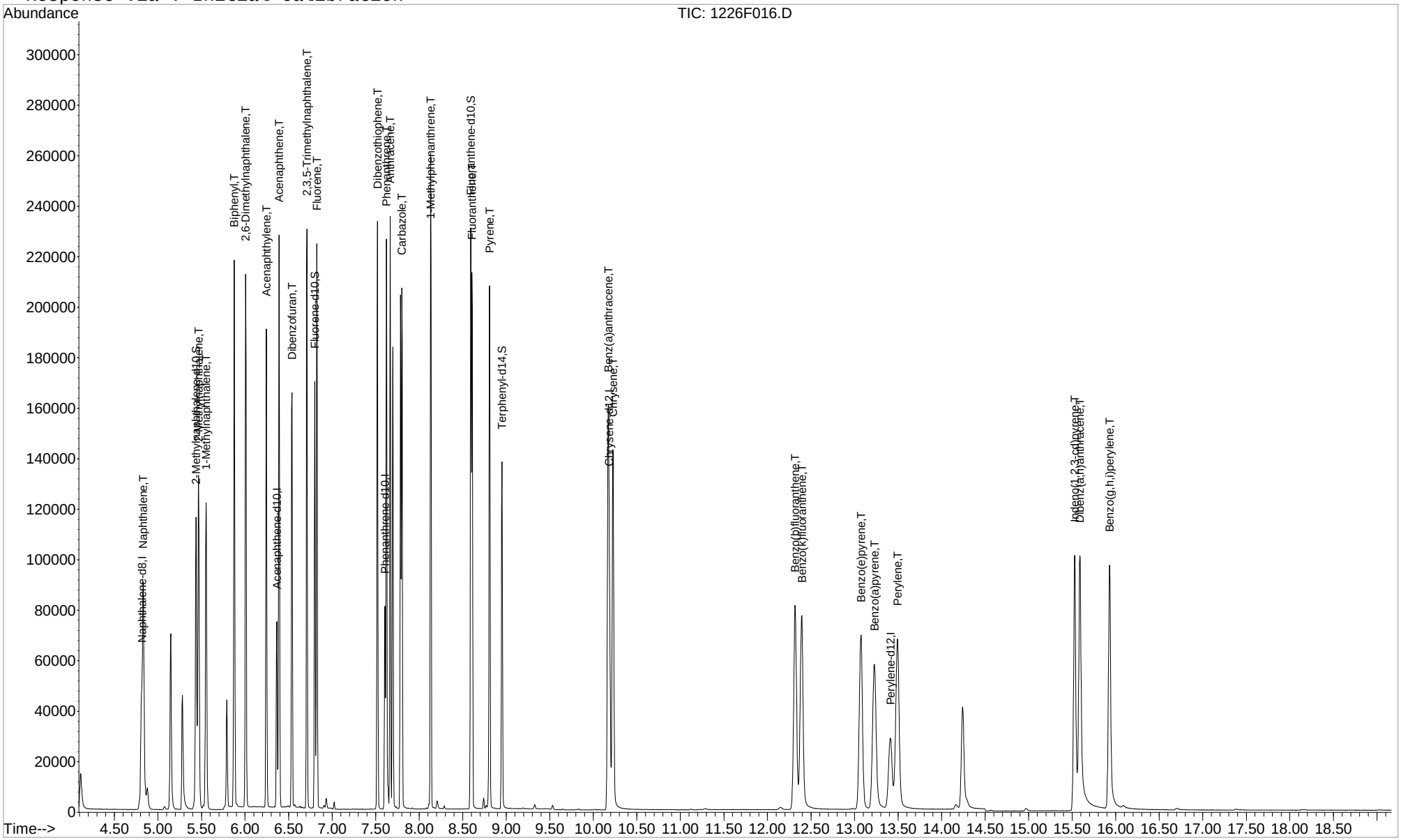
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	43952	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	20745	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.61	188	47024	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	50551	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	54138	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	46844	377.97	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.80%		
13) Fluorene-d10	6.80	176	55889	388.86	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	38.89%		
22) Fluoranthene-d10	8.59	212	112768	409.60	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	40.96%		
25) Terphenyl-d14	8.95	244	84597	379.39	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.94%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	93932	380.48	ng/ml	99
4) 2-Methylnaphthalene	5.47	142	58529	379.00	ng/ml	99
5) 1-Methylnaphthalene	5.55	142	52283	351.34	ng/ml	98
6) Biphenyl	5.88	154	80597	402.96	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	57435	407.65	ng/ml	99
9) Acenaphthylene	6.24	152	99147	385.01	ng/ml	100
10) Acenaphthene	6.39	154	55759	379.57	ng/ml	97
11) Dibenzofuran	6.54	168	87667	370.06	ng/ml	99
12) 2,3,5-Trimethylnaphthalene	6.71	170	57274	409.42	ng/ml	99
14) Fluorene	6.82	166	72335	381.03	ng/ml	100
16) Dibenzothiophene	7.52	184	129909	423.60	ng/ml	99
17) Phenanthrene	7.62	178	112392	375.36	ng/ml	99
18) Anthracene	7.67	178	112301	390.83	ng/ml	99
19) Carbazole	7.80	167	108673	412.16	ng/ml	99
20) 1-Methylphenanthrene	8.13	192	93505	420.56	ng/ml	99
21) Fluoranthene	8.61	202	138746	405.73	ng/ml	99
24) Pyrene	8.81	202	141281	370.68	ng/ml	100
26) Benz(a)anthracene	10.17	228	133026	366.71	ng/ml	99
27) Chrysene	10.22	228	125667	381.20	ng/ml	100
29) Benzo(b)fluoranthene	12.32	252	144374	399.97	ng/ml	100
30) Benzo(k)fluoranthene	12.39	252	138990	407.21	ng/ml	99
31) Benzo(e)pyrene	13.07	252	134682	397.92	ng/ml	99
32) Benzo(a)pyrene	13.23	252	126431	372.71	ng/ml	99
33) Perylene	13.49	252	138037	428.98	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.53	276	123006	381.25	ng/ml	100
35) Dibenz(a,h)anthracene	15.59	278	113266	376.51	ng/ml	99
36) Benzo(g,h,i)perylene	15.93	276	131584	360.13	ng/ml	100

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F016.D Vial: 15
Acq On : 26 Dec 2018 12:38 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @0.4ug/mL | SVM60-14A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:07 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 27 07:07:12 2018
Response via : Initial Calibration



Injection Log

Directory: J:\MS14\DATA\032219

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
~~1~~	~~1~~	~~0322F001.D~~	~~1.~~	~~DFTPP @ 10ug/mL | SVM60-55B~~		~~22 Mar 2019 05:41~~
~~2~~	~~2~~	~~0322F002.D~~	~~1.~~	~~SIM-PAH CCV @ 0.4ug/mL | SVM60-69C~~		~~22 Mar 2019 06:14~~
~~3~~	~~3~~	~~0322F003.D~~	~~1.~~	~~KWG1901112-3 MB~~		~~22 Mar 2019 06:46~~
~~4~~	~~8~~	~~0322F008.D~~	~~1.~~	~~KWG1901112-1 LCS~~		~~22 Mar 2019 09:26~~
~~5~~	~~9~~	~~0322F009.D~~	~~1.~~	~~KWG1901112-2 DLCS~~		~~22 Mar 2019 09:58~~
~~6~~	~~10~~	~~0322F010.D~~	~~1.~~	~~K1901507-007~~		~~22 Mar 2019 10:29~~
~~7~~	~~11~~	~~0322F011.D~~	~~1.~~	~~K1901605-001~~		~~22 Mar 2019 11:01~~
~~8~~	~~12~~	~~0322F012.D~~	~~1.~~	~~K1901605-002~~		~~22 Mar 2019 11:33~~
~~9~~	~~13~~	~~0322F013.D~~	~~1.~~	~~K1901605-003~~		~~22 Mar 2019 12:05~~
~~10~~	~~14~~	~~0322F014.D~~	~~1.~~	~~K1901782-001~~		~~22 Mar 2019 12:37~~
~~11~~	~~15~~	~~0322F015.D~~	~~1.~~	~~K1901782-002~~		~~22 Mar 2019 13:09~~
~~12~~	~~16~~	~~0322F016.D~~	~~1.~~	~~K1901782-003~~		~~22 Mar 2019 13:41~~
~~13~~	~~100~~	~~0322F017.D~~	~~1~~	~~DCM~~		~~22 Mar 2019 14:13~~
14	1	0322F018.D	1.	DFTPP @ 10ug/mL | SVM60-55B		22 Mar 2019 14:45
15	2	0322F019.D	1.	SIM-PAH CCV @ 0.4ug/mL | SVM60-69C		22 Mar 2019 15:18
16	17	0322F020.D	1.	KQ1903571-3 MB		22 Mar 2019 15:50
17	18	0322F021.D	1.	KQ1903571-1 LCS		22 Mar 2019 16:22
18	19	0322F022.D	1.	KQ1903571-2 DLCS		22 Mar 2019 16:54
19	20	0322F023.D	1.	K1902351-019DIL 10X (NR) report 1X		22 Mar 2019 17:26
20	21	0322F024.D	1.	K1902361-002		22 Mar 2019 17:58
21	22	0322F025.D	1.	K1902361-001		22 Mar 2019 18:30
22	23	0322F026.D	1.	K1902351-002		22 Mar 2019 19:02
23	24	0322F027.D	1.	K1902351-003		22 Mar 2019 19:34
24	25	0322F028.D	1.	K1902351-004		22 Mar 2019 20:07
25	26	0322F029.D	1.	K1902351-014		22 Mar 2019 20:39
26	27	0322F030.D	1.	K1902351-020		22 Mar 2019 21:11
27	28	0322F031.D	1.	K1902351-021		22 Mar 2019 21:43
28	29	0322F032.D	1.	K1902351-027		22 Mar 2019 22:15
29	30	0322F033.D	1.	K1902351-028		22 Mar 2019 22:48
30	31	0322F034.D	1.	K1902351-029		22 Mar 2019 23:20
31	32	0322F035.D	1.	K1902351-030		22 Mar 2019 23:52

Arlims # 629289
KC1900055
3/25/19

3/26/19

DILUTION LOG MS 14

Date: 3/22/19 Prepared by: LWeiskopf Solvent Lot #: DT383

LAB ID.	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	COMMENTS
K1902351-19	50ul	0.5mL	10x	Brown extract

3/25/19

Injection Log

Directory: J:\ms14\data\032519

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0325F001.D	1.	DFTPP @ 10ug/mL | SVM60-55B		25 Mar 2019 05:33
2	2	0325F002.D	1.	SIM-PAH CCV @ 0.4ug/mL | SVM60-69C		25 Mar 2019 06:05
3	3	0325F003.D	1.	KWG1901112-3 MB/~~1B~~		25 Mar 2019 07:08
4	4	0325F004.D	1.	K1902351-019		25 Mar 2019 07:44

*Lims # 6294484
KC1900055
3/26/19

ALS Environmental
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www.alsglobal.com

April 09, 2019

Analytical Report for Service Request No: K1902359

Scott Thielke
JH Baxter & Company
85 N. Baxter Road
P.O. Box 10797
Eugene, OR 97440

RE: JH Baxter - Arlington

Dear Scott,

Enclosed are the results of the sample(s) submitted to our laboratory March 19, 2019
For your reference, these analyses have been assigned our service request number **K1902359.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3350. You may also contact me via email at Kelley.Lovejoy@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Kelley Lovejoy
Project Manager

ALS Environmental
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Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1902359
Date Received: 03/19/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Three water samples were received for analysis at ALS Environmental on 03/19/2019. As instructed, the discreet samples were composited at the laboratory to create one composite sample: EW COMPOSITE. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4ºC upon receipt at the laboratory.

Semivoa GC:

Method 8151A Modified, Haloacetic Acids (GC) 03/22/2019: The upper control criterion was exceeded for Chloroacetic Acid in the Laboratory Control Sample (LCS). The analyte in question was not detected in the associated field samples. The error associated with elevated recovery indicated a high bias. The sample data was not significantly affected. The limits are default values temporarily in use until sufficient data points are generated to calculate statistical control limits. Based on the method and historic data, the recoveries observed were in the range expected for this procedure. No further corrective action was taken.

Approved by Kelley Lovejoy Date 04/09/2019

Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
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ALS Environmental

1317 South 13th, Kelso, WA 98626 (360) 577-7222 FAX (360) 636-1068

SR# K1902359

PAGE _____ OF _____

					0H	7D	28D								1800	7D	
Project Name: JH Baxter - Arlington Project Number:					Analysis Requested												
Project Manager: Company: JH Baxter																	
Company/Address: 85 N Baxter Rd Phone: 541-689-3801																	
City, State, Zip: Eugene, OR 97402 FAX: 541-689-0769																	
Sampler's Signature:																	
Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	SM 4500-H+ B / Ph	8270 D / PAH SIM	120.1 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	SM 2540 C TDS	8151 A Modified/PCP only	REMARKS
~~BXS-1~~				~~water~~	~~2~~		X											X	~~Site investigation~~
~~BXS-2~~				~~water~~	~~2~~		X											X	Site investigation
~~BXS-5~~				~~water~~	2		X											X	Site investigation
~~BXS-4~~				~~water~~	4					X	X		X	X	X	X	X		~~Landfill Program~~
EW-1	3/17/19	1130																X	PCP Breakdown
EW-2	1	1135																X	Products
EW-4	3/17/19	1140																X	

TURNAROUND REQUIREMENTS

____ 24 hr ____ 48 hr ____ 5 day

__X__ Standard (21 days)

____ Provide FAX Preliminary Results

Requested Report Date:_____

Invoice Information

P.O. # _____

Bill to: JH Baxter & Co

San Mateo CA,94402

REPORT REQUIREMENTS

_____ I. Routine Report: Results, Method Blank, Surrogate, as required

__X__ II. Report Dup., MS, MSD as required

_____ III. Data Validation Report (includes raw data)

_____ IV. CLP Deliverable Report

_____ V. EDD

Comments/Special Instructions:

~~Baxter is responsible for BXS-4 during Quarters 1 & 3~~

~~PAH samples have 2 - 500ml amber bottles~~

~~BXS 1&2 quarterly for PCP AND PAH'S~~

Composite will be Put together at ALS 3 samples Randy Platt will be sent. 8512

Questions? - Please Call ~~Steven Kuhlmeier~~ @ GSI Water Solutions 971-200-~~8529~~

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Printed Name: Matt Hansen	Printed Name: K Monroe	Printed Name:	Printed Name:
Firm: JH Baxter	Firm: ALS	Firm:	Firm:
Date/Time: 3/18/19 1600	Date/Time: 3/19/19 0930	Date/Time:	Date/Time:

PC KL

Cooler Receipt and Preservation Form

Client JH Baxter Service Request *K19* 07359

Received: 3/19/19 Opened: 3/19/19 By: KM Unloaded: 3/19/19 By: K

1. Samples were received via? *USPS* (*Fed Ex*) *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y (N) If yes, how many and where? _____
   If present, were custody seals intact? Y (N) If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID (NA)	Tracking Number NA	Filed
-0.1	-0.1	3.3	3.3	0	362		4808 3227 5856	
-0.1	0.0	3.9	4.0	+0.1	381		4808 3227 5845	

4. Packing material: *Inserts* (*Baggies*) (*Bubble Wrap*) *Gel Packs* (*Wet Ice*) *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA (Y) N
   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* (NA) Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
12. Was C12/Res negative? NA (Y) N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

otes, Discrepancies, & Resolutions: _____

Chlorinated Phenolics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902359
Project:	JH Baxter - Arlington	**Date Collected:**	03/17/19
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	EW COMPOSITE	**Units:**	ug/L
Lab Code:	K1902359-004	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4,5-Trichlorophenol	ND	U	1.0	0.16	1	03/21/19 21:49	3/20/19	
2,4,6-Trichlorophenol	ND	U	0.50	0.042	1	03/21/19 21:49	3/20/19	
3,4,5-Trichlorophenol	ND	U	1.0	0.15	1	03/21/19 21:49	3/20/19	
2,3,4,5-Tetrachlorophenol	ND	U	0.50	0.042	1	03/21/19 21:49	3/20/19	
2,3,5,6-Tetrachlorophenol	**7.8**		0.50	0.032	1	03/21/19 21:49	3/20/19	
Pentachlorophenol (PCP)	**210**		2.5	0.36	5	03/22/19 09:49	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	96	55 - 130	03/21/19 21:49	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902359
Project:	JH Baxter - Arlington	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KQ1903604-04	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4,5-Trichlorophenol	ND U	1.0	0.16	1	03/21/19 17:34	3/20/19	
2,4,6-Trichlorophenol	ND U	0.50	0.042	1	03/21/19 17:34	3/20/19	
3,4,5-Trichlorophenol	ND U	1.0	0.15	1	03/21/19 17:34	3/20/19	
2,3,4,5-Tetrachlorophenol	ND U	0.50	0.042	1	03/21/19 17:34	3/20/19	
2,3,5,6-Tetrachlorophenol	ND U	0.50	0.032	1	03/21/19 17:34	3/20/19	
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/21/19 17:34	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	86	55 - 130	03/21/19 17:34	

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902359
Date Collected: 03/17/19
Date Received: 3/19/19

Sample Name: EW COMPOSITE
Lab Code: K1902359-004

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.36	210	230	9		5	03/22/19 09:49
2,3,5,6-Tetrachlorophenol	0.032	7.8	9.3	18		1	03/21/19 21:49

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902359
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: KQ1903604-03

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
2,3,4,5-Tetrachlorophenol	0.042	7.20	8.09	12		1	03/21/19 17:52
2,3,5,6-Tetrachlorophenol	0.032	8.17	8.71	6		1	03/21/19 17:52
2,4,5-Trichlorophenol	0.16	6.66	7.59	13		1	03/21/19 17:52
2,4,6-Trichlorophenol	0.042	7.30	8.17	11		1	03/21/19 17:52
3,4,5-Trichlorophenol	0.15	3.96	4.32	9		1	03/21/19 17:52
Pentachlorophenol (PCP)	0.071	8.16	9.60	16		1	03/21/19 17:52

Client: JH Baxter & Company **Service Request:** K1902359
Project: JH Baxter - Arlington
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Chlorinated Phenolics

Analysis Method: 8151A Modified
Extraction Method: Method

Sample Name	Lab Code	4-Bromo-2,6-dichlorophenol 55-130
EW COMPOSITE	K1902359-004	96
Method Blank	KQ1903604-04	86
Lab Control Sample	KQ1903604-03	91

Client:	JH Baxter & Company	**Service Request:**	K1902359
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Lab Control Sample Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Units:**	ug/L
Prep Method:	Method	**Basis:**	NA
		Analysis Lot:	629161

Lab Control Sample
KQ1903604-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
2,3,4,5-Tetrachlorophenol	7.20	10.0	72	36-94
2,3,5,6-Tetrachlorophenol	8.17	10.0	82	42-110
2,4,5-Trichlorophenol	6.66	10.0	67	20-101
2,4,6-Trichlorophenol	7.30	10.0	73	37-91
3,4,5-Trichlorophenol	3.96	10.0	40	10-105
Pentachlorophenol (PCP)	8.16	10.0	82	42-110

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902359
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 17:34
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Method Blank Summary
Chlorinated Phenolics

Sample Name:	Method Blank	**Instrument ID:**	K-GC-28
Lab Code:	KQ1903604-04	**File ID:**	J:\GC28\Data\032119B\0321F005.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	629161,629174
Prep Method:	Method	**Extraction Lot:**	333306

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1903604-03	J:\GC28\Data\032119B\0321F006.D\	03/21/19 17:52
EW COMPOSITE	K1902359-004	J:\GC28\Data\032119B\0321F019.D\	03/21/19 21:49
EW COMPOSITE	K1902359-004	J:\GC28\Data\032219\0322F005.D\	03/22/19 09:49

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902359
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 17:52
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Lab Control Sample Summary
Chlorinated Phenolics

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-28
Lab Code:	KQ1903604-03	**File ID:**	J:\GC28\Data\032119B\0321F006.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	629161,629174
Prep Method:	Method	**Extraction Lot:**	333306

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1903604-04	J:\GC28\Data\032119B\0321F005.D\	03/21/19 17:34
EW COMPOSITE	K1902359-004	J:\GC28\Data\032119B\0321F019.D\	03/21/19 21:49
EW COMPOSITE	K1902359-004	J:\GC28\Data\032219\0322F005.D\	03/22/19 09:49

Client: JH Baxter & Company **Service Request:** K1902359
Project: JH Baxter - Arlington **Calibration Date:** 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-1701
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Analyte

2,3,4,5-Tetrachlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	10	2.358	4.756E5	02	4.715	3.979E5	03	9.431	3.696E5
04	23.577	3.259E5	05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5

2,3,5,6-Tetrachlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	10	2.358	5.749E5	02	4.715	5.28E5	03	9.431	4.935E5
04	23.577	4.478E5	05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5

2,4,5-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	10	2.334	2.006E5	02	4.669	1.8E5	03	9.338	1.735E5
04	23.345	1.484E5	05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5

2,4,6-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	10	2.334	4.078E5	02	4.669	3.846E5	03	9.338	3.638E5
04	23.345	3.225E5	05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5

3,4,5-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	10	2.334	1.988E5	02	4.669	1.823E5	03	9.338	1.696E5
04	23.345	1.515E5	05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5

4-Bromo-2,6-dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	10	2.500	4.672E5	02	5.000	4.356E5	03	10.000	4.141E5
04	25.000	3.754E5	05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5
08	500.000	2.979E5	09	1000.000	2.755E5						

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	10	2.375	6.451E5	02	4.750	5.978E5	03	9.501	5.654E5

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902359
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-1701

Analyte

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	23.752	5.208E5	05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5
08	475.030	3.936E5	09	950.060	3.695E5						

Client: JH Baxter & Company **Service Request:** K1902359
Project: JH Baxter - Arlington **Calibration Date:** 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-1701
Instrument ID: K-GC-28

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
2,3,4,5-Tetrachlorophenol	TRG	Quadratic	COD	0.9997	≥0.99	3.79E5	
2,3,5,6-Tetrachlorophenol	TRG	Quadratic	COD	0.9997	≥0.99	4.819E5	
2,4,5-Trichlorophenol	TRG	Quadratic	COD	0.9991	≥0.99	1.615E5	
2,4,6-Trichlorophenol	TRG	Quadratic	COD	0.9995	≥0.99	3.489E5	
3,4,5-Trichlorophenol	TRG	Quadratic	COD	0.9991	≥0.99	1.603E5	
4-Bromo-2,6-dichlorophenol	SURR	Quadratic	COD	0.9994	≥0.99	3.824E5	
Pentachlorophenol (PCP)	TRG	Quadratic	COD	0.9990	≥0.99	5.2E5	

Client: JH Baxter & Company **Service Request:** K1902359
Project: JH Baxter - Arlington **Calibration Date:** 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-35
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Analyte

2,3,4,5-Tetrachlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	10	2.358	4.73E5	02	4.715	4.353E5	03	9.431	4.108E5
04	23.577	3.904E5	05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5

2,3,5,6-Tetrachlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	10	2.358	6.377E5	02	4.715	5.882E5	03	9.431	6.075E5
04	23.577	5.816E5	05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5

2,4,5-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	10	2.334	2.293E5	02	4.669	2.059E5	03	9.338	2.015E5
04	23.345	1.829E5	05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5

2,4,6-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	10	2.334	4.267E5	02	4.669	4.004E5	03	9.338	4.124E5
04	23.345	3.941E5	05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5

3,4,5-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	10	2.334	2.115E5	02	4.669	1.919E5	03	9.338	1.89E5
04	23.345	1.732E5	05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5

4-Bromo-2,6-dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	10	2.500	3.934E5	02	5.000	3.777E5	03	10.000	4.048E5
04	25.000	4.138E5	05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5
08	500.000	4.395E5	09	1000.000	4.542E5						

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	10	2.375	7.52E5	02	4.750	6.912E5	03	9.501	6.875E5

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902359
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-35

Analyte

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	23.752	6.474E5	05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5
08	475.030	6.37E5	09	950.060	6.573E5						

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902359
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-35

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
2,3,4,5-Tetrachlorophenol	TRG	Average RF	% RSD	12.3	≤20	4.159E5	
2,3,5,6-Tetrachlorophenol	TRG	Average RF	% RSD	6.6	≤20	6.037E5	
2,4,5-Trichlorophenol	TRG	Quadratic	COD	0.9997	≥0.99	1.99E5	
2,4,6-Trichlorophenol	TRG	Average RF	% RSD	4.6	≤20	4.082E5	
3,4,5-Trichlorophenol	TRG	Quadratic	COD	0.9998	≥0.99	1.881E5	
4-Bromo-2,6-dichlorophenol	SURR	Average RF	% RSD	6.0	≤20	4.216E5	
Pentachlorophenol (PCP)	TRG	Average RF	% RSD	9.6	≤20	6.805E5	

Client: JH Baxter & Company **Service Request:** K1902359
Project: JH Baxter - Arlington **Calibration Date:** 2/28/2019

Initial Calibration Verification Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-1701
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900082-11	PENTA01-95D ICV	J:\GC28\Data\022819CAL\0228F016.D	02/28/2019 12:00

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	50.0	1.615E5	1.444E5	6.98	±20	Quadratic
2,4,6-Trichlorophenol	46.7	47.2	3.489E5	3.097E5	1.11	±20	Quadratic
3,4,5-Trichlorophenol	46.7	49.5	1.603E5	1.499E5	6.02	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	50.1	3.79E5	3.205E5	6.30	±20	Quadratic
2,3,5,6-Tetrachlorophenol	47.2	50.7	4.819E5	4.606E5	7.61	±20	Quadratic
Pentachlorophenol (PCP)	47.5	55.3	5.2E5	5.35E5	16.43	±20	Quadratic

Client: JH Baxter & Company **Service Request:** K1902359
Project: JH Baxter - Arlington **Calibration Date:** 2/28/2019

Initial Calibration Verification Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-35
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900082-11	PENTA01-95D ICV	J:\GC28\Data\022819CAL\0228F016.D	02/28/2019 12:00

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	50.7	1.99E5	1.911E5	8.54	±20	Quadratic
2,4,6-Trichlorophenol	46.7	46.7	4.082E5	4.085E5	0.085	±20	Average RF
3,4,5-Trichlorophenol	46.7	48.4	1.881E5	1.75E5	3.65	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	46.7	4.159E5	4.123E5	-0.870	±20	Average RF
2,3,5,6-Tetrachlorophenol	47.2	47.9	6.037E5	6.132E5	1.56	±20	Average RF
Pentachlorophenol (PCP)	47.5	48.8	6.805E5	6.996E5	2.80	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902359
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 16:57

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032119B\0321F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	629161
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	42.8	1.99E5	1.625E5	NA	-8.2	±20	Quadratic
2,4,6-Trichlorophenol	46.7	42.0	4.082E5	3.669E5	-10.1	NA	±20	Average RF
3,4,5-Trichlorophenol	46.7	42.3	1.881E5	1.536E5	NA	-9.4	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	40.4	4.159E5	3.563E5	-14.3	NA	±20	Average RF
2,3,5,6-Tetrachlorophenol	47.2	42.2	6.037E5	5.408E5	-10.4	NA	±20	Average RF
Pentachlorophenol (PCP)	47.5	41.7	6.805E5	5.975E5	-12.2	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	47.5	4.216E5	4.001E5	-5.1	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902359
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 16:57

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032119B\0321F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	629161
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	46.4	1.615E5	1.349E5	NA	-0.6	±20	Quadratic
2,4,6-Trichlorophenol	46.7	44.4	3.489E5	2.92E5	NA	-5.0	±20	Quadratic
3,4,5-Trichlorophenol	46.7	42.8	1.603E5	1.309E5	NA	-8.3	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	42.8	3.79E5	2.766E5	NA	-9.2	±20	Quadratic
2,3,5,6-Tetrachlorophenol	47.2	44.8	4.819E5	4.092E5	NA	-5.0	±20	Quadratic
Pentachlorophenol (PCP)	47.5	47.3	5.2E5	4.599E5	NA	-0.4	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	51.1	3.824E5	3.527E5	NA	2.2	±20	Quadratic

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902359
Date Analyzed: 03/21/19 21:13

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method: 8151A Modified
File ID: J:\GC28\Data\032119B\0321F017.D\
Signal ID: Rtx-35

Calibration Date: 2/28/2019
Calibration ID: KC1900082
Analysis Lot: 629161
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	43.8	1.99E5	1.66E5	NA	-6.2	±20	Quadratic
2,4,6-Trichlorophenol	46.7	43.1	4.082E5	3.765E5	-7.8	NA	±20	Average RF
3,4,5-Trichlorophenol	46.7	43.2	1.881E5	1.567E5	NA	-7.5	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	40.5	4.159E5	3.577E5	-14.0	NA	±20	Average RF
2,3,5,6-Tetrachlorophenol	47.2	43.0	6.037E5	5.509E5	-8.8	NA	±20	Average RF
Pentachlorophenol (PCP)	47.5	41.4	6.805E5	5.935E5	-12.8	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	47.8	4.216E5	4.032E5	-4.4	NA	±20	Average RF

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902359
Date Analyzed: 03/21/19 21:13

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method: 8151A Modified
File ID: J:\GC28\Data\032119B\0321F017.D\
Signal ID: Rtx-1701

Calibration Date: 2/28/2019
Calibration ID: KC1900082
Analysis Lot: 629161
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	47.5	1.615E5	1.379E5	NA	1.8	±20	Quadratic
2,4,6-Trichlorophenol	46.7	46.8	3.489E5	3.073E5	NA	0.3	±20	Quadratic
3,4,5-Trichlorophenol	46.7	46.1	1.603E5	1.402E5	NA	-1.3	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	44.3	3.79E5	2.859E5	NA	-6.0	±20	Quadratic
2,3,5,6-Tetrachlorophenol	47.2	47.2	4.819E5	4.301E5	NA	0.1	±20	Quadratic
Pentachlorophenol (PCP)	47.5	48.4	5.2E5	4.696E5	NA	1.8	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	53.0	3.824E5	3.656E5	NA	6.0	±20	Quadratic

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902359
Date Analyzed: 03/21/19 23:21

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method: 8151A Modified
File ID: J:\GC28\Data\032119B\0321F024.D\
Signal ID: Rtx-35

Calibration Date: 2/28/2019
Calibration ID: KC1900082
Analysis Lot: 629161
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	42.6	1.99E5	1.615E5	NA	-8.8	±20	Quadratic
2,4,6-Trichlorophenol	46.7	41.9	4.082E5	3.664E5	-10.2	NA	±20	Average RF
3,4,5-Trichlorophenol	46.7	41.9	1.881E5	1.521E5	NA	-10.3	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	40.4	4.159E5	3.562E5	-14.3	NA	±20	Average RF
2,3,5,6-Tetrachlorophenol	47.2	42.4	6.037E5	5.435E5	-10.0	NA	±20	Average RF
Pentachlorophenol (PCP)	47.5	41.2	6.805E5	5.908E5	-13.2	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	47.1	4.216E5	3.968E5	-5.9	NA	±20	Average RF

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902359
Date Analyzed: 03/21/19 23:21

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method: 8151A Modified
File ID: J:\GC28\Data\032119B\0321F024.D\
Signal ID: Rtx-1701

Calibration Date: 2/28/2019
Calibration ID: KC1900082
Analysis Lot: 629161
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	47.6	1.615E5	1.381E5	NA	1.9	±20	Quadratic
2,4,6-Trichlorophenol	46.7	45.8	3.489E5	3.009E5	NA	-1.9	±20	Quadratic
3,4,5-Trichlorophenol	46.7	46.0	1.603E5	1.4E5	NA	-1.5	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	45.1	3.79E5	2.902E5	NA	-4.4	±20	Quadratic
2,3,5,6-Tetrachlorophenol	47.2	47.5	4.819E5	4.329E5	NA	0.8	±20	Quadratic
Pentachlorophenol (PCP)	47.5	49.5	5.2E5	4.803E5	NA	4.2	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	53.5	3.824E5	3.692E5	NA	7.1	±20	Quadratic

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902359
Date Analyzed: 03/22/19 09:13

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method: 8151A Modified
File ID: J:\GC28\Data\032219\0322F003.D\
Signal ID: Rtx-35

Calibration Date: 2/28/2019
Calibration ID: KC1900082
Analysis Lot: 629174
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	45.9	1.99E5	1.736E5	NA	-1.7	±20	Quadratic
2,4,6-Trichlorophenol	46.7	45.2	4.082E5	3.948E5	-3.3	NA	±20	Average RF
3,4,5-Trichlorophenol	46.7	45.5	1.881E5	1.647E5	NA	-2.6	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	43.1	4.159E5	3.801E5	-8.6	NA	±20	Average RF
2,3,5,6-Tetrachlorophenol	47.2	45.2	6.037E5	5.791E5	-4.1	NA	±20	Average RF
Pentachlorophenol (PCP)	47.5	44.4	6.805E5	6.355E5	-6.6	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	51.2	4.216E5	4.317E5	2.4	NA	±20	Average RF

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902359
Date Analyzed: 03/22/19 09:13

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method: 8151A Modified
File ID: J:\GC28\Data\032219\0322F003.D\
Signal ID: Rtx-1701

Calibration Date: 2/28/2019
Calibration ID: KC1900082
Analysis Lot: 629174
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	47.1	1.615E5	1.368E5	NA	0.9	±20	Quadratic
2,4,6-Trichlorophenol	46.7	46.1	3.489E5	3.031E5	NA	-1.2	±20	Quadratic
3,4,5-Trichlorophenol	46.7	46.5	1.603E5	1.415E5	NA	-0.4	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	45.3	3.79E5	2.915E5	NA	-4.0	±20	Quadratic
2,3,5,6-Tetrachlorophenol	47.2	47.5	4.819E5	4.329E5	NA	0.8	±20	Quadratic
Pentachlorophenol (PCP)	47.5	50.2	5.2E5	4.874E5	NA	5.8	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	54.8	3.824E5	3.774E5	NA	9.5	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1902359
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/22/19 10:08

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032219\0322F006.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	629174
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	44.7	1.99E5	1.693E5	NA	-4.3	±20	Quadratic
2,4,6-Trichlorophenol	46.7	43.9	4.082E5	3.841E5	-5.9	NA	±20	Average RF
3,4,5-Trichlorophenol	46.7	44.3	1.881E5	1.604E5	NA	-5.2	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	41.9	4.159E5	3.693E5	-11.2	NA	±20	Average RF
2,3,5,6-Tetrachlorophenol	47.2	44.1	6.037E5	5.653E5	-6.4	NA	±20	Average RF
Pentachlorophenol (PCP)	47.5	43.2	6.805E5	6.193E5	-9.0	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	49.7	4.216E5	4.187E5	-0.7	NA	±20	Average RF

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902359
Date Analyzed: 03/22/19 10:08

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method: 8151A Modified
File ID: J:\GC28\Data\032219\0322F006.D\
Signal ID: Rtx-1701

Calibration Date: 2/28/2019
Calibration ID: KC1900082
Analysis Lot: 629174
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	48.9	1.615E5	1.415E5	NA	4.7	±20	Quadratic
2,4,6-Trichlorophenol	46.7	47.2	3.489E5	3.098E5	NA	1.1	±20	Quadratic
3,4,5-Trichlorophenol	46.7	46.0	1.603E5	1.401E5	NA	-1.5	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	46.0	3.79E5	2.959E5	NA	-2.4	±20	Quadratic
2,3,5,6-Tetrachlorophenol	47.2	49.1	4.819E5	4.468E5	NA	4.2	±20	Quadratic
Pentachlorophenol (PCP)	47.5	51.1	5.2E5	4.958E5	NA	7.6	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	56.1	3.824E5	3.867E5	NA	12.3	±20	Quadratic

Client: JH Baxter & Company **Service Request:**K1902359
Project: JH Baxter - Arlington

Analysis Run Log
Chlorinated Phenolics

Analysis Method: 8151A Modified **Analysis Lot:**629161
Instrument ID:K-GC-28

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\GC28\Data\032119B\0321F003.D\	Continuing Calibration Verification	KQ1903733-01	3/21/2019	16:57:00	
J:\GC28\Data\032119B\0321F004.D\	Continuing Calibration Blank	KQ1903733-04	3/21/2019	17:15:00	
J:\GC28\Data\032119B\0321F005.D\	Method Blank	KQ1903604-04	3/21/2019	17:34:00	
J:\GC28\Data\032119B\0321F006.D\	Lab Control Sample	KQ1903604-03	3/21/2019	17:52:00	
J:\GC28\Data\032119B\0321F007.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	18:10:00	
J:\GC28\Data\032119B\0321F008.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	18:29:00	
J:\GC28\Data\032119B\0321F009.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	18:47:00	
J:\GC28\Data\032119B\0321F010.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	19:05:00	
J:\GC28\Data\032119B\0321F011.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	19:23:00	
J:\GC28\Data\032119B\0321F012.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	19:42:00	
J:\GC28\Data\032119B\0321F013.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	20:00:00	
J:\GC28\Data\032119B\0321F014.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	20:18:00	
J:\GC28\Data\032119B\0321F015.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	20:36:00	
J:\GC28\Data\032119B\0321F016.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	20:54:00	
J:\GC28\Data\032119B\0321F017.D\	Continuing Calibration Verification	KQ1903733-02	3/21/2019	21:13:00	
J:\GC28\Data\032119B\0321F018.D\	Continuing Calibration Blank	KQ1903733-05	3/21/2019	21:31:00	
J:\GC28\Data\032119B\0321F019.D\	EW COMPOSITE	K1902359-004	3/21/2019	21:49:00	
J:\GC28\Data\032119B\0321F020.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	22:08:00	
J:\GC28\Data\032119B\0321F021.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	22:26:00	
J:\GC28\Data\032119B\0321F022.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	22:44:00	
J:\GC28\Data\032119B\0321F023.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	23:03:00	
J:\GC28\Data\032119B\0321F024.D\	Continuing Calibration Verification	KQ1903733-03	3/21/2019	23:21:00	
J:\GC28\Data\032119B\0321F025.D\	Continuing Calibration Blank	KQ1903733-06	3/21/2019	23:39:00	

Client: JH Baxter & Company **Service Request:**K1902359
Project: JH Baxter - Arlington

Analysis Run Log
Chlorinated Phenolics

Analysis Method: 8151A Modified **Analysis Lot:**629174
Instrument ID:K-GC-28

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\GC28\Data\032219\0322F003.D\	Continuing Calibration Verification	KQ1903753-01	3/22/2019	09:13:00	
J:\GC28\Data\032219\0322F004.D\	Continuing Calibration Blank	KQ1903753-03	3/22/2019	09:31:00	
J:\GC28\Data\032219\0322F005.D\	EW COMPOSITE	K1902359-004	3/22/2019	09:49:00	
J:\GC28\Data\032219\0322F006.D\	Continuing Calibration Verification	KQ1903753-02	3/22/2019	10:08:00	
J:\GC28\Data\032219\0322F007.D\	Continuing Calibration Blank	KQ1903753-04	3/22/2019	10:26:00	

Prep Summary Report

Client: JH Baxter & Company **Service Request:**K1902359
Project: JH Baxter - Arlington
Sample Matrix: Water

Chlorinated Phenolics

Prep Method: Method **Extraction Lot:** 333306
Analytical Method: 8151A Modified **Extraction Date:** 03/20/19 14:12

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
EW COMPOSITE	K1902359-004	3/17/19	3/19/19	5 mL	1 mL	
Lab Control Sample	KQ1903604-03LCS	NA	NA	5 mL	1 mL	
Method Blank	KQ1903604-04MB	NA	NA	5 mL	1 mL	

Raw Data

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Chlorinated Phenolics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 333306
Team: Semivoa GC/WVANDERHOFF
Number of Copies to make: 3

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method

Status: Prepped
Prep Date/Time: 3/20/19 02:12 PM

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1902351-021	MW-37	.01	8151A Modified/PCP		Water	5mL	1.00mL	
2	K1902351-022	MW-38	.01	8151A Modified/PCP		Water	5mL	1.00mL	
3	K1902351-023	MW-39	.01	8151A Modified/PCP		Water	5mL	1.00mL	
4	K1902351-024	MW-40	.01	8151A Modified/PCP		Water	5mL	1.00mL	
5	K1902351-025	MW-41	.01	8151A Modified/PCP		Water	5mL	1.00mL	
6	K1902351-026	MW-42	.01	8151A Modified/PCP		Water	5mL	1.00mL	
7	K1902351-027	MW-44	.01	8151A Modified/PCP		Water	5mL	1.00mL	
8	K1902351-028	FIELD BLANK RINSATE	.01	8151A Modified/PCP		Water	5mL	1.00mL	
9	K1902351-029	MW-3	.01	8151A Modified/PCP		Water	5mL	1.00mL	
10	K1902351-030	MW-2	.01	8151A Modified/PCP		Water	5mL	1.00mL	
11	K1902359-004	EW COMPOSITE	.01	8151A Modified/PCP		Water	5mL	1.00mL	
12	K1902361-001	BXS-1	.02	8151A Modified/PCP		Water	5mL	1.00mL	
13	K1902361-002	BXS-2	.02	8151A Modified/PCP		Water	5mL	1.00mL	
14	KQ1903604-01	K1902361-002 MS	.02	8151A Modified/PCP		Liquid	5mL	1.00mL	
15	KQ1903604-02	K1902361-002 DMS	.02	8151A Modified/PCP		Liquid	5mL	1.00mL	
16	KQ1903604-03	LCS		8151A Modified/PCP		Liquid	5mL	1.00mL	
17	KQ1903604-04	MB		8151A Modified/PCP		Liquid	5mL	1.00mL	

Spiking Solutions

Name: 8151M Penta Matrix Spike Inventory ID 193483 Logbook Ref: Penta01-92L Expires On: 03/24/2019

KQ1903604-01	100.00µL	KQ1903604-02	100.00µL	KQ1903604-03	100.00µL

Name: 8151M Penta Surrogate Inventory ID 196125 Logbook Ref: Penta01-94K Expires On: 05/12/2019

K1902351-021	100.00µL	K1902351-022	100.00µL	K1902351-023	100.00µL	K1902351-024	100.00µL	K1902351-025	100.00µL	K1902351-026	100.00µL
K1902351-027	100.00µL	K1902351-028	100.00µL	K1902351-029	100.00µL	K1902351-030	100.00µL	K1902359-004	100.00µL	K1902361-001	100.00µL
K1902361-002	100.00µL	KQ1903604-01	100.00µL	KQ1903604-02	100.00µL	KQ1903604-03	100.00µL	KQ1903604-04	100.00µL		

Preparation Steps

Step:	Extraction	Step:	Derivitization	Step:	Final Volume
Started:	3/20/19 14:12	Started:	3/21/19 14:52	Started:	3/21/19 15:23
Finished:	3/20/19 14:55	Finished:	3/21/19 15:23	Finished:	3/21/19 15:41
By:	WVANDERHOFF	By:	WVANDERHOFF	By:	WVANDERHOFF
Comments		Comments		Comments	

Preparation Information Benchsheet

Prep Run#: 333306
Team: Semivoa GC/WVANDERHOFF

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method

Status: Prepped
Prep Date/Time: 3/20/19 02:12 PM

Comments: _____

Reviewed By: _____ Date: 3/22/19

Chain of Custody

Relinquished By: _____ Date: 3.21.19

Received By: _____ Date: 3/21/19

Extracts Examined
Yes No

Preparation Information Benchsheet

Prep Run#: 333306 **Prep WorkFlow:** OrgExtPcpAq7 **Status:** Draft
Team: Semivoa GC/WVANDERHOFF **Prep Method:** Method [redacted] **Prep Date/Time:** 3/20/19 01:11 PM
Number of Copies to make: 3

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. ml.	pH	Int. Vol ml.	Final Vol ml.	Surr Amt µl	Spike Amt µl
1	**K1902351-021**	MW-37	.01	✓	8151A Modified / PCP	Water	5	<2		1	100	–
2	**K1902351-022**	MW-38	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
3	**K1902351-023**	MW-39	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
4	**K1902351-024**	MW-40	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
5	**K1902351-025**	MW-41	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
6	**K1902351-026**	MW-42	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
7	**K1902351-027**	MW-44	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
8	**K1902351-028**	FIELD BLANK RINSATE	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
9	**K1902351-029**	MW-3	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
10	**K1902351-030**	MW-2	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
11	**K1902359-004**	EW COMPOSITE	.01	✓	8151A Modified / PCP	Water	5	<2		1		–
12	**K1902361-001**	BXS-1	.02	✓	8151A Modified / PCP	Water	5	<2		1		–
13	**K1902361-002**	BXS-2	.02	✓	8151A Modified / PCP	Water	5	<2		1		–
14	**KQ1903604-01**	K1902361-002 MS	.02	✓	8151A Modified / PCP	Liquid	5	<2		1		100
15	**KQ1903604-02**	K1902361-002 DMS	.02	✓	8151A Modified / PCP	Liquid	5	<2		1		
16	**KQ1903604-03**	LCS	—	—	8151A Modified / PCP	Liquid	5	<2		1		
17	**KQ1903604-04**	MB	—	—	8151A Modified / PCP	Liquid	5	<2		1		–

Comments:

Surrogate ID: 196,125-Penta01-94K 196,125-Penta01-94K 196,125-Penta01-94K 196,125-Penta01-94K 196
100µl xp 5-12-19 Cpp#28 500ppb

Spike ID: 193,483-Penta01-92L 196,125-Penta01-94K 193,483-Penta01-92L 196,125-Penta01-94K 193,4
100µl xp 3-24-19 Cpp#28 500ppb

Witnessed By: BWillard 3/20/19

Analyst: WSV

Assisted By:

ALS Environmental

Extraction Analyst Notes

Service Request: K1902359 Prep Group: KQ1903604

Topic	Notes	Initials/Date
No Anomalies: □		
Sample Anomalies: □		
Organics Present (sticks, leafs, bugs): □		
Fuel Odors: □		
Sulfur Odors, Precipitate: □		
General Notes:	K1902359 - samples 001, 002, 003 - 5 mls. of each (composite) to make sample # 004	NZ 3.20.19

Reviewed by: Jonathon Walter 12/19/18

EXT-NOTES r.0

Additional Prep Information for Method 8151M
Chlorinated Phenols "PCPs" in Water

[redacted]

Service Request # K1902351, 2359, 2361 **Work Group #** KQ1903604

1:1 Sulfuric Acid Lot # 7121159 Ethyl Ether Lot # DV328-U5

Extraction Start (time/date/initial): 14:12 3-20-19 WS

Extraction Stop (time/date/initial): 14:55 3-20-19 WS

Storage Location (overnight): 25R Acidified Sulfate Lot # DZ03-29I

N-Evap (time/date/initial): 13:30 3-21-19 WS N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Derivatization Start (time/date/initial): 14:52 3-21-19 WS

Derivatization Stop (time/date/initial): 15:23 3-21-19 WS

Diazomethane Lot # DZ03-40Q Methanol Lot # DN615

Solvent Exchange to Iso-Octane (time/date/initial): 15:23 3-21-19 WS

Iso-Octane Lot # DN121 N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Pipette (1 mL) Lot # 25215645

Vial: Red Vial Storage: Rented

Additional Comments:

Bench Sheet Review Check List	
☐	Hold times met (if no, reason:)
☐	Prep date, time, method, department, product code correct in stealth
☐	Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☐	Weights/Volumes and units correct on raw and final bench sheets
☐	Sample IDs have been checked - bottle numbers appended if required
☐	Names present for: started by, completed by, relinquished by, and witnessed by. Training circled.
☐	Extract storage recorded
☐	Additional prep sheet completely filled out (NA or line out blanks)
☐	All clean-ups have been noted on additional prep sheet
☐	Signed service request with Form V, if applicable, has been attached

1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F019.D\
Lab ID: K1902359-004
RunType: N/A
Matrix: Water

Date Acquired: 3/21/19 21:49:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level		X
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Above Highest ICAL Level - Rtx-1701	Pentachlorophenol (PCP)	1656.081		950.06	dil
Above Highest ICAL Level - Rtx-35	Pentachlorophenol (PCP)	1227.162		950.06	dil

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F019.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 21:49:00	**Vial:**	17
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902359-004	**Raw Units:**	ug/L

Bottle ID:	K1902359-004.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	K1902359
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18597

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18821282	20305222	54.616	48.165	109	96	96	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
2,4,5-Trichlorophenol	4.18 -0.01	4.73 +0.02	165220	114464	0.299	0.049	0.060U	0.0098U	0.16 U	Y
2,4,6-Trichlorophenol	0.00	4.20	0	52692	0.000	0.129	0U	0.026U	0.042 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.15 U	Y
2,3,4,5-Tetrachlorophenol	5.01	5.42 +0.01	368621	441048	0.019	1.060	0.0038U	0.21J	0.042 U	Y
2,3,5,6-Tetrachlorophenol	4.47	5.02 +0.01	20021028	23413244	46.582	38.781	9.3	7.8	**7.8**	Y
Pentachlorophenol (PCP)	5.15 +0.01	5.60	490511855	835099107	1656.081	1227.162	330E	250E	**250** E	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F019.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 21:49:00	**Vial:**	17
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902359-004	**Raw Units:**	ug/L

Bottle ID:	K1902359-004.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	K1902359
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18821282	20305222	54.616	48.165	109	96	96	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	3.15 +0.02	3.75 +0.02	12616	17748	0.242	0.818	0.048U	0.16U	0.35 U	Y
3,5-Dichlorophenol	3.36 -0.01	3.99	14692	10328	0.647	0.118	0.13U	0.024U	0.65 U	Y
2,4,5-Trichlorophenol	4.18 -0.01	4.73 +0.02	165220	114464	0.299	0.049	0.060U	0.0098U	0.16 U	Y
2,4,6-Trichlorophenol	0.00	4.20	0	52692	0.000	0.129	0U	0.026U	0.042 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.15 U	Y
2,3,4,5-Tetrachlorophenol	5.01	5.42 +0.01	368621	441048	0.019	1.060	0.0038U	0.21J	0.042 U	Y
2,3,5,6-Tetrachlorophenol	4.47	5.02 +0.01	20021028	23413244	46.582	38.781	9.3	7.8	**7.8**	Y
Pentachlorophenol (PCP)	5.15 +0.01	5.60	490511855	835099107	1656.081	1227.162	330E	250E	**250** E	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F019.D Vial: 15
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 9:49 pm Operator: MC
Sample : K1902359-004 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:06:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.021	4.647	18821282	20305222	54.616	48.165	
		Target Compounds							
1)		3,4-Dichl...	3.151f	3.747	12616	17748	0.242	0.818	#
2)		3,5-Dichl...	3.365	3.991	14692	10328	0.647	0.118	#
3)		2,4,6-Tri...	0.000	4.204	0	52692	N.D. d	0.129	
5)		2,4,5-Tri...	4.181	4.731	165220	114464	0.299	0.049	#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d	
7)	M	2,3,5,6-T...	4.475	5.021	20021028	23413244	46.582	38.781	
8)	M	2,3,4,5-T...	5.011	5.417	368621	441048	0.019	1.060	#
9)	M	Pentachlo...	5.148	5.601	490.5E6	835.1E6	1656.081	1227.162	#
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

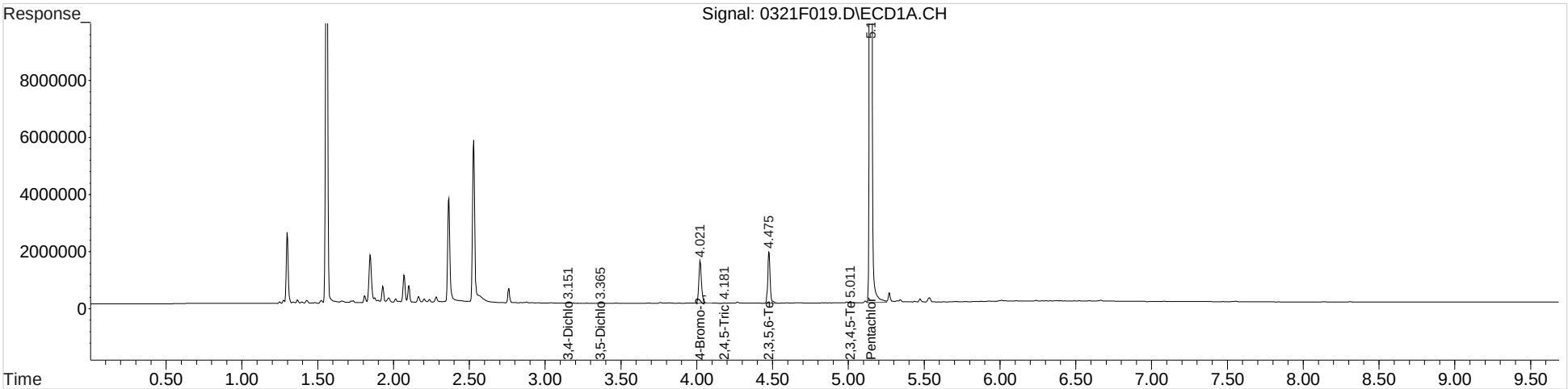
1st 03/22/19
2nd 03/22/19

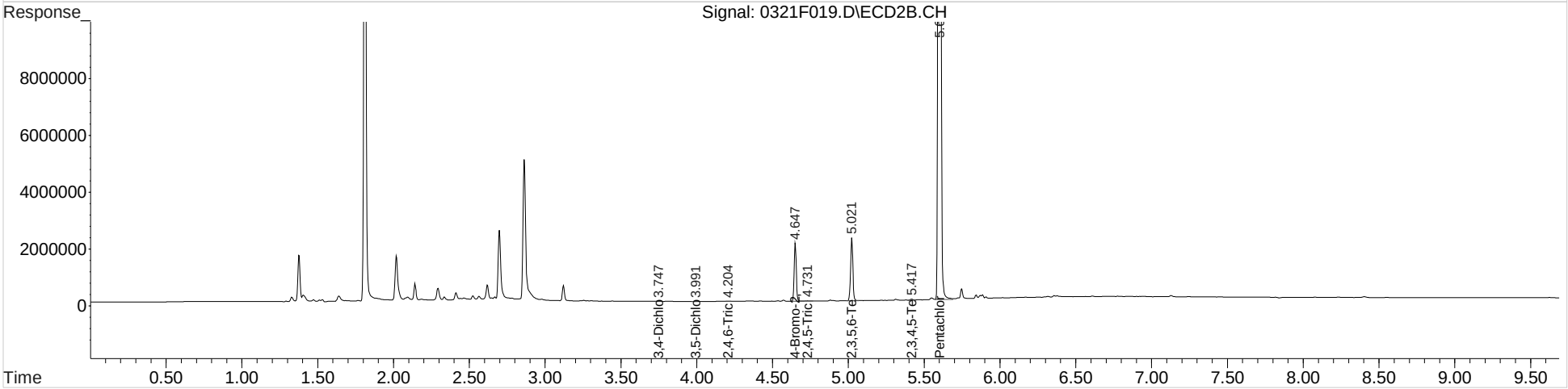
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F019.D Vial: 15
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 9:49 pm Operator: MC
Sample : K1902359-004 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:06:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





Validation Report

Data File: J:\GC28\Data\032219\0322F005.D\
Lab ID: K1902359-004
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 09:49:00
Batch ID: 629174
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	J:\GC28\Data\032219\0322F005.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 09:49:00	**Vial:**	5
Run Type:	N/A	**Dilution:**	5
Lab ID:	K1902359-004	**Raw Units:**	ug/L

Bottle ID:	K1902359-004.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629174	**Prep Lot:**	333306	**Report Group:**	K1902359
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18597

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.64	3769379	3174782	10.141	7.531	101	75	101	55 - 130	N

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
2,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.80 U	N
2,4,6-Trichlorophenol	0.00	4.20	0	17444	0.000	0.043	0U	0.043U	0.21 U	N
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.75 U	N
2,3,4,5-Tetrachlorophenol	0.00	5.41	0	107653	0.000	0.259	0U	0.26J	0.21 U	N
2,3,5,6-Tetrachlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.16 U	N
Pentachlorophenol (PCP)	5.14	5.59 -0.01	101508701	142133686	232.674	208.863	230	210	**210**	Y

Prep Amount:	5 mL	**Dilution:**	5
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Data File : J:\GC28\Data\032219\0322F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 9:49 am Operator: SMS
Sample : K1902359-004 5X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 10:00:22 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.019	4.645	3769379	3174782	10.141	7.531 #
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D.	N.D.
2)		3,5-Dichl...	0.000	4.002	0	14870	N.D.	0.406 #
3)		2,4,6-Tri...	0.000	4.205	0	17444	N.D. d	0.043
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
8)	M	2,3,4,5-T...	0.000	5.412	0	107653	N.D. d	0.259
9)	M	Pentachlo...	5.142	5.595	101.5E6	142.1E6	232.674	208.863
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

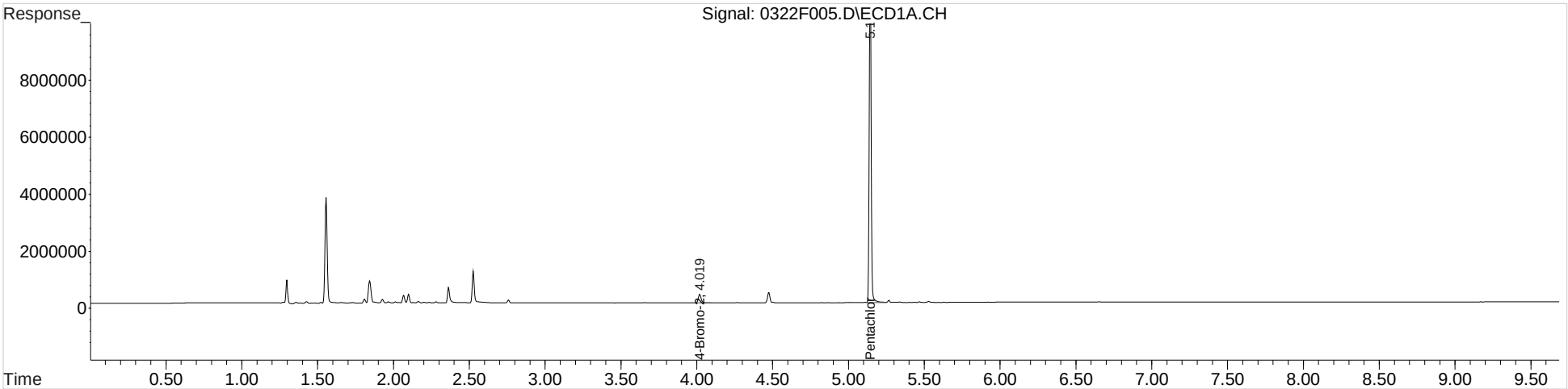
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219\0322F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 9:49 am Operator: SMS
Sample : K1902359-004 5X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 10:00:22 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F005.D\
Lab ID: KQ1903604-04
RunType: MB
Matrix: Water

Date Acquired: 3/21/19 17:34:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F005.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 17:34:00	**Vial:**	23
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1903604-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18597

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17046858	18025758	49.330	42.758	99	86	86	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
2,4,5-Trichlorophenol	4.18 -0.01	0.00	162372	0	0.279	0.000	0.056U	0U	0.16 U	Y
2,4,6-Trichlorophenol	0.00	4.18 -0.02	0	16384	0.000	0.040	0U	0.0080U	0.042 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.15 U	Y
2,3,4,5-Tetrachlorophenol	4.99 -0.01	5.38 -0.03	364920	11776	0.007	0.028	0.0014U	0.0056U	0.042 U	Y
2,3,5,6-Tetrachlorophenol	0.00	5.01	0	270139	0.000	0.447	0U	0.089J	0.032 U	Y
Pentachlorophenol (PCP)	0.00	5.61 +0.02	0	306317	0.000	0.450	0U	0.090J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F005.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 17:34:00	**Vial:**	23
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1903604-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17046858	18025758	49.330	42.758	99	86	86	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	0.00	3.75 +0.02	0	18322	0.000	0.845	0U	0.17U	0.35 U	Y
3,5-Dichlorophenol	3.36	3.99 +0.01	11758	13732	0.384	0.334	0.077U	0.067U	0.65 U	Y
2,4,5-Trichlorophenol	4.18 -0.01	0.00	162372	0	0.279	0.000	0.056U	0U	0.16 U	Y
2,4,6-Trichlorophenol	0.00	4.18 -0.02	0	16384	0.000	0.040	0U	0.0080U	0.042 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.15 U	Y
2,3,4,5-Tetrachlorophenol	4.99 -0.01	5.38 -0.03	364920	11776	0.007	0.028	0.0014U	0.0056U	0.042 U	Y
2,3,5,6-Tetrachlorophenol	0.00	5.01	0	270139	0.000	0.447	0U	0.089J	0.032 U	Y
Pentachlorophenol (PCP)	0.00	5.61 +0.02	0	306317	0.000	0.450	0U	0.090J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:34 pm Operator: MC
Sample : KQ1903604-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:17:16 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	17046858	18025758	49.330	42.758
		Target Compounds						
1)		3,4-Dichl...	0.000	3.747	0	18322	N.D.	0.845 #
2)		3,5-Dichl...	3.361	3.991	11758	13732	0.384	0.334
3)		2,4,6-Tri...	0.000	4.177	0	16384	N.D. d	0.040
5)		2,4,5-Tri...	4.181	0.000	162372	0	0.279	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.007	0	270139	N.D. d	0.447
8)	M	2,3,4,5-T...	4.988	5.384f	364920	11776	0.007	0.028 #
9)	M	Pentachlo...	0.000	5.607	0	306317	N.D. d	0.450
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

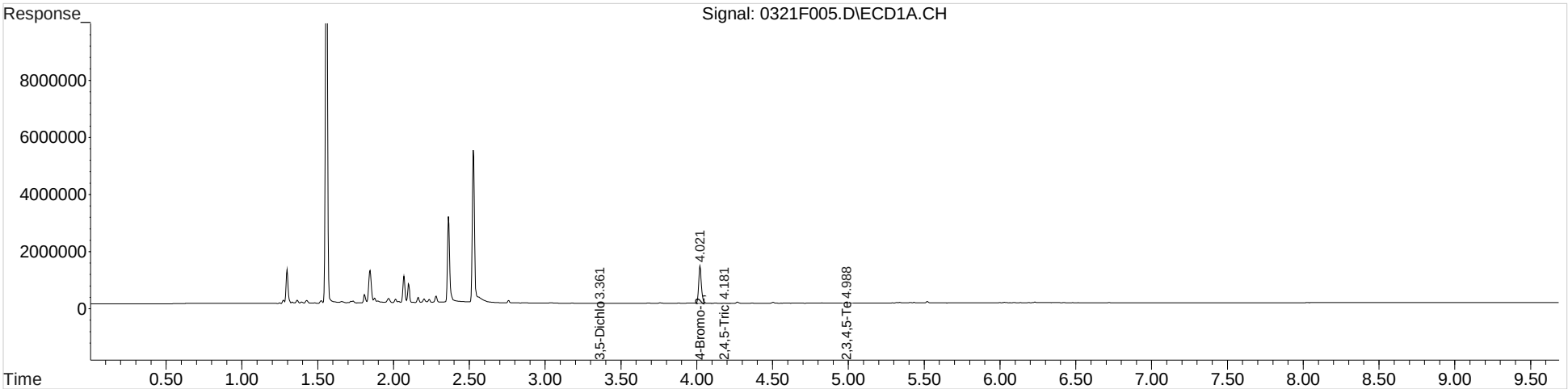
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:34 pm Operator: MC
Sample : KQ1903604-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:17:16 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F006.D\
Lab ID: KQ1903604-03
RunType: LCS
Matrix: Water

Date Acquired: 3/21/19 17:52:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F006.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 17:52:00	**Vial:**	22
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1903604-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18597

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18160368	19223874	52.646	45.600	105	91	91	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
2,4,5-Trichlorophenol	4.19	4.72 +0.01	5216276	5939635	37.934	33.283	7.59	6.66	**6.66**	Y
2,4,6-Trichlorophenol	3.47 +0.01	4.21 +0.01	12608078	14901540	40.862	36.507	8.17	7.30	**7.30**	Y
3,4,5-Trichlorophenol	4.22	4.78 +0.01	3202026	3428336	21.579	19.780	4.32	3.96	**3.96**	Y
2,3,4,5-Tetrachlorophenol	5.01 +0.01	5.41	12372290	14972754	40.455	36.000	8.09	7.20	**7.20**	Y
2,3,5,6-Tetrachlorophenol	4.47 +0.01	5.01	18766390	24661773	43.527	40.849	8.71	8.17	**8.17**	Y
Pentachlorophenol (PCP)	5.14	5.60 +0.01	22142610	27767321	47.991	40.804	9.60	8.16	**8.16**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F006.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 17:52:00	**Vial:**	22
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1903604-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18160368	19223874	52.646	45.600	105	91	91	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	3.13 +0.01	3.74 +0.01	207800	249053	12.657	11.481	2.53	2.30	**2.30**	Y
3,5-Dichlorophenol	3.37 +0.01	3.99 +0.01	45520	81204	3.419	4.631	0.684J	0.926J	**0.926** J	Y
2,4,5-Trichlorophenol	4.19	4.72 +0.01	5216276	5939635	37.934	33.283	7.59	6.66	**6.66**	Y
2,4,6-Trichlorophenol	3.47 +0.01	4.21 +0.01	12608078	14901540	40.862	36.507	8.17	7.30	**7.30**	Y
3,4,5-Trichlorophenol	4.22	4.78 +0.01	3202026	3428336	21.579	19.780	4.32	3.96	**3.96**	Y
2,3,4,5-Tetrachlorophenol	5.01 +0.01	5.41	12372290	14972754	40.455	36.000	8.09	7.20	**7.20**	Y
2,3,5,6-Tetrachlorophenol	4.47 +0.01	5.01	18766390	24661773	43.527	40.849	8.71	8.17	**8.17**	Y
Pentachlorophenol (PCP)	5.14	5.60 +0.01	22142610	27767321	47.991	40.804	9.60	8.16	**8.16**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:52 pm Operator: MC
Sample : KQ1903604-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:11:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.021	4.651	18160368	19223874	52.646	45.600	
		Target Compounds							
1)		3,4-Dichl...	3.128	3.737	207800	249053	12.657	11.481	
2)		3,5-Dichl...	3.368	3.991	45520	81204	3.419m	4.631	#
3)		2,4,6-Tri...	3.468	4.207	12608078	14901540	40.862	36.507	
5)		2,4,5-Tri...	4.191	4.717	5216276	5939635	37.934	33.283	
6)		3,4,5-Tri...	4.225	4.781	3202026	3428336	21.579	19.780	
7)	M	2,3,5,6-T...	4.468	5.014	18766390	24661773	43.527	40.849	
8)	M	2,3,4,5-T...	5.008	5.414	12372290	14972754	40.455	36.000	
9)	M	Pentachlo...	5.145	5.597	22142610	27767321	47.991	40.804	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

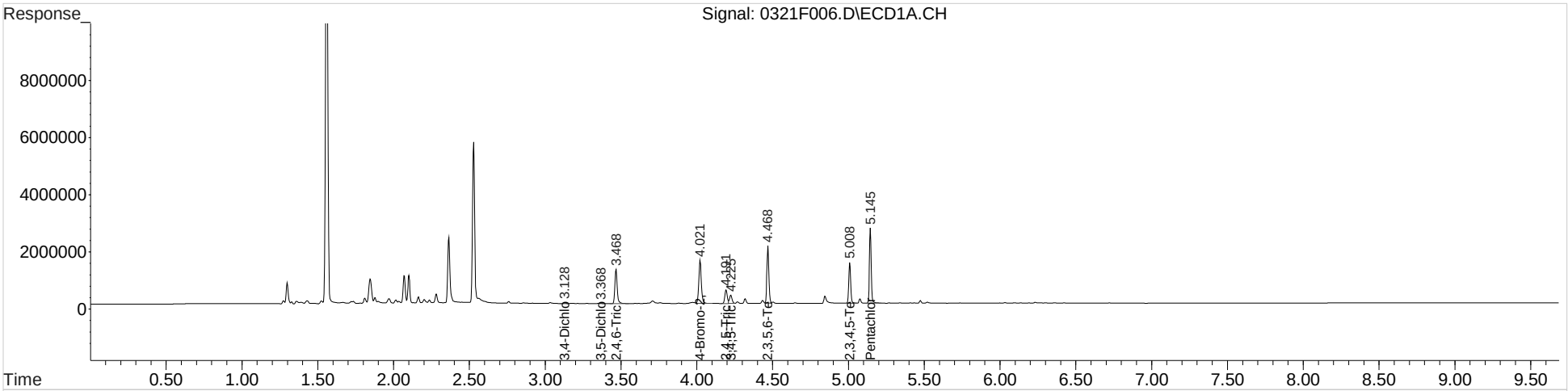
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:52 pm Operator: MC
Sample : KQ1903604-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:11:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



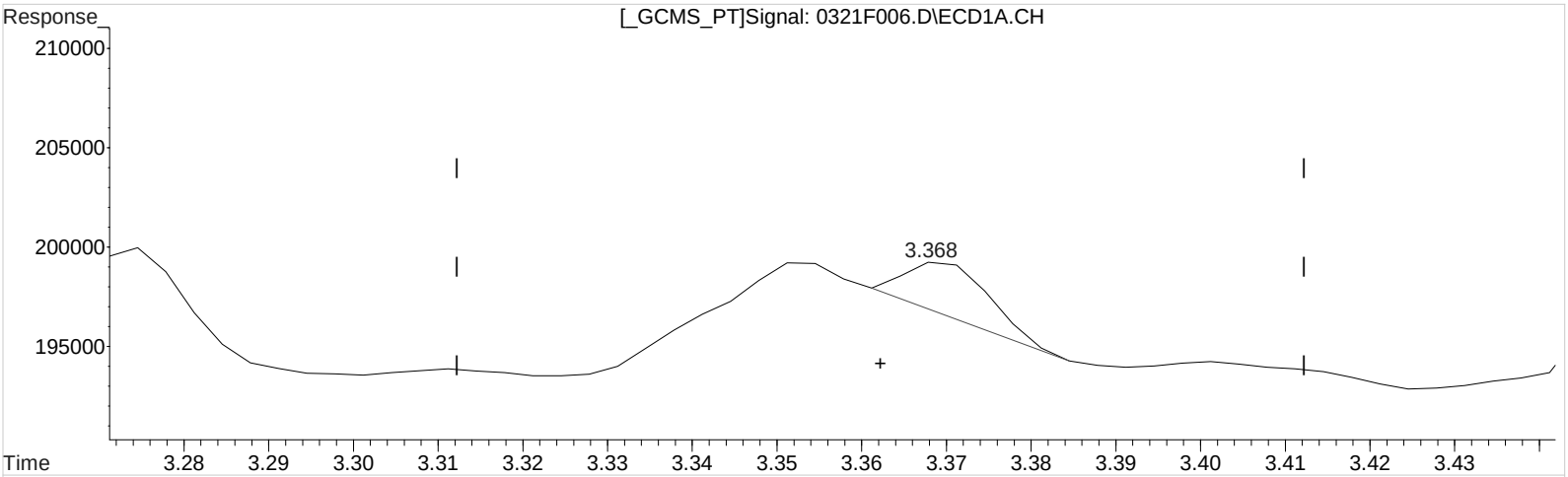
Quantitation Report (Qedit)

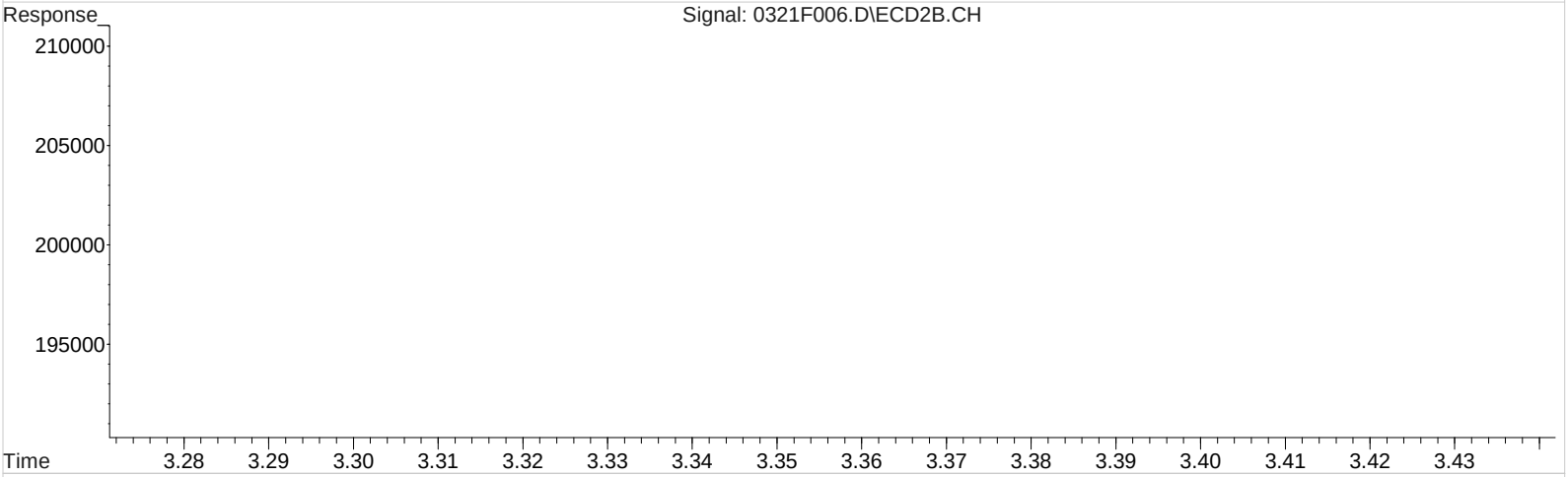
1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:52 pm Operator: MC
Sample : KQ1903604-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:17:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.368min 0.632 ug/L

response 14532

Manual Integration:

Before

03/22/19

(2) 3,5-Dichlorophenol #2

3.991min 4.631 ug/L

response 81204

(+) = Expected Retention Time

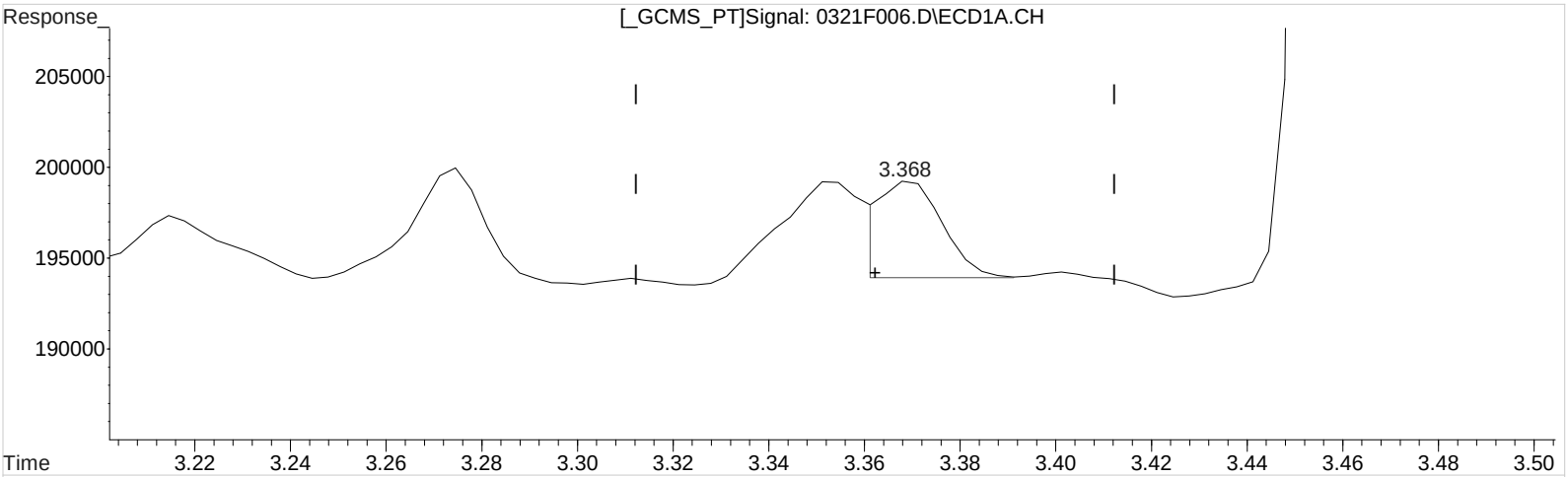
Quantitation Report (Qedit)

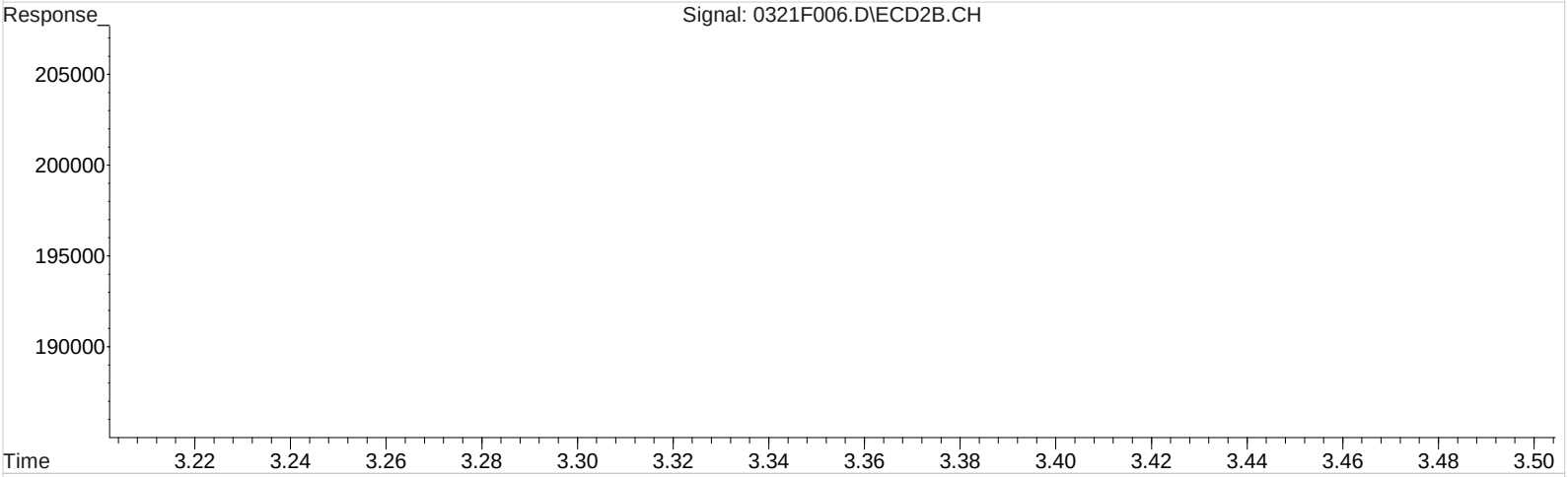
1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:52 pm Operator: MC
Sample : KQ1903604-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:18:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.368min 3.419 ug/L m

response 45520

Manual Integration:

After

Baseline/Shoulder

03/22/19

(2) 3,5-Dichlorophenol #2

3.991min 4.631 ug/L

response 81204

(+) = Expected Retention Time

1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F004.D\
Lab ID: KQ1903733-04
RunType: CCB
Matrix: Water

Date Acquired: 3/21/19 17:15:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F004.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 17:15:00	**Vial:**	4
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903733-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.66 +0.02	0	4740	0.000	0.011				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:15 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:07:38 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.659	0	4740	N.D. d	0.011
		Target Compounds						
1)		3,4-Dichl...	0.000	3.709	0	3709	N.D. d	0.171
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	4.206	0	3985	N.D. d	0.010
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	4.989	0	25121	N.D. d	0.042
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

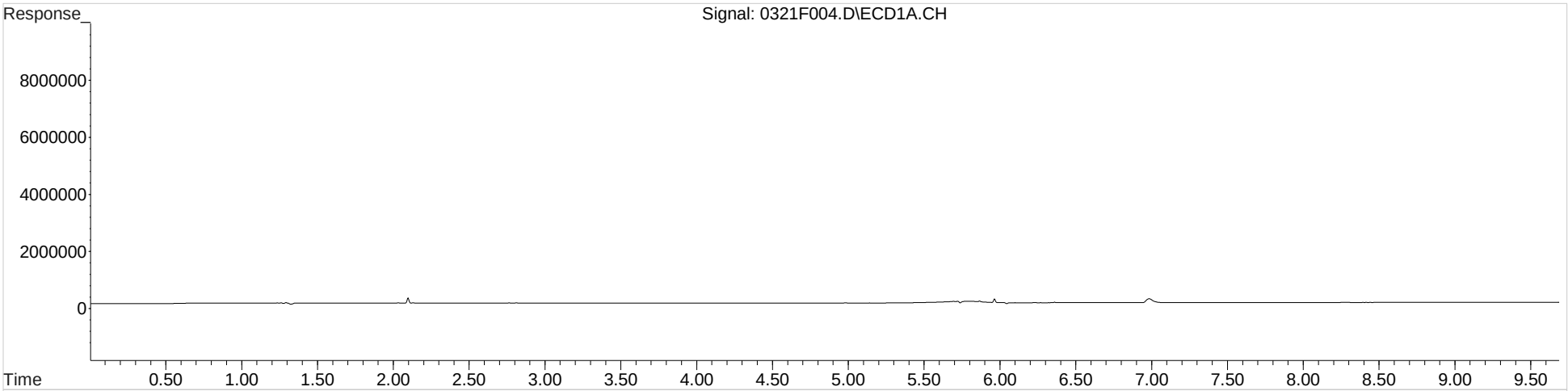
1st 03/22/19
2nd 03/22/19

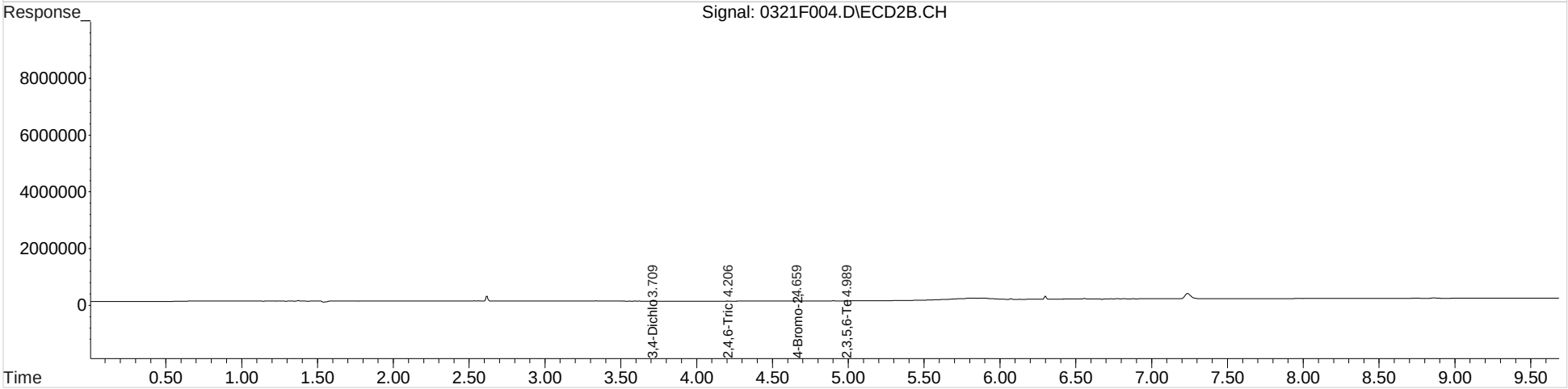
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:15 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:07:38 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F018.D\
Lab ID: KQ1903733-05
RunType: CCB
Matrix: Water

Date Acquired: 3/21/19 21:31:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F018.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 21:31:00	**Vial:**	5
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903733-05	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.69 +0.04	0	10598	0.000	0.025				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F018.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 9:31 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:06:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.688f	0	10598	N.D.	0.025 #
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
2)		3,5-Dichl...	3.386	0.000	11274	0	0.340	N.D. #
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	4.992	0	22796	N.D. d	0.038
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

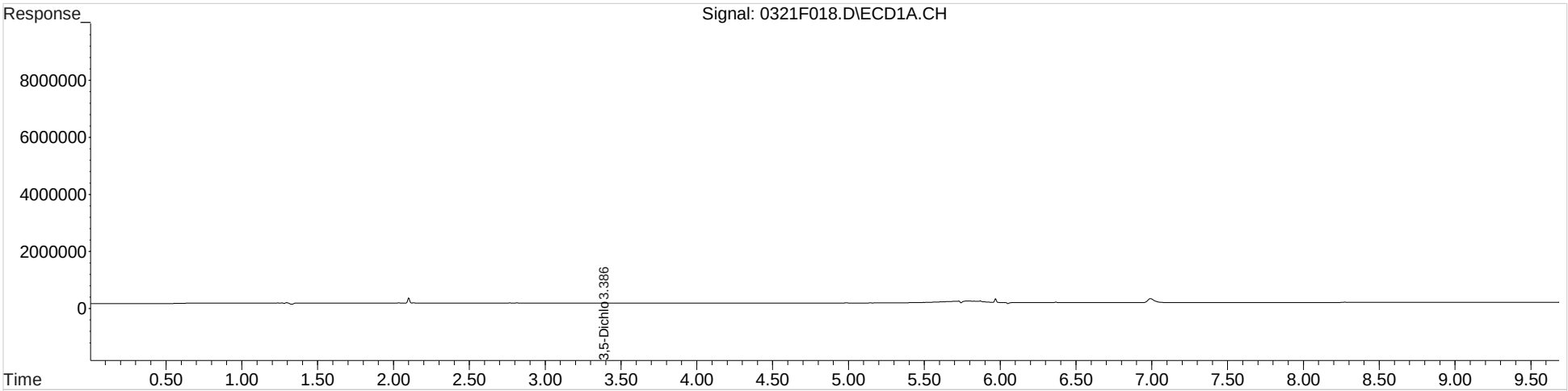
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F018.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 9:31 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:06:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F025.D\
Lab ID: KQ1903733-06
RunType: CCB
Matrix: Water

Date Acquired: 3/21/19 23:39:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F025.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 23:39:00	**Vial:**	6
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903733-06	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.63 -0.02	0	4119	0.000	0.010				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F025.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:39 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:11:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.626	0	4119	N.D. d	0.010
		Target Compounds						
1)		3,4-Dichl...	0.000	3.683f	0	3232	N.D. d	0.149
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
3)		2,4,6-Tri...	0.000	4.173f	0	5065	N.D. d	0.012
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D.
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	4.989	0	27618	N.D. d	0.046
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

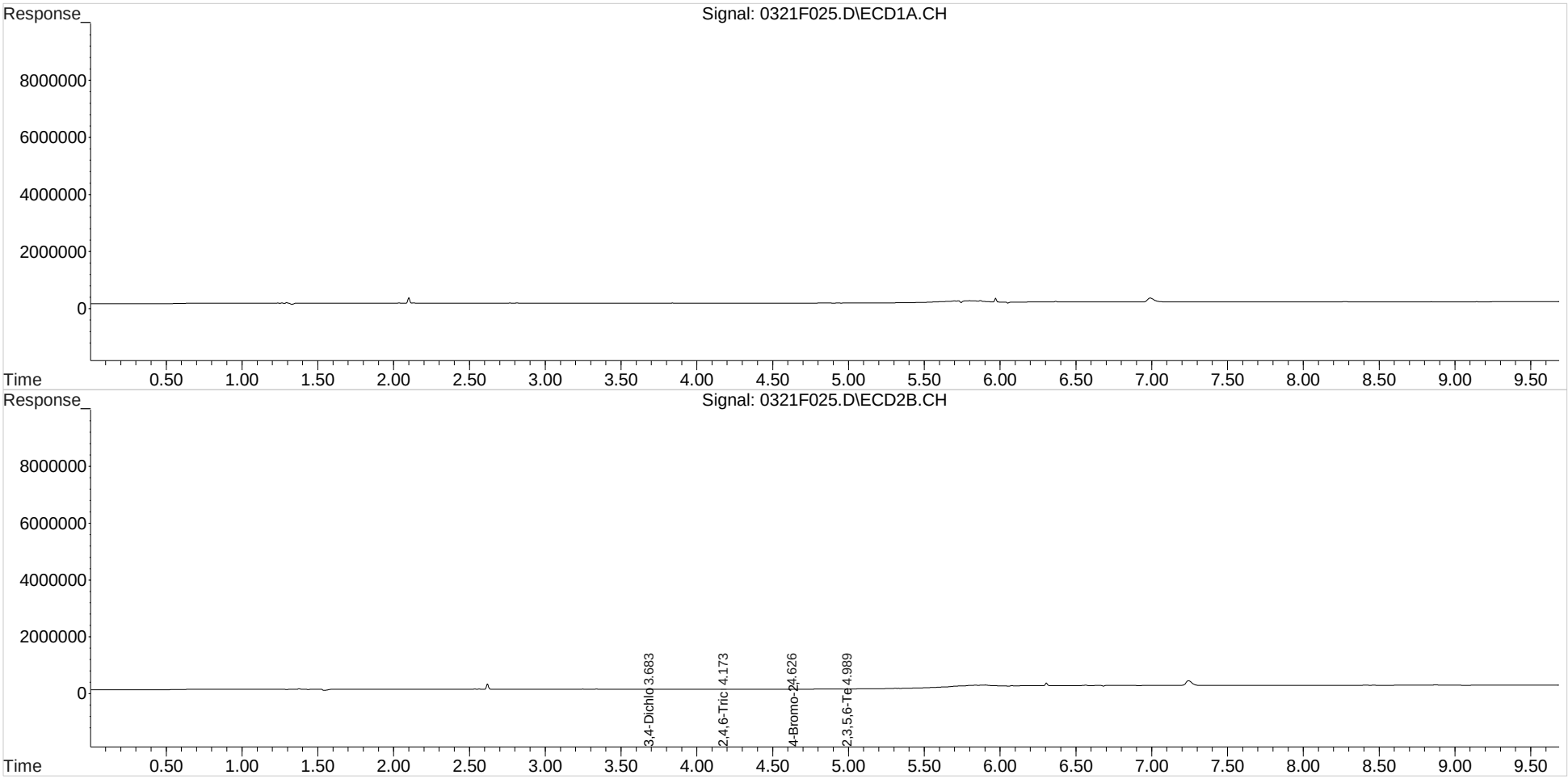
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F025.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:39 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:11:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Validation Report

Data File: J:\GC28\Data\032219\0322F004.D\
Lab ID: KQ1903753-03
RunType: CCB
Matrix: Water

Date Acquired: 3/22/19 09:31:00
Batch ID: 629174
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	J:\GC28\Data\032219\0322F004.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 09:31:00	**Vial:**	3
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903753-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629174	**Prep Lot:**		**Report Group:**	KQ1903753
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.68 +0.04	0	9493	0.000	0.023				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st JMS 03/22/19

Data File : J:\GC28\Data\032219\0322F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 9:31 am Operator: SMS
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 09:53:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.679f	0	9493	N.D. d	0.023
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	4.989	0	23496	N.D. d	0.039
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

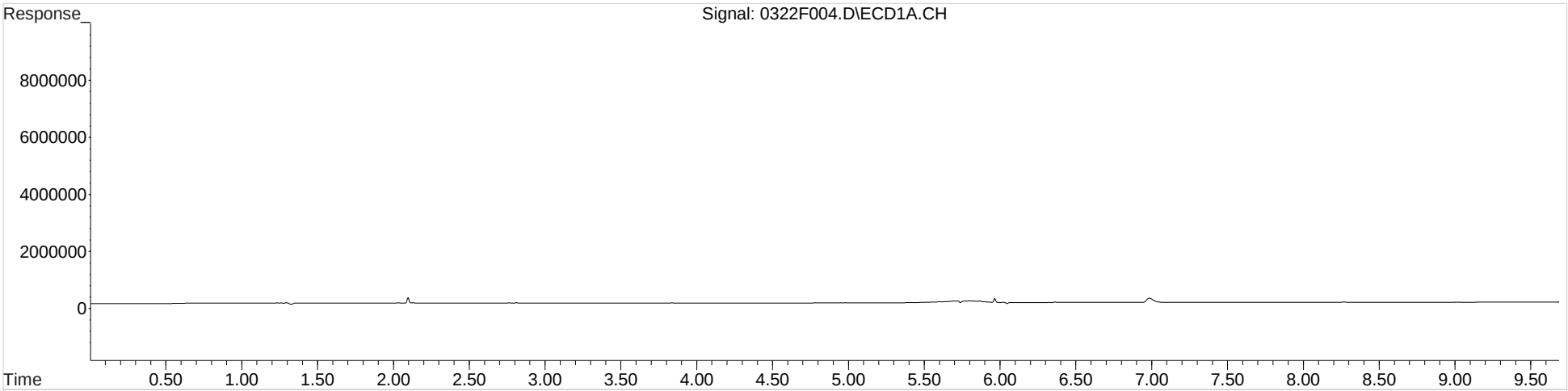
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219\0322F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 9:31 am Operator: SMS
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 09:53:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Validation Report

Data File: J:\GC28\Data\032219\0322F007.D\
Lab ID: KQ1903753-04
RunType: CCB
Matrix: Water

Date Acquired: 3/22/19 10:26:00
Batch ID: 629174
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	J:\GC28\Data\032219\0322F007.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 10:26:00	**Vial:**	4
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903753-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629174	**Prep Lot:**		**Report Group:**	KQ1903753
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.69 +0.04	0	7065	0.000	0.017				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st JMS 03/22/19

Data File : J:\GC28\Data\032219\0322F007.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:26 am Operator: SMS
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 10:54:53 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	0.000	4.691f	0	7065	N.D. d	0.017
	Target Compounds						
1)	3,4-Dichl...	0.000	0.000	0	0	N.D.	N.D.
2)	3,5-Dichl...	3.385	0.000	122422	0	10.426	N.D. d#
3)	2,4,6-Tri...	0.000	4.204	0	3799	N.D. d	0.009
5)	2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	0.000	4.991	0	43399	N.D. d	0.072
8) M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9) M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

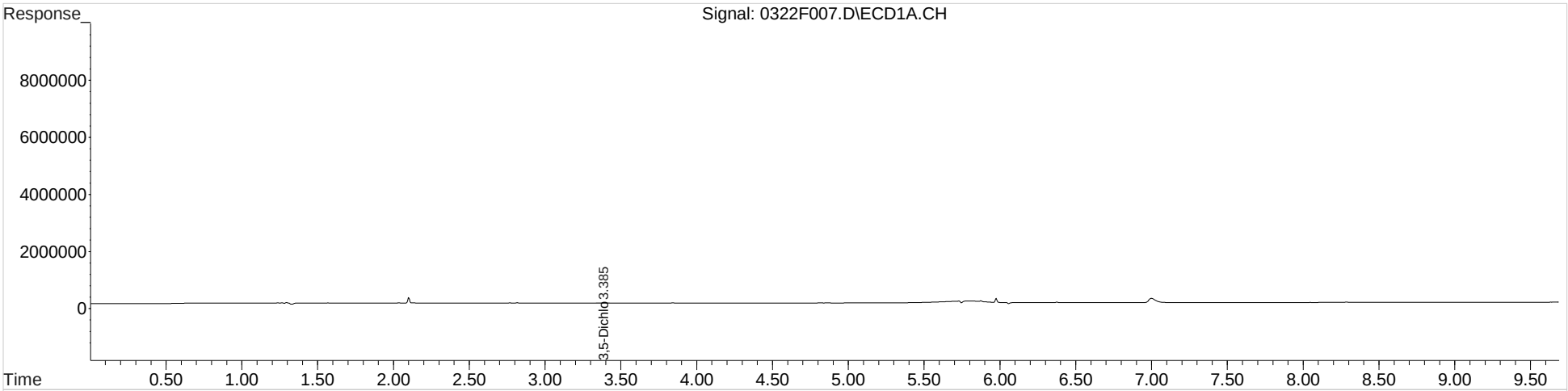
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219\0322F007.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:26 am Operator: SMS
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 10:54:53 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F003.D\
Lab ID: KQ1903733-01
RunType: CCV
Matrix: Water

Date Acquired: 3/21/19 16:57:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F003.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 16:57:00	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903733-01	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.01	4.64	17637006	20007220	51.087	47.458			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.59	21845320	28381951	47.327	41.707	47.3	41.7	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 4:57 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:06:46 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.015	4.644	17637006	20007220	51.087	47.458
		Target Compounds						
1)		3,4-Dichl...	3.124	3.731	715795	889996	46.511	41.028
2)		3,5-Dichl...	3.365	3.981	513089	642616	48.282	41.828
3)		2,4,6-Tri...	3.461	4.200	13633520	17129552	44.366	41.965
5)		2,4,5-Tri...	4.188	4.710	6298813	7585894	46.427	42.847
6)		3,4,5-Tri...	4.218	4.774	6113969	7169916	42.808	42.311
7)	M	2,3,5,6-T...	4.465	5.011	19291588	25496952	44.804	42.232
8)	M	2,3,4,5-T...	5.005	5.410	13042117	16798644	42.802	40.390
9)	M	Pentachlo...	5.141	5.590	21845320	28381951	47.327	41.707
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

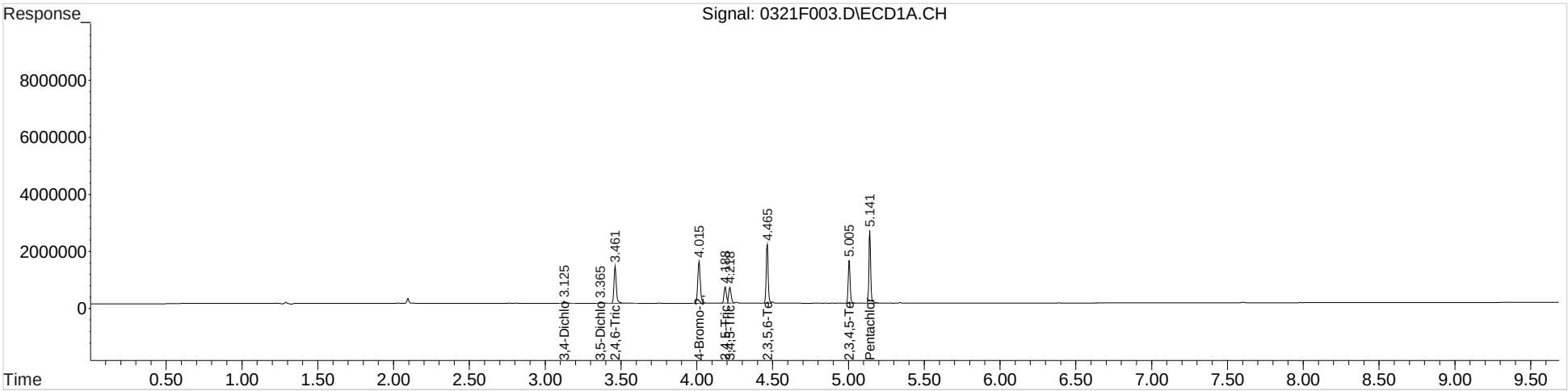
1st 03/22/19
2nd 03/22/19

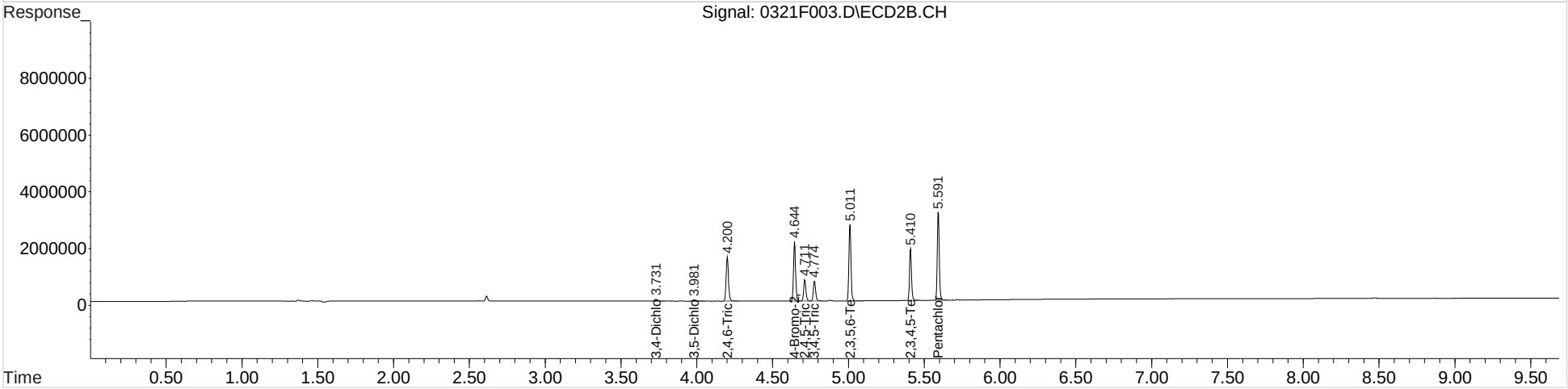
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 4:57 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:06:46 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F017.D\
Lab ID: KQ1903733-02
RunType: CCV
Matrix: Water

Date Acquired: 3/21/19 21:13:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F017.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 21:13:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903733-02	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18278264	20160352	52.998	47.821			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	22308120	28192546	48.361	41.428	48.4	41.4	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F017.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 9:13 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:05:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	18278264	20160352	52.998	47.821
		Target Compounds						
1)		3,4-Dichl...	3.127	3.733	754148	922708	49.167	42.536
2)		3,5-Dichl...	3.367	3.987	538909	667170	50.936	43.519
3)		2,4,6-Tri...	3.467	4.203	14346803	17578972	46.815	43.066
5)		2,4,5-Tri...	4.191	4.713	6437078	7748464	47.523	43.795
6)		3,4,5-Tri...	4.221	4.780	6546988	7317536	46.061	43.208
7)	M	2,3,5,6-T...	4.467	5.013	20279796	25975020	47.214	43.024
8)	M	2,3,4,5-T...	5.007	5.413	13478909	16864322	44.339	40.548
9)	M	Pentachlo...	5.144	5.597	22308120	28192546	48.361	41.428
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

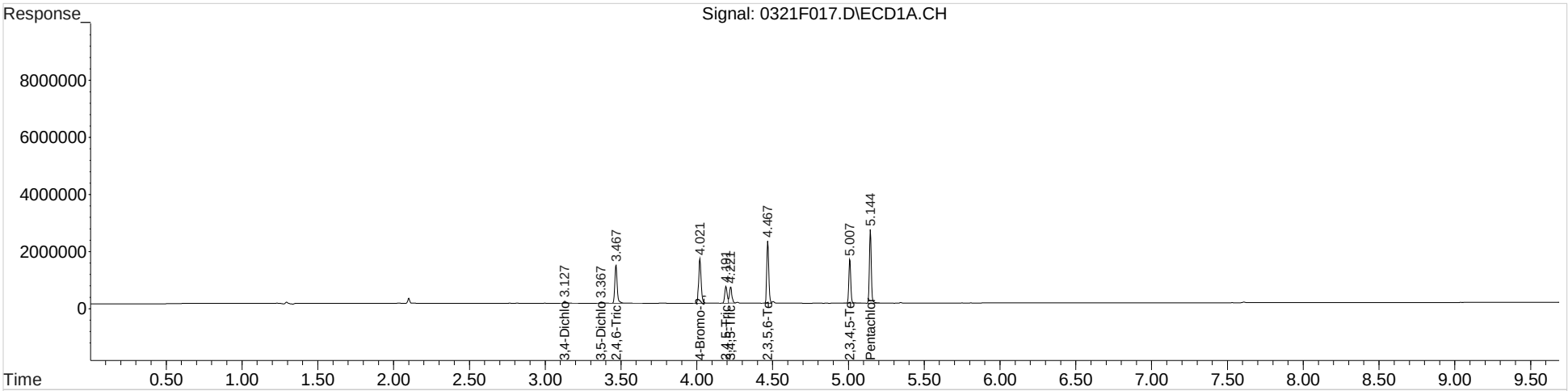
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F017.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 9:13 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:05:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F024.D\
Lab ID: KQ1903733-03
RunType: CCV
Matrix: Water

Date Acquired: 3/21/19 23:21:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F024.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 23:21:00	**Vial:**	3
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903733-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18459552	19840209	53.538	47.062			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	22816136	28061303	49.496	41.236	49.5	41.2	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F024.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:21 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:10:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	18459552	19840209	53.538	47.062
		Target Compounds						
1)		3,4-Dichl...	3.128	3.734	743225	897822	48.409	41.389
2)		3,5-Dichl...	3.368	3.988	528954	647718	49.910	42.179
3)		2,4,6-Tri...	3.465	4.204	14049800	17109382	45.794	41.916
5)		2,4,5-Tri...	4.192	4.714	6445798	7540579	47.593	42.582
6)		3,4,5-Tri...	4.222	4.781	6536556	7101386	45.983	41.895
7)	M	2,3,5,6-T...	4.468	5.014	20411928	25624502	47.537	42.443
8)	M	2,3,4,5-T...	5.008	5.414	13684954	16797170	45.065	40.387
9)	M	Pentachlo...	5.145	5.598	22816136	28061303	49.496	41.236
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

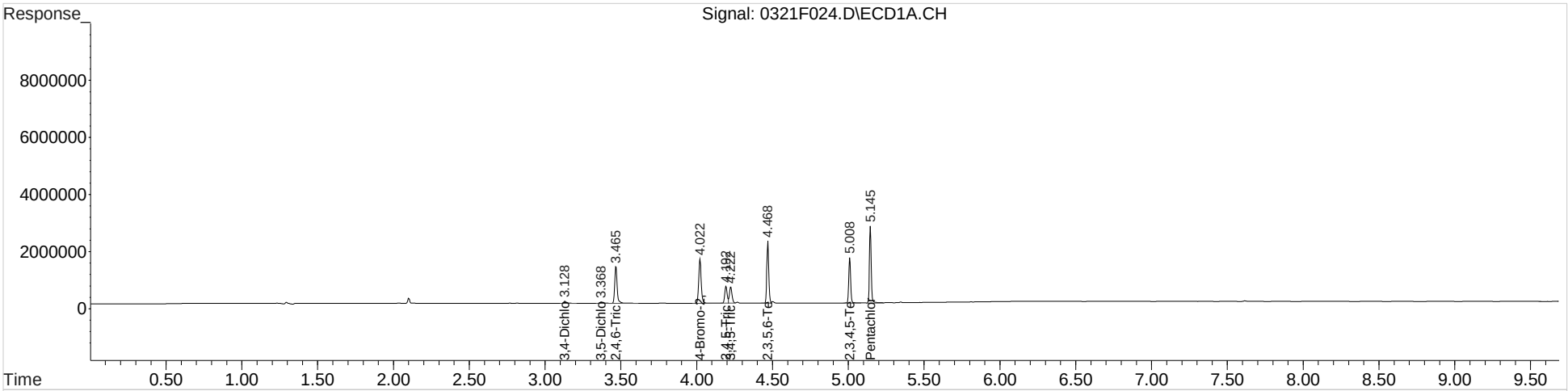
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F024.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:21 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:10:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Validation Report

Data File: J:\GC28\Data\032219\0322F003.D\
Lab ID: KQ1903753-01
RunType: CCV
Matrix: Water

Date Acquired: 3/22/19 09:13:00
Batch ID: 629174
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Printed: 3/22/19 11:00
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Secondary Review: _____

Quantitation Report

Data File:	J:\GC28\Data\032219\0322F003.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 09:13:00	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903753-01	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629174	**Prep Lot:**		**Report Group:**	KQ1903753
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.64	18869932	21583986	54.762	51.198			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	23150892	30184483	50.244	44.356	50.2	44.4	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 3/22/19 11:00
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1st JMS 03/22/19

Data File : J:\GC28\Data\032219\0322F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 9:13 am Operator: SMS
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 09:34:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.016	4.642	18869932	21583986	54.762	51.198
		Target Compounds						
1)		3,4-Dichl...	3.123	3.729	756920	953244	49.360	43.944
2)		3,5-Dichl...	3.363	3.982	540860	684727	51.137	44.732
3)		2,4,6-Tri...	3.463	4.199	14152558	18430890	46.147	45.153
5)		2,4,5-Tri...	4.189	4.712	6386202	8105591	47.120	45.882
6)		3,4,5-Tri...	4.219	4.775	6607650	7687625	46.519	45.459
7)	M	2,3,5,6-T...	4.463	5.009	20410554	27304040	47.534	45.225
8)	M	2,3,4,5-T...	5.006	5.412	13742460	17920270	45.268	43.087
9)	M	Pentachlo...	5.143	5.595	23150892	30184483	50.244	44.356
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

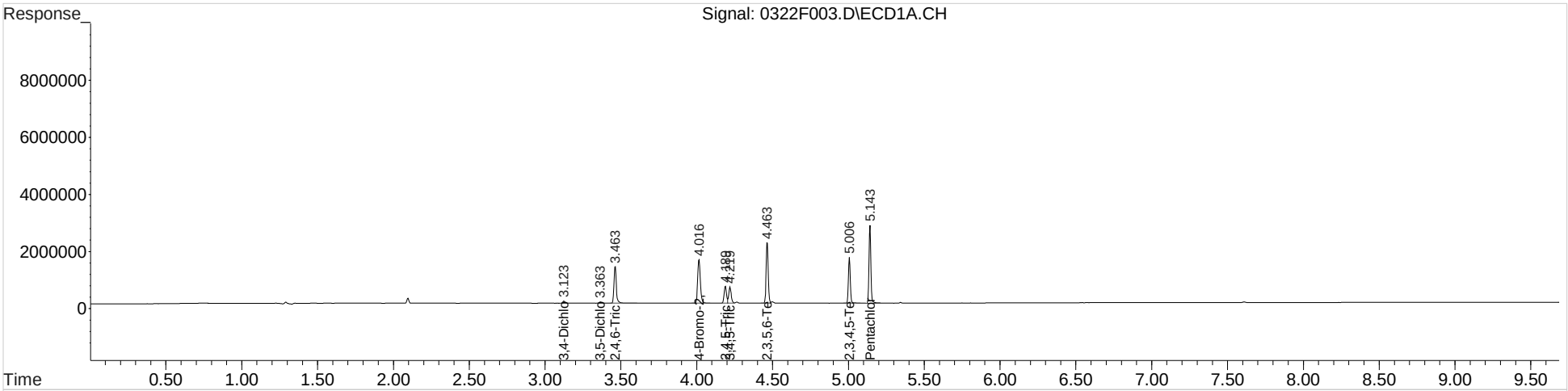
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219\0322F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 9:13 am Operator: SMS
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 09:34:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Validation Report

Data File: J:\GC28\Data\032219\0322F006.D\
Lab ID: KQ1903753-02
RunType: CCV
Matrix: Water

Date Acquired: 3/22/19 10:08:00
Batch ID: 629174
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Printed: 3/22/19 11:00
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Secondary Review: _____

Quantitation Report

Data File:	J:\GC28\Data\032219\0322F006.D\	**Instrument:**	K-GC-28
Acqu Date:	3/22/19 10:08:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903753-02	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/17/19	**Receive Date:**	3/19/19

Analysis Lot:	629174	**Prep Lot:**		**Report Group:**	KQ1903753
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	19334774	20932768	56.148	49.653			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	23548566	29416656	51.133	43.227	51.1	43.2	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 3/22/19 11:00
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1st JMS 03/22/19

Data File : J:\GC28\Data\032219\0322F006.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:08 am Operator: SMS
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 10:46:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	19334774	20932768	56.148	49.653
		Target Compounds						
1)		3,4-Dichl...	3.128	3.737	782786	933440	51.160	43.031
2)		3,5-Dichl...	3.368	3.987	546884	674820	51.760	44.047
3)		2,4,6-Tri...	3.468	4.204	14462441	17932956	47.213	43.933
5)		2,4,5-Tri...	4.191	4.717	6606398	7903877	48.870	44.703
6)		3,4,5-Tri...	4.224	4.780	6539032	7490622	46.001	44.260
7)	M	2,3,5,6-T...	4.468	5.014	21066928	26652997	49.141	44.147
8)	M	2,3,4,5-T...	5.008	5.414	13949710	17412976	45.999	41.867
9)	M	Pentachlo...	5.144	5.597	23548566	29416656	51.133	43.227
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

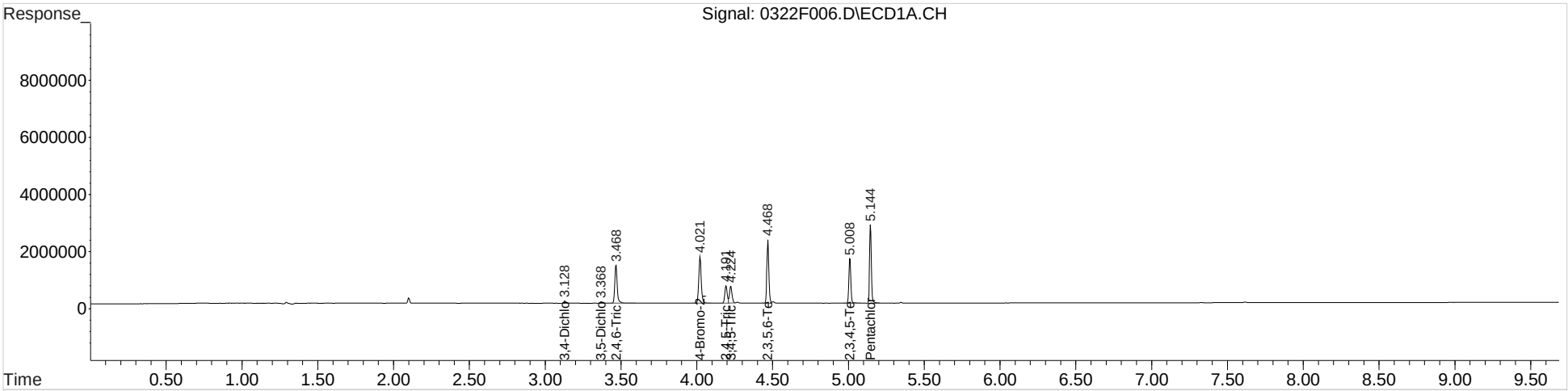
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032219\0322F006.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 22 Mar 2019 10:08 am Operator: SMS
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 10:46:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\022819CAL\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0228F001	PENTHOT2	PRIMER
2	IB	100	0228F002	PENTHOT2	PRIMER
3	ICAL	1	0228F003	PENTHOT2	IB
4	ICAL	2	0228F004	PENTHOT2	PENTA01-94T 1.0
5	ICAL	NR 3	0228F005	PENTHOT2	PENTA01-94S 2.5 - bad injection
6	ICAL	4	0228F006	PENTHOT2	PENTA01-94R 5.0
7	ICAL	5	0228F007	PENTHOT2	PENTA01-94Q 10
8	ICAL	6	0228F008	PENTHOT2	PENTA01-94P 25
9	ICAL	7	0228F009	PENTHOT2	PENTA01-94O 50
10	ICAL	8	0228F010	PENTHOT2	PENTA01-94N 100
11	ICAL	9	0228F011	PENTHOT2	PENTA01-94M 250
12	ICAL	10	0228F012	PENTHOT2	PENTA01-95G 500
13	ICAL	11	0228F013	PENTHOT2	PENTA01-95H 1000
14	ICAL	3	0228F014	PENTHOT2	PENTA01-94S 2.5 ok
15	IB	1	0228F015	PENTHOT2	IB
16	ICAL	12	0228F016	PENTHOT2	PENTA01-95D ICV

KC1900082
2/28/19

Last Modified: Thu Feb 28 10:29:05 2019 Page: 1

ALS-Kelso
Initial Calibration Checklist GC

Method: 8151M
ICAL ID or Date: KC000821
Instrument: GC28

Primary	Secondary	
☑	☑	The new ICAL is saved with a unique ID.
☑	☑	ICAL was performed continuously (i.e. not interrupted by maintenance event).
☑	☐	All analytes in blank are < ½ MRL.
☑	☑	ICAL contains minimum number of concentrations.
☑	☑	No internal levels excluded for any analytes.
☑	☑	Retention times updated using a midpoint of the calibration. Secondary reviewer double check peak IDs.
☑	☑	Calibration files quantitated with new method.
☑	☑	Check integrations. Primary reviewer must check all integrations electronically. Secondary reviewer will check low point and high point electronically.
☑	☑	ICAL files added to calibration table.
☑	☑	The average RF or COD meets method criteria for all analytes.
☑	☑	ICV is quantitated against new ICAL.
☑	☑	ICV meets method criteria.
☑	☐	Linked in ~~Stealth~~ UMS to an appropriate method. An appropriate method will be one that contains all analytes that were analyzed.
☑	☑	All calibration reports included: ICAL SUMMARY, ICAL DETAILED, ICV SUMMARY.
☑	☑	Enviroquant/Target responses match those in Stealth.
☑	☑	All quant reports and manual integrations initialed and dated.

Data packet should be in the following order: Sequence log, Calibration Review, Stealth ICAL reports, and quant reports.

Primary: _____ Date: 2/28/19

Secondary: _____ Date: 2/28/19

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -87.82 X² + 4.342E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	6.732E5	02	5.000	5.679E5	03	10.000	5.372E5	04	25.000	4.948E5
05	50.000	4.691E5	06	100.000	4.496E5	07	250.000	4.103E5	08	500.000	3.739E5
09	1000.000	3.511E5	10	2.500	6.128E5						

2,3,4,5-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -268.7 X² + 3.077E5 X + 3.627E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	02	4.715	3.979E5	03	9.431	3.696E5	04	23.577	3.259E5
05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5	10	2.358	4.756E5

2,3,5,6-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -316.9 X² + 4.391E5 X + 2.523E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	02	4.715	5.28E5	03	9.431	4.935E5	04	23.577	4.478E5
05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5	10	2.358	5.749E5

2,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -146.2 X² + 1.398E5 X + 1.234E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	02	4.669	1.8E5	03	9.338	1.735E5	04	23.345	1.484E5
05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5	10	2.334	2.006E5

2,4,6-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9995**	**Y= -245.7 X² + 3.136E5 X + 2.021E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	02	4.669	3.846E5	03	9.338	3.638E5	04	23.345	3.225E5
05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5	10	2.334	4.078E5

3,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -166.3 X² + 1.479E5 X + 8.837E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	02	4.669	1.823E5	03	9.338	1.696E5	04	23.345	1.515E5
05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5	10	2.334	1.988E5

3,4-Dichlorophenol	**Quadratic**	**1/X**	**COD = 1.0000**	**Y= -15.47 X² + 1.592E4 X + 8.759E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.529E4	02	4.605	1.749E4	03	9.209	1.718E4	04	23.023	1.584E4
05	46.046	1.558E4	06	92.091	1.446E4	07	230.230	1.241E4	10	2.302	1.966E4

3,5-Dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9982**	**Y= -14.62 X² + 1.118E4 X + 7.47E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	1.798E4	02	4.605	1.407E4	03	9.209	1.255E4	04	23.023	1.076E4
05	46.046	1.147E4	06	92.091	9.36E3	07	230.230	7.904E3	10	2.302	1.374E4

Pentachlorophenol (PCP)	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -97.29 X² + 4.57E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	02	4.750	5.978E5	03	9.501	5.654E5	04	23.752	5.208E5
05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5	08	475.030	3.936E5
09	950.060	3.695E5	10	2.375	6.451E5						

4-Bromo-2,6-dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9994**	**Y= -70.25 X² + 3.43E5 X + 2.985E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	02	5.000	4.356E5	03	10.000	4.141E5	04	25.000	3.754E5
05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5	08	500.000	2.979E5
09	1000.000	2.755E5	10	2.500	4.672E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.555	**-44.5**	02	5.000	5.55	11.0	03	10.000	11.4	14.0
04	25.000	27.6	10.6	05	50.000	53.6	7.2	06	100.000	105	4.8
07	250.000	248	-0.9	08	500.000	475	-5.0	09	1000.000	1020	1.6
10	2.500	2.53	1.4								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.770	-18.3	02	4.715	4.94	4.7	03	9.431	10.2	8.6
04	23.577	24.3	3.1	05	47.153	46.9	-0.6	06	94.307	91.6	-2.8
07	235.770	237	0.6	10	2.358	2.47	4.8				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.738	-21.7	02	4.715	5.11	8.5	03	9.431	10.1	7.1
04	23.577	23.9	1.3	05	47.153	47.4	0.6	06	94.307	91.5	-3.0
07	235.770	237	0.5	10	2.358	2.52	6.8				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.634	**-32.1**	02	4.669	5.16	10.4	03	9.338	10.8	15.9
04	23.345	24.5	5.1	05	46.690	46.1	-1.2	06	93.379	88.6	-5.1
07	233.450	236	1.2	10	2.334	2.47	6.0				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.732	-21.6	02	4.669	5.10	9.3	03	9.338	10.3	10.0
04	23.345	23.8	2.0	05	46.690	47.3	1.2	06	93.379	89.5	-4.1
07	233.450	235	0.8	10	2.334	2.39	2.6				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.655	-29.8	02	4.669	5.19	11.1	03	9.338	10.2	9.6
04	23.345	24.0	2.7	05	46.690	47.4	1.5	06	93.379	88.5	-5.2
07	233.450	236	1.2	10	2.334	2.55	9.2				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.914	-0.8	02	4.605	4.53	-1.6	03	9.209	9.47	2.9
04	23.023	22.9	-0.7	05	46.046	46.6	1.3	06	92.091	91.2	-1.0
07	230.230	231	0.2	10	2.302	2.30	-0.2				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.814	-11.6	02	4.605	5.16	12.1	03	9.209	9.80	6.4
04	23.023	22.1	-3.9	05	46.046	49.8	8.2	06	92.091	86.2	-6.4
07	230.230	233	1.3	10	2.302	2.17	-5.8				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	0.527	**-44.5**	02	4.750	5.27	11.0	03	9.501	10.8	14.0
04	23.752	26.3	10.6	05	47.503	50.9	7.2	06	95.006	99.5	4.8
07	237.520	235	-0.9	08	475.030	452	-5.0	09	950.060	966	1.6
10	2.375	2.41	1.4								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.643	**-35.7**	02	5.000	5.49	9.7	03	10.000	11.2	12.3
04	25.000	26.6	6.5	05	50.000	53.3	6.6	06	100.000	102	1.6
07	250.000	251	0.2	08	500.000	481	-3.9	09	1000.000	1010	1.2
10	2.500	2.54	1.5								

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D\0228F004c.d	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D\0228F006c.d	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D\0228F007c.d	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D\0228F008c.d	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D\0228F009c.d	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D\0228F010c.d	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D\0228F011c.d	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D\0228F012c.d	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D\0228F013c.d	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D\0228F014c.d	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Average RF**		**RSD = 9.583**	**Average RF = 6.462E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	7.909E5	02	5.000	6.542E5	03	10.000	6.532E5	04	25.000	6.151E5
05	50.000	6.083E5	06	100.000	5.984E5	07	250.000	5.996E5	08	500.000	6.052E5
09	1000.000	6.245E5	10	2.500	7.13E5						

2,3,4,5-Tetrachlorophenol — Average RF — RSD = 12.29 — Average RF = 4.159E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	02	4.715	4.353E5	03	9.431	4.108E5	04	23.577	3.904E5
05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5	10	2.358	4.73E5

2,3,5,6-Tetrachlorophenol — Average RF — RSD = 6.587 — Average RF = 6.037E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	02	4.715	5.882E5	03	9.431	6.075E5	04	23.577	5.816E5
05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5	10	2.358	6.377E5

2,4,5-Trichlorophenol — Quadratic — 1/X — COD = 0.9997 — $Y = -73.44 X^2 + 1.777E5 X + 1.058E5$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	02	4.669	2.059E5	03	9.338	2.015E5	04	23.345	1.829E5
05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5	10	2.334	2.293E5

2,4,6-Trichlorophenol — Average RF — RSD = 4.634 — Average RF = 4.082E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	02	4.669	4.004E5	03	9.338	4.124E5	04	23.345	3.941E5
05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5	10	2.334	4.267E5

3,4,5-Trichlorophenol — Quadratic — 1/X — COD = 0.9998 — $Y = -63.92 X^2 + 1.7E5 X + 9.004E4$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	02	4.669	1.919E5	03	9.338	1.89E5	04	23.345	1.732E5
05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5	10	2.334	2.115E5

3,4-Dichlorophenol — Average RF — RSD = 10.82 — Average RF = 2.169E4

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.356E4	02	4.605	2.28E4	03	9.209	2.378E4	04	23.023	2.153E4
05	46.046	2.119E4	06	92.091	1.915E4	07	230.230	1.751E4	10	2.302	2.4E4

3,5-Dichlorophenol — Quadratic — 1/X — COD = 0.9996 — $Y = -14.71 X^2 + 1.578E4 X + 8.463E3$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.299E4	02	4.605	1.798E4	03	9.209	1.82E4	04	23.023	1.612E4
05	46.046	1.537E4	06	92.091	1.408E4	07	230.230	1.249E4	10	2.302	1.928E4

Pentachlorophenol (PCP) — Average RF — RSD = 9.573 — Average RF = 6.805E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	02	4.750	6.912E5	03	9.501	6.875E5	04	23.752	6.474E5
05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5	08	475.030	6.37E5
09	950.060	6.573E5	10	2.375	7.52E5						

4-Bromo-2,6-dichlorophenol — Average RF — RSD = 5.968 — Average RF = 4.216E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	02	5.000	3.777E5	03	10.000	4.048E5	04	25.000	4.138E5
05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5	08	500.000	4.395E5
09	1000.000	4.542E5	10	2.500	3.934E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.22	22.4	02	5.000	5.06	1.2	03	10.000	10.1	1.1
04	25.000	23.8	-4.8	05	50.000	47.1	-5.9	06	100.000	92.6	-7.4
07	250.000	232	-7.2	08	500.000	468	-6.4	09	1000.000	966	-3.4
10	2.500	2.76	10.3								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.14	21.2	02	4.715	4.93	4.7	03	9.431	9.31	-1.2
04	23.577	22.1	-6.1	05	47.153	43.3	-8.3	06	94.307	83.5	-11.5
07	235.770	206	-12.5	10	2.358	2.68	13.7				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.07	13.6	02	4.715	4.59	-2.6	03	9.431	9.49	0.6
04	23.577	22.7	-3.7	05	47.153	45.9	-2.6	06	94.307	89.1	-5.6
07	235.770	223	-5.4	10	2.358	2.49	5.6				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.799	-14.5	02	4.669	4.82	3.3	03	9.338	10.0	7.4
04	23.345	23.7	1.3	05	46.690	47.3	1.3	06	93.379	90.7	-2.9
07	233.450	234	0.4	10	2.334	2.42	3.6				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	1.01	8.7	02	4.669	4.58	-1.9	03	9.338	9.43	1.0
04	23.345	22.5	-3.5	05	46.690	46.6	-0.2	06	93.379	89.0	-4.7
07	233.450	224	-4.0	10	2.334	2.44	4.5				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.846	-9.5	02	4.669	4.75	1.7	03	9.338	9.88	5.9
04	23.345	23.5	0.5	05	46.690	47.5	1.7	06	93.379	91.1	-2.4
07	233.450	234	0.3	10	2.334	2.38	1.8				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	1.00	8.6	02	4.605	4.84	5.1	03	9.209	10.1	9.6
04	23.023	22.9	-0.7	05	46.046	45.0	-2.3	06	92.091	81.3	-11.7
07	230.230	186	-19.3	10	2.302	2.55	10.6				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.806	-12.4	02	4.605	4.73	2.8	03	9.209	10.2	10.6
04	23.023	23.5	2.1	05	46.046	46.3	0.6	06	92.091	89.0	-3.3
07	230.230	232	0.7	10	2.302	2.28	-0.9				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	1.16	22.2	02	4.750	4.82	1.6	03	9.501	9.60	1.0
04	23.752	22.6	-4.9	05	47.503	44.7	-5.9	06	95.006	87.9	-7.4
07	237.520	220	-7.3	08	475.030	445	-6.4	09	950.060	918	-3.4
10	2.375	2.62	10.5								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.975	-2.5	02	5.000	4.48	-10.4	03	10.000	9.60	-4.0
04	25.000	24.5	-1.8	05	50.000	52.4	4.9	06	100.000	103	3.0
07	250.000	264	5.5	08	500.000	521	4.2	09	1000.000	1080	7.7
10	2.500	2.33	-6.7								

Initial Calibration Verification Summary Report

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-1701

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Quadratic	50	58.215	ug/L	16.4	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.125	ug/L	6.3	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.742	ug/L	7.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.950	ug/L	7.0	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	47.208	ug/L	1.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.502	ug/L	6.0	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	50.405	ug/L	9.5	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	54.814	ug/L	19.0	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Quadratic	47.5030	55.309	ug/L	16.4	<= 20

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-35

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Average RF	50	51.424	ug/L	2.8	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	46.743	ug/L	-0.9	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	47.890	ug/L	1.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	50.676	ug/L	8.5	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Average RF	46.69	46.729	ug/L	0.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	48.393	ug/L	3.6	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Average RF	46.0460	46.475	ug/L	0.9	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	48.925	ug/L	6.3	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Average RF	47.5030	48.834	ug/L	2.8	<= 20

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:01 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:03:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.712	0	59380	N.D. d	0.137
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
2)		3,5-Dichl...	0.000	4.125f	0	25046	N.D.	1.520 #
3)		2,4,6-Tri...	0.000	4.292	0	32648	N.D. d	0.078
5)		2,4,5-Tri...	0.000	4.802	0	42050	N.D. d	0.210
6)		3,4,5-Tri...	0.000	4.832	0	55519	N.D. d	0.296
7)	M	2,3,5,6-T...	0.000	5.088	0	70520	N.D. d	0.114
8)	M	2,3,4,5-T...	0.000	5.452	0	131834	N.D. d	0.319
9)	M	Pentachlo...	0.000	5.685f	0	269600	N.D. d	0.392
10)		Pentachlo...	0.000	5.685f	0	269600	N.D. d	0.413

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

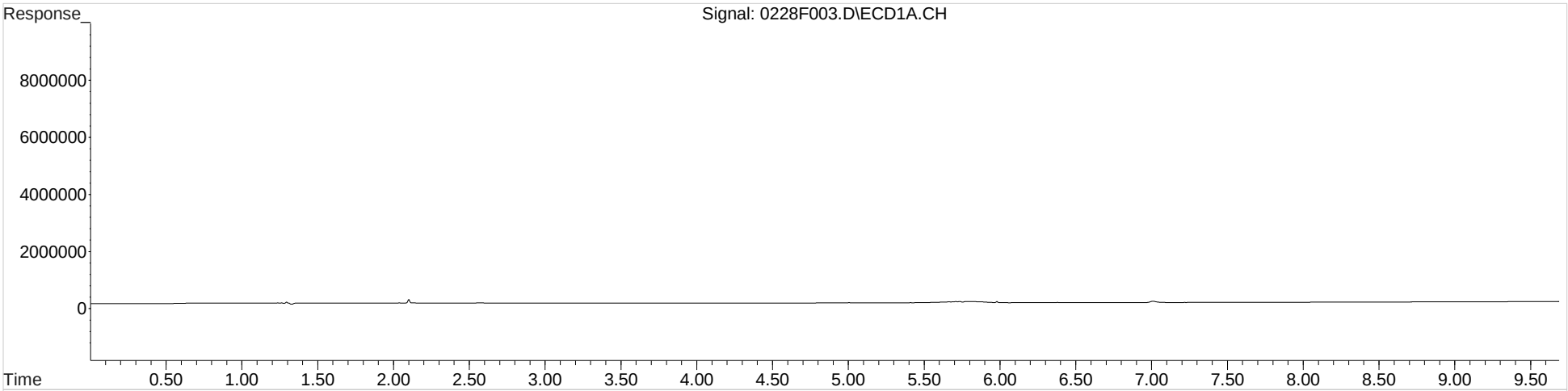
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:01 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:03:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.027	4.714	519128	410904	0.637	0.945 #
		Target Compounds						
1)		3,4-Dichl...	3.137	3.824	23293	21701	0.801m	0.982m
2)		3,5-Dichl...	3.377	4.084	16564	21176	1.036m	1.285m
3)		2,4,6-Tri...	3.473	4.284	431646	414230	0.802	0.993
5)		2,4,5-Tri...	4.200	4.778	211915	247658	0.739	1.239 #
6)		3,4,5-Tri...	4.230	4.844	185206	233780	0.709m	1.245 #
7)	M	2,3,5,6-T...	4.473	5.071	576226	646609	1.211m	1.048m
8)	M	2,3,4,5-T...	5.013	5.468	599618	475513	0.771	1.152m#
9)	M	Pentachlo...	5.150	5.648	673174	789810	0.493	1.149m#
10)		Pentachlo...	5.150	5.648	673174	790854	0.519	1.211m#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

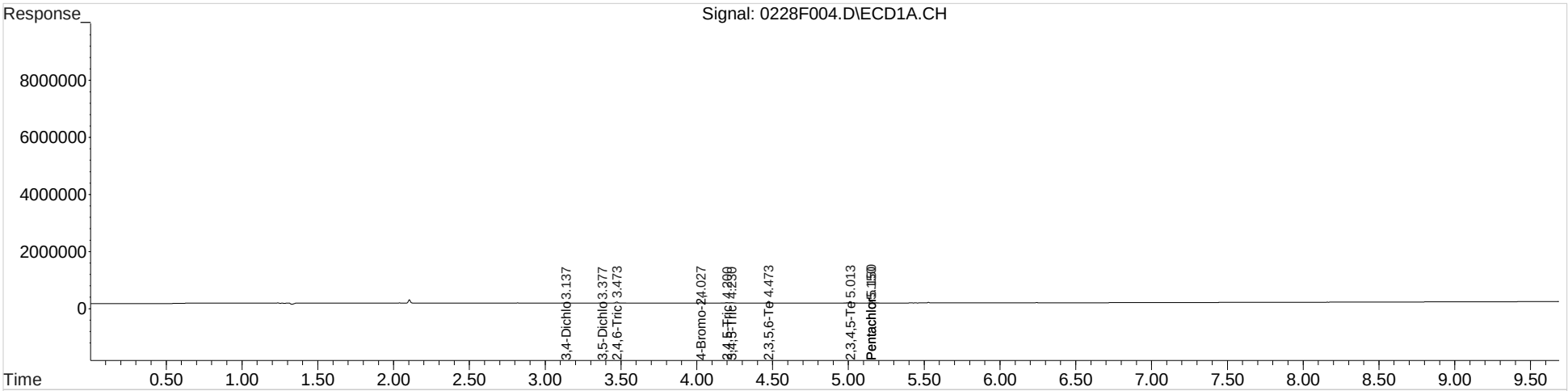
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

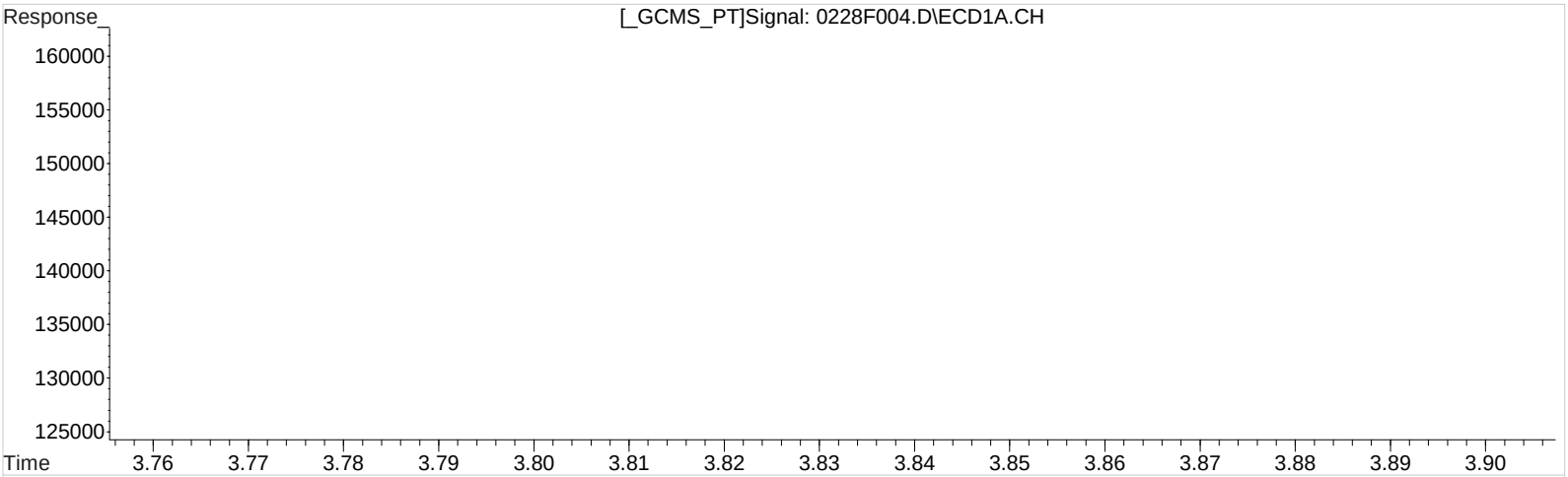


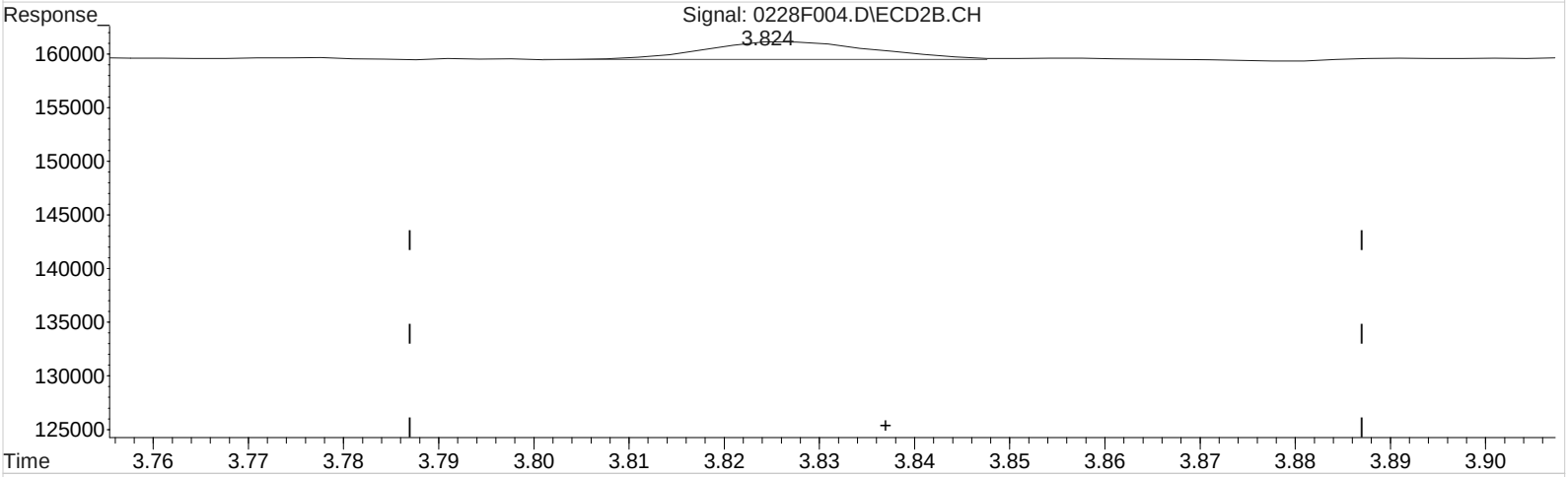
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.924 ug/L

response 20420

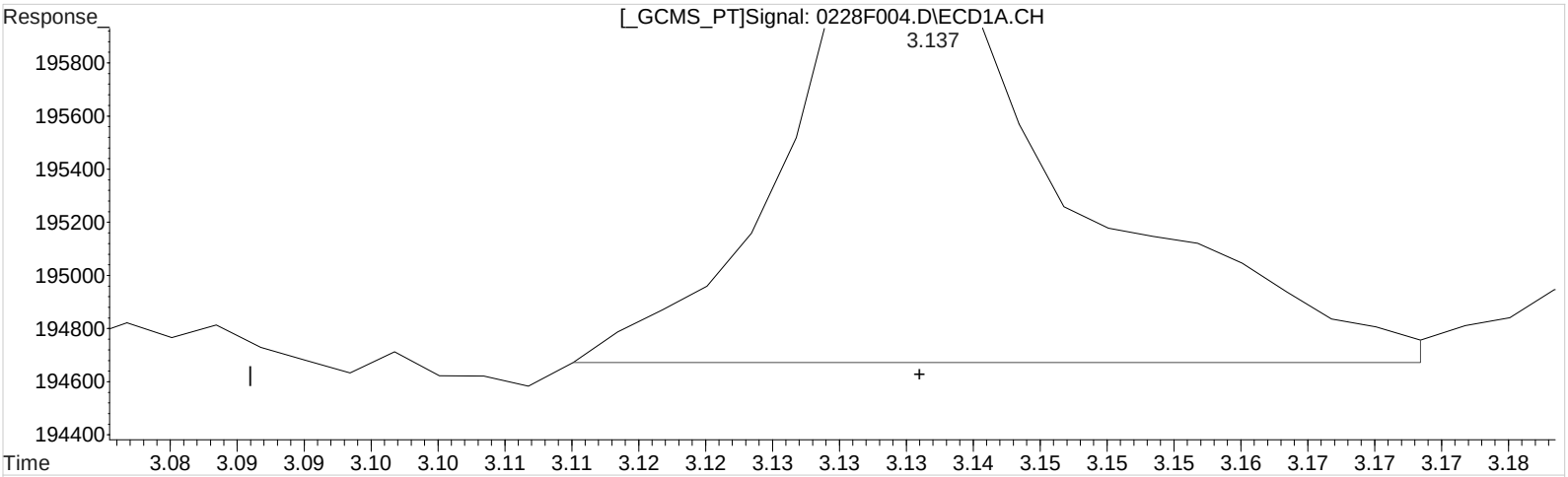
(+) = Expected Retention Time

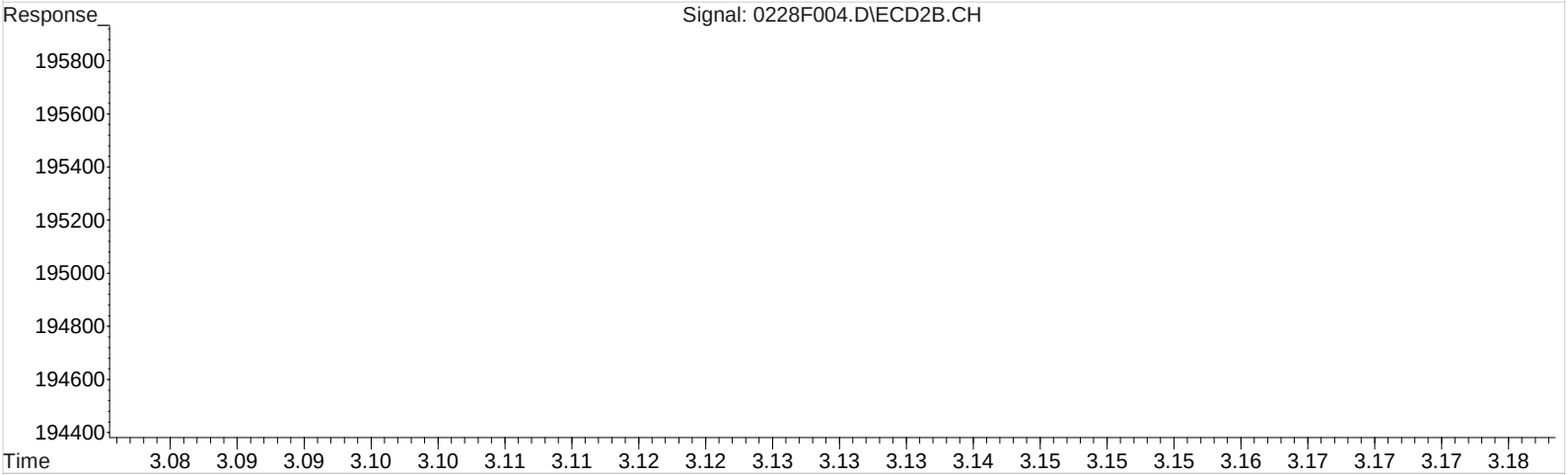
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

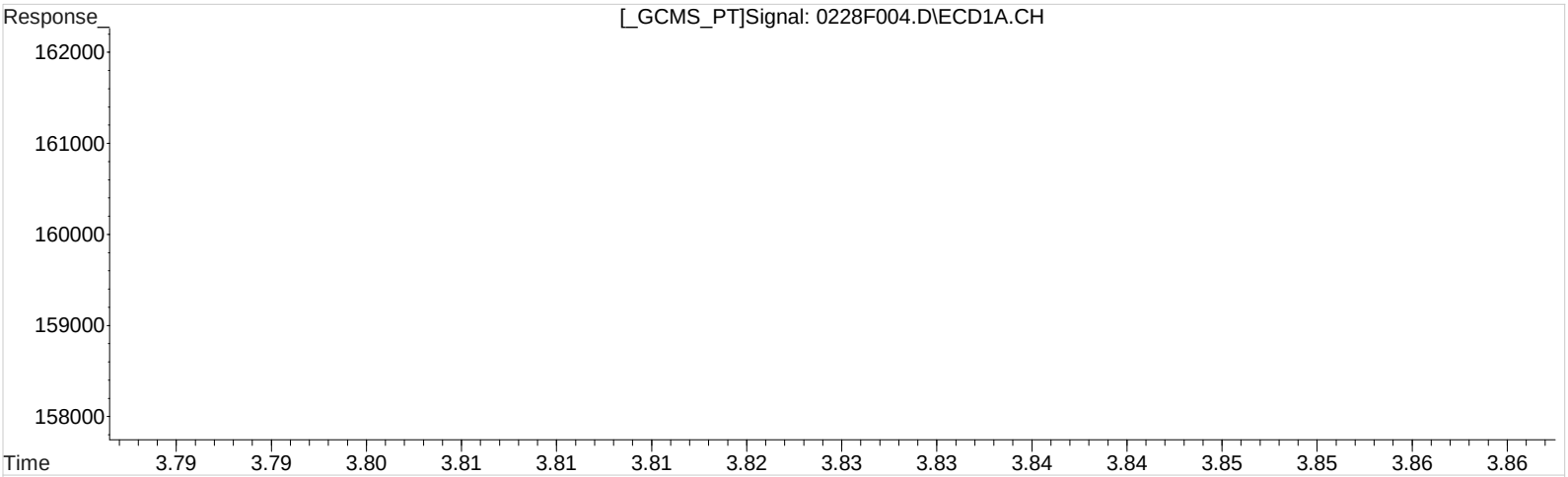
Quantitation Report (Qedit)

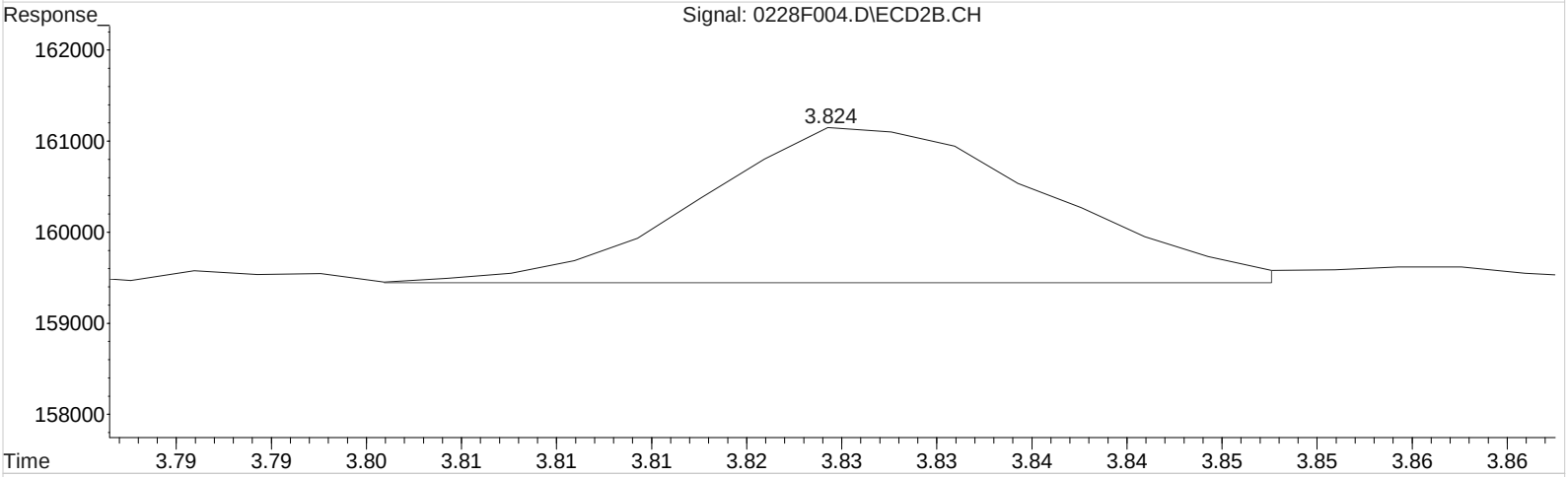
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

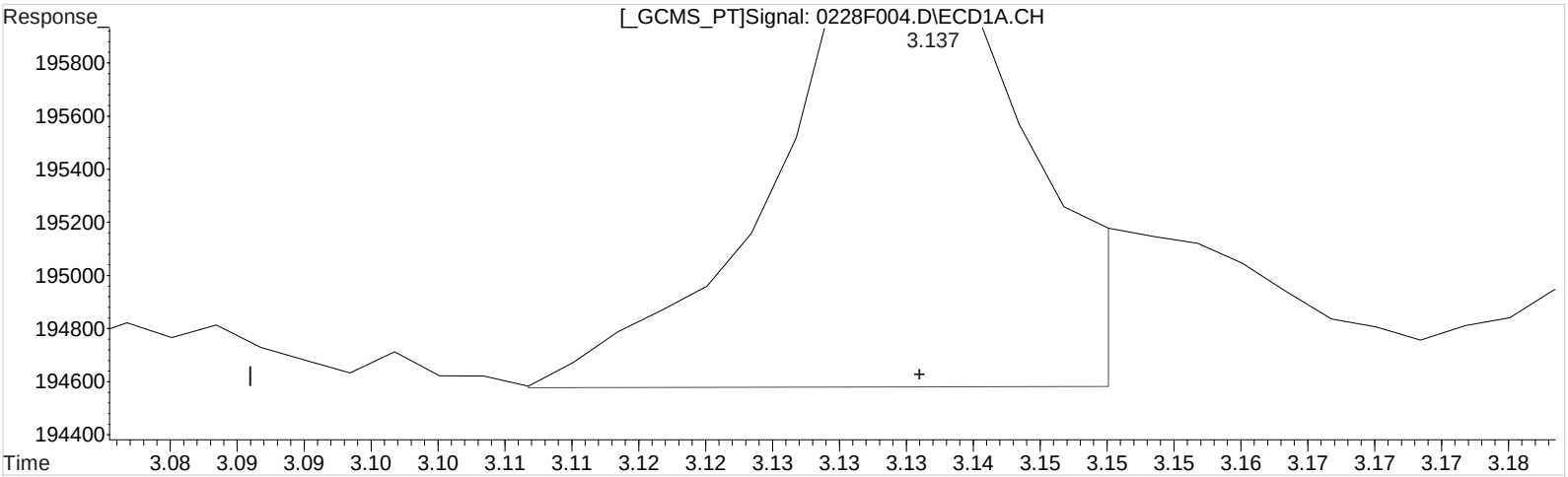
Quantitation Report (Qedit)

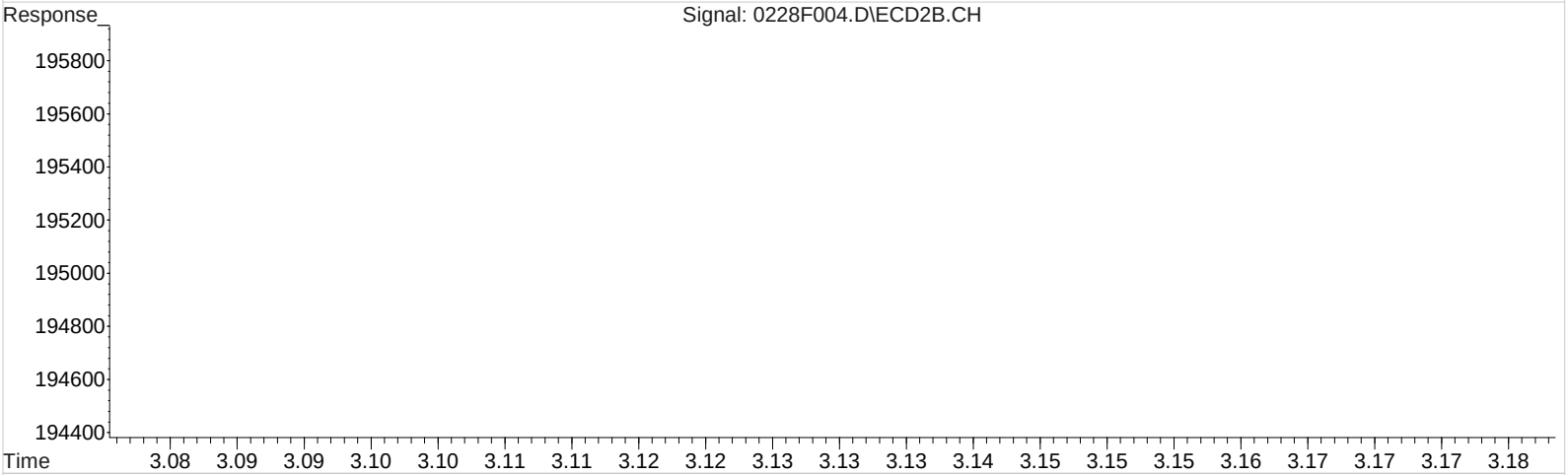
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.801 ug/L m

response 23293

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

Manual Integration:

After

Baseline/Shoulder

02/28/19

(+) = Expected Retention Time

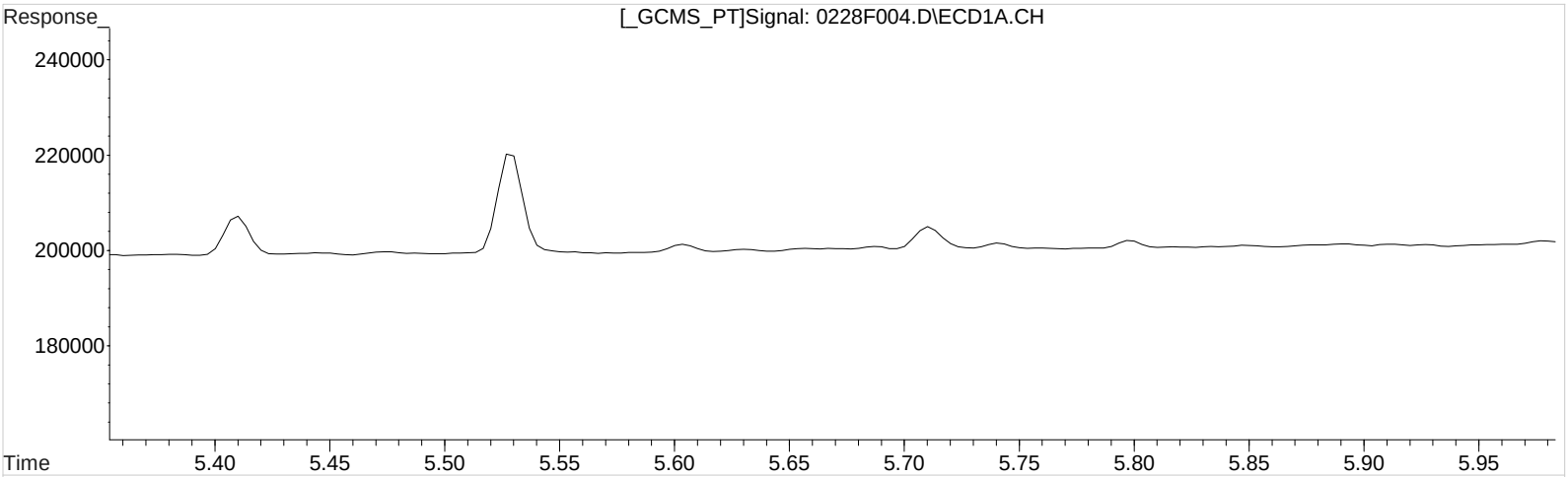
Quantitation Report (Qedit)

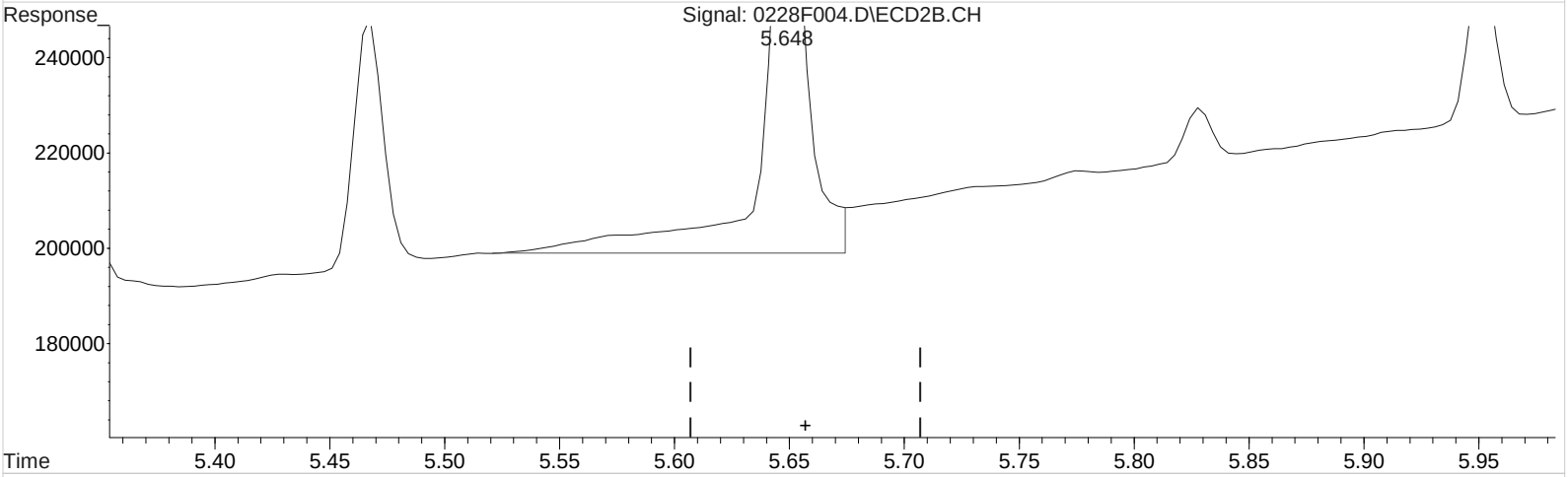
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.150min 0.519 ug/L

response 673174

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.648min 1.879 ug/L

response 1226970

(+) = Expected Retention Time

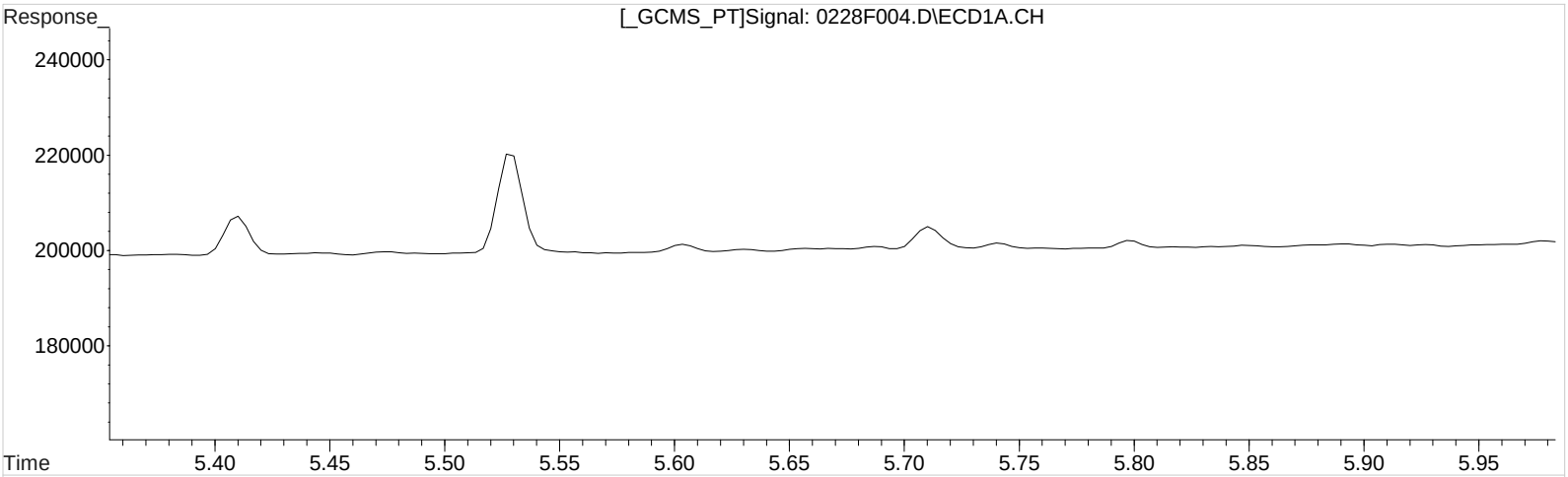
Quantitation Report (Qedit)

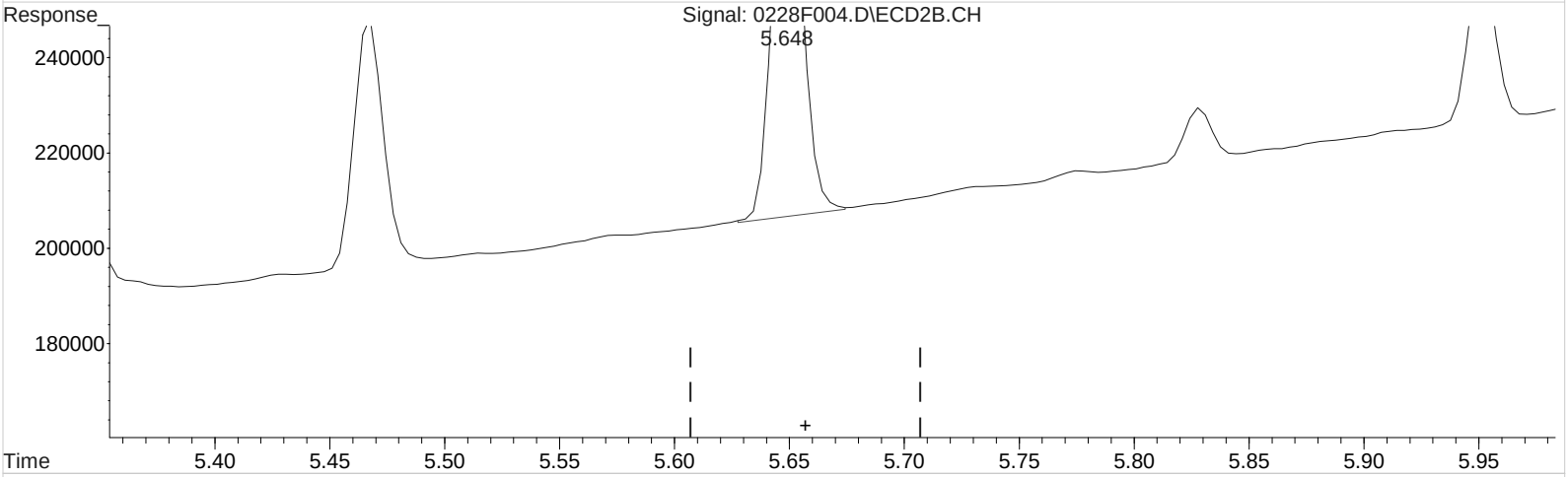
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.150min 0.519 ug/L

response 673174

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.648min 1.211 ug/L m

response 790854

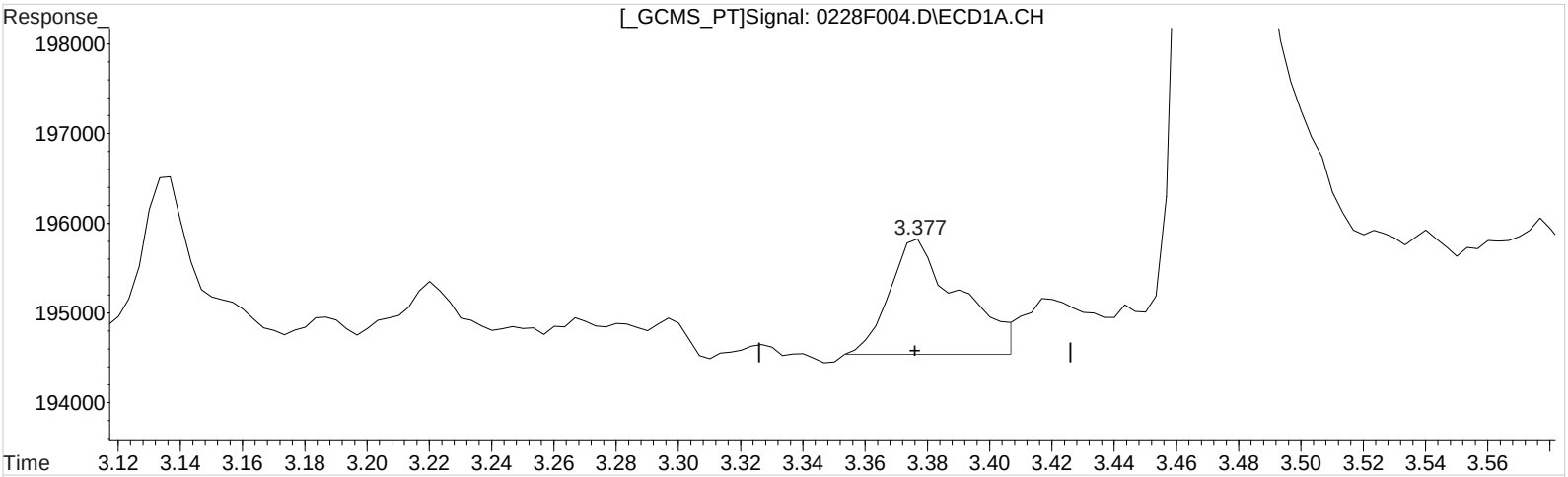
(+) = Expected Retention Time

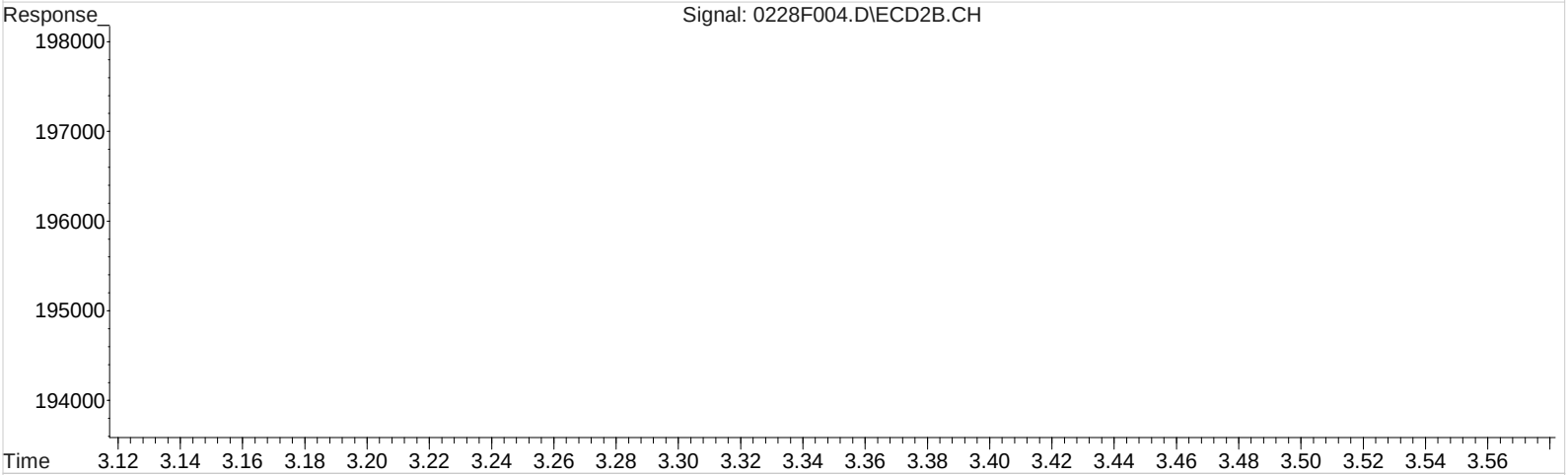
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.388 ug/L

response 20270

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

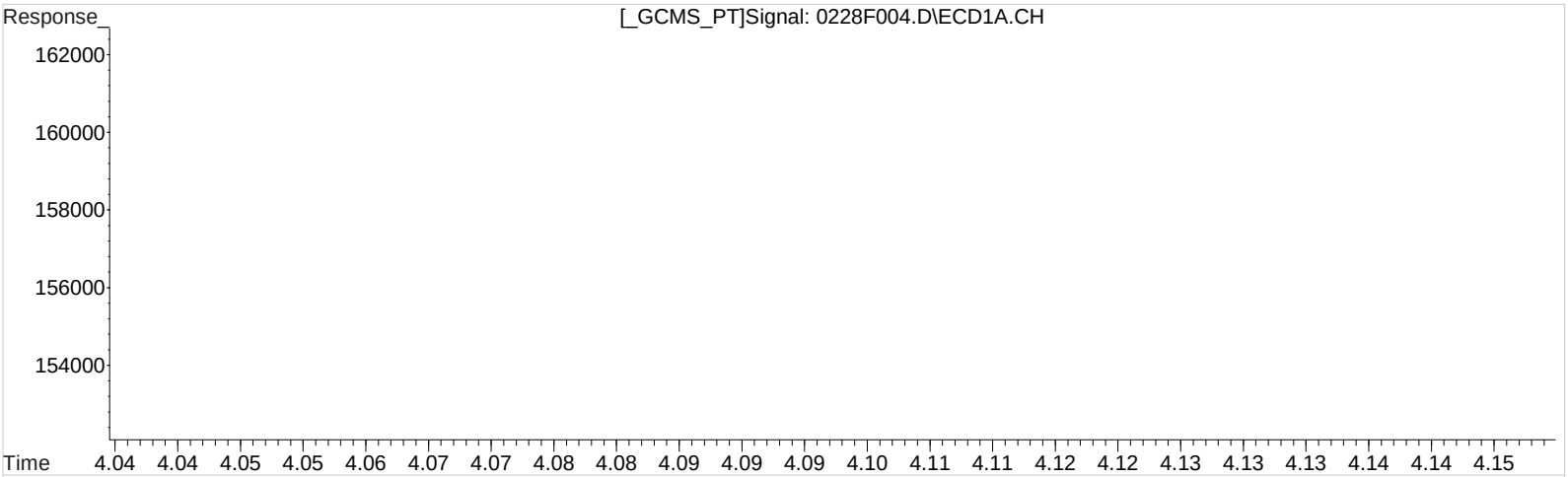
(+) = Expected Retention Time

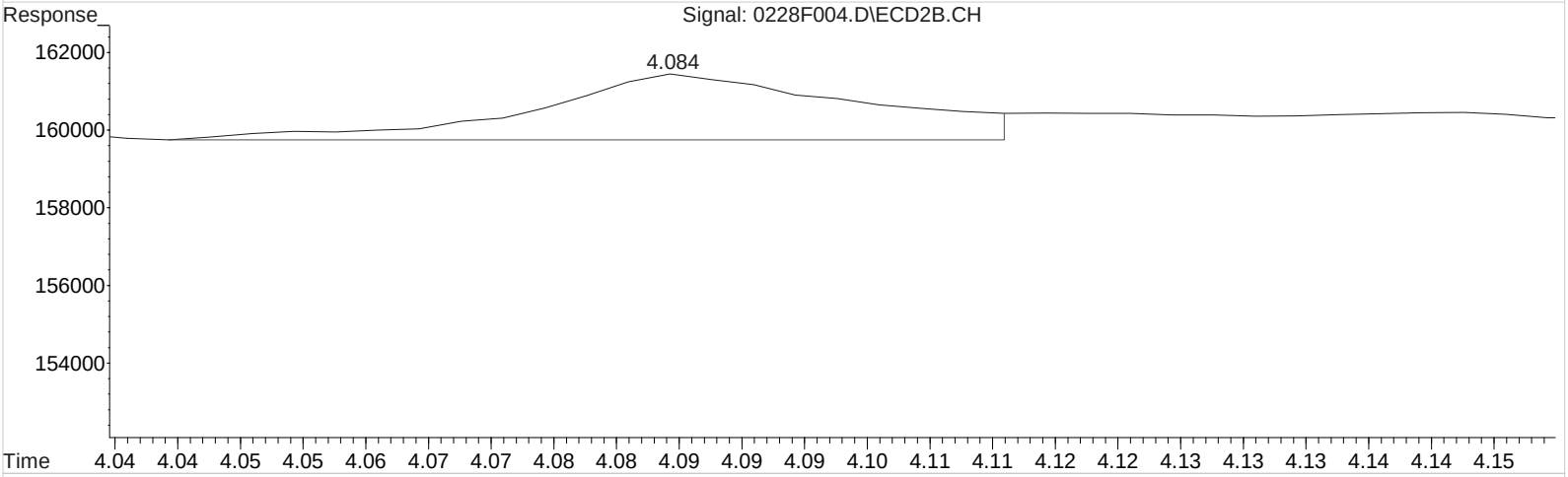
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

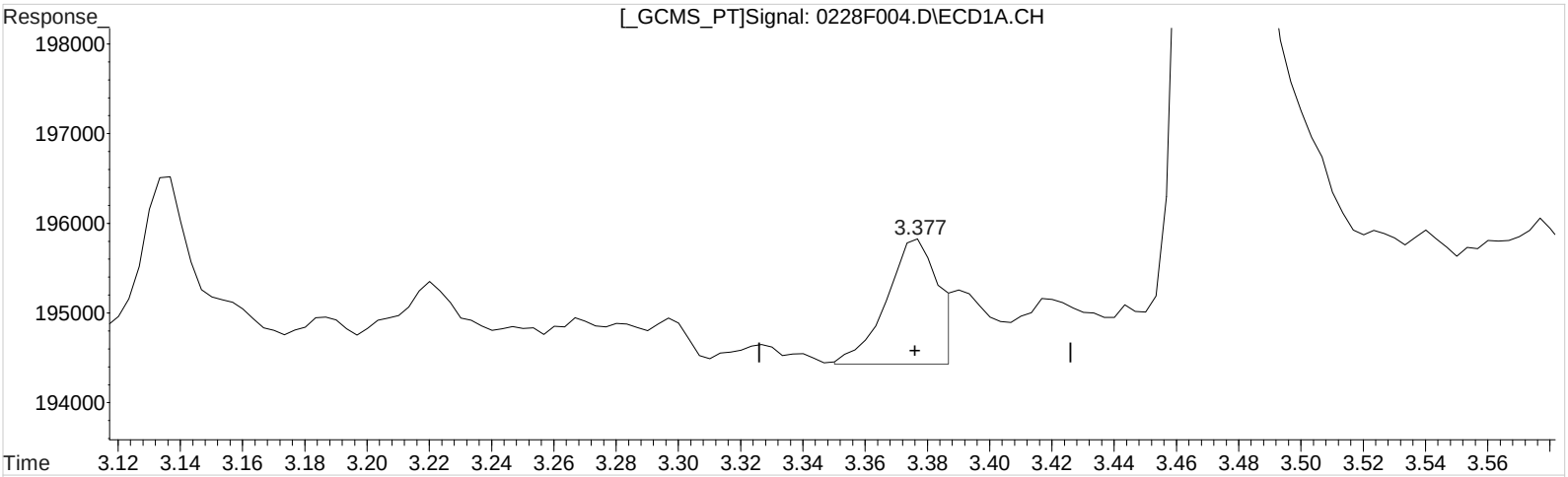
Quantitation Report (Qedit)

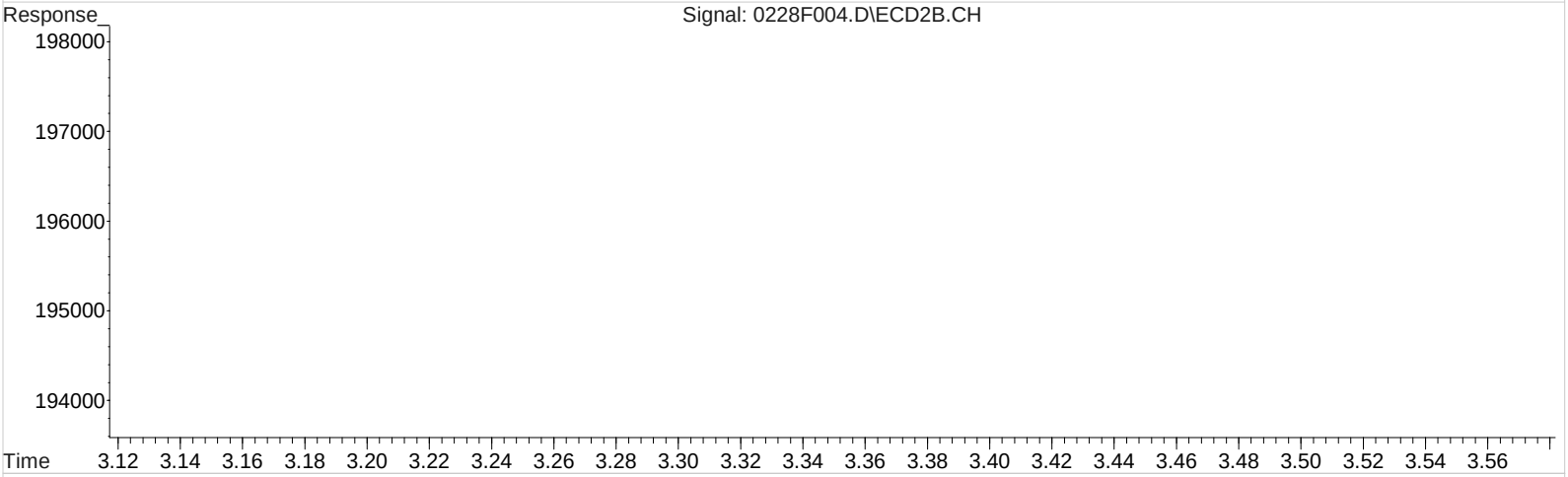
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

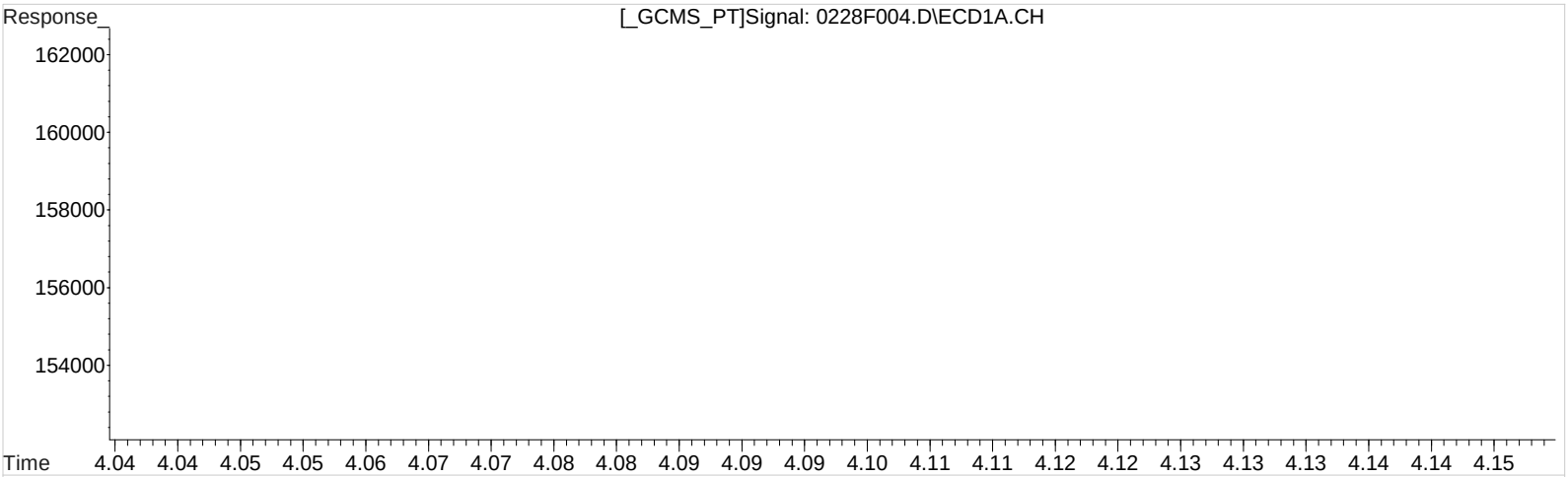
Quantitation Report (Qedit)

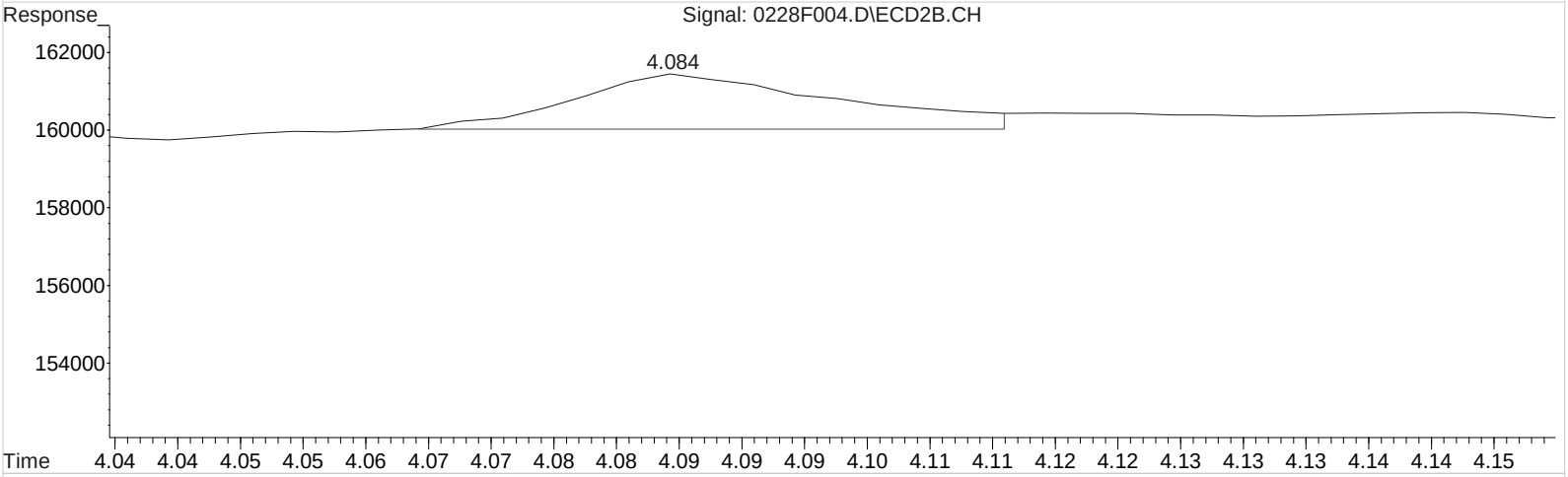
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.285 ug/L m

response 21176

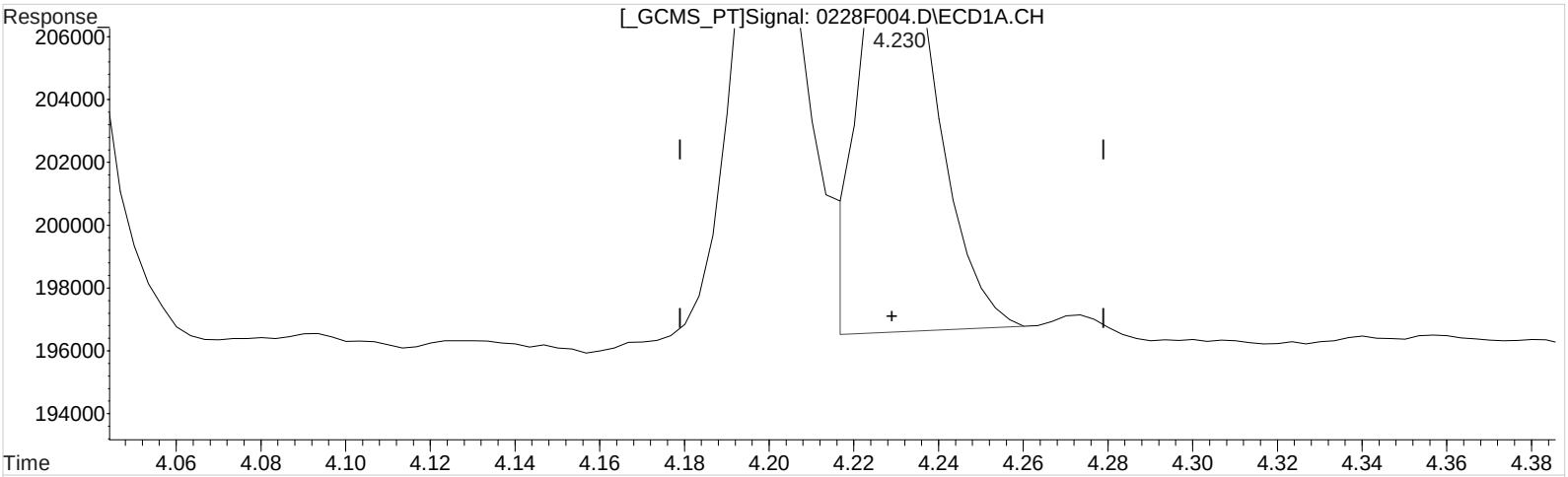
(+) = Expected Retention Time

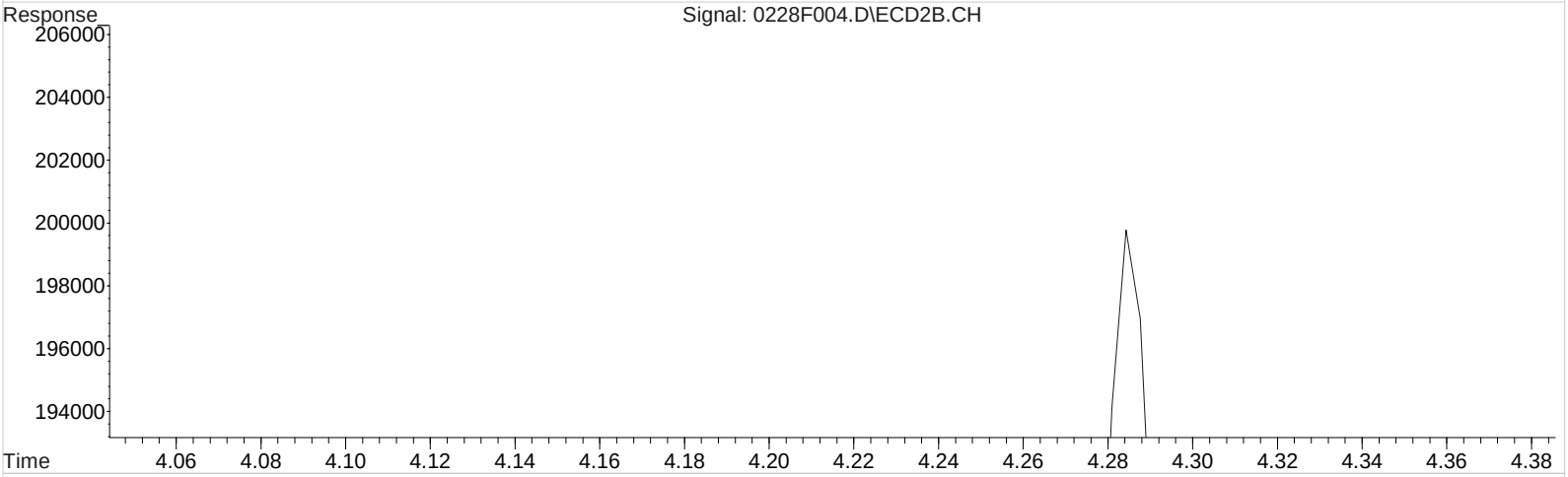
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.230min 0.644 ug/L

response 175885

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.844min 1.245 ug/L

response 233780

(+) = Expected Retention Time

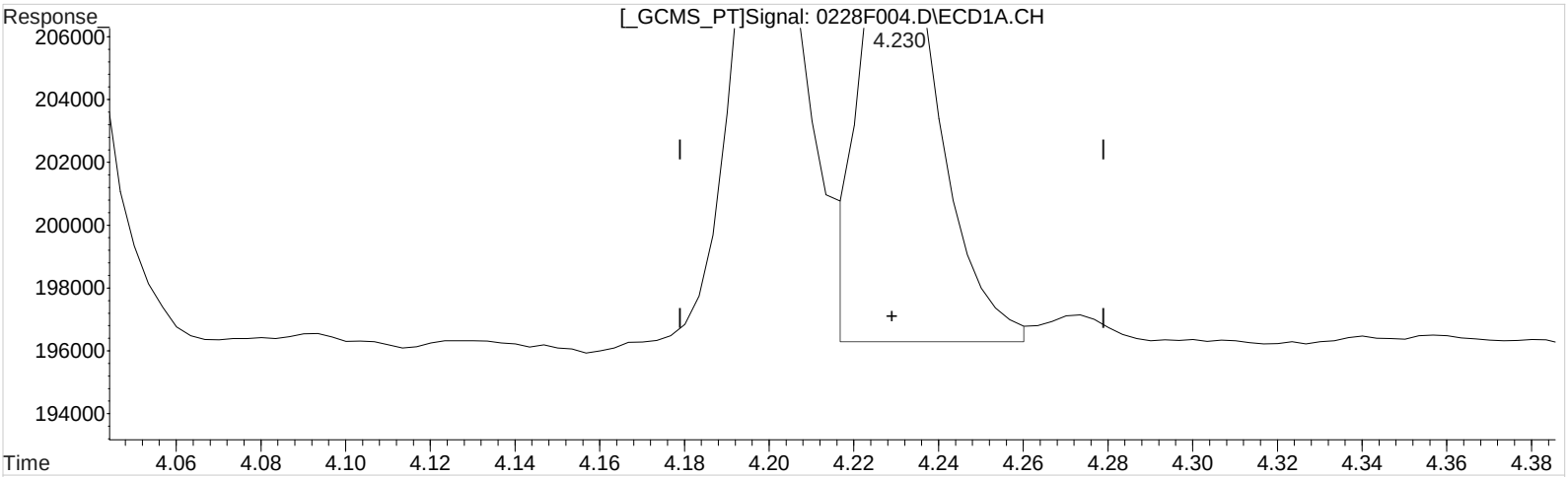
Quantitation Report (Qedit)

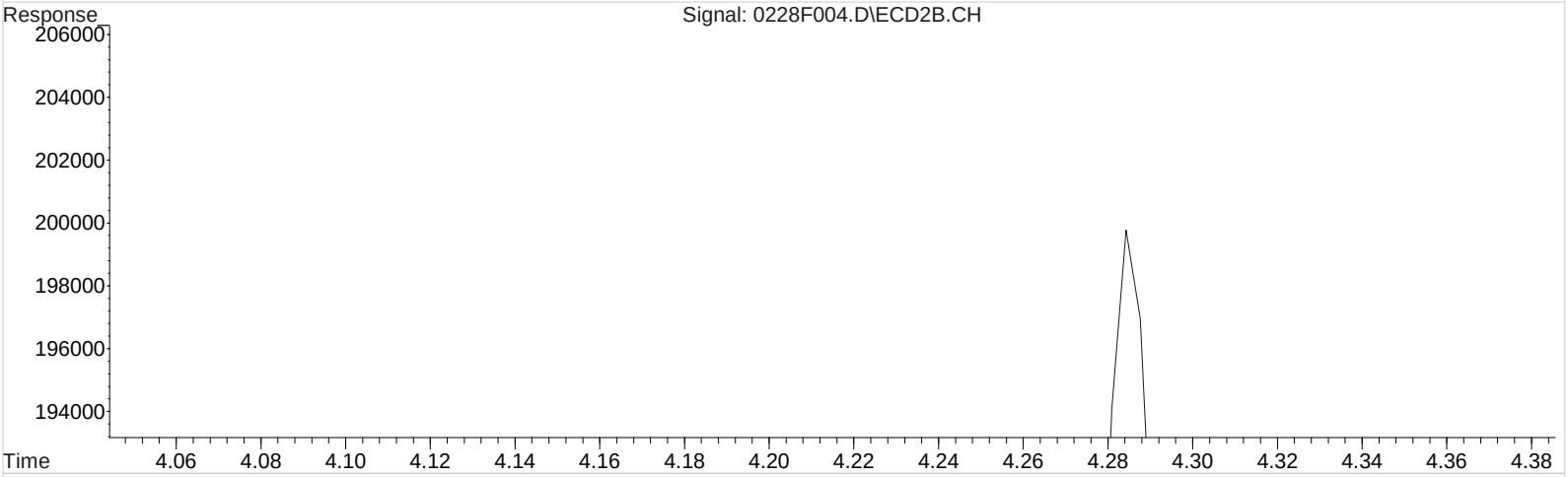
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.230min 0.709 ug/L m

response 185206

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.844min 1.245 ug/L

response 233780

(+) = Expected Retention Time

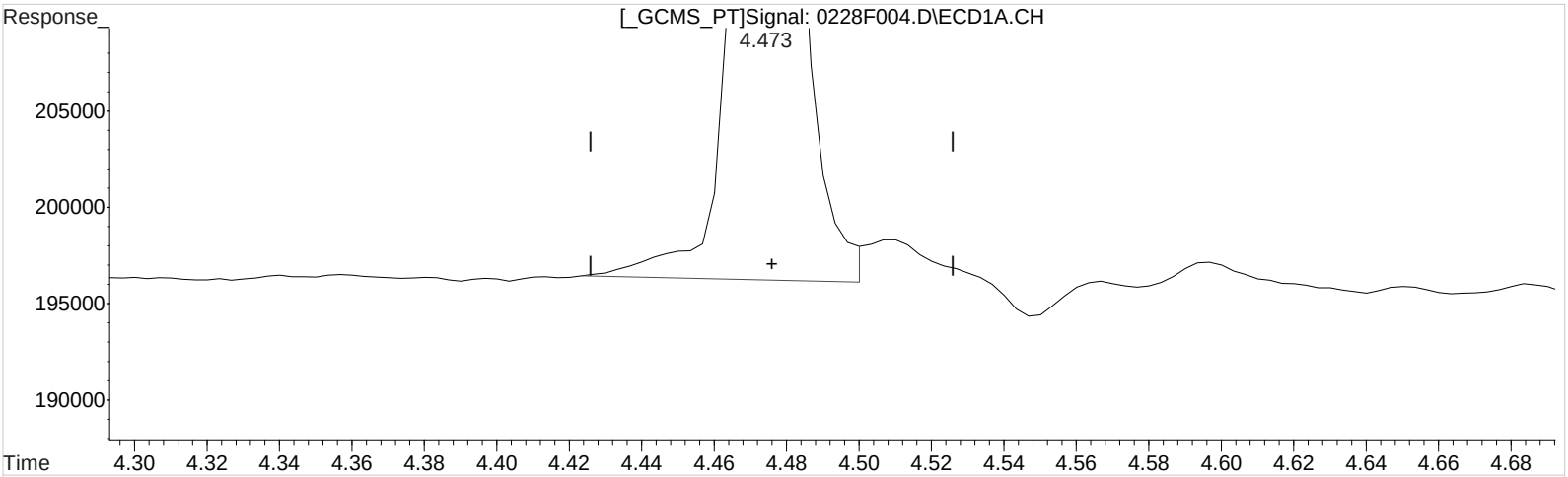
Quantitation Report (Qedit)

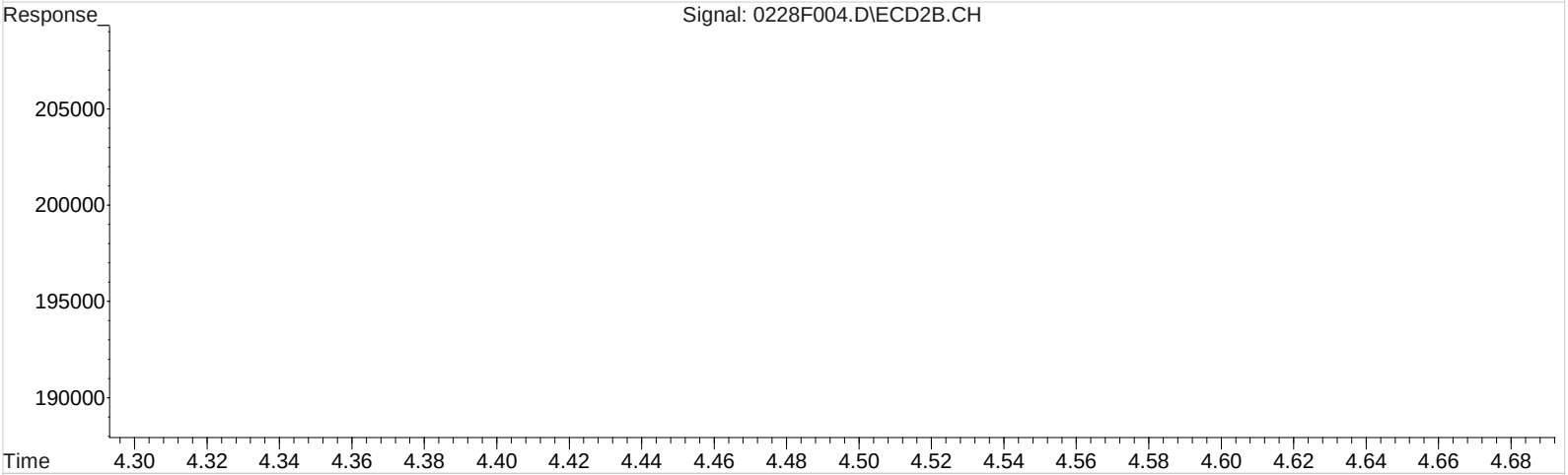
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.319 ug/L

response 627943

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

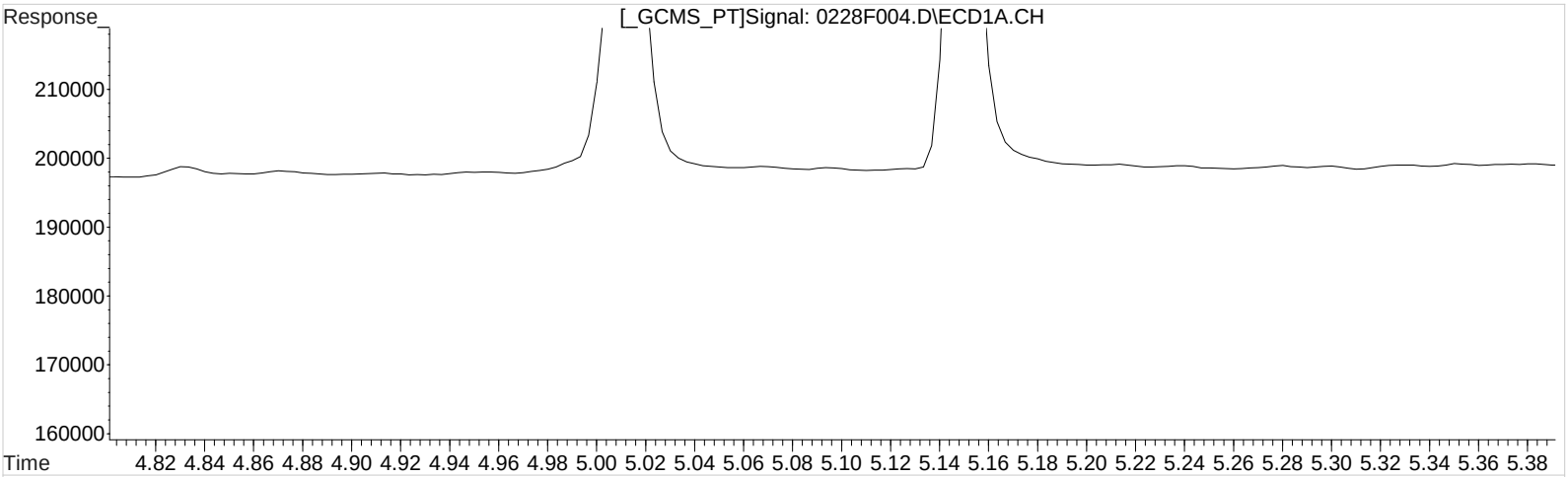
(+) = Expected Retention Time

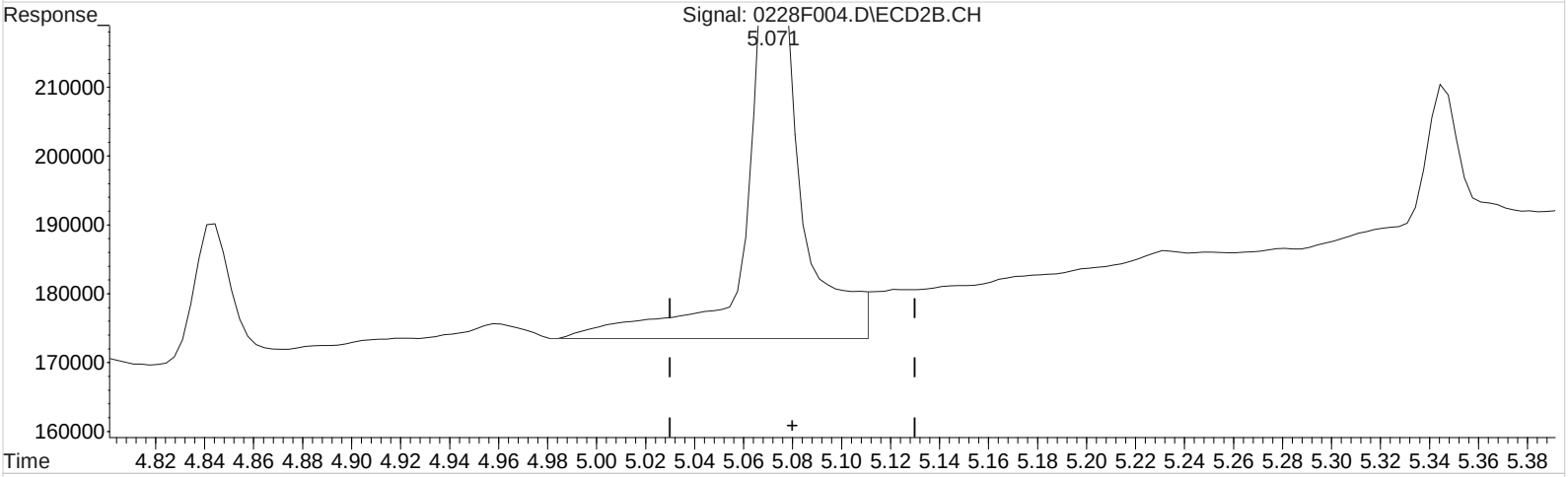
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

(+) = Expected Retention Time

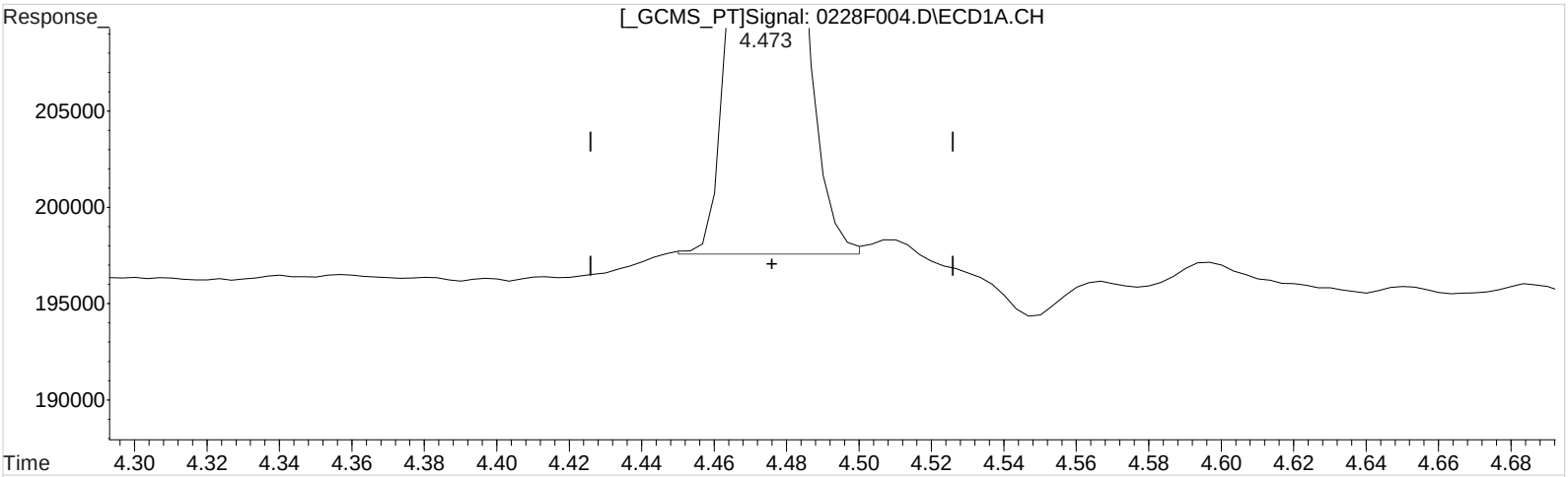
Quantitation Report (Qedit)

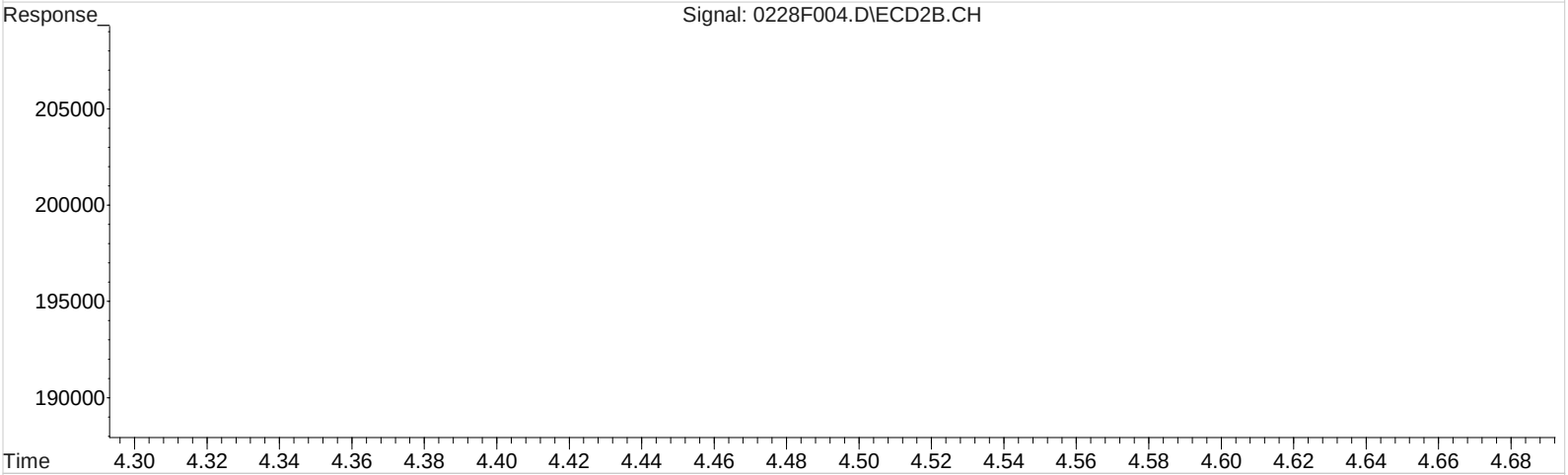
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

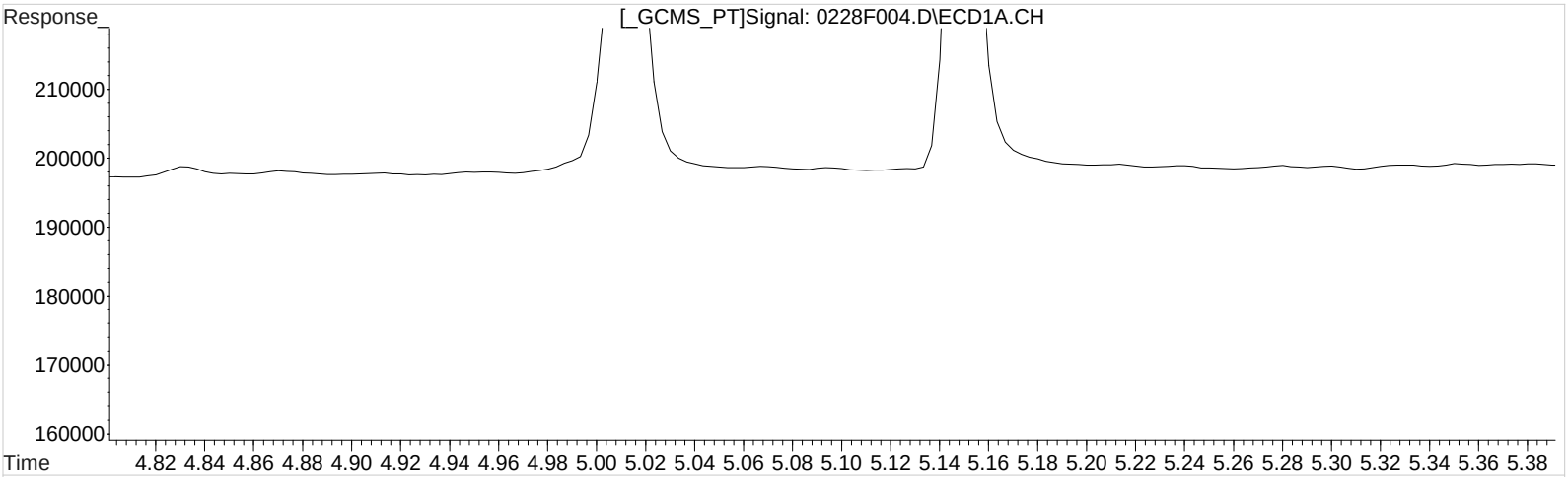
(+) = Expected Retention Time

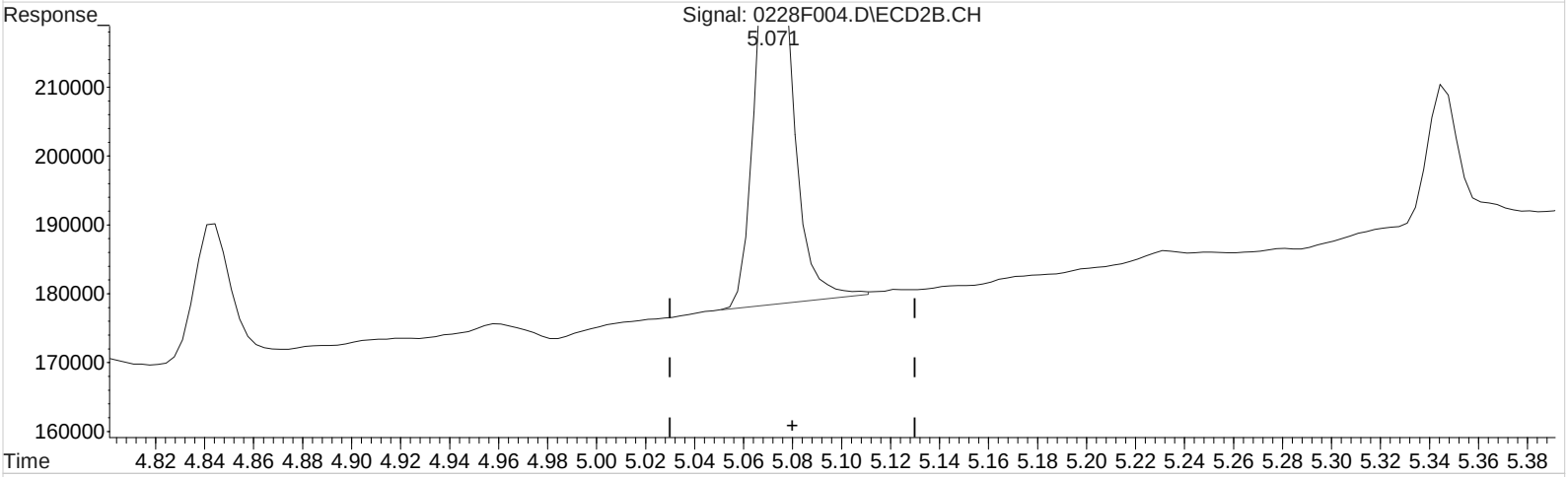
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.048 ug/L m

response 646609

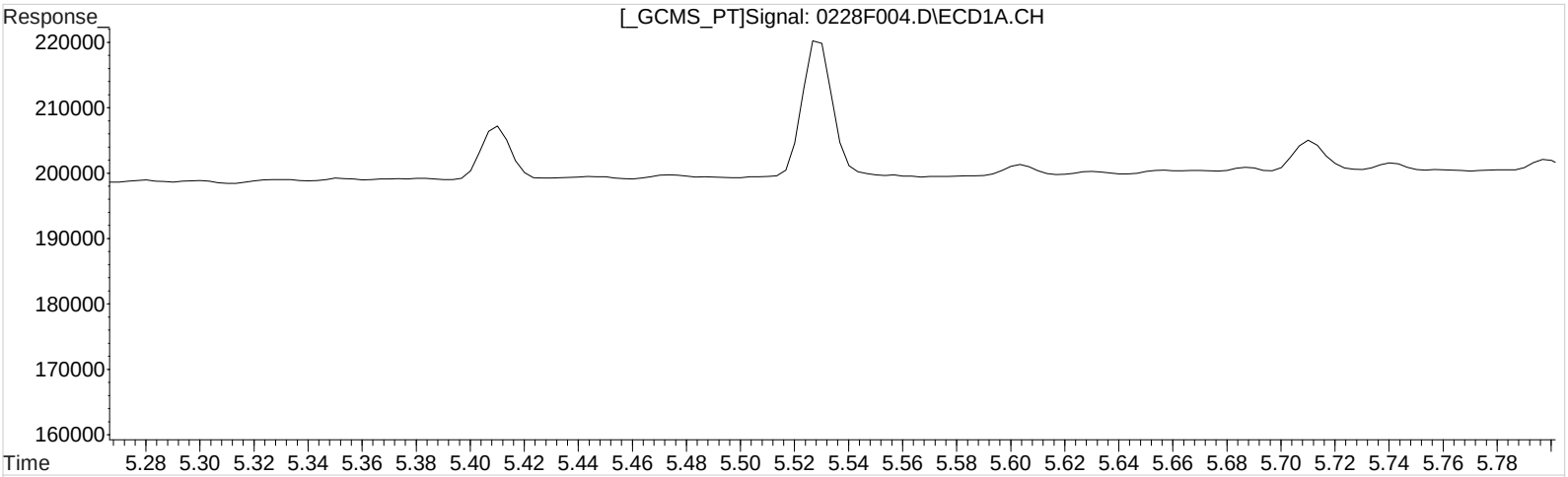
(+) = Expected Retention Time

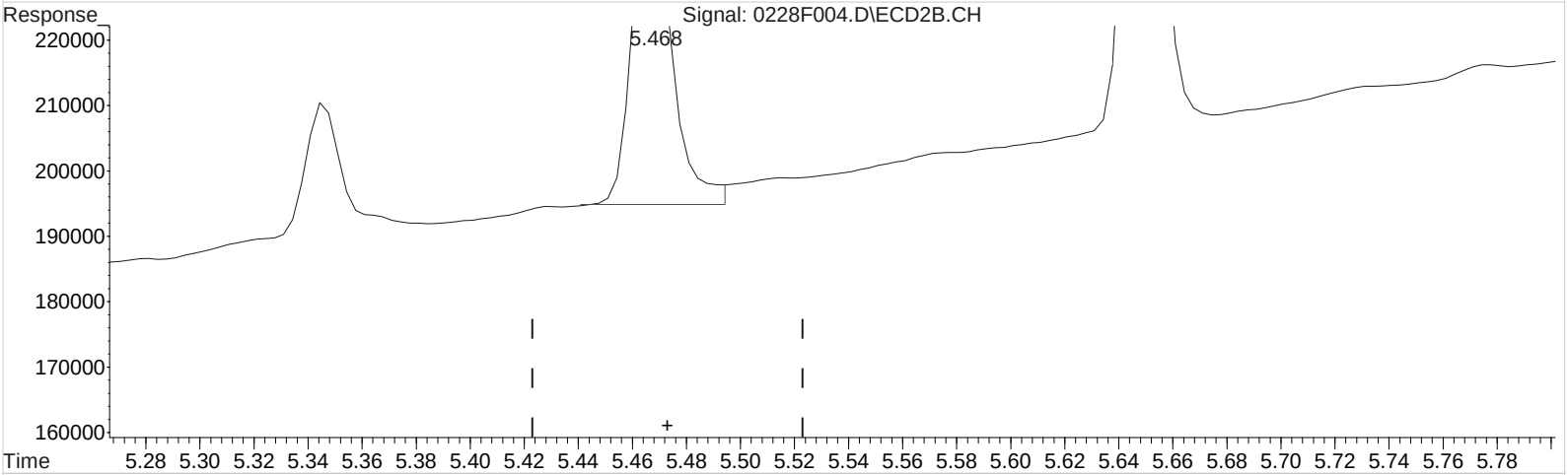
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.013min 0.771 ug/L

response 599618

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.468min 1.232 ug/L

response 508652

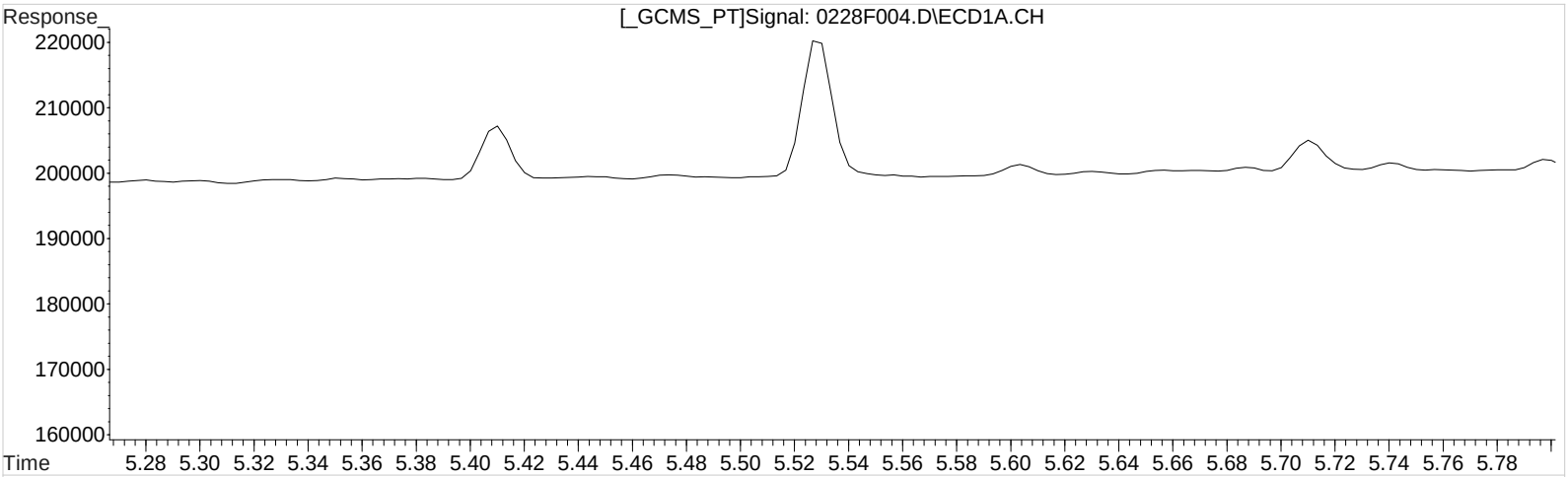
(+) = Expected Retention Time

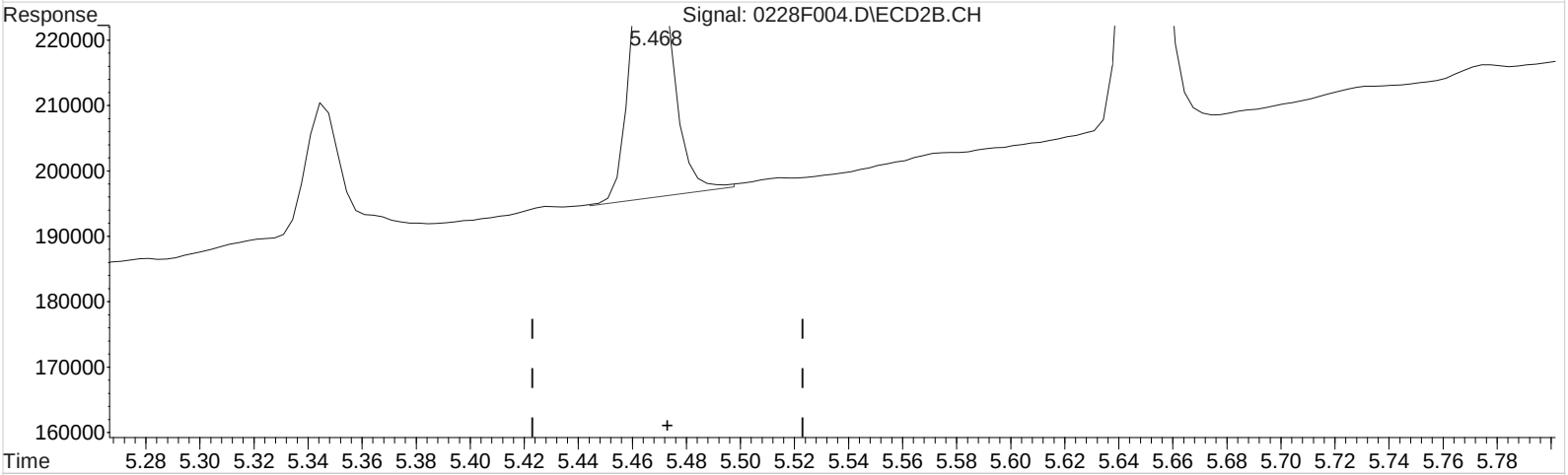
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.013min 0.771 ug/L

response 599618

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.468min 1.152 ug/L m

response 475513

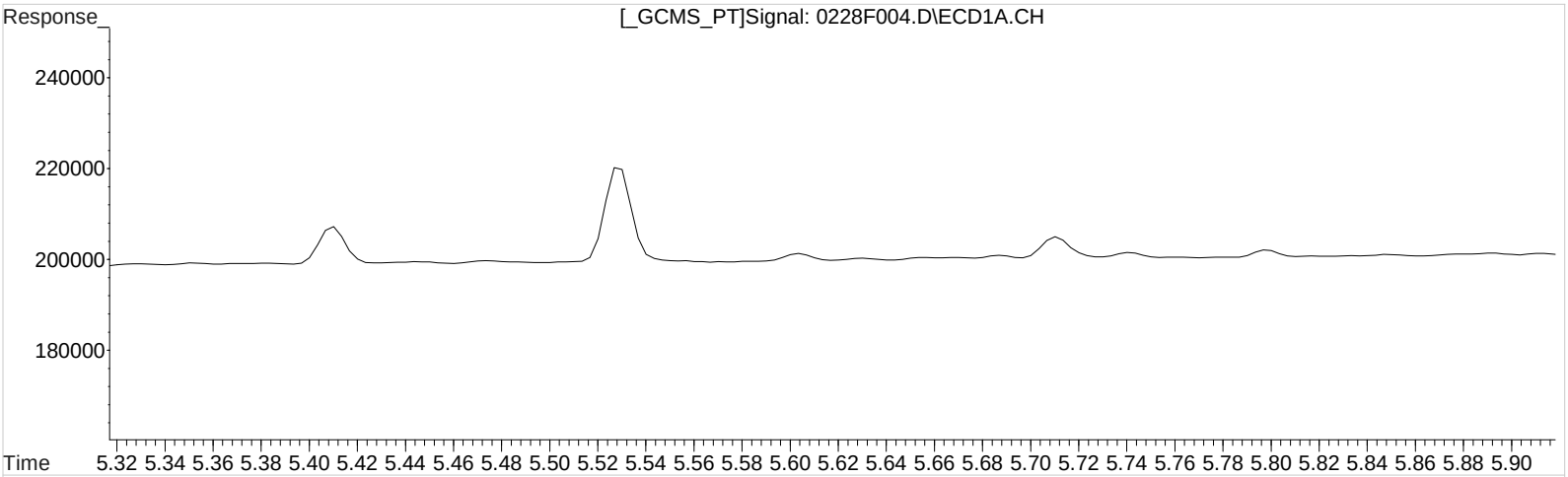
(+) = Expected Retention Time

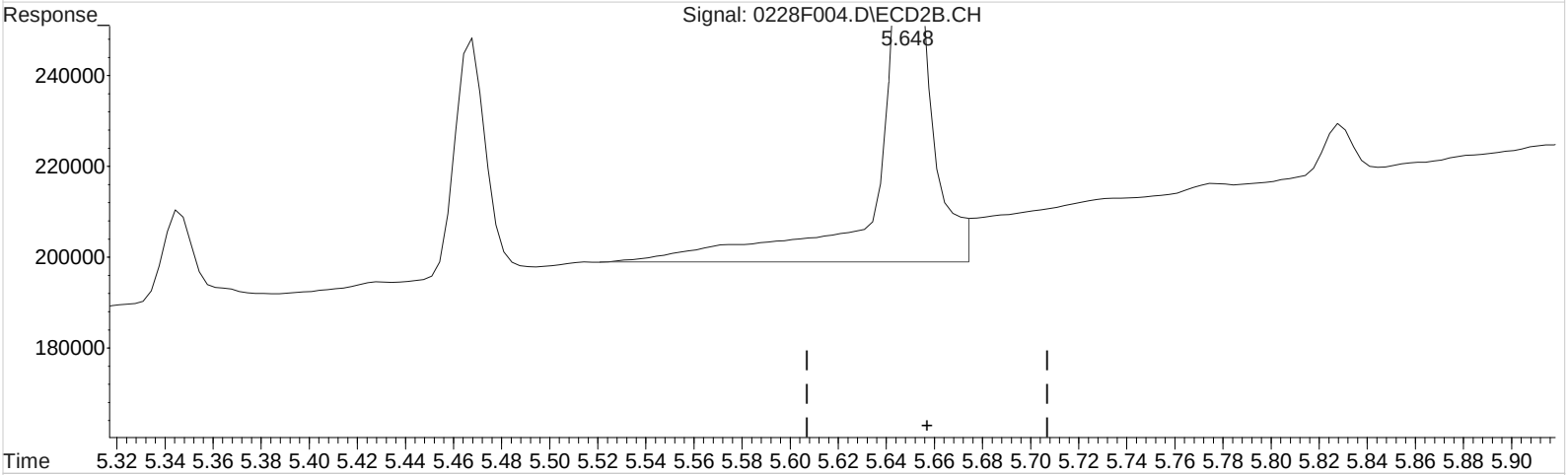
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.150min 0.493 ug/L

response 673174

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.648min 1.785 ug/L

response 1226970

(+) = Expected Retention Time

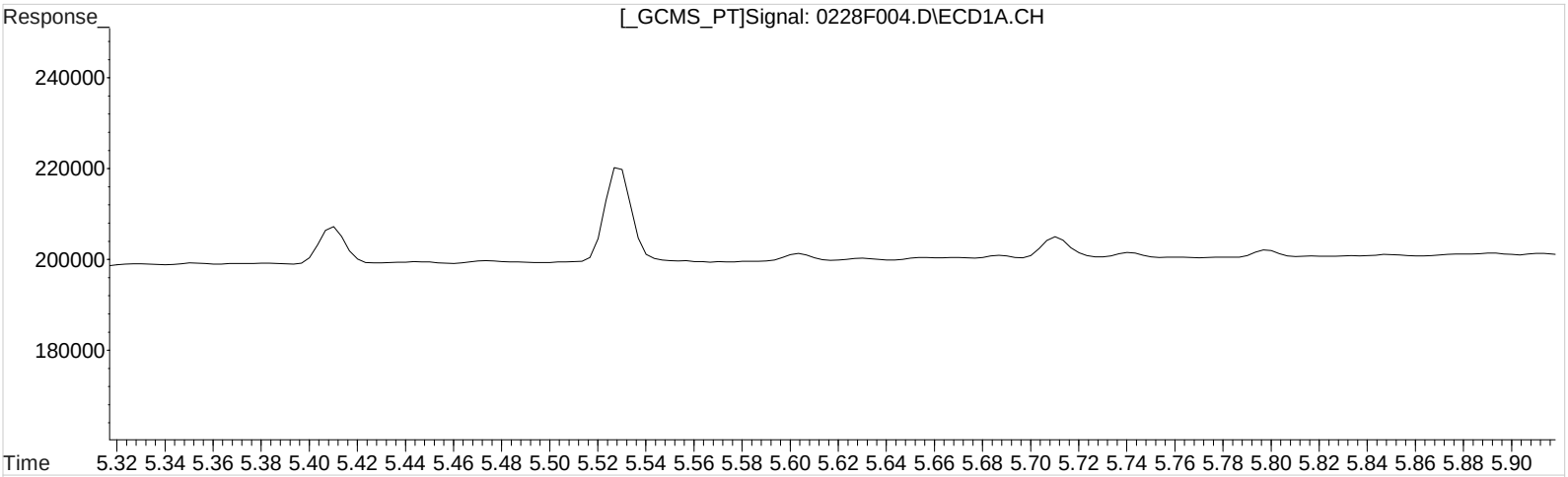
Quantitation Report (Qedit)

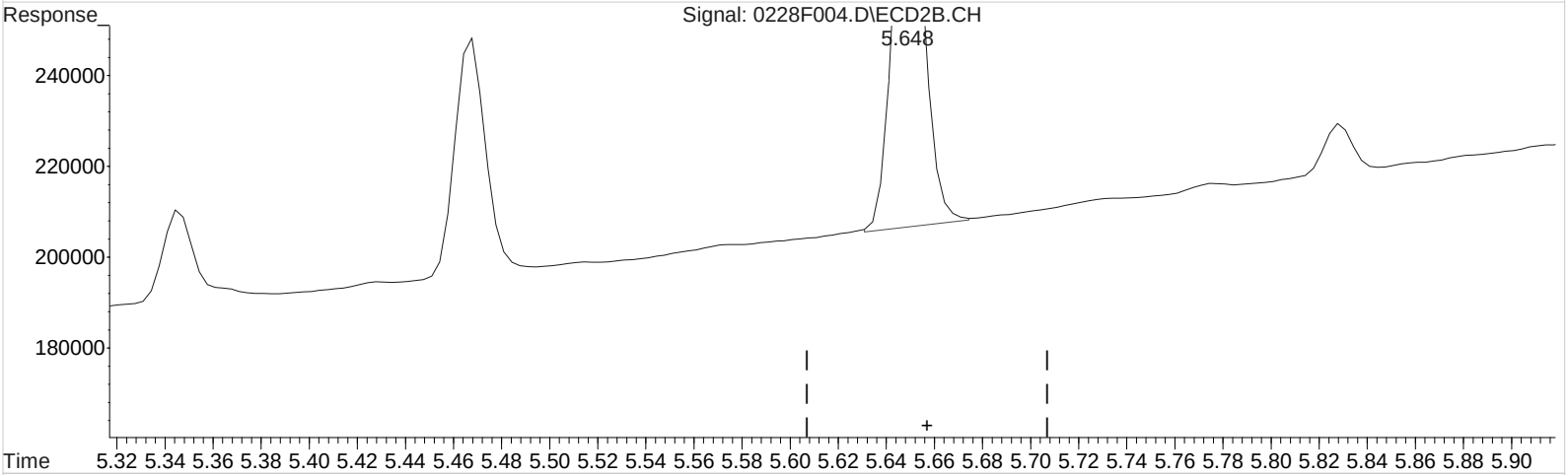
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.150min 0.493 ug/L

response 673174

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.648min 1.149 ug/L m

response 789810

(+) = Expected Retention Time

1st JMS 02/28/19

2nd MC 02/28/19

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28

Column Name: Rtx-1701

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -87.82 X² + 4.342E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	6.732E5	02	5.000	5.679E5	03	10.000	5.372E5	04	25.000	4.948E5
05	50.000	4.691E5	06	100.000	4.496E5	07	250.000	4.103E5	08	500.000	3.739E5
09	1000.000	3.511E5	10	2.500	6.128E5						

2,3,4,5-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -268.7 X² + 3.077E5 X + 3.627E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	02	4.715	3.979E5	03	9.431	3.696E5	04	23.577	3.259E5
05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5	10	2.358	4.756E5

2,3,5,6-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -316.9 X² + 4.391E5 X + 2.523E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	02	4.715	5.28E5	03	9.431	4.935E5	04	23.577	4.478E5
05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5	10	2.358	5.749E5

2,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -146.2 X² + 1.398E5 X + 1.234E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	02	4.669	1.8E5	03	9.338	1.735E5	04	23.345	1.484E5
05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5	10	2.334	2.006E5

2,4,6-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9995**	**Y= -245.7 X² + 3.136E5 X + 2.021E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	02	4.669	3.846E5	03	9.338	3.638E5	04	23.345	3.225E5
05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5	10	2.334	4.078E5

3,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -166.3 X² + 1.479E5 X + 8.837E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	02	4.669	1.823E5	03	9.338	1.696E5	04	23.345	1.515E5
05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5	10	2.334	1.988E5

3,4-Dichlorophenol	**Quadratic**	**1/X**	**COD = 1.0000**	**Y= -15.47 X² + 1.592E4 X + 8.759E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.529E4	02	4.605	1.749E4	03	9.209	1.718E4	04	23.023	1.584E4
05	46.046	1.558E4	06	92.091	1.446E4	07	230.230	1.241E4	10	2.302	1.966E4

3,5-Dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9982**	**Y= -14.62 X² + 1.118E4 X + 7.47E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	1.798E4	02	4.605	1.407E4	03	9.209	1.255E4	04	23.023	1.076E4
05	46.046	1.147E4	06	92.091	9.36E3	07	230.230	7.904E3	10	2.302	1.374E4

Pentachlorophenol (PCP)	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -97.29 X² + 4.57E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	02	4.750	5.978E5	03	9.501	5.654E5	04	23.752	5.208E5
05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5	08	475.030	3.936E5
09	950.060	3.695E5	10	2.375	6.451E5						

4-Bromo-2,6-dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9994**	**Y= -70.25 X² + 3.43E5 X + 2.985E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	02	5.000	4.356E5	03	10.000	4.141E5	04	25.000	3.754E5
05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5	08	500.000	2.979E5
09	1000.000	2.755E5	10	2.500	4.672E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.555	**-44.5**	02	5.000	5.55	11.0	03	10.000	11.4	14.0
04	25.000	27.6	10.6	05	50.000	53.6	7.2	06	100.000	105	4.8
07	250.000	248	-0.9	08	500.000	475	-5.0	09	1000.000	1020	1.6
10	2.500	2.53	1.4								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.770	-18.3	02	4.715	4.94	4.7	03	9.431	10.2	8.6
04	23.577	24.3	3.1	05	47.153	46.9	-0.6	06	94.307	91.6	-2.8
07	235.770	237	0.6	10	2.358	2.47	4.8				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.738	-21.7	02	4.715	5.11	8.5	03	9.431	10.1	7.1
04	23.577	23.9	1.3	05	47.153	47.4	0.6	06	94.307	91.5	-3.0
07	235.770	237	0.5	10	2.358	2.52	6.8				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.634	**-32.1**	02	4.669	5.16	10.4	03	9.338	10.8	15.9
04	23.345	24.5	5.1	05	46.690	46.1	-1.2	06	93.379	88.6	-5.1
07	233.450	236	1.2	10	2.334	2.47	6.0				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.732	-21.6	02	4.669	5.10	9.3	03	9.338	10.3	10.0
04	23.345	23.8	2.0	05	46.690	47.3	1.2	06	93.379	89.5	-4.1
07	233.450	235	0.8	10	2.334	2.39	2.6				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.655	-29.8	02	4.669	5.19	11.1	03	9.338	10.2	9.6
04	23.345	24.0	2.7	05	46.690	47.4	1.5	06	93.379	88.5	-5.2
07	233.450	236	1.2	10	2.334	2.55	9.2				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.914	-0.8	02	4.605	4.53	-1.6	03	9.209	9.47	2.9
04	23.023	22.9	-0.7	05	46.046	46.6	1.3	06	92.091	91.2	-1.0
07	230.230	231	0.2	10	2.302	2.30	-0.2				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.814	-11.6	02	4.605	5.16	12.1	03	9.209	9.80	6.4
04	23.023	22.1	-3.9	05	46.046	49.8	8.2	06	92.091	86.2	-6.4
07	230.230	233	1.3	10	2.302	2.17	-5.8				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	0.527	**-44.5**	02	4.750	5.27	11.0	03	9.501	10.8	14.0
04	23.752	26.3	10.6	05	47.503	50.9	7.2	06	95.006	99.5	4.8
07	237.520	235	-0.9	08	475.030	452	-5.0	09	950.060	966	1.6
10	2.375	2.41	1.4								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.643	**-35.7**	02	5.000	5.49	9.7	03	10.000	11.2	12.3
04	25.000	26.6	6.5	05	50.000	53.3	6.6	06	100.000	102	1.6
07	250.000	251	0.2	08	500.000	481	-3.9	09	1000.000	1010	1.2
10	2.500	2.54	1.5								

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D\0228F004c.d	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D\0228F006c.d	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D\0228F007c.d	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D\0228F008c.d	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D\0228F009c.d	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D\0228F010c.d	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D\0228F011c.d	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D\0228F012c.d	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D\0228F013c.d	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D\0228F014c.d	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte	Curve Fit	Weighting

2,3,4,5,6-Pentachloroanisole

Average RF **RSD = 9.583** **Average RF = 6.462E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	7.909E5	02	5.000	6.542E5	03	10.000	6.532E5	04	25.000	6.151E5
05	50.000	6.083E5	06	100.000	5.984E5	07	250.000	5.996E5	08	500.000	6.052E5
09	1000.000	6.245E5	10	2.500	7.13E5						

2,3,4,5-Tetrachlorophenol

Average RF **RSD = 12.29** **Average RF = 4.159E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	02	4.715	4.353E5	03	9.431	4.108E5	04	23.577	3.904E5
05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5	10	2.358	4.73E5

2,3,5,6-Tetrachlorophenol

Average RF **RSD = 6.587** **Average RF = 6.037E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	02	4.715	5.882E5	03	9.431	6.075E5	04	23.577	5.816E5
05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5	10	2.358	6.377E5

2,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9997** **Y= -73.44 X² + 1.777E5 X + 1.058E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	02	4.669	2.059E5	03	9.338	2.015E5	04	23.345	1.829E5
05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5	10	2.334	2.293E5

2,4,6-Trichlorophenol

Average RF **RSD = 4.634** **Average RF = 4.082E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	02	4.669	4.004E5	03	9.338	4.124E5	04	23.345	3.941E5
05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5	10	2.334	4.267E5

3,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9998** **Y= -63.92 X² + 1.7E5 X + 9.004E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	02	4.669	1.919E5	03	9.338	1.89E5	04	23.345	1.732E5
05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5	10	2.334	2.115E5

3,4-Dichlorophenol

Average RF **RSD = 10.82** **Average RF = 2.169E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.356E4	02	4.605	2.28E4	03	9.209	2.378E4	04	23.023	2.153E4
05	46.046	2.119E4	06	92.091	1.915E4	07	230.230	1.751E4	10	2.302	2.4E4

3,5-Dichlorophenol

Quadratic **1/X** **COD = 0.9996** **Y= -14.71 X² + 1.578E4 X + 8.463E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.299E4	02	4.605	1.798E4	03	9.209	1.82E4	04	23.023	1.612E4
05	46.046	1.537E4	06	92.091	1.408E4	07	230.230	1.249E4	10	2.302	1.928E4

Pentachlorophenol (PCP)

Average RF **RSD = 9.573** **Average RF = 6.805E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	02	4.750	6.912E5	03	9.501	6.875E5	04	23.752	6.474E5
05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5	08	475.030	6.37E5
09	950.060	6.573E5	10	2.375	7.52E5						

4-Bromo-2,6-dichlorophenol

Average RF **RSD = 5.968** **Average RF = 4.216E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	02	5.000	3.777E5	03	10.000	4.048E5	04	25.000	4.138E5
05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5	08	500.000	4.395E5
09	1000.000	4.542E5	10	2.500	3.934E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.22	22.4	02	5.000	5.06	1.2	03	10.000	10.1	1.1
04	25.000	23.8	-4.8	05	50.000	47.1	-5.9	06	100.000	92.6	-7.4
07	250.000	232	-7.2	08	500.000	468	-6.4	09	1000.000	966	-3.4
10	2.500	2.76	10.3								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.14	21.2	02	4.715	4.93	4.7	03	9.431	9.31	-1.2
04	23.577	22.1	-6.1	05	47.153	43.3	-8.3	06	94.307	83.5	-11.5
07	235.770	206	-12.5	10	2.358	2.68	13.7				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.07	13.6	02	4.715	4.59	-2.6	03	9.431	9.49	0.6
04	23.577	22.7	-3.7	05	47.153	45.9	-2.6	06	94.307	89.1	-5.6
07	235.770	223	-5.4	10	2.358	2.49	5.6				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.799	-14.5	02	4.669	4.82	3.3	03	9.338	10.0	7.4
04	23.345	23.7	1.3	05	46.690	47.3	1.3	06	93.379	90.7	-2.9
07	233.450	234	0.4	10	2.334	2.42	3.6				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	1.01	8.7	02	4.669	4.58	-1.9	03	9.338	9.43	1.0
04	23.345	22.5	-3.5	05	46.690	46.6	-0.2	06	93.379	89.0	-4.7
07	233.450	224	-4.0	10	2.334	2.44	4.5				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.846	-9.5	02	4.669	4.75	1.7	03	9.338	9.88	5.9
04	23.345	23.5	0.5	05	46.690	47.5	1.7	06	93.379	91.1	-2.4
07	233.450	234	0.3	10	2.334	2.38	1.8				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	1.00	8.6	02	4.605	4.84	5.1	03	9.209	10.1	9.6
04	23.023	22.9	-0.7	05	46.046	45.0	-2.3	06	92.091	81.3	-11.7
07	230.230	186	-19.3	10	2.302	2.55	10.6				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.806	-12.4	02	4.605	4.73	2.8	03	9.209	10.2	10.6
04	23.023	23.5	2.1	05	46.046	46.3	0.6	06	92.091	89.0	-3.3
07	230.230	232	0.7	10	2.302	2.28	-0.9				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	1.16	22.2	02	4.750	4.82	1.6	03	9.501	9.60	1.0
04	23.752	22.6	-4.9	05	47.503	44.7	-5.9	06	95.006	87.9	-7.4
07	237.520	220	-7.3	08	475.030	445	-6.4	09	950.060	918	-3.4
10	2.375	2.62	10.5								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.975	-2.5	02	5.000	4.48	-10.4	03	10.000	9.60	-4.0
04	25.000	24.5	-1.8	05	50.000	52.4	4.9	06	100.000	103	3.0
07	250.000	264	5.5	08	500.000	521	4.2	09	1000.000	1080	7.7
10	2.500	2.33	-6.7								

Initial Calibration Verification Summary Report

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-1701

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Quadratic	50	58.215	ug/L	16.4	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.125	ug/L	6.3	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.742	ug/L	7.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.950	ug/L	7.0	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	47.208	ug/L	1.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.502	ug/L	6.0	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	50.405	ug/L	9.5	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	54.814	ug/L	19.0	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Quadratic	47.5030	55.309	ug/L	16.4	<= 20

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-35

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Average RF	50	51.424	ug/L	2.8	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	46.743	ug/L	-0.9	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	47.890	ug/L	1.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	50.676	ug/L	8.5	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Average RF	46.69	46.729	ug/L	0.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	48.393	ug/L	3.6	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Average RF	46.0460	46.475	ug/L	0.9	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	48.925	ug/L	6.3	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Average RF	47.5030	48.834	ug/L	2.8	<= 20

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:10:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.031	4.715	2177979	1888328	5.516	4.344
		Target Compounds						
1)		3,4-Dichl...	3.138	3.832	80562	104986	4.505m	4.752
2)		3,5-Dichl...	3.378	4.089	64800	82809	5.639m	5.025
3)		2,4,6-Tri...	3.474	4.289	1795636	1869642	5.068	4.483
5)		2,4,5-Tri...	4.201	4.782	840314	961190	5.239	4.809
6)		3,4,5-Tri...	4.231	4.845	851278	896194	5.313	4.774
7)	M	2,3,5,6-T...	4.478	5.075	2489684	2773207	5.230	4.493m
8)	M	2,3,4,5-T...	5.014	5.469	1875877	2052365	4.930m	4.970
9)	M	Pentachlo...	5.151	5.649	2839370	3283089	5.309	4.775m
10)		Pentachlo...	5.151	5.649	2839370	3271189	5.588	5.010m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

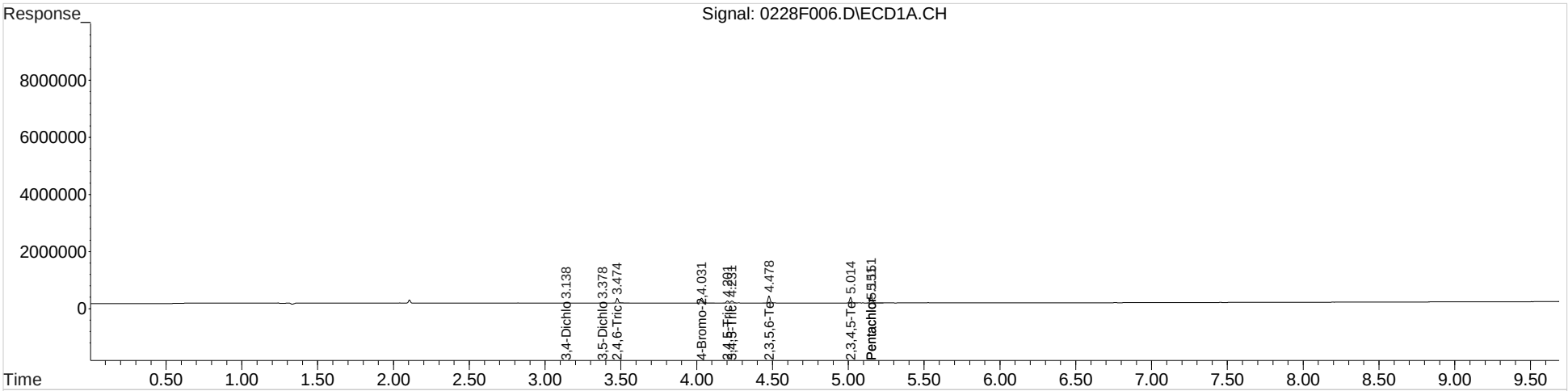
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:10:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



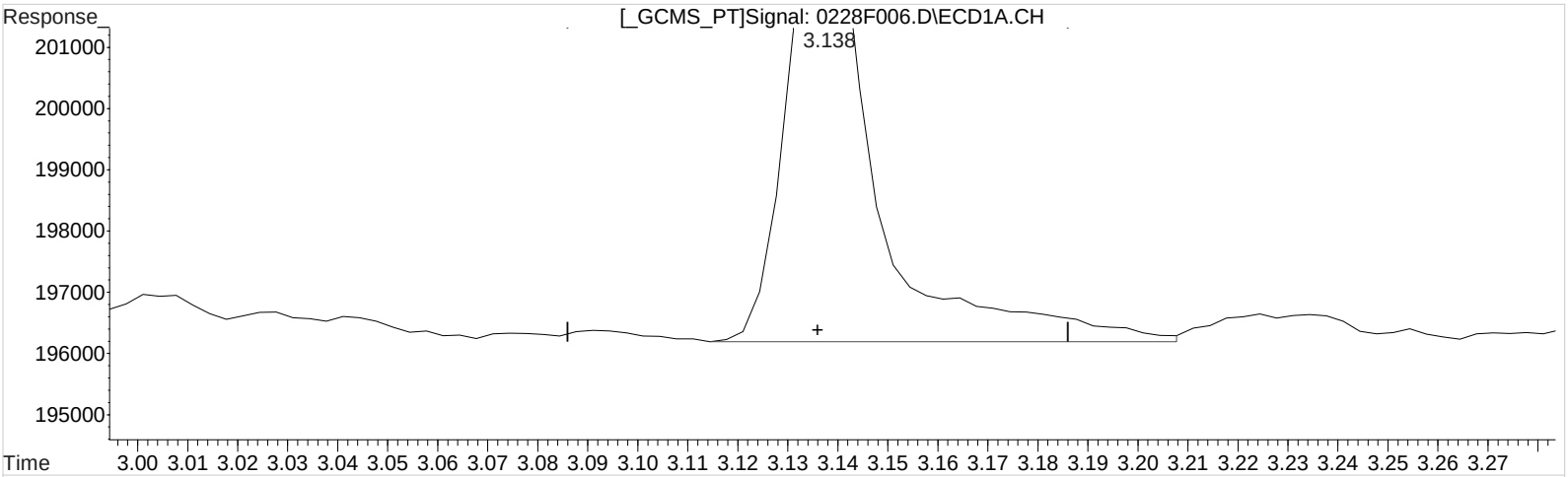
Quantitation Report (Qedit)

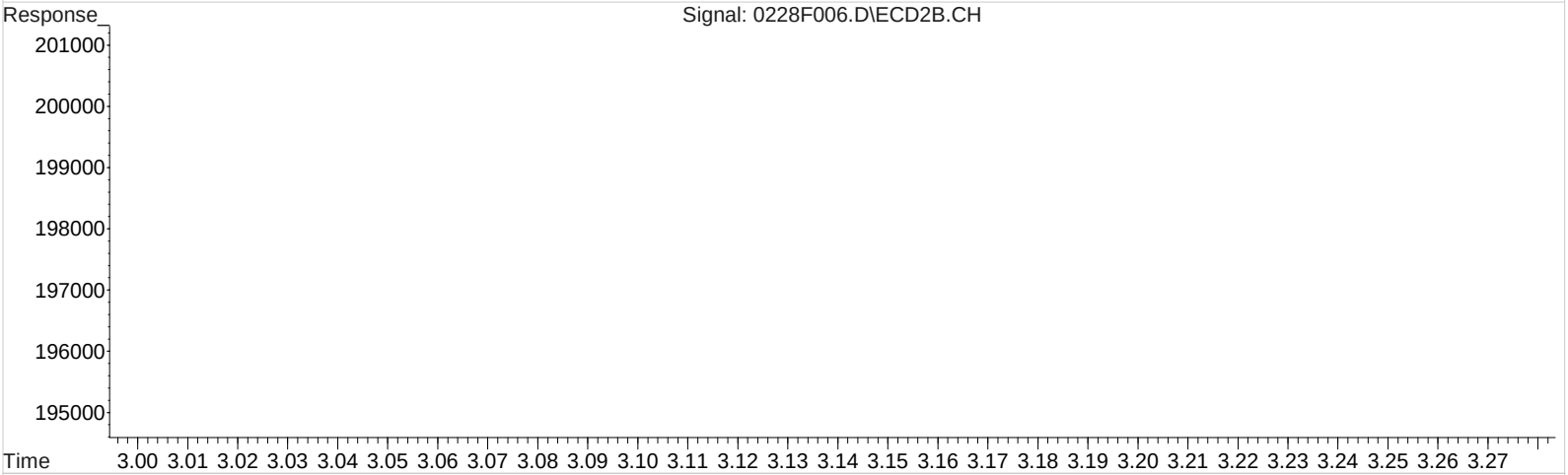
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.138min 5.274 ug/L

response 92393

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.832min 4.752 ug/L

response 104986

(+) = Expected Retention Time

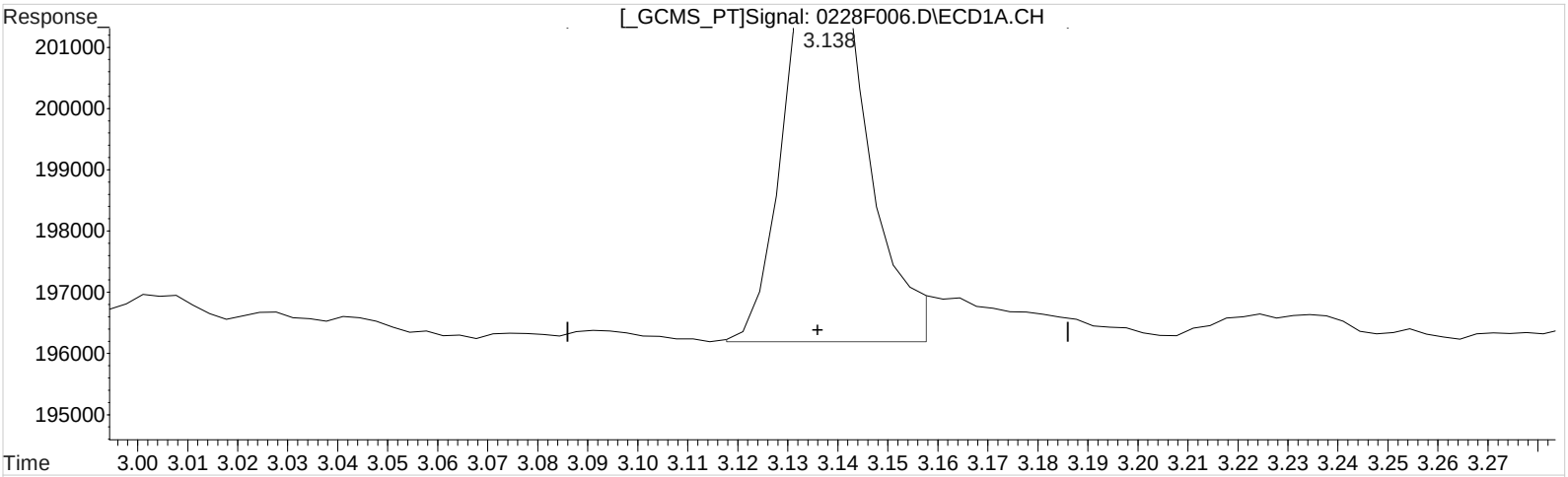
Quantitation Report (Qedit)

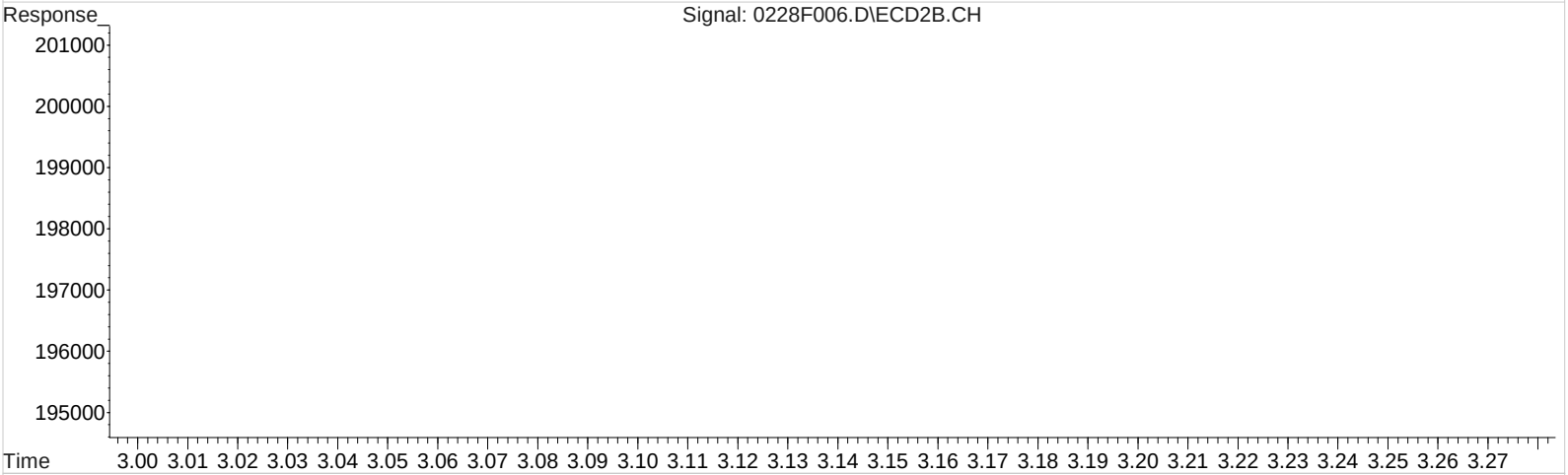
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.138min 4.505 ug/L m

response 80562

(1) 3,4-Dichlorophenol #2

3.832min 4.752 ug/L

response 104986

Manual Integration:

After

Baseline/Shoulder

02/28/19

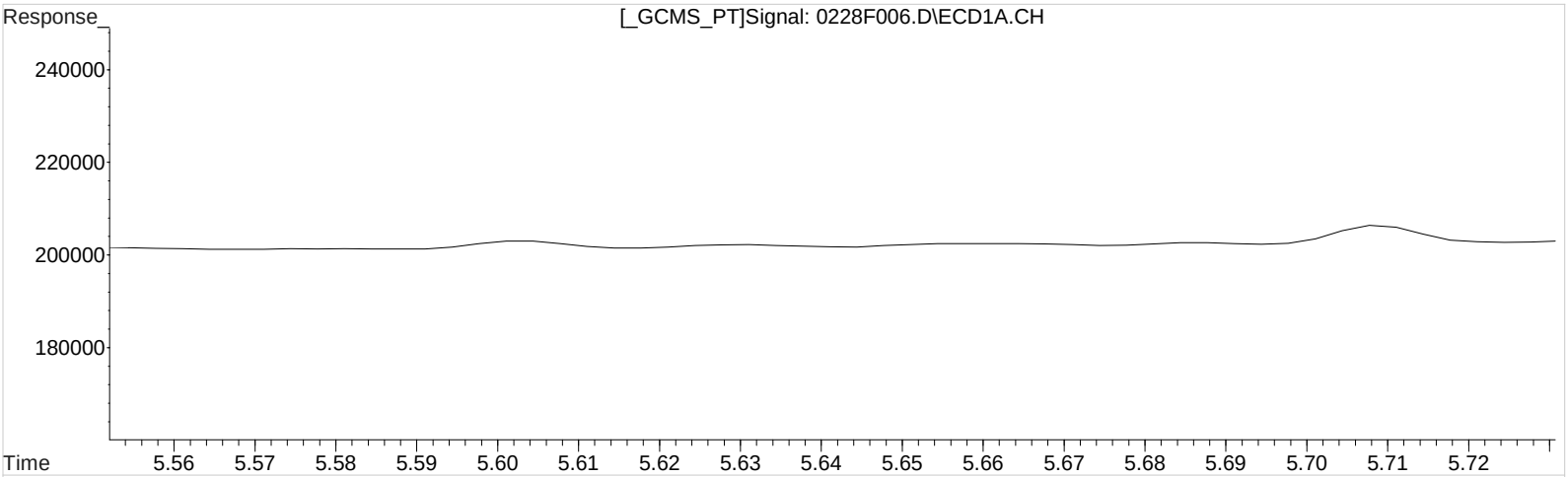
(+) = Expected Retention Time

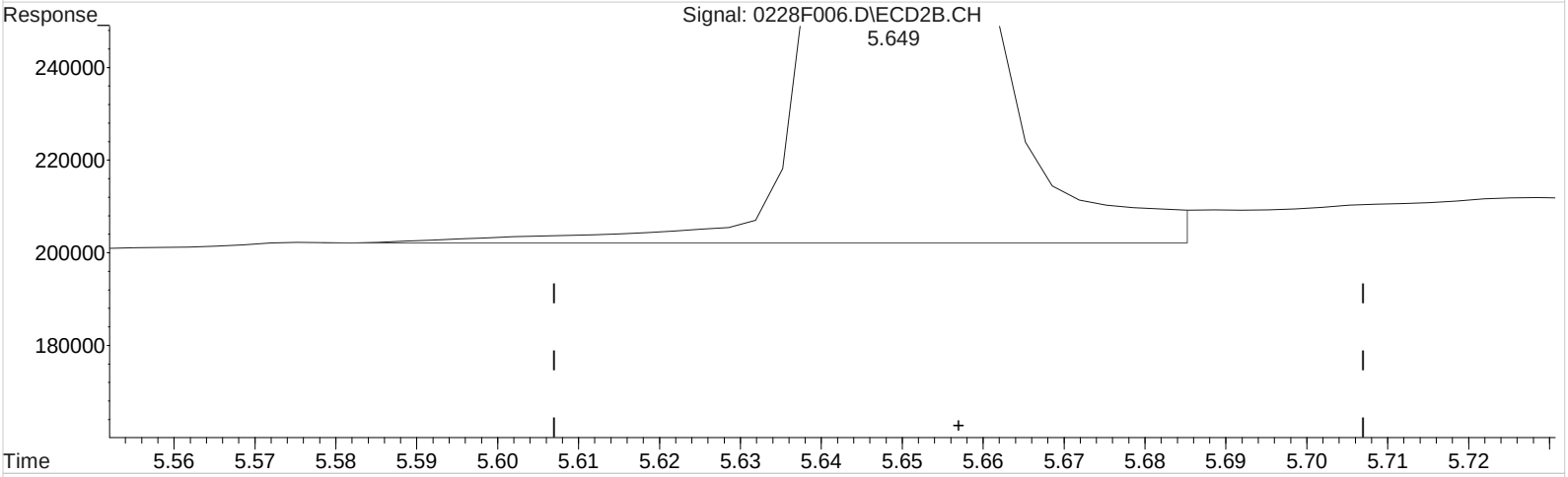
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.151min 5.588 ug/L

response 2839370

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.649min 5.332 ug/L

response 3480960

(+) = Expected Retention Time

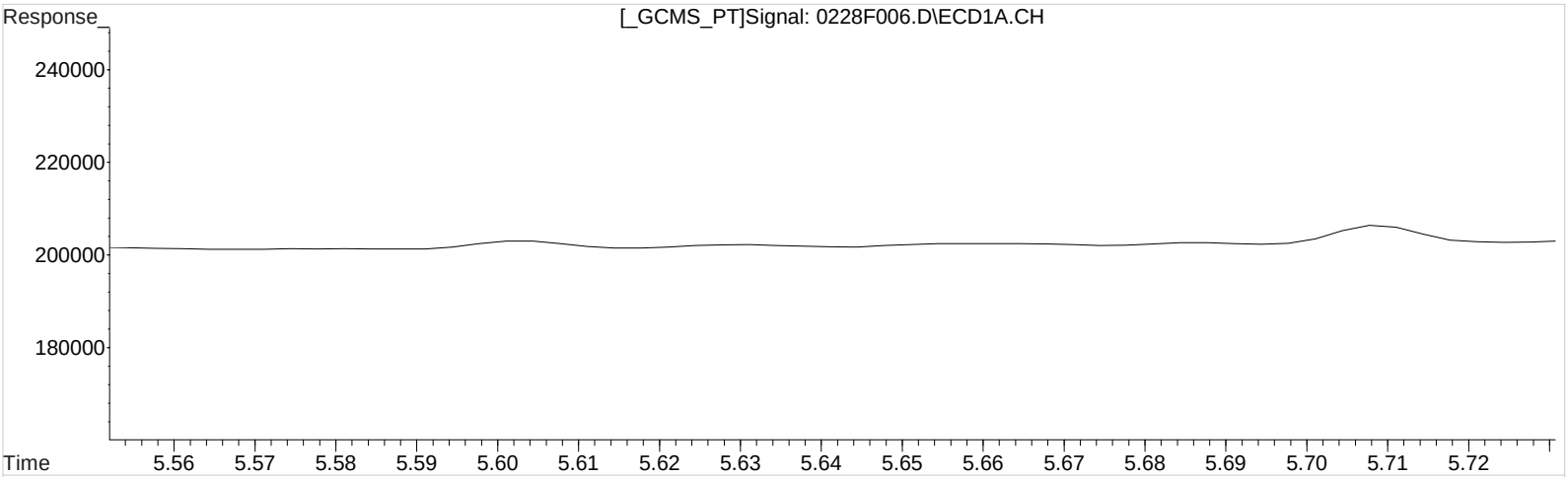
Quantitation Report (Qedit)

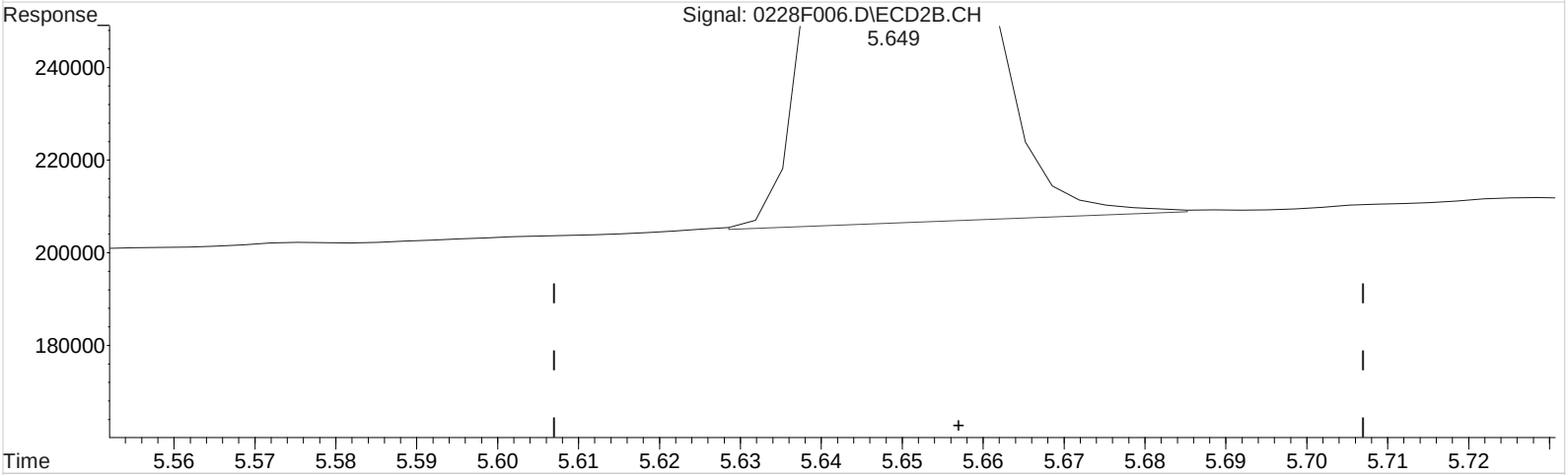
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.151min 5.588 ug/L

response 2839370

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.649min 5.010 ug/L m

response 3271189

(+) = Expected Retention Time

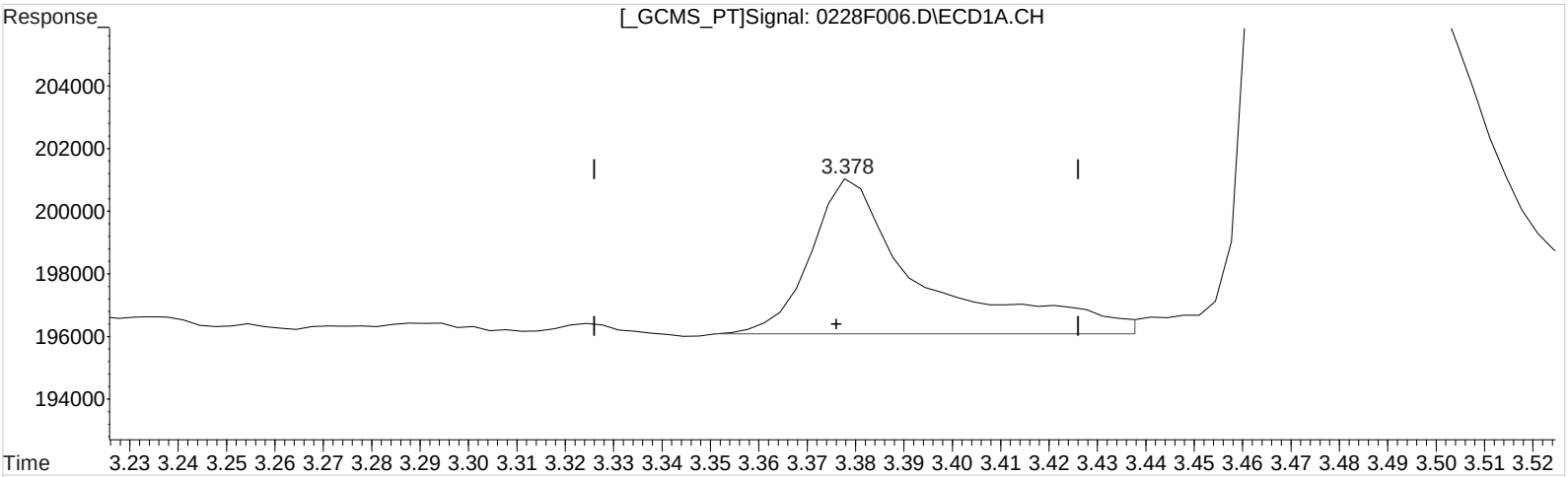
Quantitation Report (Qedit)

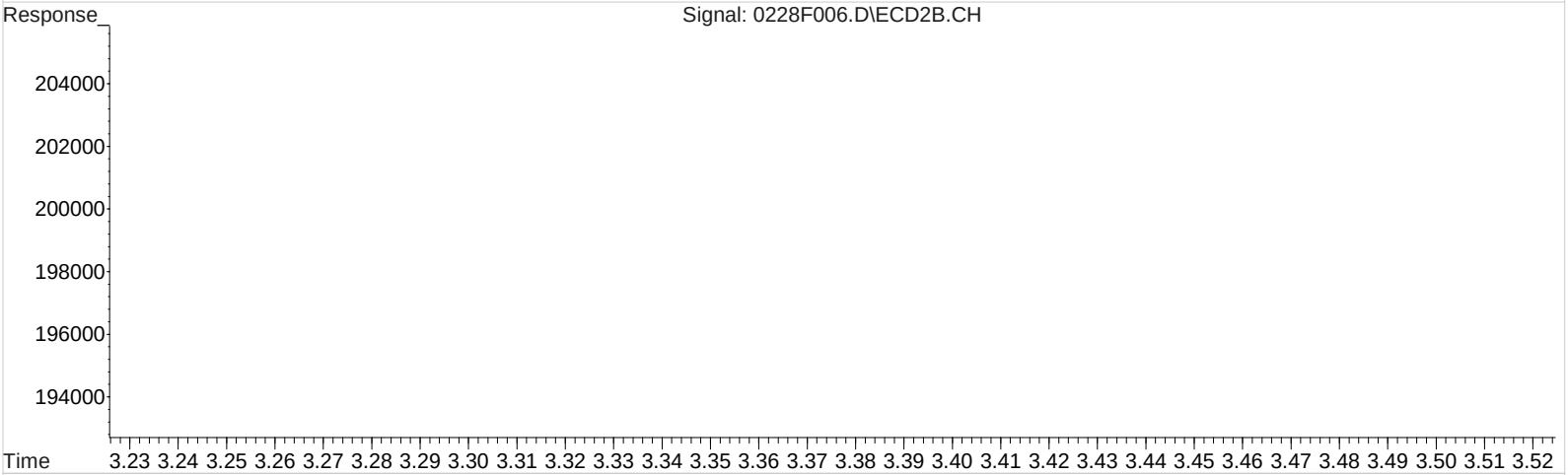
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 6.986 ug/L

response 78818

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 5.025 ug/L

response 82809

(+) = Expected Retention Time

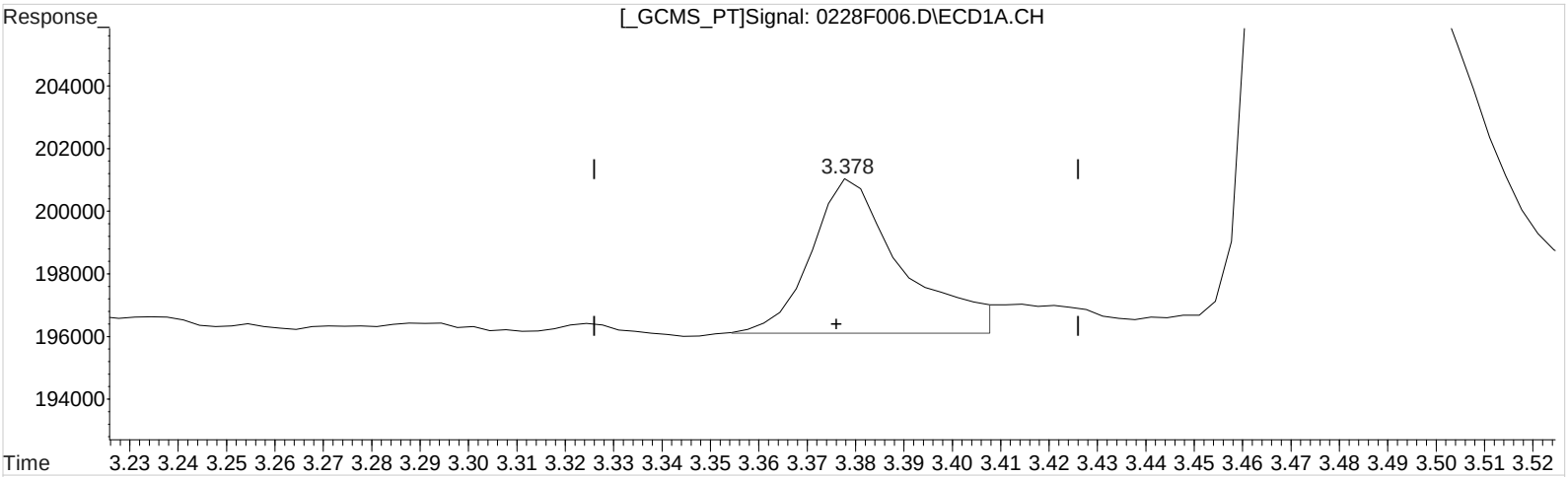
Quantitation Report (Qedit)

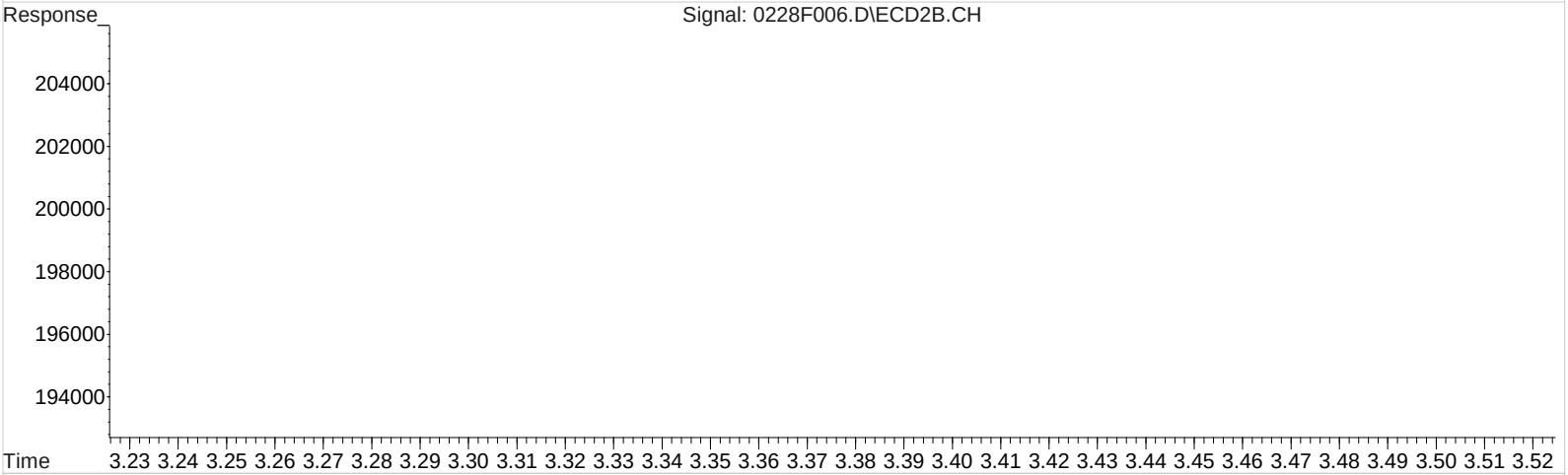
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 5.639 ug/L m

response 64800

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 5.025 ug/L

response 82809

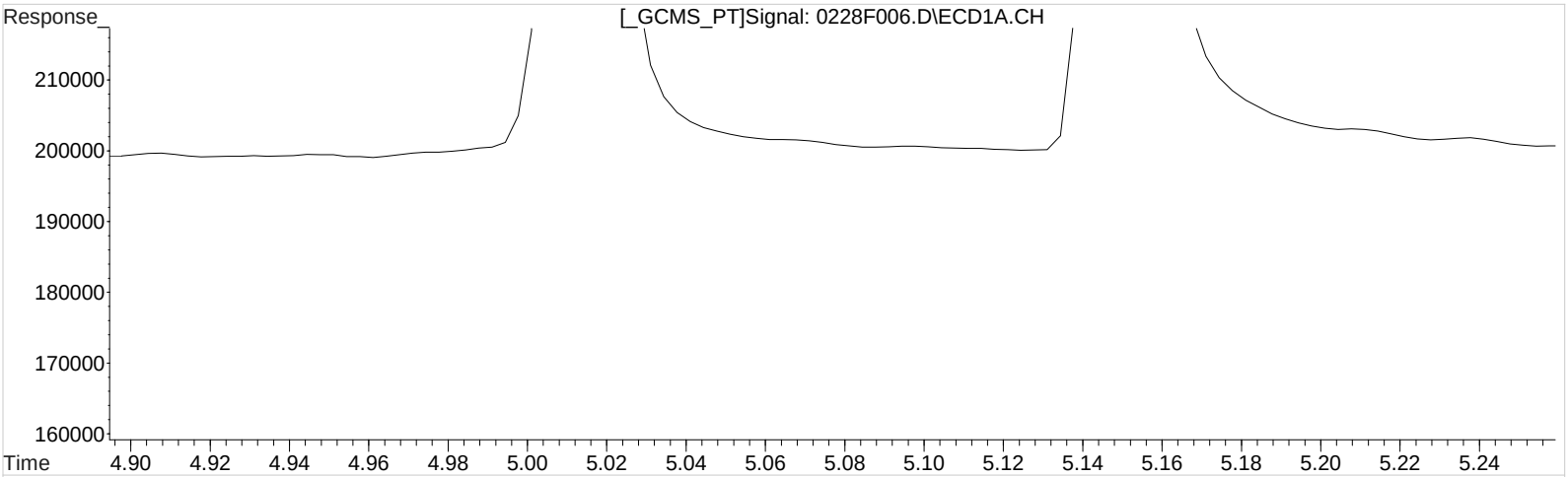
(+) = Expected Retention Time

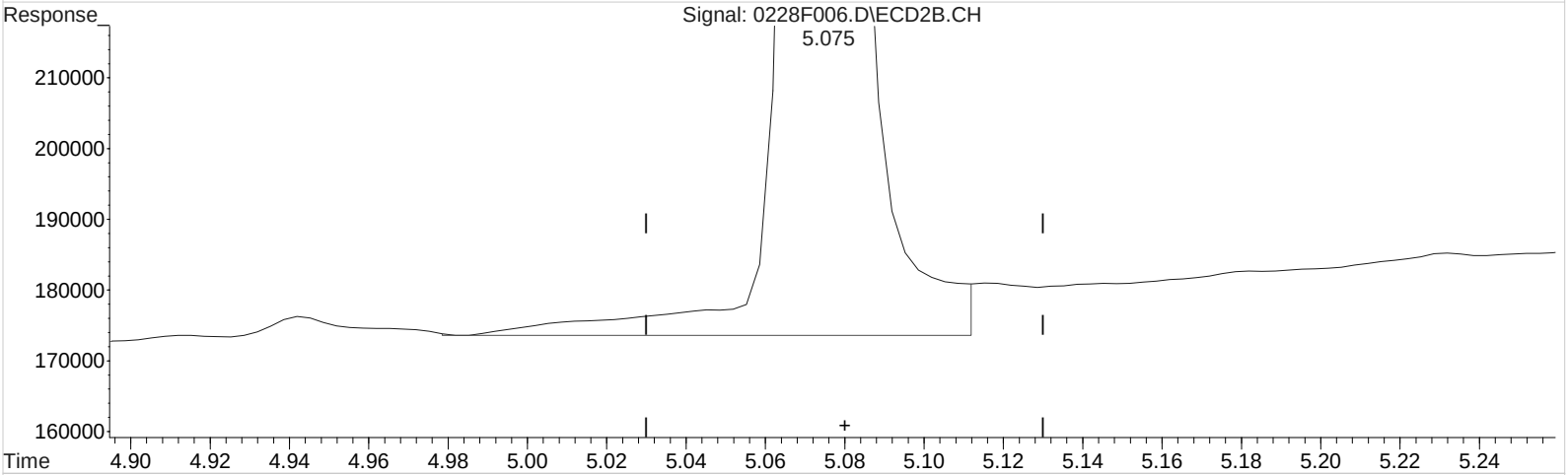
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 5.230 ug/L

response 2489684

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.075min 4.942 ug/L

response 3050029

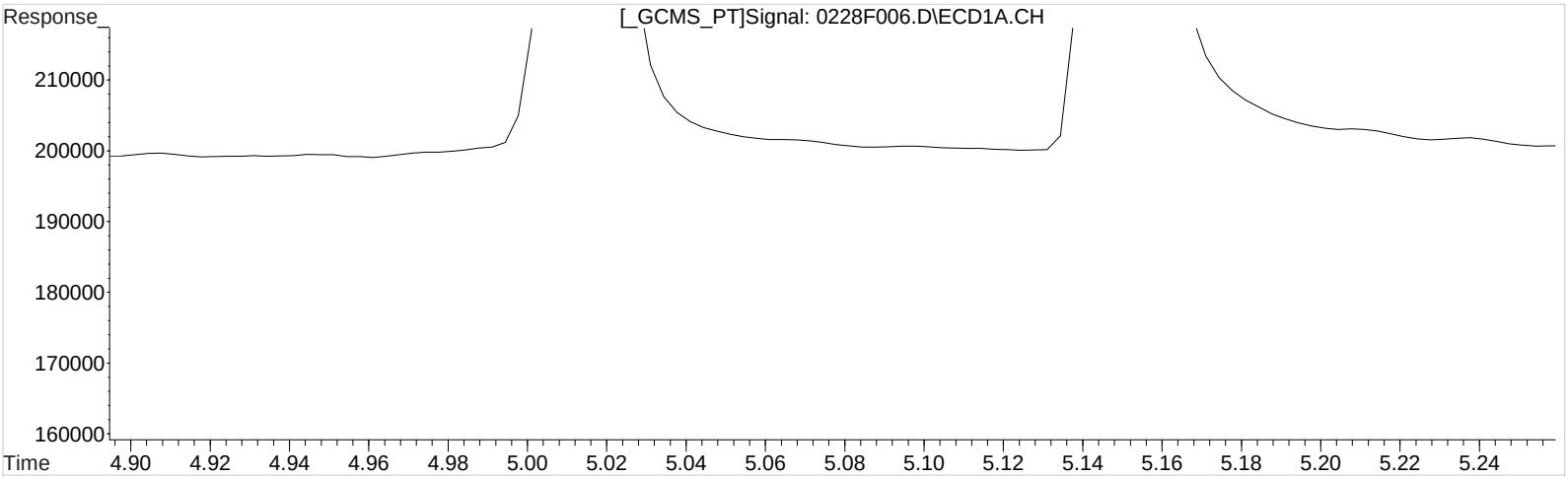
(+) = Expected Retention Time

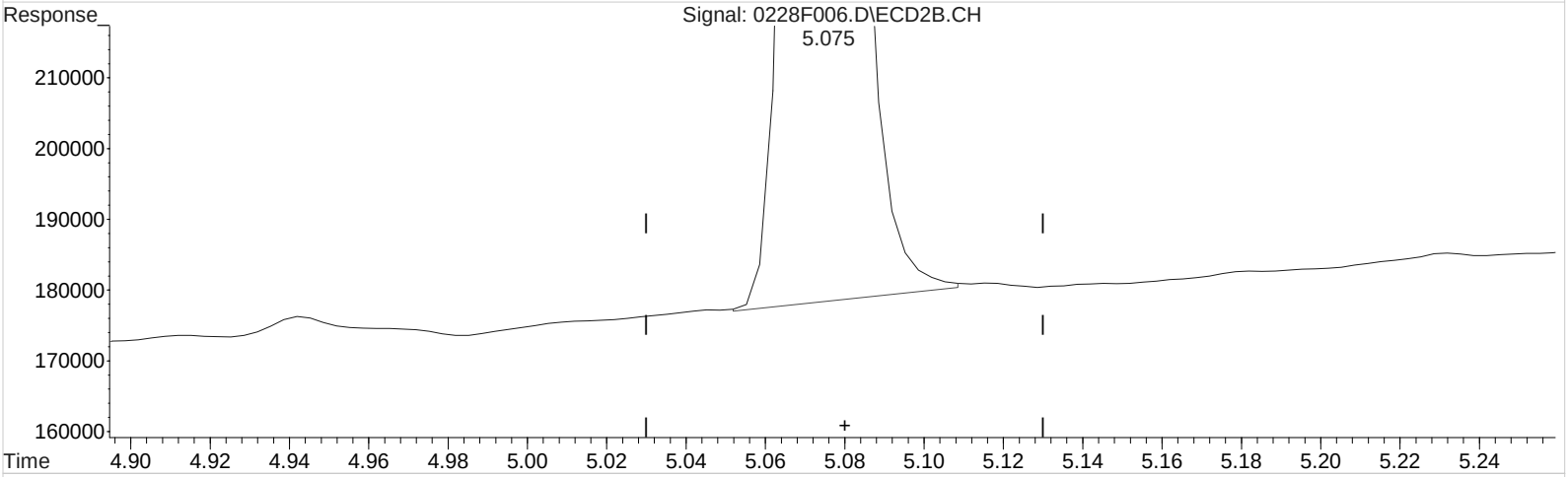
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 5.230 ug/L

response 2489684

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.075min 4.493 ug/L m

response 2773207

(+) = Expected Retention Time

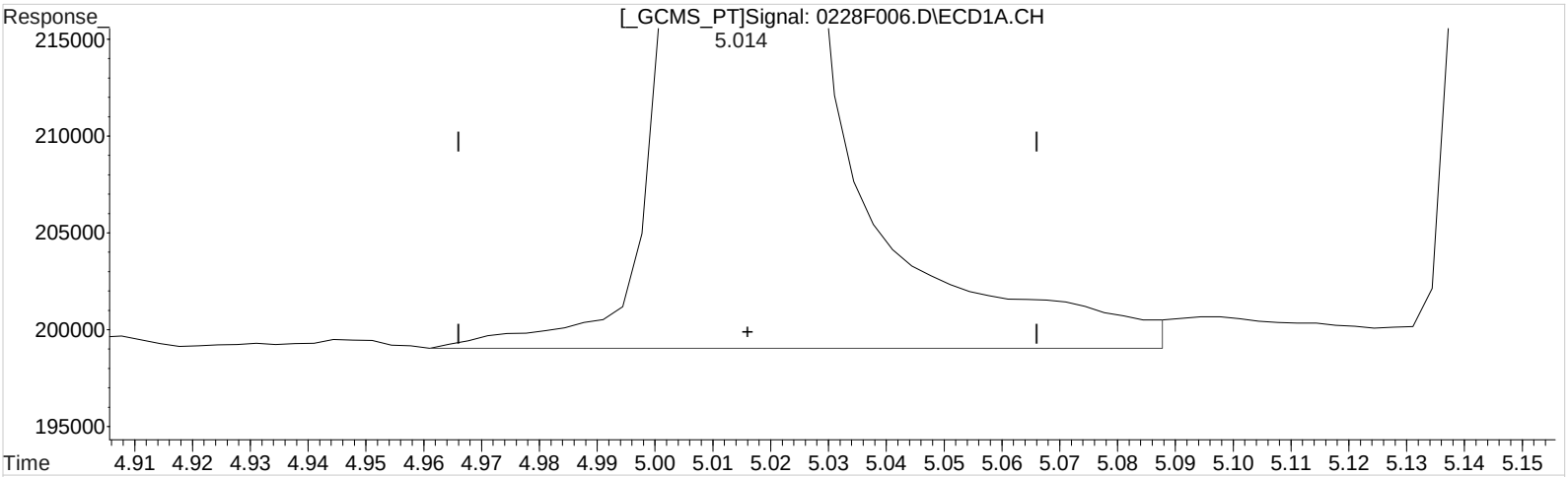
Quantitation Report (Qedit)

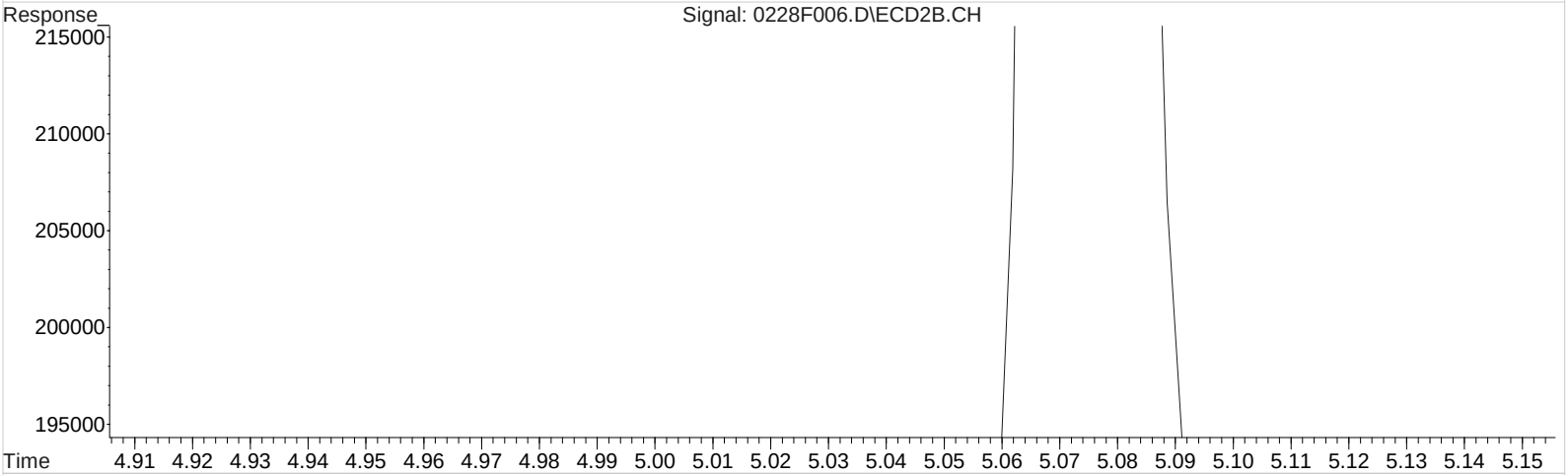
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.014min 5.252 ug/L

response 1974382

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.469min 4.970 ug/L

response 2052365

(+) = Expected Retention Time

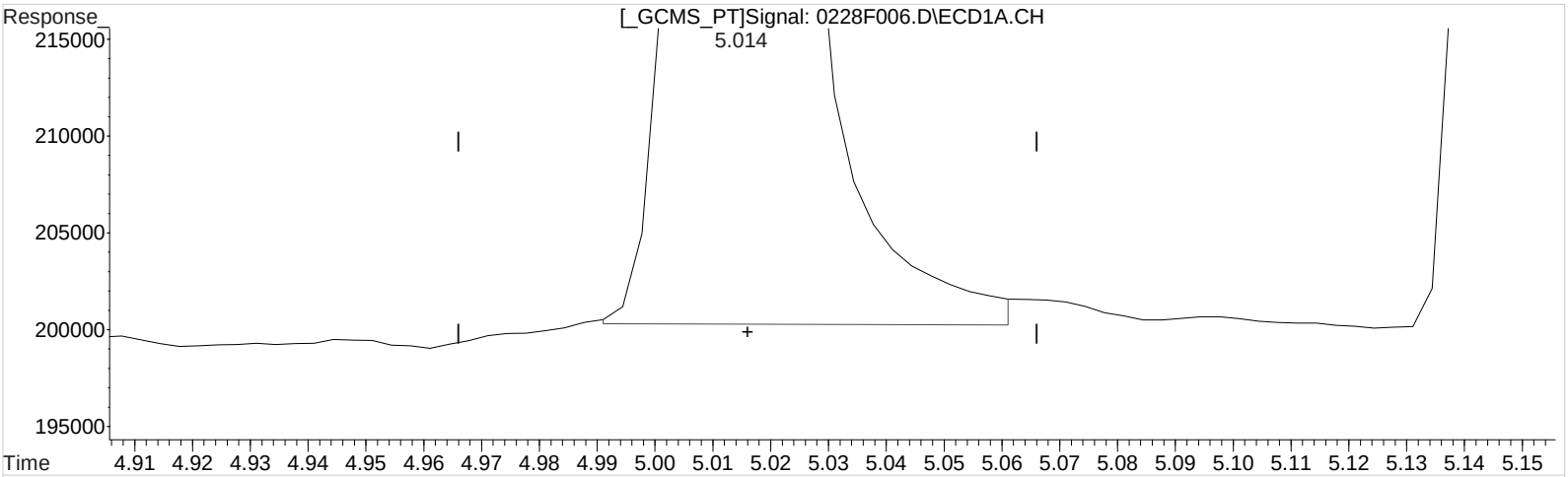
Quantitation Report (Qedit)

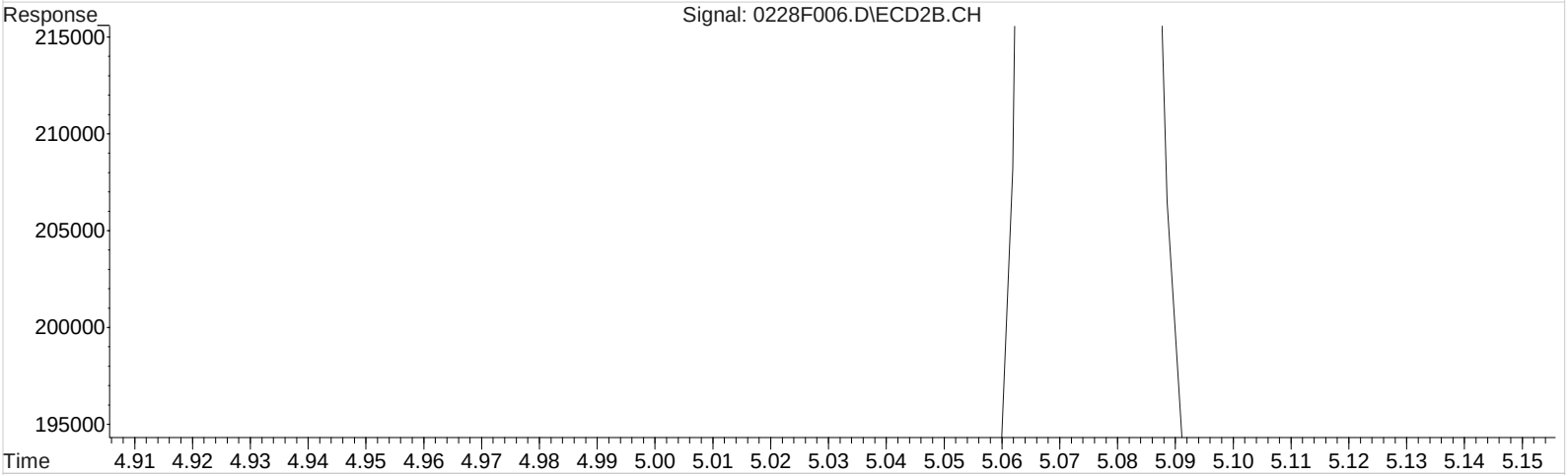
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.014min 4.930 ug/L m

response 1875877

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.469min 4.970 ug/L

response 2052365

(+) = Expected Retention Time

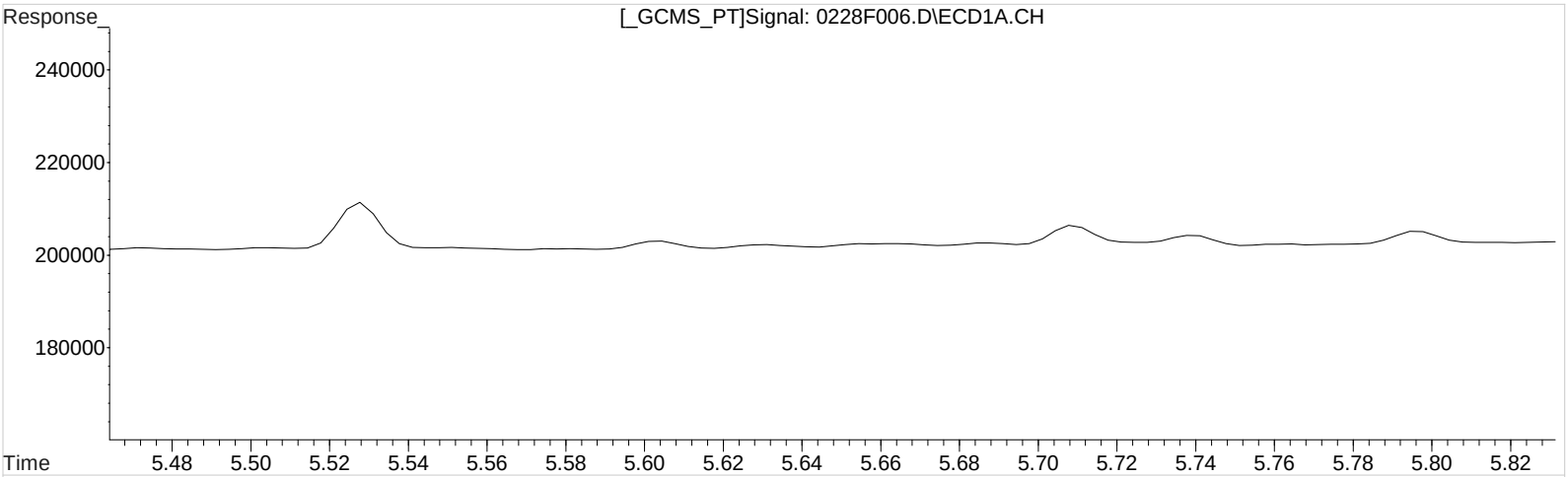
Quantitation Report (Qedit)

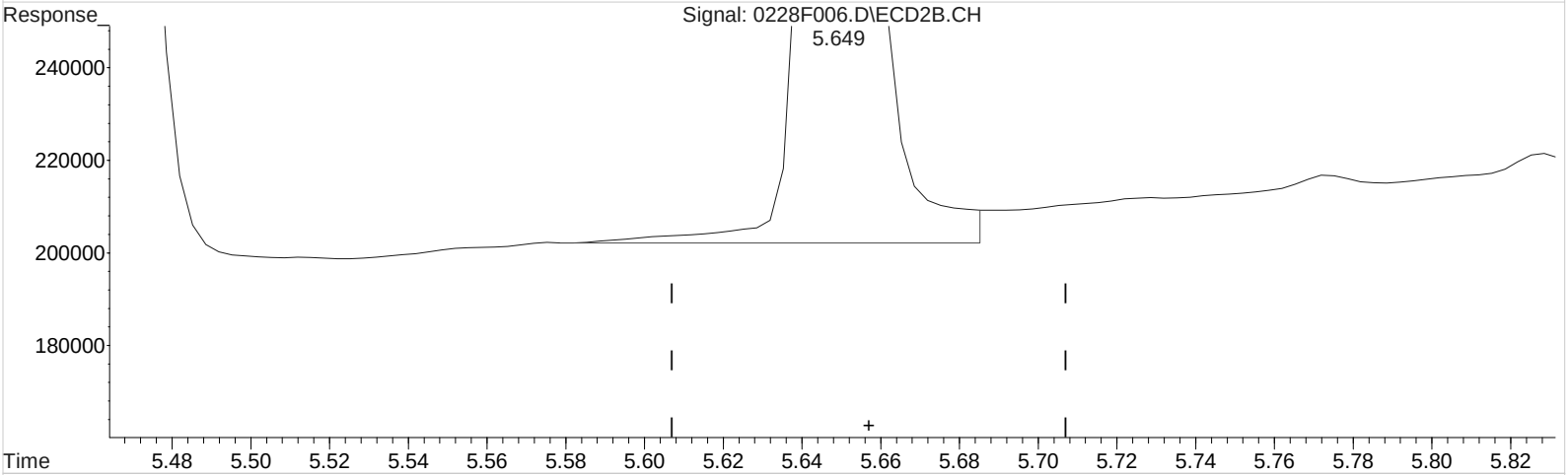
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.151min 5.309 ug/L

response 2839370

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.649min 5.063 ug/L

response 3480960

(+) = Expected Retention Time

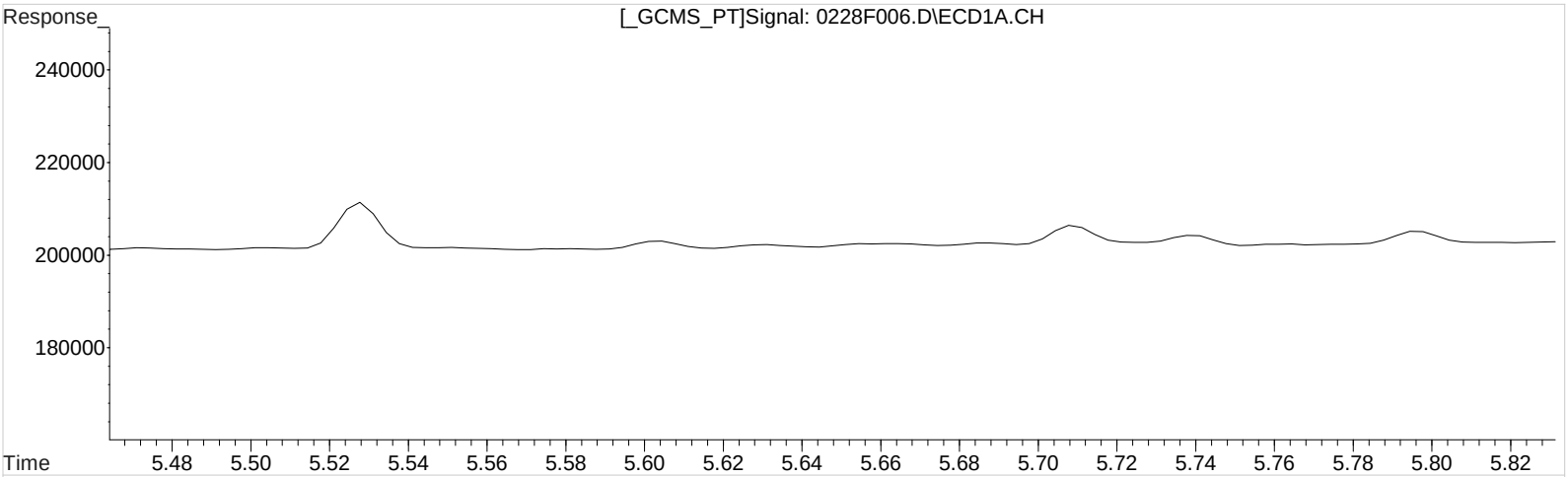
Quantitation Report (Qedit)

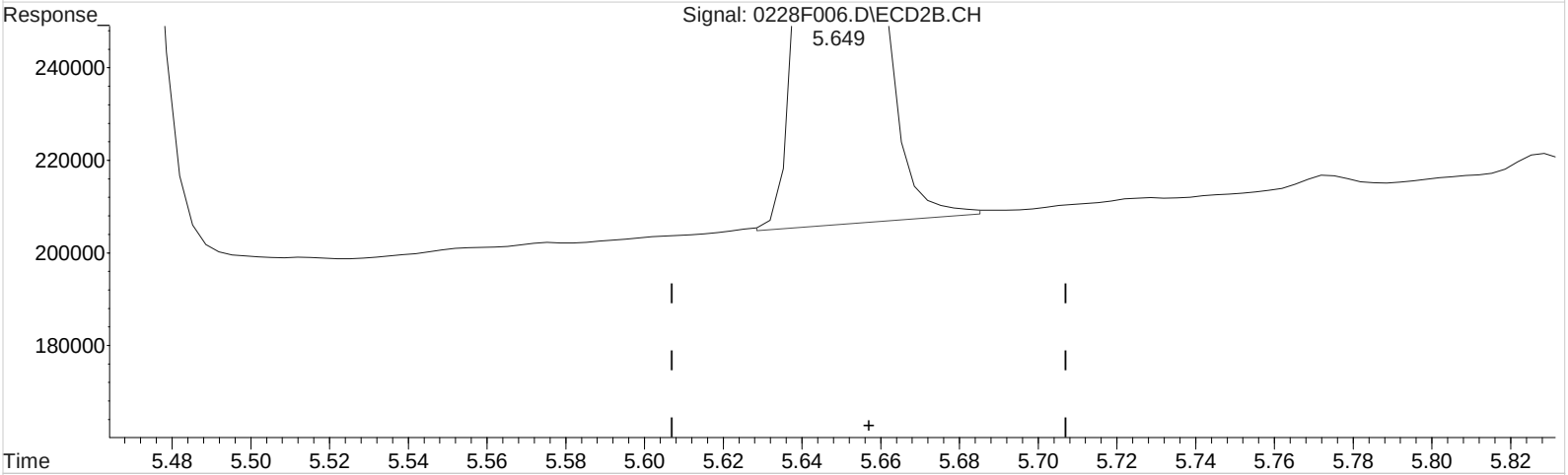
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.151min 5.309 ug/L

response 2839370

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.649min 4.775 ug/L m

response 3283089

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:31:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.033	4.717	4141410	4048056	11.304	9.312
		Target Compounds						
1)		3,4-Dichl...	3.136	3.831	158218	219018	9.573m	9.913
2)		3,5-Dichl...	3.380	4.087	115610	167574	10.545m	10.169
3)		2,4,6-Tri...	3.476	4.291	3397194	3850826	10.122	9.233
5)		2,4,5-Tri...	4.203	4.784	1619859	1881218	10.889	9.413
6)		3,4,5-Tri...	4.233	4.847	1583734	1764529	10.435m	9.401
7)	M	2,3,5,6-T...	4.476	5.077	4654510	5729619	9.778m	9.283
8)	M	2,3,4,5-T...	5.020	5.474	3486028	3874012	10.225m	9.382m
9)	M	Pentachlo...	5.156	5.657	5372015	6532395	10.950	9.501
10)		Pentachlo...	5.156	5.657	5372015	6532395	11.526	10.005

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

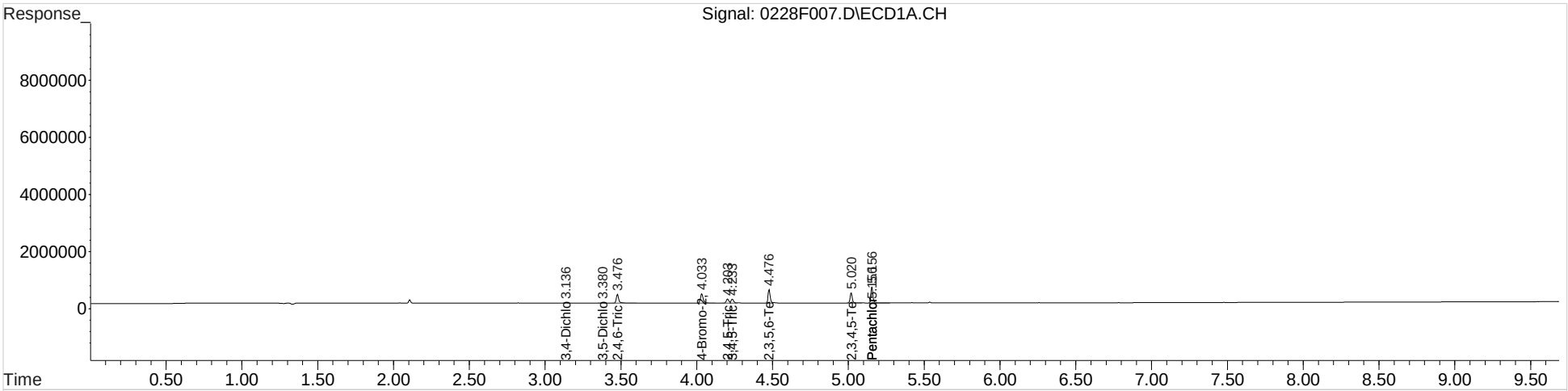
1st JMS 02/28/19
2nd MC 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:31:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



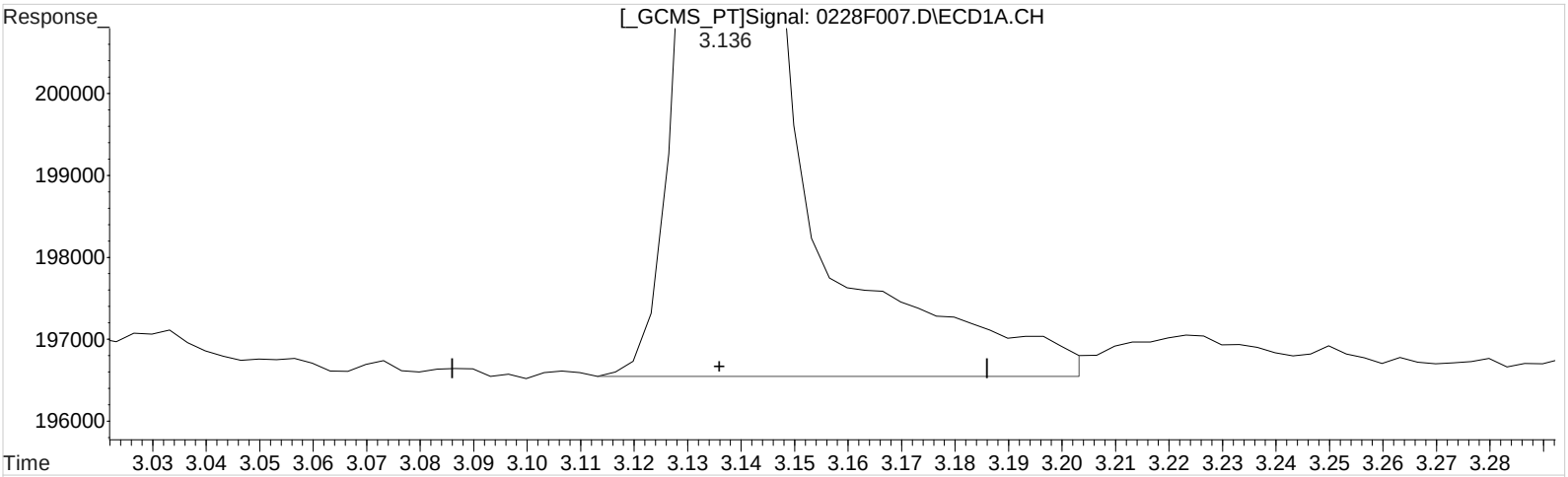
Quantitation Report (Qedit)

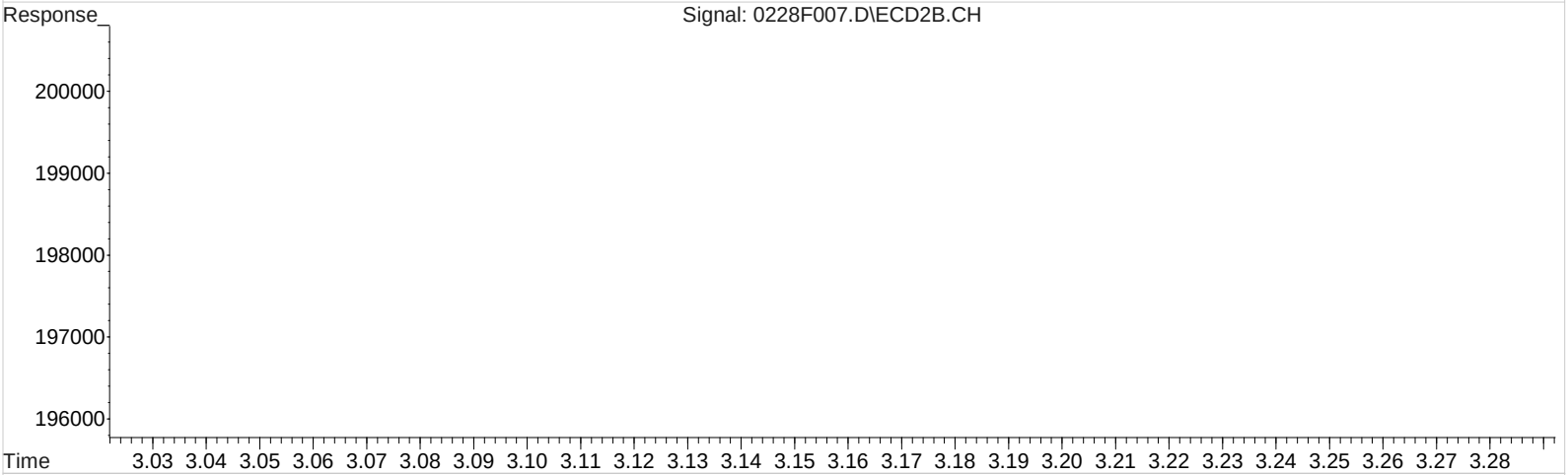
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.136min 10.715 ug/L

response 175614

(1) 3,4-Dichlorophenol #2

3.831min 9.913 ug/L

response 219018

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

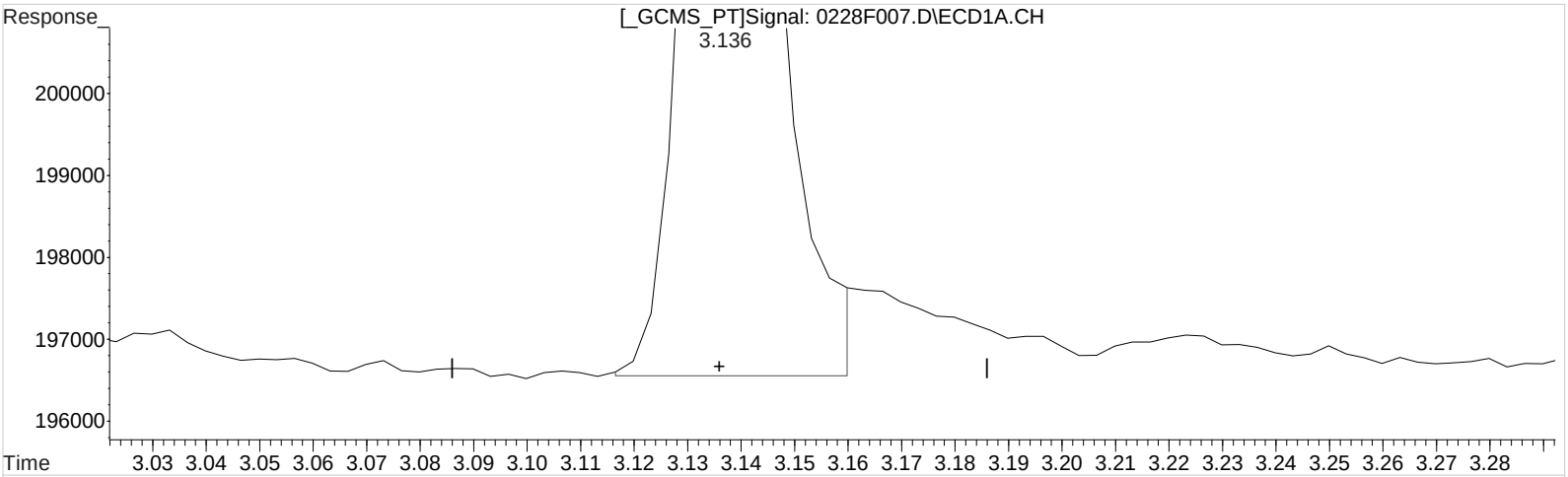
Quantitation Report (Qedit)

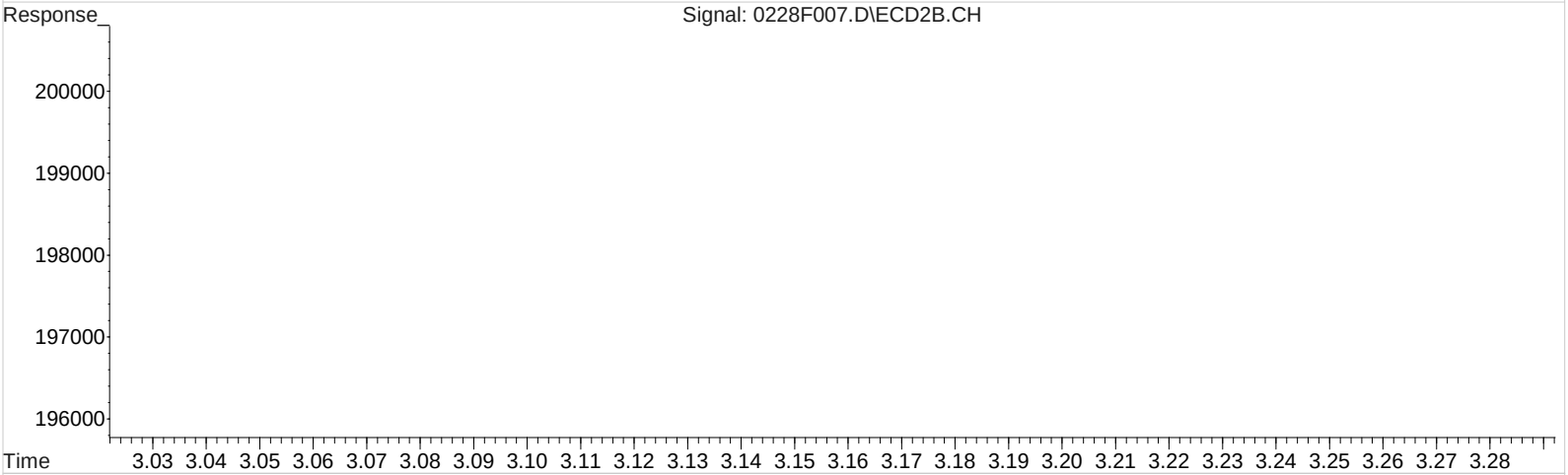
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.136min 9.573 ug/L m

response 158218

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 9.913 ug/L

response 219018

(+) = Expected Retention Time

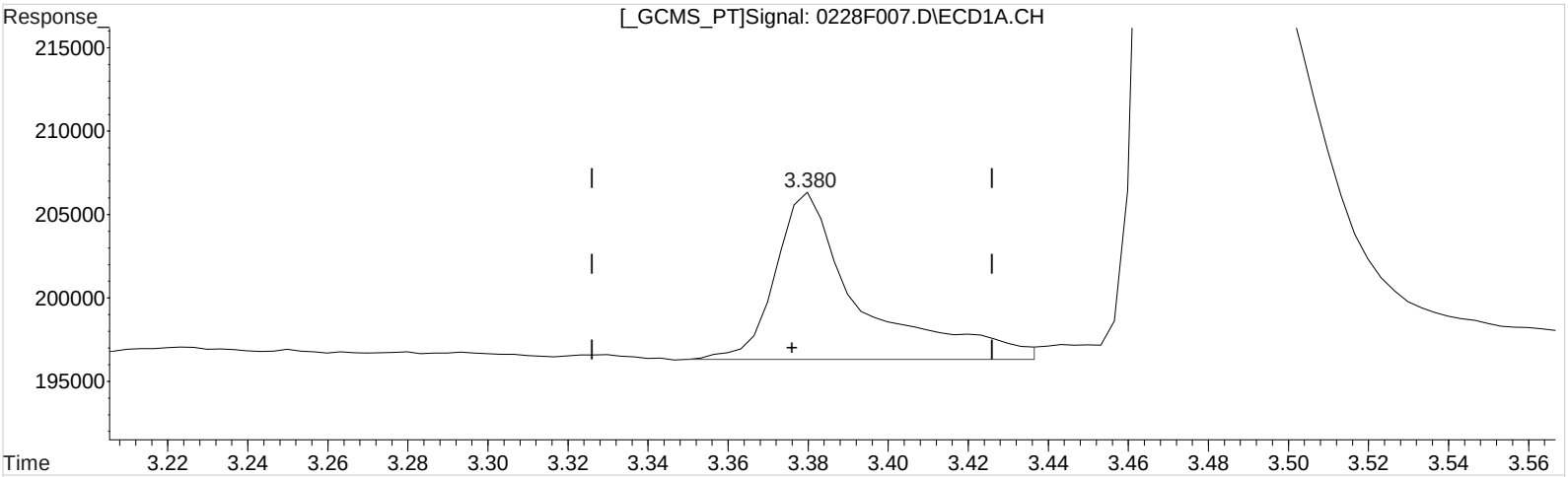
Quantitation Report (Qedit)

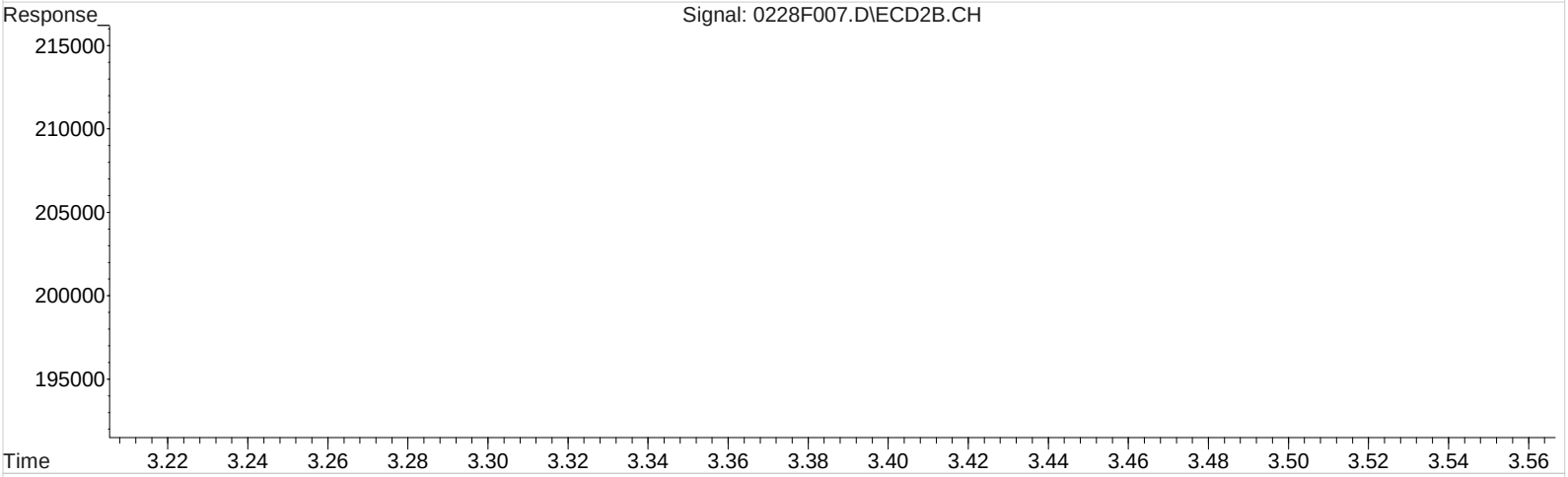
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 13.605 ug/L

response 146982

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.087min 10.169 ug/L

response 167574

(+) = Expected Retention Time

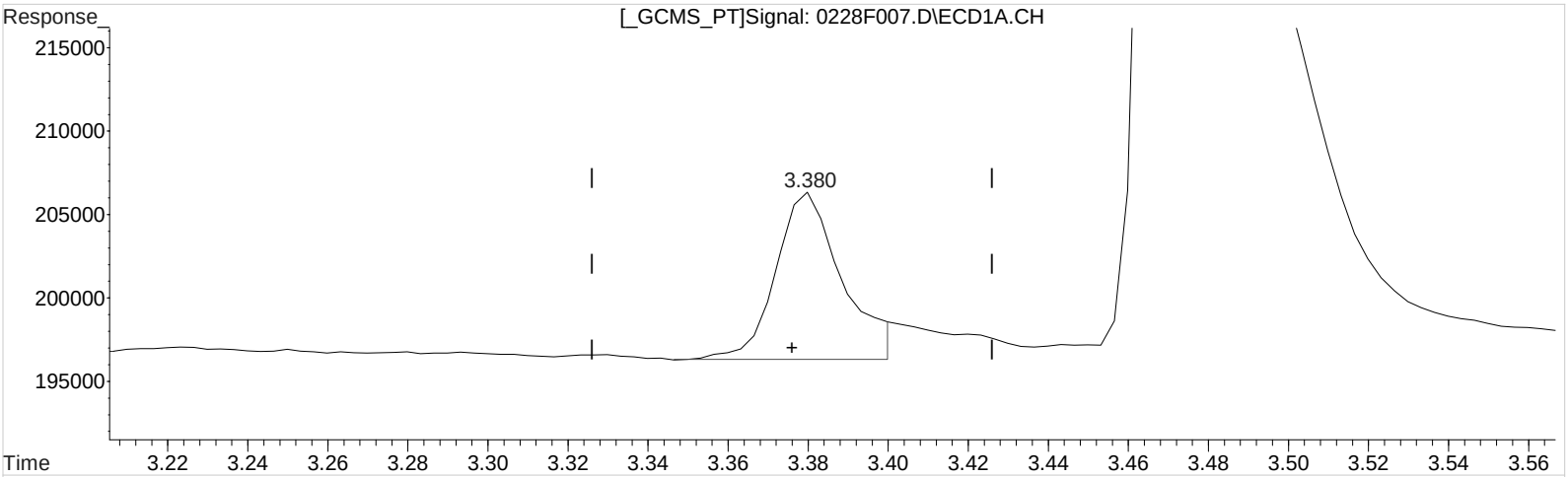
Quantitation Report (Qedit)

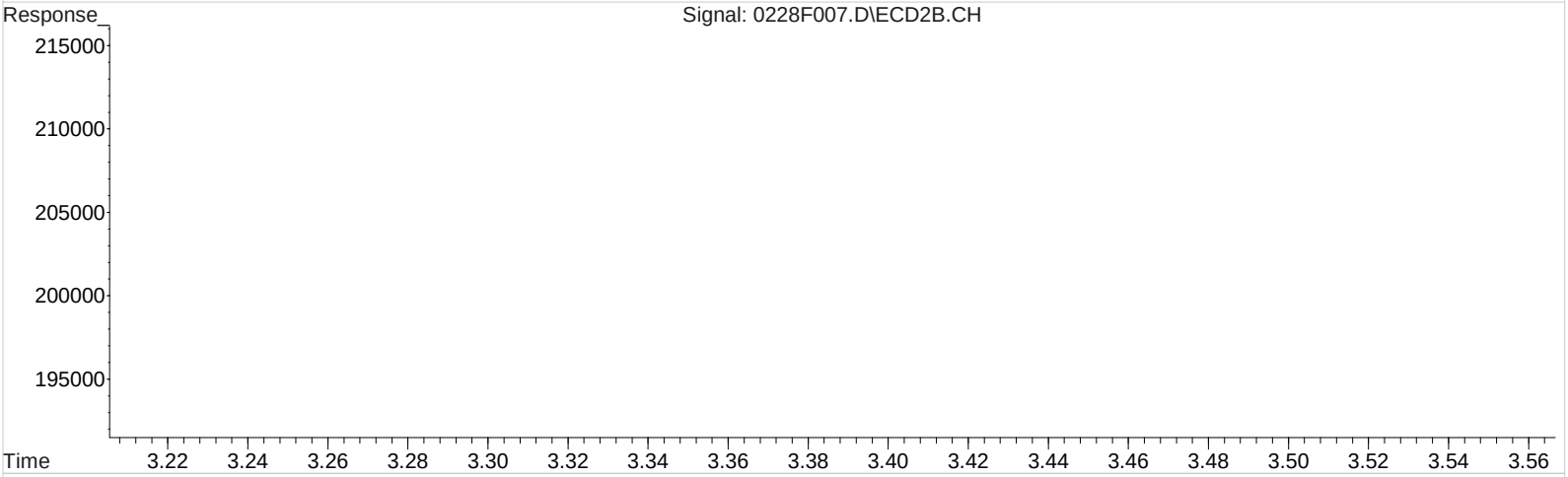
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 10.545 ug/L m

response 115610

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.087min 10.169 ug/L

response 167574

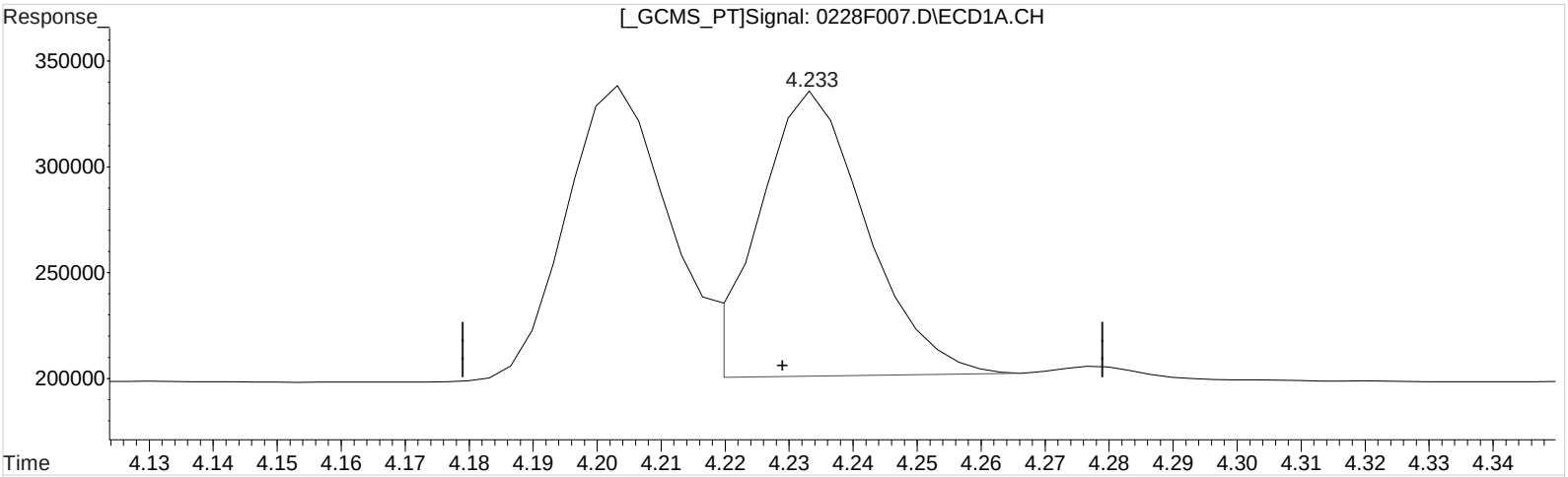
(+) = Expected Retention Time

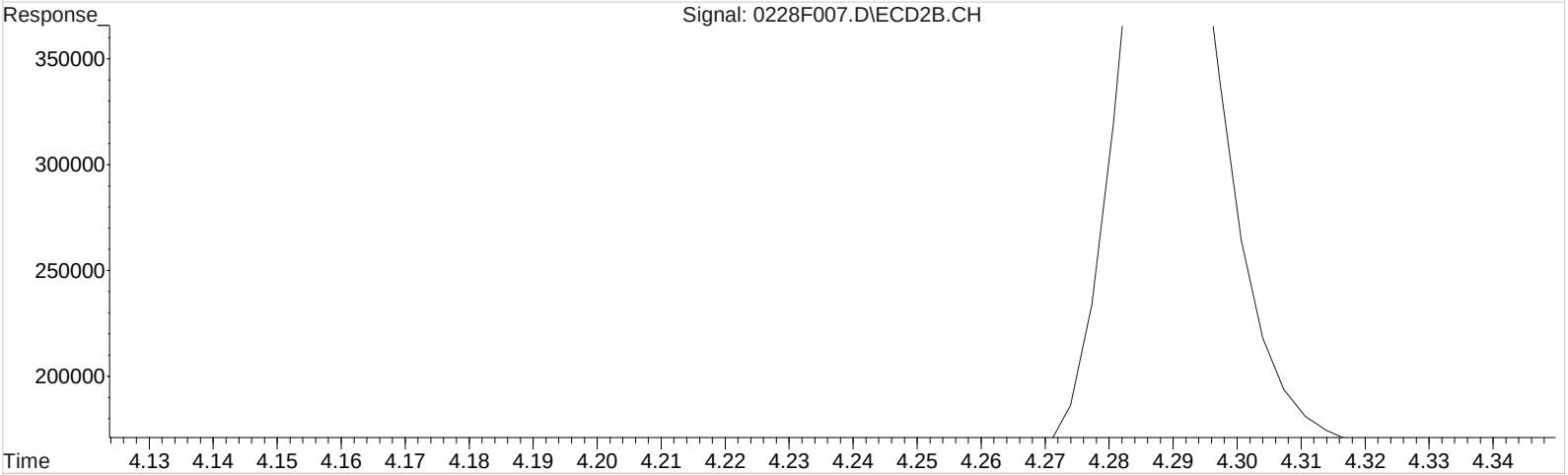
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 9.891 ug/L

response 1506370

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 9.401 ug/L

response 1764529

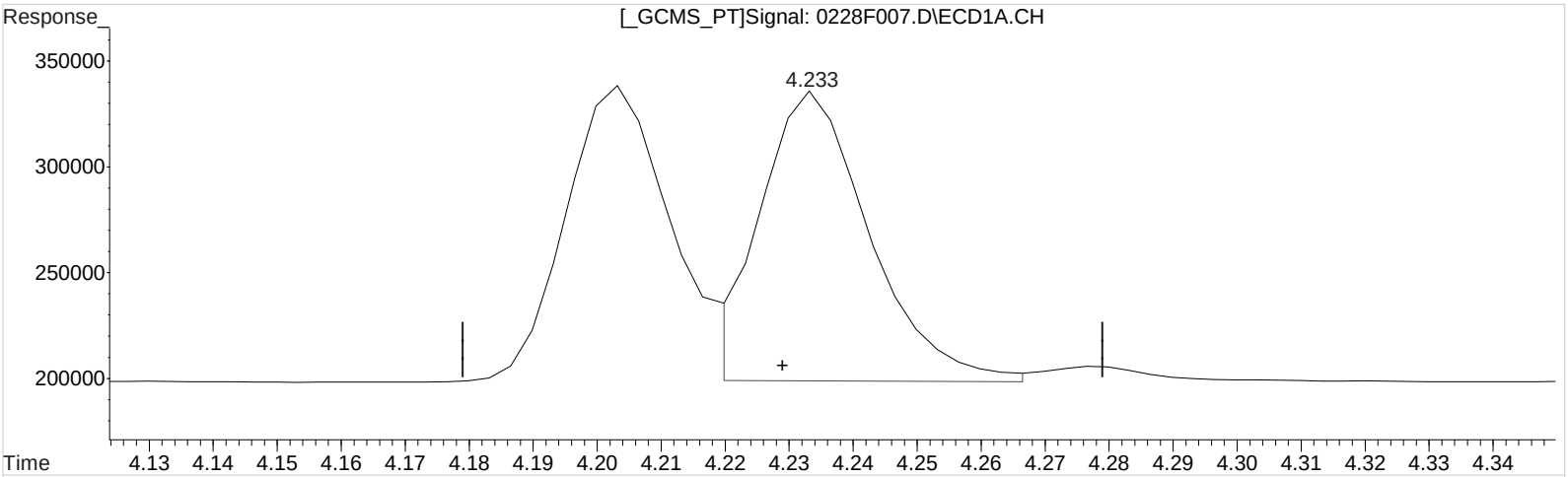
(+) = Expected Retention Time

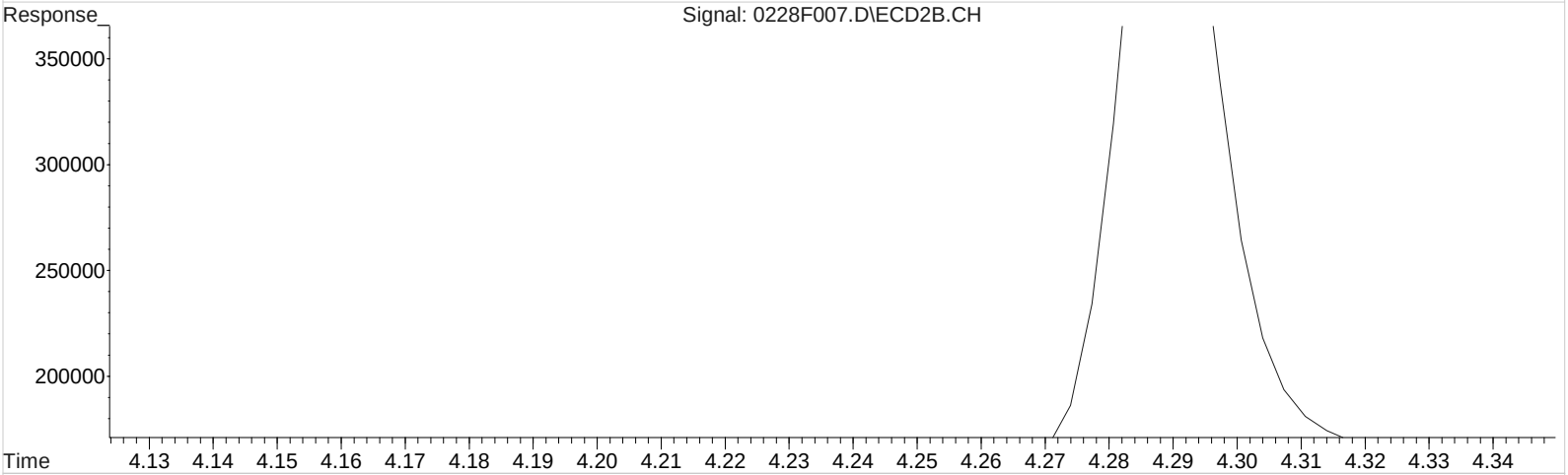
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 10.435 ug/L m

response 1583734

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 9.401 ug/L

response 1764529

(+) = Expected Retention Time

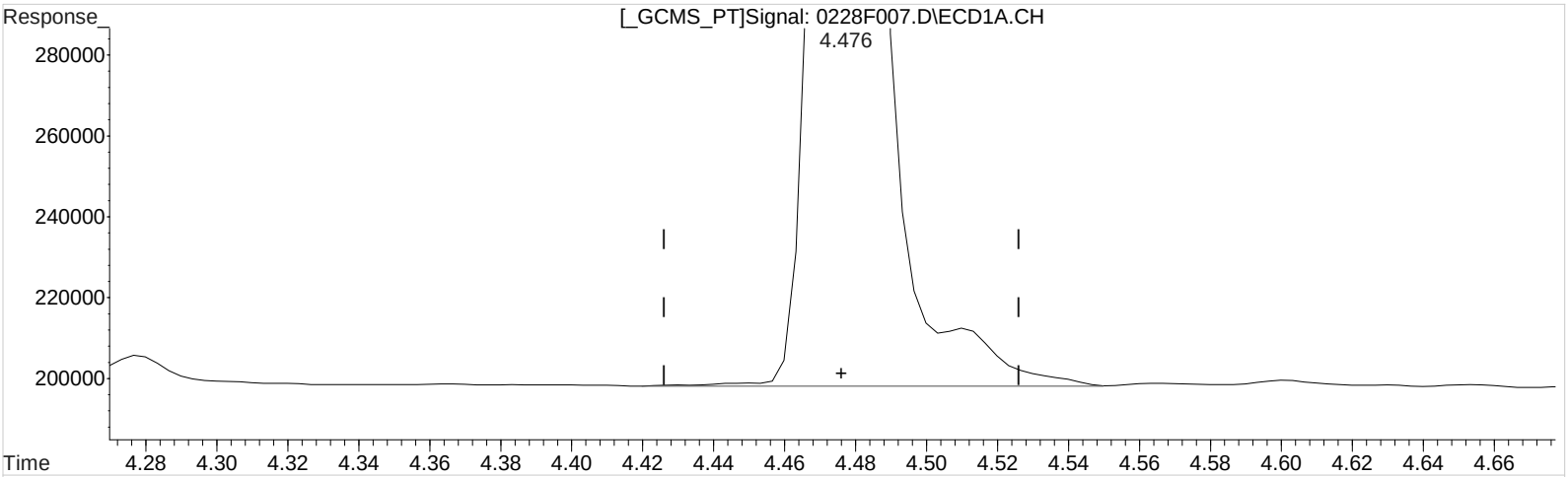
Quantitation Report (Qedit)

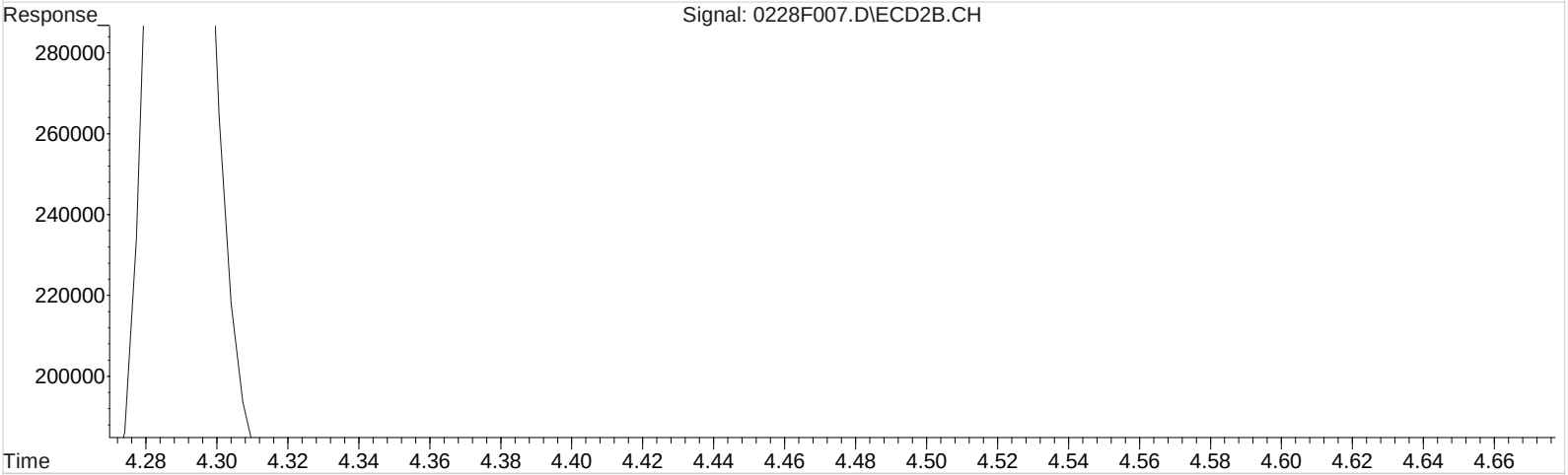
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.476min 10.180 ug/L

response 4845604

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.077min 9.283 ug/L

response 5729619

(+) = Expected Retention Time

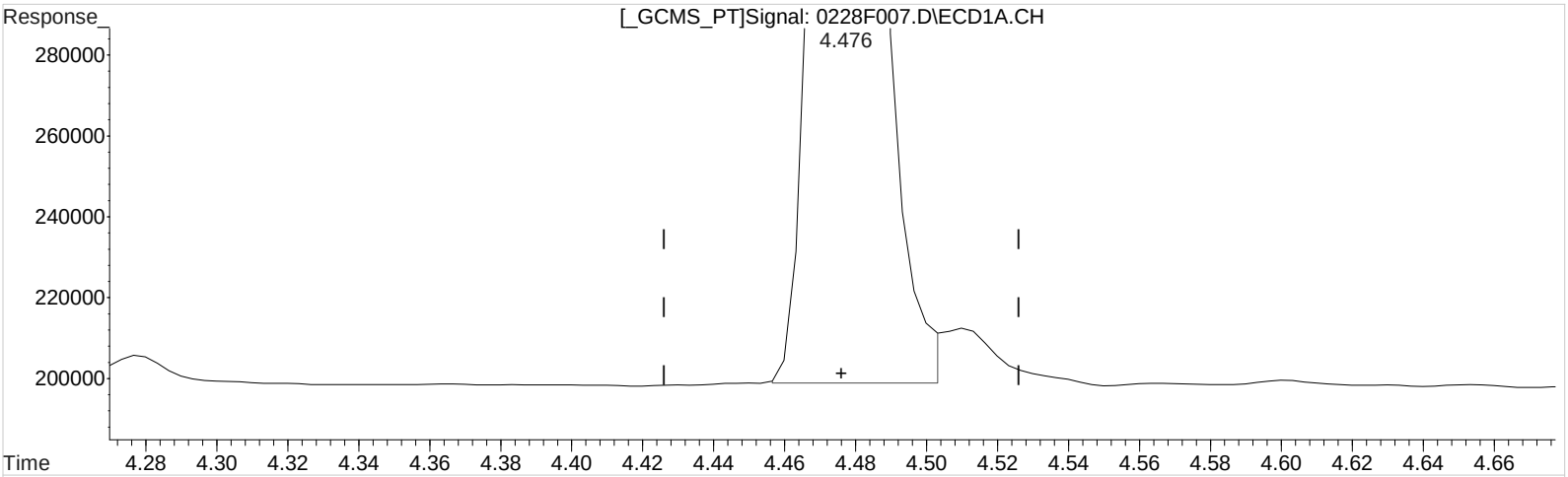
Quantitation Report (Qedit)

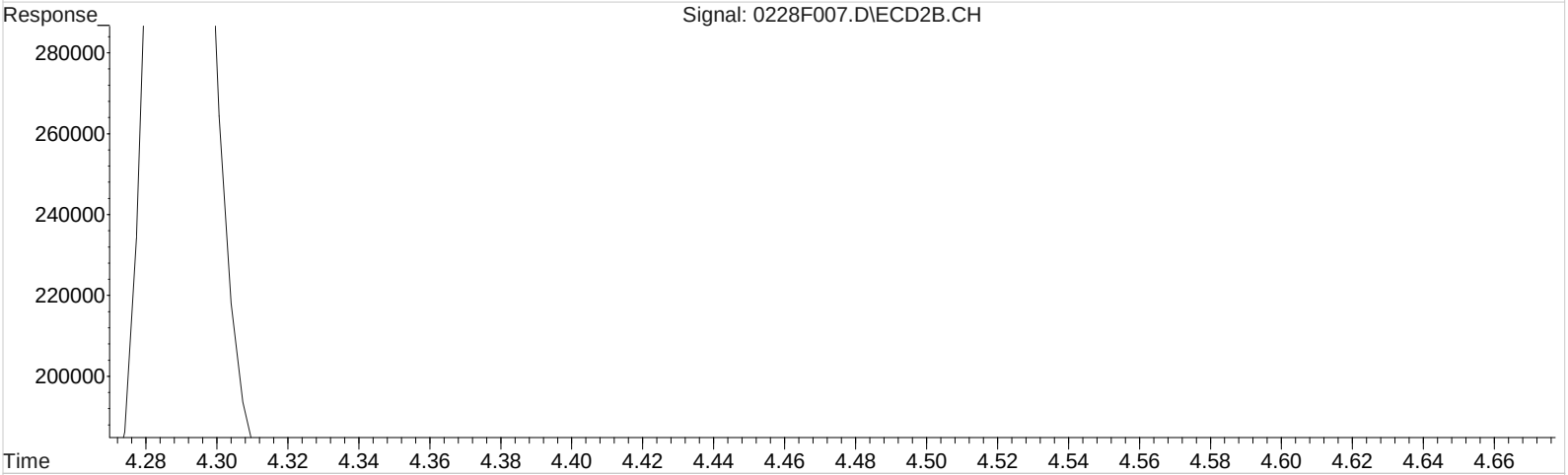
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.476min 9.778 ug/L m

response 4654510

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.077min 9.283 ug/L

response 5729619

(+) = Expected Retention Time

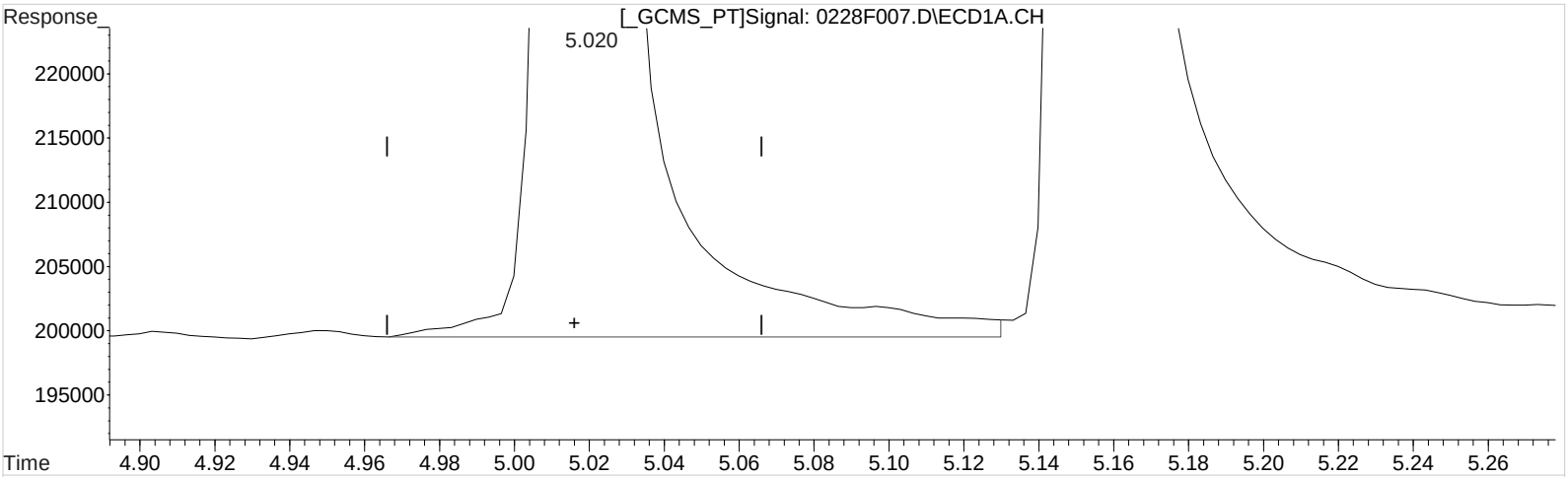
Quantitation Report (Qedit)

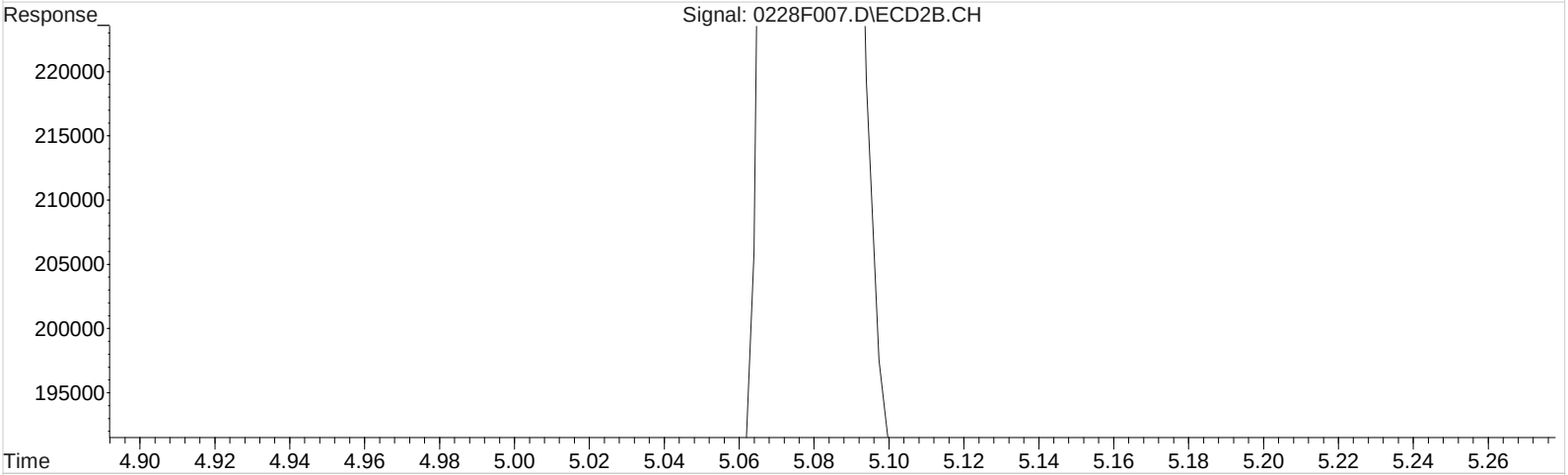
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.552 ug/L

response 3584964

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

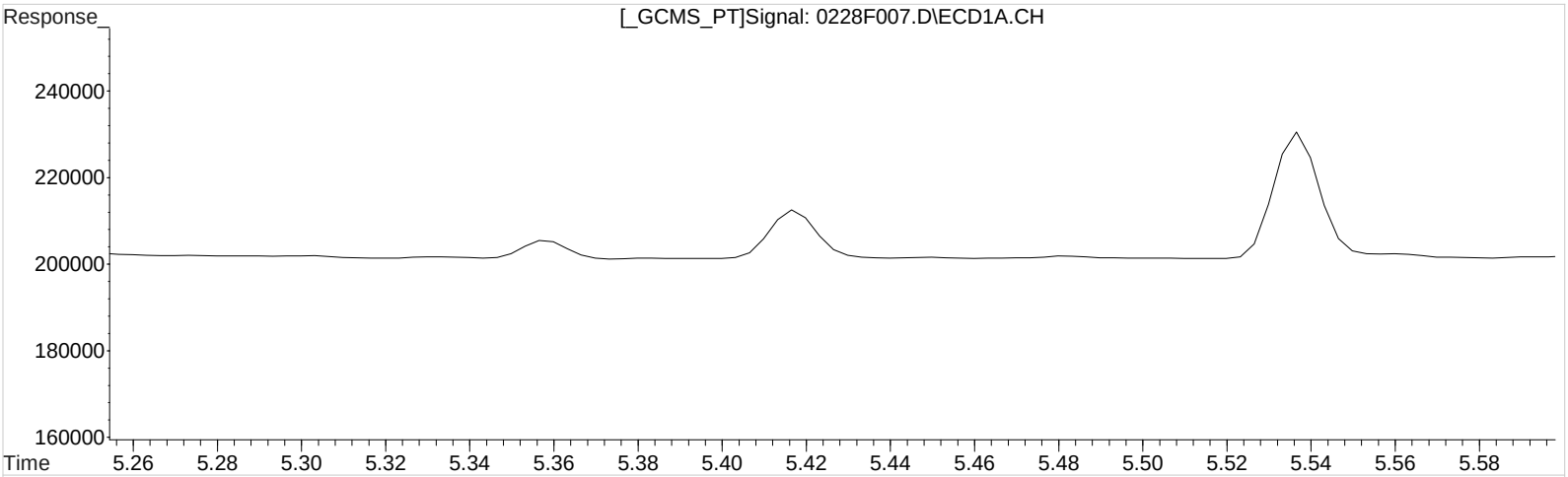
Quantitation Report (Qedit)

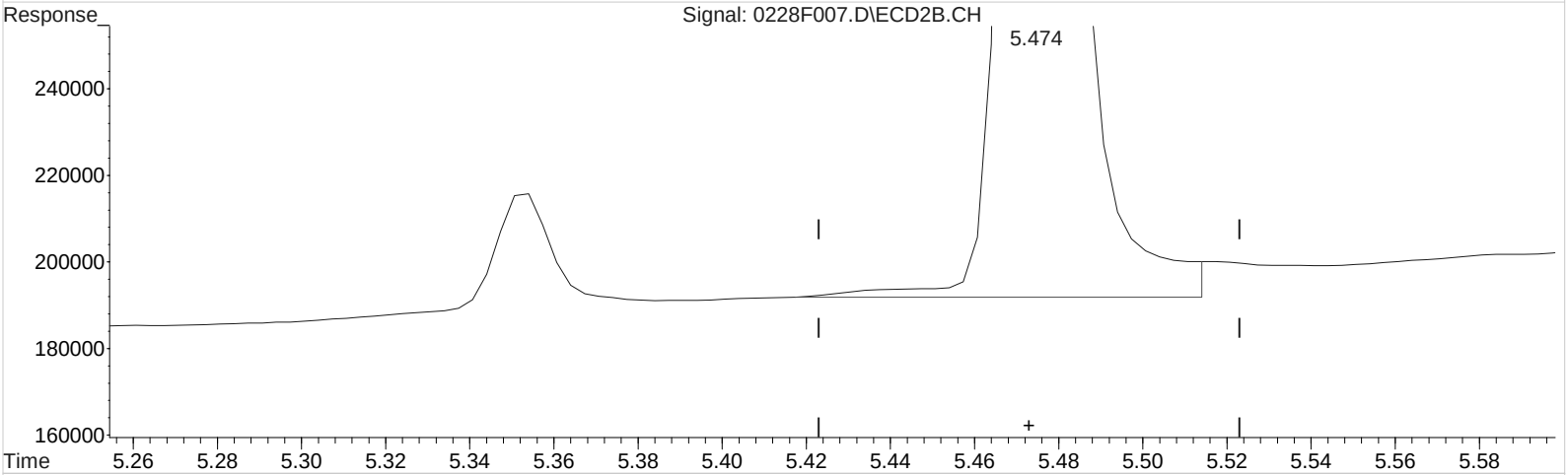
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

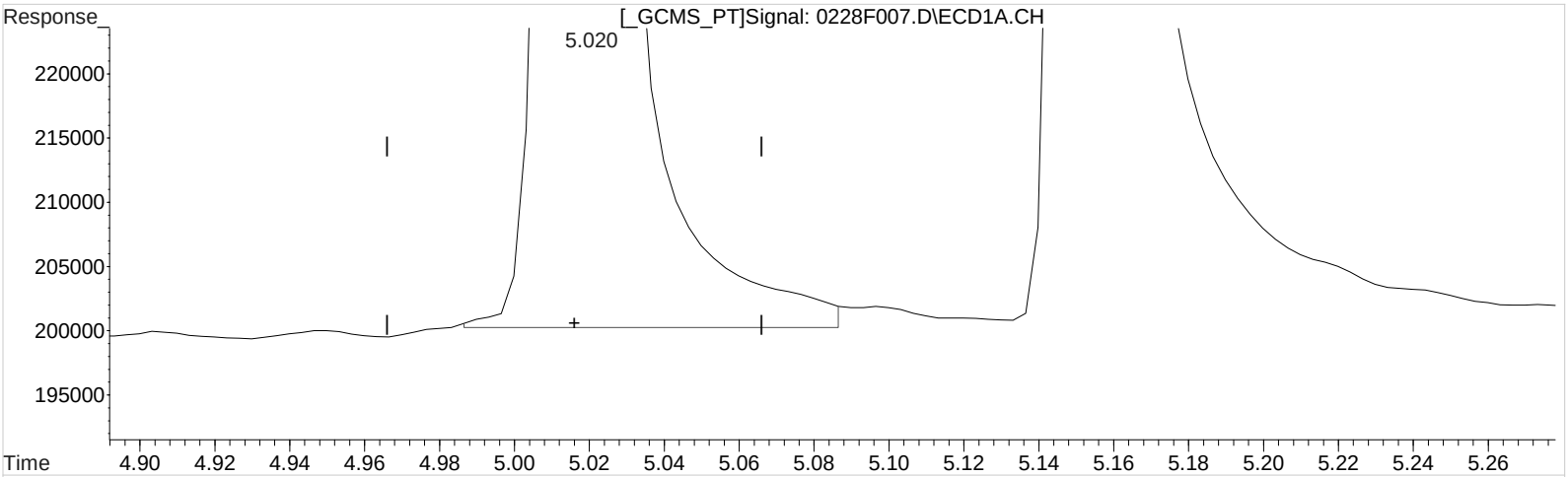
Quantitation Report (Qedit)

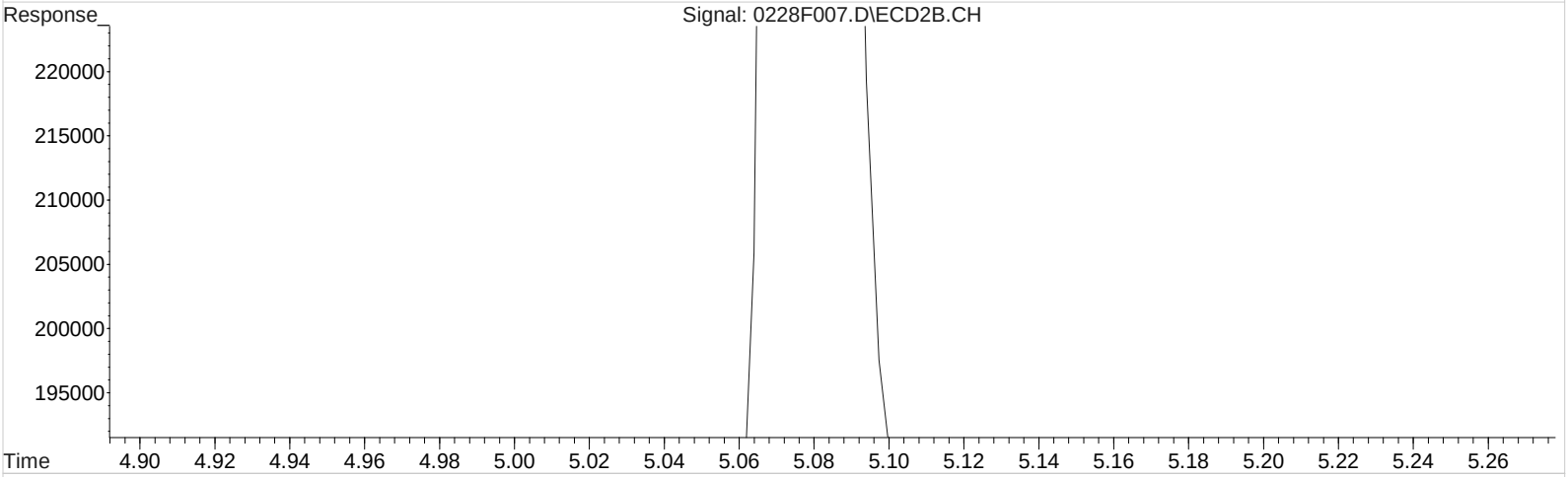
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

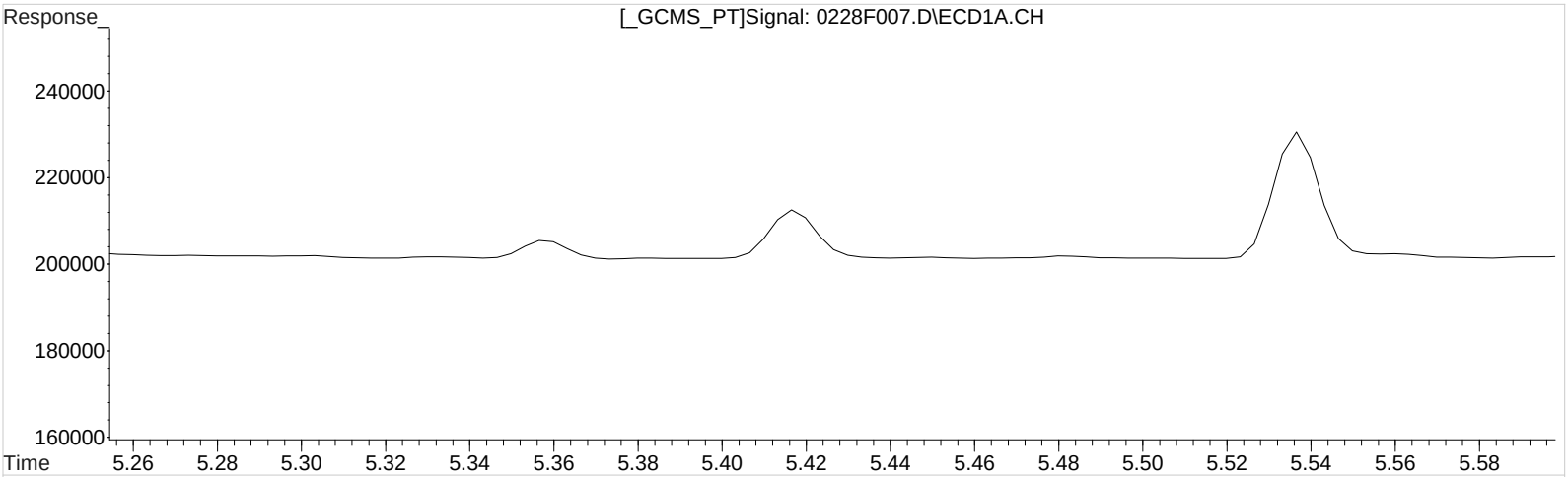
Quantitation Report (Qedit)

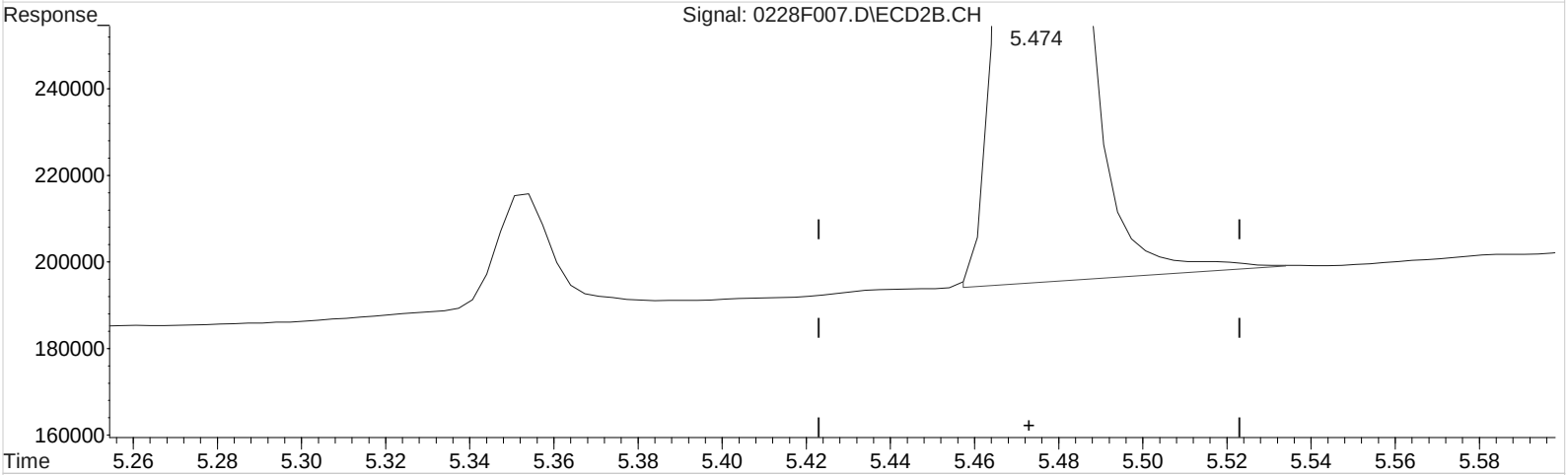
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.382 ug/L m

response 3874012

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.033	4.720	9384726	10345828	26.823	23.800
		Target Compounds						
1)		3,4-Dichl...	3.139	3.833	364718	495787	23.304m	22.440
2)		3,5-Dichl...	3.379	4.090	247686	371212	23.594m	22.526
3)		2,4,6-Tri...	3.476	4.290	7528057	9199994	23.385	22.059
5)		2,4,5-Tri...	4.203	4.783	3465348	4268979	24.581	21.360
6)		3,4,5-Tri...	4.233	4.847	3537210	4043017	24.409m	21.539
7)	M	2,3,5,6-T...	4.476	5.080	10557180	13711688	22.178	22.215
8)	M	2,3,4,5-T...	5.019	5.477	7682979	9204669	24.286	22.291
9)	M	Pentachlo...	5.156	5.660	12370956	15378050	26.604	22.366
10)		Pentachlo...	5.156	5.660	12370956	15378050	28.002	23.554

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

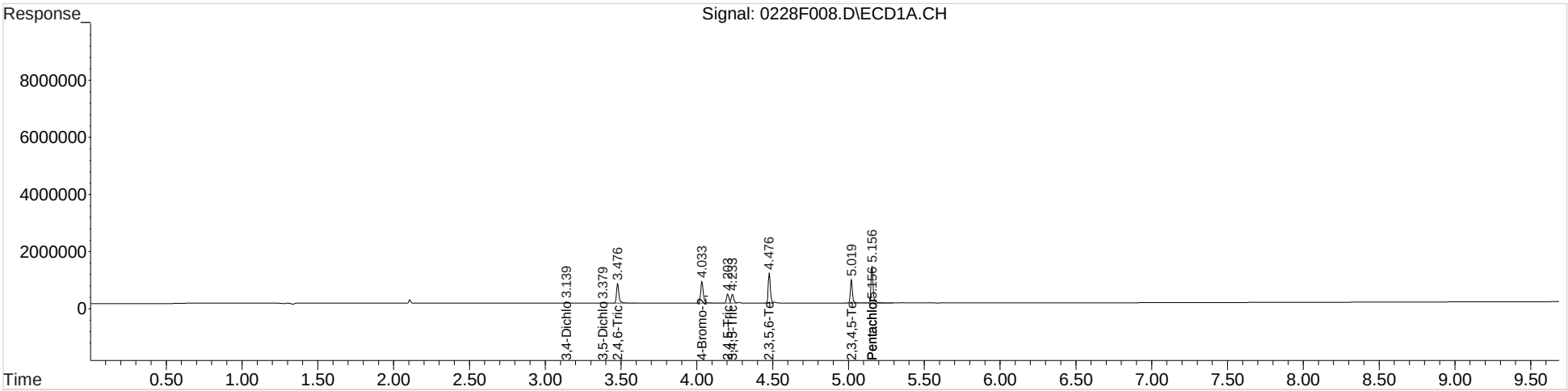
1st JMS 02/28/19
2nd MC 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



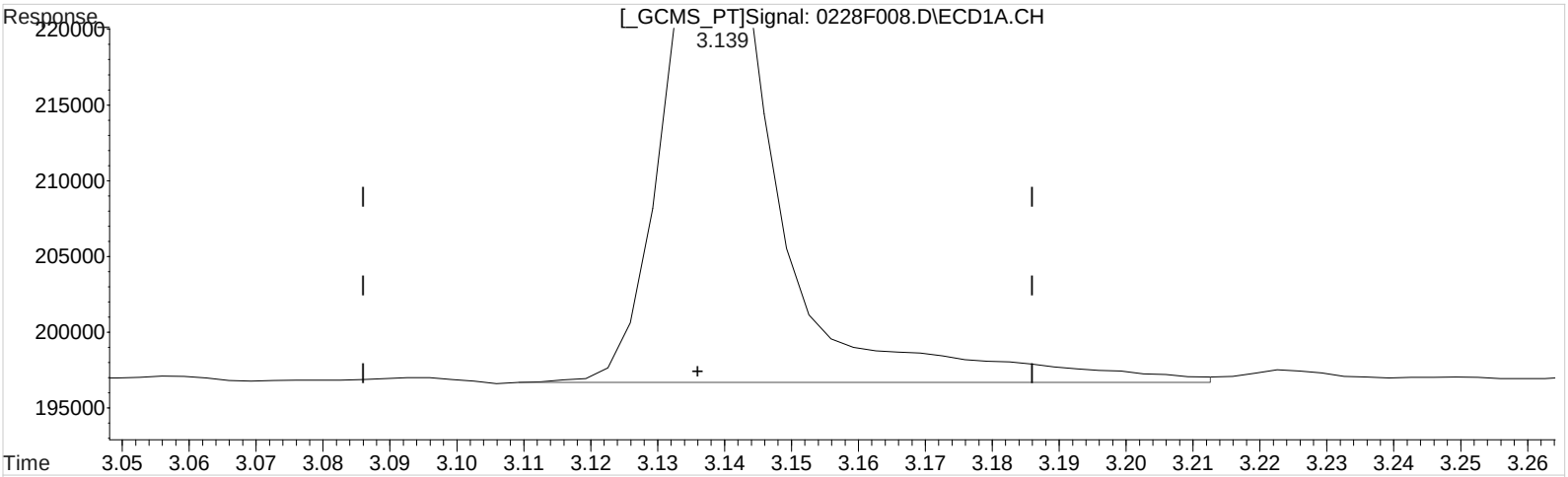
Quantitation Report (Qedit)

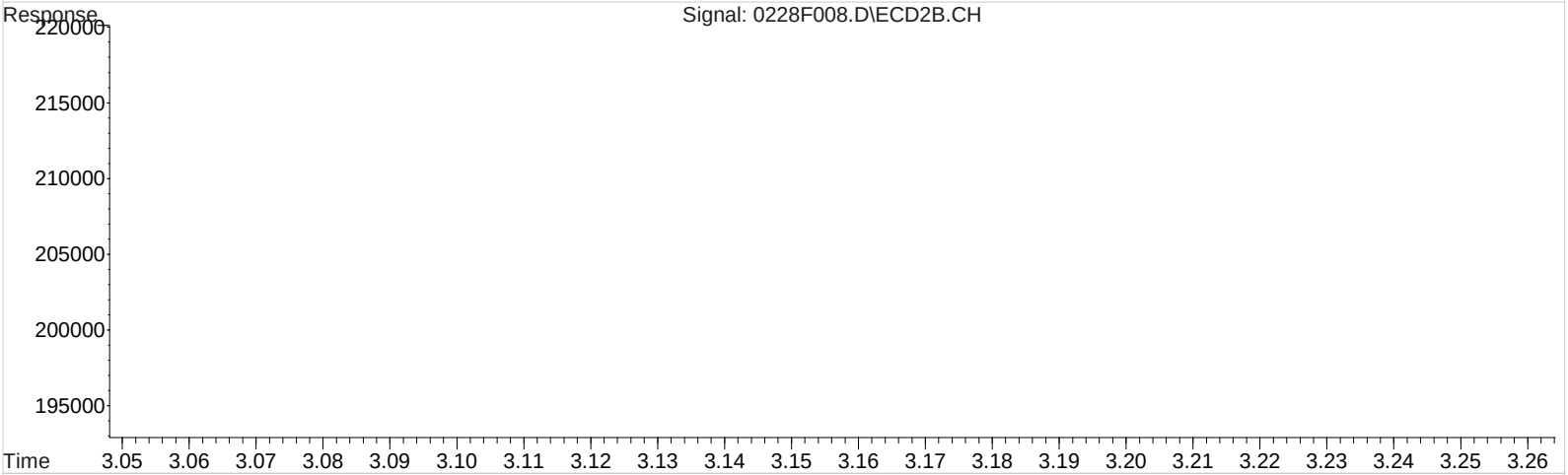
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 25.378 ug/L

response 395414

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 22.440 ug/L

response 495787

(+) = Expected Retention Time

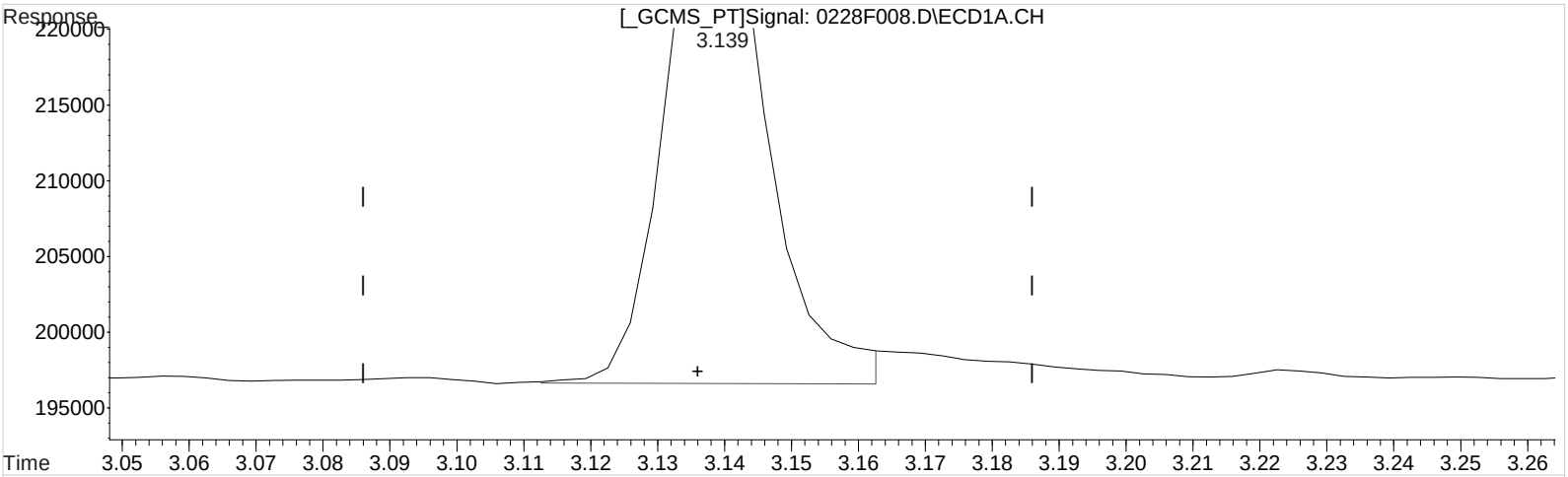
Quantitation Report (Qedit)

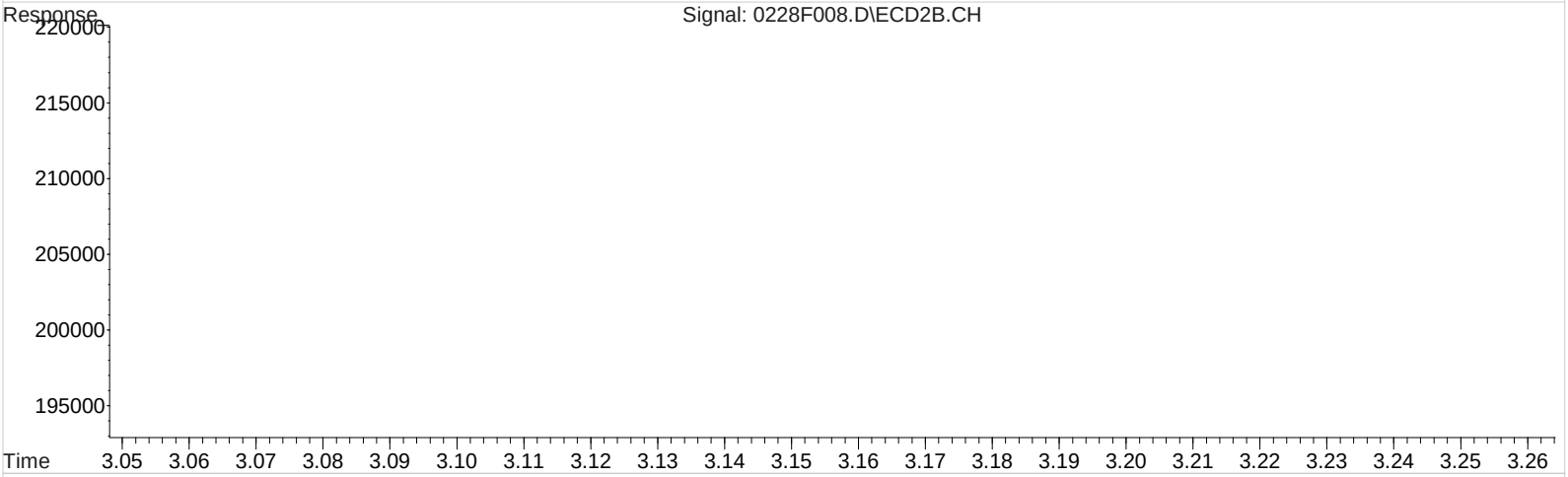
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 23.304 ug/L m

response 364718

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 22.440 ug/L

response 495787

(+) = Expected Retention Time

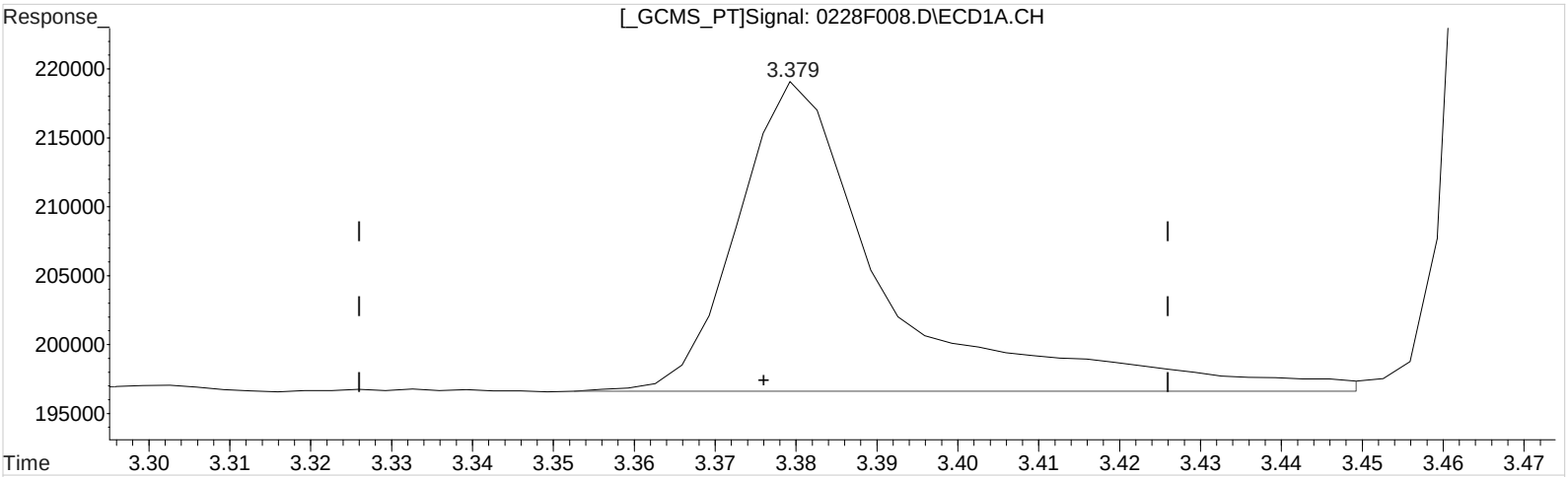
Quantitation Report (Qedit)

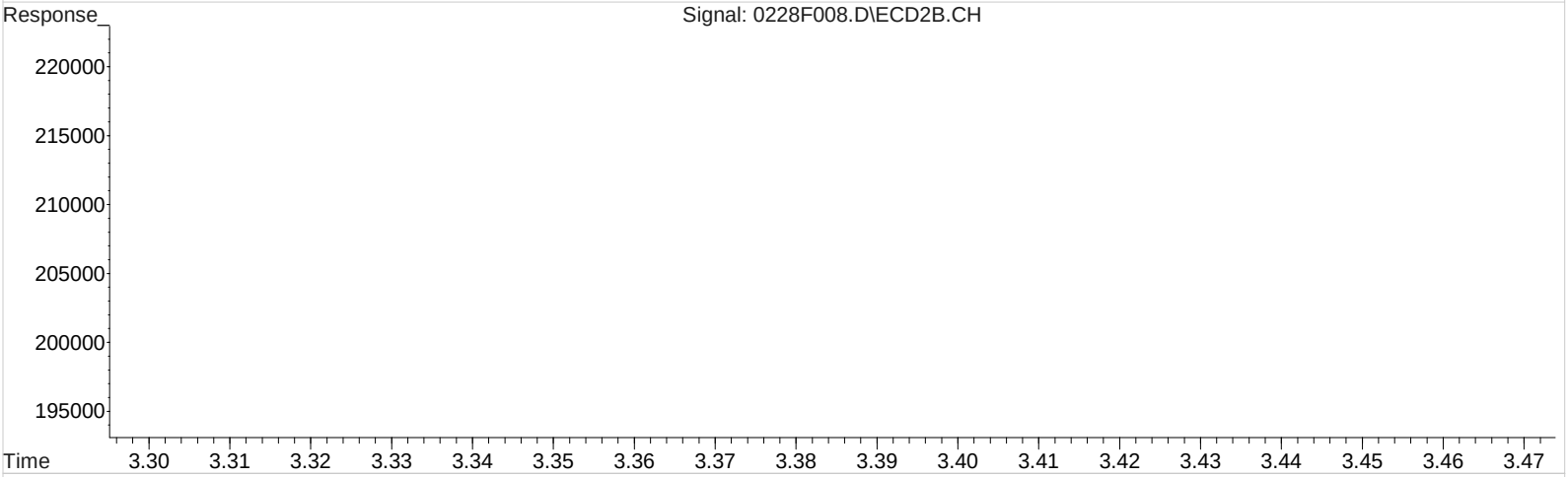
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 27.619 ug/L

response 287533

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 22.526 ug/L

response 371212

(+) = Expected Retention Time

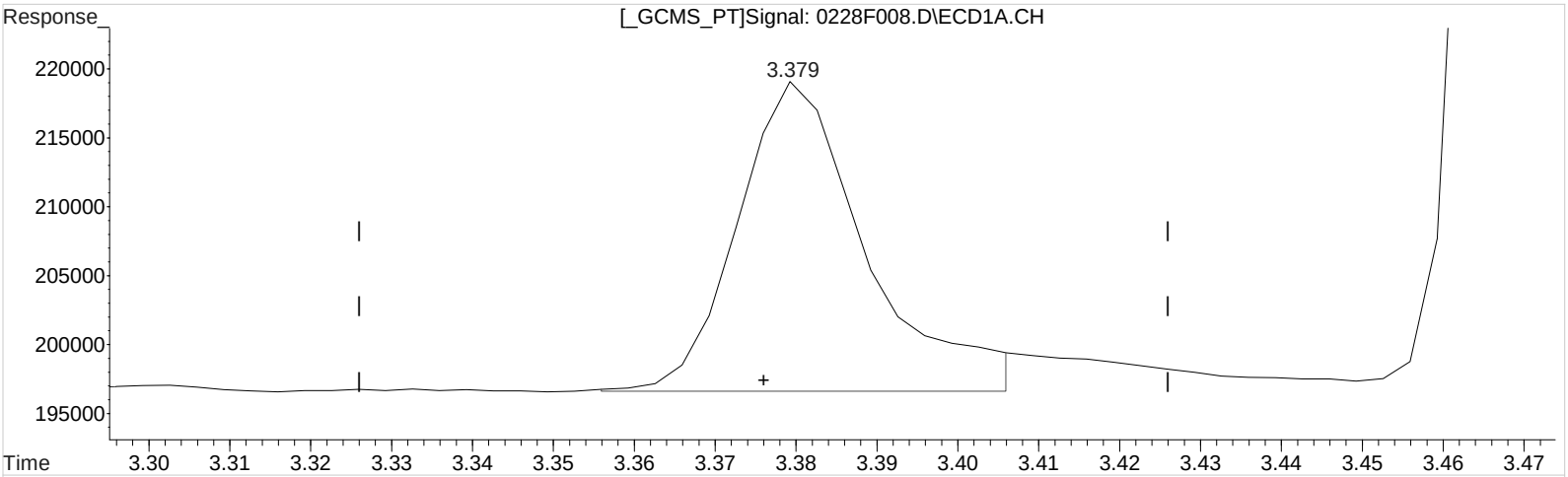
Quantitation Report (Qedit)

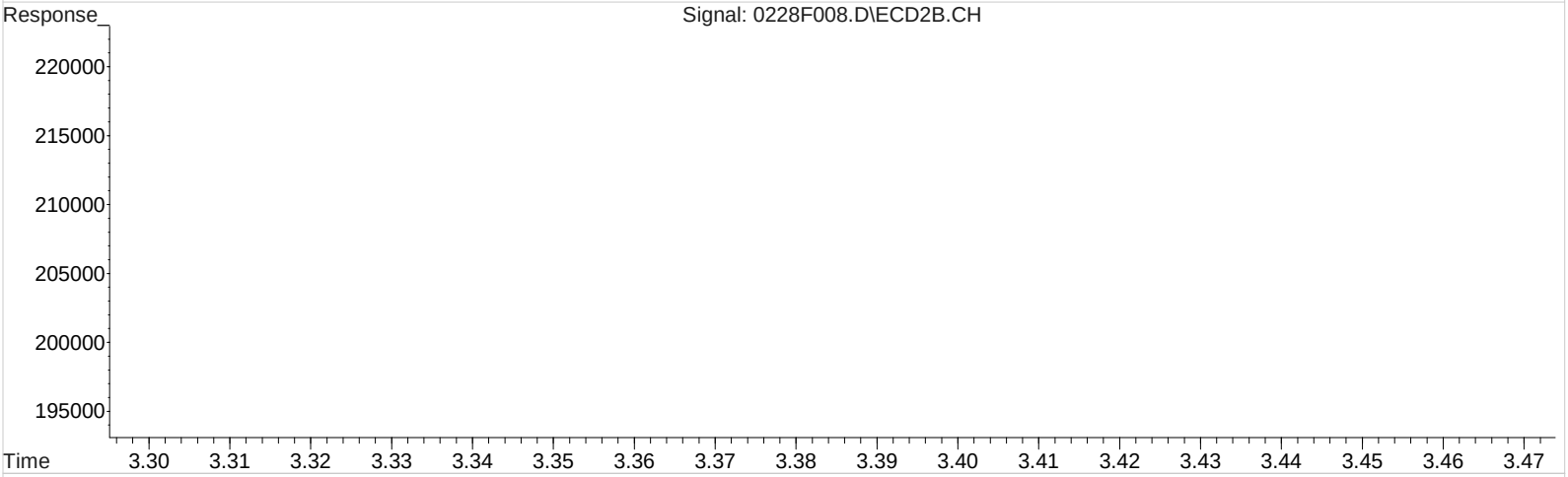
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 23.594 ug/L m

response 247686

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 22.526 ug/L

response 371212

(+) = Expected Retention Time

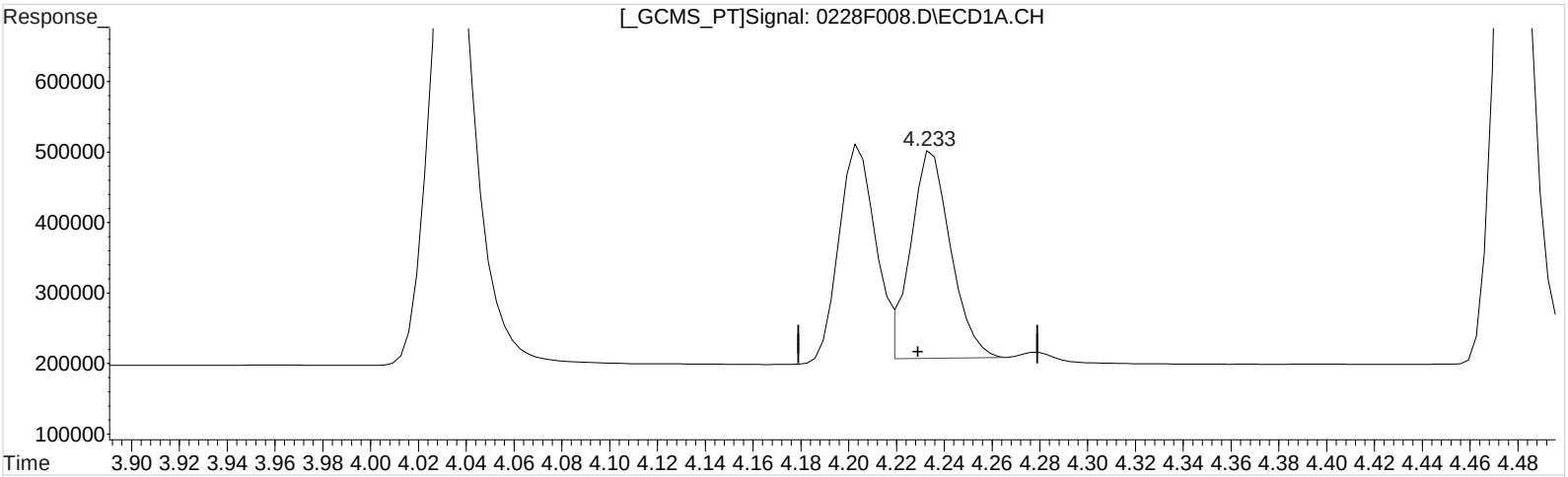
Quantitation Report (Qedit)

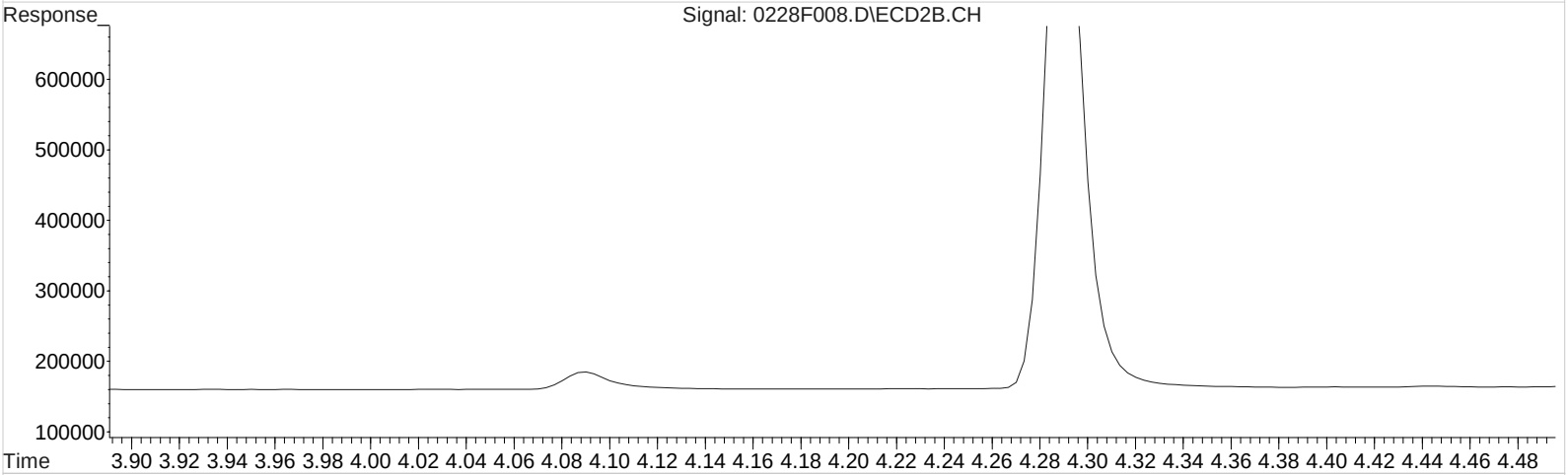
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 22.824 ug/L

response 3318986

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 21.539 ug/L

response 4043017

(+) = Expected Retention Time

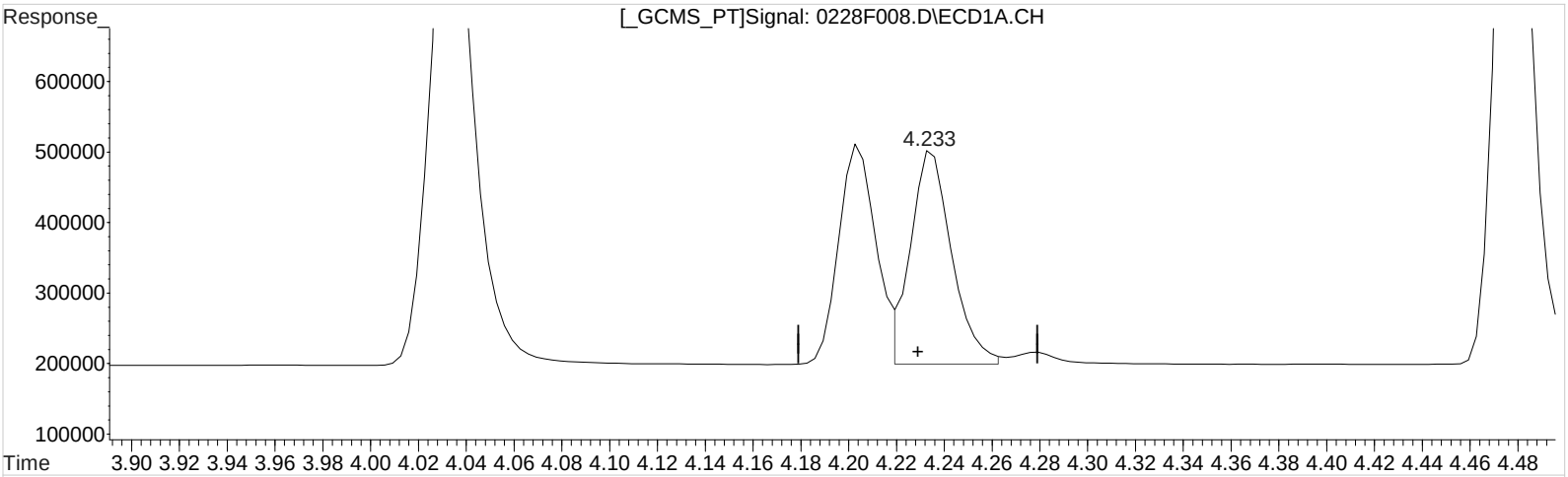
Quantitation Report (Qedit)

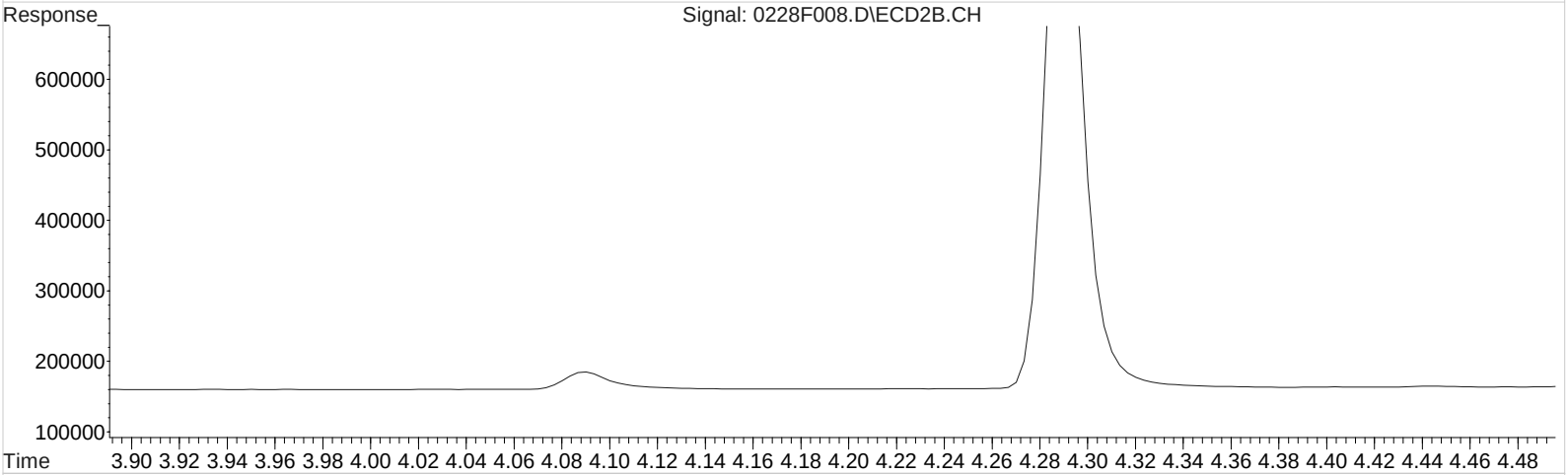
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 24.409 ug/L m

response 3537210

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 21.539 ug/L

response 4043017

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.034	4.718	18373800	22111030	53.653	50.866
		Target Compounds						
1)		3,4-Dichl...	3.137	3.831	717598	975860	47.710m	44.168
2)		3,5-Dichl...	3.380	4.088	527946	707614	52.883m	42.939
3)		2,4,6-Tri...	3.477	4.291	14477823	19027390	46.510	45.622
5)		2,4,5-Tri...	4.204	4.784	6258374	8346897	46.243	41.763
6)		3,4,5-Tri...	4.234	4.848	6723516	8022672	48.287m	42.741
7)	M	2,3,5,6-T...	4.477	5.078	20376062	27736415	42.806	44.938
8)	M	2,3,4,5-T...	5.017	5.474	14199642	17989254	46.931	43.566
9)	M	Pentachlo...	5.154	5.658	23456614	30413144	51.593	44.234
10)		Pentachlo...	5.154	5.658	23456614	30413144	54.305	46.582

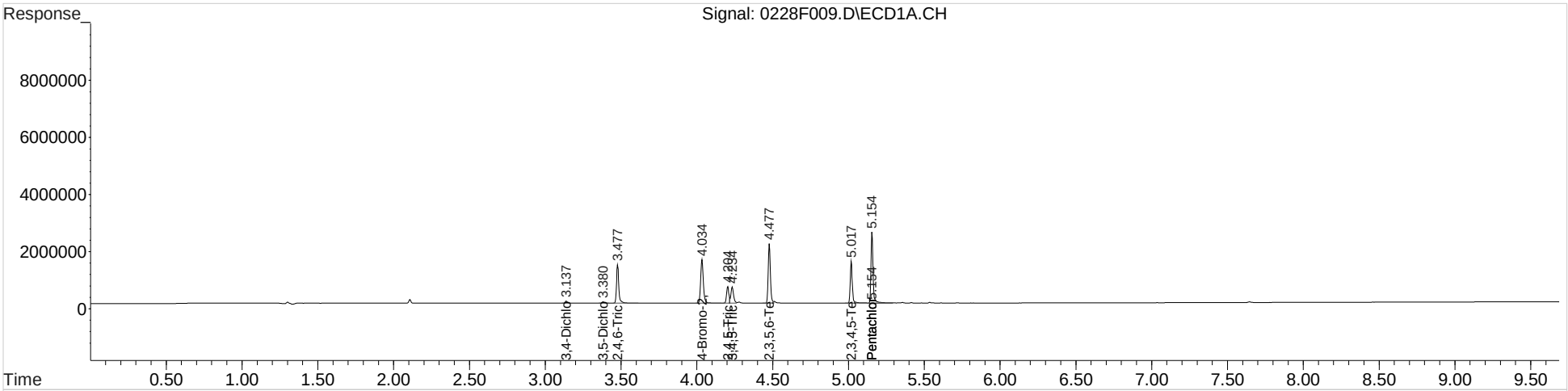
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



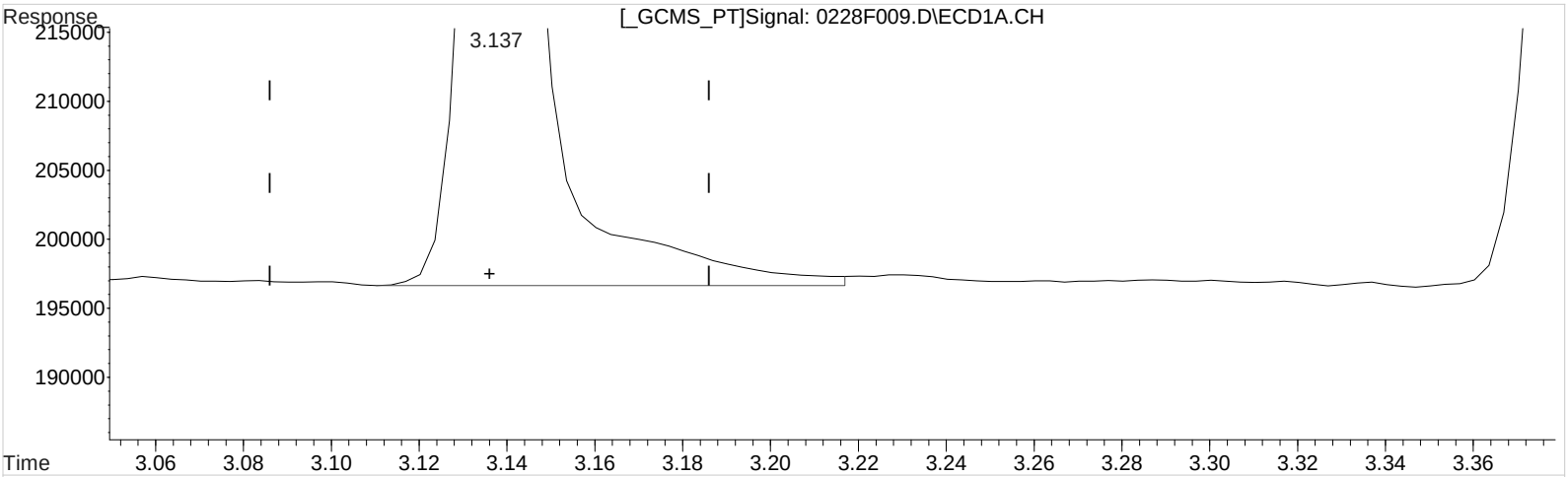
Quantitation Report (Qedit)

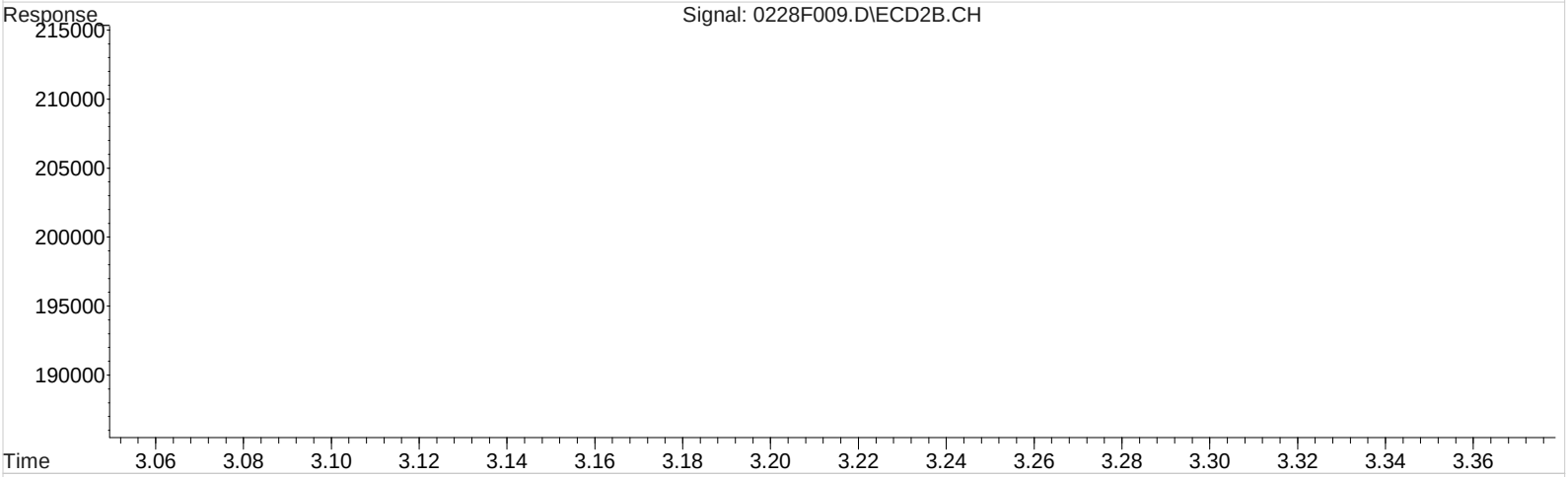
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 51.582 ug/L

response 771918

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 44.168 ug/L

response 975860

(+) = Expected Retention Time

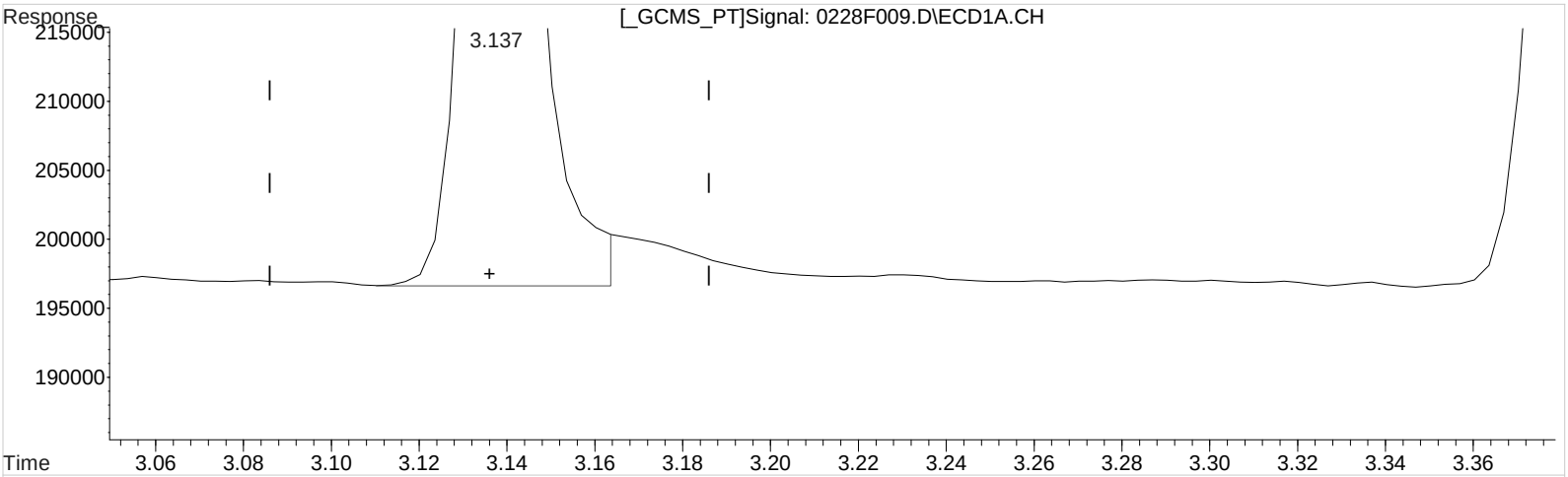
Quantitation Report (Qedit)

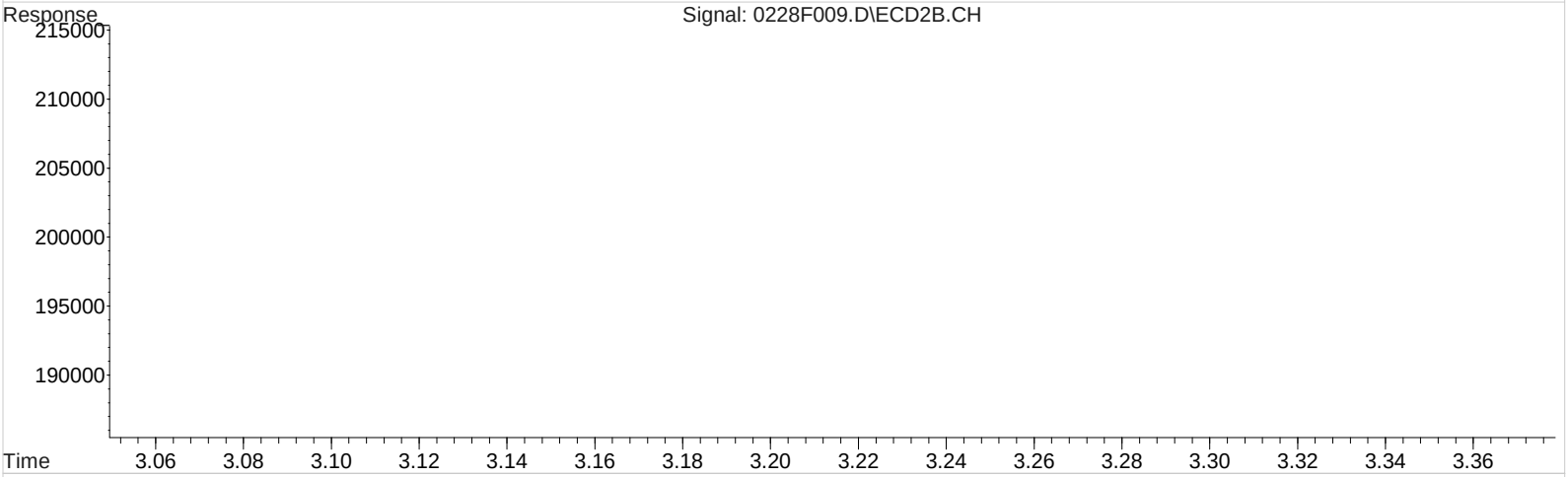
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 47.710 ug/L m

response 717598

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 44.168 ug/L

response 975860

(+) = Expected Retention Time

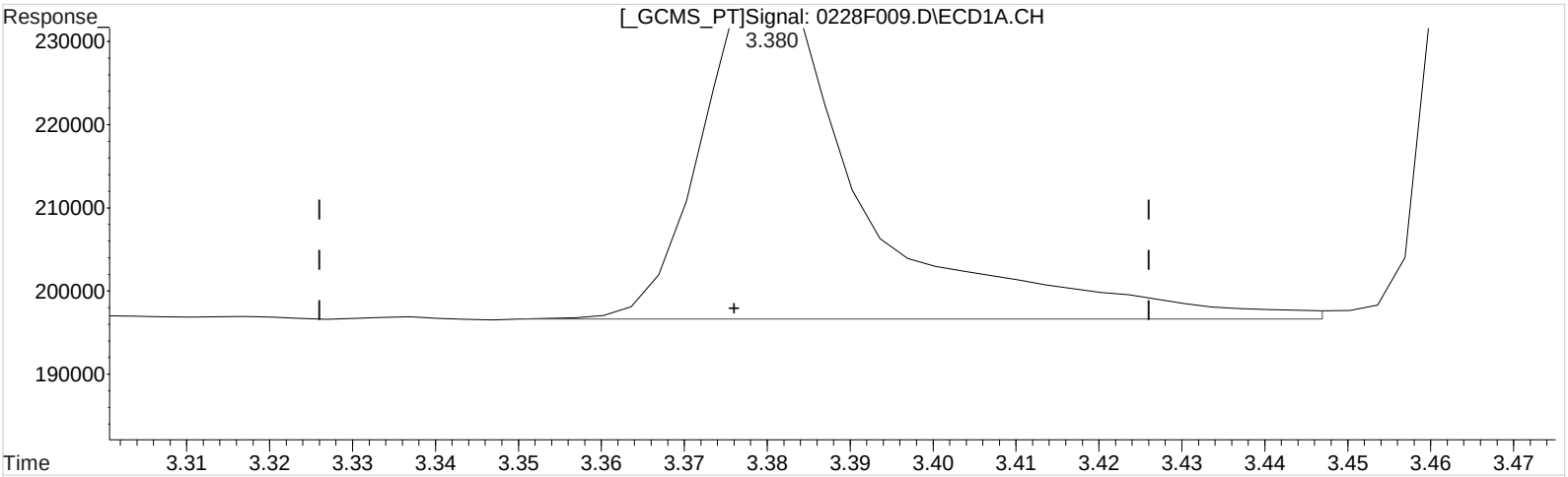
Quantitation Report (Qedit)

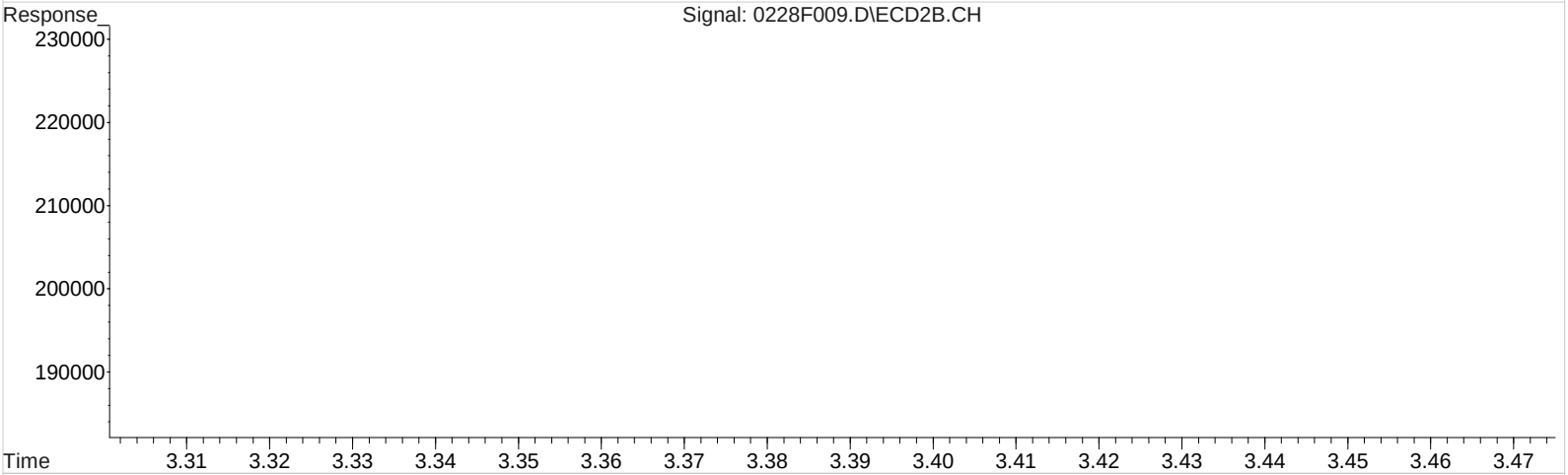
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 55.786 ug/L

response 554512

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 42.939 ug/L

response 707614

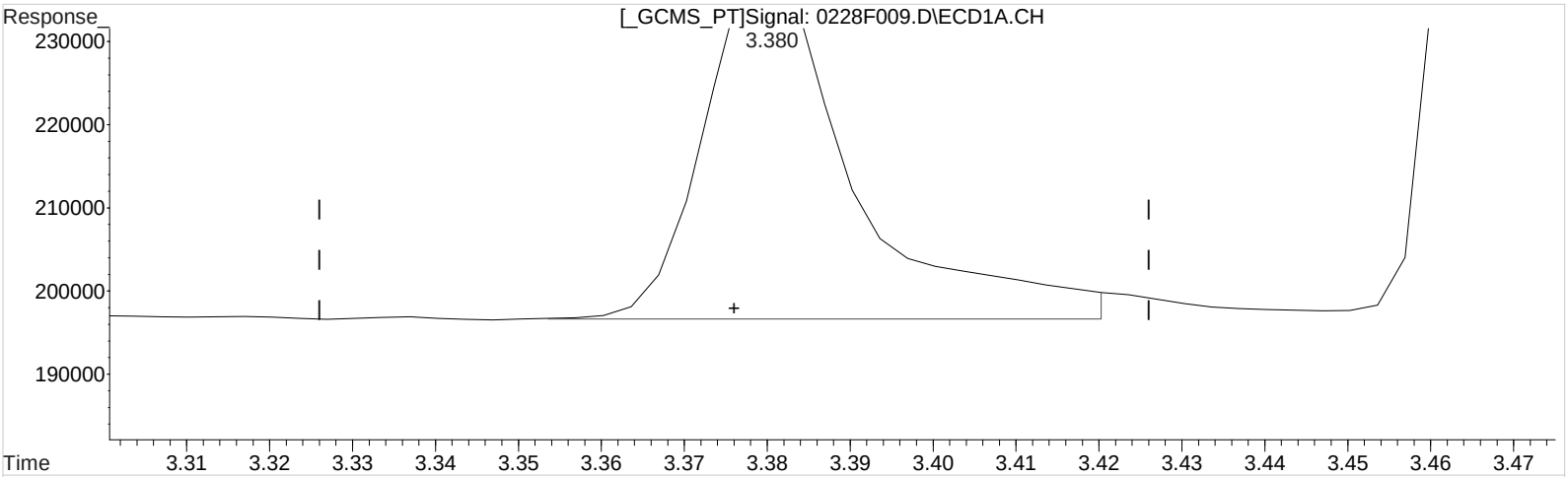
(+) = Expected Retention Time

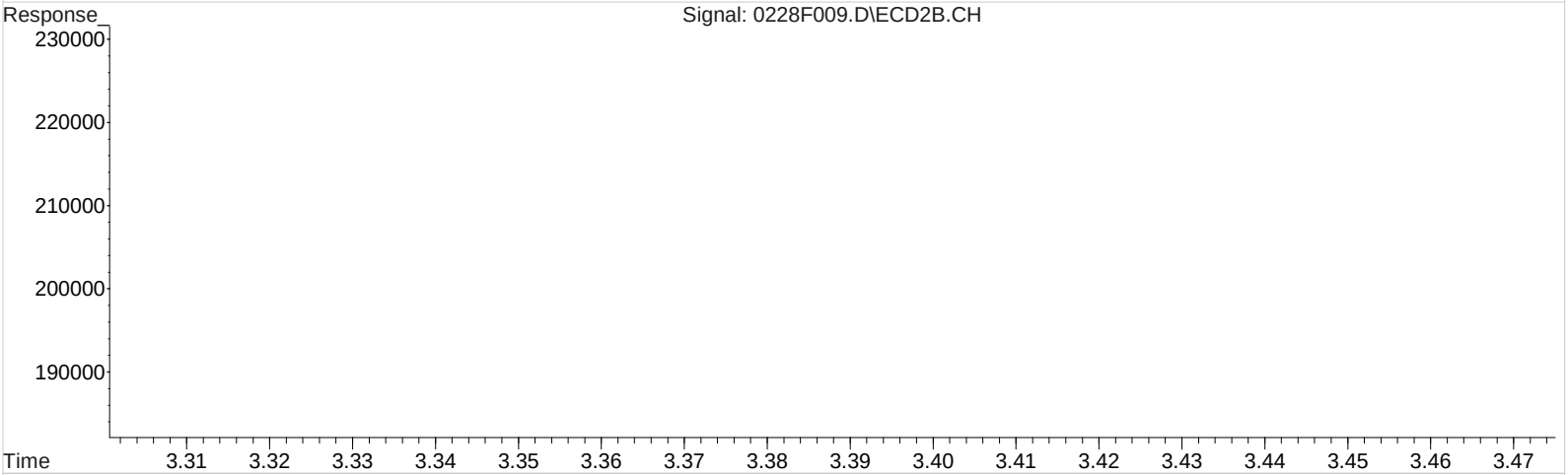
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 52.883 ug/L m

response 527946

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 42.939 ug/L

response 707614

(+) = Expected Retention Time

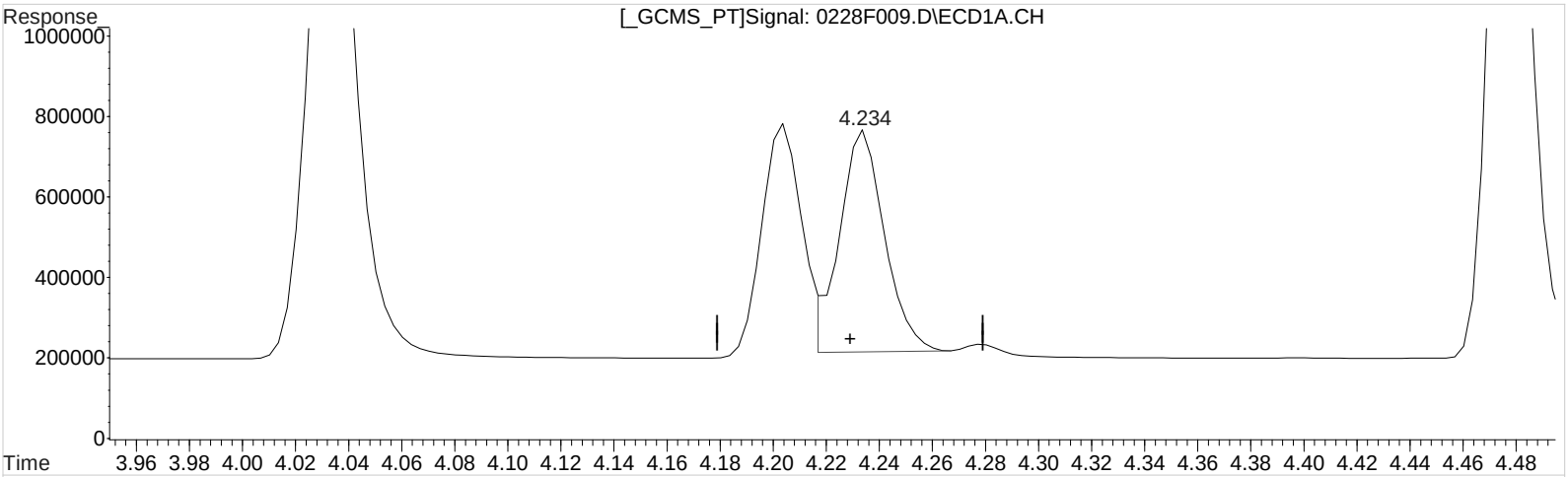
Quantitation Report (Qedit)

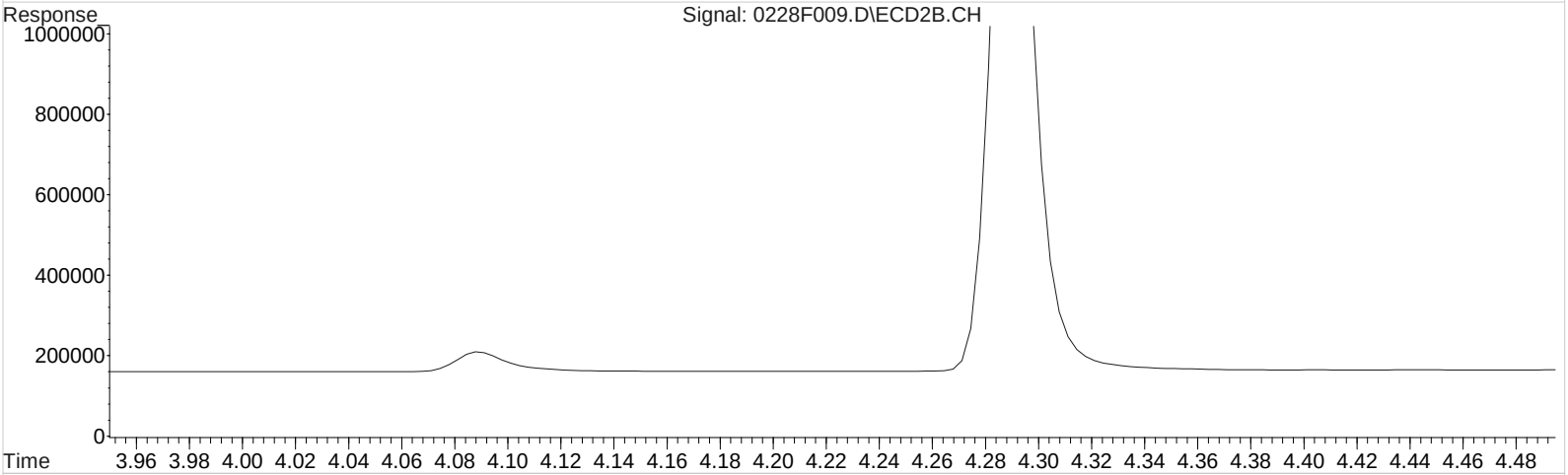
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.234min 45.176 ug/L

response 6319301

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.848min 42.741 ug/L

response 8022672

(+) = Expected Retention Time

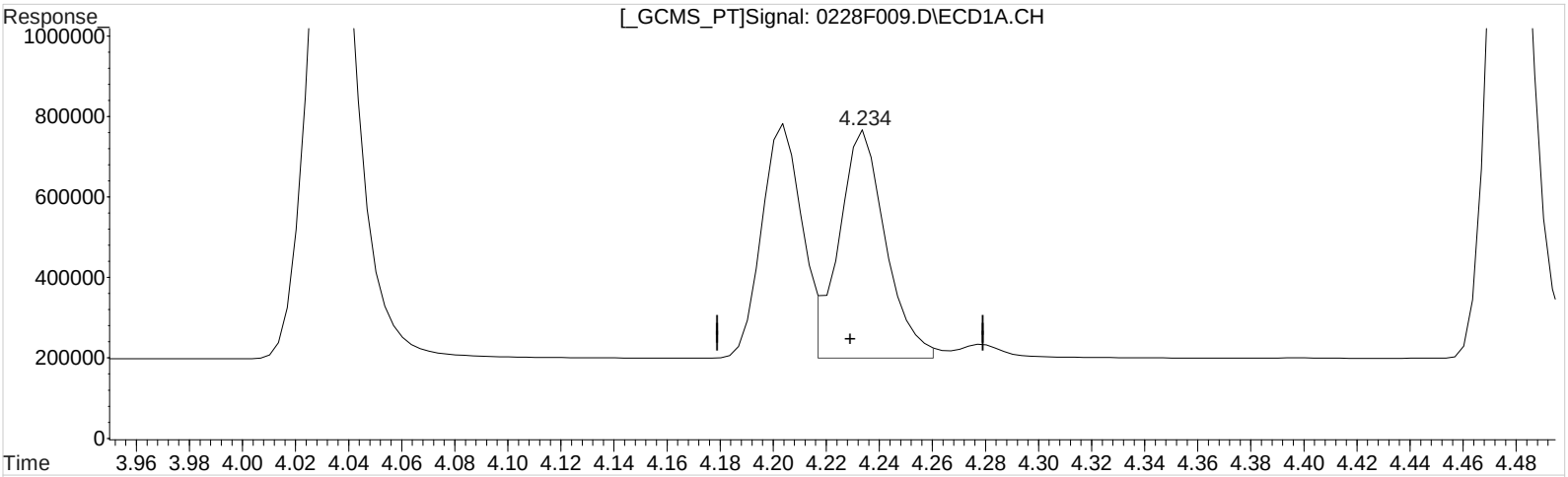
Quantitation Report (Qedit)

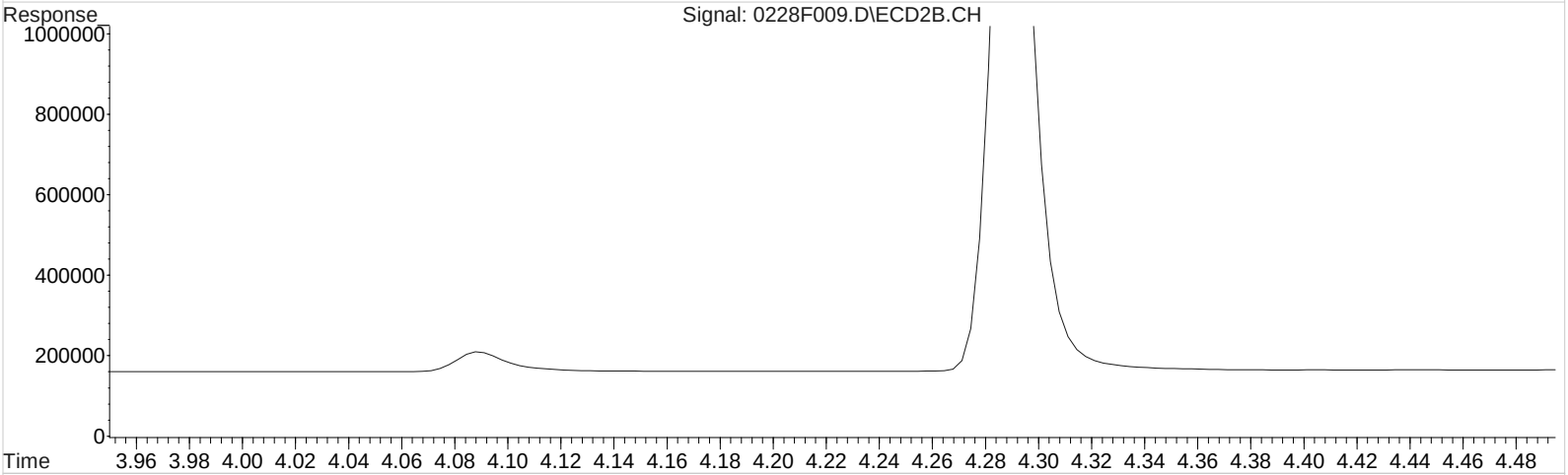
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.234min 48.287 ug/L m

response 6723516

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.848min 42.741 ug/L

response 8022672

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:22:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.032	4.719	34413155	43435506	102.249	99.922
		Target Compounds						
1)		3,4-Dichl...	3.138	3.833	1331525	1763970	93.560	79.838
2)		3,5-Dichl...	3.378	4.089	862010	1296503	91.350m	78.674
3)		2,4,6-Tri...	3.478	4.289	26311215	36325037	88.628	87.097
5)		2,4,5-Tri...	4.202	4.783	11366036	15617448	89.447	78.141
6)		3,4,5-Tri...	4.232	4.846	11877626	15048739	90.412	80.172
7)	M	2,3,5,6-T...	4.478	5.079	37783526	53764292	79.375	87.108
8)	M	2,3,4,5-T...	5.018	5.476	26302592	34720321	92.085	84.084
9)	M	Pentachlo...	5.155	5.659	44955036	59841010	100.762	87.035
10)		Pentachlo...	5.155	5.659	44955036	59841010	106.058	91.655

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

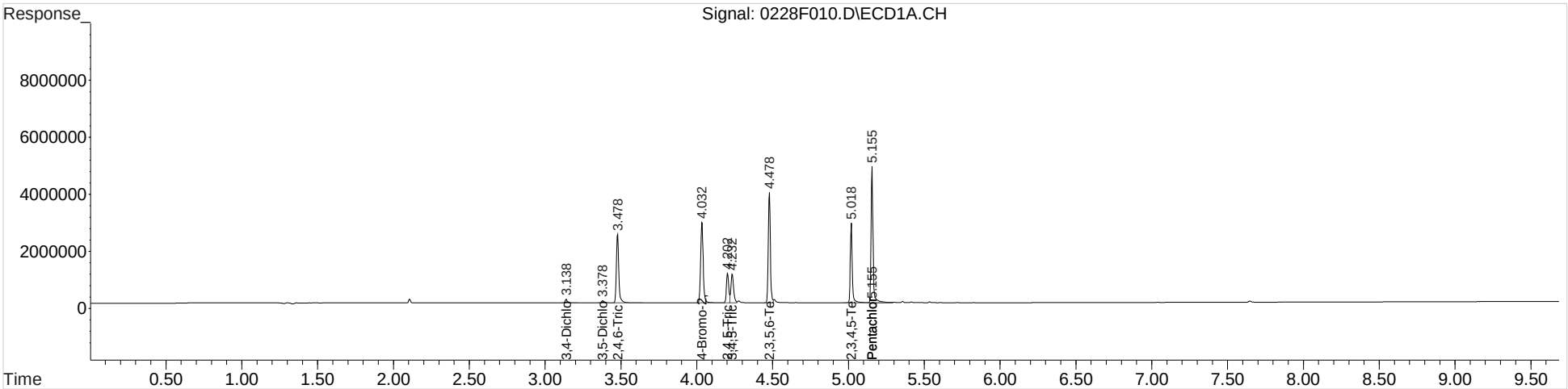
1st JMS 02/28/19
2nd MC 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:22:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



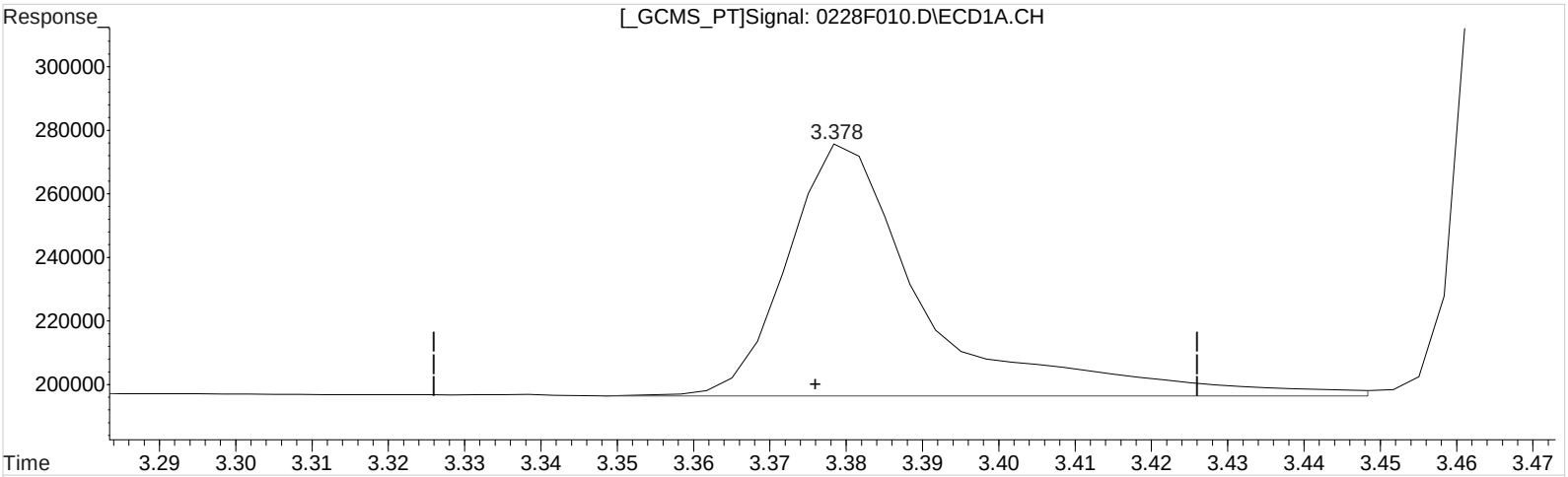
Quantitation Report (Qedit)

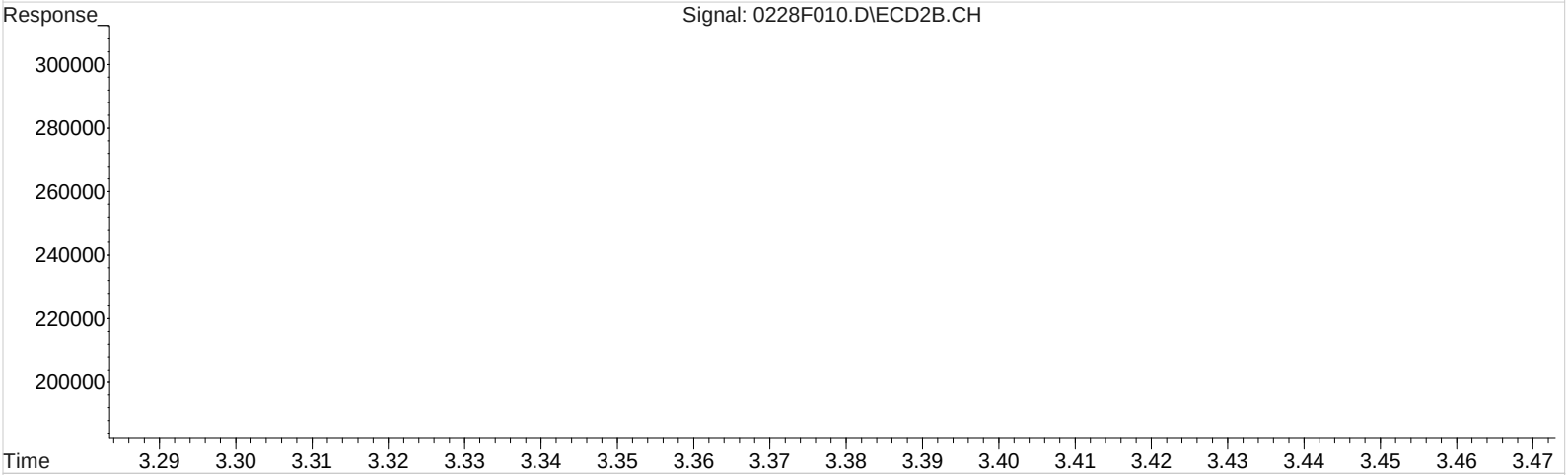
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 107.753 ug/L

response 992711

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 78.674 ug/L

response 1296503

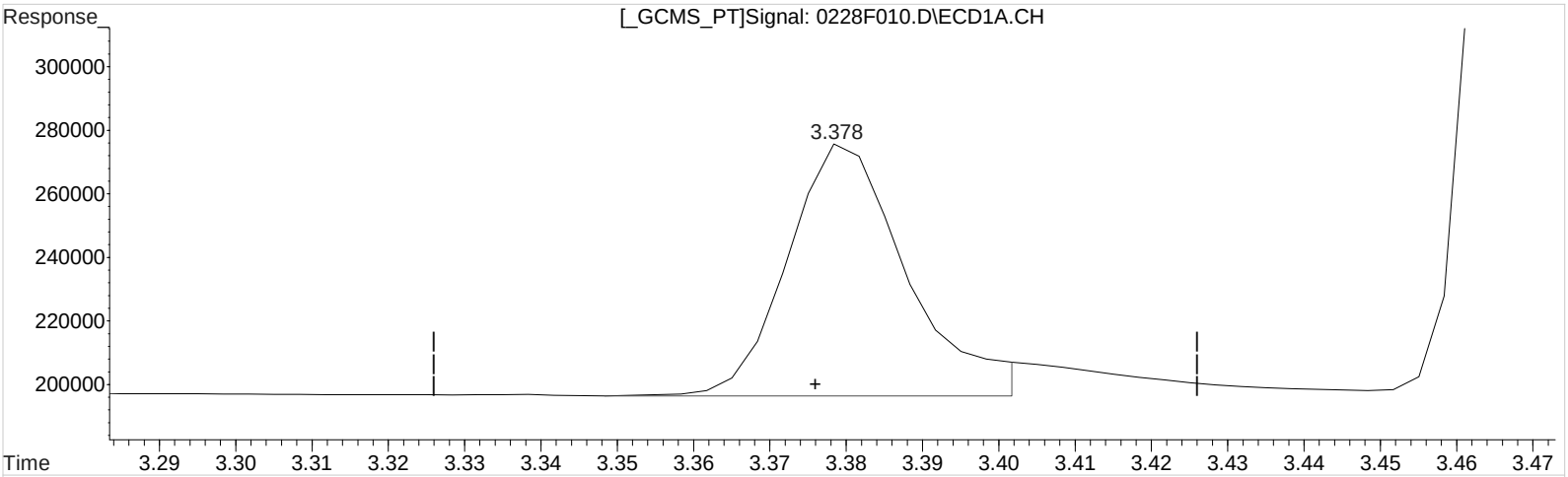
(+) = Expected Retention Time

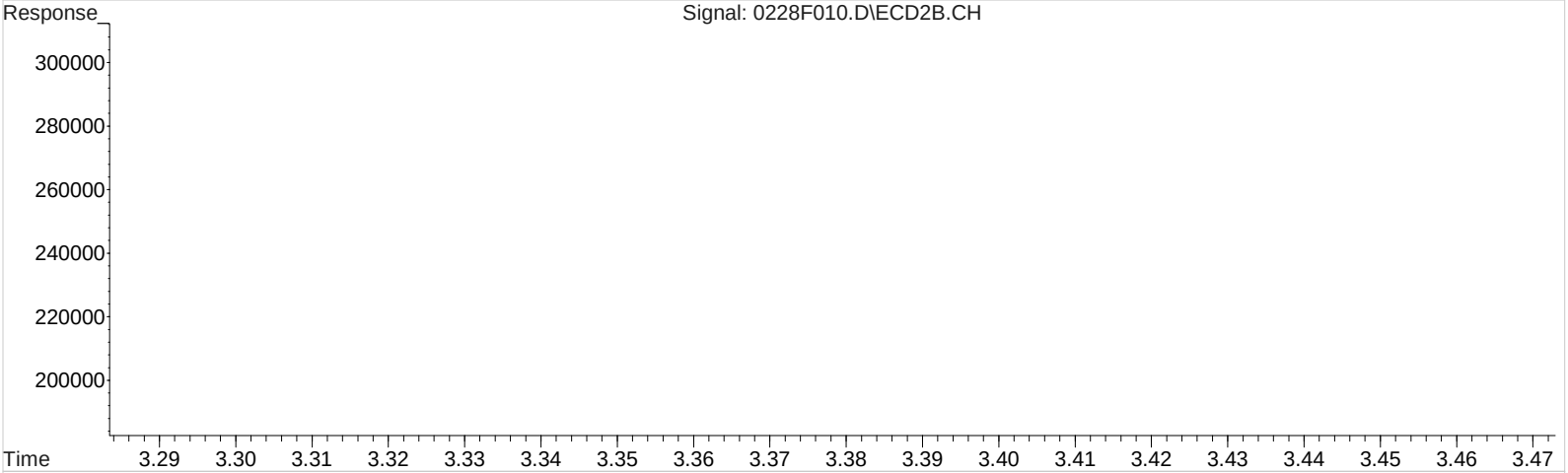
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 91.350 ug/L m

response 862010

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 78.674 ug/L

response 1296503

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:40:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.032	4.720	81814734	111.2E6	251.811	255.909	
		Target Compounds							
1)		3,4-Dichl...	3.139	3.833	2857364	4032207	239.203m	182.500	
2)		3,5-Dichl...	3.379	4.090	1819808	2874954	247.123m	174.458	#
3)		2,4,6-Tri...	3.479	4.290	60385111	91468356	241.870	219.315	
5)		2,4,5-Tri...	4.202	4.783	24998272	37739444	250.979	188.827	
6)		3,4,5-Tri...	4.232	4.846	25742104	36413226	245.950m	193.992	
7)	M	2,3,5,6-T...	4.479	5.076	86546934	134.6E6	181.817	218.076	
8)	M	2,3,4,5-T...	5.016	5.473	58240789	85792304	243.632	207.768	
9)	M	Pentachlo...	5.152	5.656	102.6E6	149.9E6	237.563	218.038	
10)		Pentachlo...	5.152	5.656	102.6E6	149.9E6	250.048	229.611	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

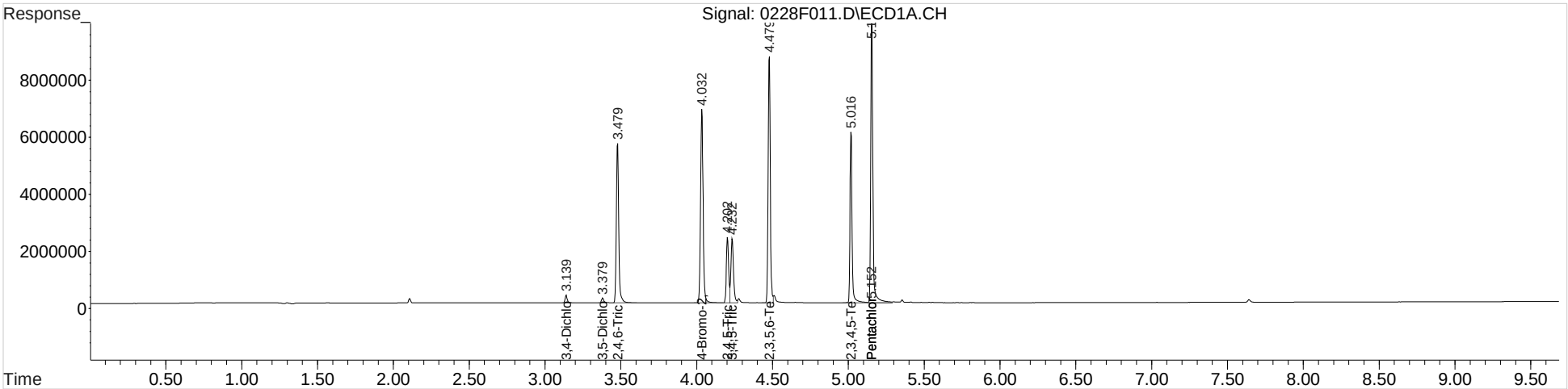
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:40:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



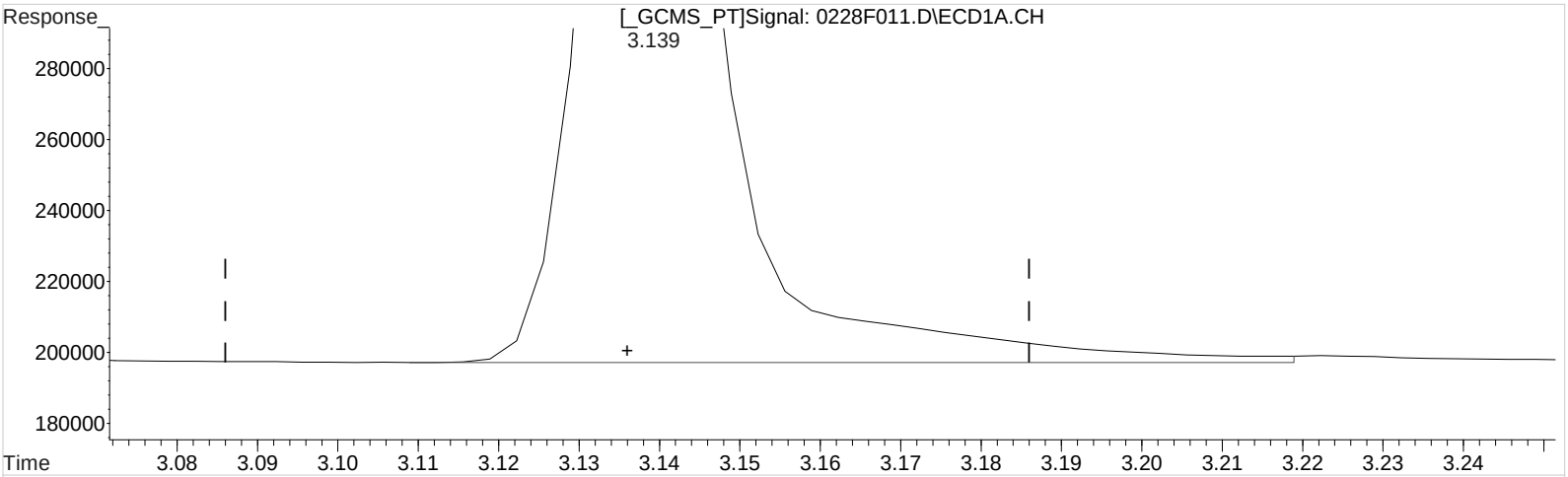
Quantitation Report (Qedit)

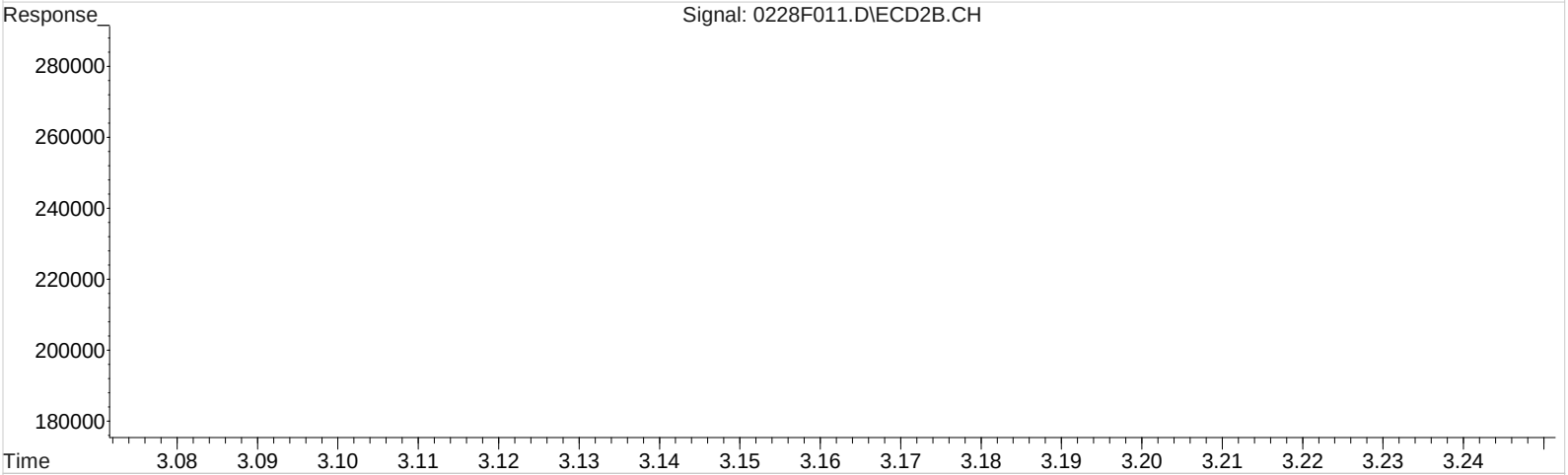
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 239.087 ug/L

response 2856406

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 182.500 ug/L

response 4032207

(+) = Expected Retention Time

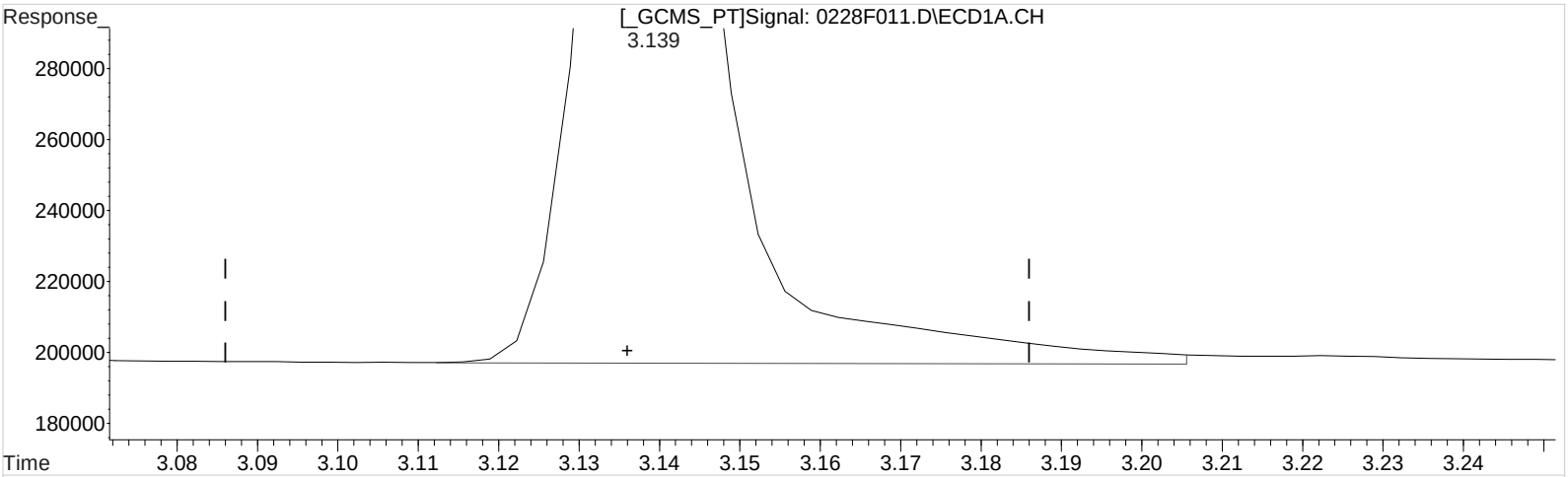
Quantitation Report (Qedit)

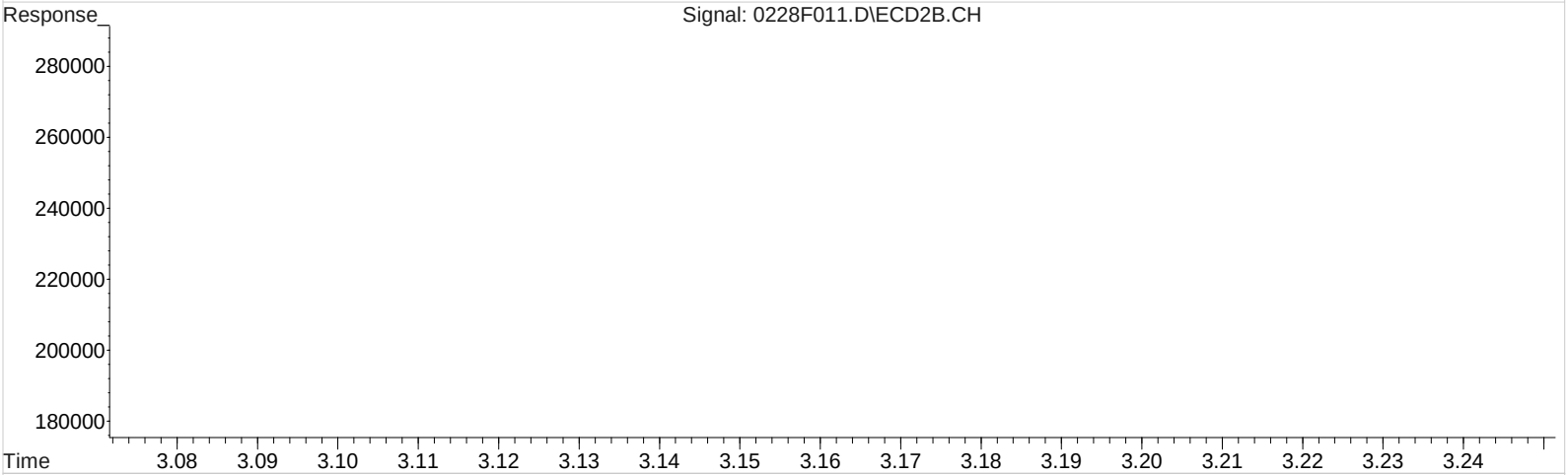
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 239.203 ug/L m

response 2857364

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 182.500 ug/L

response 4032207

(+) = Expected Retention Time

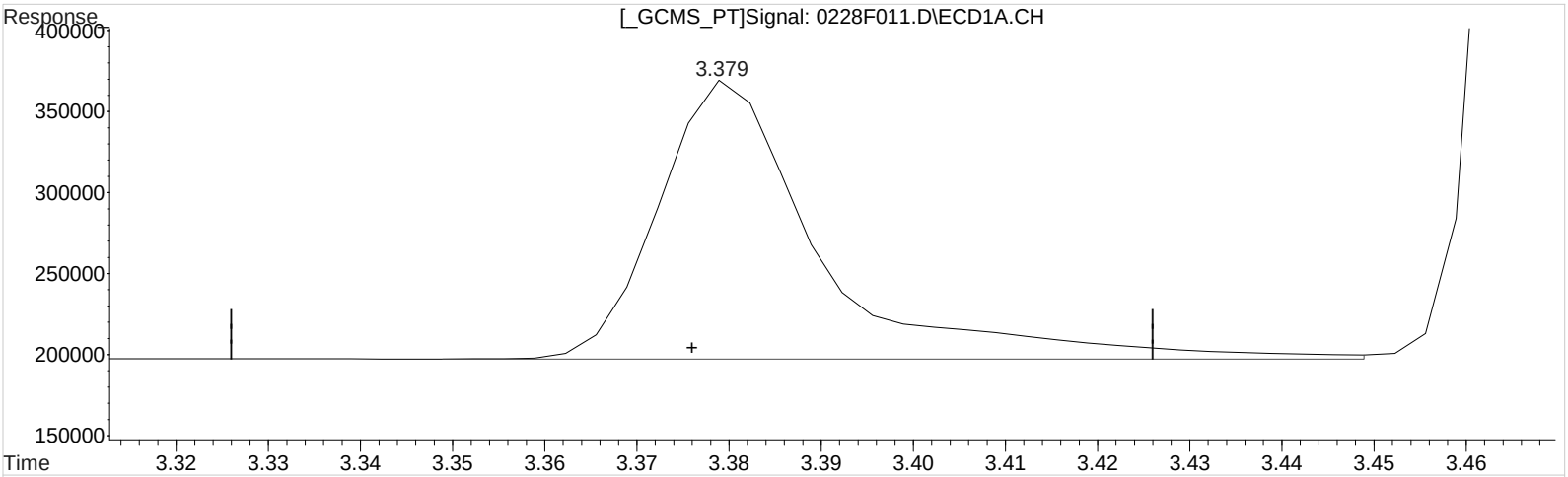
Quantitation Report (Qedit)

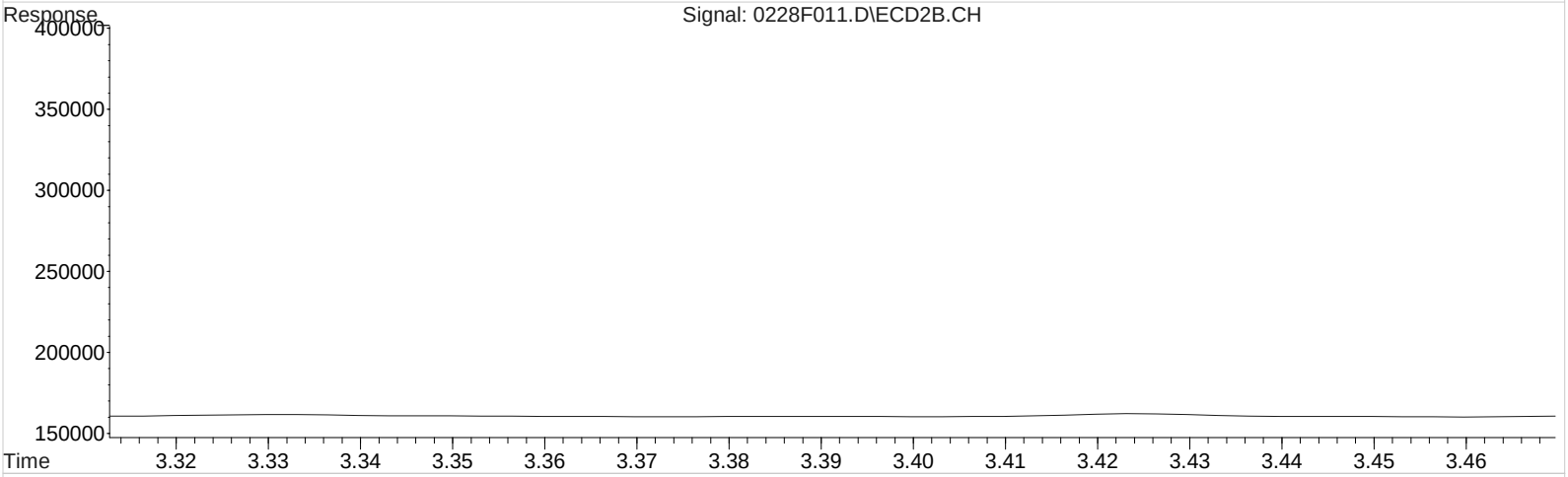
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 331.758 ug/L

response 2074587

(2) 3,5-Dichlorophenol #2

4.090min 174.458 ug/L

response 2874954

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

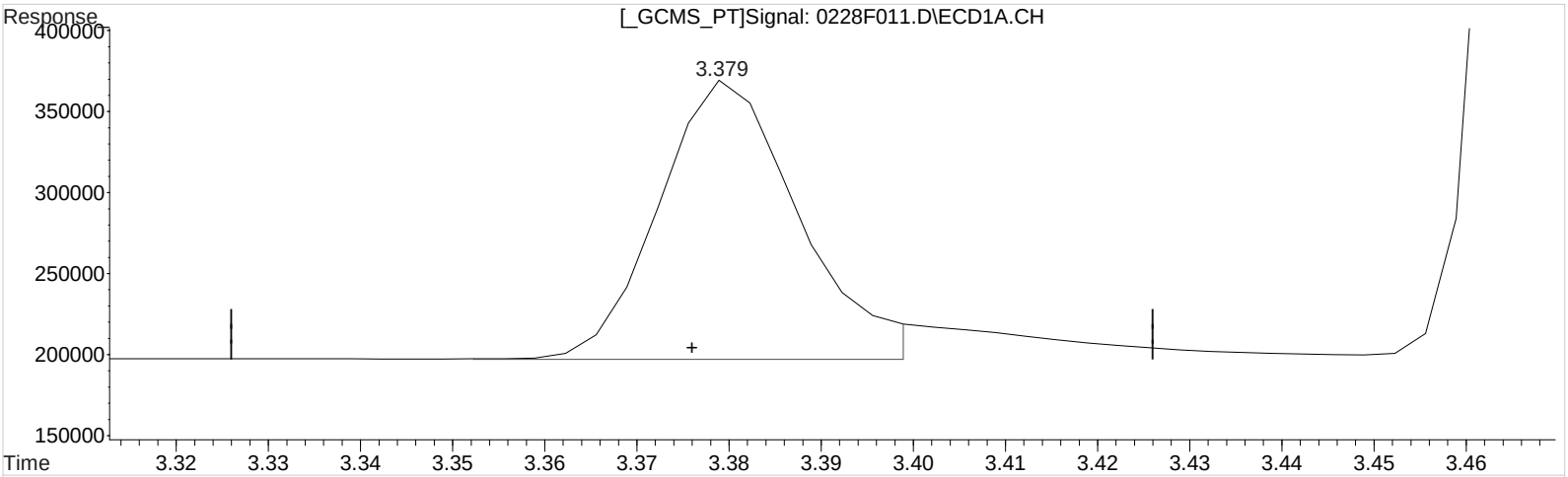
Quantitation Report (Qedit)

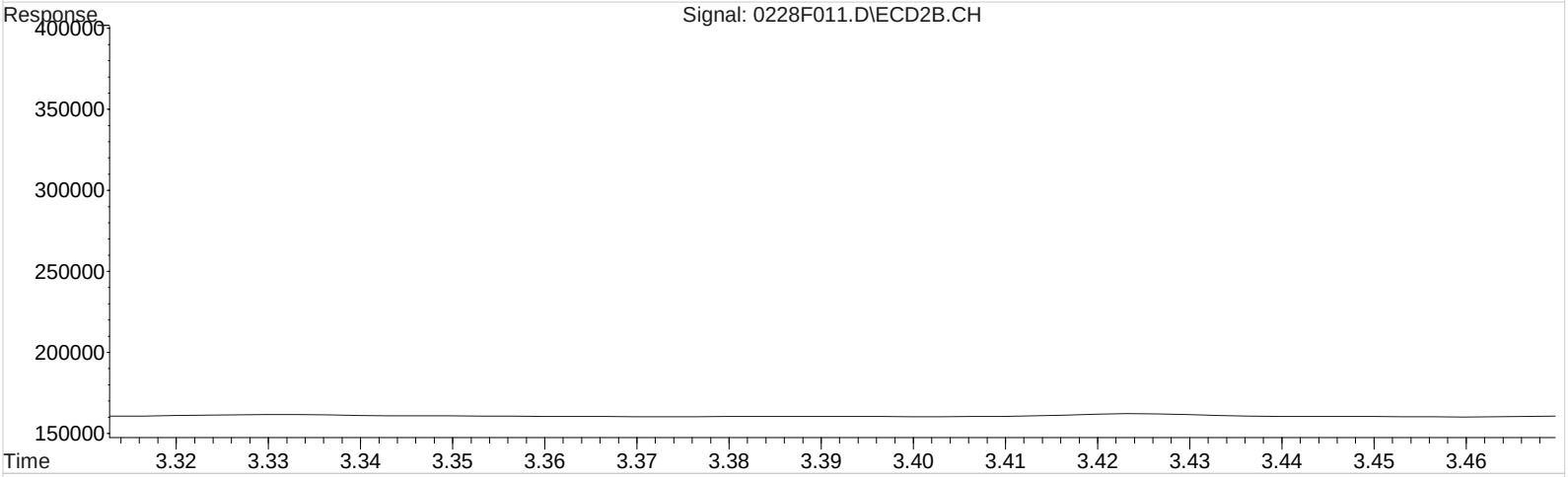
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 247.123 ug/L m

response 1819808

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 174.458 ug/L

response 2874954

(+) = Expected Retention Time

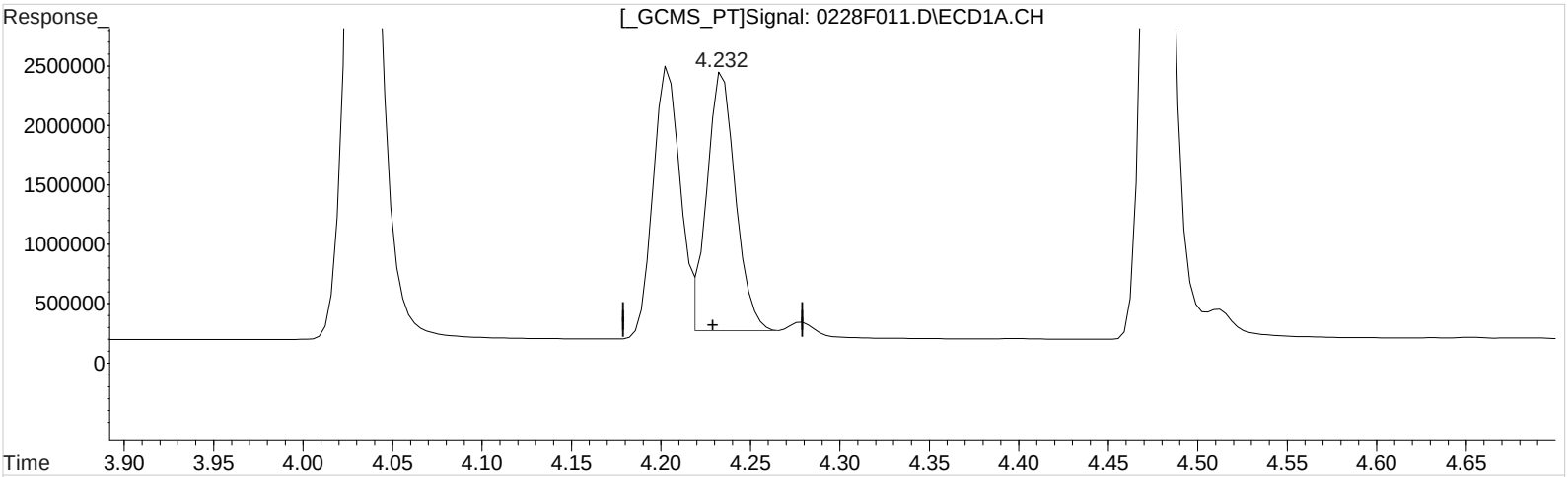
Quantitation Report (Qedit)

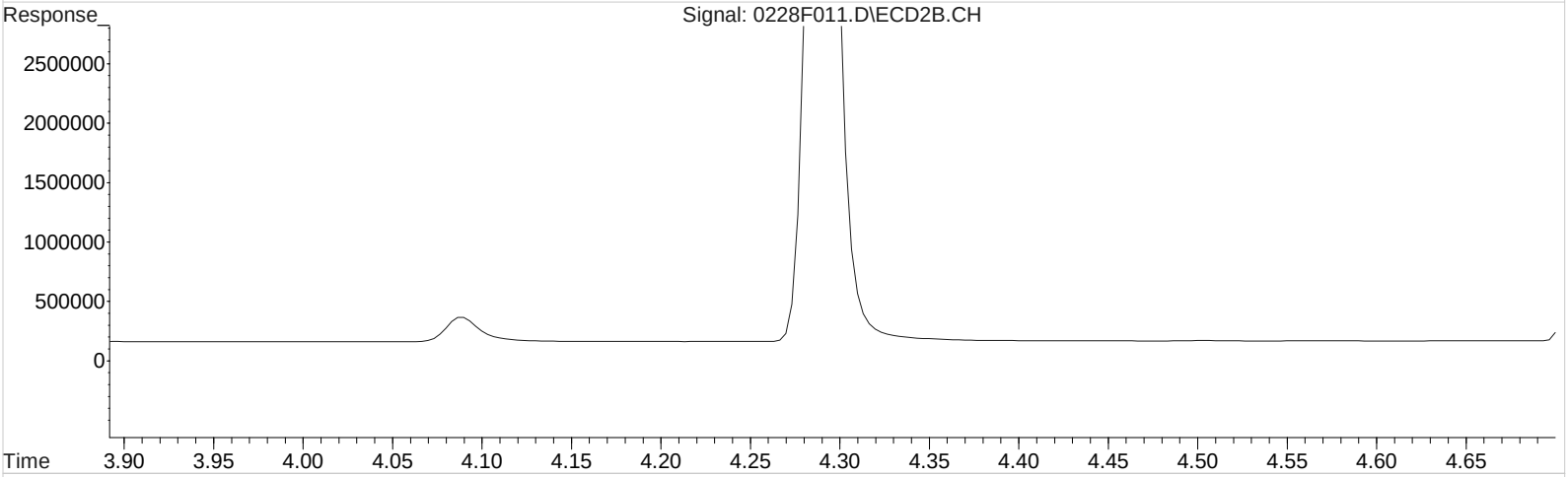
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min 214.424 ug/L

response 23588772

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.846min 193.992 ug/L

response 36413226

(+) = Expected Retention Time

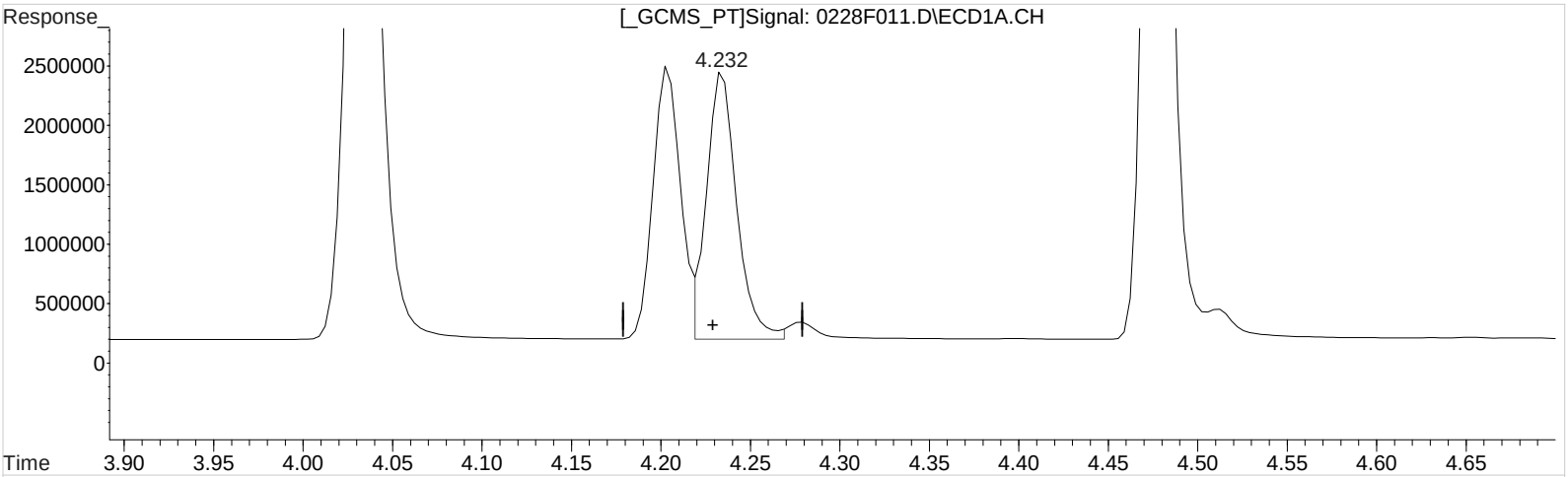
Quantitation Report (Qedit)

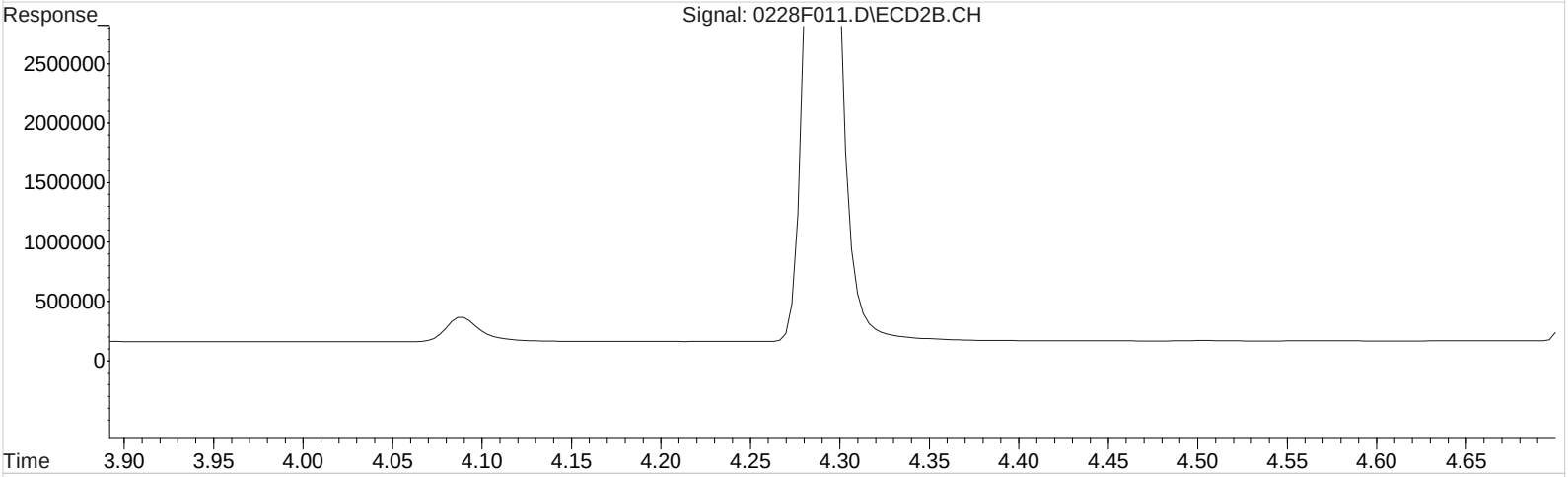
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min 245.950 ug/L m

response 25742104

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.846min 193.992 ug/L

response 36413226

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:02:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.034	4.718	148.9E6	219.7E6	481.796	505.496
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D. d
9)	M	Pentachlo...	5.154	5.658	187.0E6	302.6E6	453.396	440.083
10)		Pentachlo...	5.154	5.658	187.0E6	302.6E6	477.226	463.441

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

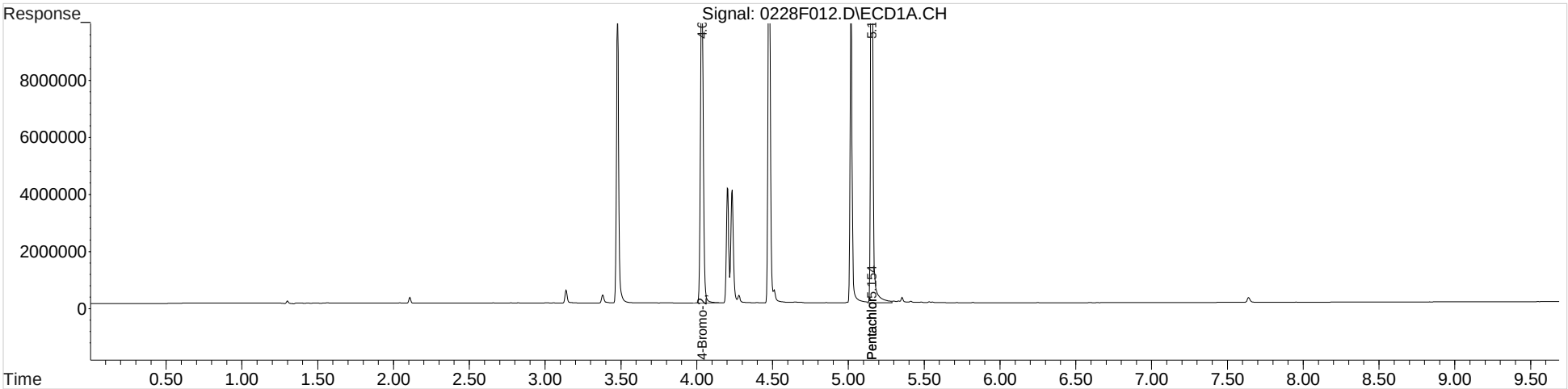
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:02:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



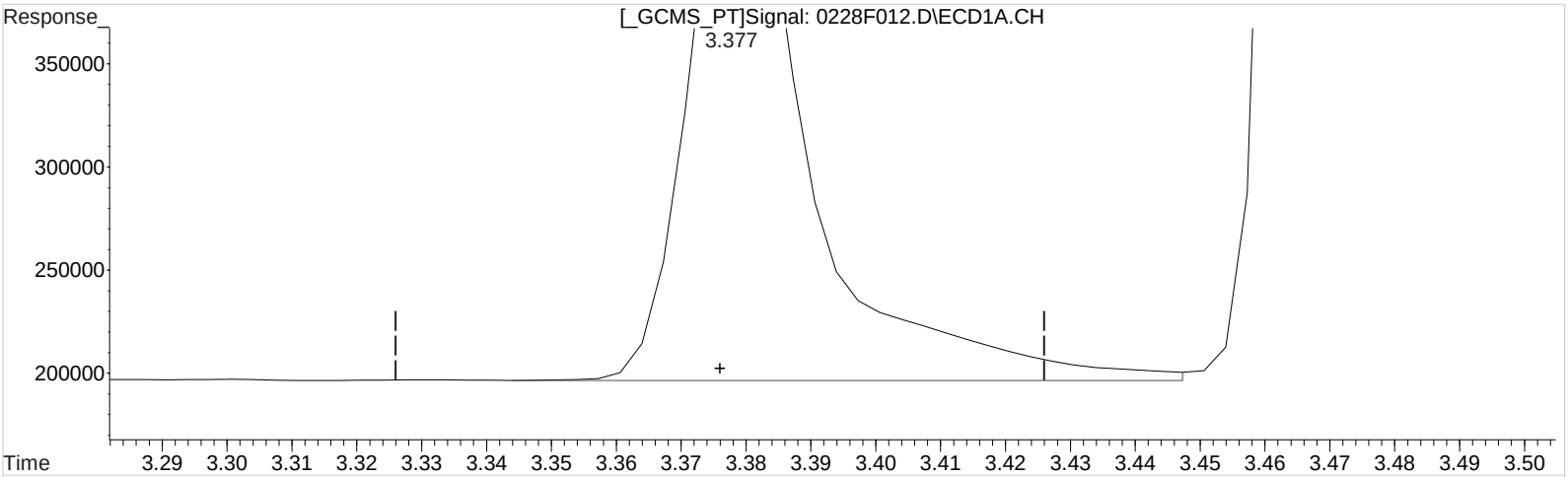
Quantitation Report (Qedit)

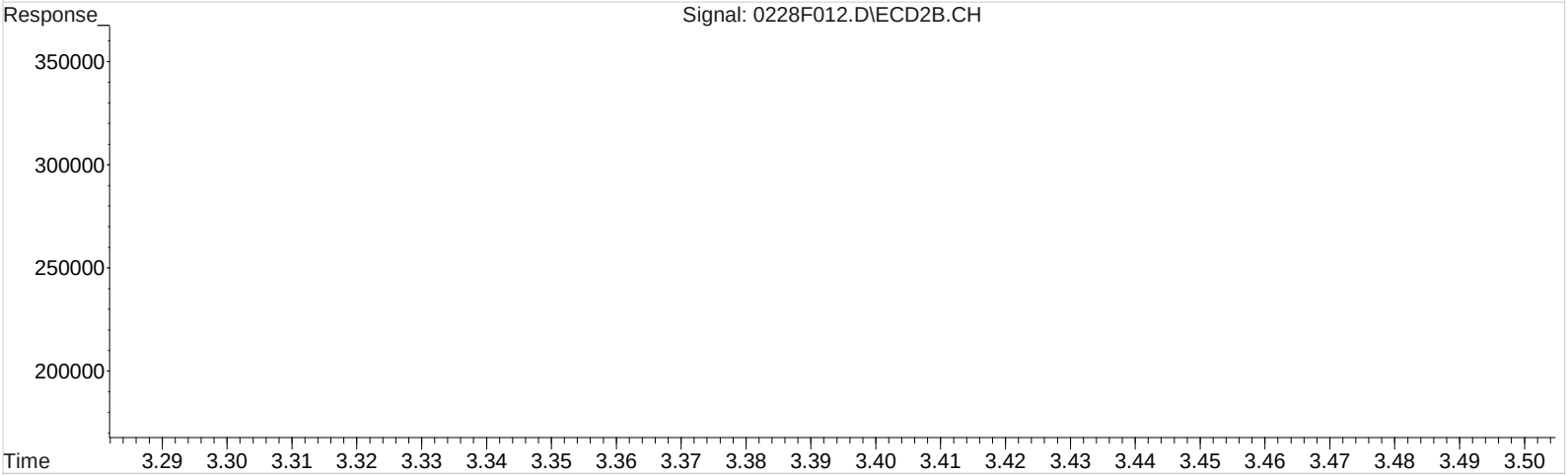
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:57:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min -1.000 ug/L

response 3515486

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 308.529 ug/L

response 5084362

(+) = Expected Retention Time

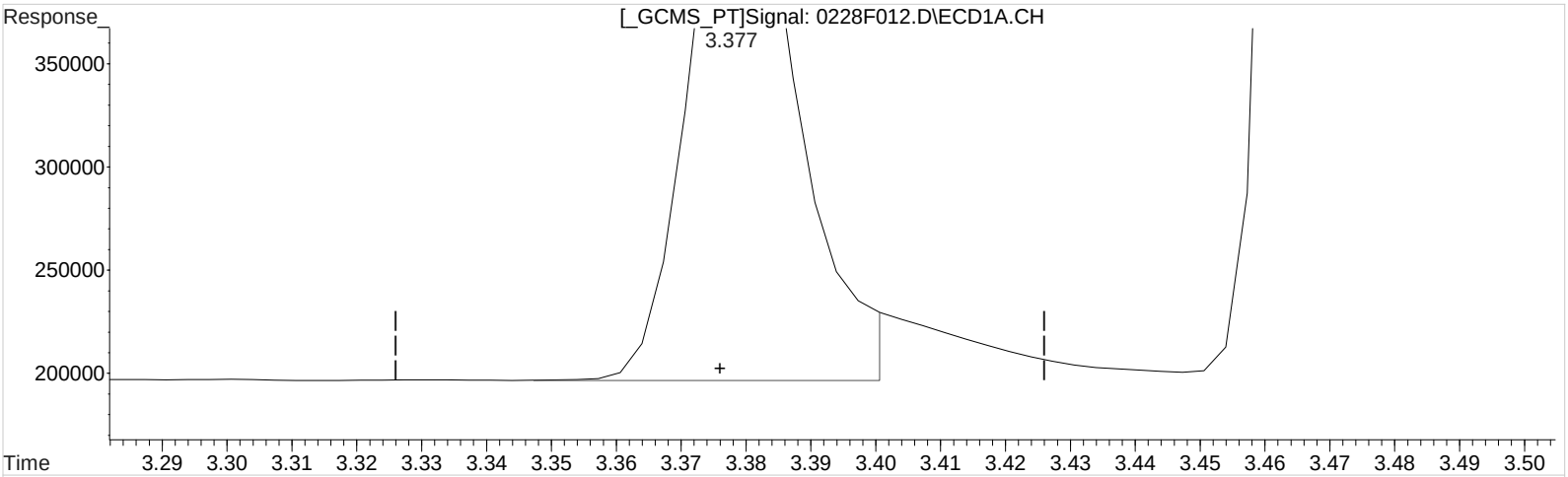
Quantitation Report (Qedit)

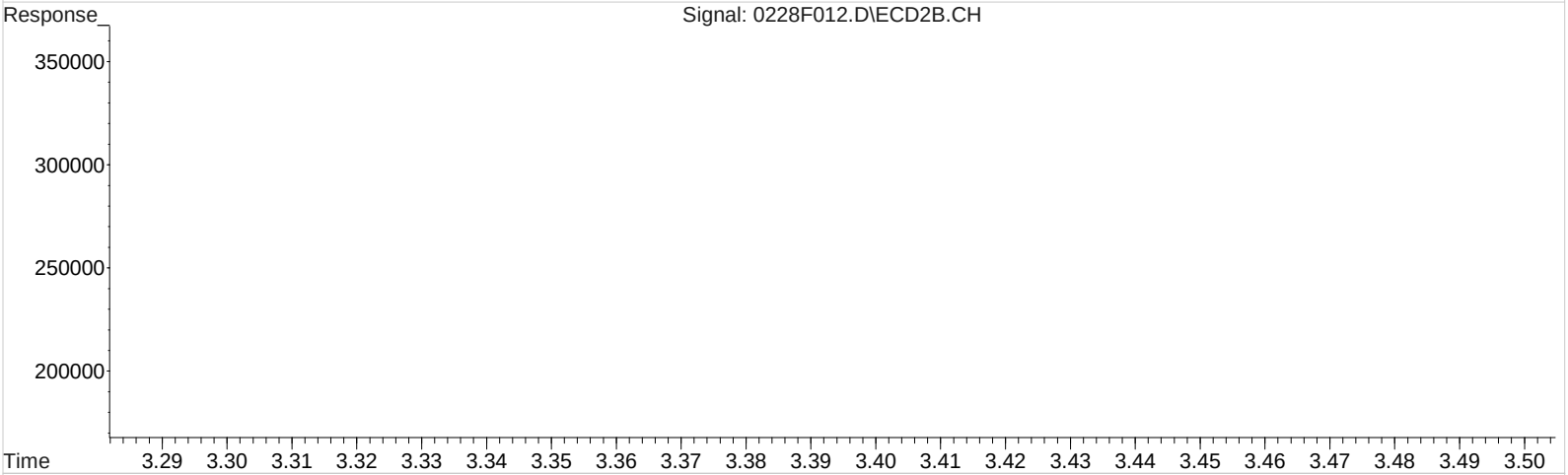
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:57:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min -1.000 ug/L m

response 3148268

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 308.529 ug/L

response 5084362

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:03:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.032	4.720	275.5E6	454.2E6	1004.956	1044.829
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D. d
9)	M	Pentachlo...	5.152	5.657	351.1E6	624.5E6	951.331	908.276
10)		Pentachlo...	5.152	5.657	351.1E6	624.5E6	1001.338	956.483

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

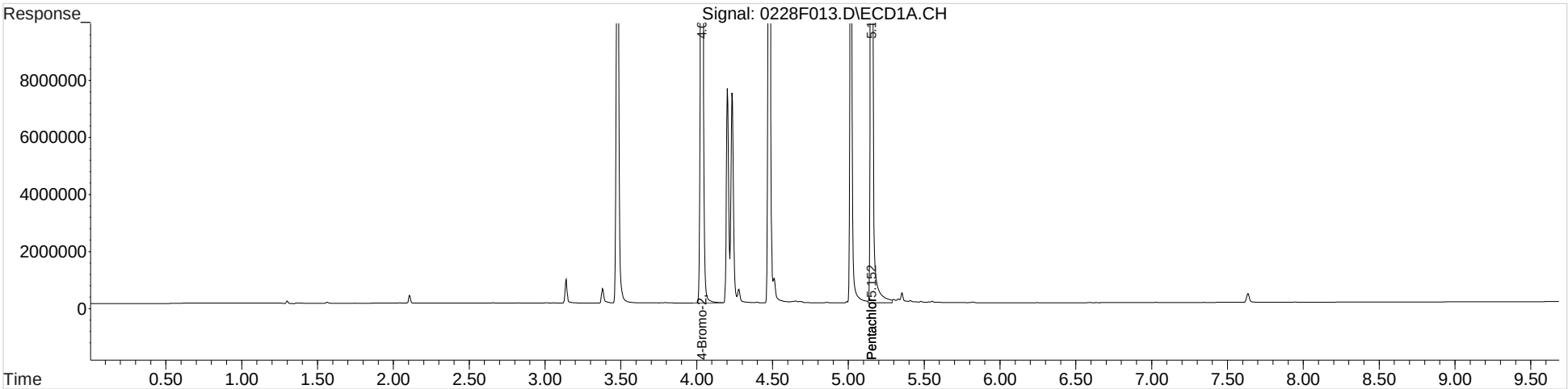
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:03:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



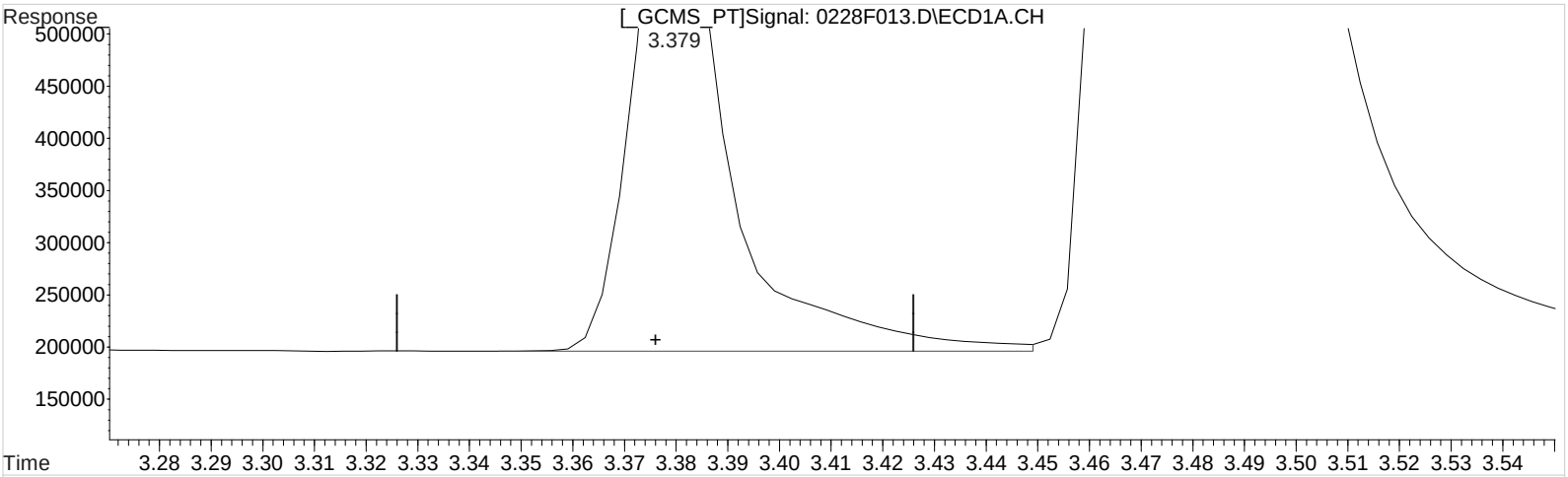
Quantitation Report (Qedit)

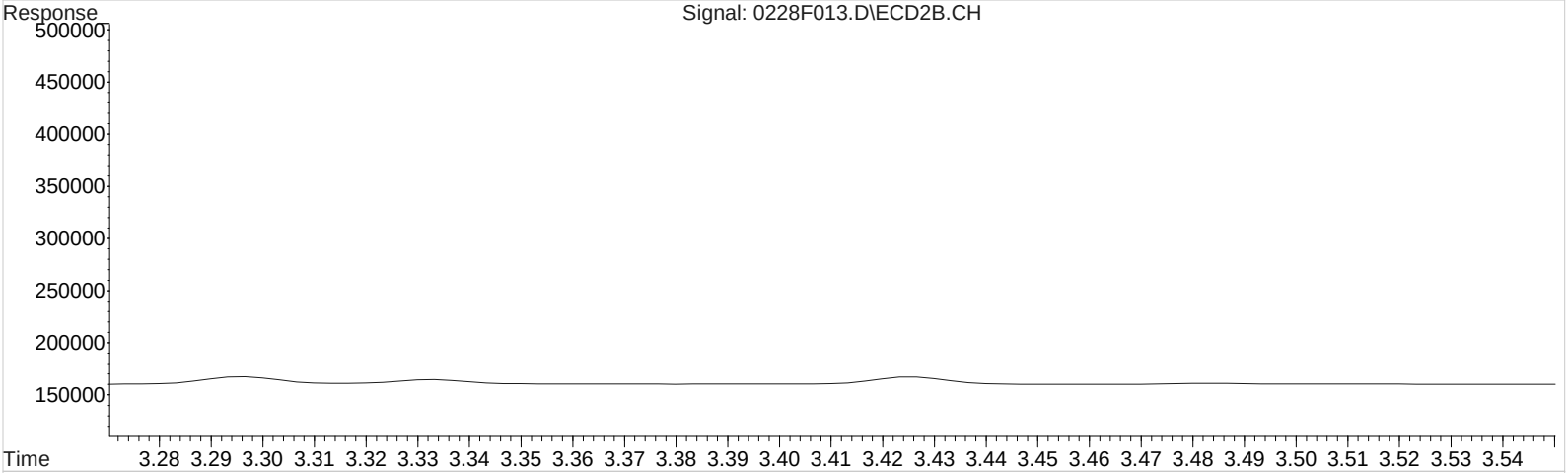
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min -1.000 ug/L

response 6094712

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 574.054 ug/L

response 9460033

(+) = Expected Retention Time

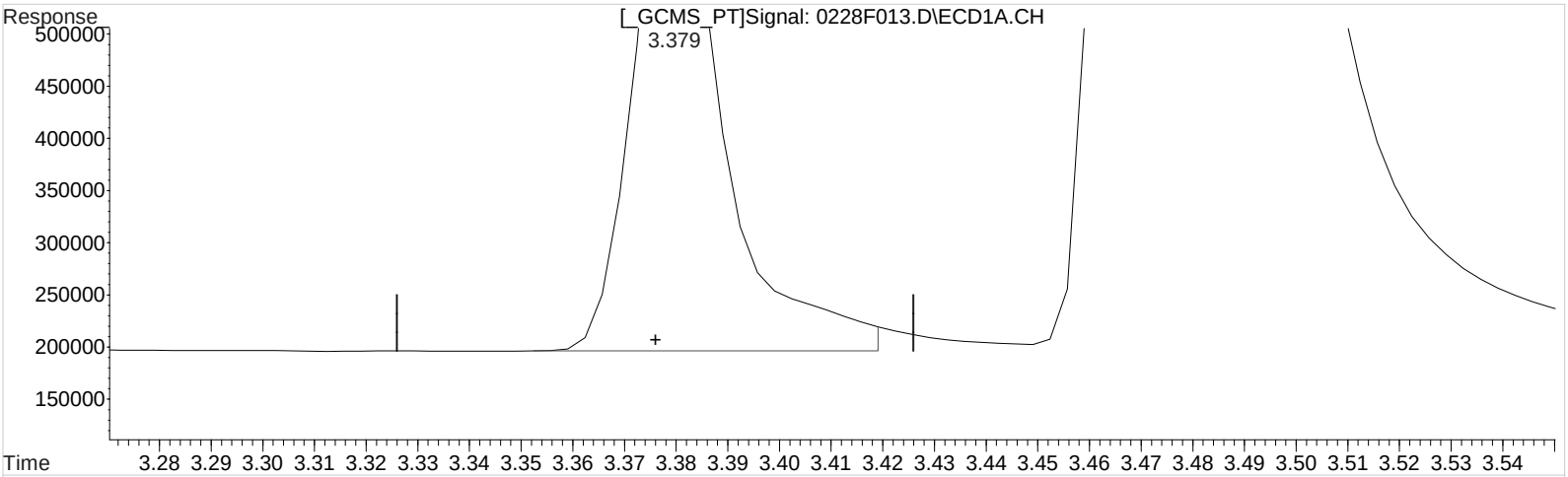
Quantitation Report (Qedit)

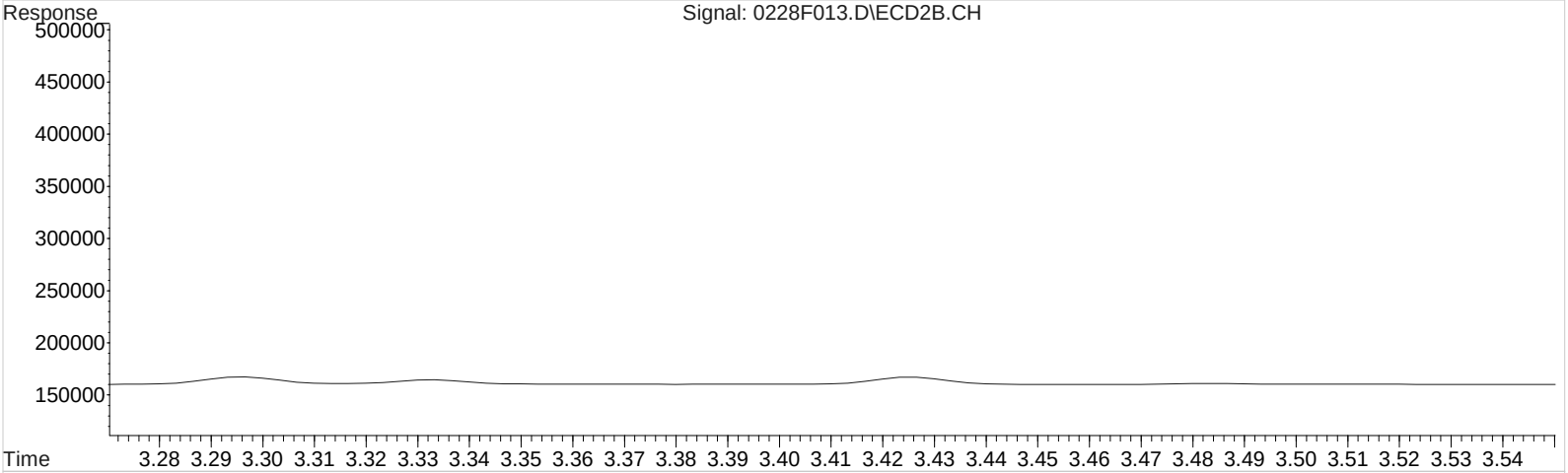
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min -1.000 ug/L m

response 5889814

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 574.054 ug/L

response 9460033

(+) = Expected Retention Time

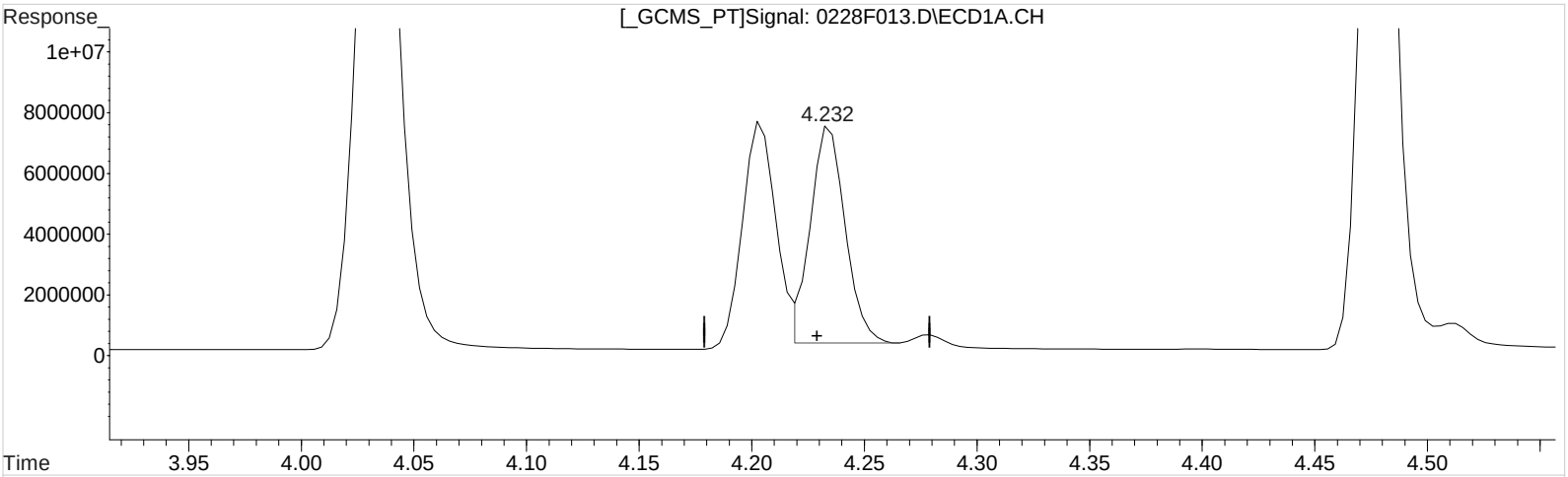
Quantitation Report (Qedit)

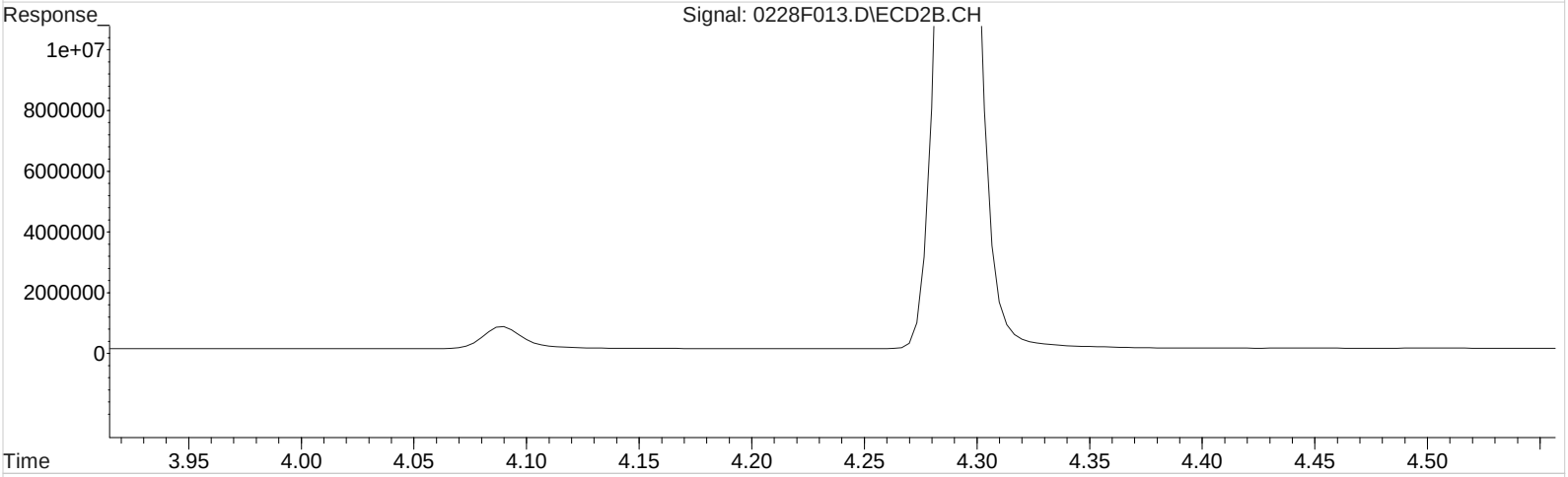
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min -1.000 ug/L

response 74934079

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 737.496 ug/L

response 138431346

(+) = Expected Retention Time

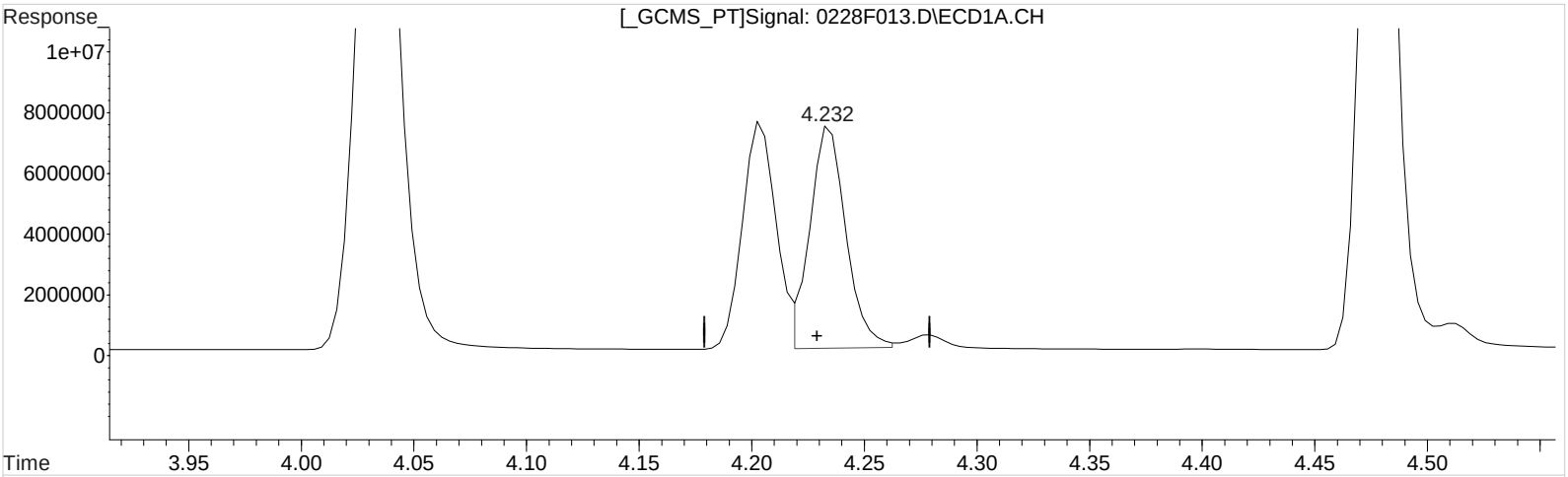
Quantitation Report (Qedit)

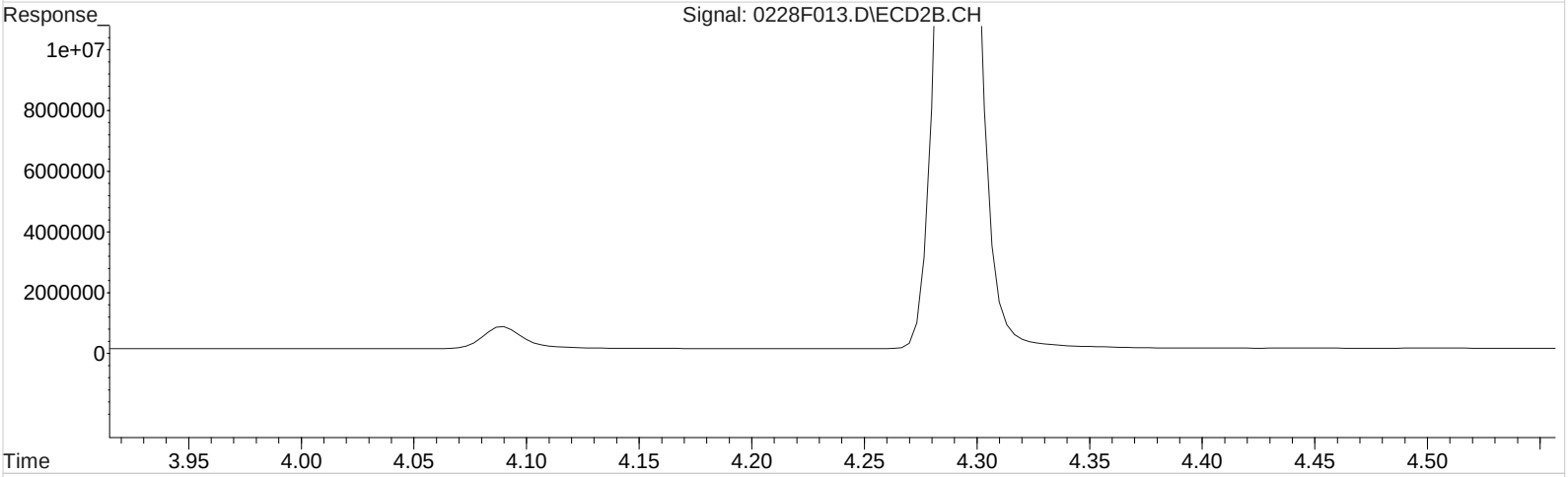
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min -1.000 ug/L m

response 79254186

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 737.496 ug/L

response 138431346

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:00:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.035	4.719	1168028	983474	2.544	2.262
		Target Compounds						
1)		3,4-Dichl...	3.138	3.832	45256	55247	2.218	2.501
2)		3,5-Dichl...	3.378	4.089	31638	44372	2.469m	2.693
3)		2,4,6-Tri...	3.478	4.289	951850	996024	2.425	2.388
5)		2,4,5-Tri...	4.205	4.785	468262	535226	2.569	2.678
6)		3,4,5-Tri...	4.235	4.849	464016	493606	2.630	2.630
7)	M	2,3,5,6-T...	4.478	5.079	1355696	1503718	2.848	2.436m
8)	M	2,3,4,5-T...	5.018	5.472	1121382	1115328	2.467m	2.701
9)	M	Pentachlo...	5.155	5.655	1532111	1786099	2.401	2.598m
10)		Pentachlo...	5.155	5.655	1532111	1782521	2.528	2.730m

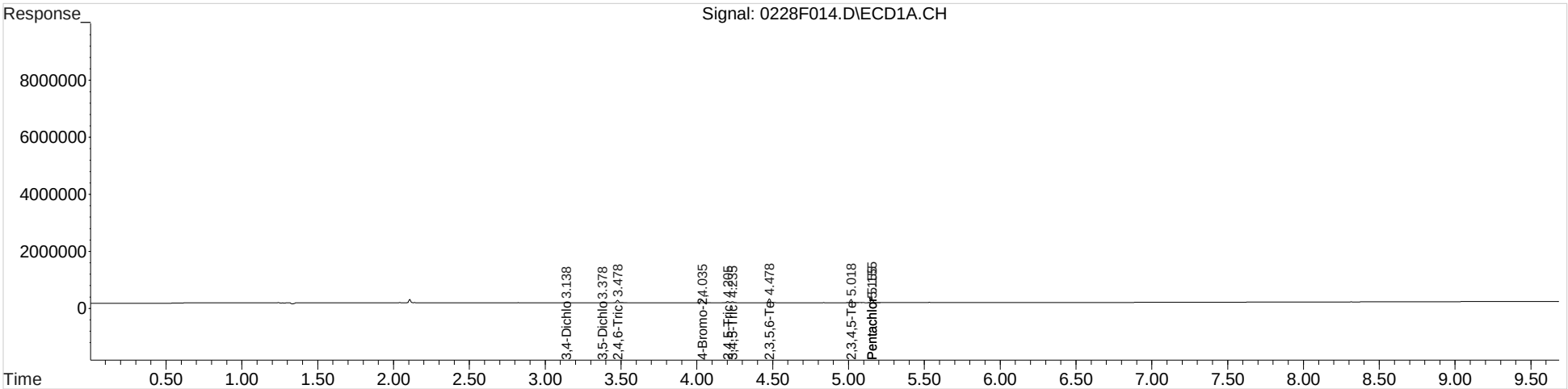
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:00:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



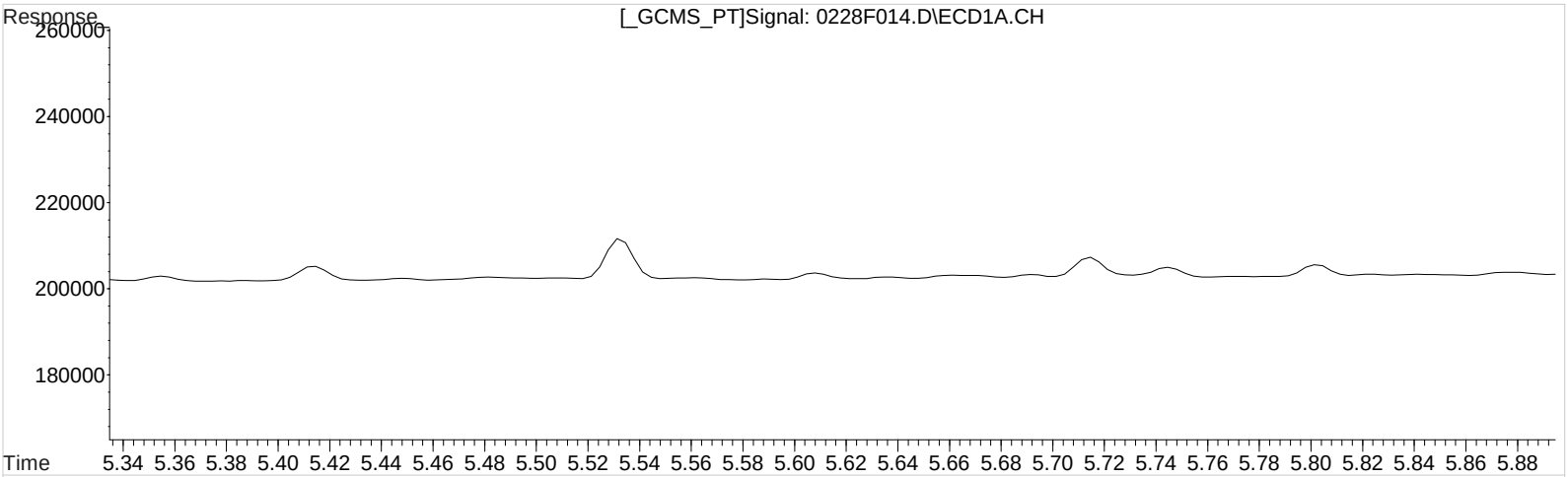
Quantitation Report (Qedit)

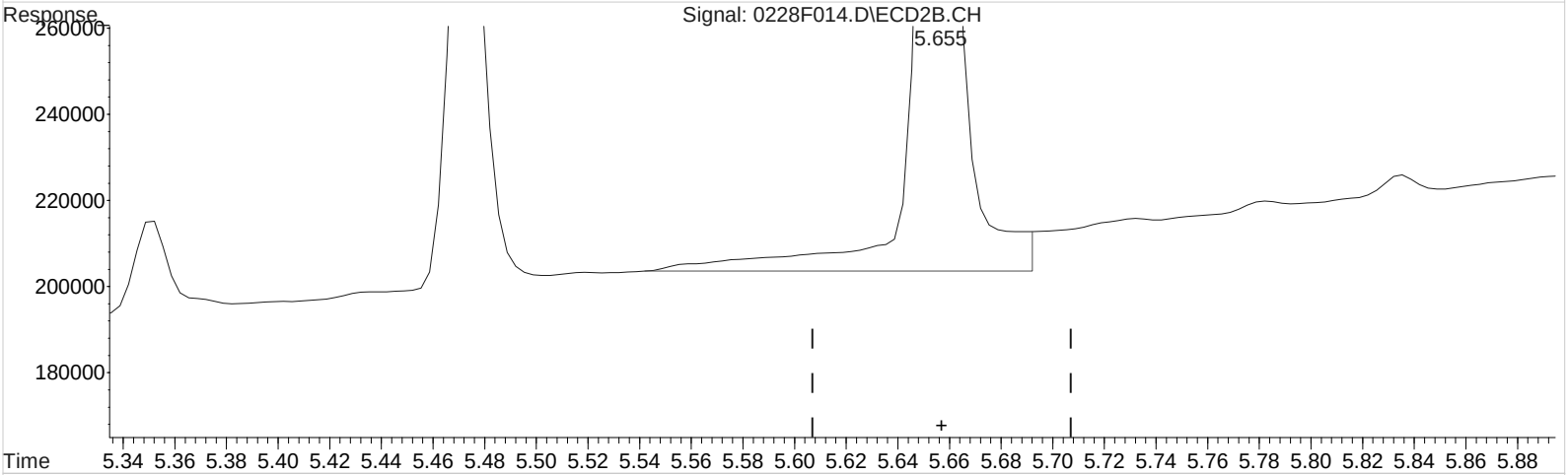
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.155min 2.528 ug/L

response 1532111

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.655min 3.364 ug/L

response 2196034

(+) = Expected Retention Time

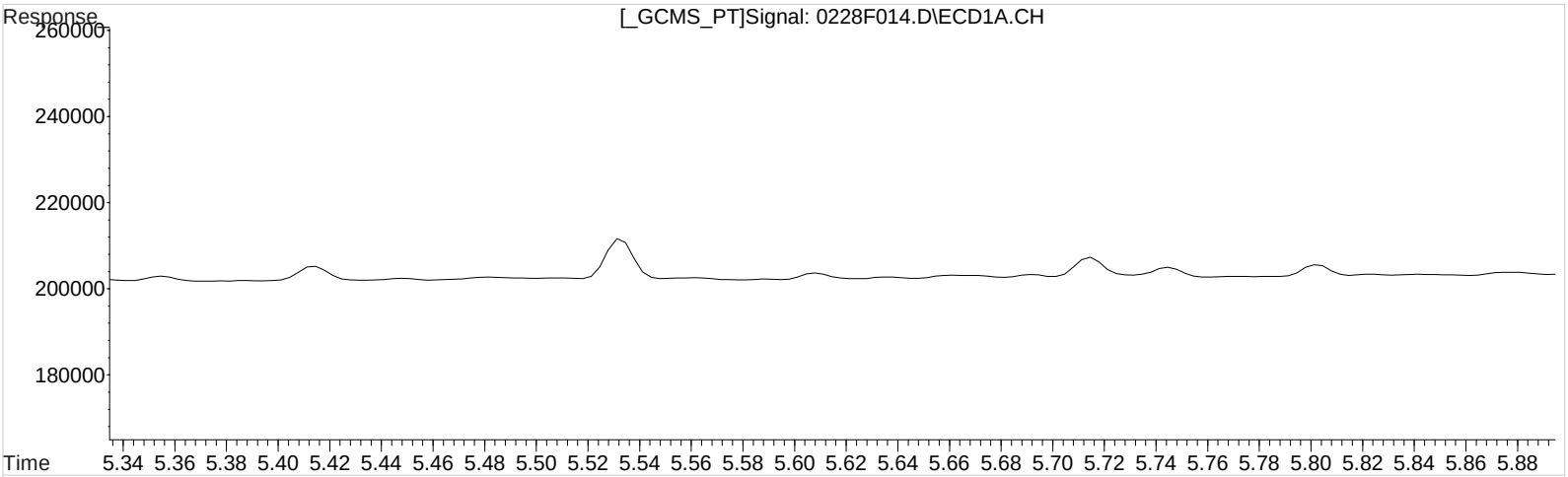
Quantitation Report (Qedit)

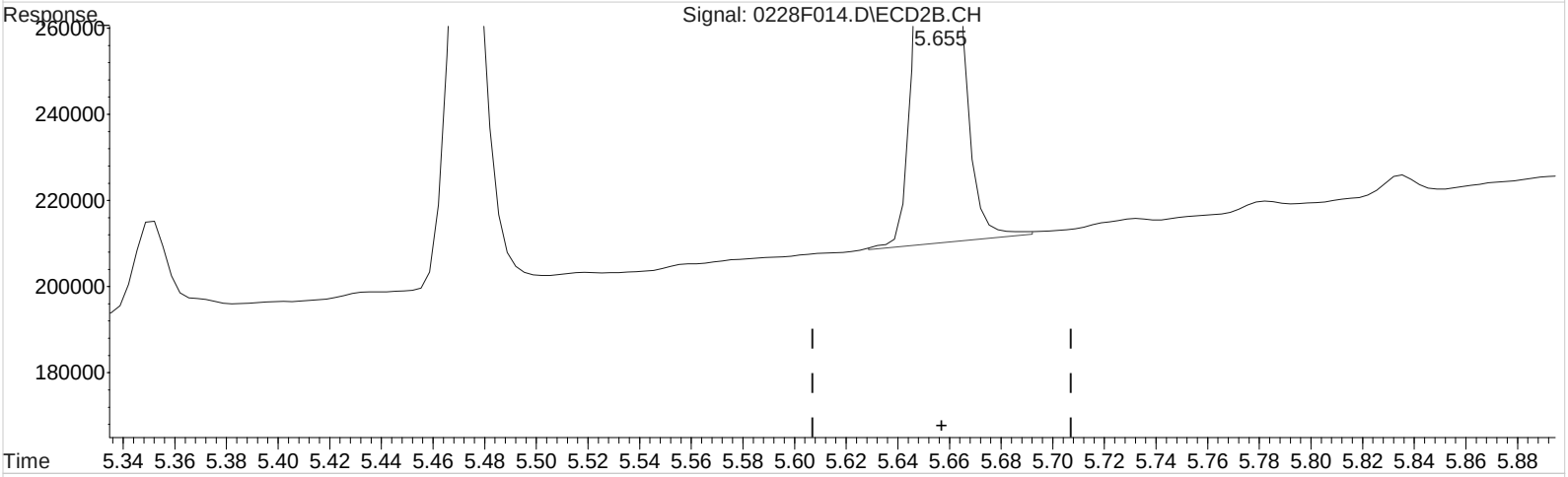
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.155min 2.528 ug/L

response 1532111

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.655min 2.730 ug/L m

response 1782521

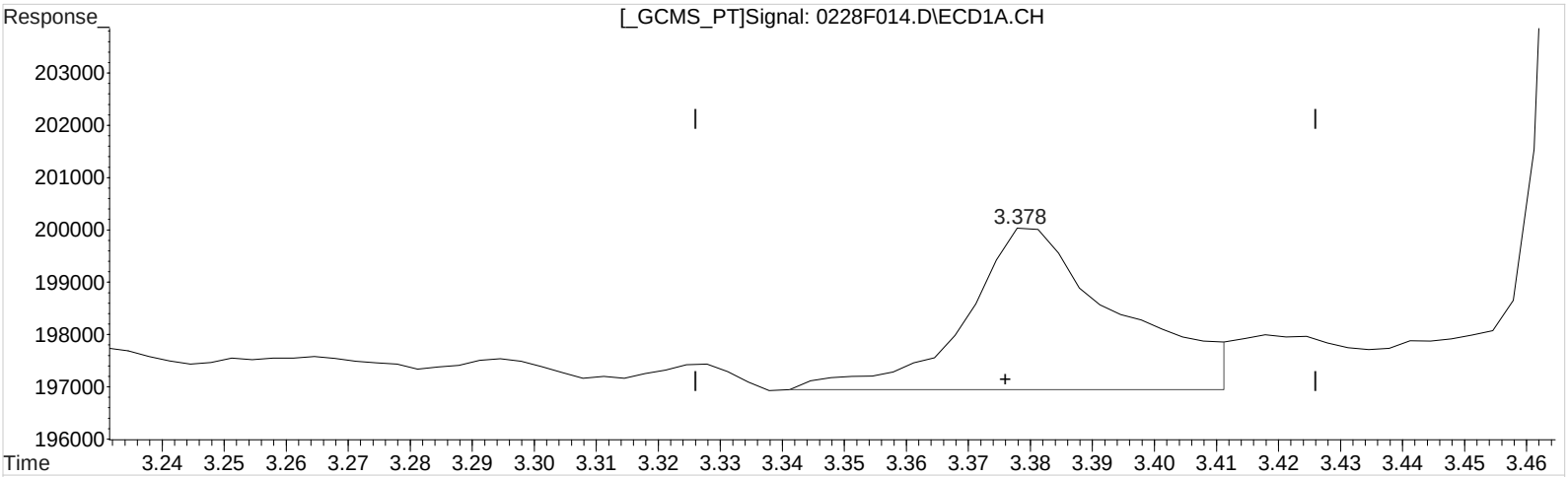
(+) = Expected Retention Time

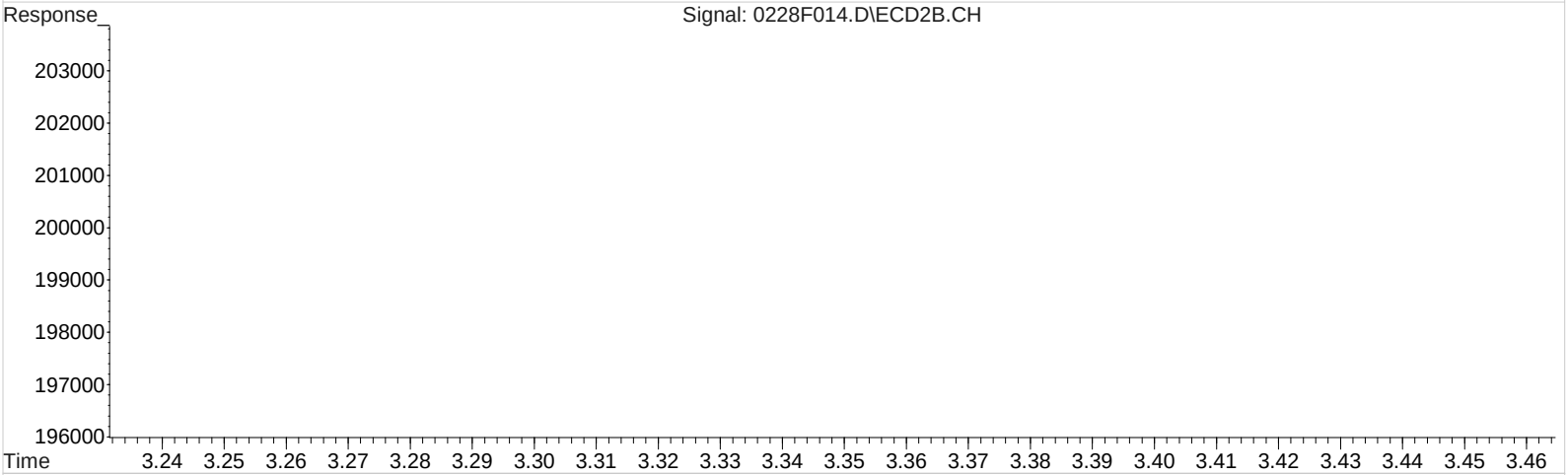
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 4.540 ug/L

response 53339

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 2.693 ug/L

response 44372

(+) = Expected Retention Time

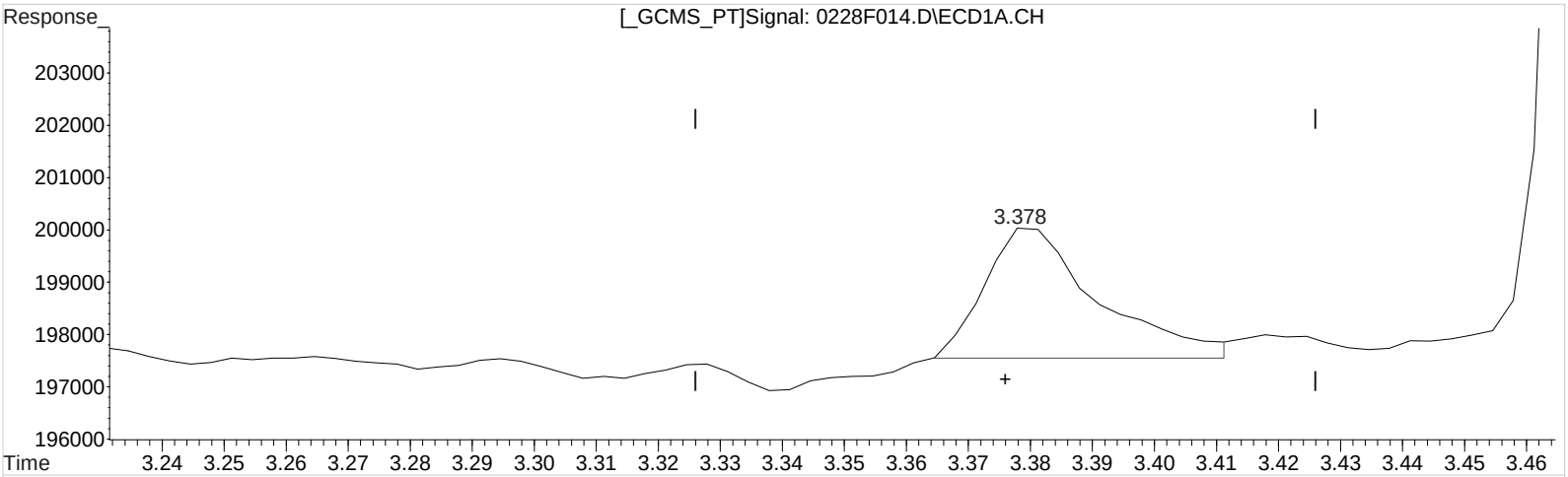
Quantitation Report (Qedit)

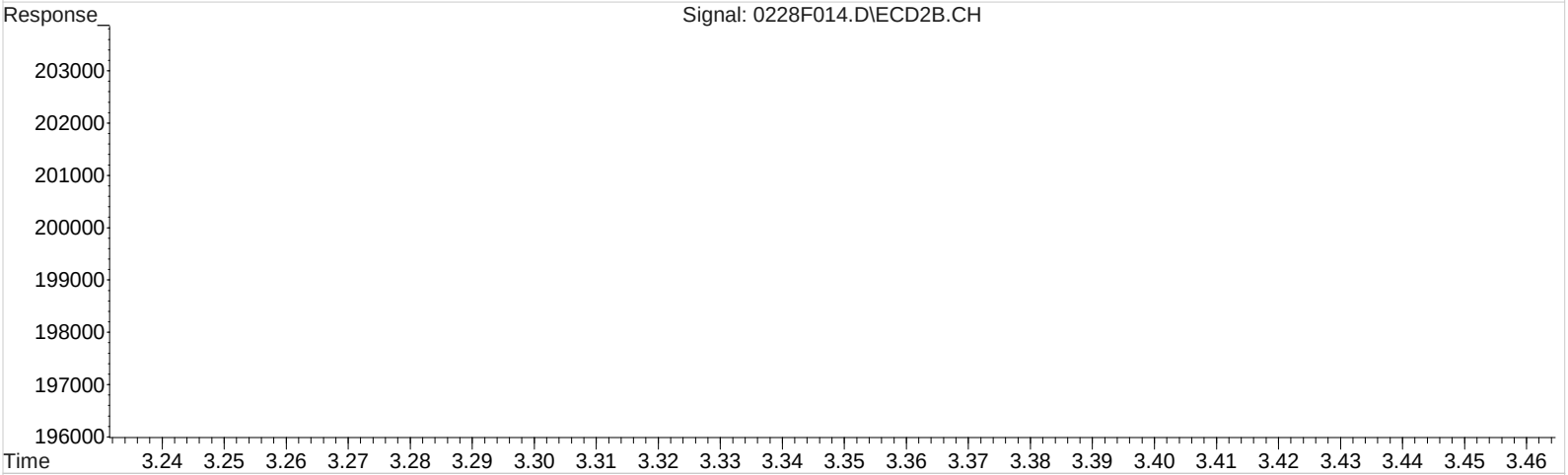
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 2.469 ug/L m

response 31638

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 2.693 ug/L

response 44372

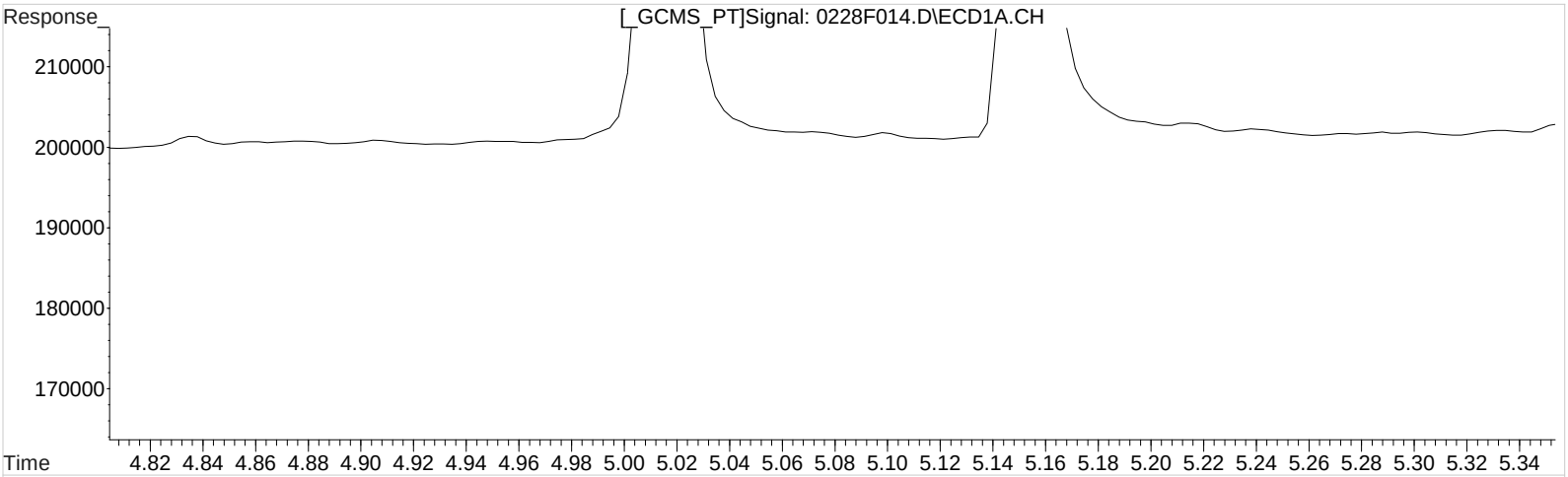
(+) = Expected Retention Time

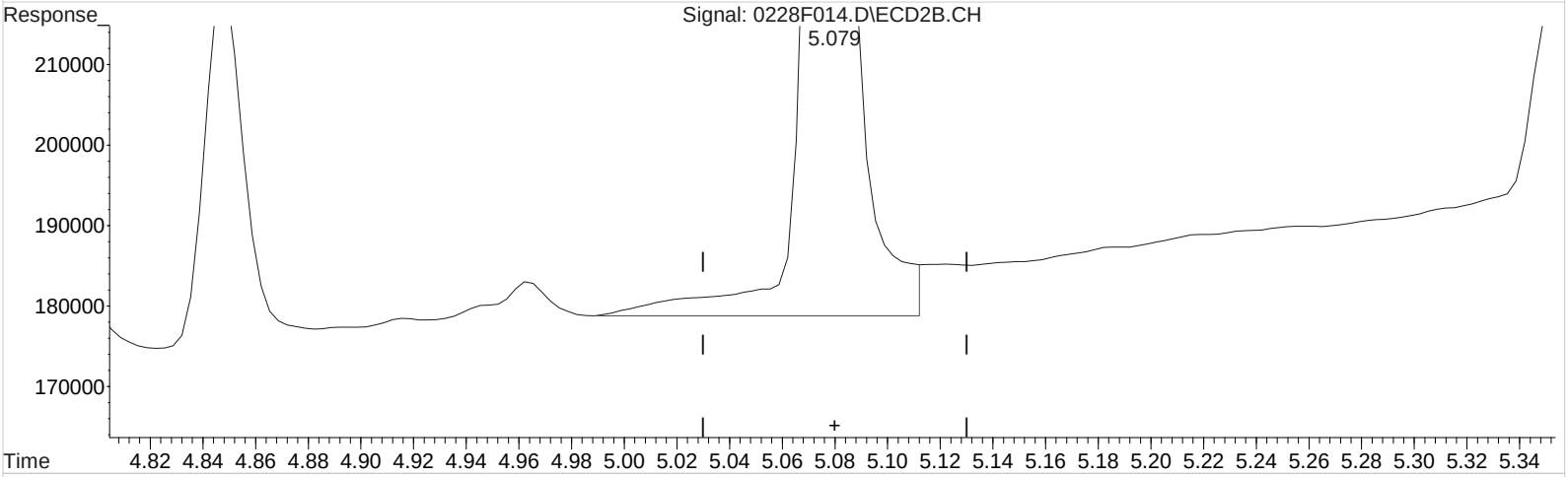
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 2.848 ug/L

response 1355696

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.079min 2.775 ug/L

response 1712944

(+) = Expected Retention Time

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
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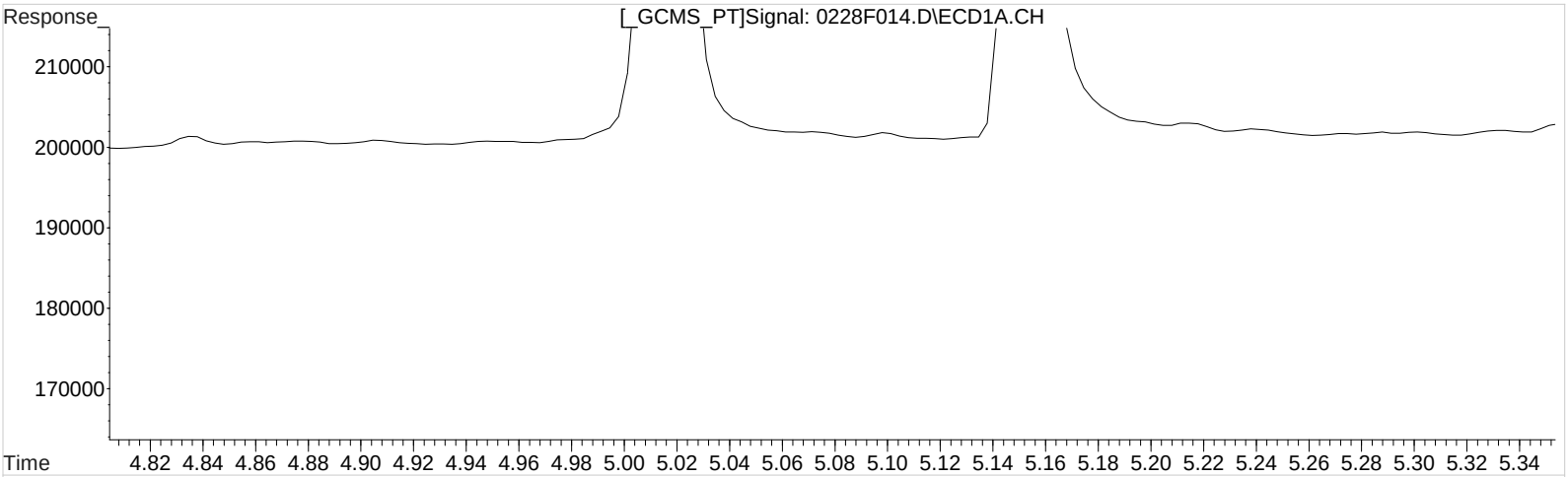
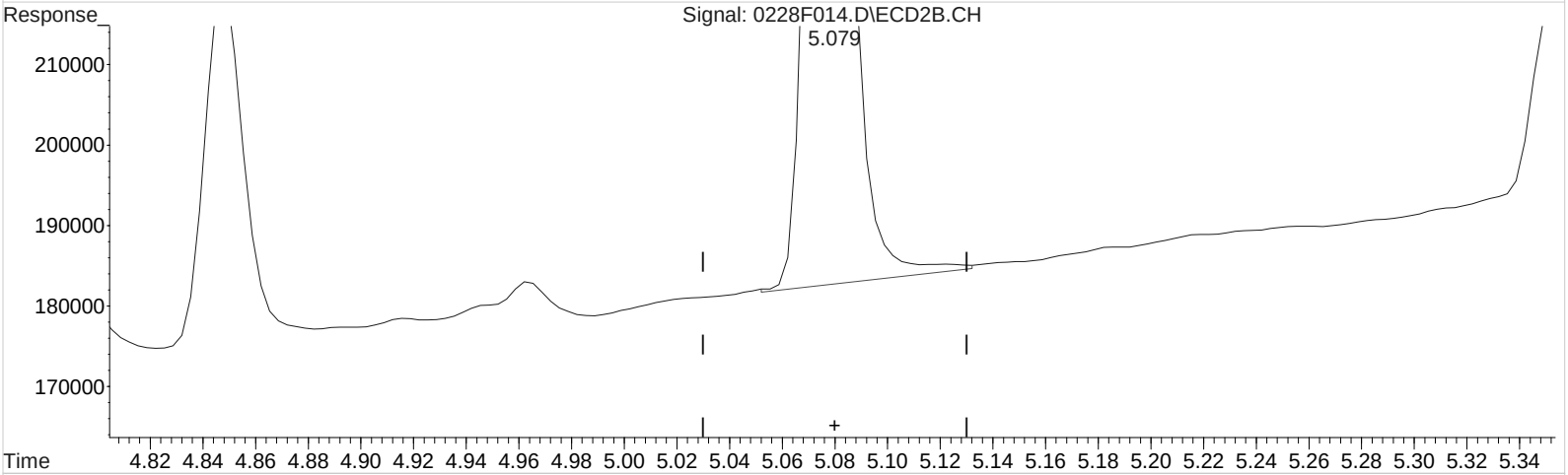
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 2.848 ug/L

response 1355696

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.079min 2.436 ug/L m

response 1503718

(+) = Expected Retention Time

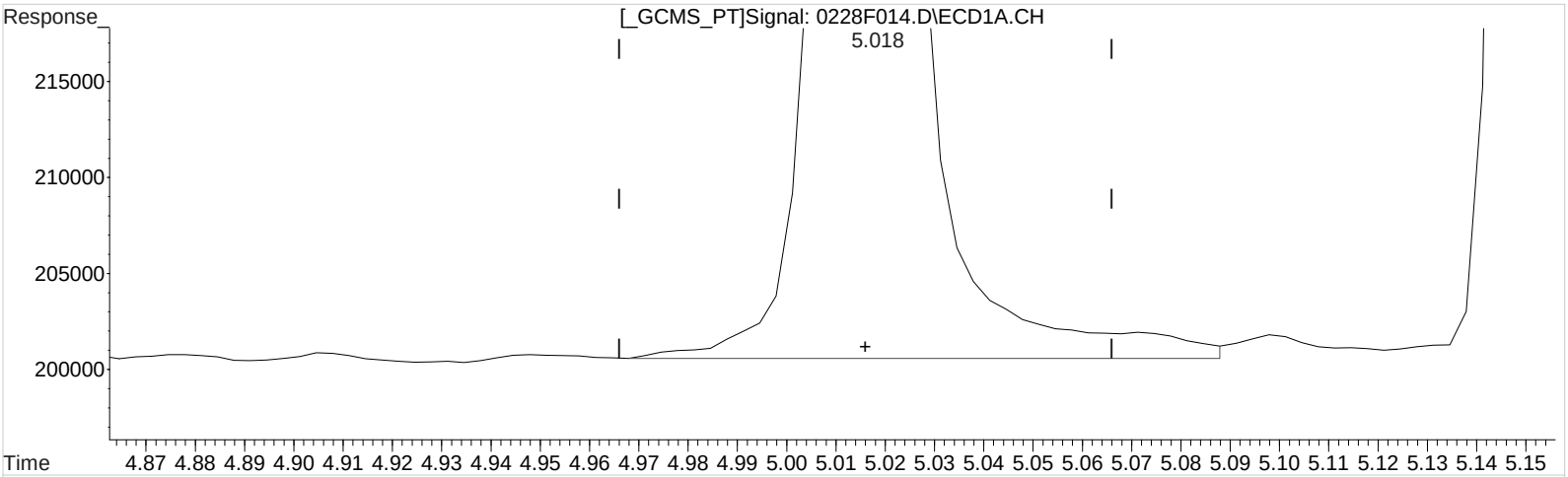
Quantitation Report (Qedit)

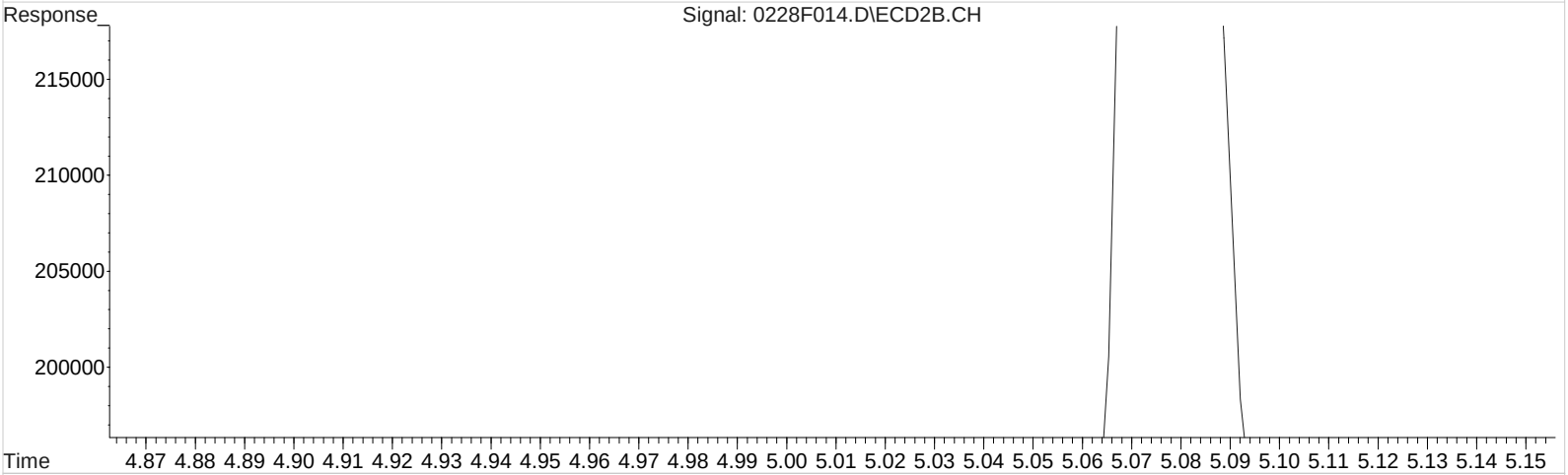
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.018min 2.609 ug/L

response 1164930

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.472min 2.701 ug/L

response 1115328

(+) = Expected Retention Time

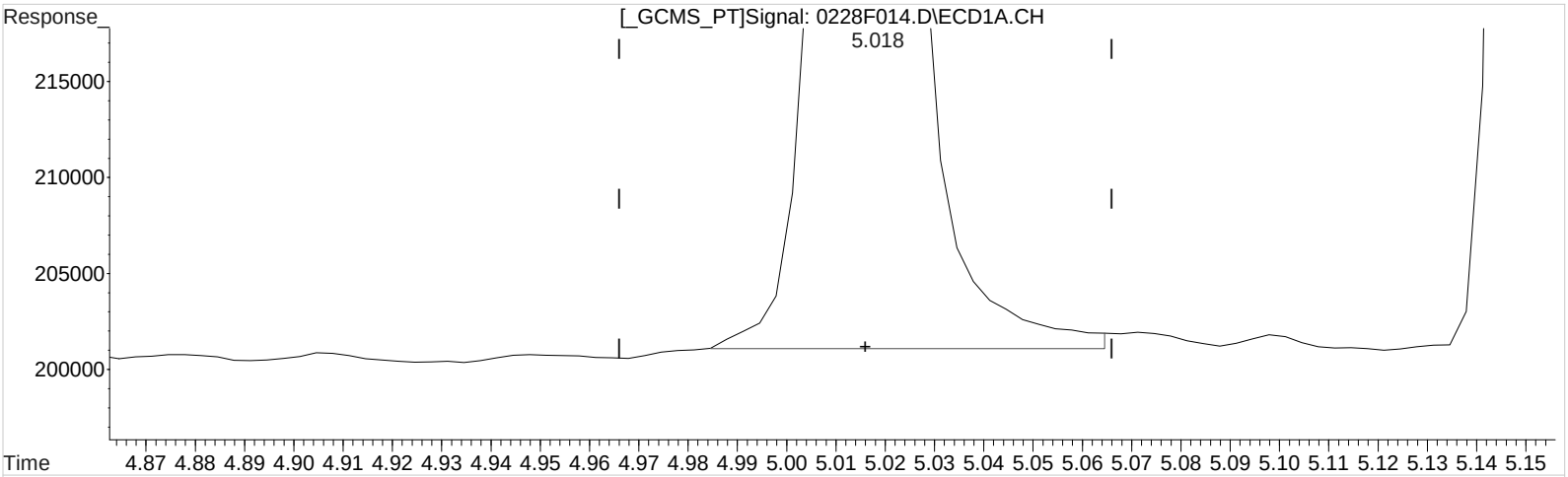
Quantitation Report (Qedit)

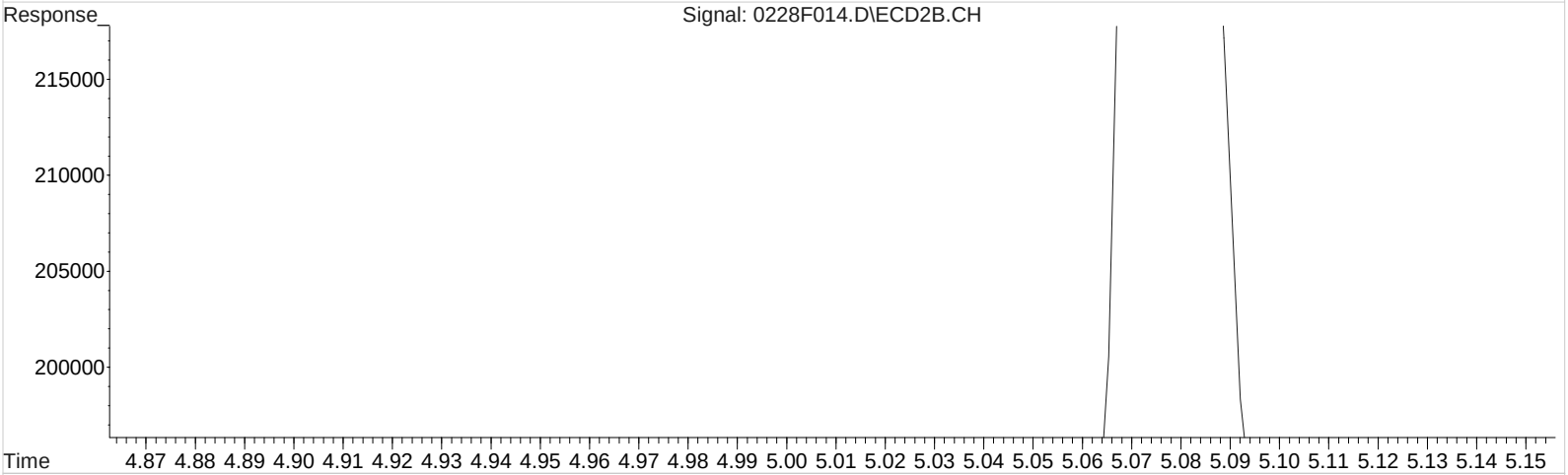
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.018min 2.467 ug/L m

response 1121382

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.472min 2.701 ug/L

response 1115328

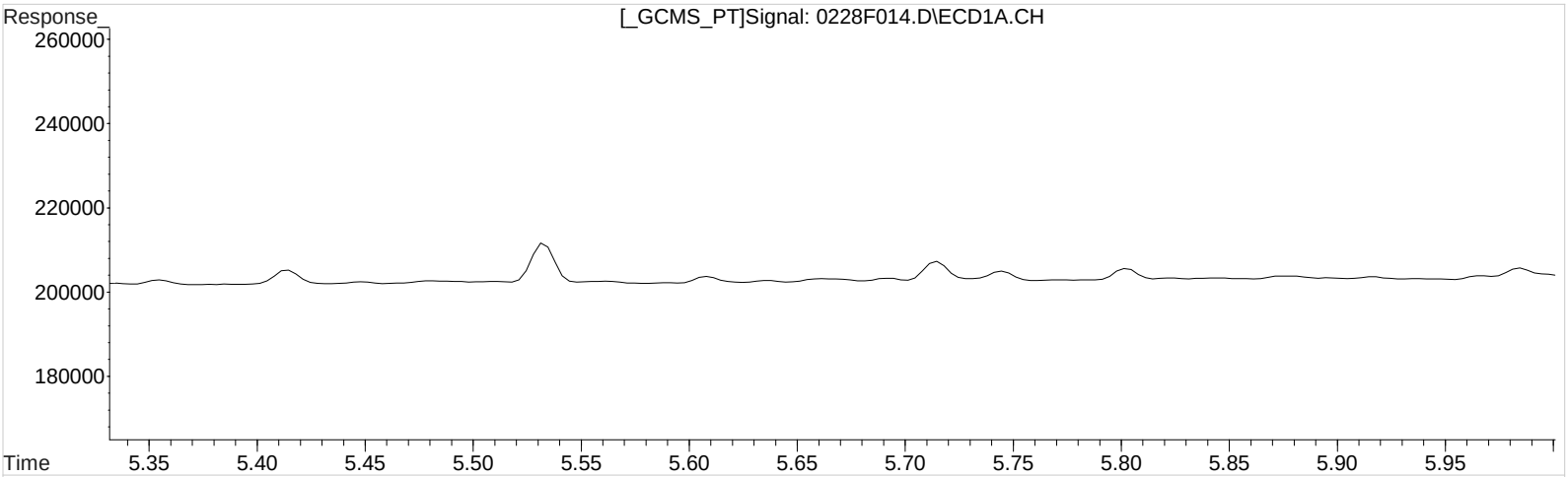
(+) = Expected Retention Time

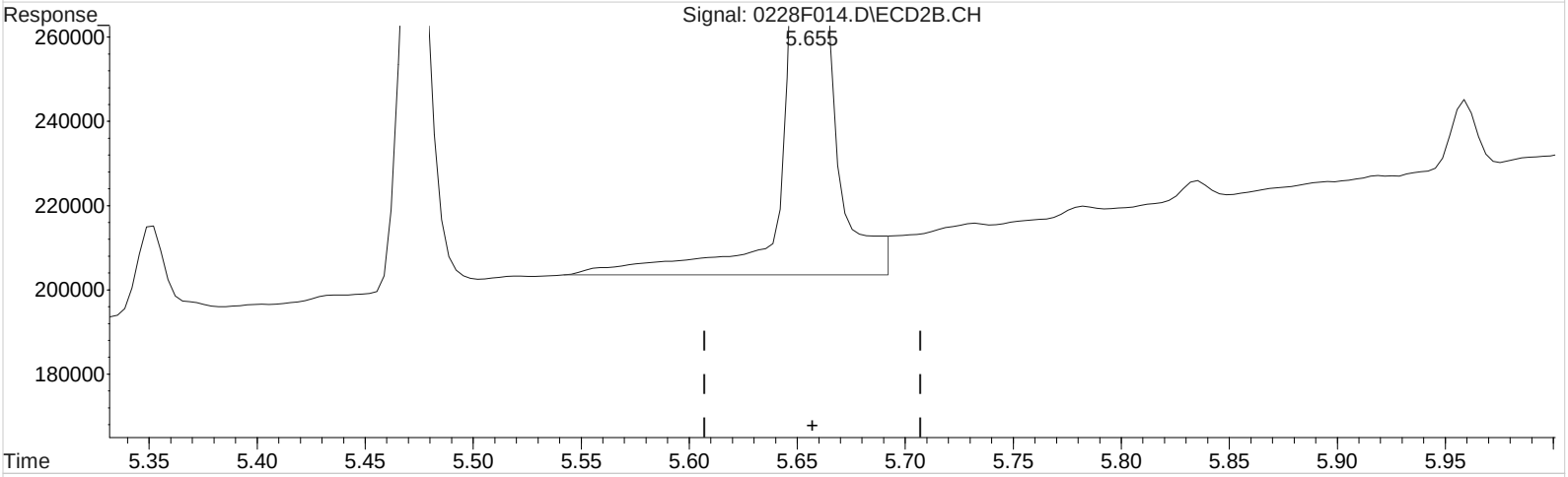
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.155min 2.401 ug/L

response 1532111

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.655min 3.194 ug/L

response 2196034

(+) = Expected Retention Time

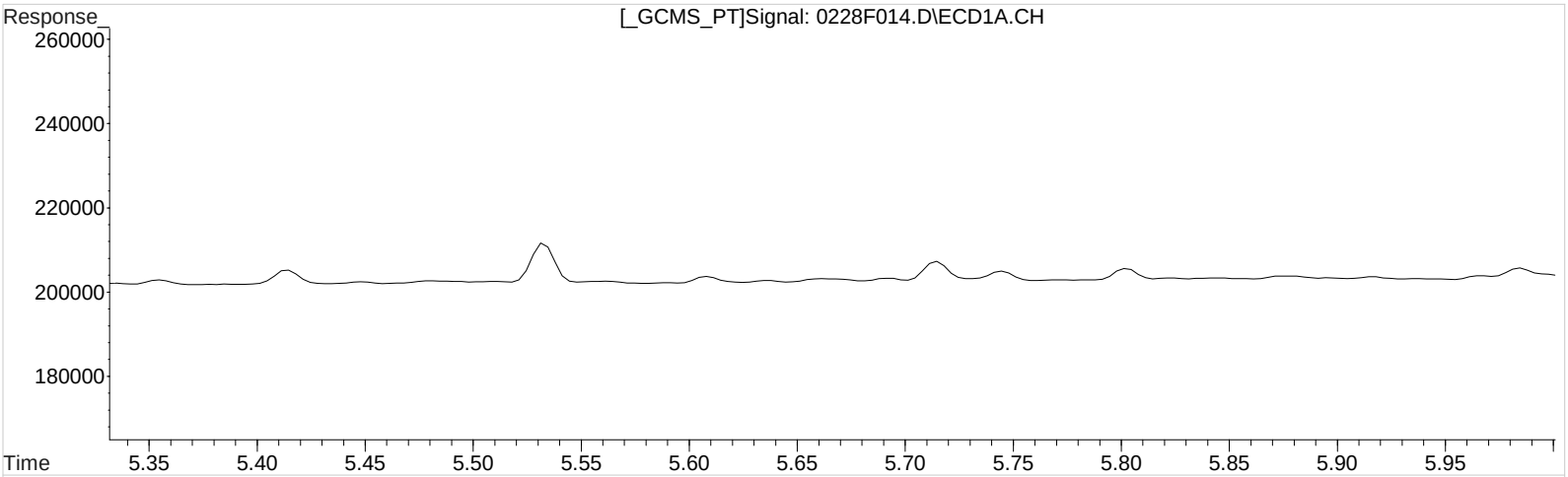
Quantitation Report (Qedit)

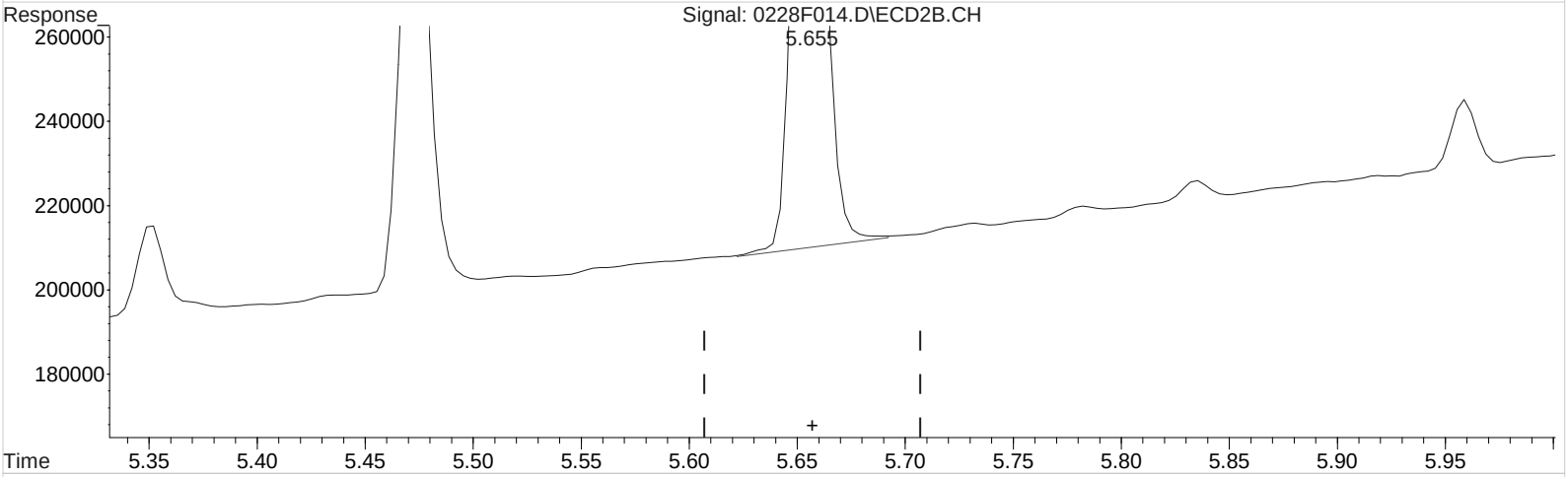
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.155min 2.401 ug/L

response 1532111

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.655min 2.598 ug/L m

response 1786099

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 12:00 pm Operator: MC
Sample : PENTA01-95D ICV Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:59:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	3.139	3.833	771944	1008155	50.405	46.475
2)		3,5-Dichl...	3.379	4.090	576261	745111	54.814	48.925
3)		2,4,6-Tri...	3.479	4.290	14461186	19074371	47.208	46.729
5)		2,4,5-Tri...	4.202	4.783	6741744	8923551	49.950	50.676
6)		3,4,5-Tri...	4.232	4.846	7001162	8168830	49.502	48.393
7)	M	2,3,5,6-T...	4.479	5.076	21719554	28913168	50.742	47.890
8)	M	2,3,4,5-T...	5.019	5.473	15112649	19440727	50.125	46.743
9)	M	Pentachlo...	5.152	5.656	25413518	33232162	55.308	48.834
10)		Pentachlo...	5.152	5.656	25413518	33232162	58.215	51.424

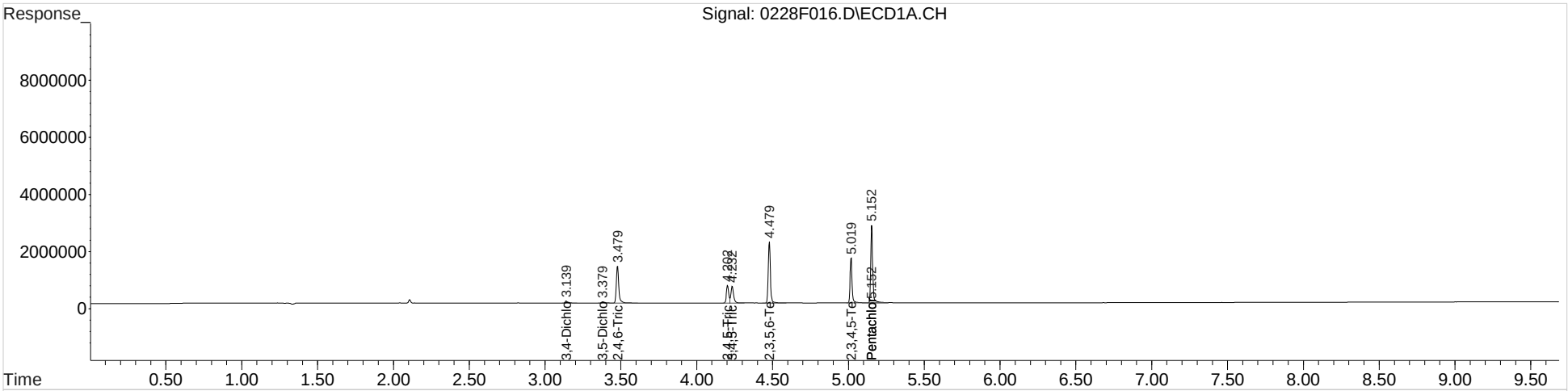
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 12:00 pm Operator: MC
Sample : PENTA01-95D ICV Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:59:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Sequence Name: C:\GC28\SEQUENCE\032119B.S
Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\032119B\
Pre-Seq Cmd:
Post-Seq Cmd:

Run 629161

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0321F001	PENTHOT2	PRIMER
2	IB	100	0321F002	PENTHOT2	PRIMER
3	CCV	1	0321F003	PENTHOT2	CCV 50PPB PENTA01-94L OK
4	IB	2	0321F004	PENTHOT2	IB
5	MB	3	0321F005	PENTHOT2	KQ1903604-04 MB
6	LCS	4	0321F006	PENTHOT2	KQ1903604-03 LCS
7	SMPL	5	0321F007	PENTHOT2	K1902351-021
8	SMPL	6	0321F008	PENTHOT2	K1902351-022
9	SMPL	7	0321F009	PENTHOT2	K1902351-023
10	SMPL	8	0321F010	PENTHOT2	K1902351-024
11	SMPL	9	0321F011	PENTHOT2	K1902351-025
12	SMPL	10	0321F012	PENTHOT2	K1902351-026
13	SMPL	11	0321F013	PENTHOT2	K1902351-027
14	SMPL	12	0321F014	PENTHOT2	K1902351-028
15	SMPL	13	0321F015	PENTHOT2	K1902351-029
16	SMPL	14	0321F016	PENTHOT2	K1902351-030
17	CCV	1	0321F017	PENTHOT2	CCV 50PPB PENTA01-94L OK
18	IB	2	0321F018	PENTHOT2	IB
19	SMPL	15	0321F019	PENTHOT2	K1902359-004 - See also 5x PCP
20	SMPL	16	0321F020	PENTHOT2	K1902361-001
21	SMPL	17	0321F021	PENTHOT2	K1902361-002
22	MS	18	0321F022	PENTHOT2	K1902361-002 MS
23	DMS	19	0321F023	PENTHOT2	K1902361-002 DMS
24	CCV	1	0321F024	PENTHOT2	CCV 50PPB PENTA01-94L OK
25	IB	2	0321F025	PENTHOT2	IB
26					

Last Modified: Thu Mar 21 16:18:39 2019

Sequence Name: C:\GC28\SEQUENCE\032219.S
Comment: Pentachlorophenol and Breakdown Products
Operator: SMS
Data Path: J:\GC28\DATA\032219\
Pre-Seq Cmd:
Post-Seq Cmd:

Run 629174

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0322F001	PENTHOT2	PRIMER
2	IB	100	0322F002	PENTHOT2	PRIMER
3	CCV	1	0322F003	PENTHOT2	CCV 50PPB PENTA01-94L
4	IB	2	0322F004	PENTHOT2	IB
5	MB	3	0322F005	PENTHOT2	K1902359-004 5X
6	CCV	1	0322F006	PENTHOT2	CCV 50PPB PENTA01-94L
7	IB	2	0322F007	PENTHOT2	IB

Last Modified: Fri Mar 22 08:35:55 2019

DILUTION LOG

LAB ID	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	DATE	ANALYST	SOLVENT LOT	COMMENTS
2359-4	200ul	1ml	5x	032219	[illegible]/S	180	PCP over range

ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T : +1 360 577 7222
F : +1 360 636 1068
www.alsglobal.com

March 28, 2019

Analytical Report for Service Request No: K1902361

Scott Thielke
JH Baxter & Company
85 N. Baxter Road
P.O. Box 10797
Eugene, OR 97440

RE: JH Baxter - Arlington

Dear Scott,

Enclosed are the results of the sample(s) submitted to our laboratory March 19, 2019
For your reference, these analyses have been assigned our service request number **K1902361.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3350. You may also contact me via email at Kelley.Lovejoy@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Kelley Lovejoy

Kelley Lovejoy
Project Manager

ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
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- Chlorinated Phenolics
- Semi-Volatile Organic Compounds byGC/MS

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1902361
Date Received: 03/19/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt:

Two water samples were received for analysis at ALS Environmental on 03/19/2019. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4ºC upon receipt at the laboratory.

Semivolatiles by GC/MS:

No significant anomalies were noted with this analysis.

Semivoa GC:

No significant anomalies were noted with this analysis.

Approved by Kelley Lovejoy Date 03/28/2019

Chain of Custody

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ALS Environmental

1317 South 13th, Kelso, WA 98626 (360) 577-7222 FAX (360) 636-1068

SR# K1902361

0H	7D	28D	180D	7D

PAGE _____ OF _____

Project Name: JH Baxter - Arlington Project Number: _____

Project Manager: _____ Company: JH Baxter

Company/Address: 85 N Baxter Rd Phone: 541-689-3801

City, State, Zip: Eugene, OR 97402 FAX: 541-689-0769

Sampler's Signature: _____

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	Analysis Requested: SM 4500-H+ B / Ph	8270 D / PAH SIM	120.1 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	SM 2540 C TDS	8151 A Modified/PCP only	REMARKS
BXS-1	3/14	1039		water	2		X											X	Site investigation
BXS-2	↓	1104		water	2		X											X	Site investigation
~~BXS-5~~				~~water~~	~~2~~		~~X~~											~~X~~ MH	Site investigation
~~BXS-4~~				~~water~~	~~4~~					~~X~~	~~X~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	MH	Landfill Program

TURNAROUND REQUIREMENTS

____ 24 hr ____ 48 hr ____ 5 day

X Standard (21 days)

____ Provide FAX Preliminary Results

Requested Report Date: _____

REPORT REQUIREMENTS

____ I. Routine Report: Results, Method Blank, Surrogate, as required

X II. Report Dup., MS, MSD as required

____ III. Data Validation Report (includes raw data)

____ IV. CLP Deliverable Report

____ V. EDD

Comments/Special Instructions:

~~Baxter is responsible for BXS-4 during Quarters 1 & 3~~

PAH samples have 2 - 500ml amber bottles

BXS 1&2 quarterly for PCP AND PAH'S

Randy Patt 8512

Questions? - Please Call ~~Steven Kuhlmeier~~ @ GSI Water Solutions 971-200-~~8529~~

Invoice Information

P.O. # _____

Bill to: JH Baxter & Co

San Mateo CA,94402

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Printed Name: MHanson	Printed Name: K Monroe	Printed Name:	Printed Name:
Firm: JH Baxter	Firm: ACS	Firm:	Firm:
Date/Time: 3/18/19 1600	Date/Time: 3/19/19 0930	Date/Time:	Date/Time:

PC KL

Cooler Receipt and Preservation Form

Client JH Baxter Service Request *K19* 02361

Received: 3/19/19 Opened: 3/19/19 By: KM Unloaded: 3/19/19 By: KL

1. Samples were received via? *USPS* (*Fed Ex*) *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y (N) If yes, how many and where? _____
   If present, were custody seals intact? Y (N) If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
-0.1	-0.1	3.3	3.3	0	362		4808 3227 5856	
-0.1	0.0	3.9	4.0	+0.1	381		4808 3227 5845	

4. Packing material: *Inserts* (*Baggies*) (*Bubble Wrap*) *Gel Packs* (*Wet Ice*) *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA (Y) N
   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* (NA) Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
12. Was C12/Res negative? NA (Y) N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions:

Need 3 bottles per sample, not 2

Chlorinated Phenolics

ALS Environmental—Kelso Laboratory
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Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 10:30
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	BXS-1	**Units:**	ug/L
Lab Code:	K1902361-001	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**56**	0.50	0.071	1	03/21/19 22:08	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	93	55 - 130	03/21/19 22:08	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 11:14
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	BXS-2	**Units:**	ug/L
Lab Code:	K1902361-002	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/21/19 22:26	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	92	55 - 130	03/21/19 22:26	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KQ1903604-04	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	03/21/19 17:34	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	86	55 - 130	03/21/19 17:34	

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902361
Date Collected: 03/16/19 10:30
Date Received: 3/19/19

Sample Name: BXS-1
Lab Code: K1902361-001

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	56	61	9		1	03/21/19 22:08

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902361
Date Collected: 03/16/19 11:14
Date Received: 3/19/19

Sample Name: BXS-2
Lab Code: KQ1903604-01

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	8.44	9.82	15		1	03/21/19 22:44

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902361
Date Collected: 03/16/19 11:14
Date Received: 3/19/19

Sample Name: BXS-2
Lab Code: KQ1903604-02

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	7.83	9.19	16		1	03/21/19 23:03

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
SRM Matrix: Water

Service Request: K1902361
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: KQ1903604-03

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	8.16	9.60	16		1	03/21/19 17:52

Client: JH Baxter & Company **Service Request:** K1902361
Project: JH Baxter - Arlington
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Chlorinated Phenolics

Analysis Method: 8151A Modified
Extraction Method: Method

Sample Name	Lab Code	4-Bromo-2,6-dichlorophenol 55-130
BXS-1	K1902361-001	93
BXS-2	K1902361-002	92
Method Blank	KQ1903604-04	86
Lab Control Sample	KQ1903604-03	91
BXS-2	KQ1903604-01	95
BXS-2	KQ1903604-02	94

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19
Sample Matrix:	Water	**Date Received:**	03/19/19
		Date Analyzed:	03/21/19
		Date Extracted:	03/20/19

Duplicate Matrix Spike Summary
Chlorinated Phenolics

Sample Name:	BXS-2	**Units:**	ug/L
Lab Code:	K1902361-002	**Basis:**	NA
Analysis Method:	8151A Modified		
Prep Method:	Method		

		Matrix Spike KQ1903604-01			**Duplicate Matrix Spike** KQ1903604-02					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Pentachlorophenol (PCP)	ND U	8.44	10.0	84	7.83	10.0	78	22-136	7	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Lab Control Sample Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Units:**	ug/L
Prep Method:	Method	**Basis:**	NA
		Analysis Lot:	629161

Lab Control Sample
KQ1903604-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Pentachlorophenol (PCP)	8.16	10.0	82	42-110

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 17:34
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Method Blank Summary
Chlorinated Phenolics

Sample Name:	Method Blank	**Instrument ID:**	K-GC-28
Lab Code:	KQ1903604-04	**File ID:**	J:\GC28\Data\032119B\0321F005.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	629161
Prep Method:	Method	**Extraction Lot:**	333306

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1903604-03	J:\GC28\Data\032119B\0321F006.D\	03/21/19 17:52
BXS-1	K1902361-001	J:\GC28\Data\032119B\0321F020.D\	03/21/19 22:08
BXS-2	K1902361-002	J:\GC28\Data\032119B\0321F021.D\	03/21/19 22:26
BXS-2MS	KQ1903604-01	J:\GC28\Data\032119B\0321F022.D\	03/21/19 22:44
BXS-2DMS	KQ1903604-02	J:\GC28\Data\032119B\0321F023.D\	03/21/19 23:03

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 17:52
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Lab Control Sample Summary
Chlorinated Phenolics

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-28
Lab Code:	KQ1903604-03	**File ID:**	J:\GC28\Data\032119B\0321F006.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	629161
Prep Method:	Method	**Extraction Lot:**	333306

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1903604-04	J:\GC28\Data\032119B\0321F005.D\	03/21/19 17:34
BXS-1	K1902361-001	J:\GC28\Data\032119B\0321F020.D\	03/21/19 22:08
BXS-2	K1902361-002	J:\GC28\Data\032119B\0321F021.D\	03/21/19 22:26
BXS-2MS	KQ1903604-01	J:\GC28\Data\032119B\0321F022.D\	03/21/19 22:44
BXS-2DMS	KQ1903604-02	J:\GC28\Data\032119B\0321F023.D\	03/21/19 23:03

Client: JH Baxter & Company **Service Request:** K1902361
Project: JH Baxter - Arlington **Calibration Date:** 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-1701
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Analyte

4-Bromo-2,6-dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	10	2.500	4.672E5	02	5.000	4.356E5	03	10.000	4.141E5
04	25.000	3.754E5	05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5
08	500.000	2.979E5	09	1000.000	2.755E5						

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	10	2.375	6.451E5	02	4.750	5.978E5	03	9.501	5.654E5
04	23.752	5.208E5	05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5
08	475.030	3.936E5	09	950.060	3.695E5						

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902361
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-1701

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
4-Bromo-2,6-dichlorophenol	SURR	Quadratic	COD	0.9994	≥0.99	3.824E5	
Pentachlorophenol (PCP)	TRG	Quadratic	COD	0.9990	≥0.99	5.2E5	

Client: JH Baxter & Company **Service Request:** K1902361
Project: JH Baxter - Arlington **Calibration Date:** 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-35
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Analyte

4-Bromo-2,6-dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	10	2.500	3.934E5	02	5.000	3.777E5	03	10.000	4.048E5
04	25.000	4.138E5	05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5
08	500.000	4.395E5	09	1000.000	4.542E5						

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	10	2.375	7.52E5	02	4.750	6.912E5	03	9.501	6.875E5
04	23.752	6.474E5	05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5
08	475.030	6.37E5	09	950.060	6.573E5						

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1902361
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-35

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
4-Bromo-2,6-dichlorophenol	SURR	Average RF	% RSD	6.0	≤20	4.216E5	
Pentachlorophenol (PCP)	TRG	Average RF	% RSD	9.6	≤20	6.805E5	

Client: JH Baxter & Company **Service Request:** K1902361
Project: JH Baxter - Arlington **Calibration Date:** 2/28/2019

Initial Calibration Verification Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-1701
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900082-11	PENTA01-95D ICV	J:\GC28\Data\022819CAL\0228F016.D	02/28/2019 12:00

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	55.3	5.2E5	5.35E5	16.43	±20	Quadratic

Client: JH Baxter & Company **Service Request:** K1902361
Project: JH Baxter - Arlington **Calibration Date:** 2/28/2019

Initial Calibration Verification Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-35
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900082-11	PENTA01-95D ICV	J:\GC28\Data\022819CAL\0228F016.D	02/28/2019 12:00

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	48.8	6.805E5	6.996E5	2.80	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 16:57

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032119B\0321F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	629161
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	41.7	6.805E5	5.975E5	-12.2	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	47.5	4.216E5	4.001E5	-5.1	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 16:57

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032119B\0321F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	629161
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	47.3	5.2E5	4.599E5	NA	-0.4	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	51.1	3.824E5	3.527E5	NA	2.2	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 21:13

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032119B\0321F017.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	629161
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	41.4	6.805E5	5.935E5	-12.8	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	47.8	4.216E5	4.032E5	-4.4	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 21:13

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032119B\0321F017.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	629161
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	48.4	5.2E5	4.696E5	NA	1.8	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	53.0	3.824E5	3.656E5	NA	6.0	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 23:21

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032119B\0321F024.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	629161
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	41.2	6.805E5	5.908E5	-13.2	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	47.1	4.216E5	3.968E5	-5.9	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/21/19 23:21

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\032119B\0321F024.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	629161
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	49.5	5.2E5	4.803E5	NA	4.2	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	53.5	3.824E5	3.692E5	NA	7.1	±20	Quadratic

Client: JH Baxter & Company **Service Request:**K1902361
Project: JH Baxter - Arlington

Analysis Run Log
Chlorinated Phenolics

Analysis Method: 8151A Modified **Analysis Lot:**629161
Instrument ID:K-GC-28

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\GC28\Data\032119B\0321F003.D\	Continuing Calibration Verification	KQ1903733-01	3/21/2019	16:57:00	
J:\GC28\Data\032119B\0321F004.D\	Continuing Calibration Blank	KQ1903733-04	3/21/2019	17:15:00	
J:\GC28\Data\032119B\0321F005.D\	Method Blank	KQ1903604-04	3/21/2019	17:34:00	
J:\GC28\Data\032119B\0321F006.D\	Lab Control Sample	KQ1903604-03	3/21/2019	17:52:00	
J:\GC28\Data\032119B\0321F007.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	18:10:00	
J:\GC28\Data\032119B\0321F008.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	18:29:00	
J:\GC28\Data\032119B\0321F009.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	18:47:00	
J:\GC28\Data\032119B\0321F010.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	19:05:00	
J:\GC28\Data\032119B\0321F011.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	19:23:00	
J:\GC28\Data\032119B\0321F012.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	19:42:00	
J:\GC28\Data\032119B\0321F013.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	20:00:00	
J:\GC28\Data\032119B\0321F014.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	20:18:00	
J:\GC28\Data\032119B\0321F015.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	20:36:00	
J:\GC28\Data\032119B\0321F016.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	20:54:00	
J:\GC28\Data\032119B\0321F017.D\	Continuing Calibration Verification	KQ1903733-02	3/21/2019	21:13:00	
J:\GC28\Data\032119B\0321F018.D\	Continuing Calibration Blank	KQ1903733-05	3/21/2019	21:31:00	
J:\GC28\Data\032119B\0321F019.D\	ZZZZZZZ	ZZZZZZZ	3/21/2019	21:49:00	
J:\GC28\Data\032119B\0321F020.D\	BXS-1	K1902361-001	3/21/2019	22:08:00	
J:\GC28\Data\032119B\0321F021.D\	BXS-2	K1902361-002	3/21/2019	22:26:00	
J:\GC28\Data\032119B\0321F022.D\	BXS-2 MS	KQ1903604-01	3/21/2019	22:44:00	
J:\GC28\Data\032119B\0321F023.D\	BXS-2 DMS	KQ1903604-02	3/21/2019	23:03:00	
J:\GC28\Data\032119B\0321F024.D\	Continuing Calibration Verification	KQ1903733-03	3/21/2019	23:21:00	
J:\GC28\Data\032119B\0321F025.D\	Continuing Calibration Blank	KQ1903733-06	3/21/2019	23:39:00	

Prep Summary Report

Client: JH Baxter & Company **Service Request:**K1902361
Project: JH Baxter - Arlington
Sample Matrix: Water

Chlorinated Phenolics

Prep Method: Method **Extraction Lot:** 333306
Analytical Method: 8151A Modified **Extraction Date:** 03/20/19 14:12

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
BXS-1	K1902361-001	3/16/19	3/19/19	5 mL	1 mL	
BXS-2	K1902361-002	3/16/19	3/19/19	5 mL	1 mL	
Matrix Spike	KQ1903604-01MS	3/16/19	3/19/19	5 mL	1 mL	
Duplicate Matrix Spike	KQ1903604-02DMS	3/16/19	3/19/19	5 mL	1 mL	
Lab Control Sample	KQ1903604-03LCS	NA	NA	5 mL	1 mL	
Method Blank	KQ1903604-04MB	NA	NA	5 mL	1 mL	

Semi-Volatile Organic Compounds by GC/MS

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 10:30
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	BXS-1	**Units:**	ug/L
Lab Code:	K1902361-001	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0042**	**J**	0.020	0.0013	1	03/22/19 18:30	3/20/19	
Acenaphthene	**0.0016**	**J**	0.020	0.0012	1	03/22/19 18:30	3/20/19	
Acenaphthylene	ND	U	0.020	0.0011	1	03/22/19 18:30	3/20/19	
Anthracene	ND	U	0.020	0.00082	1	03/22/19 18:30	3/20/19	
Benz(a)anthracene	**0.0019**	**J**	0.020	0.00097	1	03/22/19 18:30	3/20/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	03/22/19 18:30	3/20/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	03/22/19 18:30	3/20/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	03/22/19 18:30	3/20/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	03/22/19 18:30	3/20/19	
Chrysene	ND	U	0.020	0.00076	1	03/22/19 18:30	3/20/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	03/22/19 18:30	3/20/19	
Fluoranthene	ND	U	0.020	0.00082	1	03/22/19 18:30	3/20/19	
Fluorene	**0.0017**	**J**	0.020	0.0011	1	03/22/19 18:30	3/20/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	03/22/19 18:30	3/20/19	
Naphthalene	**0.0079**	**J**	0.020	0.0014	1	03/22/19 18:30	3/20/19	
Phenanthrene	**0.0061**	**J**	0.020	0.0011	1	03/22/19 18:30	3/20/19	
Pyrene	ND	U	0.020	0.0010	1	03/22/19 18:30	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	112	42 - 133	03/22/19 18:30	
Fluorene-d10	92	42 - 131	03/22/19 18:30	
Terphenyl-d14	109	32 - 129	03/22/19 18:30	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Collected:**	03/16/19 11:14
Sample Matrix:	Water	**Date Received:**	03/19/19 09:30
Sample Name:	BXS-2	**Units:**	ug/L
Lab Code:	K1902361-002	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0087**	**J**	0.020	0.0013	1	03/22/19 17:58	3/20/19	
Acenaphthene	**0.0018**	**J**	0.020	0.0012	1	03/22/19 17:58	3/20/19	
Acenaphthylene	ND	U	0.020	0.0011	1	03/22/19 17:58	3/20/19	
Anthracene	ND	U	0.020	0.00082	1	03/22/19 17:58	3/20/19	
Benz(a)anthracene	**0.0023**	**J**	0.020	0.00097	1	03/22/19 17:58	3/20/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	03/22/19 17:58	3/20/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	03/22/19 17:58	3/20/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	03/22/19 17:58	3/20/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	03/22/19 17:58	3/20/19	
Chrysene	ND	U	0.020	0.00076	1	03/22/19 17:58	3/20/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	03/22/19 17:58	3/20/19	
Fluoranthene	ND	U	0.020	0.00082	1	03/22/19 17:58	3/20/19	
Fluorene	ND	U	0.020	0.0011	1	03/22/19 17:58	3/20/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	03/22/19 17:58	3/20/19	
Naphthalene	**0.015**	**J**	0.020	0.0014	1	03/22/19 17:58	3/20/19	
Phenanthrene	**0.0044**	**J**	0.020	0.0011	1	03/22/19 17:58	3/20/19	
Pyrene	ND	U	0.020	0.0010	1	03/22/19 17:58	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	118	42 - 133	03/22/19 17:58	
Fluorene-d10	95	42 - 131	03/22/19 17:58	
Terphenyl-d14	118	32 - 129	03/22/19 17:58	

QC Summary Forms

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Semivolatile Organic Compounds by GC/MS

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Client: JH Baxter & Company **Service Request:** K1902361
Project: JH Baxter - Arlington
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Extraction Method: EPA 3511

Sample Name	Lab Code	Fluoranthene-d10 42-133	Fluorene-d10 42-131	Terphenyl-d14 32-129
BXS-1	K1902361-001	112	92	109
BXS-2	K1902361-002	118	95	118
Method Blank	KQ1903571-03	118	98	109
Lab Control Sample	KQ1903571-01	119	97	98
Duplicate Lab Control Sample	KQ1903571-02	106	85	89

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/22/19 15:50
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Method Blank Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Sample Name:	Method Blank	**Instrument ID:**	K-MS-14
Lab Code:	KQ1903571-03	**File ID:**	J:\MS14\DATA\032219\0322F020.D\
Analysis Method:	8270D	**Analysis Lot:**	629289
Prep Method:	EPA 3511	**Extraction Lot:**	333285

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1903571-01	J:\MS14\DATA\032219\0322F021.D\	03/22/19 16:22
Duplicate Lab Control Sample	KQ1903571-02	J:\MS14\DATA\032219\0322F022.D\	03/22/19 16:54
BXS-2	K1902361-002	J:\MS14\DATA\032219\0322F024.D\	03/22/19 17:58
BXS-1	K1902361-001	J:\MS14\DATA\032219\0322F025.D\	03/22/19 18:30

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KQ1903571-03	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0020**	**J**	0.020	0.0013	1	03/22/19 15:50	3/20/19	
Acenaphthene	ND	U	0.020	0.0012	1	03/22/19 15:50	3/20/19	
Acenaphthylene	ND	U	0.020	0.0011	1	03/22/19 15:50	3/20/19	
Anthracene	ND	U	0.020	0.00082	1	03/22/19 15:50	3/20/19	
Benz(a)anthracene	**0.0023**	**J**	0.020	0.00097	1	03/22/19 15:50	3/20/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	03/22/19 15:50	3/20/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	03/22/19 15:50	3/20/19	
Benzo(g,h,i)perylene	**0.0021**	**J**	0.020	0.00086	1	03/22/19 15:50	3/20/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	03/22/19 15:50	3/20/19	
Chrysene	ND	U	0.020	0.00076	1	03/22/19 15:50	3/20/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	03/22/19 15:50	3/20/19	
Fluoranthene	ND	U	0.020	0.00082	1	03/22/19 15:50	3/20/19	
Fluorene	ND	U	0.020	0.0011	1	03/22/19 15:50	3/20/19	
Indeno(1,2,3-cd)pyrene	**0.0014**	**J**	0.020	0.00089	1	03/22/19 15:50	3/20/19	
Naphthalene	**0.0031**	**J**	0.020	0.0014	1	03/22/19 15:50	3/20/19	
Phenanthrene	**0.0029**	**J**	0.020	0.0011	1	03/22/19 15:50	3/20/19	
Pyrene	ND	U	0.020	0.0010	1	03/22/19 15:50	3/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	118	42 - 133	03/22/19 15:50	
Fluorene-d10	98	42 - 131	03/22/19 15:50	
Terphenyl-d14	109	32 - 129	03/22/19 15:50	

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/22/19 16:22
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Lab Control Sample Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Sample Name:	Lab Control Sample	**Instrument ID:**	K-MS-14
Lab Code:	KQ1903571-01	**File ID:**	J:\MS14\DATA\032219\0322F021.D\
Analysis Method:	8270D	**Analysis Lot:**	629289
Prep Method:	EPA 3511	**Extraction Lot:**	333285

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1903571-03	J:\MS14\DATA\032219\0322F020.D\	03/22/19 15:50
Duplicate Lab Control Sample	KQ1903571-02	J:\MS14\DATA\032219\0322F022.D\	03/22/19 16:54
BXS-2	K1902361-002	J:\MS14\DATA\032219\0322F024.D\	03/22/19 17:58
BXS-1	K1902361-001	J:\MS14\DATA\032219\0322F025.D\	03/22/19 18:30

Client:	JH Baxter & Company	**Service Request:**	K1902361
Project:	JH Baxter - Arlington	**Date Analyzed:**	03/22/19
Sample Matrix:	Water	**Date Extracted:**	03/20/19

Duplicate Lab Control Sample Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method:	8270D	**Units:**	ug/L
Prep Method:	EPA 3511	**Basis:**	NA
		Analysis Lot:	629289

	Lab Control Sample KQ1903571-01			Duplicate Lab Control Sample KQ1903571-02					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
2-Methylnaphthalene	2.56	2.78	92	2.67	2.78	96	48-120	4	30
Acenaphthene	2.71	2.78	97	2.75	2.78	99	63-121	2	30
Acenaphthylene	2.61	2.78	94	2.65	2.78	95	58-124	2	30
Anthracene	2.99	2.78	108	3.06	2.78	110	68-127	2	30
Benz(a)anthracene	2.78	2.78	100	2.81	2.78	101	74-124	1	30
Benzo(a)pyrene	2.72	2.78	98	2.80	2.78	101	75-131	3	30
Benzo(b)fluoranthene	2.96	2.78	107	3.07	2.78	110	73-136	4	30
Benzo(g,h,i)perylene	2.81	2.78	101	2.91	2.78	105	63-127	4	30
Benzo(k)fluoranthene	3.03	2.78	109	3.11	2.78	112	74-134	2	30
Chrysene	2.95	2.78	106	2.99	2.78	108	74-132	1	30
Dibenz(a,h)anthracene	2.78	2.78	100	2.91	2.78	105	59-135	4	30
Fluoranthene	2.86	2.78	103	2.91	2.78	105	70-127	2	30
Fluorene	2.48	2.78	89	2.53	2.78	91	68-121	2	30
Indeno(1,2,3-cd)pyrene	2.63	2.78	95	2.67	2.78	96	63-136	2	30
Naphthalene	2.65	2.78	95	2.73	2.78	98	52-115	3	30
Phenanthrene	2.84	2.78	102	2.92	2.78	105	64-126	3	30
Pyrene	2.90	2.78	104	2.98	2.78	107	72-127	3	30

Client: JH Baxter & Company **Service Request:**K1902361
Project: JH Baxter - Arlington **Date Analyzed:**03/22/19 14:45

Tune Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\032219\0322F018.D\ **Analytical Method:** 8270D
Instrument ID: K-MS-14 **Analysis Lot:** 629289

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	30.23	53530	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	32.42	57420	Pass
70	69	0	2	0.57	327	Pass
127	198	10	80	40.85	72333	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	48.26	177088	Pass
199	198	5	9	6.55	11598	Pass
275	198	10	60	34.59	61253	Pass
365	442	1	50	2.63	9658	Pass
441	443	0.01	100	74.70	53258	Pass
442	442	30	100	100.00	366933	Pass
443	442	15	24	19.43	71298	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	KQ1903805-01	J:\MS14\DATA\032219\0322F019.D\	03/22/19 15:18	
Method Blank	KQ1903571-03	J:\MS14\DATA\032219\0322F020.D\	03/22/19 15:50	
Lab Control Sample	KQ1903571-01	J:\MS14\DATA\032219\0322F021.D\	03/22/19 16:22	
Duplicate Lab Control Sample	KQ1903571-02	J:\MS14\DATA\032219\0322F022.D\	03/22/19 16:54	
BXS-2	K1902361-002	J:\MS14\DATA\032219\0322F024.D\	03/22/19 17:58	
BXS-1	K1902361-001	J:\MS14\DATA\032219\0322F025.D\	03/22/19 18:30	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: JH Baxter & Company **Service Request:**K1902361
Project: JH Baxter - Arlington **Date Analyzed:**03/22/19 15:18

Internal Standard Area and RT SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\032219\0322F019.D\ **Lab Code:**KQ1903805-01
Instrument ID: K-MS-14 **Analysis Lot:**629289
Analysis Method: 8270D **Signal ID:**1

		Acenaphthene-d10		Chrysene-d12		Naphthalene-d8	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Result ==>	26,263	6.35	65,229	10.17	55,165	4.79
	Upper Limit ==>	52,526	6.85	130,458	10.67	110,330	5.29
	Lower Limit ==>	13,132	5.85	32,615	9.67	27,583	4.29
Associated Analyses							
Continuing Calibration Verification	KQ1903805-01	26263	6.35	65229	10.17	55165	4.79
Method Blank	KQ1903571-03	32909	6.35	64957	10.17	67353	4.79
Lab Control Sample	KQ1903571-01	31222	6.35	63468	10.17	69740	4.79
Duplicate Lab Control Sample	KQ1903571-02	30977	6.35	62330	10.17	67848	4.79
BXS-2	K1902361-002	32877	6.35	65615	10.17	67862	4.79
BXS-1	K1902361-001	33437	6.35	64881	10.17	69281	4.79

Client: JH Baxter & Company **Service Request:**K1902361
Project: JH Baxter - Arlington **Date Analyzed:**03/22/19 15:18

Internal Standard Area and RT SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\032219\0322F019.D\ **Lab Code:**KQ1903805-01
Instrument ID: K-MS-14 **Analysis Lot:**629289
Analysis Method: 8270D **Signal ID:**1

		Perylene-d12		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**
	Result ==>	72,282	13.41	53,755	7.60
	Upper Limit ==>	144,564	13.91	107,510	8.10
	Lower Limit ==>	36,141	12.91	26,878	7.10
Associated Analyses					
Continuing Calibration Verification	KQ1903805-01	72282	13.41	53755	7.60
Method Blank	KQ1903571-03	71936	13.40	63268	7.60
Lab Control Sample	KQ1903571-01	69603	13.40	60572	7.60
Duplicate Lab Control Sample	KQ1903571-02	67518	13.40	59921	7.60
BXS-2	K1902361-002	72653	13.40	63261	7.60
BXS-1	K1902361-001	70688	13.39	62647	7.60

Raw Data

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Chlorinated Phenolics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 333306
Team: Semivoa GC/WVANDERHOFF
Number of Copies to make: 3

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method

Status: Prepped
Prep Date/Time: 3/20/19 02:12 PM

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1902351-021	MW-37	.01	8151A Modified/PCP		Water	5mL	1.00mL	
2	K1902351-022	MW-38	.01	8151A Modified/PCP		Water	5mL	1.00mL	
3	K1902351-023	MW-39	.01	8151A Modified/PCP		Water	5mL	1.00mL	
4	K1902351-024	MW-40	.01	8151A Modified/PCP		Water	5mL	1.00mL	
5	K1902351-025	MW-41	.01	8151A Modified/PCP		Water	5mL	1.00mL	
6	K1902351-026	MW-42	.01	8151A Modified/PCP		Water	5mL	1.00mL	
7	K1902351-027	MW-44	.01	8151A Modified/PCP		Water	5mL	1.00mL	
8	K1902351-028	FIELD BLANK RINSATE	.01	8151A Modified/PCP		Water	5mL	1.00mL	
9	K1902351-029	MW-3	.01	8151A Modified/PCP		Water	5mL	1.00mL	
10	K1902351-030	MW-2	.01	8151A Modified/PCP		Water	5mL	1.00mL	
11	K1902359-004	EW COMPOSITE	.01	8151A Modified/PCP		Water	5mL	1.00mL	
12	K1902361-001	BXS-1	.02	8151A Modified/PCP		Water	5mL	1.00mL	
13	K1902361-002	BXS-2	.02	8151A Modified/PCP		Water	5mL	1.00mL	
14	KQ1903604-01	K1902361-002 MS	.02	8151A Modified/PCP		Liquid	5mL	1.00mL	
15	KQ1903604-02	K1902361-002 DMS	.02	8151A Modified/PCP		Liquid	5mL	1.00mL	
16	KQ1903604-03	LCS		8151A Modified/PCP		Liquid	5mL	1.00mL	
17	KQ1903604-04	MB		8151A Modified/PCP		Liquid	5mL	1.00mL	

Spiking Solutions

Name: 8151M Penta Matrix Spike Inventory ID 193483 Logbook Ref: Penta01-92L Expires On: 03/24/2019

KQ1903604-01	100.00µL	KQ1903604-02	100.00µL	KQ1903604-03	100.00µL

Name: 8151M Penta Surrogate Inventory ID 196125 Logbook Ref: Penta01-94K Expires On: 05/12/2019

K1902351-021	100.00µL	K1902351-022	100.00µL	K1902351-023	100.00µL	K1902351-024	100.00µL	K1902351-025	100.00µL	K1902351-026	100.00µL
K1902351-027	100.00µL	K1902351-028	100.00µL	K1902351-029	100.00µL	K1902351-030	100.00µL	K1902359-004	100.00µL	K1902361-001	100.00µL
K1902361-002	100.00µL	KQ1903604-01	100.00µL	KQ1903604-02	100.00µL	KQ1903604-03	100.00µL	KQ1903604-04	100.00µL		

Preparation Steps

Step:	Extraction	Step:	Derivitization	Step:	Final Volume
Started:	3/20/19 14:12	Started:	3/21/19 14:52	Started:	3/21/19 15:23
Finished:	3/20/19 14:55	Finished:	3/21/19 15:23	Finished:	3/21/19 15:41
By:	WVANDERHOFF	By:	WVANDERHOFF	By:	WVANDERHOFF
Comments		Comments		Comments	

Preparation Information Benchsheet

Prep Run#: 333306
Team: Semivoa GC/WVANDERHOFF

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method

Status: Prepped
Prep Date/Time: 3/20/19 02:12 PM

Comments: _____

Reviewed By: _____ Date: 3/22/19

Chain of Custody

Relinquished By: _____ Date: 3.21.19

Received By: _____ Date: 3/21/19

Extracts Examined
Yes No

Preparation Information Benchsheet

Prep Run#: 333306 **Prep WorkFlow:** OrgExtPcpAq7 **Status:** Draft
Team: Semivoa GC/WVANDERHOFF **Prep Method:** Method [redacted] **Prep Date/Time:** 3/20/19 01:11 PM
Number of Copies to make: 3

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. mL	pH	Int. Vol mL	Final Vol mL	Surr Amt uL	Spike Amt uL
1	**K1902351-021**	MW-37	.01	✓	8151A Modified / PCP	Water	5	<2		1	100	-
2	**K1902351-022**	MW-38	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
3	**K1902351-023**	MW-39	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
4	**K1902351-024**	MW-40	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
5	**K1902351-025**	MW-41	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
6	**K1902351-026**	MW-42	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
7	**K1902351-027**	MW-44	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
8	**K1902351-028**	FIELD BLANK RINSATE	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
9	**K1902351-029**	MW-3	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
10	**K1902351-030**	MW-2	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
11	**K1902359-004**	EW COMPOSITE	.01	✓	8151A Modified / PCP	Water	5	<2		1		-
12	**K1902361-001**	BXS-1	.02	✓	8151A Modified / PCP	Water	5	<2		1		-
13	**K1902361-002**	BXS-2	.02	✓	8151A Modified / PCP	Water	5	<2		1		-
14	**KQ1903604-01**	K1902361-002 MS	.02	✓	8151A Modified / PCP	Liquid	5	<2		1		100
15	**KQ1903604-02**	K1902361-002 DMS	.02	✓	8151A Modified / PCP	Liquid	5	<2		1		
16	**KQ1903604-03**	LCS			8151A Modified / PCP	Liquid	5	<2		1		
17	**KQ1903604-04**	MB			8151A Modified / PCP	Liquid	5	<2		1		-

Comments:

Surrogate ID: 196,125-Penta01-94K 196,125-Penta01-94K 196,125-Penta01-94K 196,125-Penta01-94K 196 100uL xp 5-14-19 cpp#28 500ppb

Spike ID: 193,483-Penta01-92L 196,125-Penta01-94K 193,483-Penta01-92L 196,125-Penta01-94K 193,4 100uL xp 5-14-19 cpp#28 500ppb

Witnessed By: BWilland 3/20/19

Analyst: WSV

Assisted By:

ALS Environmental

Extraction Analyst Notes

Service Request: K1902359 Prep Group: KQ1903604

Topic	Notes	Initials/Date
No Anomalies: □		
Sample Anomalies: □		
Organics Present (sticks, leafs, bugs): □		
Fuel Odors: □		
Sulfur Odors, Precipitate: □		
General Notes:	K1902359 - samples 001, 002, 003 - 5 mls. of each (composite) to make sample # 004	NZ 3.20.19

Reviewed by: Jonathon Walter 12/19/18

EXT-NOTES r.0

Additional Prep Information for Method 8151M
Chlorinated Phenols "PCPs" in Water

[redacted]

Service Request # K1902351, 2359, 2361 **Work Group #** KQ1903604

1:1 Sulfuric Acid Lot # 7121159 Ethyl Ether Lot # DV328-U5

Extraction Start (time/date/initial): 14:12 3-20-19 WS

Extraction Stop (time/date/initial): 14:55 3-20-19 WS

Storage Location (overnight): 25R Acidified Sulfate Lot # DZ03-29I

N-Evap (time/date/initial): 13:30 3-21-19 WS N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Derivatization Start (time/date/initial): 14:52 3-21-19 WS

Derivatization Stop (time/date/initial): 15:23 3-21-19 WS

Diazomethane Lot # DZ03-40Q Methanol Lot # DN615

Solvent Exchange to Iso-Octane (time/date/initial): 15:23 3-21-19 WS

Iso-Octane Lot # DN121 N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Pipette (1 mL) Lot # 25215645

Vial: Red Vial Storage: Rented

Additional Comments:

Bench Sheet Review Check List	
☐	Hold times met (if no, reason:)
☐	Prep date, time, method, department, product code correct in stealth
☐	Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☐	Weights/Volumes and units correct on raw and final bench sheets
☐	Sample IDs have been checked - bottle numbers appended if required
☐	Names present for: started by, completed by, relinquished by, and witnessed by. Training circled.
☐	Extract storage recorded
☐	Additional prep sheet completely filled out (NA or line out blanks)
☐	All clean-ups have been noted on additional prep sheet
☐	Signed service request with Form V, if applicable, has been attached

1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F020.D\
Lab ID: K1902361-001
RunType: N/A
Matrix: Water

Date Acquired: 3/21/19 22:08:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	Pentachlorophenol (PCP)	5.14			SA
	2,4,5-Trichlorophenol	4.18			NR
	Pentachloroanisole	5.14			SA
	3,4,5-Trichlorophenol	4.18			NR
Analyte Coelutions - Rtx-35	Pentachlorophenol (PCP)	5.59			SA
	Pentachloroanisole	5.59			SA

Primary Review: _____

Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F020.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 22:08:00	**Vial:**	18
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902361-001	**Raw Units:**	ug/L

Bottle ID:	K1902361-001.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	K1902361
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18379748	19593200	53.300	46.476	107	93	93	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14 c	5.59 -0.0 c	131679404	189046919	307.258	277.801	61	56	**56**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F020.D Vial: 16
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 10:08 pm Operator: MC
Sample : K1902361-001 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:07:48 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.020	4.649	18379748	19593200	53.300	46.476
	Target Compounds						
1)	3,4-Dichl...	0.000	3.746	0	19638	N.D.	0.905 #
2)	3,5-Dichl...	3.364	3.993	10400	18118	0.262	0.612 #
3)	2,4,6-Tri...	0.000	4.206	0	9358	N.D. d	0.023
5)	2,4,5-Tri...	4.180	0.000	181036	0	0.413	N.D. d#
6)	3,4,5-Tri...	4.180f	0.000	181036	0	0.627	N.D. d#
7) M	2,3,5,6-T...	4.473	5.019	4589552	5075684	9.948	8.407
8) M	2,3,4,5-T...	0.000	5.413	0	196550	N.D. d	0.473
9) M	Pentachlo...	5.144	5.593	131.7E6	189.0E6	307.258	277.801
10)	Pentachlo...	5.144	5.593	131.7E6	189.0E6	323.406	292.532

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

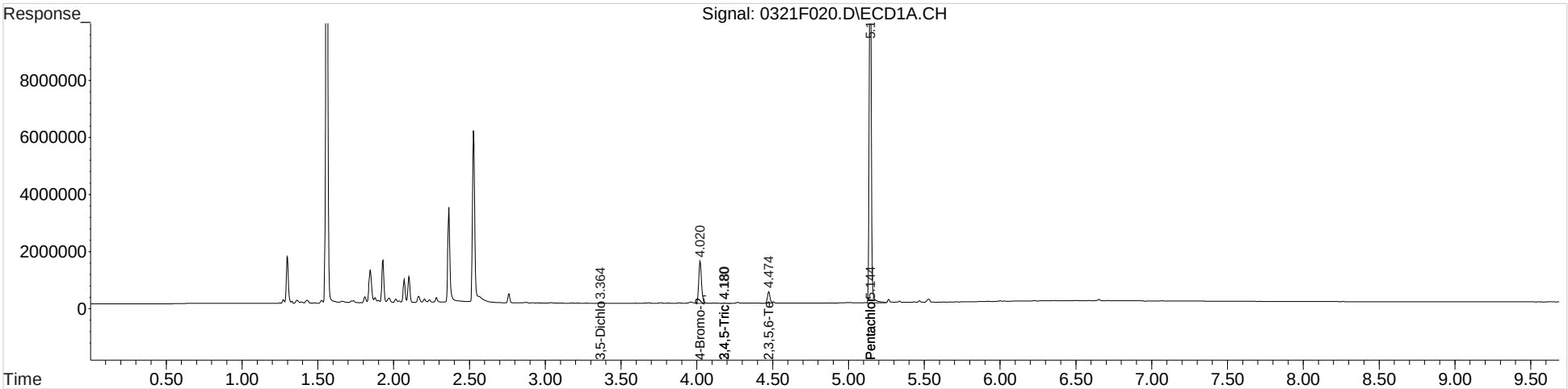
1st 03/22/19
2nd 03/22/19

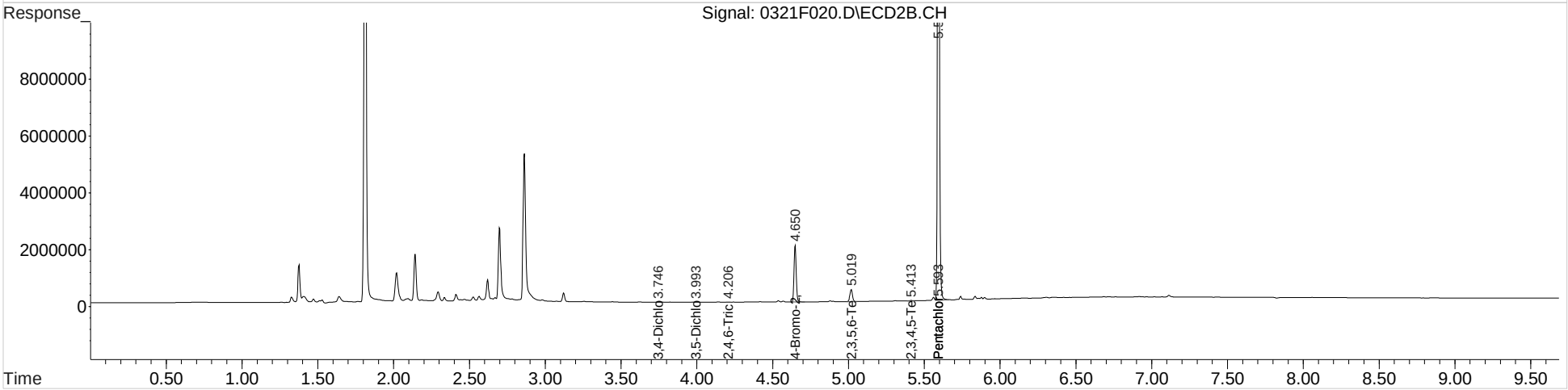
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F020.D Vial: 16
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 10:08 pm Operator: MC
Sample : K1902361-001 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:07:48 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F021.D\
Lab ID: K1902361-002
RunType: N/A
Matrix: Water

Date Acquired: 3/21/19 22:26:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.18			NR
	3,4,5-Trichlorophenol	4.18			NR

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F021.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 22:26:00	**Vial:**	19
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902361-002	**Raw Units:**	ug/L

Bottle ID:	K1902361-002.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	K1902361
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18253304	19492476	52.923	46.237	106	92	92	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	773368	0.000	1.136	0U	0.23J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F021.D Vial: 17
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 10:26 pm Operator: MC
Sample : K1902361-002 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:08:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.020	4.650	18253304	19492476	52.923	46.237
	Target Compounds						
1)	3,4-Dichl...	0.000	3.746	0	9907	N.D.	0.457 #
2)	3,5-Dichl...	0.000	3.996	0	9848	N.D. d	0.088
3)	2,4,6-Tri...	0.000	4.210	0	11766	N.D. d	0.029
5)	2,4,5-Tri...	4.180	0.000	168486	0	0.323	N.D. d#
6)	3,4,5-Tri...	4.180f	0.000	168486	0	0.542	N.D. d#
7) M	2,3,5,6-T...	0.000	5.010	0	292193	N.D. d	0.484
8) M	2,3,4,5-T...	0.000	5.423	0	129752	N.D. d	0.312
9) M	Pentachlo...	0.000	5.606	0	773368	N.D. d	1.136
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

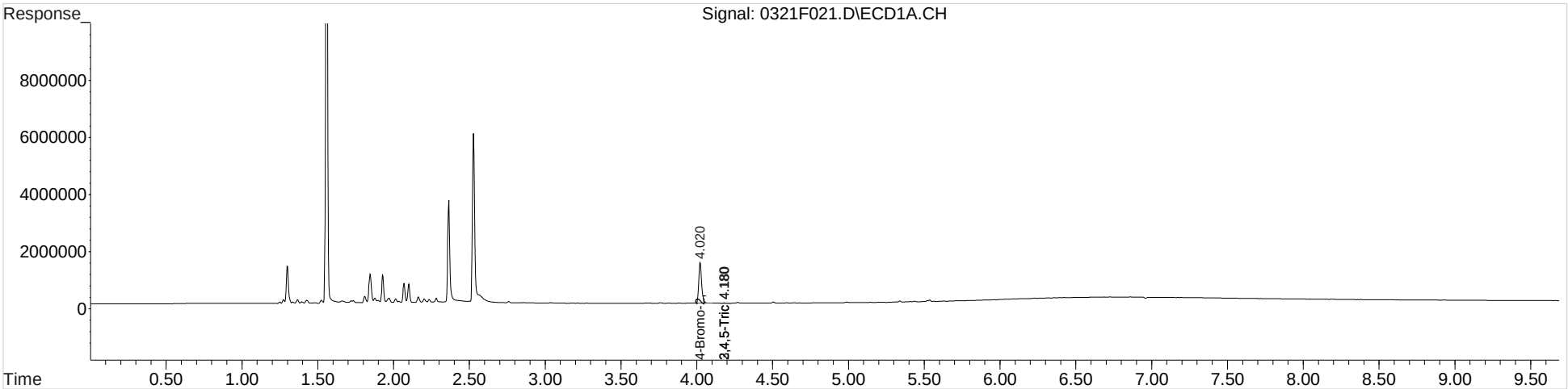
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F021.D Vial: 17
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 10:26 pm Operator: MC
Sample : K1902361-002 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:08:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F005.D\
Lab ID: KQ1903604-04
RunType: MB
Matrix: Water

Date Acquired: 3/21/19 17:34:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F005.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 17:34:00	**Vial:**	23
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1903604-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18597

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17046858	18025758	49.330	42.758	99	86	86	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
2,4,5-Trichlorophenol	4.18 -0.01	0.00	162372	0	0.279	0.000	0.056U	0U	0.16 U	Y
2,4,6-Trichlorophenol	0.00	4.18 -0.02	0	16384	0.000	0.040	0U	0.0080U	0.042 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.15 U	Y
2,3,4,5-Tetrachlorophenol	4.99 -0.01	5.38 -0.03	364920	11776	0.007	0.028	0.0014U	0.0056U	0.042 U	Y
2,3,5,6-Tetrachlorophenol	0.00	5.01	0	270139	0.000	0.447	0U	0.089J	0.032 U	Y
Pentachlorophenol (PCP)	0.00	5.61 +0.02	0	306317	0.000	0.450	0U	0.090J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F005.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 17:34:00	**Vial:**	23
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1903604-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	17046858	18025758	49.330	42.758	99	86	86	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	0.00	3.75 +0.02	0	18322	0.000	0.845	0U	0.17U	0.35 U	Y
3,5-Dichlorophenol	3.36	3.99 +0.01	11758	13732	0.384	0.334	0.077U	0.067U	0.65 U	Y
2,4,5-Trichlorophenol	4.18 -0.01	0.00	162372	0	0.279	0.000	0.056U	0U	0.16 U	Y
2,4,6-Trichlorophenol	0.00	4.18 -0.02	0	16384	0.000	0.040	0U	0.0080U	0.042 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.15 U	Y
2,3,4,5-Tetrachlorophenol	4.99 -0.01	5.38 -0.03	364920	11776	0.007	0.028	0.0014U	0.0056U	0.042 U	Y
2,3,5,6-Tetrachlorophenol	0.00	5.01	0	270139	0.000	0.447	0U	0.089J	0.032 U	Y
Pentachlorophenol (PCP)	0.00	5.61 +0.02	0	306317	0.000	0.450	0U	0.090J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:34 pm Operator: MC
Sample : KQ1903604-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:17:16 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	17046858	18025758	49.330	42.758
		Target Compounds						
1)		3,4-Dichl...	0.000	3.747	0	18322	N.D.	0.845 #
2)		3,5-Dichl...	3.361	3.991	11758	13732	0.384	0.334
3)		2,4,6-Tri...	0.000	4.177	0	16384	N.D. d	0.040
5)		2,4,5-Tri...	4.181	0.000	162372	0	0.279	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.007	0	270139	N.D. d	0.447
8)	M	2,3,4,5-T...	4.988	5.384f	364920	11776	0.007	0.028 #
9)	M	Pentachlo...	0.000	5.607	0	306317	N.D. d	0.450
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

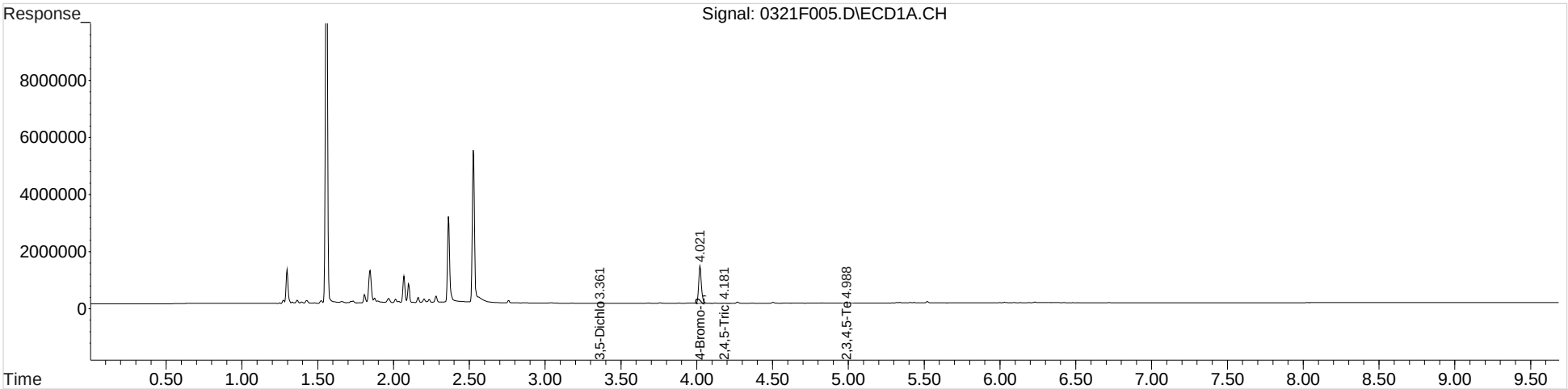
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:34 pm Operator: MC
Sample : KQ1903604-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:17:16 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F006.D\
Lab ID: KQ1903604-03
RunType: LCS
Matrix: Water

Date Acquired: 3/21/19 17:52:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F006.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 17:52:00	**Vial:**	22
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1903604-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18597

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18160368	19223874	52.646	45.600	105	91	91	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
2,4,5-Trichlorophenol	4.19	4.72 +0.01	5216276	5939635	37.934	33.283	7.59	6.66	**6.66**	Y
2,4,6-Trichlorophenol	3.47 +0.01	4.21 +0.01	12608078	14901540	40.862	36.507	8.17	7.30	**7.30**	Y
3,4,5-Trichlorophenol	4.22	4.78 +0.01	3202026	3428336	21.579	19.780	4.32	3.96	**3.96**	Y
2,3,4,5-Tetrachlorophenol	5.01 +0.01	5.41	12372290	14972754	40.455	36.000	8.09	7.20	**7.20**	Y
2,3,5,6-Tetrachlorophenol	4.47 +0.01	5.01	18766390	24661773	43.527	40.849	8.71	8.17	**8.17**	Y
Pentachlorophenol (PCP)	5.14	5.60 +0.01	22142610	27767321	47.991	40.804	9.60	8.16	**8.16**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F006.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 17:52:00	**Vial:**	22
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1903604-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18160368	19223874	52.646	45.600	105	91	91	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	3.13 +0.01	3.74 +0.01	207800	249053	12.657	11.481	2.53	2.30	**2.30**	Y
3,5-Dichlorophenol	3.37 +0.01	3.99 +0.01	45520	81204	3.419	4.631	0.684J	0.926J	**0.926** J	Y
2,4,5-Trichlorophenol	4.19	4.72 +0.01	5216276	5939635	37.934	33.283	7.59	6.66	**6.66**	Y
2,4,6-Trichlorophenol	3.47 +0.01	4.21 +0.01	12608078	14901540	40.862	36.507	8.17	7.30	**7.30**	Y
3,4,5-Trichlorophenol	4.22	4.78 +0.01	3202026	3428336	21.579	19.780	4.32	3.96	**3.96**	Y
2,3,4,5-Tetrachlorophenol	5.01 +0.01	5.41	12372290	14972754	40.455	36.000	8.09	7.20	**7.20**	Y
2,3,5,6-Tetrachlorophenol	4.47 +0.01	5.01	18766390	24661773	43.527	40.849	8.71	8.17	**8.17**	Y
Pentachlorophenol (PCP)	5.14	5.60 +0.01	22142610	27767321	47.991	40.804	9.60	8.16	**8.16**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:52 pm Operator: MC
Sample : KQ1903604-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:11:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.021	4.651	18160368	19223874	52.646	45.600	
		Target Compounds							
1)		3,4-Dichl...	3.128	3.737	207800	249053	12.657	11.481	
2)		3,5-Dichl...	3.368	3.991	45520	81204	3.419m	4.631	#
3)		2,4,6-Tri...	3.468	4.207	12608078	14901540	40.862	36.507	
5)		2,4,5-Tri...	4.191	4.717	5216276	5939635	37.934	33.283	
6)		3,4,5-Tri...	4.225	4.781	3202026	3428336	21.579	19.780	
7)	M	2,3,5,6-T...	4.468	5.014	18766390	24661773	43.527	40.849	
8)	M	2,3,4,5-T...	5.008	5.414	12372290	14972754	40.455	36.000	
9)	M	Pentachlo...	5.145	5.597	22142610	27767321	47.991	40.804	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

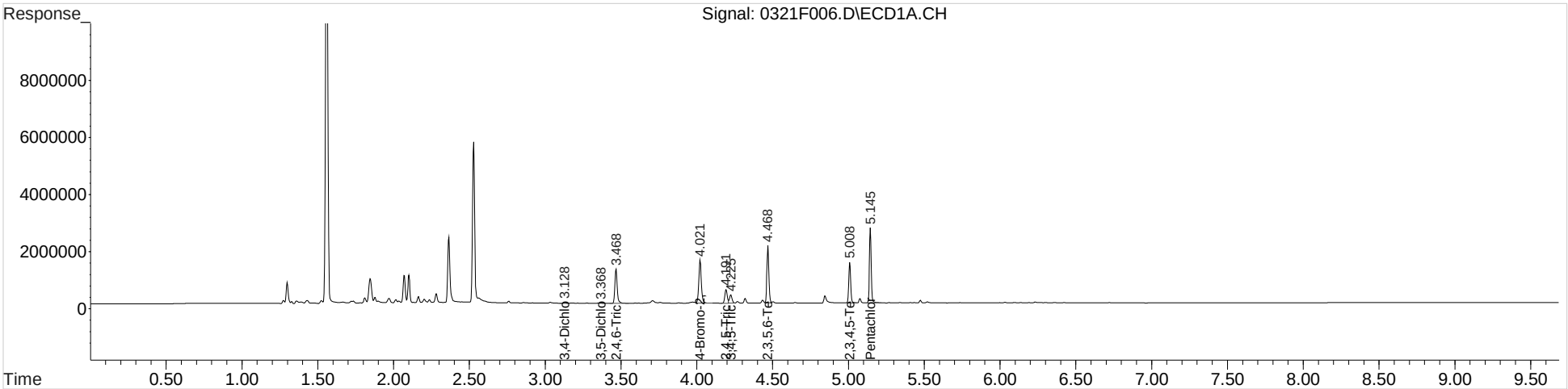
1st 03/22/19
2nd 03/22/19

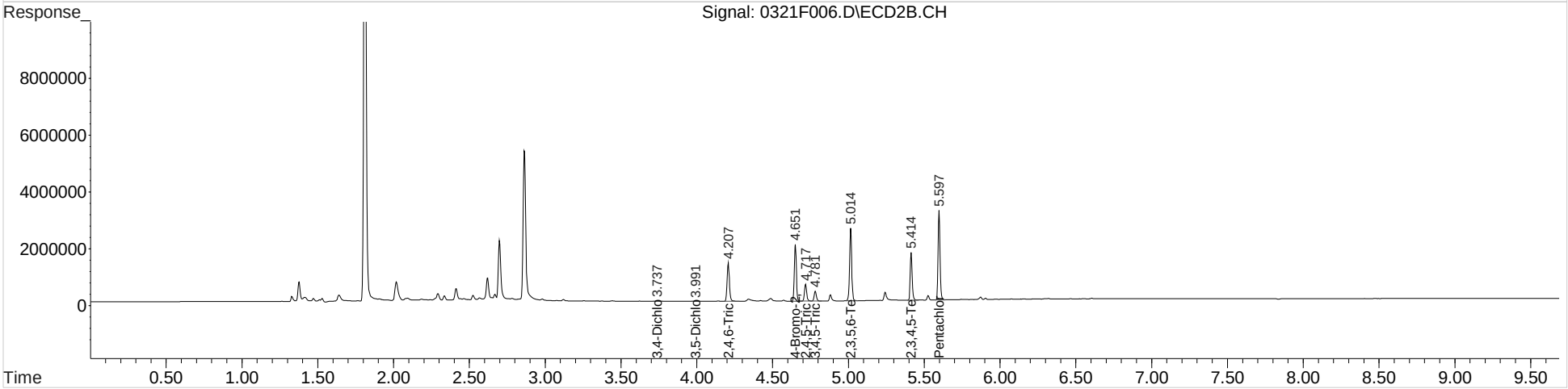
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:52 pm Operator: MC
Sample : KQ1903604-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:11:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





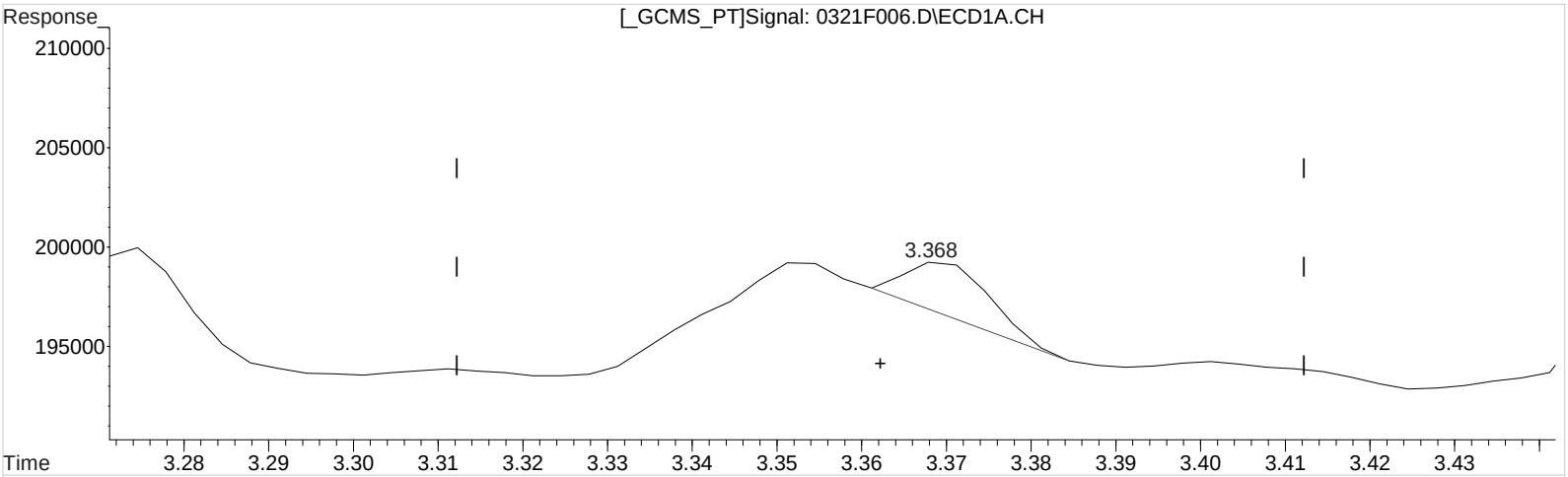
Quantitation Report (Qedit)

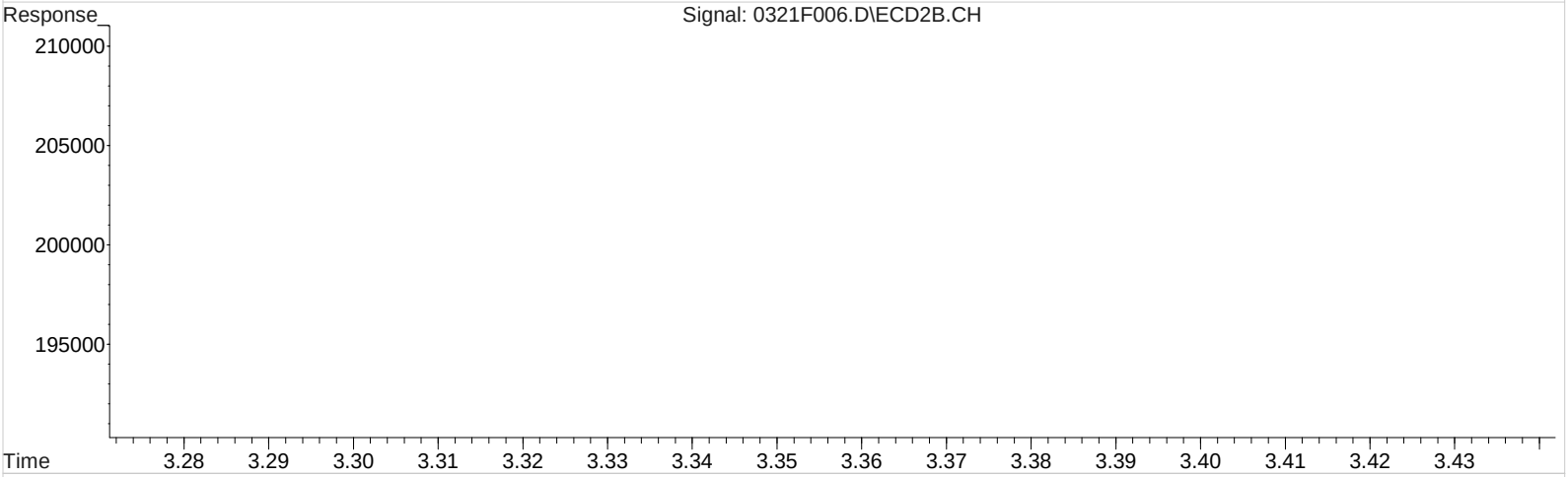
1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:52 pm Operator: MC
Sample : KQ1903604-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:17:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.368min 0.632 ug/L

response 14532

Manual Integration:

Before

03/22/19

(2) 3,5-Dichlorophenol #2

3.991min 4.631 ug/L

response 81204

(+) = Expected Retention Time

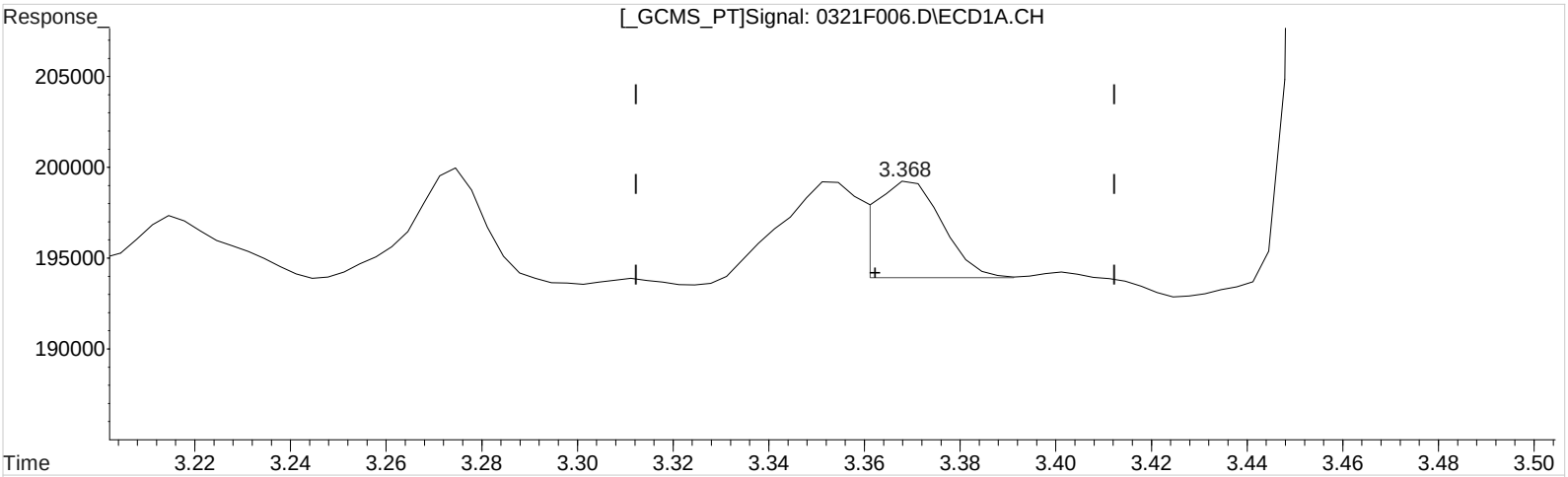
Quantitation Report (Qedit)

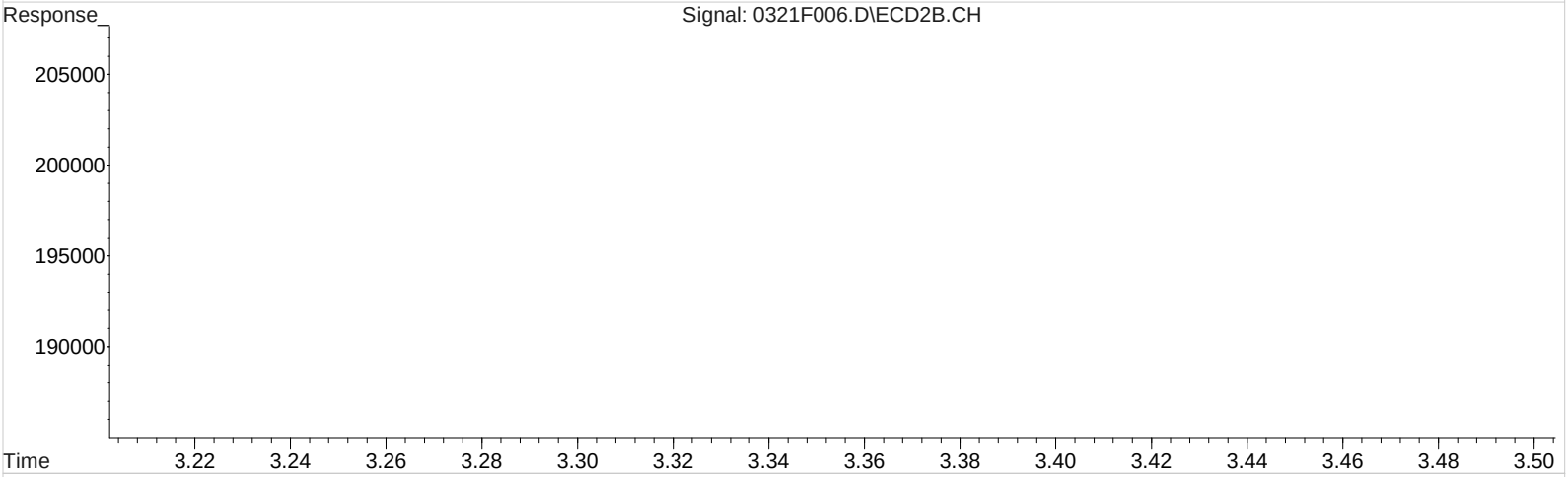
1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:52 pm Operator: MC
Sample : KQ1903604-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:18:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.368min 3.419 ug/L m

response 45520

Manual Integration:

After

Baseline/Shoulder

03/22/19

(2) 3,5-Dichlorophenol #2

3.991min 4.631 ug/L

response 81204

(+) = Expected Retention Time

1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F022.D\
Lab ID: KQ1903604-01
RunType: MS
Matrix: Water

Date Acquired: 3/21/19 22:44:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F022.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 22:44:00	**Vial:**	20
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1903604-01	**Raw Units:**	ug/L

Bottle ID:	K1902361-002.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18597

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18833011	20092758	54.651	47.661	109	95	95	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
2,4,5-Trichlorophenol	4.19	4.72 +0.01	5769374	6550208	42.253	36.821	8.45	7.36	**7.36**	Y
2,4,6-Trichlorophenol	3.47	4.21 +0.01	12995322	15671140	42.183	38.392	8.44	7.68	**7.68**	Y
3,4,5-Trichlorophenol	4.22	4.78	2898603	3254708	19.428	18.744	3.89	3.75	**3.75**	Y
2,3,4,5-Tetrachlorophenol	5.01	5.41	12832201	15791500	42.066	37.969	8.41	7.59	**7.59**	Y
2,3,5,6-Tetrachlorophenol	4.47	5.01	19514052	25190286	45.346	41.724	9.07	8.34	**8.34**	Y
Pentachlorophenol (PCP)	5.14	5.59 -0.01	22649476	28718712	49.123	42.202	9.82	8.44	**8.44**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F022.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 22:44:00	**Vial:**	20
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1903604-01	**Raw Units:**	ug/L

Bottle ID:	K1902361-002.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18833011	20092758	54.651	47.661	109	95	95	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	3.13	3.74 +0.01	173110	246690	10.429	11.372	2.09	2.27	**2.09**	Y
3,5-Dichlorophenol	3.37	3.99	42194	59207	3.119	3.226	0.624U	0.645U	0.65 U	Y
2,4,5-Trichlorophenol	4.19	4.72 +0.01	5769374	6550208	42.253	36.821	8.45	7.36	**7.36**	Y
2,4,6-Trichlorophenol	3.47	4.21 +0.01	12995322	15671140	42.183	38.392	8.44	7.68	**7.68**	Y
3,4,5-Trichlorophenol	4.22	4.78	2898603	3254708	19.428	18.744	3.89	3.75	**3.75**	Y
2,3,4,5-Tetrachlorophenol	5.01	5.41	12832201	15791500	42.066	37.969	8.41	7.59	**7.59**	Y
2,3,5,6-Tetrachlorophenol	4.47	5.01	19514052	25190286	45.346	41.724	9.07	8.34	**8.34**	Y
Pentachlorophenol (PCP)	5.14	5.59 -0.01	22649476	28718712	49.123	42.202	9.82	8.44	**8.44**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 10:44 pm Operator: MC
Sample : K1902361-002 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:09:14 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.020	4.649	18833011	20092758	54.651	47.661
		Target Compounds						
1)		3,4-Dichl...	3.130	3.736	173110	246690	10.429	11.372
2)		3,5-Dichl...	3.370	3.989	42194	59207	3.119m	3.226
3)		2,4,6-Tri...	3.467	4.206	12995322	15671140	42.183	38.392
5)		2,4,5-Tri...	4.193	4.716	5769374	6550208	42.253	36.821
6)		3,4,5-Tri...	4.223	4.779	2898603	3254708	19.428	18.744
7)	M	2,3,5,6-T...	4.467	5.013	19514052	25190286	45.346	41.724
8)	M	2,3,4,5-T...	5.007	5.409	12832201	15791500	42.066	37.969
9)	M	Pentachlo...	5.143	5.593	22649476	28718712	49.123	42.202
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

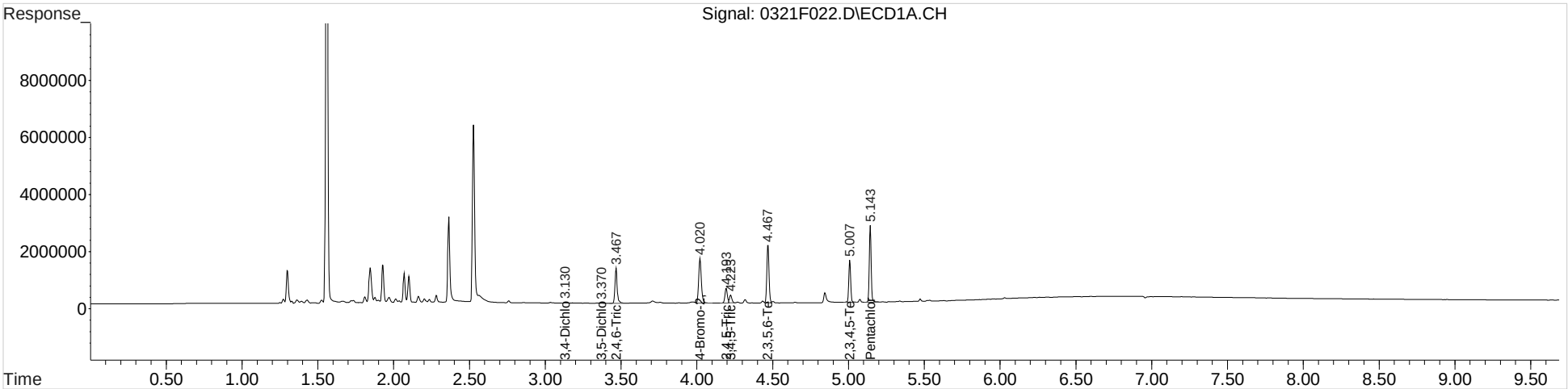
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 10:44 pm Operator: MC
Sample : K1902361-002 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:09:14 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

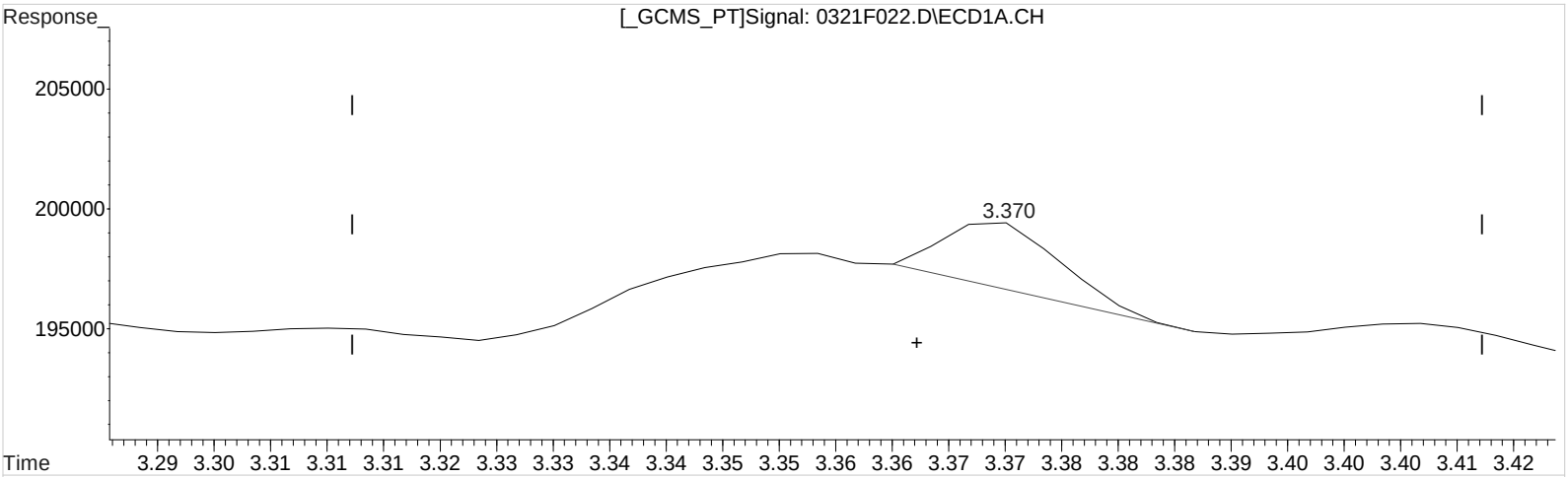


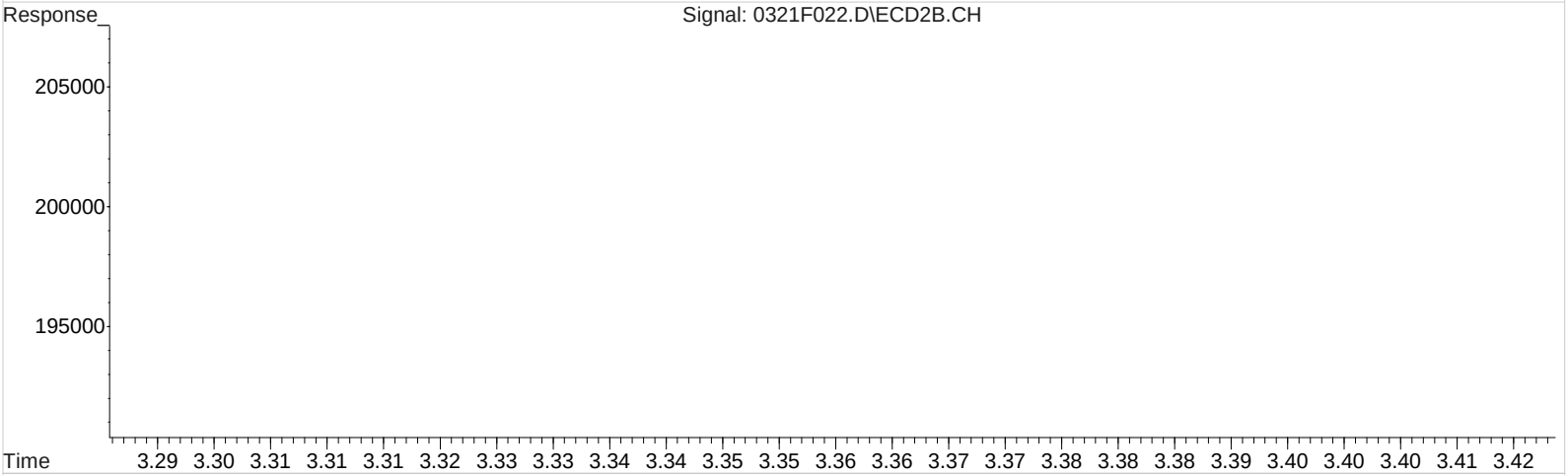
1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 10:44 pm Operator: MC
Sample : K1902361-002 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:08:30 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.370min 0.838 ug/L

response 16828

(2) 3,5-Dichlorophenol #2

3.989min 3.226 ug/L

response 59207

Manual Integration:

Before

03/22/19

(+) = Expected Retention Time

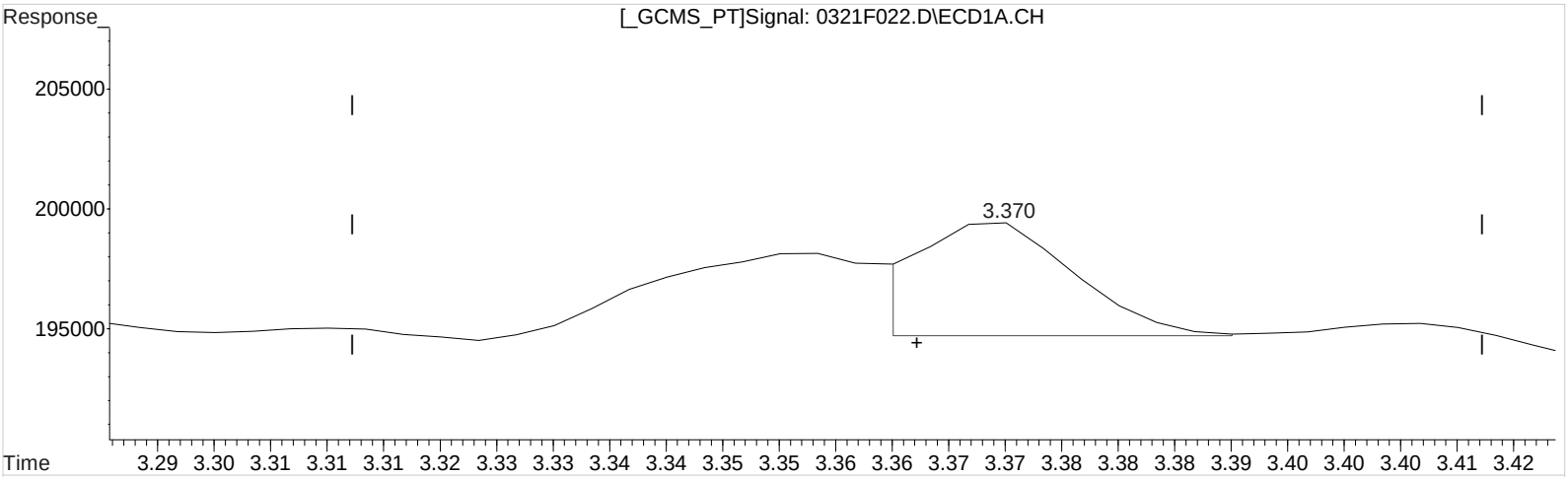
Quantitation Report (Qedit)

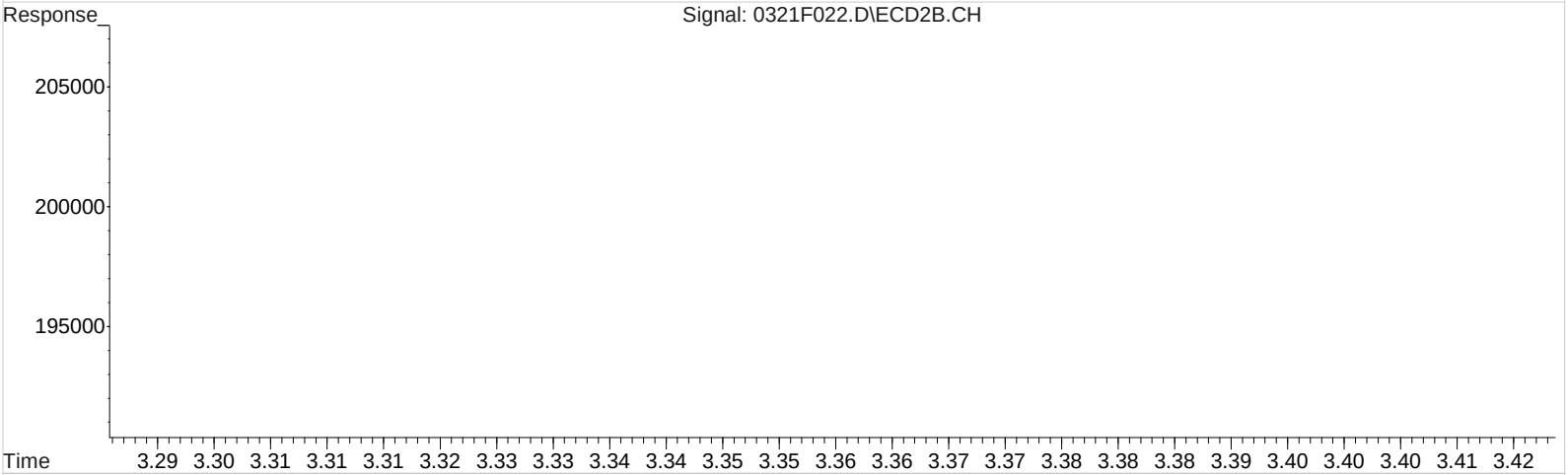
1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 10:44 pm Operator: MC
Sample : K1902361-002 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:08:30 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.370min 3.119 ug/L m

response 42194

(2) 3,5-Dichlorophenol #2

3.989min 3.226 ug/L

response 59207

Manual Integration:

After

Baseline/Shoulder

03/22/19

(+) = Expected Retention Time

1st DMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F023.D\
Lab ID: KQ1903604-02
RunType: DMS
Matrix: Water

Date Acquired: 3/21/19 23:03:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st DMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F023.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 23:03:00	**Vial:**	21
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1903604-02	**Raw Units:**	ug/L

Bottle ID:	K1902361-002.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18597

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18414615	19784260	53.404	46.929	107	94	94	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
2,4,5-Trichlorophenol	4.19	4.72 +0.01	5308540	5975352	38.652	33.489	7.73	6.70	**6.70**	Y
2,4,6-Trichlorophenol	3.47	4.21 +0.01	12170746	14573682	39.374	35.703	7.87	7.14	**7.14**	Y
3,4,5-Trichlorophenol	4.22	4.78	2700896	2909231	18.033	16.685	3.61	3.34	**3.34**	Y
2,3,4,5-Tetrachlorophenol	5.01	5.41	11840646	14535888	38.599	34.950	7.72	6.99	**6.99**	Y
2,3,5,6-Tetrachlorophenol	4.47	5.01	18487114	23681844	42.848	39.226	8.57	7.85	**7.85**	Y
Pentachlorophenol (PCP)	5.14	5.60	21231222	26657677	45.956	39.173	9.19	7.83	**7.83**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st DMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F023.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 23:03:00	**Vial:**	21
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1903604-02	**Raw Units:**	ug/L

Bottle ID:	K1902361-002.02	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**	333306	**Report Group:**	KQ1903604
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	3/20/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18414615	19784260	53.404	46.929	107	94	94	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	3.13	3.74 +0.01	159000	218763	9.525	10.085	1.91J	2.02	**1.91** J	Y
3,5-Dichlorophenol	3.37	3.99	35640	53506	2.529	2.863	0.506U	0.573U	0.65 U	Y
2,4,5-Trichlorophenol	4.19	4.72 +0.01	5308540	5975352	38.652	33.489	7.73	6.70	**6.70**	Y
2,4,6-Trichlorophenol	3.47	4.21 +0.01	12170746	14573682	39.374	35.703	7.87	7.14	**7.14**	Y
3,4,5-Trichlorophenol	4.22	4.78	2700896	2909231	18.033	16.685	3.61	3.34	**3.34**	Y
2,3,4,5-Tetrachlorophenol	5.01	5.41	11840646	14535888	38.599	34.950	7.72	6.99	**6.99**	Y
2,3,5,6-Tetrachlorophenol	4.47	5.01	18487114	23681844	42.848	39.226	8.57	7.85	**7.85**	Y
Pentachlorophenol (PCP)	5.14	5.60	21231222	26657677	45.956	39.173	9.19	7.83	**7.83**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st DMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:03 pm Operator: MC
Sample : K1902361-002 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:10:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	18414615	19784260	53.404	46.929
		Target Compounds						
1)		3,4-Dichl...	3.131	3.737	159000	218763	9.525	10.085
2)		3,5-Dichl...	3.367	3.990	35640	53506	2.529m	2.863
3)		2,4,6-Tri...	3.467	4.207	12170746	14573682	39.374	35.703
5)		2,4,5-Tri...	4.191	4.717	5308540	5975352	38.652	33.489
6)		3,4,5-Tri...	4.224	4.780	2700896	2909231	18.033	16.685
7)	M	2,3,5,6-T...	4.467	5.013	18487114	23681844	42.848	39.226
8)	M	2,3,4,5-T...	5.007	5.413	11840646	14535888	38.599	34.950
9)	M	Pentachlo...	5.144	5.597	21231222	26657677	45.956	39.173
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

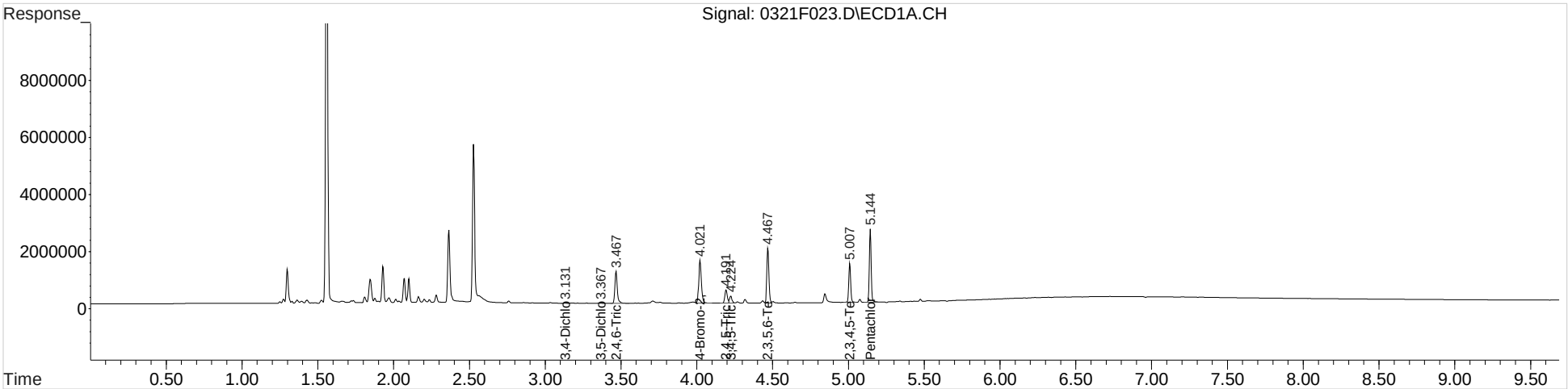
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:03 pm Operator: MC
Sample : K1902361-002 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:10:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



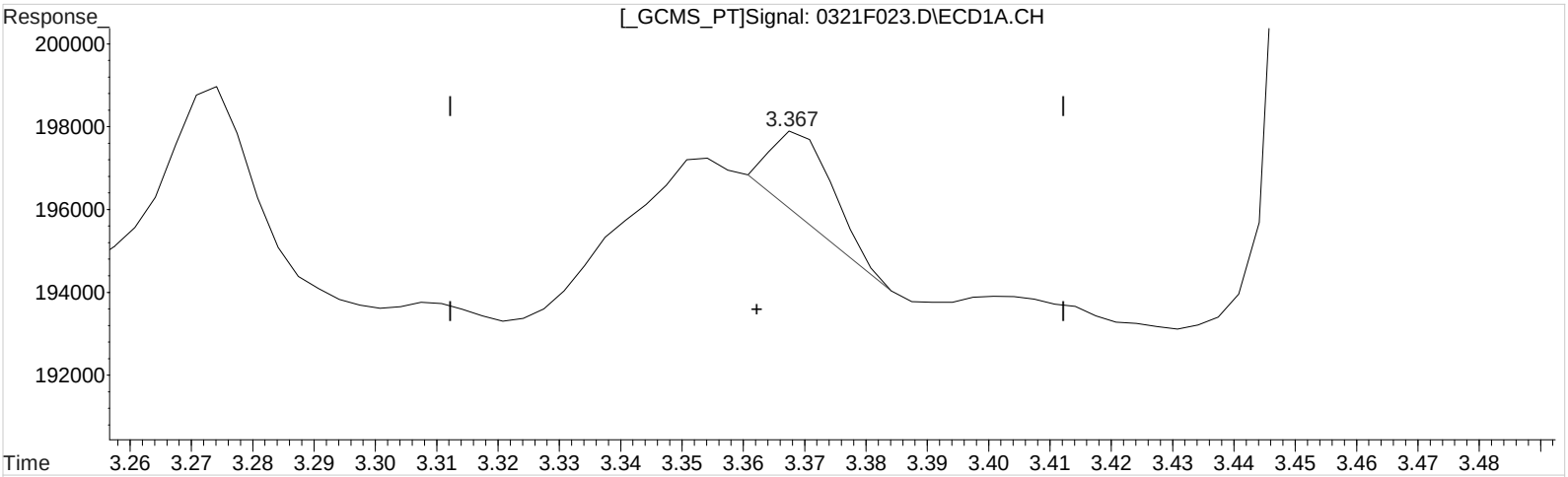
Quantitation Report (Qedit)

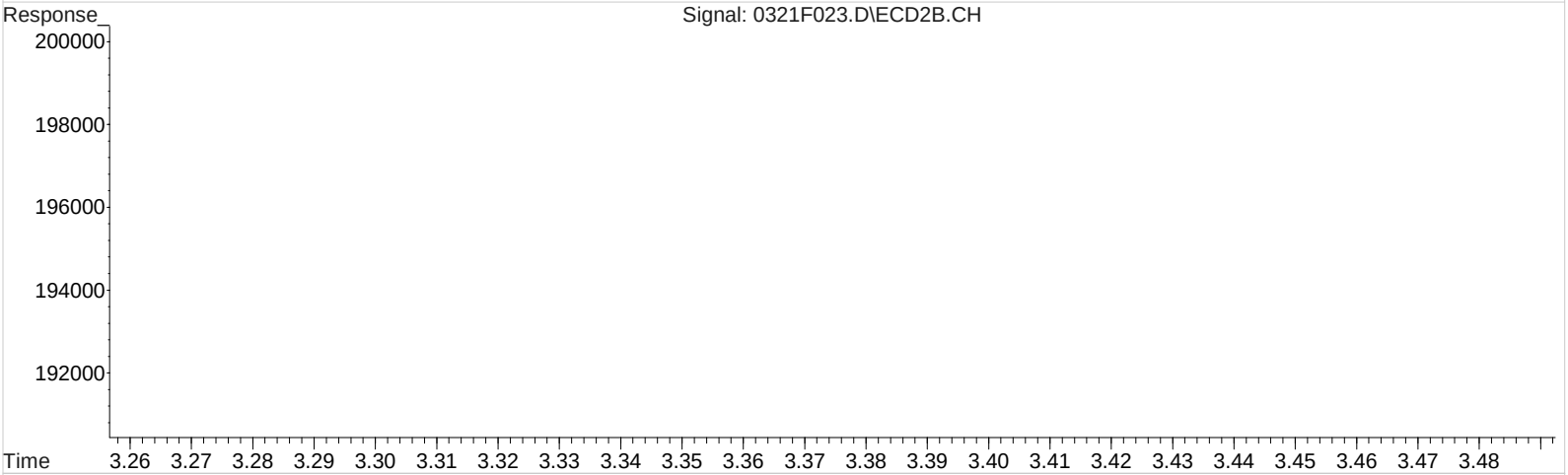
1st DMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:03 pm Operator: MC
Sample : K1902361-002 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:09:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.367min 0.363 ug/L

response 11520

Manual Integration:

Before

03/22/19

(2) 3,5-Dichlorophenol #2

3.990min 2.863 ug/L

response 53506

(+) = Expected Retention Time

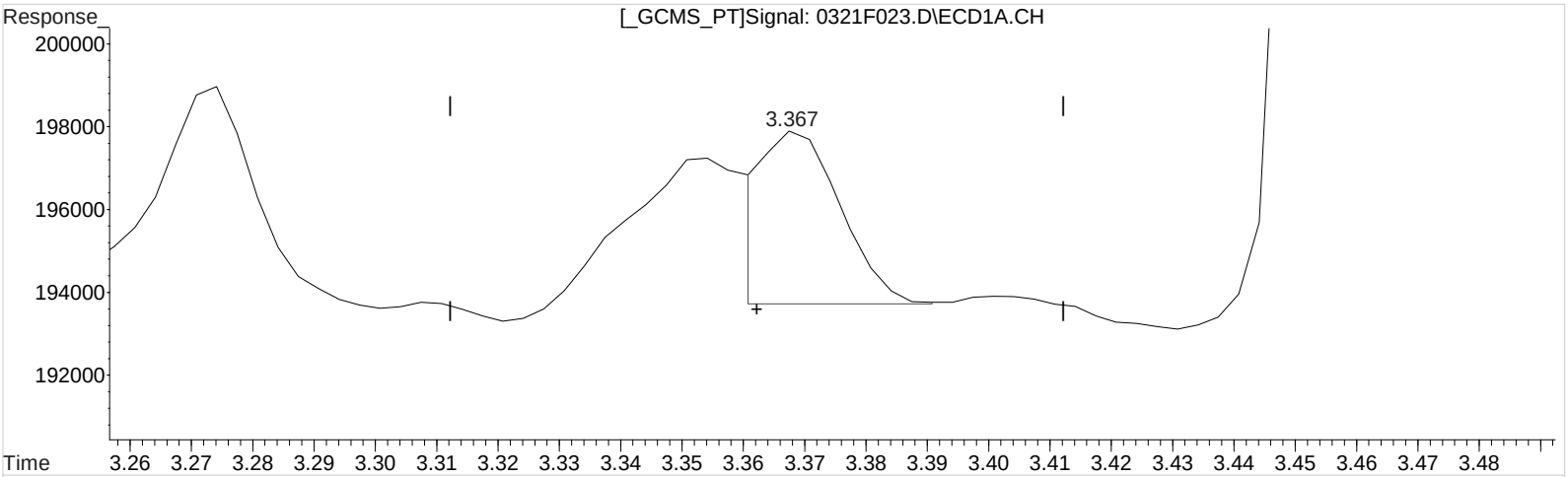
Quantitation Report (Qedit)

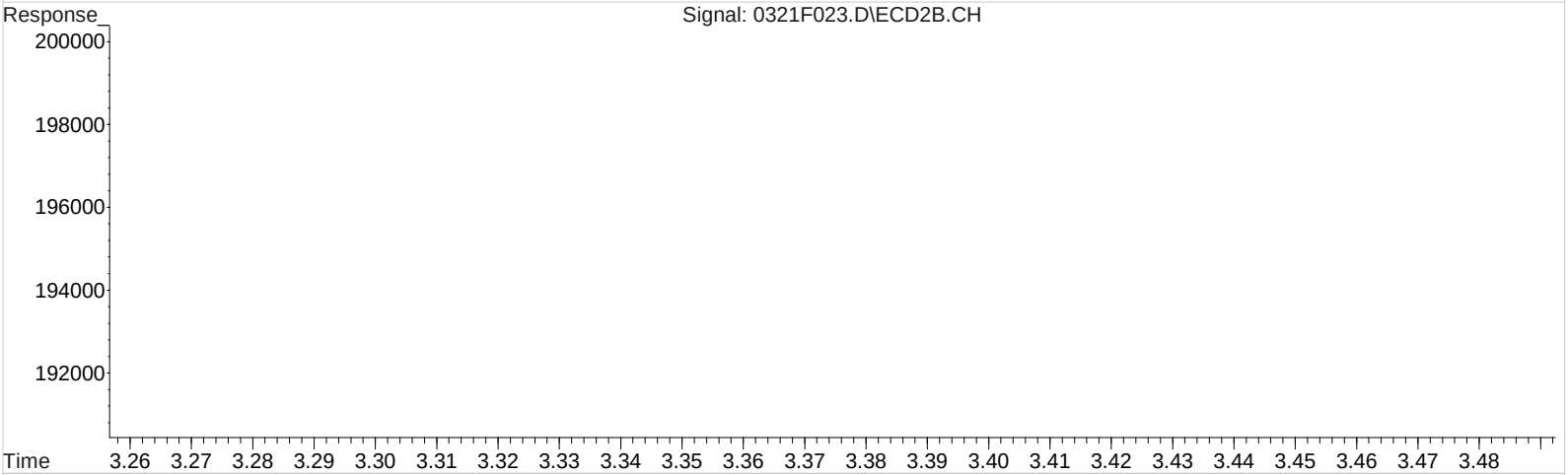
1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:03 pm Operator: MC
Sample : K1902361-002 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:09:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.367min 2.529 ug/L m

response 35640

(2) 3,5-Dichlorophenol #2

3.990min 2.863 ug/L

response 53506

Manual Integration:

After

Baseline/Shoulder

03/22/19

(+) = Expected Retention Time

1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F004.D\
Lab ID: KQ1903733-04
RunType: CCB
Matrix: Water

Date Acquired: 3/21/19 17:15:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F004.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 17:15:00	**Vial:**	4
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903733-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.66 +0.02	0	4740	0.000	0.011				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:15 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:07:38 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.659	0	4740	N.D. d	0.011
		Target Compounds						
1)		3,4-Dichl...	0.000	3.709	0	3709	N.D. d	0.171
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	4.206	0	3985	N.D. d	0.010
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	4.989	0	25121	N.D. d	0.042
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

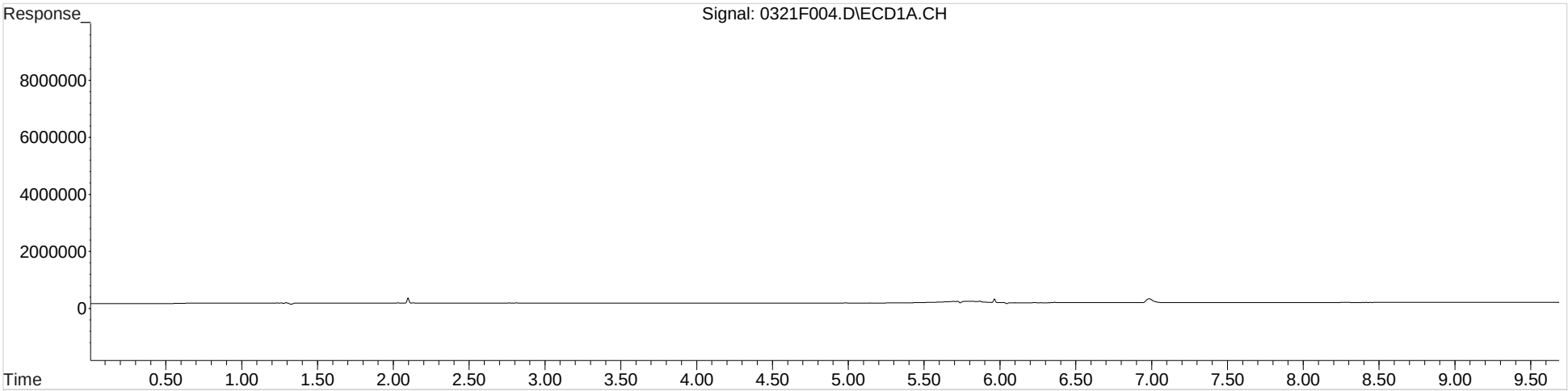
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 5:15 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:07:38 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F018.D\
Lab ID: KQ1903733-05
RunType: CCB
Matrix: Water

Date Acquired: 3/21/19 21:31:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F018.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 21:31:00	**Vial:**	5
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903733-05	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.69 +0.04	0	10598	0.000	0.025				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F018.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 9:31 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:06:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	0.000	4.688f	0	10598	N.D.	0.025	#
		Target Compounds							
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D.	
2)		3,5-Dichl...	3.386	0.000	11274	0	0.340	N.D.	#
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D.	
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D.	d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D.	d
7)	M	2,3,5,6-T...	0.000	4.992	0	22796	N.D. d	0.038	
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.	
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.	d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

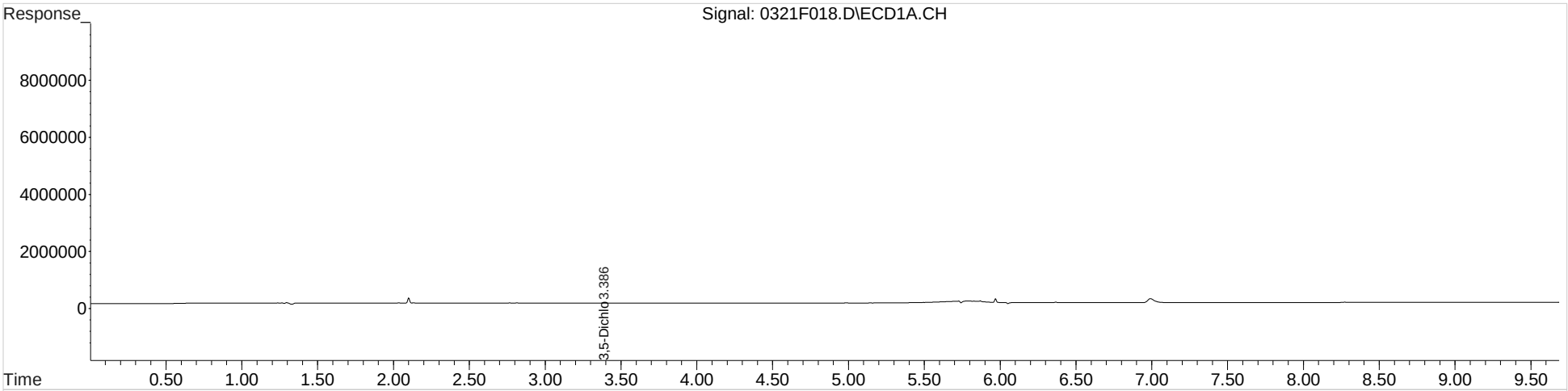
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F018.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 9:31 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:06:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F025.D\
Lab ID: KQ1903733-06
RunType: CCB
Matrix: Water

Date Acquired: 3/21/19 23:39:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F025.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 23:39:00	**Vial:**	6
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1903733-06	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.63 -0.02	0	4119	0.000	0.010				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F025.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:39 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:11:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.626	0	4119	N.D. d	0.010
		Target Compounds						
1)		3,4-Dichl...	0.000	3.683f	0	3232	N.D. d	0.149
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
3)		2,4,6-Tri...	0.000	4.173f	0	5065	N.D. d	0.012
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D.
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	4.989	0	27618	N.D. d	0.046
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

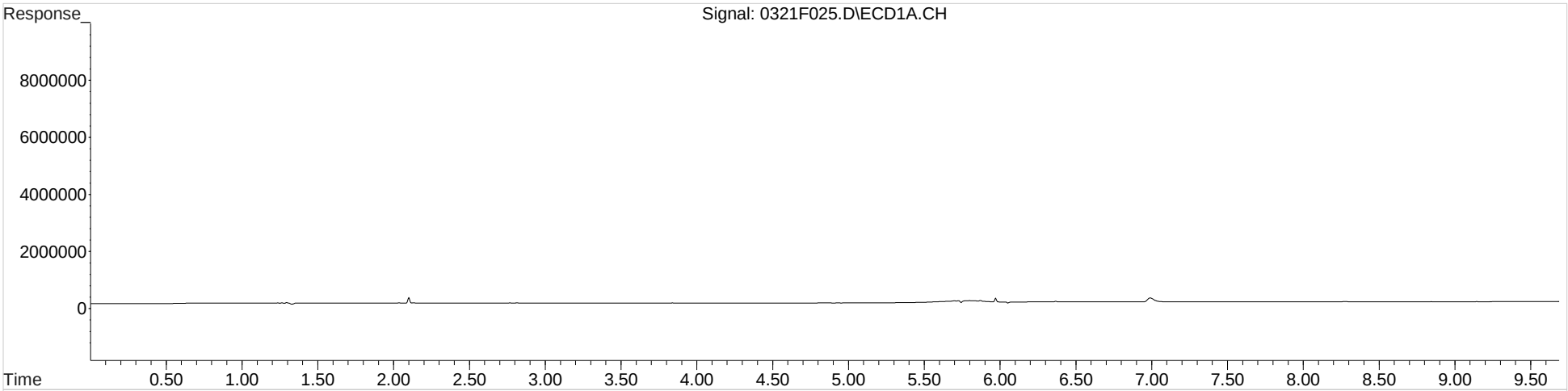
1st 03/22/19
2nd 03/22/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F025.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:39 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:11:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F003.D\
Lab ID: KQ1903733-01
RunType: CCV
Matrix: Water

Date Acquired: 3/21/19 16:57:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F003.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 16:57:00	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903733-01	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.01	4.64	17637006	20007220	51.087	47.458			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.59	21845320	28381951	47.327	41.707	47.3	41.7	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 4:57 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:06:46 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.015	4.644	17637006	20007220	51.087	47.458
		Target Compounds						
1)		3,4-Dichl...	3.124	3.731	715795	889996	46.511	41.028
2)		3,5-Dichl...	3.365	3.981	513089	642616	48.282	41.828
3)		2,4,6-Tri...	3.461	4.200	13633520	17129552	44.366	41.965
5)		2,4,5-Tri...	4.188	4.710	6298813	7585894	46.427	42.847
6)		3,4,5-Tri...	4.218	4.774	6113969	7169916	42.808	42.311
7)	M	2,3,5,6-T...	4.465	5.011	19291588	25496952	44.804	42.232
8)	M	2,3,4,5-T...	5.005	5.410	13042117	16798644	42.802	40.390
9)	M	Pentachlo...	5.141	5.590	21845320	28381951	47.327	41.707
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

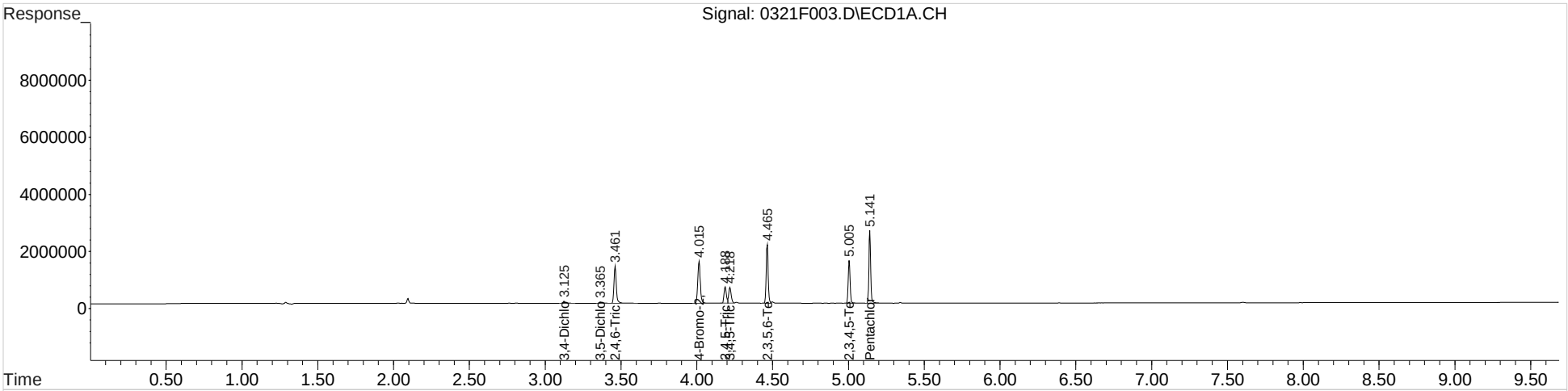
1st 03/22/19
2nd 03/22/19

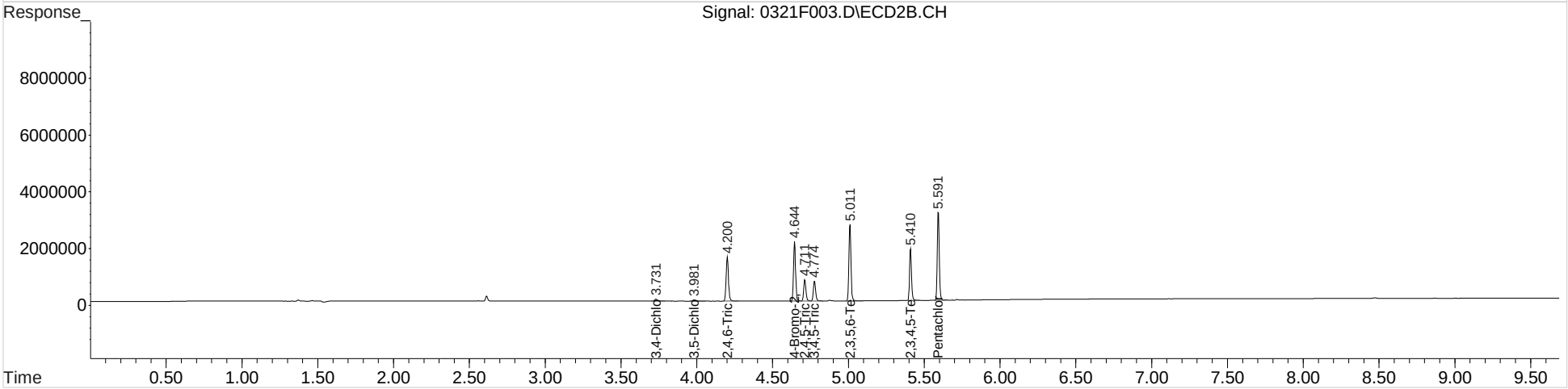
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 4:57 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 07:06:46 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F017.D\
Lab ID: KQ1903733-02
RunType: CCV
Matrix: Water

Date Acquired: 3/21/19 21:13:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F017.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 21:13:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903733-02	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18278264	20160352	52.998	47.821			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	22308120	28192546	48.361	41.428	48.4	41.4	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st JMS 03/22/19
2nd TP 03/22/19

Data File : J:\GC28\Data\032119B\0321F017.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 9:13 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:05:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	18278264	20160352	52.998	47.821
		Target Compounds						
1)		3,4-Dichl...	3.127	3.733	754148	922708	49.167	42.536
2)		3,5-Dichl...	3.367	3.987	538909	667170	50.936	43.519
3)		2,4,6-Tri...	3.467	4.203	14346803	17578972	46.815	43.066
5)		2,4,5-Tri...	4.191	4.713	6437078	7748464	47.523	43.795
6)		3,4,5-Tri...	4.221	4.780	6546988	7317536	46.061	43.208
7)	M	2,3,5,6-T...	4.467	5.013	20279796	25975020	47.214	43.024
8)	M	2,3,4,5-T...	5.007	5.413	13478909	16864322	44.339	40.548
9)	M	Pentachlo...	5.144	5.597	22308120	28192546	48.361	41.428
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

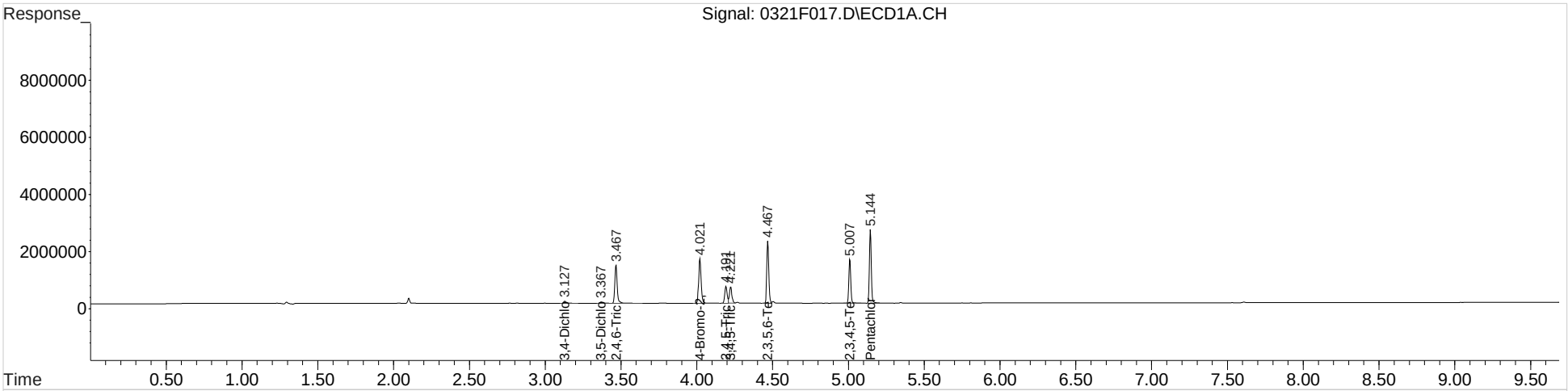
1st 03/22/19
2nd 03/22/19

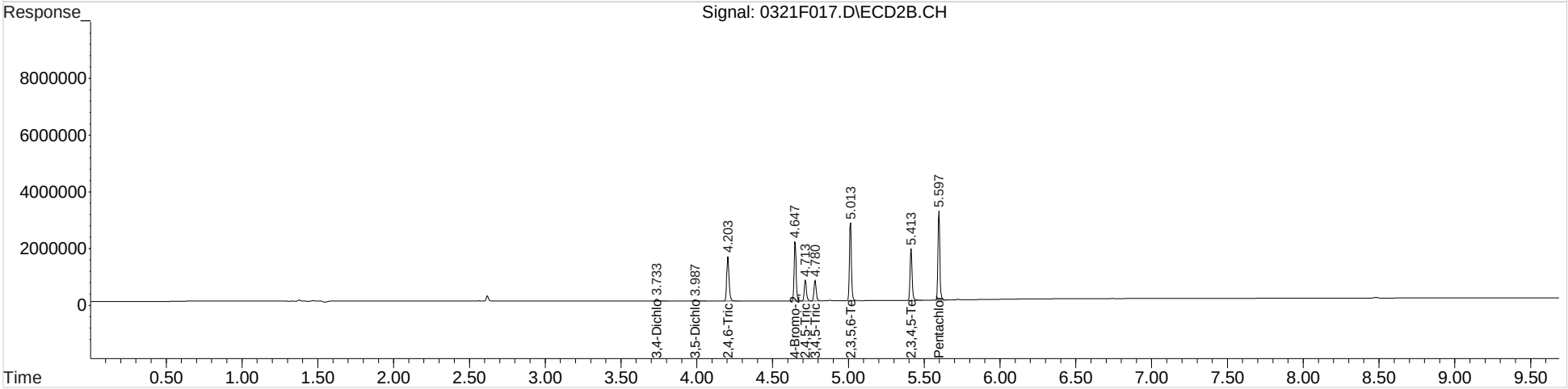
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\032119B\0321F017.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 9:13 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:05:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st JMS 03/22/19
2nd TP 03/22/19

Validation Report

Data File: J:\GC28\Data\032119B\0321F024.D\
Lab ID: KQ1903733-03
RunType: CCV
Matrix: Water

Date Acquired: 3/21/19 23:21:00
Batch ID: 629161
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st JMS 03/22/19
2nd TP 03/22/19

Quantitation Report

Data File:	J:\GC28\Data\032119B\0321F024.D\	**Instrument:**	K-GC-28
Acqu Date:	3/21/19 23:21:00	**Vial:**	3
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903733-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629161	**Prep Lot:**		**Report Group:**	KQ1903733
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18459552	19840209	53.538	47.062			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	22816136	28061303	49.496	41.236	49.5	41.2	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F024.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:21 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:10:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	18459552	19840209	53.538	47.062
		Target Compounds						
1)		3,4-Dichl...	3.128	3.734	743225	897822	48.409	41.389
2)		3,5-Dichl...	3.368	3.988	528954	647718	49.910	42.179
3)		2,4,6-Tri...	3.465	4.204	14049800	17109382	45.794	41.916
5)		2,4,5-Tri...	4.192	4.714	6445798	7540579	47.593	42.582
6)		3,4,5-Tri...	4.222	4.781	6536556	7101386	45.983	41.895
7)	M	2,3,5,6-T...	4.468	5.014	20411928	25624502	47.537	42.443
8)	M	2,3,4,5-T...	5.008	5.414	13684954	16797170	45.065	40.387
9)	M	Pentachlo...	5.145	5.598	22816136	28061303	49.496	41.236
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

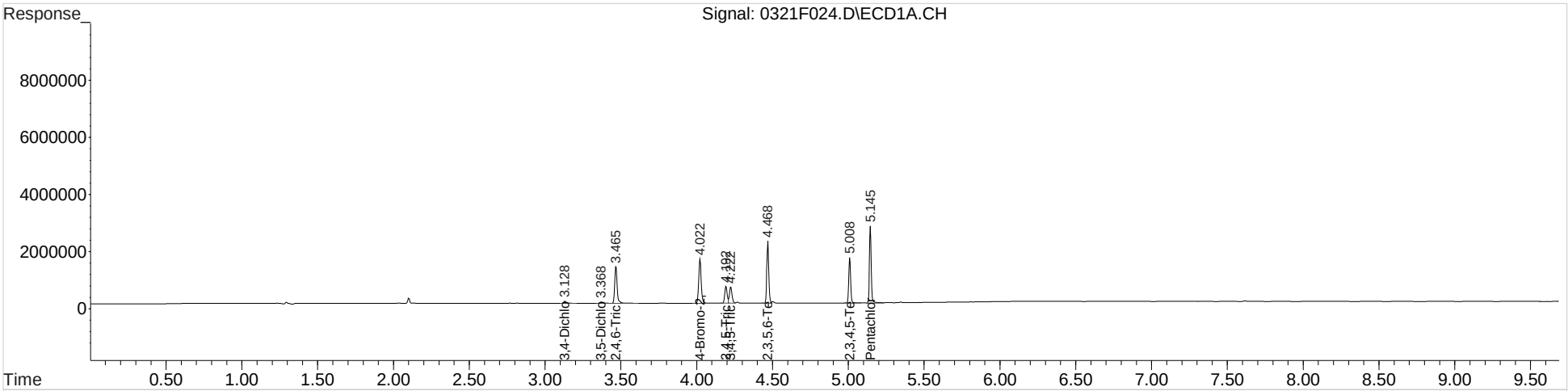
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st 03/22/19
2nd 03/22/19

Data File : J:\GC28\Data\032119B\0321F024.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Mar 2019 11:21 pm Operator: MC
Sample : CCV 50PPB PENTA01-94L Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Mar 22 08:10:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\022819CAL\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0228F001	PENTHOT2	PRIMER
2	IB	100	0228F002	PENTHOT2	PRIMER
3	ICAL	1	0228F003	PENTHOT2	IB
4	ICAL	2	0228F004	PENTHOT2	PENTA01-94T 1.0
5	ICAL	NR 3	0228F005	PENTHOT2	PENTA01-94S 2.5 - bad injection
6	ICAL	4	0228F006	PENTHOT2	PENTA01-94R 5.0
7	ICAL	5	0228F007	PENTHOT2	PENTA01-94Q 10
8	ICAL	6	0228F008	PENTHOT2	PENTA01-94P 25
9	ICAL	7	0228F009	PENTHOT2	PENTA01-94O 50
10	ICAL	8	0228F010	PENTHOT2	PENTA01-94N 100
11	ICAL	9	0228F011	PENTHOT2	PENTA01-94M 250
12	ICAL	10	0228F012	PENTHOT2	PENTA01-95G 500
13	ICAL	11	0228F013	PENTHOT2	PENTA01-95H 1000
14	ICAL	3	0228F014	PENTHOT2	PENTA01-94S 2.5 ok
15	IB	1	0228F015	PENTHOT2	IB
16	ICAL	12	0228F016	PENTHOT2	PENTA01-95D ICV

KC1900082
2/28/19

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ALS-Kelso
Initial Calibration Checklist GC

Method: 8151M
ICAL ID or Date: KC000821
Instrument: GC28

Primary	Secondary	
☑	☑	The new ICAL is saved with a unique ID.
☑	☑	ICAL was performed continuously (i.e. not interrupted by maintenance event).
☑	☐	All analytes in blank are < ½ MRL.
☑	☑	ICAL contains minimum number of concentrations.
☑	☑	No internal levels excluded for any analytes.
☑	☑	Retention times updated using a midpoint of the calibration. Secondary reviewer double check peak IDs.
☑	☑	Calibration files quantitated with new method.
☑	☑	Check integrations. Primary reviewer must check all integrations electronically. Secondary reviewer will check low point and high point electronically.
☑	☑	ICAL files added to calibration table.
☑	☑	The average RF or COD meets method criteria for all analytes.
☑	☑	ICV is quantitated against new ICAL.
☑	☑	ICV meets method criteria.
☑	☐	Linked in ~~Stealth~~ UMS to an appropriate method. An appropriate method will be one that contains all analytes that were analyzed.
☑	☑	All calibration reports included: ICAL SUMMARY, ICAL DETAILED, ICV SUMMARY.
☑	☑	Enviroquant/Target responses match those in Stealth.
☑	☑	All quant reports and manual integrations initialed and dated.

Data packet should be in the following order: Sequence log, Calibration Review, Stealth ICAL reports, and quant reports.

Primary: _____ Date: 2/28/19

Secondary: _____ Date: 2/28/19

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -87.82 X² + 4.342E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	6.732E5	02	5.000	5.679E5	03	10.000	5.372E5	04	25.000	4.948E5
05	50.000	4.691E5	06	100.000	4.496E5	07	250.000	4.103E5	08	500.000	3.739E5
09	1000.000	3.511E5	10	2.500	6.128E5						

2,3,4,5-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -268.7 X² + 3.077E5 X + 3.627E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	02	4.715	3.979E5	03	9.431	3.696E5	04	23.577	3.259E5
05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5	10	2.358	4.756E5

2,3,5,6-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -316.9 X² + 4.391E5 X + 2.523E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	02	4.715	5.28E5	03	9.431	4.935E5	04	23.577	4.478E5
05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5	10	2.358	5.749E5

2,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -146.2 X² + 1.398E5 X + 1.234E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	02	4.669	1.8E5	03	9.338	1.735E5	04	23.345	1.484E5
05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5	10	2.334	2.006E5

2,4,6-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9995**	**Y= -245.7 X² + 3.136E5 X + 2.021E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	02	4.669	3.846E5	03	9.338	3.638E5	04	23.345	3.225E5
05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5	10	2.334	4.078E5

3,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -166.3 X² + 1.479E5 X + 8.837E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	02	4.669	1.823E5	03	9.338	1.696E5	04	23.345	1.515E5
05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5	10	2.334	1.988E5

3,4-Dichlorophenol	**Quadratic**	**1/X**	**COD = 1.0000**	**Y= -15.47 X² + 1.592E4 X + 8.759E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.529E4	02	4.605	1.749E4	03	9.209	1.718E4	04	23.023	1.584E4
05	46.046	1.558E4	06	92.091	1.446E4	07	230.230	1.241E4	10	2.302	1.966E4

3,5-Dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9982**	**Y= -14.62 X² + 1.118E4 X + 7.47E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	1.798E4	02	4.605	1.407E4	03	9.209	1.255E4	04	23.023	1.076E4
05	46.046	1.147E4	06	92.091	9.36E3	07	230.230	7.904E3	10	2.302	1.374E4

Pentachlorophenol (PCP)	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -97.29 X² + 4.57E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	02	4.750	5.978E5	03	9.501	5.654E5	04	23.752	5.208E5
05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5	08	475.030	3.936E5
09	950.060	3.695E5	10	2.375	6.451E5						

4-Bromo-2,6-dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9994**	**Y= -70.25 X² + 3.43E5 X + 2.985E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	02	5.000	4.356E5	03	10.000	4.141E5	04	25.000	3.754E5
05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5	08	500.000	2.979E5
09	1000.000	2.755E5	10	2.500	4.672E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.555	**-44.5**	02	5.000	5.55	11.0	03	10.000	11.4	14.0
04	25.000	27.6	10.6	05	50.000	53.6	7.2	06	100.000	105	4.8
07	250.000	248	-0.9	08	500.000	475	-5.0	09	1000.000	1020	1.6
10	2.500	2.53	1.4								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.770	-18.3	02	4.715	4.94	4.7	03	9.431	10.2	8.6
04	23.577	24.3	3.1	05	47.153	46.9	-0.6	06	94.307	91.6	-2.8
07	235.770	237	0.6	10	2.358	2.47	4.8				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.738	-21.7	02	4.715	5.11	8.5	03	9.431	10.1	7.1
04	23.577	23.9	1.3	05	47.153	47.4	0.6	06	94.307	91.5	-3.0
07	235.770	237	0.5	10	2.358	2.52	6.8				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.634	**-32.1**	02	4.669	5.16	10.4	03	9.338	10.8	15.9
04	23.345	24.5	5.1	05	46.690	46.1	-1.2	06	93.379	88.6	-5.1
07	233.450	236	1.2	10	2.334	2.47	6.0				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.732	-21.6	02	4.669	5.10	9.3	03	9.338	10.3	10.0
04	23.345	23.8	2.0	05	46.690	47.3	1.2	06	93.379	89.5	-4.1
07	233.450	235	0.8	10	2.334	2.39	2.6				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.655	-29.8	02	4.669	5.19	11.1	03	9.338	10.2	9.6
04	23.345	24.0	2.7	05	46.690	47.4	1.5	06	93.379	88.5	-5.2
07	233.450	236	1.2	10	2.334	2.55	9.2				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.914	-0.8	02	4.605	4.53	-1.6	03	9.209	9.47	2.9
04	23.023	22.9	-0.7	05	46.046	46.6	1.3	06	92.091	91.2	-1.0
07	230.230	231	0.2	10	2.302	2.30	-0.2				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.814	-11.6	02	4.605	5.16	12.1	03	9.209	9.80	6.4
04	23.023	22.1	-3.9	05	46.046	49.8	8.2	06	92.091	86.2	-6.4
07	230.230	233	1.3	10	2.302	2.17	-5.8				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	0.527	**-44.5**	02	4.750	5.27	11.0	03	9.501	10.8	14.0
04	23.752	26.3	10.6	05	47.503	50.9	7.2	06	95.006	99.5	4.8
07	237.520	235	-0.9	08	475.030	452	-5.0	09	950.060	966	1.6
10	2.375	2.41	1.4								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.643	**-35.7**	02	5.000	5.49	9.7	03	10.000	11.2	12.3
04	25.000	26.6	6.5	05	50.000	53.3	6.6	06	100.000	102	1.6
07	250.000	251	0.2	08	500.000	481	-3.9	09	1000.000	1010	1.2
10	2.500	2.54	1.5								

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D\0228F004c.d	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D\0228F006c.d	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D\0228F007c.d	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D\0228F008c.d	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D\0228F009c.d	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D\0228F010c.d	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D\0228F011c.d	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D\0228F012c.d	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D\0228F013c.d	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D\0228F014c.d	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte	Curve Fit	Weighting

2,3,4,5,6-Pentachloroanisole

Average RF | RSD = 9.583 | Average RF = 6.462E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	7.909E5	02	5.000	6.542E5	03	10.000	6.532E5	04	25.000	6.151E5
05	50.000	6.083E5	06	100.000	5.984E5	07	250.000	5.996E5	08	500.000	6.052E5
09	1000.000	6.245E5	10	2.500	7.13E5						

2,3,4,5-Tetrachlorophenol

Average RF | RSD = 12.29 | Average RF = 4.159E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	02	4.715	4.353E5	03	9.431	4.108E5	04	23.577	3.904E5
05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5	10	2.358	4.73E5

2,3,5,6-Tetrachlorophenol

Average RF | RSD = 6.587 | Average RF = 6.037E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	02	4.715	5.882E5	03	9.431	6.075E5	04	23.577	5.816E5
05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5	10	2.358	6.377E5

2,4,5-Trichlorophenol

Quadratic 1/X | COD = 0.9997 | Y= -73.44 X² + 1.777E5 X + 1.058E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	02	4.669	2.059E5	03	9.338	2.015E5	04	23.345	1.829E5
05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5	10	2.334	2.293E5

2,4,6-Trichlorophenol

Average RF | RSD = 4.634 | Average RF = 4.082E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	02	4.669	4.004E5	03	9.338	4.124E5	04	23.345	3.941E5
05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5	10	2.334	4.267E5

3,4,5-Trichlorophenol

Quadratic 1/X | COD = 0.9998 | Y= -63.92 X² + 1.7E5 X + 9.004E4

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	02	4.669	1.919E5	03	9.338	1.89E5	04	23.345	1.732E5
05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5	10	2.334	2.115E5

3,4-Dichlorophenol

Average RF | RSD = 10.82 | Average RF = 2.169E4

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.356E4	02	4.605	2.28E4	03	9.209	2.378E4	04	23.023	2.153E4
05	46.046	2.119E4	06	92.091	1.915E4	07	230.230	1.751E4	10	2.302	2.4E4

3,5-Dichlorophenol

Quadratic 1/X | COD = 0.9996 | Y= -14.71 X² + 1.578E4 X + 8.463E3

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.299E4	02	4.605	1.798E4	03	9.209	1.82E4	04	23.023	1.612E4
05	46.046	1.537E4	06	92.091	1.408E4	07	230.230	1.249E4	10	2.302	1.928E4

Pentachlorophenol (PCP)

Average RF | RSD = 9.573 | Average RF = 6.805E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	02	4.750	6.912E5	03	9.501	6.875E5	04	23.752	6.474E5
05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5	08	475.030	6.37E5
09	950.060	6.573E5	10	2.375	7.52E5						

4-Bromo-2,6-dichlorophenol

Average RF | RSD = 5.968 | Average RF = 4.216E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	02	5.000	3.777E5	03	10.000	4.048E5	04	25.000	4.138E5
05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5	08	500.000	4.395E5
09	1000.000	4.542E5	10	2.500	3.934E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.22	22.4	02	5.000	5.06	1.2	03	10.000	10.1	1.1
04	25.000	23.8	-4.8	05	50.000	47.1	-5.9	06	100.000	92.6	-7.4
07	250.000	232	-7.2	08	500.000	468	-6.4	09	1000.000	966	-3.4
10	2.500	2.76	10.3								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.14	21.2	02	4.715	4.93	4.7	03	9.431	9.31	-1.2
04	23.577	22.1	-6.1	05	47.153	43.3	-8.3	06	94.307	83.5	-11.5
07	235.770	206	-12.5	10	2.358	2.68	13.7				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.07	13.6	02	4.715	4.59	-2.6	03	9.431	9.49	0.6
04	23.577	22.7	-3.7	05	47.153	45.9	-2.6	06	94.307	89.1	-5.6
07	235.770	223	-5.4	10	2.358	2.49	5.6				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.799	-14.5	02	4.669	4.82	3.3	03	9.338	10.0	7.4
04	23.345	23.7	1.3	05	46.690	47.3	1.3	06	93.379	90.7	-2.9
07	233.450	234	0.4	10	2.334	2.42	3.6				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	1.01	8.7	02	4.669	4.58	-1.9	03	9.338	9.43	1.0
04	23.345	22.5	-3.5	05	46.690	46.6	-0.2	06	93.379	89.0	-4.7
07	233.450	224	-4.0	10	2.334	2.44	4.5				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.846	-9.5	02	4.669	4.75	1.7	03	9.338	9.88	5.9
04	23.345	23.5	0.5	05	46.690	47.5	1.7	06	93.379	91.1	-2.4
07	233.450	234	0.3	10	2.334	2.38	1.8				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	1.00	8.6	02	4.605	4.84	5.1	03	9.209	10.1	9.6
04	23.023	22.9	-0.7	05	46.046	45.0	-2.3	06	92.091	81.3	-11.7
07	230.230	186	-19.3	10	2.302	2.55	10.6				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.806	-12.4	02	4.605	4.73	2.8	03	9.209	10.2	10.6
04	23.023	23.5	2.1	05	46.046	46.3	0.6	06	92.091	89.0	-3.3
07	230.230	232	0.7	10	2.302	2.28	-0.9				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	1.16	22.2	02	4.750	4.82	1.6	03	9.501	9.60	1.0
04	23.752	22.6	-4.9	05	47.503	44.7	-5.9	06	95.006	87.9	-7.4
07	237.520	220	-7.3	08	475.030	445	-6.4	09	950.060	918	-3.4
10	2.375	2.62	10.5								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.975	-2.5	02	5.000	4.48	-10.4	03	10.000	9.60	-4.0
04	25.000	24.5	-1.8	05	50.000	52.4	4.9	06	100.000	103	3.0
07	250.000	264	5.5	08	500.000	521	4.2	09	1000.000	1080	7.7
10	2.500	2.33	-6.7								

Initial Calibration Verification Summary Report

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-1701

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Quadratic	50	58.215	ug/L	16.4	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.125	ug/L	6.3	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.742	ug/L	7.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.950	ug/L	7.0	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	47.208	ug/L	1.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.502	ug/L	6.0	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	50.405	ug/L	9.5	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	54.814	ug/L	19.0	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Quadratic	47.5030	55.309	ug/L	16.4	<= 20

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-35

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Average RF	50	51.424	ug/L	2.8	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	46.743	ug/L	-0.9	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	47.890	ug/L	1.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	50.676	ug/L	8.5	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Average RF	46.69	46.729	ug/L	0.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	48.393	ug/L	3.6	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Average RF	46.0460	46.475	ug/L	0.9	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	48.925	ug/L	6.3	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Average RF	47.5030	48.834	ug/L	2.8	<= 20

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:01 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:03:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.712	0	59380	N.D. d	0.137
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
2)		3,5-Dichl...	0.000	4.125f	0	25046	N.D.	1.520 #
3)		2,4,6-Tri...	0.000	4.292	0	32648	N.D. d	0.078
5)		2,4,5-Tri...	0.000	4.802	0	42050	N.D. d	0.210
6)		3,4,5-Tri...	0.000	4.832	0	55519	N.D. d	0.296
7)	M	2,3,5,6-T...	0.000	5.088	0	70520	N.D. d	0.114
8)	M	2,3,4,5-T...	0.000	5.452	0	131834	N.D. d	0.319
9)	M	Pentachlo...	0.000	5.685f	0	269600	N.D. d	0.392
10)		Pentachlo...	0.000	5.685f	0	269600	N.D. d	0.413

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

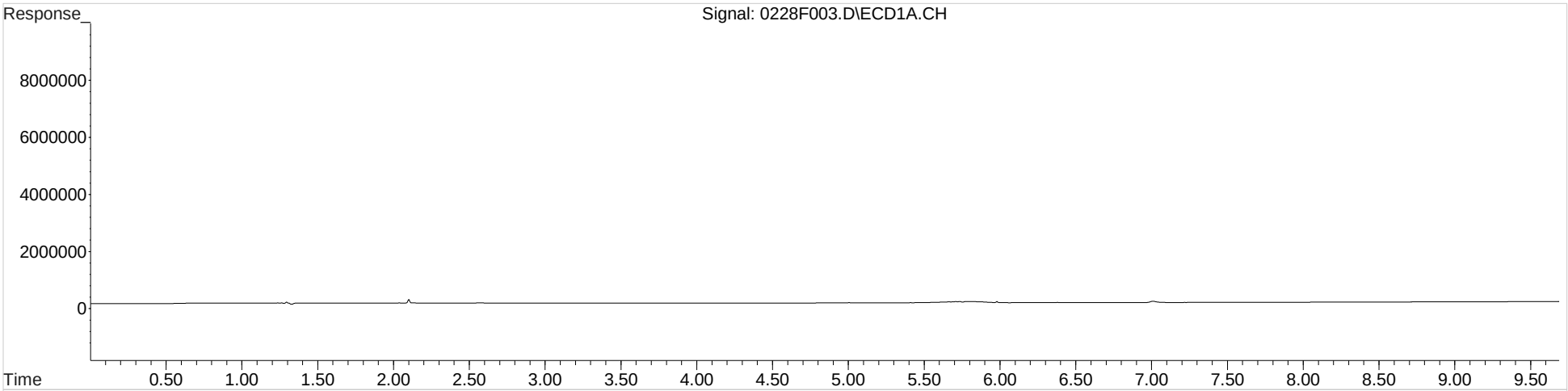
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:01 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:03:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.027	4.714	519128	410904	0.637	0.945 #
		Target Compounds						
1)		3,4-Dichl...	3.137	3.824	23293	21701	0.801m	0.982m
2)		3,5-Dichl...	3.377	4.084	16564	21176	1.036m	1.285m
3)		2,4,6-Tri...	3.473	4.284	431646	414230	0.802	0.993
5)		2,4,5-Tri...	4.200	4.778	211915	247658	0.739	1.239 #
6)		3,4,5-Tri...	4.230	4.844	185206	233780	0.709m	1.245 #
7)	M	2,3,5,6-T...	4.473	5.071	576226	646609	1.211m	1.048m
8)	M	2,3,4,5-T...	5.013	5.468	599618	475513	0.771	1.152m#
9)	M	Pentachlo...	5.150	5.648	673174	789810	0.493	1.149m#
10)		Pentachlo...	5.150	5.648	673174	790854	0.519	1.211m#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

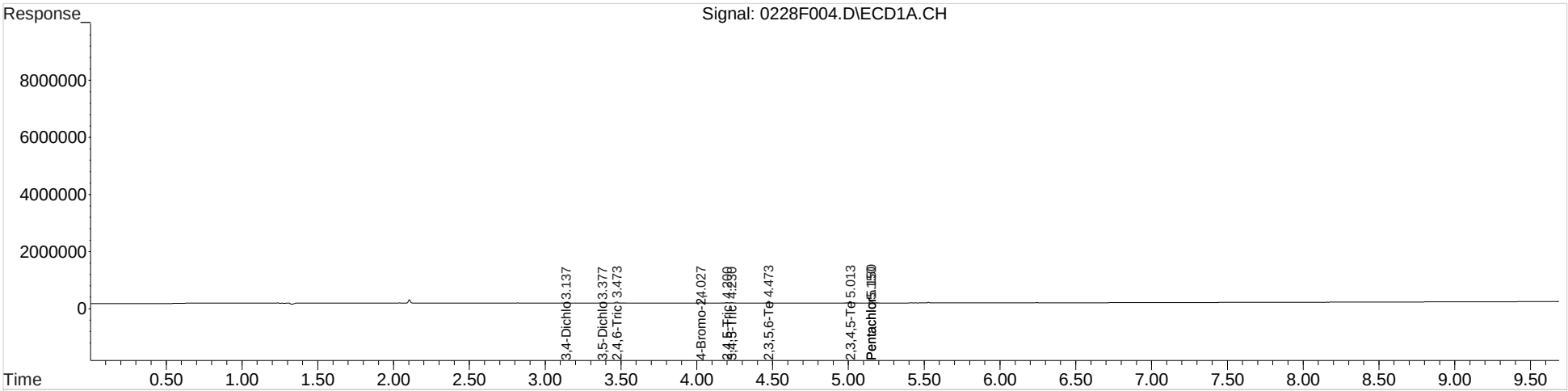
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

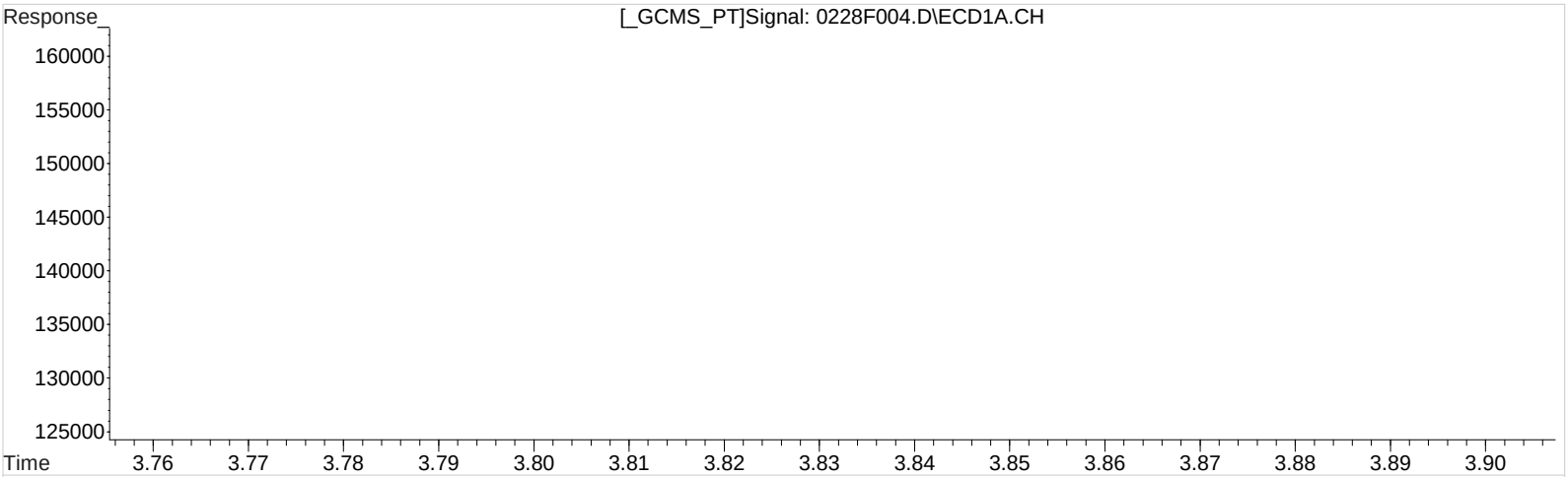


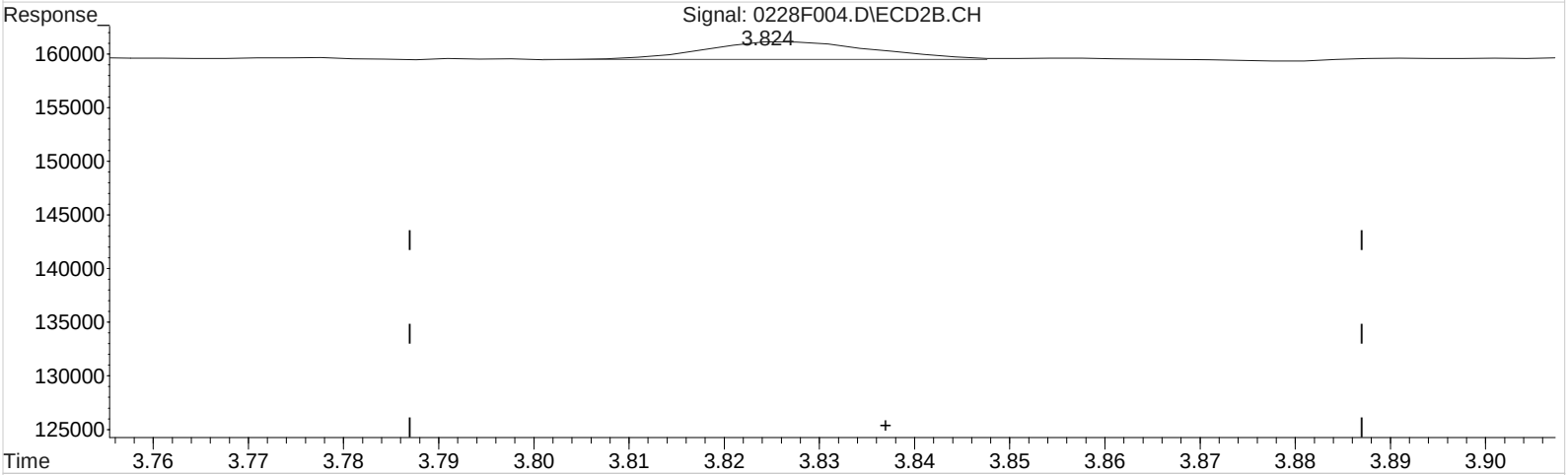
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.924 ug/L

response 20420

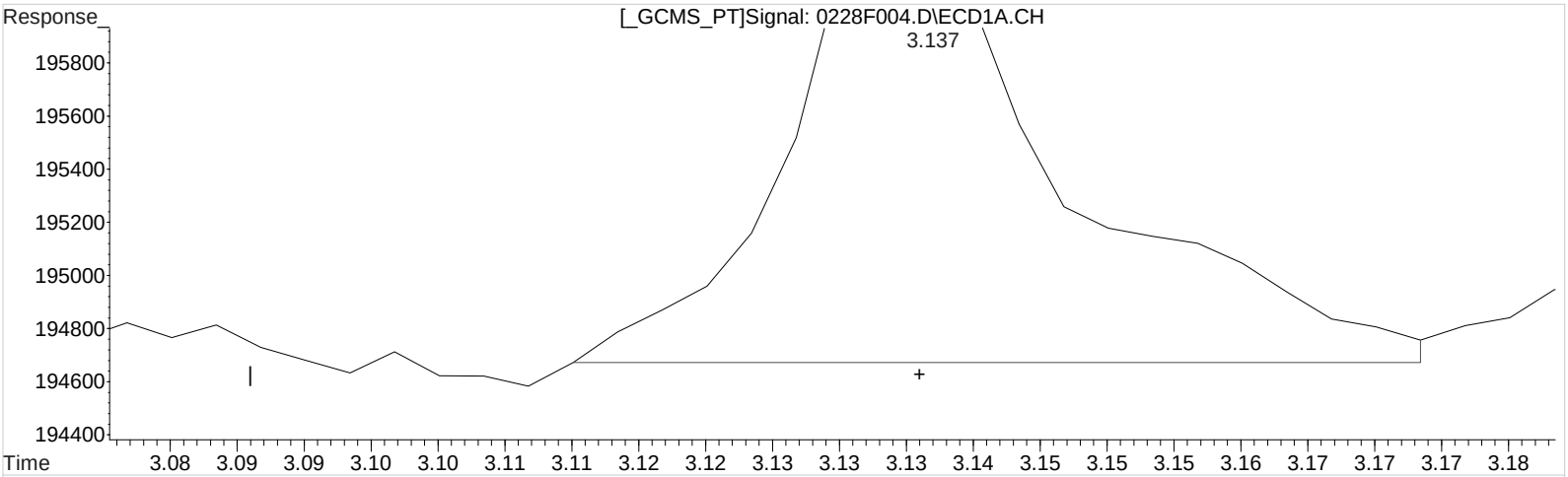
(+) = Expected Retention Time

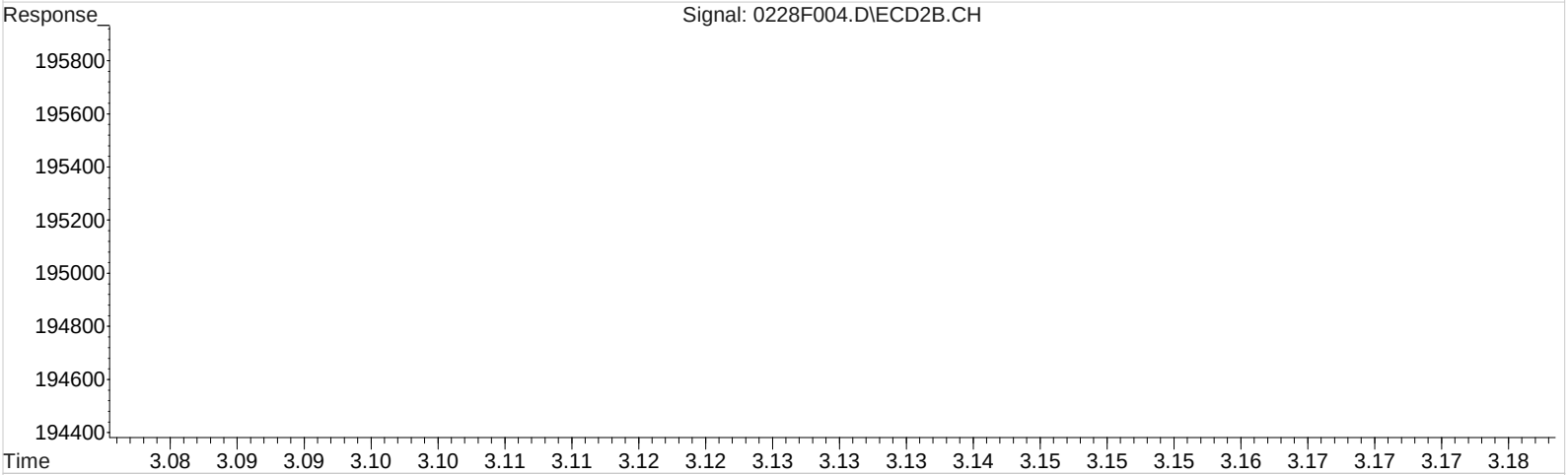
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

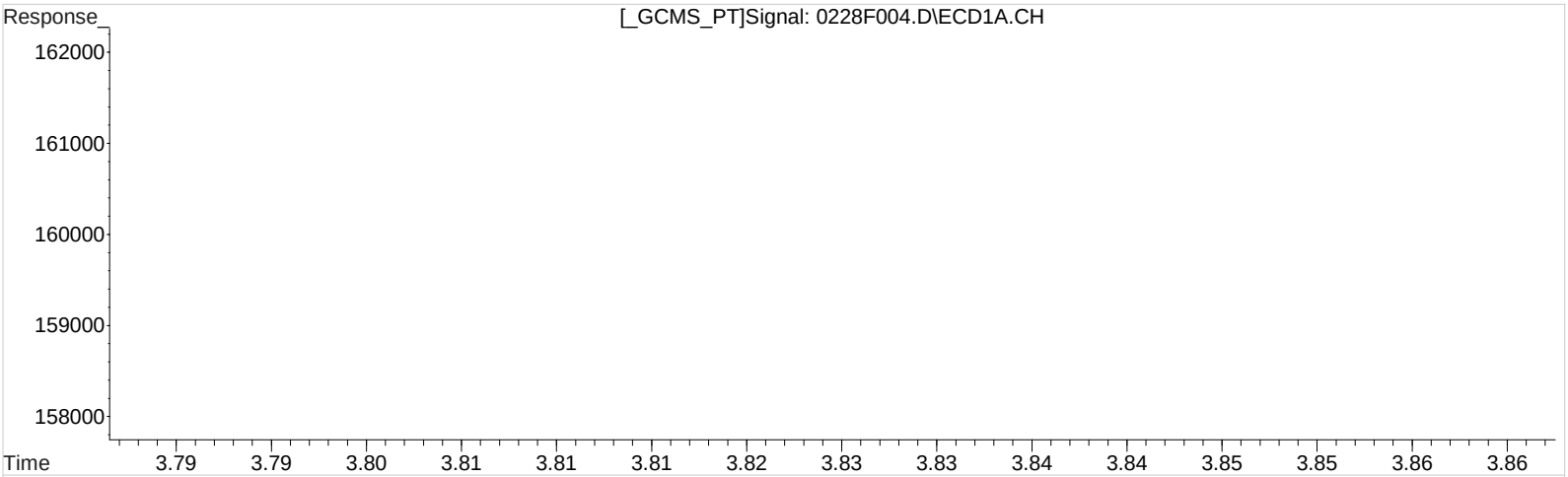
Quantitation Report (Qedit)

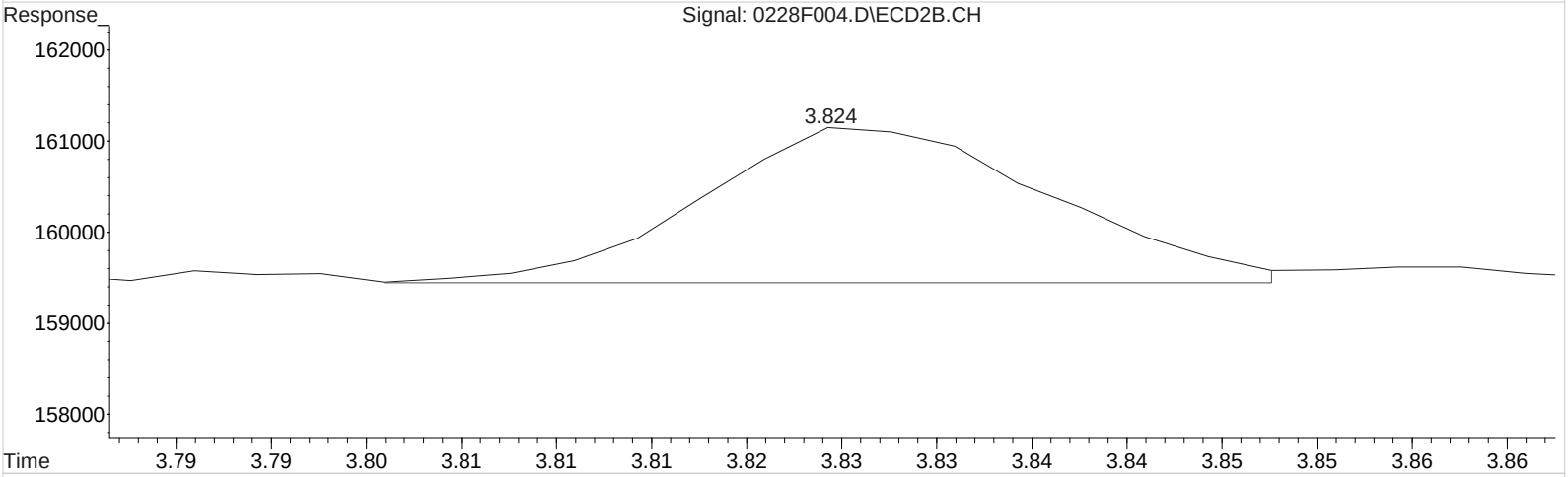
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

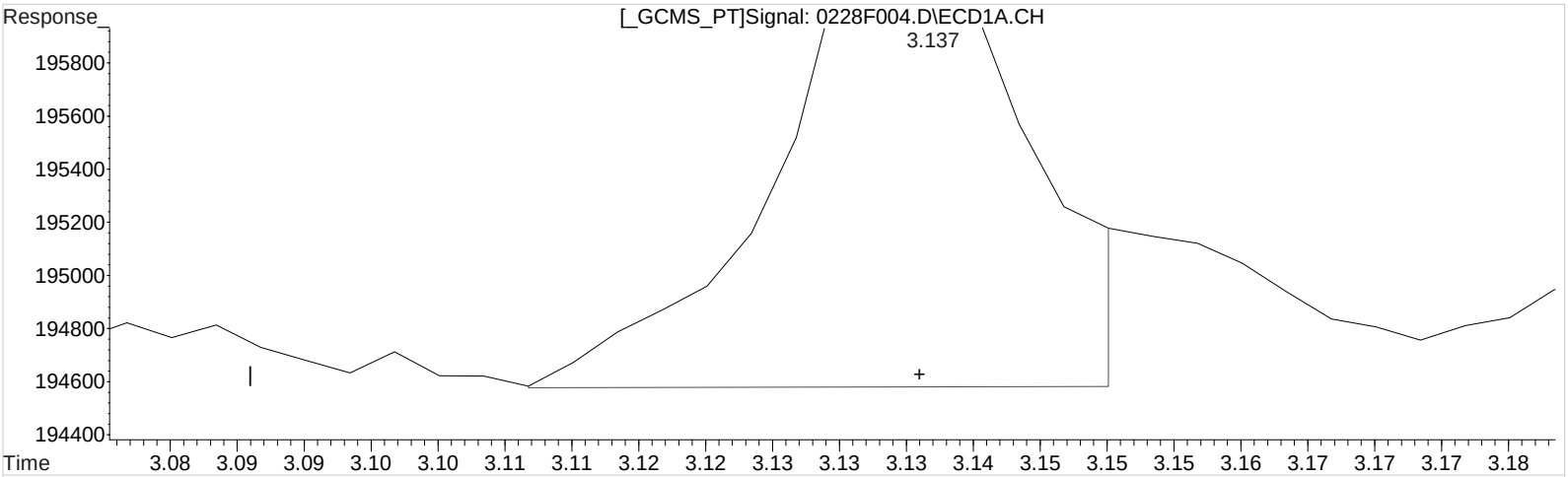
Quantitation Report (Qedit)

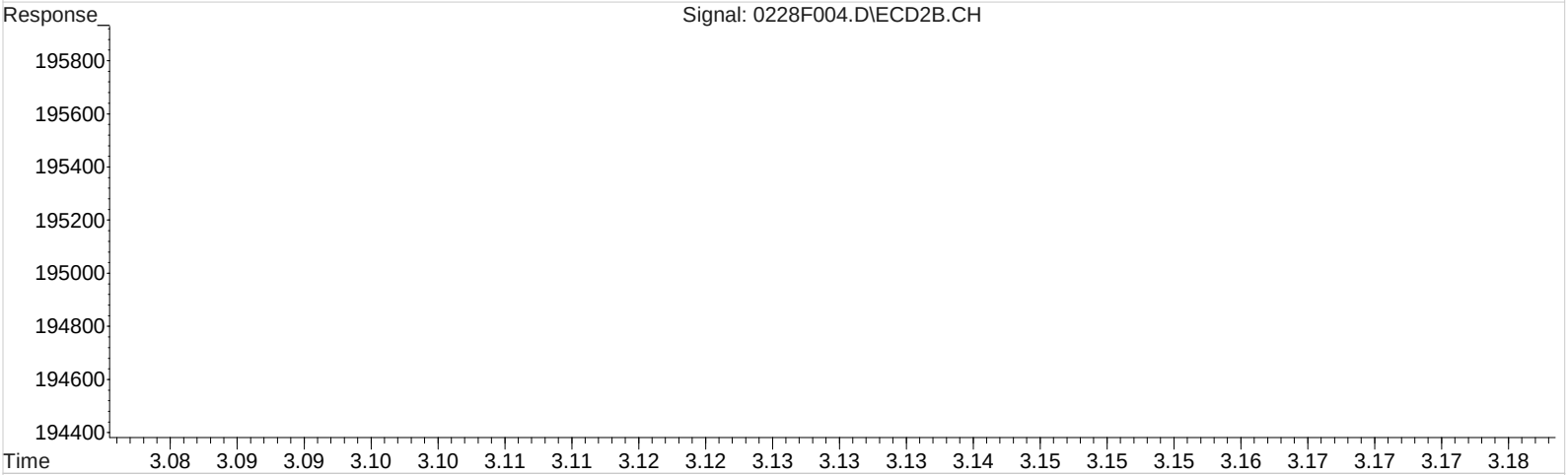
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.801 ug/L m

response 23293

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

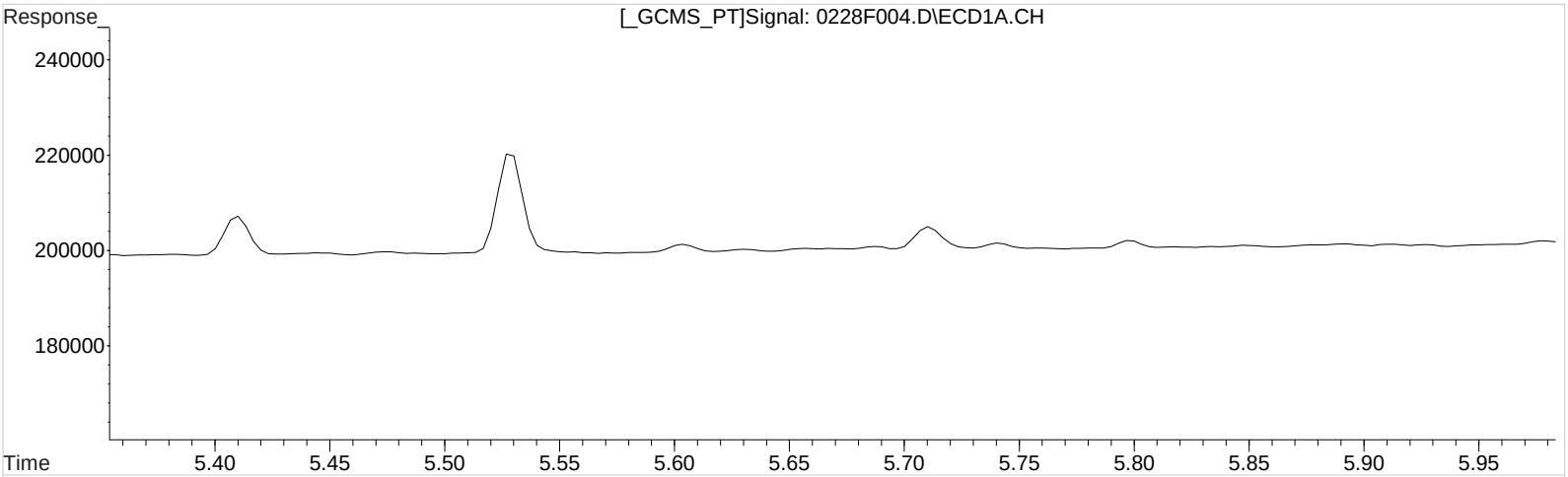
Quantitation Report (Qedit)

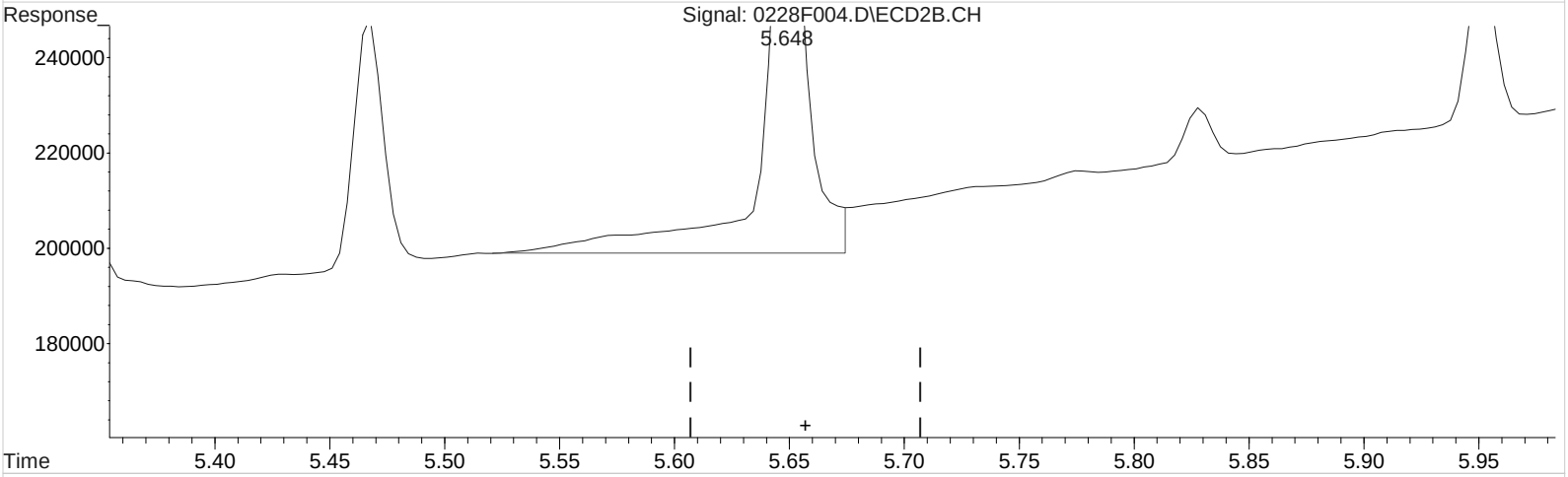
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.150min 0.519 ug/L

response 673174

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.648min 1.879 ug/L

response 1226970

(+) = Expected Retention Time

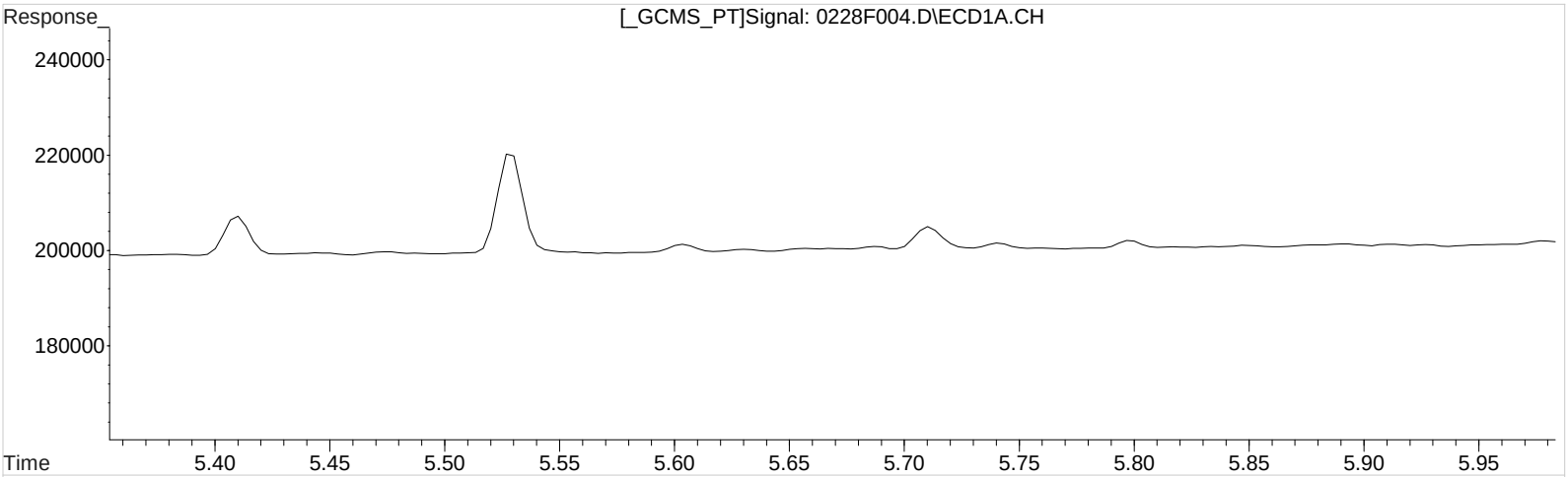
Quantitation Report (Qedit)

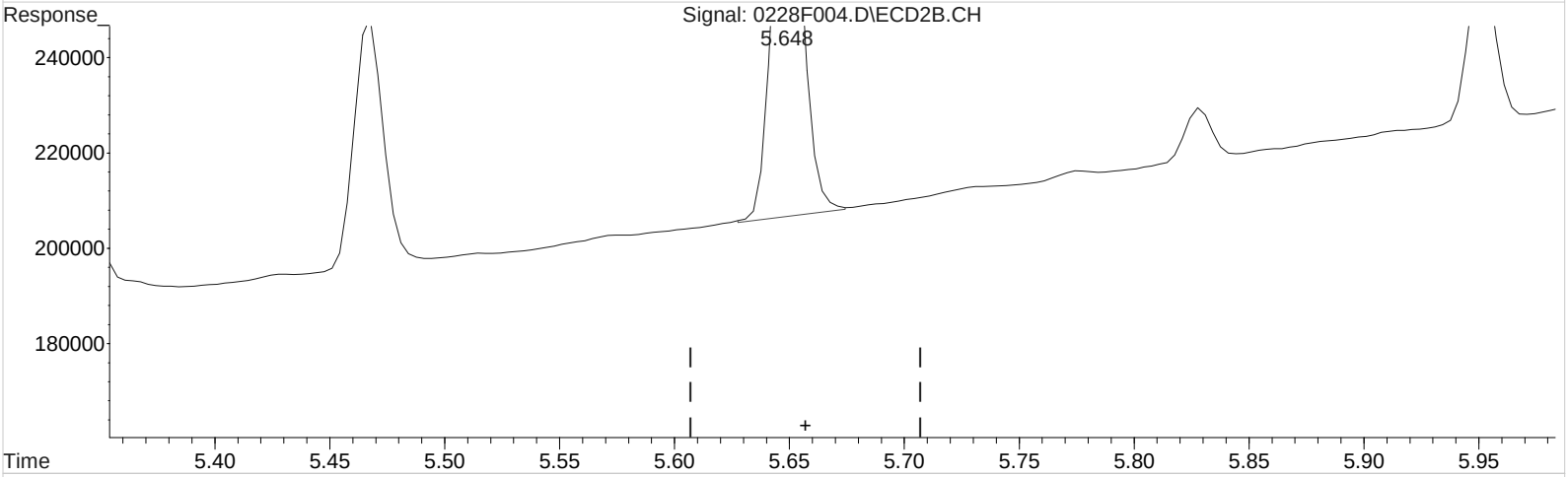
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.150min 0.519 ug/L

response 673174

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.648min 1.211 ug/L m

response 790854

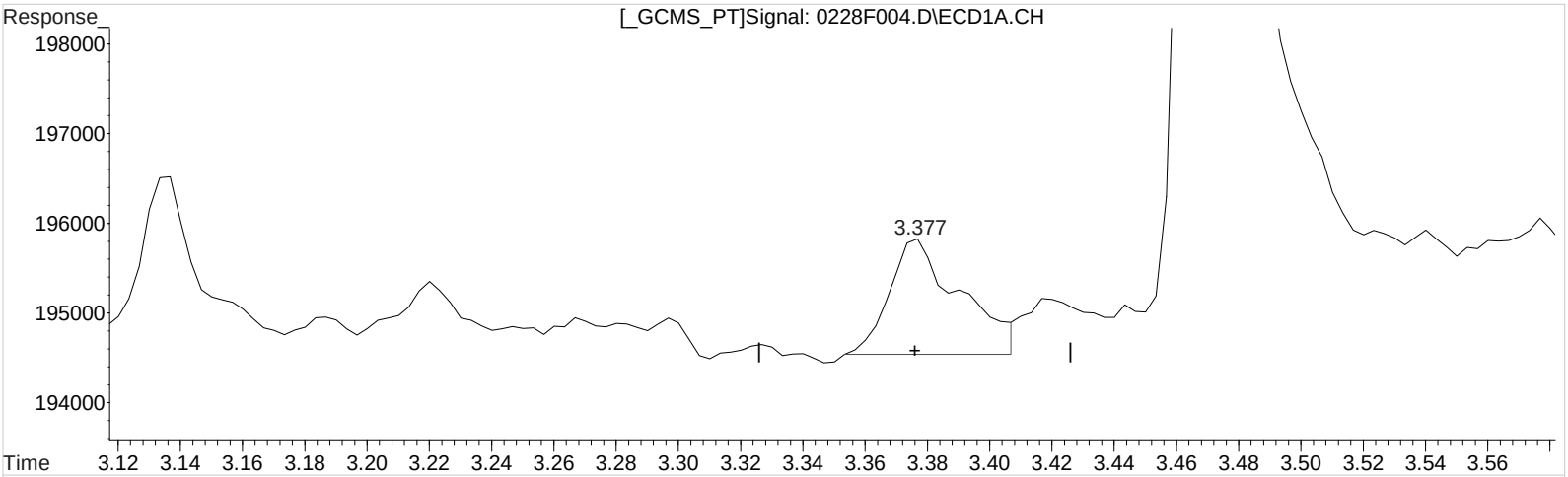
(+) = Expected Retention Time

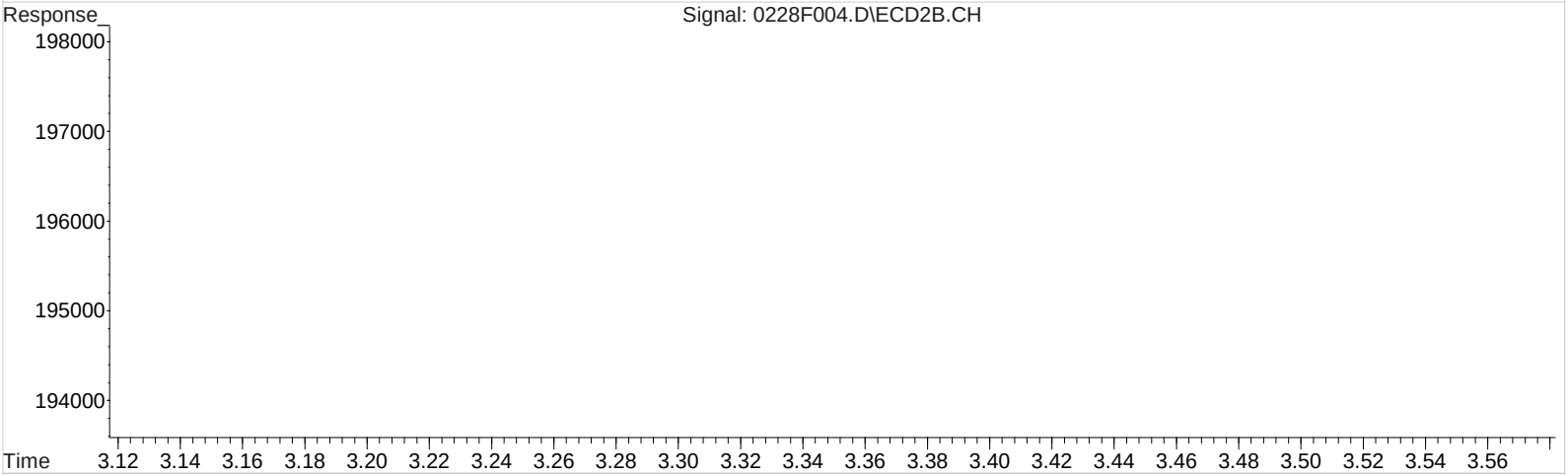
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.388 ug/L

response 20270

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

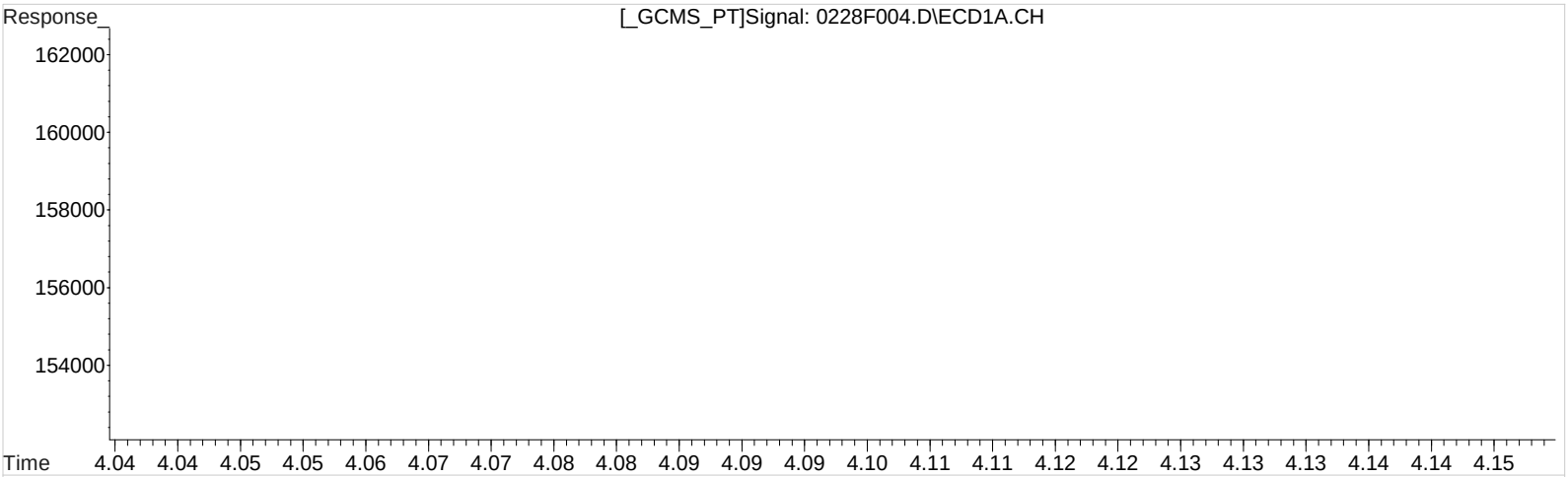
Quantitation Report (Qedit)

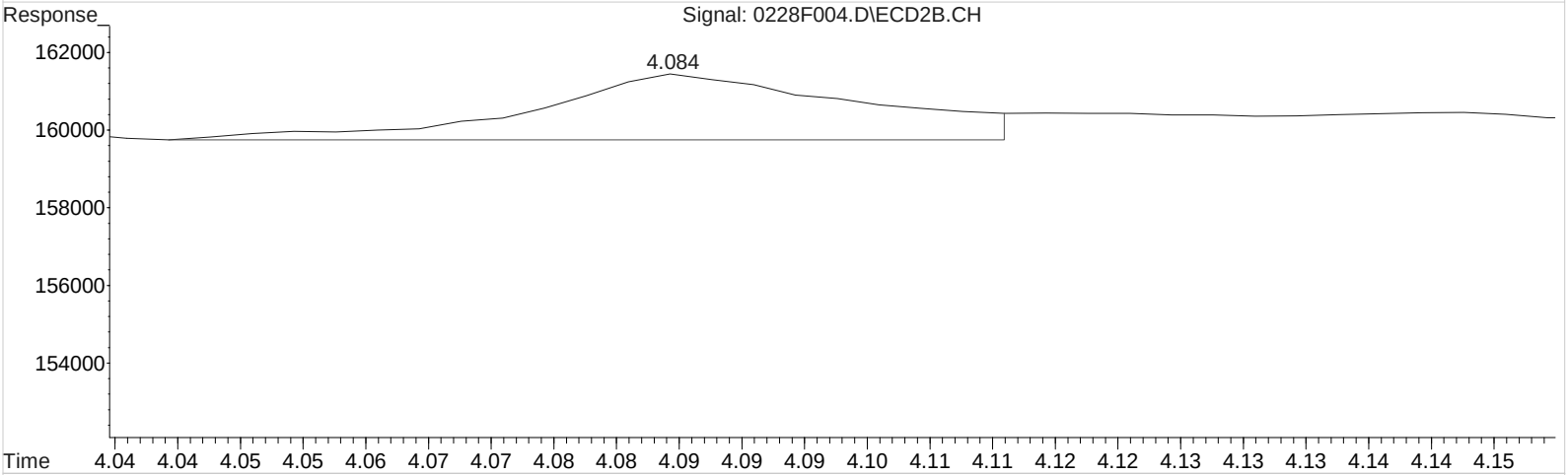
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

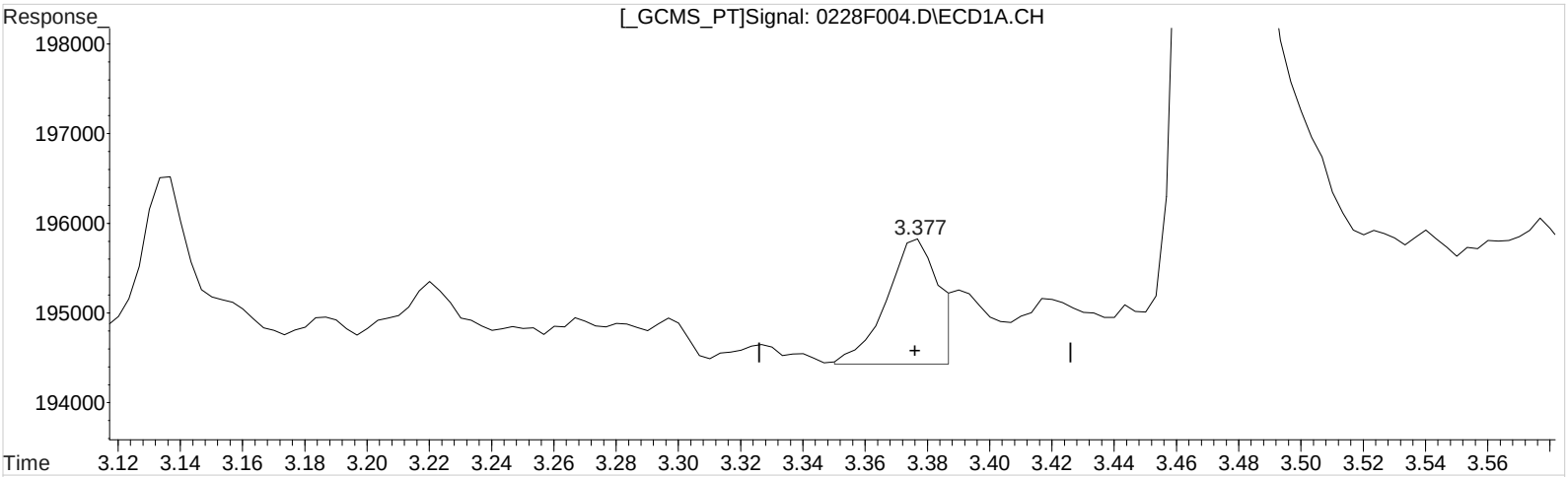
Quantitation Report (Qedit)

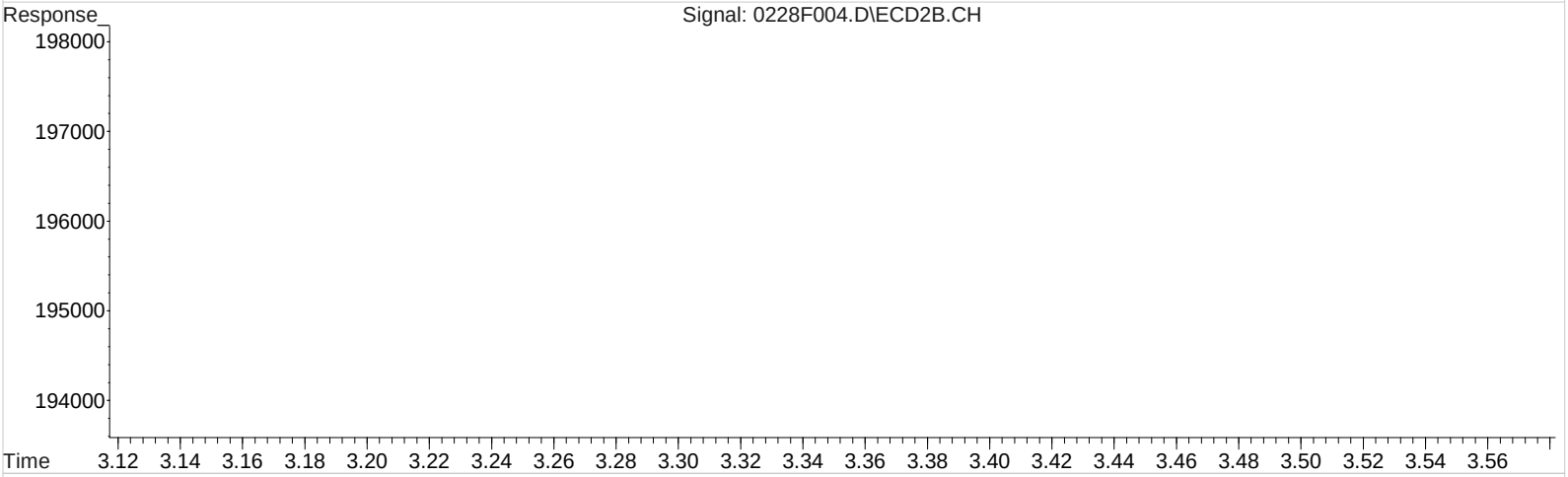
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

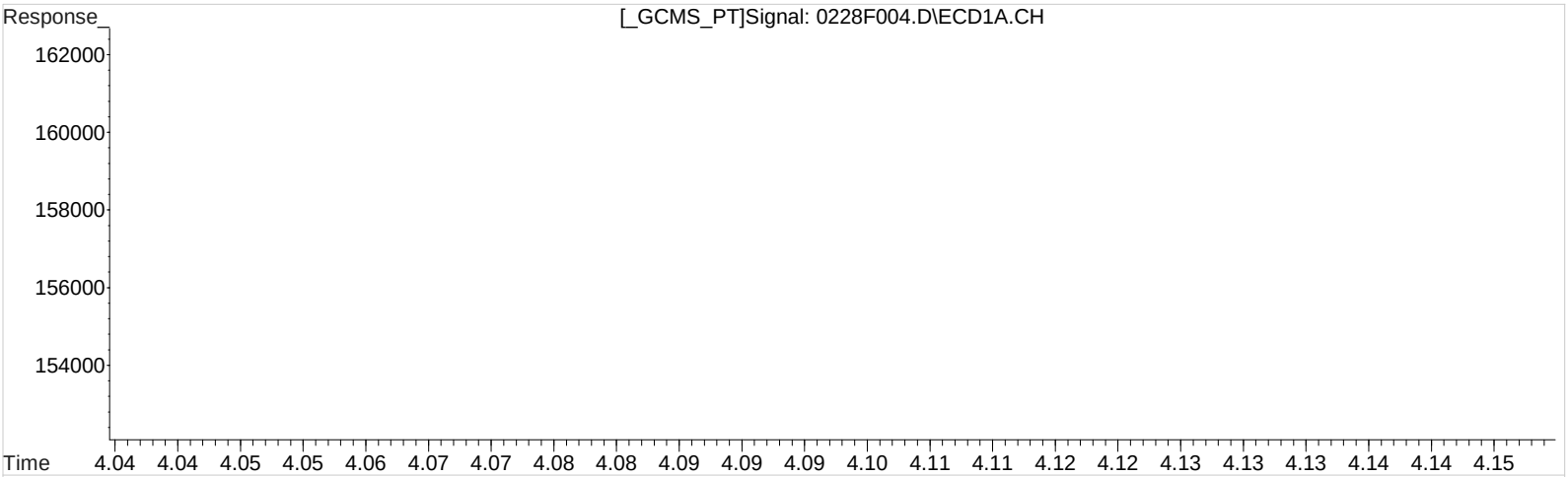
Quantitation Report (Qedit)

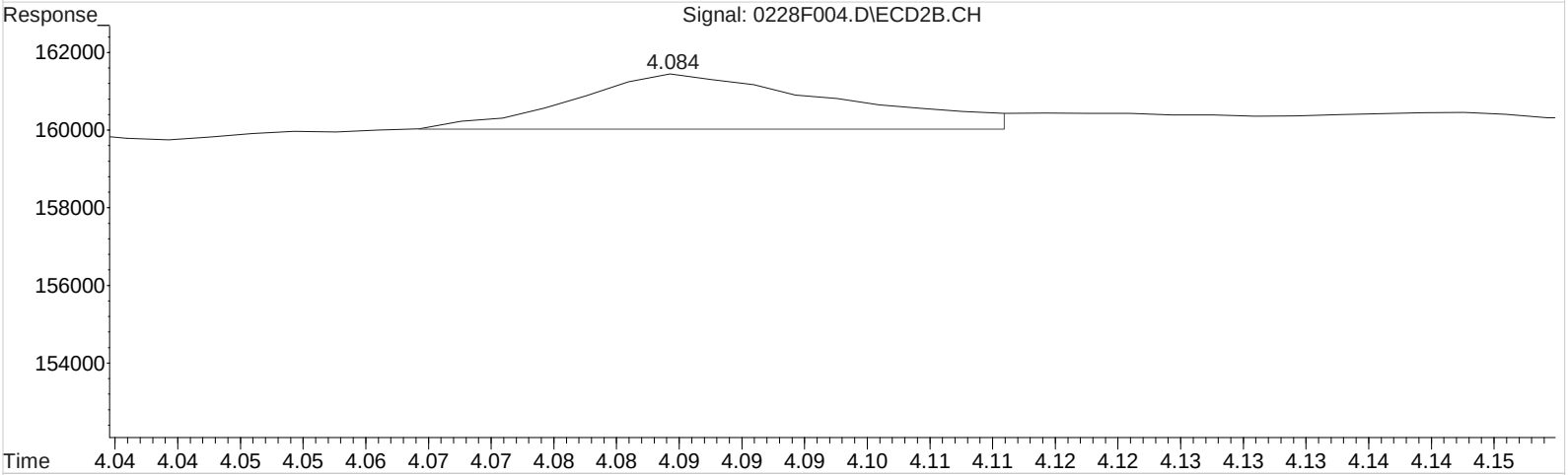
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.285 ug/L m

response 21176

(+) = Expected Retention Time

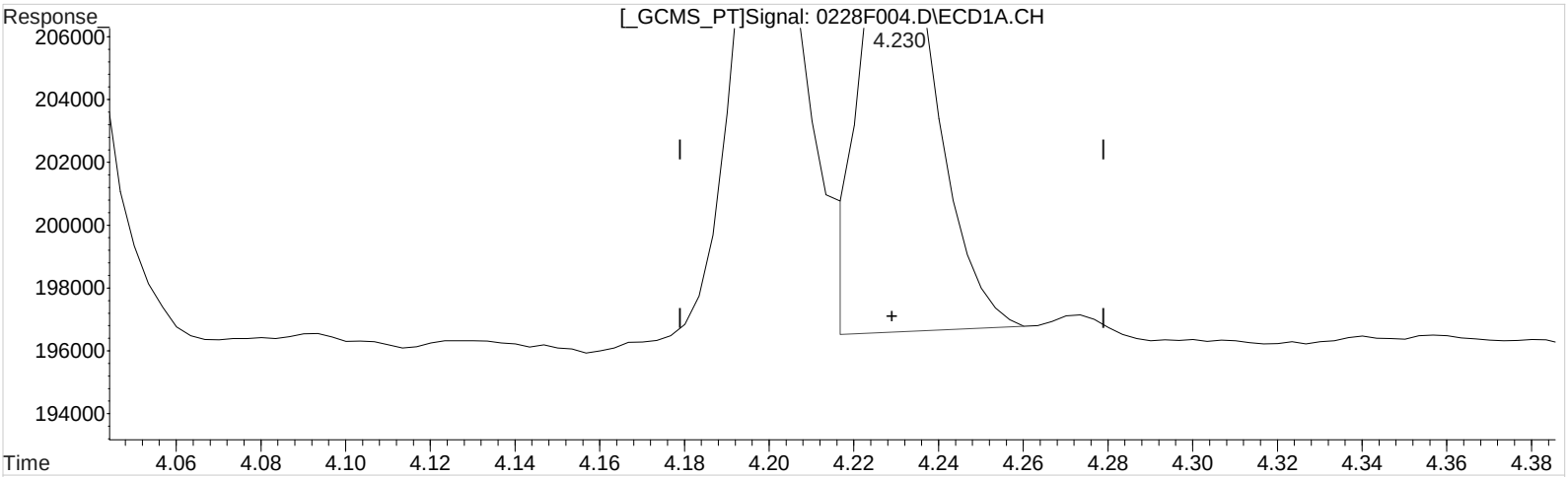
Quantitation Report (Qedit)

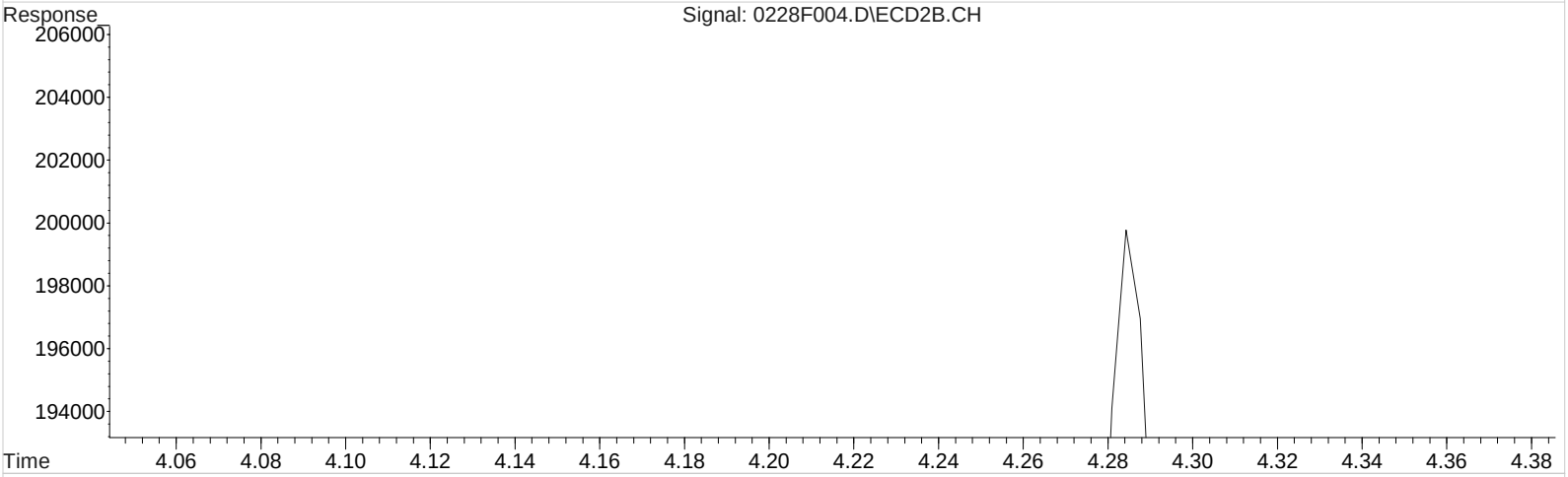
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.230min 0.644 ug/L

response 175885

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.844min 1.245 ug/L

response 233780

(+) = Expected Retention Time

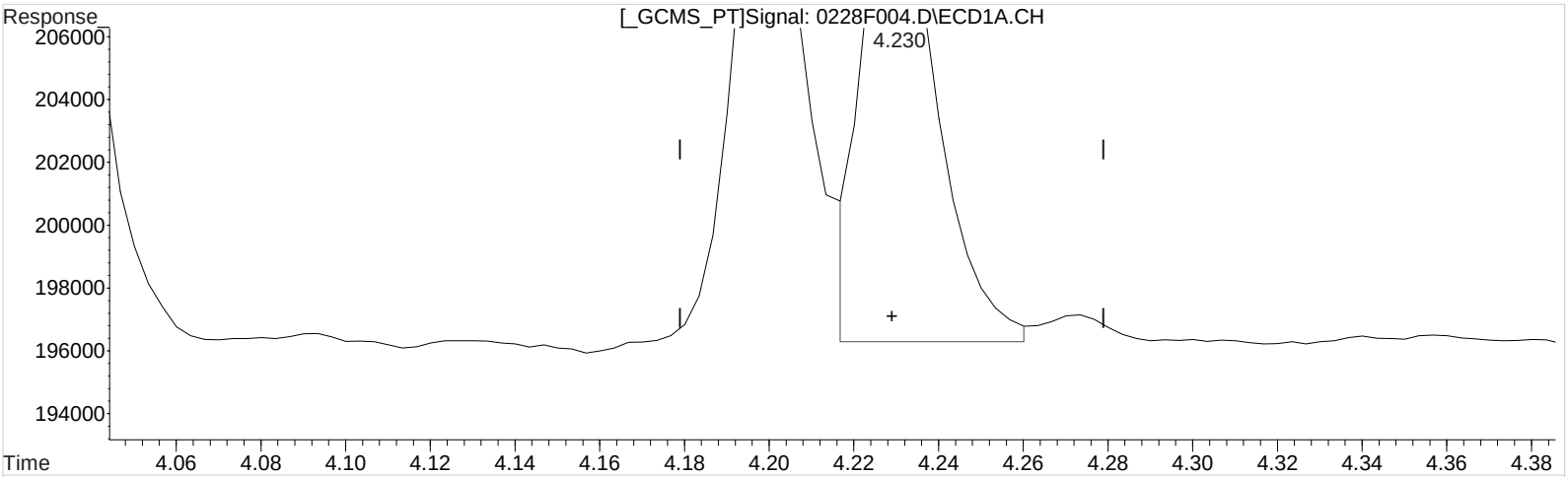
Quantitation Report (Qedit)

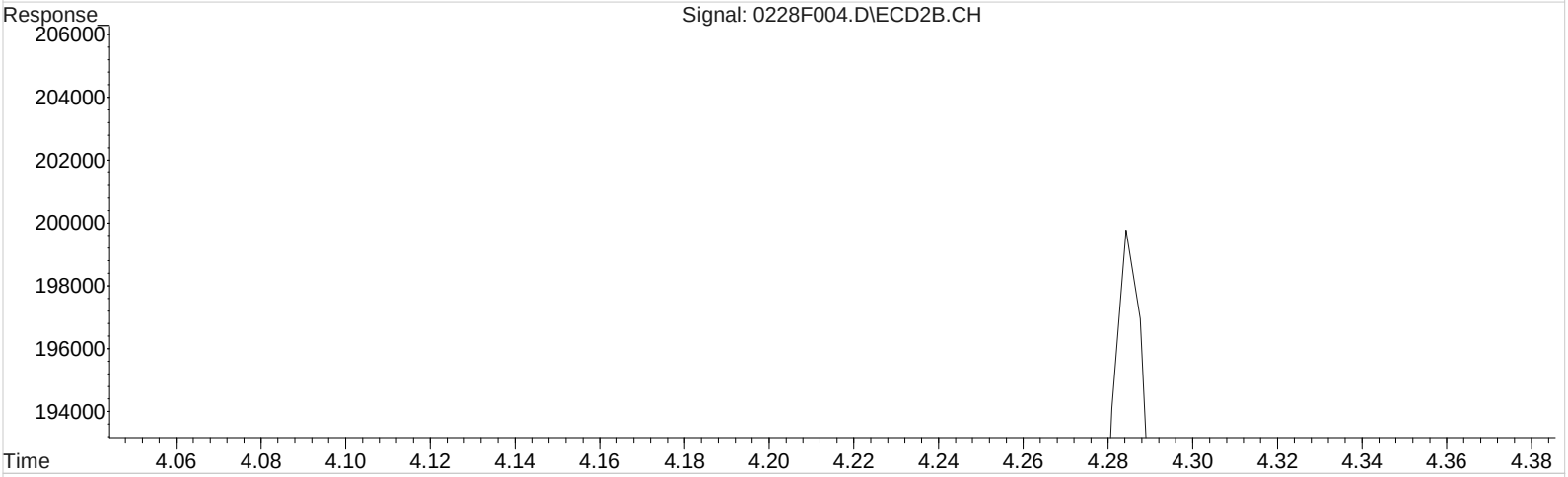
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.230min 0.709 ug/L m

response 185206

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.844min 1.245 ug/L

response 233780

(+) = Expected Retention Time

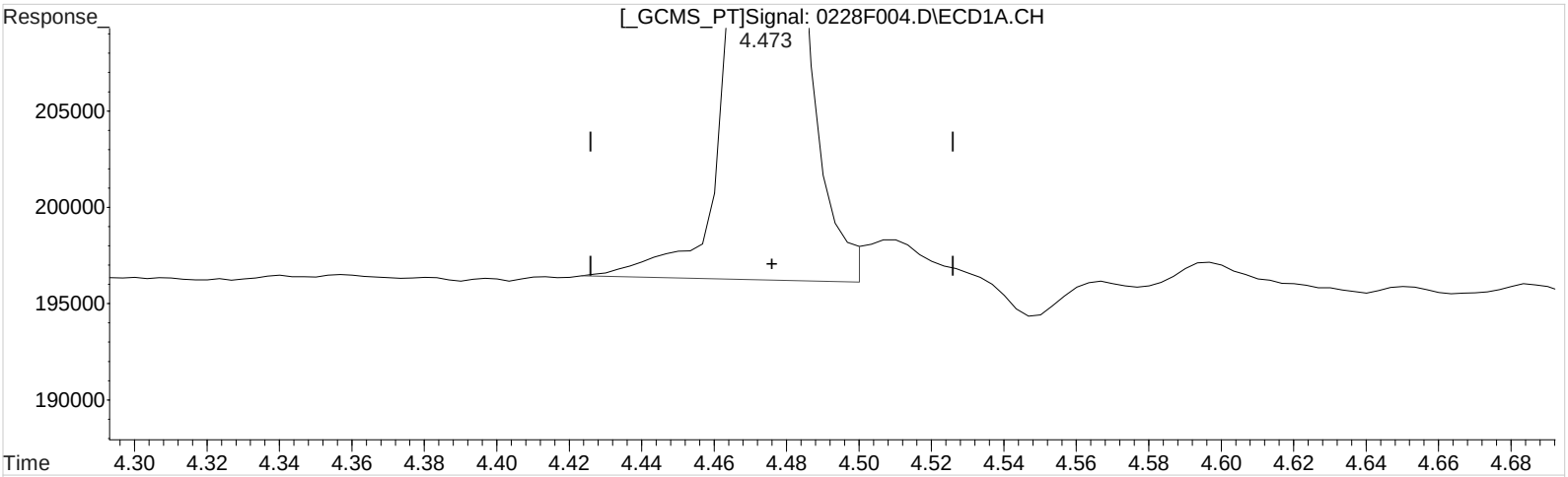
Quantitation Report (Qedit)

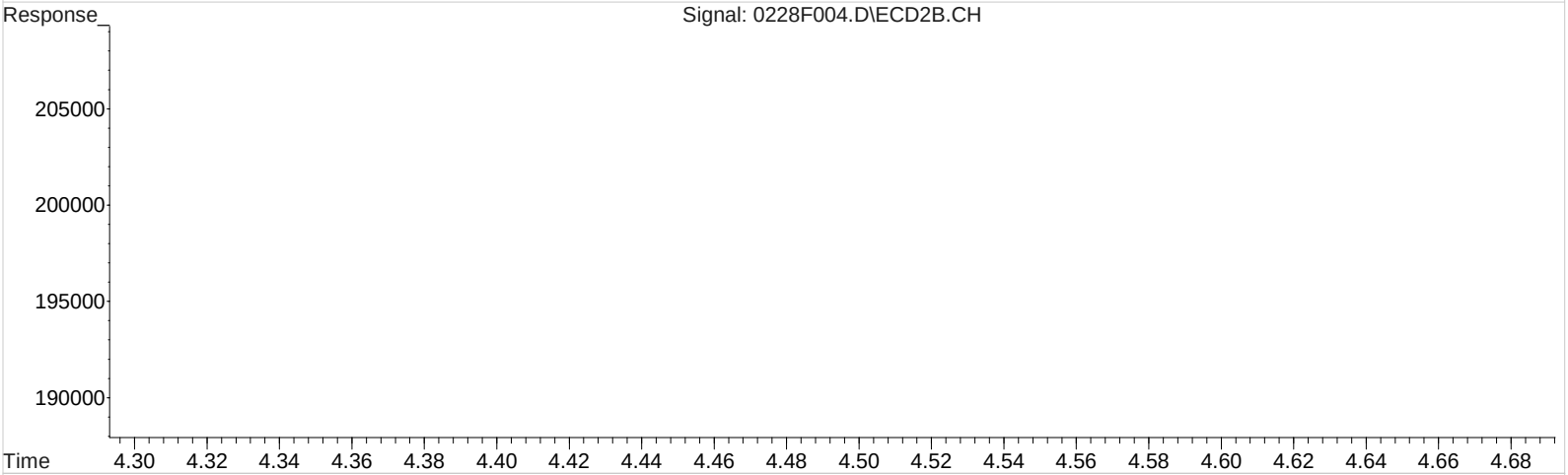
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.319 ug/L

response 627943

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

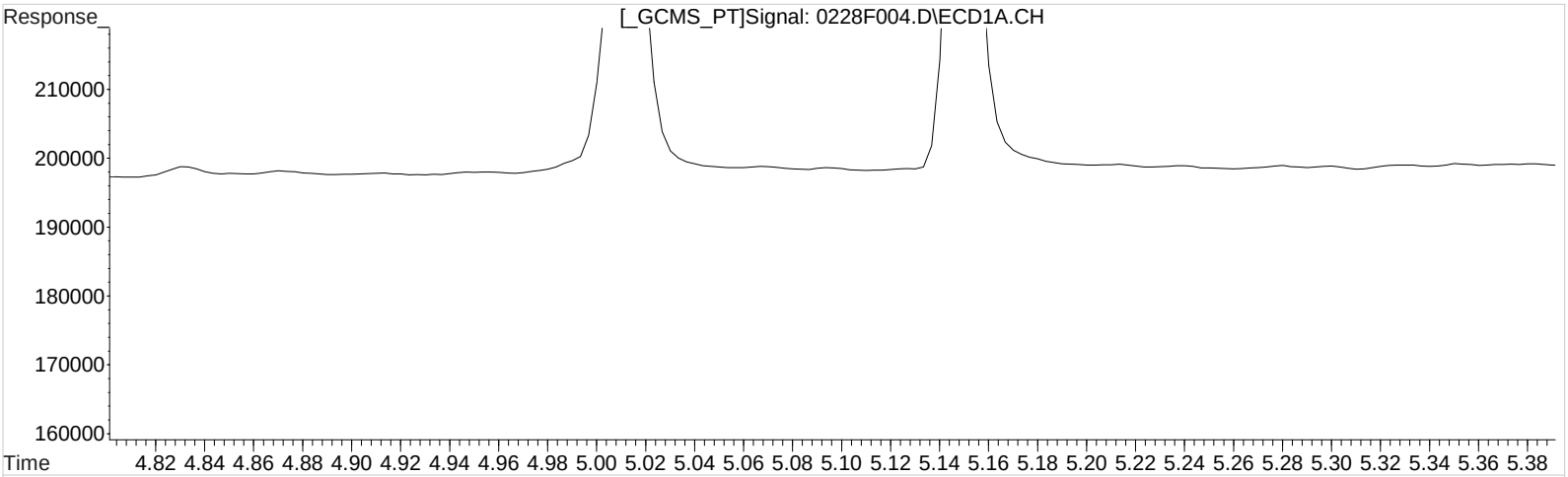
(+) = Expected Retention Time

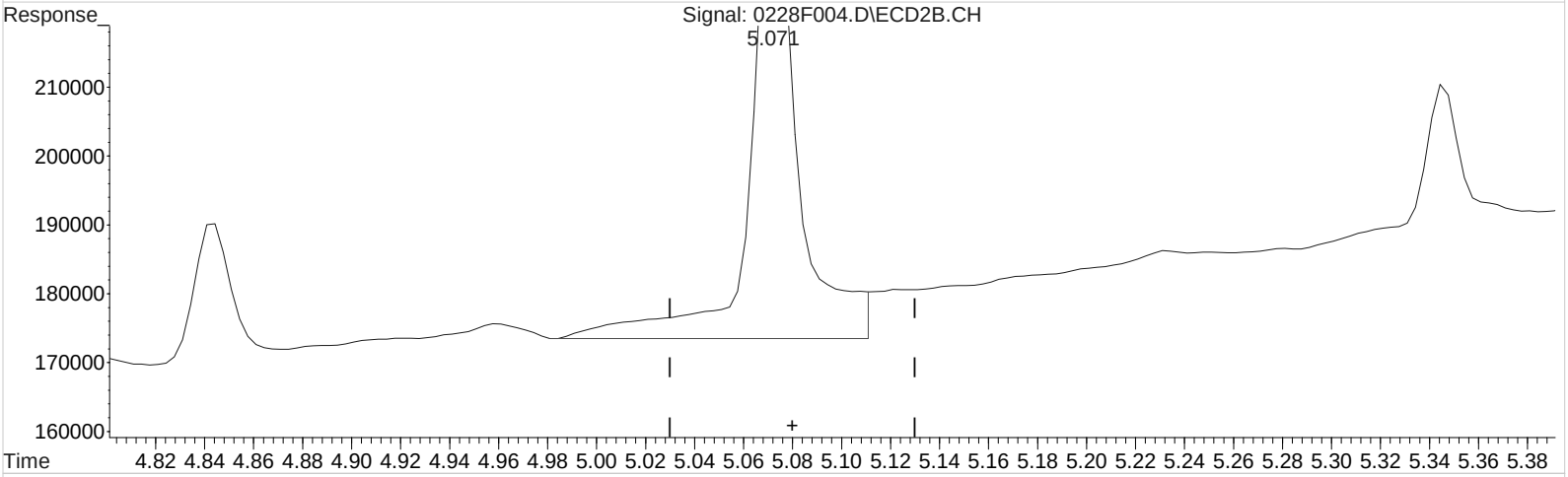
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

(+) = Expected Retention Time

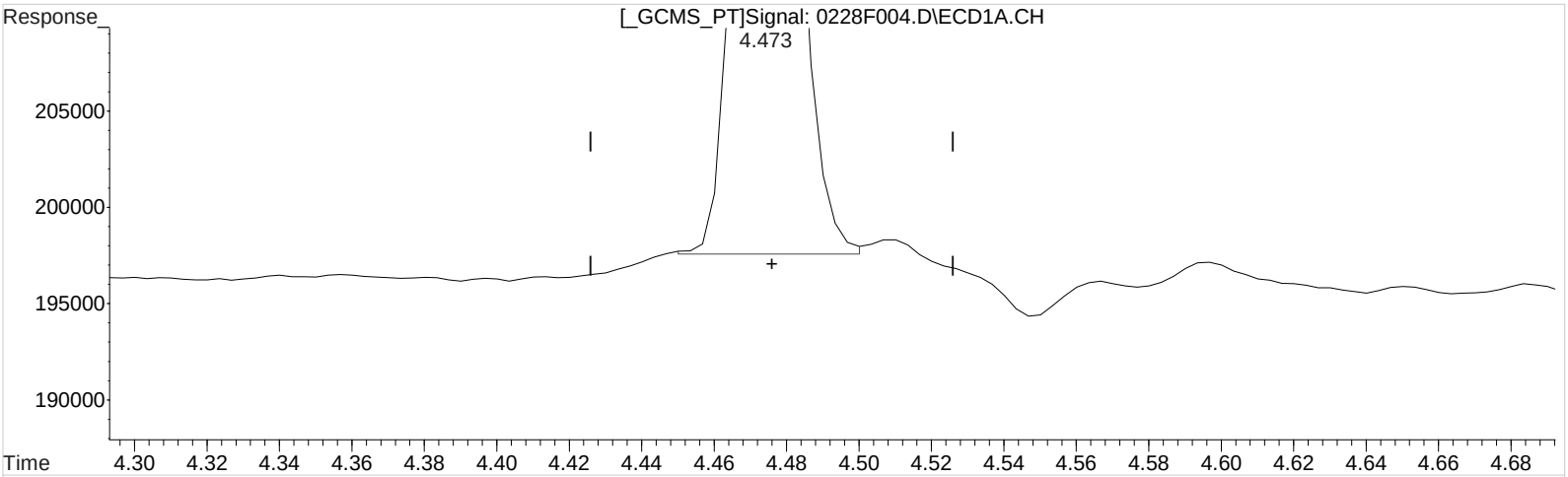
Quantitation Report (Qedit)

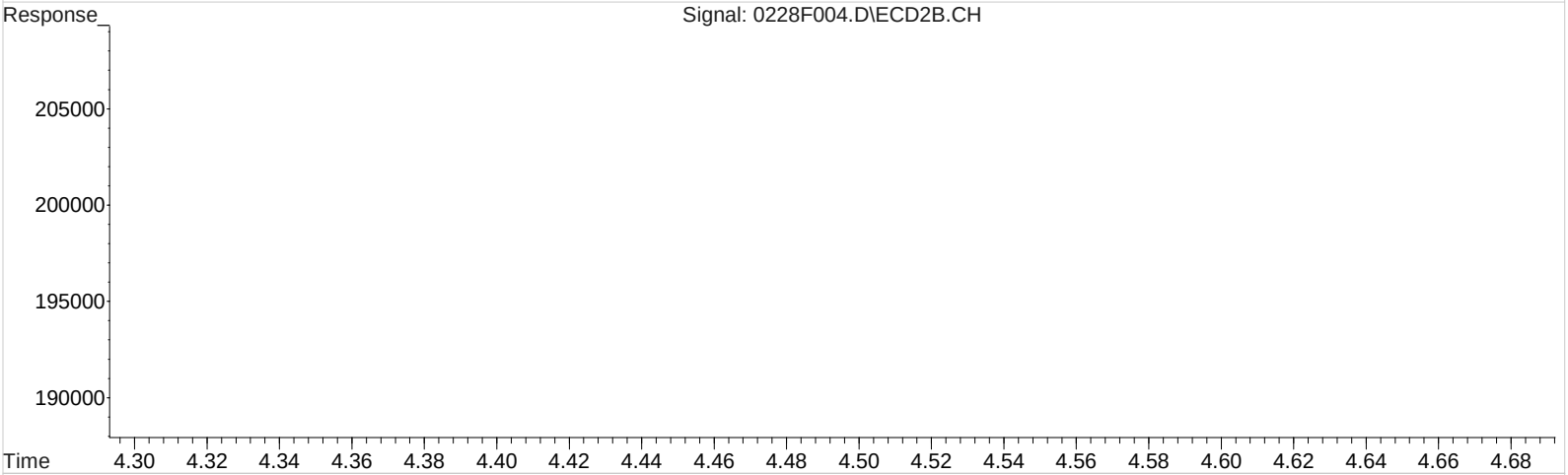
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

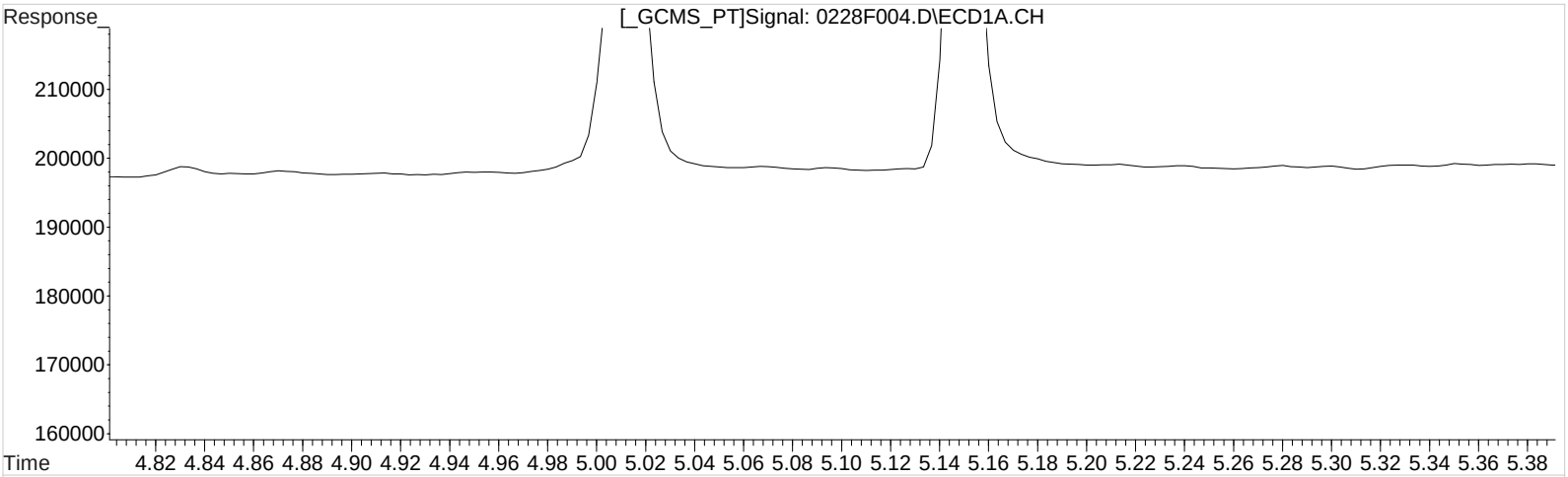
(+) = Expected Retention Time

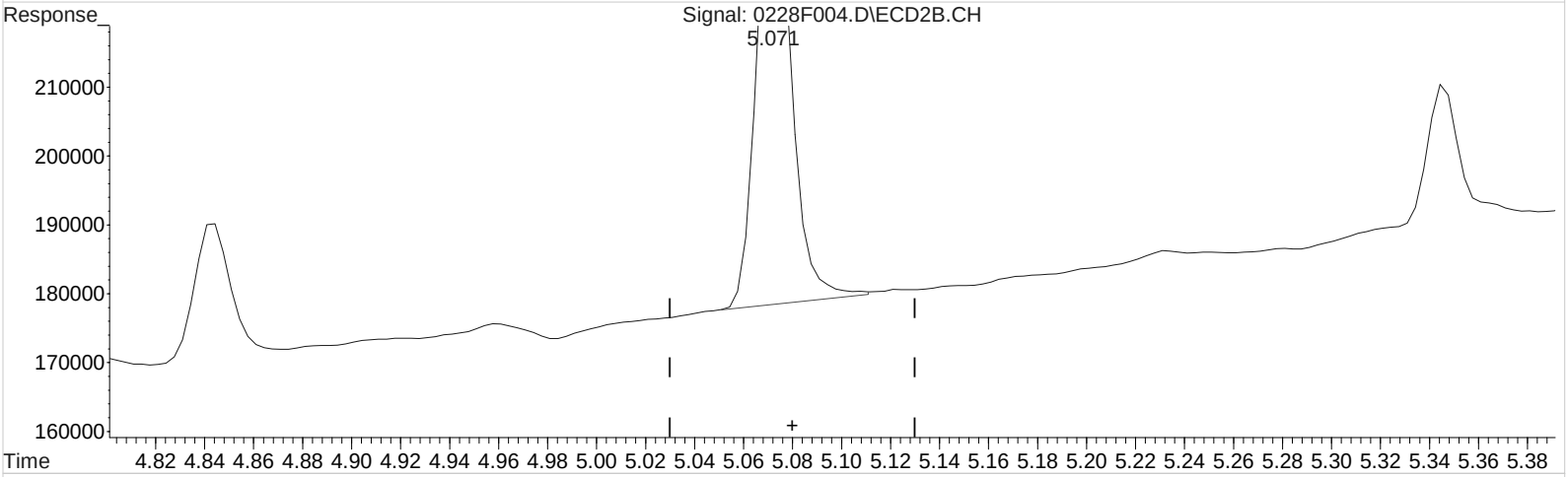
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.048 ug/L m

response 646609

(+) = Expected Retention Time

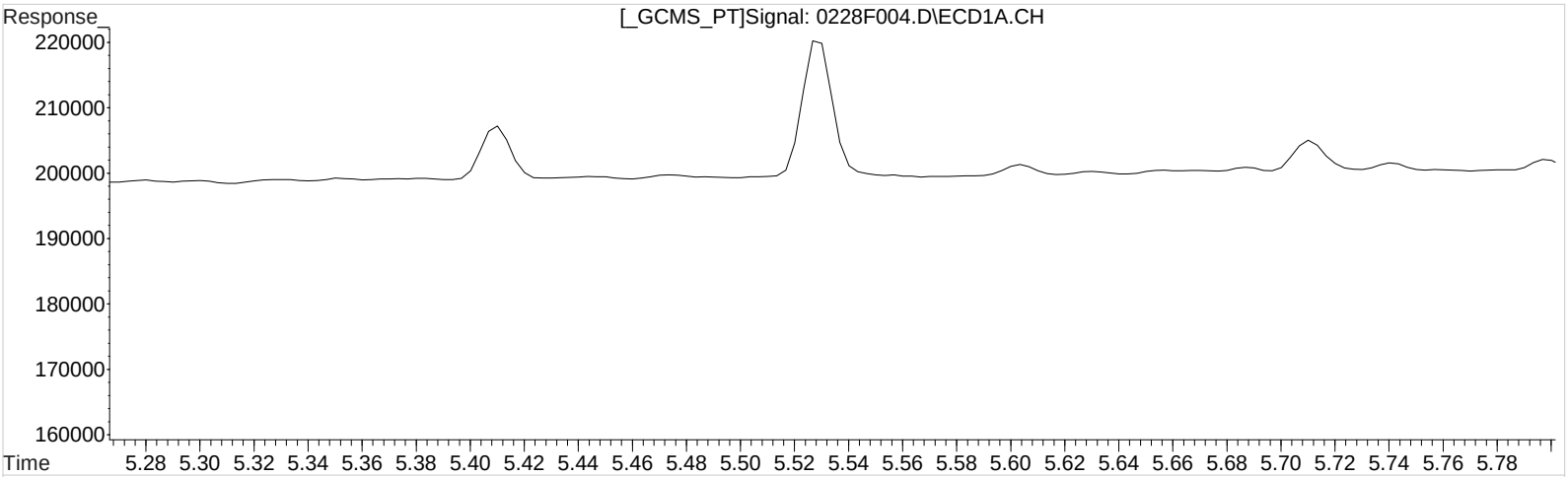
Quantitation Report (Qedit)

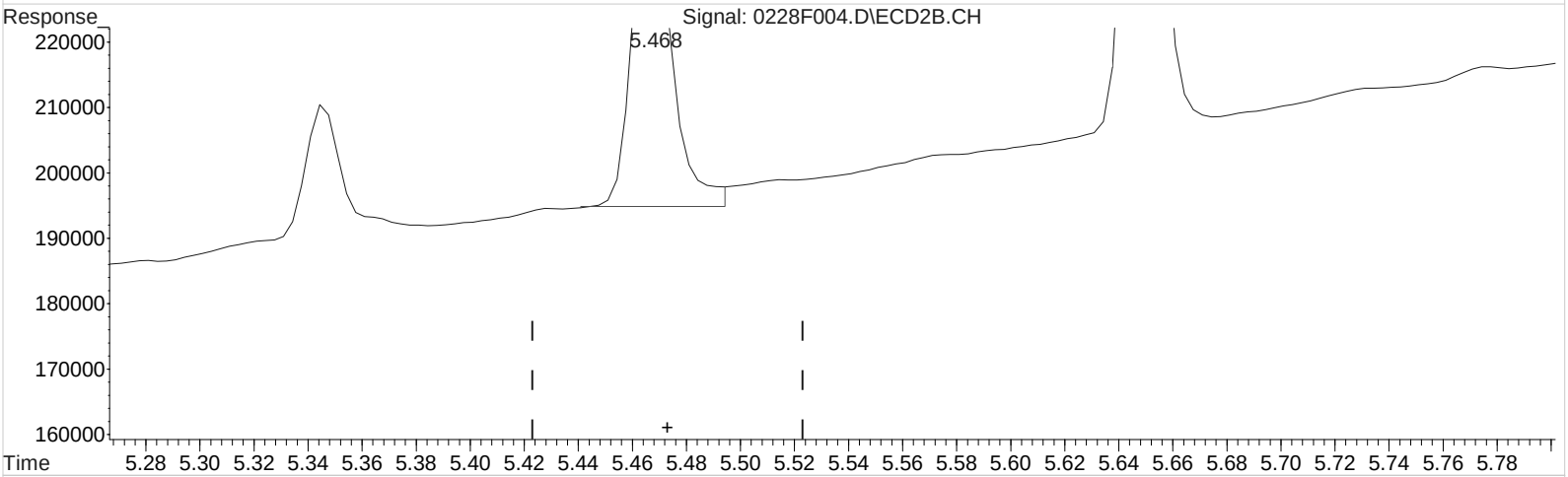
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.013min 0.771 ug/L

response 599618

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.468min 1.232 ug/L

response 508652

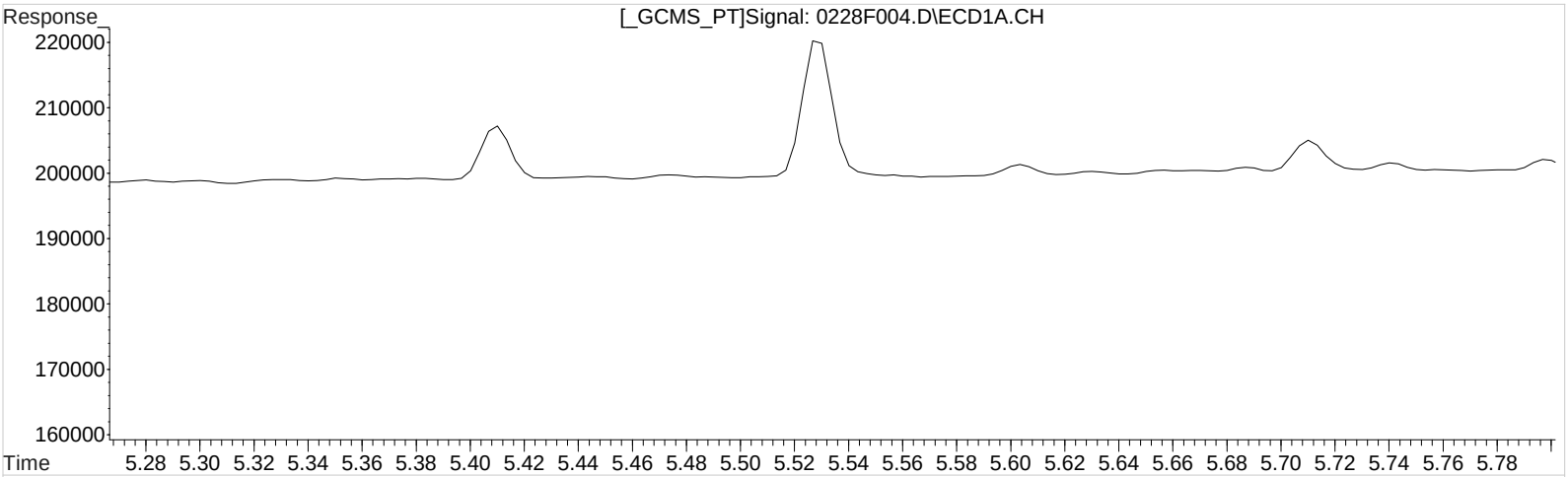
(+) = Expected Retention Time

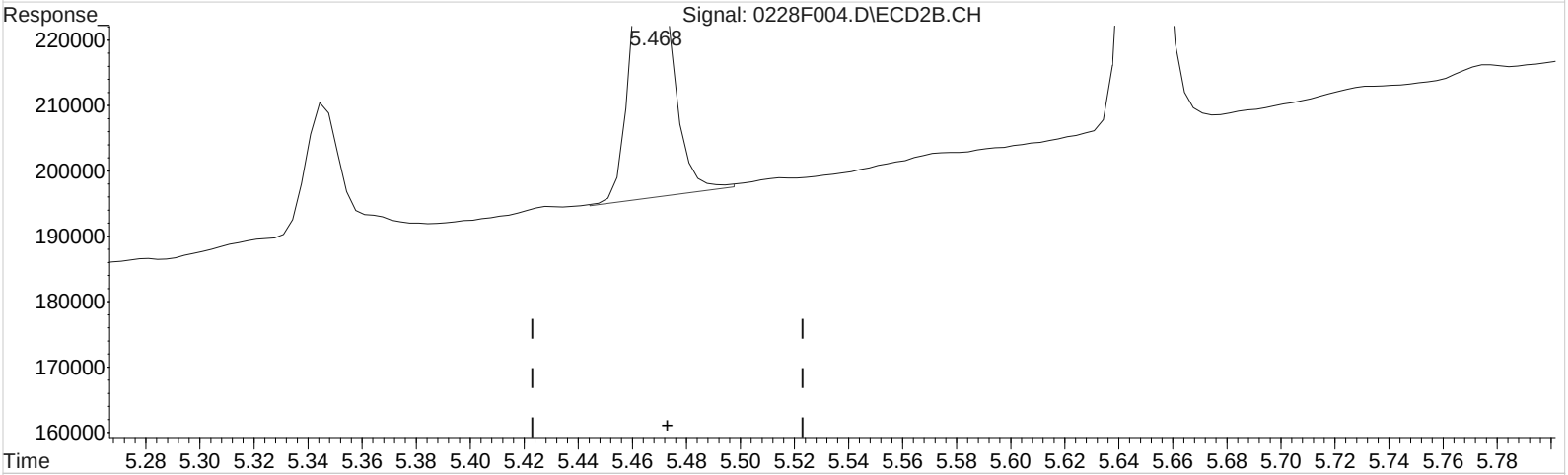
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.013min 0.771 ug/L

response 599618

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.468min 1.152 ug/L m

response 475513

(+) = Expected Retention Time

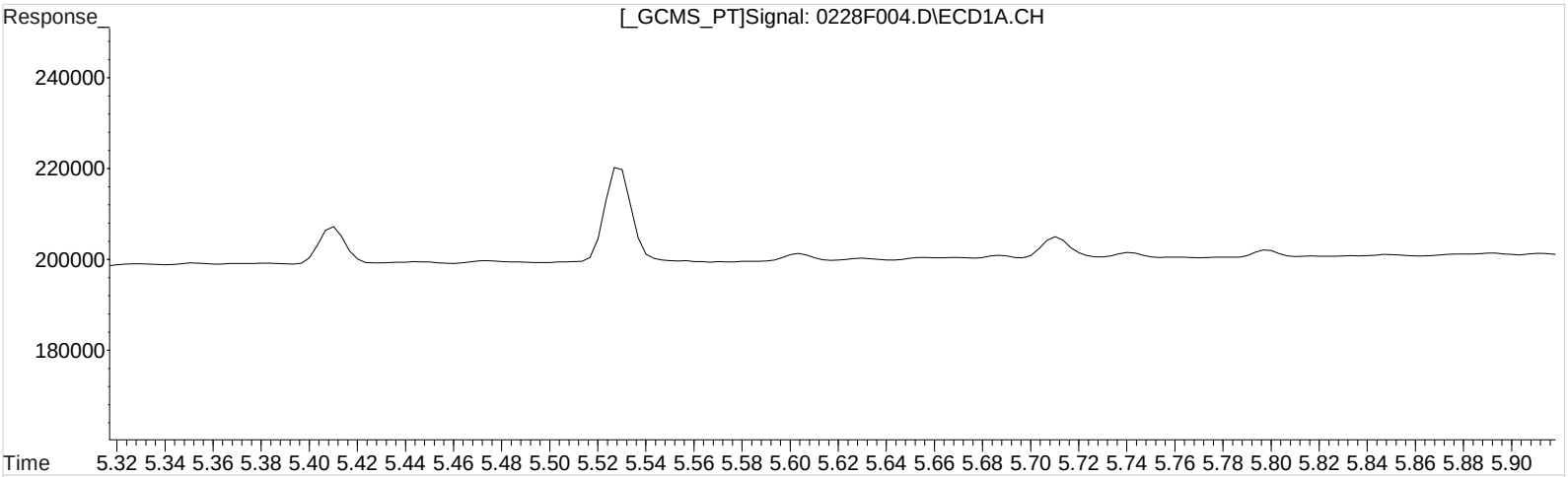
Quantitation Report (Qedit)

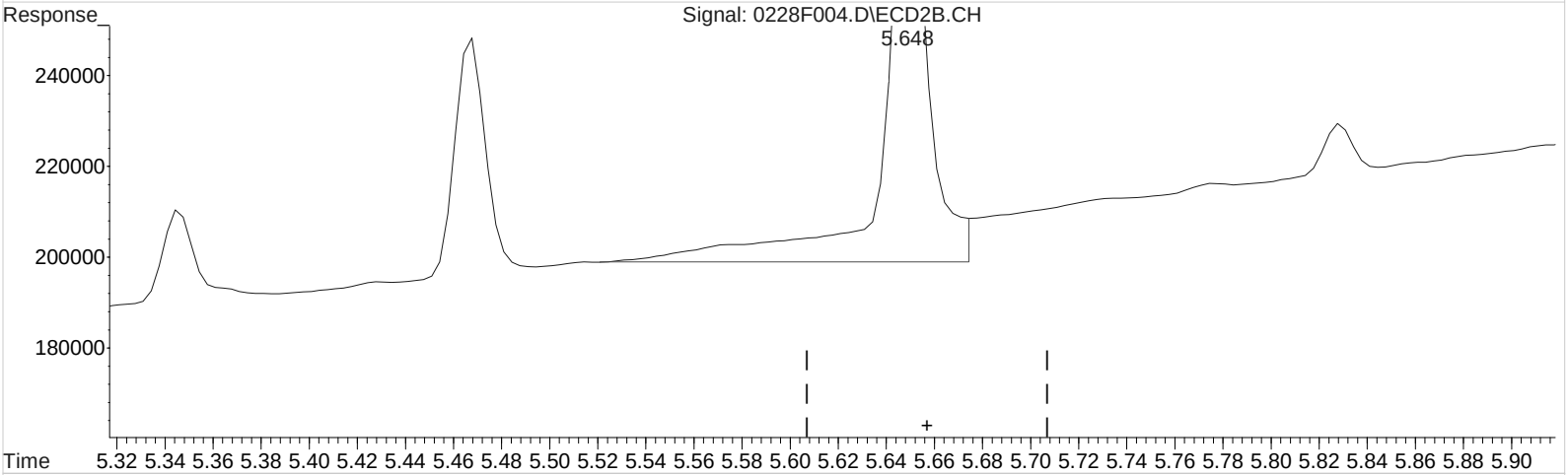
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.150min 0.493 ug/L

response 673174

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.648min 1.785 ug/L

response 1226970

(+) = Expected Retention Time

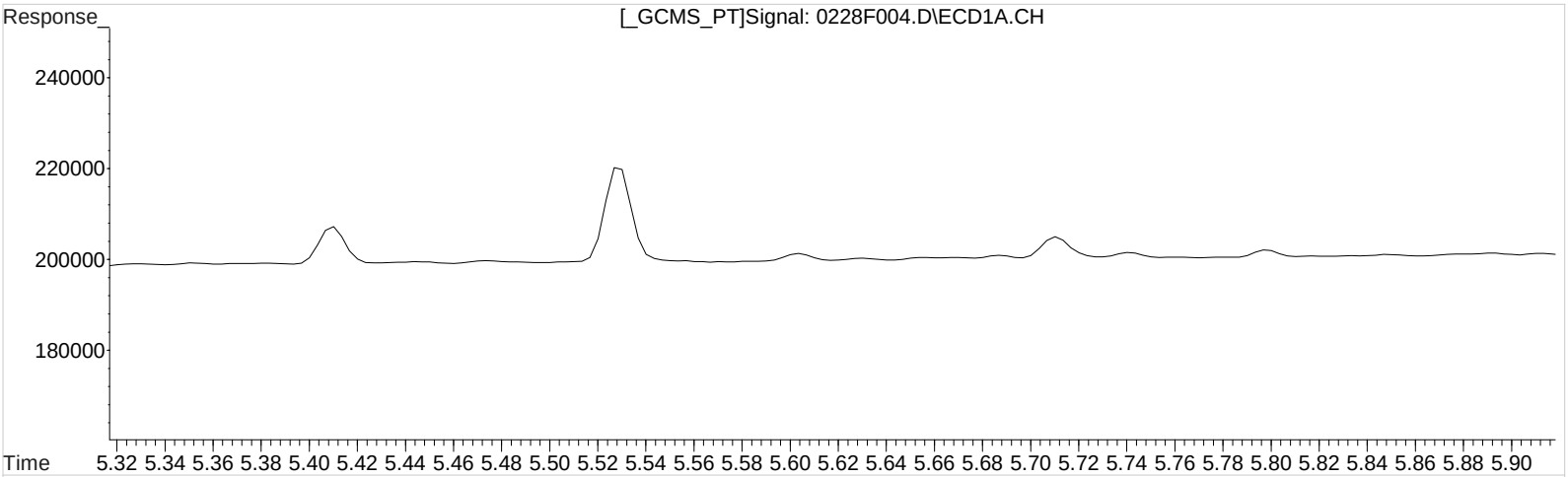
Quantitation Report (Qedit)

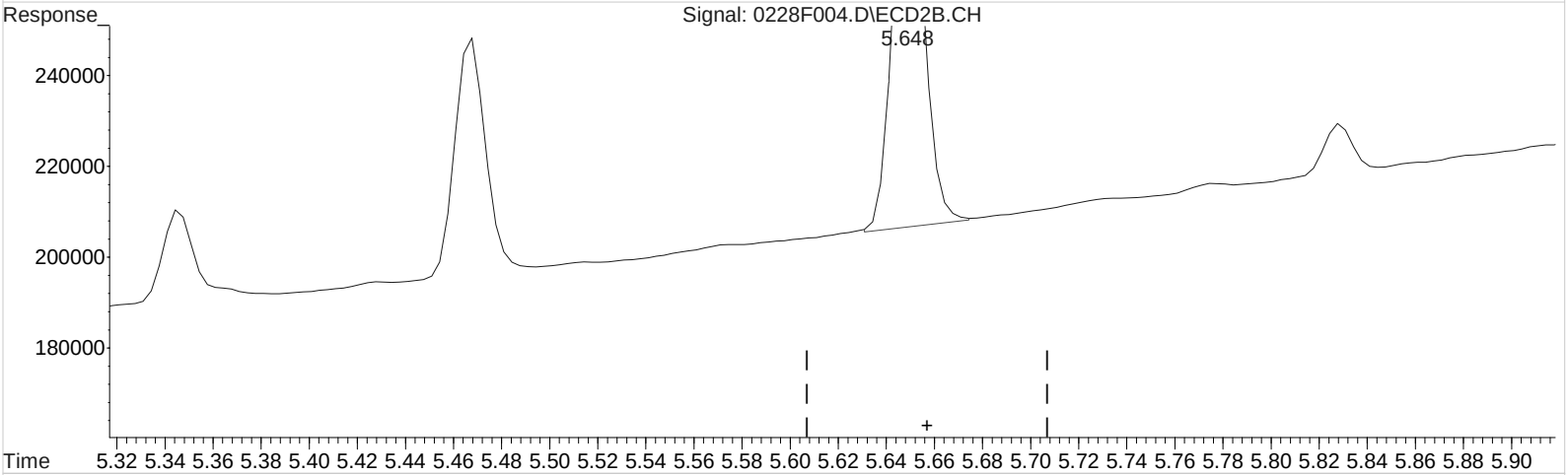
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.150min 0.493 ug/L

response 673174

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.648min 1.149 ug/L m

response 789810

(+) = Expected Retention Time

1st JMS 02/28/19

2nd MC 02/28/19

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28

Column Name: Rtx-1701

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -87.82 X² + 4.342E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	6.732E5	02	5.000	5.679E5	03	10.000	5.372E5	04	25.000	4.948E5
05	50.000	4.691E5	06	100.000	4.496E5	07	250.000	4.103E5	08	500.000	3.739E5
09	1000.000	3.511E5	10	2.500	6.128E5						

2,3,4,5-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -268.7 X² + 3.077E5 X + 3.627E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	02	4.715	3.979E5	03	9.431	3.696E5	04	23.577	3.259E5
05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5	10	2.358	4.756E5

2,3,5,6-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -316.9 X² + 4.391E5 X + 2.523E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	02	4.715	5.28E5	03	9.431	4.935E5	04	23.577	4.478E5
05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5	10	2.358	5.749E5

2,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -146.2 X² + 1.398E5 X + 1.234E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	02	4.669	1.8E5	03	9.338	1.735E5	04	23.345	1.484E5
05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5	10	2.334	2.006E5

2,4,6-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9995**	**Y= -245.7 X² + 3.136E5 X + 2.021E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	02	4.669	3.846E5	03	9.338	3.638E5	04	23.345	3.225E5
05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5	10	2.334	4.078E5

3,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -166.3 X² + 1.479E5 X + 8.837E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	02	4.669	1.823E5	03	9.338	1.696E5	04	23.345	1.515E5
05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5	10	2.334	1.988E5

3,4-Dichlorophenol	**Quadratic**	**1/X**	**COD = 1.0000**	**Y= -15.47 X² + 1.592E4 X + 8.759E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.529E4	02	4.605	1.749E4	03	9.209	1.718E4	04	23.023	1.584E4
05	46.046	1.558E4	06	92.091	1.446E4	07	230.230	1.241E4	10	2.302	1.966E4

3,5-Dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9982**	**Y= -14.62 X² + 1.118E4 X + 7.47E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	1.798E4	02	4.605	1.407E4	03	9.209	1.255E4	04	23.023	1.076E4
05	46.046	1.147E4	06	92.091	9.36E3	07	230.230	7.904E3	10	2.302	1.374E4

Pentachlorophenol (PCP)	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -97.29 X² + 4.57E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	02	4.750	5.978E5	03	9.501	5.654E5	04	23.752	5.208E5
05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5	08	475.030	3.936E5
09	950.060	3.695E5	10	2.375	6.451E5						

4-Bromo-2,6-dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9994**	**Y= -70.25 X² + 3.43E5 X + 2.985E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	02	5.000	4.356E5	03	10.000	4.141E5	04	25.000	3.754E5
05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5	08	500.000	2.979E5
09	1000.000	2.755E5	10	2.500	4.672E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.555	**-44.5**	02	5.000	5.55	11.0	03	10.000	11.4	14.0
04	25.000	27.6	10.6	05	50.000	53.6	7.2	06	100.000	105	4.8
07	250.000	248	-0.9	08	500.000	475	-5.0	09	1000.000	1020	1.6
10	2.500	2.53	1.4								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.770	-18.3	02	4.715	4.94	4.7	03	9.431	10.2	8.6
04	23.577	24.3	3.1	05	47.153	46.9	-0.6	06	94.307	91.6	-2.8
07	235.770	237	0.6	10	2.358	2.47	4.8				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.738	-21.7	02	4.715	5.11	8.5	03	9.431	10.1	7.1
04	23.577	23.9	1.3	05	47.153	47.4	0.6	06	94.307	91.5	-3.0
07	235.770	237	0.5	10	2.358	2.52	6.8				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.634	**-32.1**	02	4.669	5.16	10.4	03	9.338	10.8	15.9
04	23.345	24.5	5.1	05	46.690	46.1	-1.2	06	93.379	88.6	-5.1
07	233.450	236	1.2	10	2.334	2.47	6.0				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.732	-21.6	02	4.669	5.10	9.3	03	9.338	10.3	10.0
04	23.345	23.8	2.0	05	46.690	47.3	1.2	06	93.379	89.5	-4.1
07	233.450	235	0.8	10	2.334	2.39	2.6				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.655	-29.8	02	4.669	5.19	11.1	03	9.338	10.2	9.6
04	23.345	24.0	2.7	05	46.690	47.4	1.5	06	93.379	88.5	-5.2
07	233.450	236	1.2	10	2.334	2.55	9.2				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.914	-0.8	02	4.605	4.53	-1.6	03	9.209	9.47	2.9
04	23.023	22.9	-0.7	05	46.046	46.6	1.3	06	92.091	91.2	-1.0
07	230.230	231	0.2	10	2.302	2.30	-0.2				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.814	-11.6	02	4.605	5.16	12.1	03	9.209	9.80	6.4
04	23.023	22.1	-3.9	05	46.046	49.8	8.2	06	92.091	86.2	-6.4
07	230.230	233	1.3	10	2.302	2.17	-5.8				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	0.527	**-44.5**	02	4.750	5.27	11.0	03	9.501	10.8	14.0
04	23.752	26.3	10.6	05	47.503	50.9	7.2	06	95.006	99.5	4.8
07	237.520	235	-0.9	08	475.030	452	-5.0	09	950.060	966	1.6
10	2.375	2.41	1.4								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.643	**-35.7**	02	5.000	5.49	9.7	03	10.000	11.2	12.3
04	25.000	26.6	6.5	05	50.000	53.3	6.6	06	100.000	102	1.6
07	250.000	251	0.2	08	500.000	481	-3.9	09	1000.000	1010	1.2
10	2.500	2.54	1.5								

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D\0228F004c.d	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D\0228F006c.d	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D\0228F007c.d	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D\0228F008c.d	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D\0228F009c.d	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D\0228F010c.d	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D\0228F011c.d	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D\0228F012c.d	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D\0228F013c.d	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D\0228F014c.d	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte	Curve Fit	Weighting

2,3,4,5,6-Pentachloroanisole

Average RF **RSD = 9.583** **Average RF = 6.462E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	7.909E5	02	5.000	6.542E5	03	10.000	6.532E5	04	25.000	6.151E5
05	50.000	6.083E5	06	100.000	5.984E5	07	250.000	5.996E5	08	500.000	6.052E5
09	1000.000	6.245E5	10	2.500	7.13E5						

2,3,4,5-Tetrachlorophenol

Average RF **RSD = 12.29** **Average RF = 4.159E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	02	4.715	4.353E5	03	9.431	4.108E5	04	23.577	3.904E5
05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5	10	2.358	4.73E5

2,3,5,6-Tetrachlorophenol

Average RF **RSD = 6.587** **Average RF = 6.037E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	02	4.715	5.882E5	03	9.431	6.075E5	04	23.577	5.816E5
05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5	10	2.358	6.377E5

2,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9997** **Y= -73.44 X² + 1.777E5 X + 1.058E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	02	4.669	2.059E5	03	9.338	2.015E5	04	23.345	1.829E5
05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5	10	2.334	2.293E5

2,4,6-Trichlorophenol

Average RF **RSD = 4.634** **Average RF = 4.082E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	02	4.669	4.004E5	03	9.338	4.124E5	04	23.345	3.941E5
05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5	10	2.334	4.267E5

3,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9998** **Y= -63.92 X² + 1.7E5 X + 9.004E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	02	4.669	1.919E5	03	9.338	1.89E5	04	23.345	1.732E5
05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5	10	2.334	2.115E5

3,4-Dichlorophenol

Average RF **RSD = 10.82** **Average RF = 2.169E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.356E4	02	4.605	2.28E4	03	9.209	2.378E4	04	23.023	2.153E4
05	46.046	2.119E4	06	92.091	1.915E4	07	230.230	1.751E4	10	2.302	2.4E4

3,5-Dichlorophenol

Quadratic **1/X** **COD = 0.9996** **Y= -14.71 X² + 1.578E4 X + 8.463E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.299E4	02	4.605	1.798E4	03	9.209	1.82E4	04	23.023	1.612E4
05	46.046	1.537E4	06	92.091	1.408E4	07	230.230	1.249E4	10	2.302	1.928E4

Pentachlorophenol (PCP)

Average RF **RSD = 9.573** **Average RF = 6.805E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	02	4.750	6.912E5	03	9.501	6.875E5	04	23.752	6.474E5
05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5	08	475.030	6.37E5
09	950.060	6.573E5	10	2.375	7.52E5						

4-Bromo-2,6-dichlorophenol

Average RF **RSD = 5.968** **Average RF = 4.216E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	02	5.000	3.777E5	03	10.000	4.048E5	04	25.000	4.138E5
05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5	08	500.000	4.395E5
09	1000.000	4.542E5	10	2.500	3.934E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.22	22.4	02	5.000	5.06	1.2	03	10.000	10.1	1.1
04	25.000	23.8	-4.8	05	50.000	47.1	-5.9	06	100.000	92.6	-7.4
07	250.000	232	-7.2	08	500.000	468	-6.4	09	1000.000	966	-3.4
10	2.500	2.76	10.3								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.14	21.2	02	4.715	4.93	4.7	03	9.431	9.31	-1.2
04	23.577	22.1	-6.1	05	47.153	43.3	-8.3	06	94.307	83.5	-11.5
07	235.770	206	-12.5	10	2.358	2.68	13.7				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.07	13.6	02	4.715	4.59	-2.6	03	9.431	9.49	0.6
04	23.577	22.7	-3.7	05	47.153	45.9	-2.6	06	94.307	89.1	-5.6
07	235.770	223	-5.4	10	2.358	2.49	5.6				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.799	-14.5	02	4.669	4.82	3.3	03	9.338	10.0	7.4
04	23.345	23.7	1.3	05	46.690	47.3	1.3	06	93.379	90.7	-2.9
07	233.450	234	0.4	10	2.334	2.42	3.6				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	1.01	8.7	02	4.669	4.58	-1.9	03	9.338	9.43	1.0
04	23.345	22.5	-3.5	05	46.690	46.6	-0.2	06	93.379	89.0	-4.7
07	233.450	224	-4.0	10	2.334	2.44	4.5				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.846	-9.5	02	4.669	4.75	1.7	03	9.338	9.88	5.9
04	23.345	23.5	0.5	05	46.690	47.5	1.7	06	93.379	91.1	-2.4
07	233.450	234	0.3	10	2.334	2.38	1.8				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	1.00	8.6	02	4.605	4.84	5.1	03	9.209	10.1	9.6
04	23.023	22.9	-0.7	05	46.046	45.0	-2.3	06	92.091	81.3	-11.7
07	230.230	186	-19.3	10	2.302	2.55	10.6				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.806	-12.4	02	4.605	4.73	2.8	03	9.209	10.2	10.6
04	23.023	23.5	2.1	05	46.046	46.3	0.6	06	92.091	89.0	-3.3
07	230.230	232	0.7	10	2.302	2.28	-0.9				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	1.16	22.2	02	4.750	4.82	1.6	03	9.501	9.60	1.0
04	23.752	22.6	-4.9	05	47.503	44.7	-5.9	06	95.006	87.9	-7.4
07	237.520	220	-7.3	08	475.030	445	-6.4	09	950.060	918	-3.4
10	2.375	2.62	10.5								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.975	-2.5	02	5.000	4.48	-10.4	03	10.000	9.60	-4.0
04	25.000	24.5	-1.8	05	50.000	52.4	4.9	06	100.000	103	3.0
07	250.000	264	5.5	08	500.000	521	4.2	09	1000.000	1080	7.7
10	2.500	2.33	-6.7								

Initial Calibration Verification Summary Report

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-1701

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Quadratic	50	58.215	ug/L	16.4	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.125	ug/L	6.3	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.742	ug/L	7.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.950	ug/L	7.0	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	47.208	ug/L	1.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.502	ug/L	6.0	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	50.405	ug/L	9.5	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	54.814	ug/L	19.0	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Quadratic	47.5030	55.309	ug/L	16.4	<= 20

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-35

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Average RF	50	51.424	ug/L	2.8	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	46.743	ug/L	-0.9	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	47.890	ug/L	1.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	50.676	ug/L	8.5	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Average RF	46.69	46.729	ug/L	0.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	48.393	ug/L	3.6	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Average RF	46.0460	46.475	ug/L	0.9	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	48.925	ug/L	6.3	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Average RF	47.5030	48.834	ug/L	2.8	<= 20

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:10:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.031	4.715	2177979	1888328	5.516	4.344
		Target Compounds						
1)		3,4-Dichl...	3.138	3.832	80562	104986	4.505m	4.752
2)		3,5-Dichl...	3.378	4.089	64800	82809	5.639m	5.025
3)		2,4,6-Tri...	3.474	4.289	1795636	1869642	5.068	4.483
5)		2,4,5-Tri...	4.201	4.782	840314	961190	5.239	4.809
6)		3,4,5-Tri...	4.231	4.845	851278	896194	5.313	4.774
7)	M	2,3,5,6-T...	4.478	5.075	2489684	2773207	5.230	4.493m
8)	M	2,3,4,5-T...	5.014	5.469	1875877	2052365	4.930m	4.970
9)	M	Pentachlo...	5.151	5.649	2839370	3283089	5.309	4.775m
10)		Pentachlo...	5.151	5.649	2839370	3271189	5.588	5.010m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

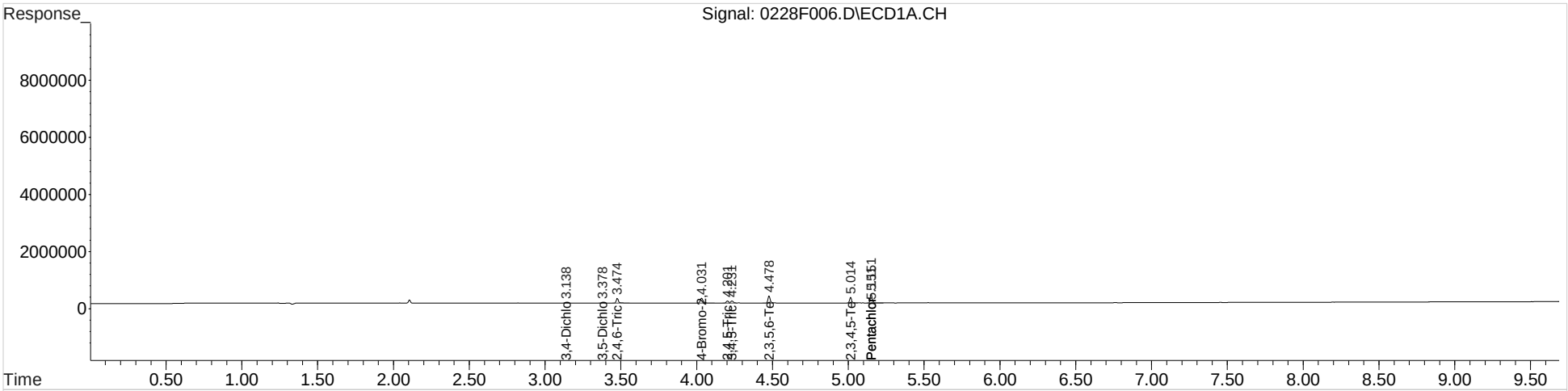
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:10:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

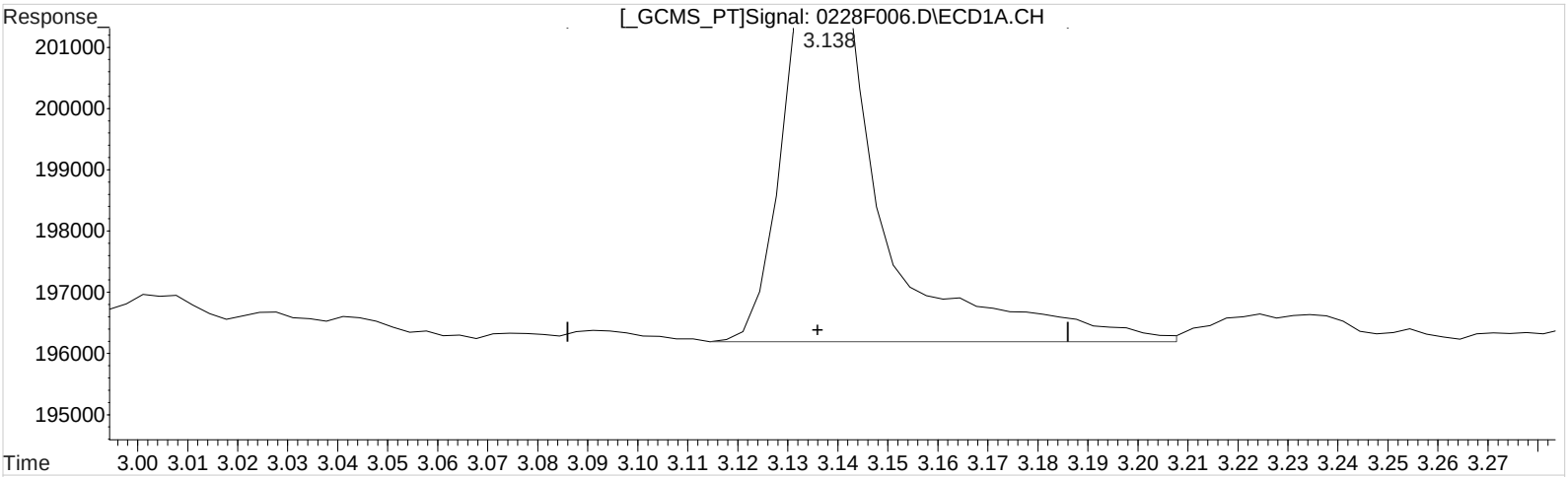


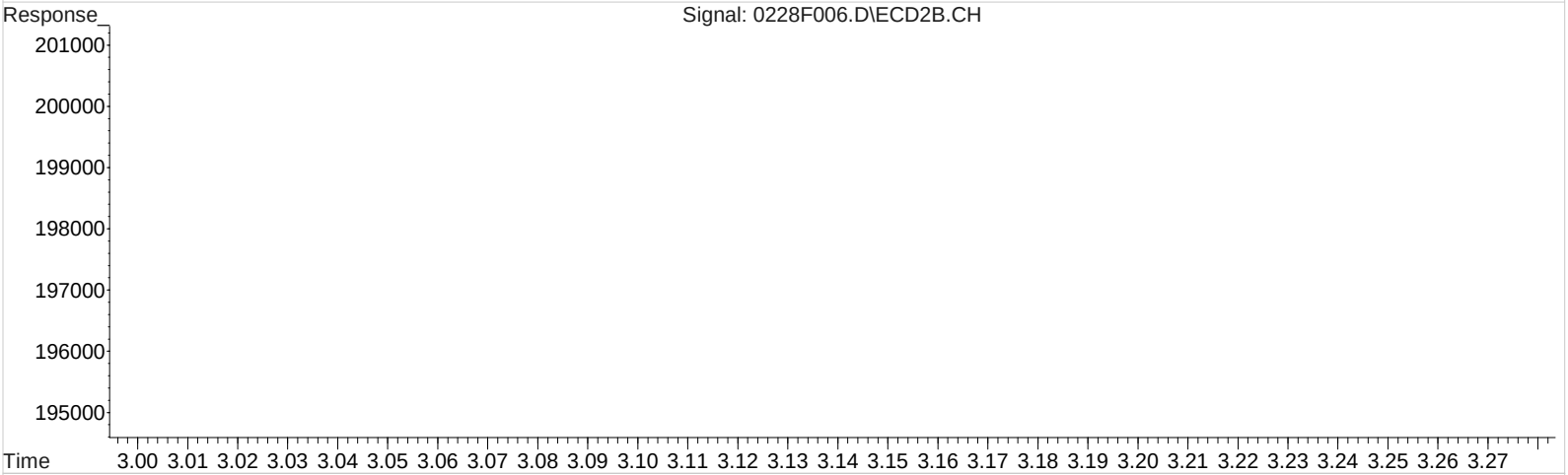
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.138min 5.274 ug/L

response 92393

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.832min 4.752 ug/L

response 104986

(+) = Expected Retention Time

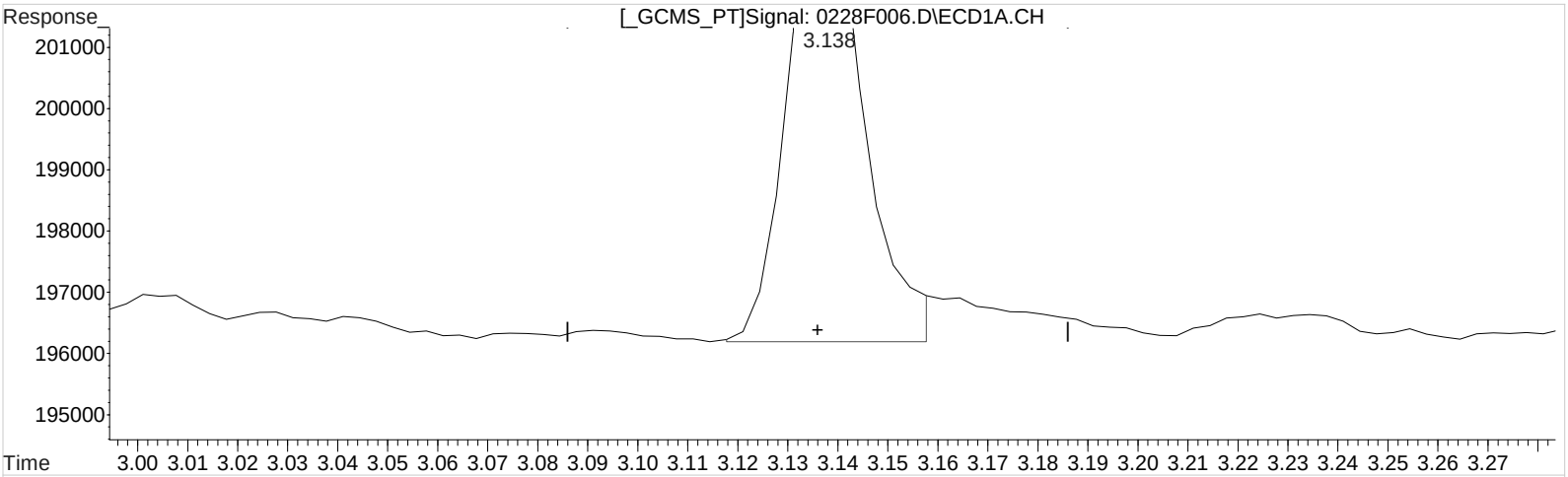
Quantitation Report (Qedit)

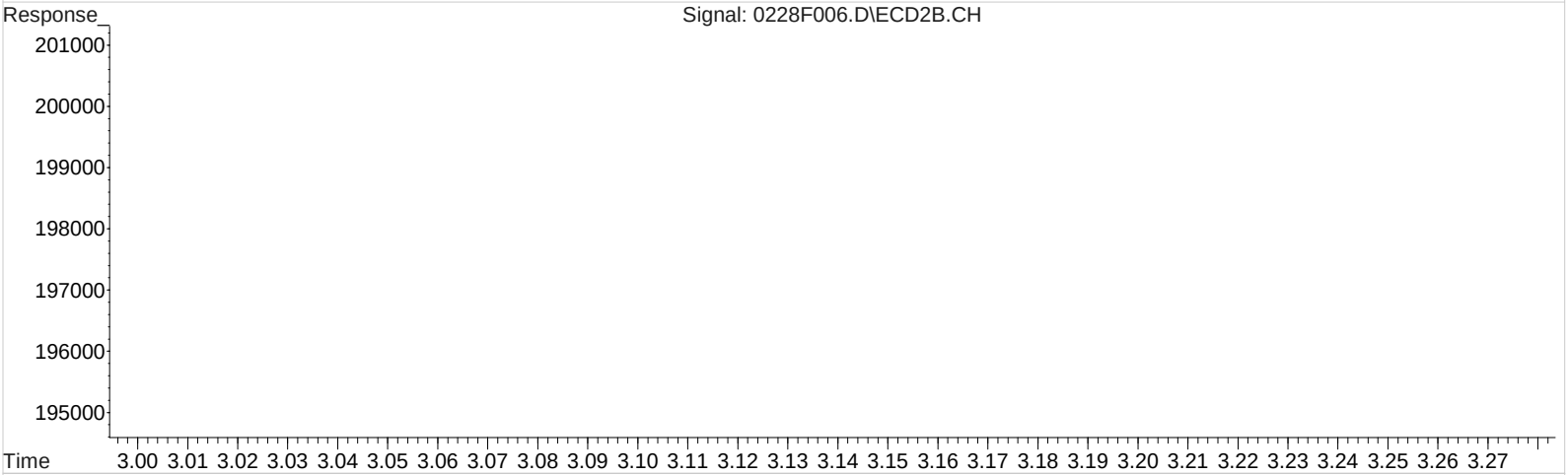
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.138min 4.505 ug/L m

response 80562

(1) 3,4-Dichlorophenol #2

3.832min 4.752 ug/L

response 104986

Manual Integration:

After

Baseline/Shoulder

02/28/19

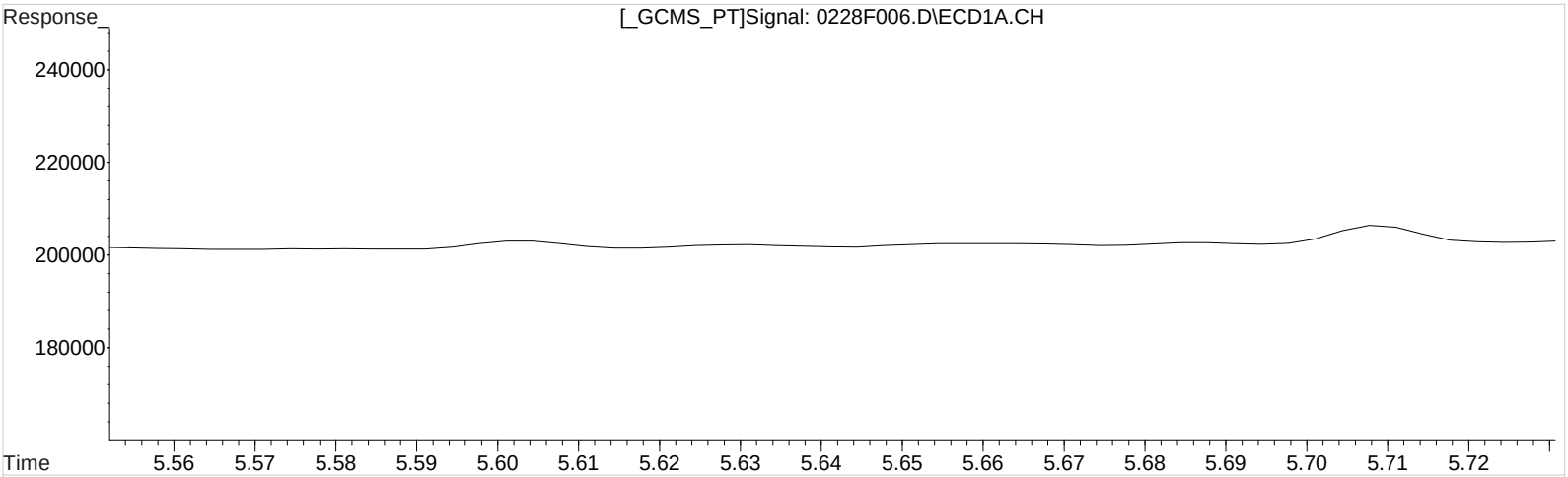
(+) = Expected Retention Time

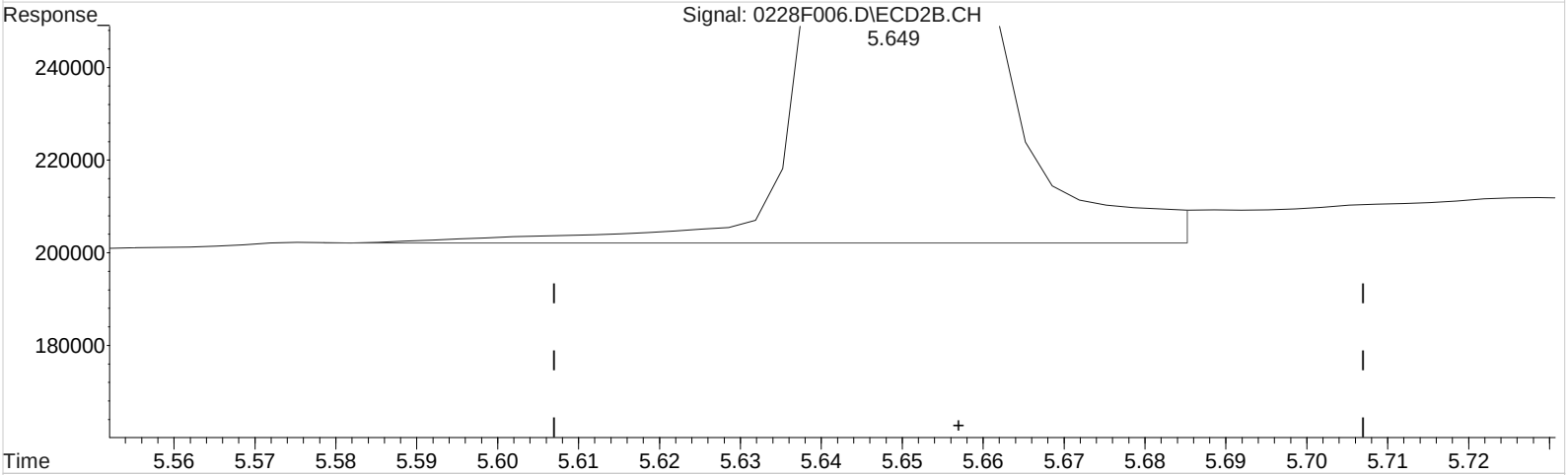
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.151min 5.588 ug/L

response 2839370

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.649min 5.332 ug/L

response 3480960

(+) = Expected Retention Time

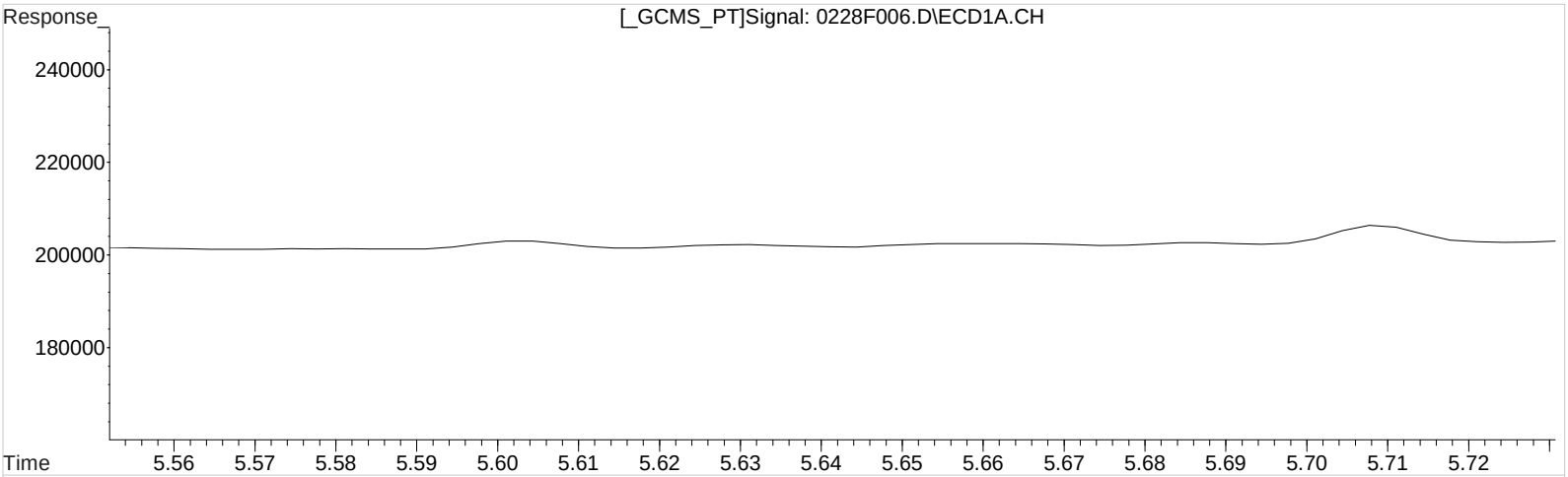
Quantitation Report (Qedit)

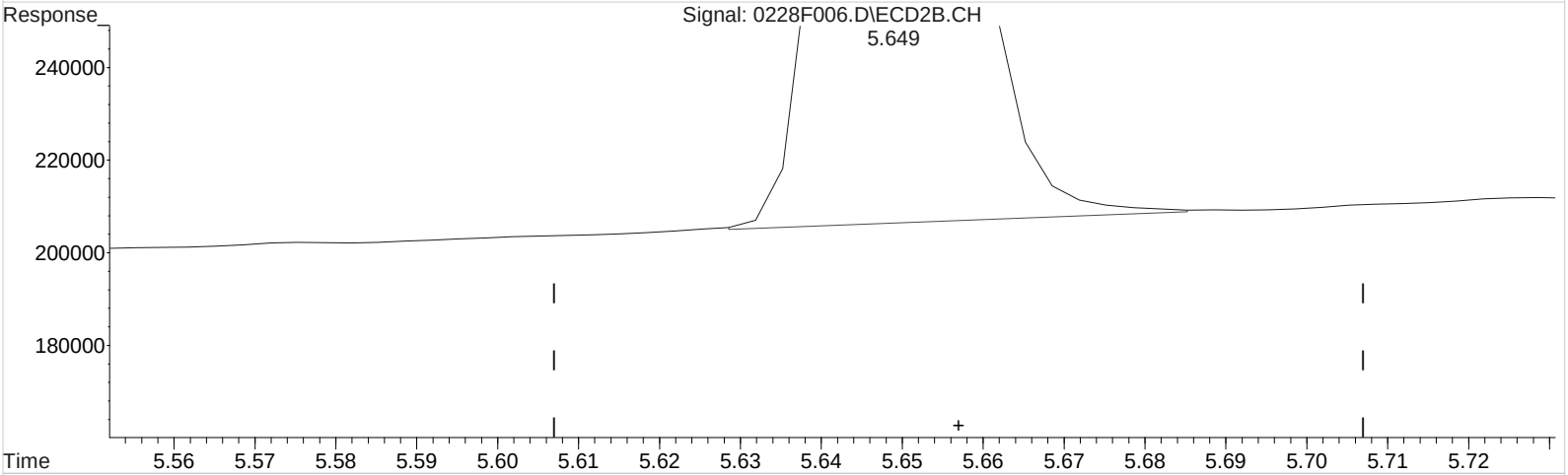
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.151min 5.588 ug/L

response 2839370

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.649min 5.010 ug/L m

response 3271189

(+) = Expected Retention Time

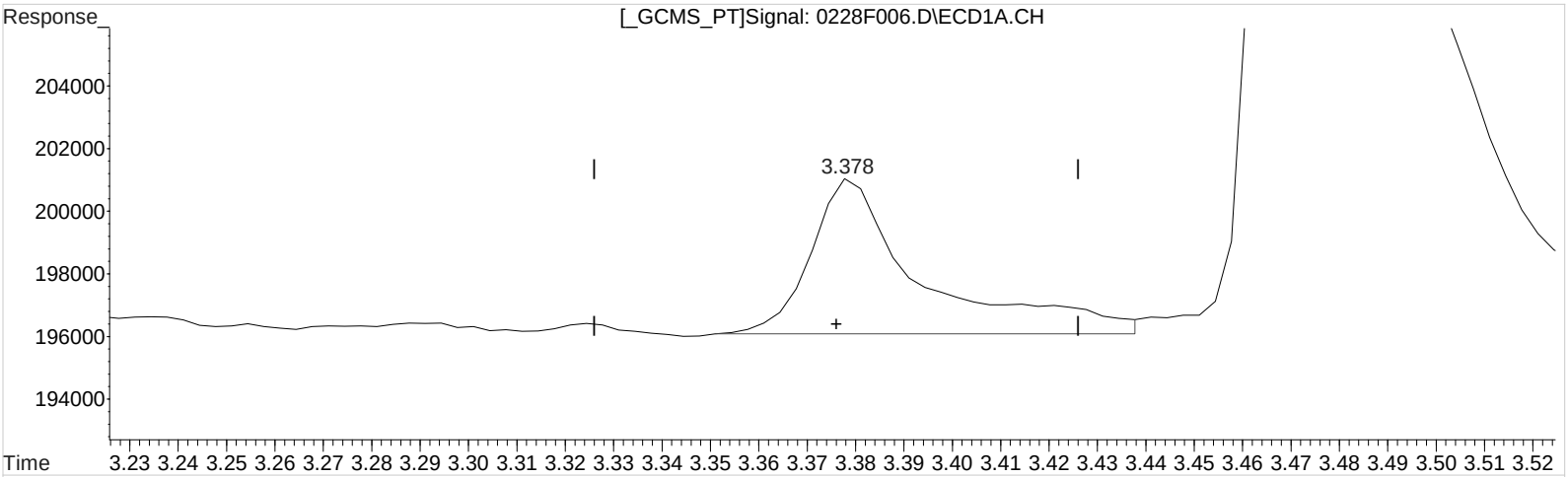
Quantitation Report (Qedit)

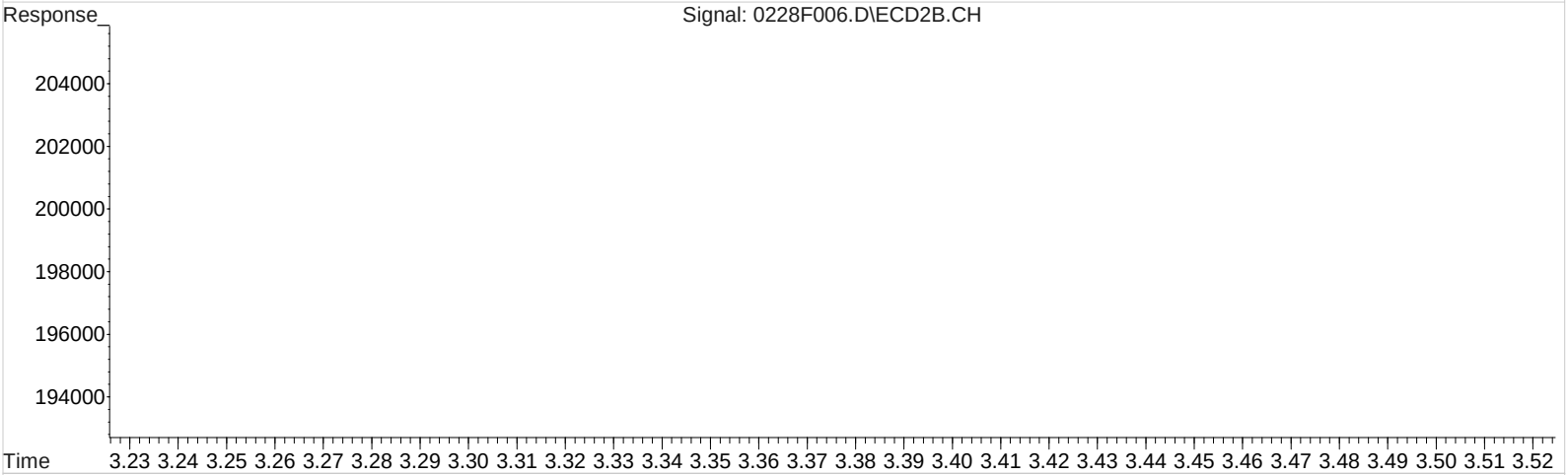
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 6.986 ug/L

response 78818

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 5.025 ug/L

response 82809

(+) = Expected Retention Time

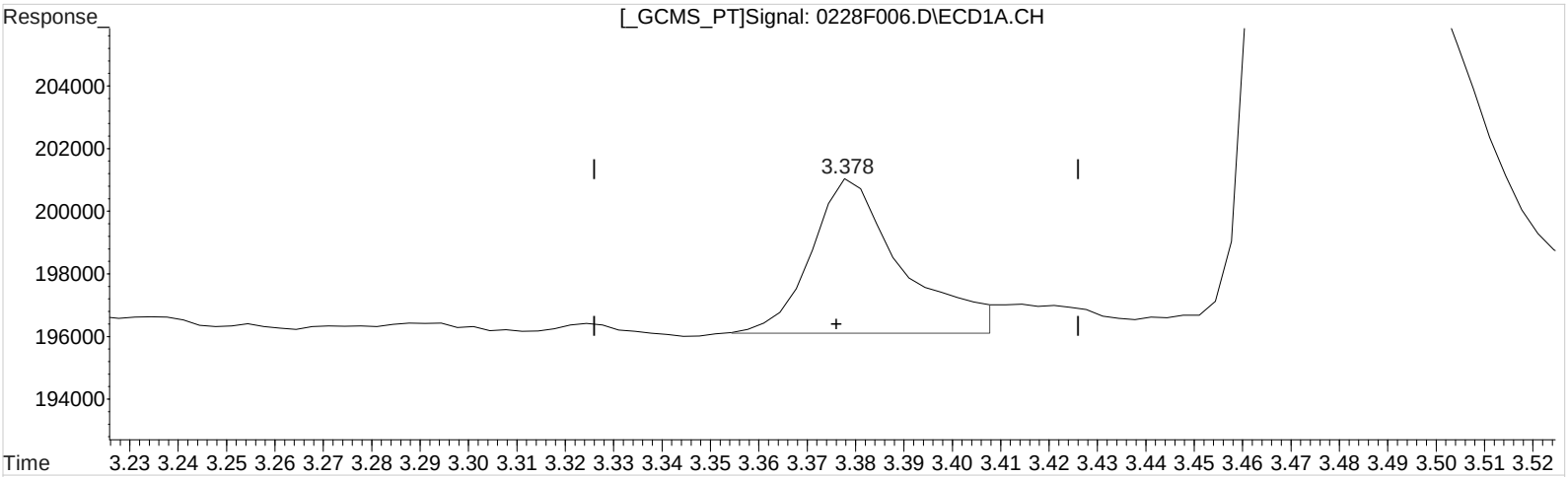
Quantitation Report (Qedit)

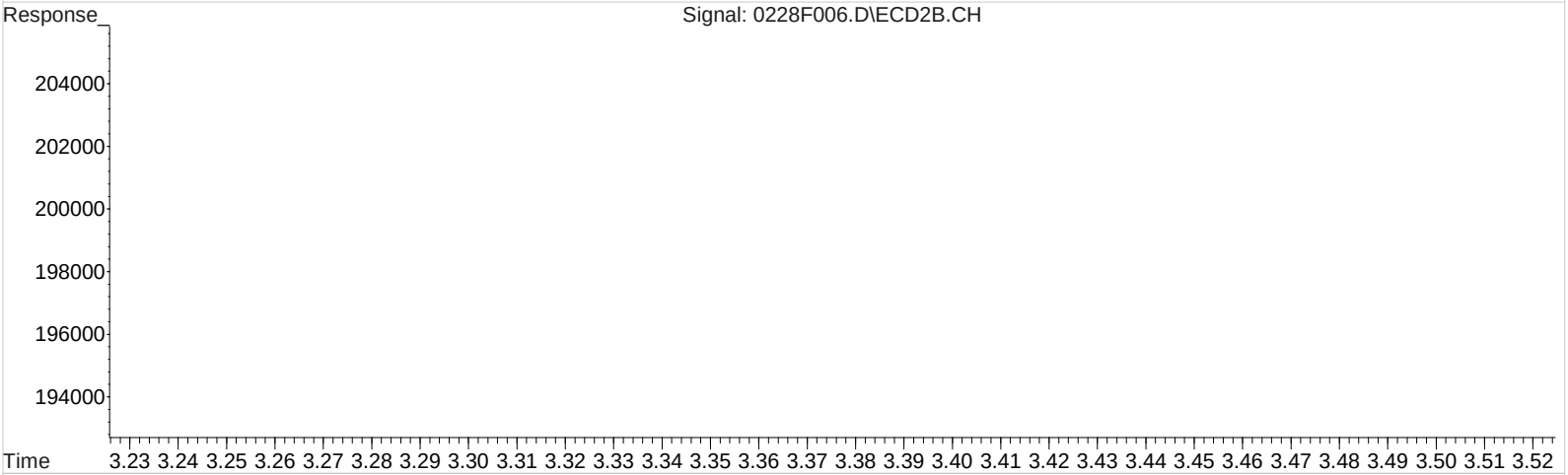
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 5.639 ug/L m

response 64800

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 5.025 ug/L

response 82809

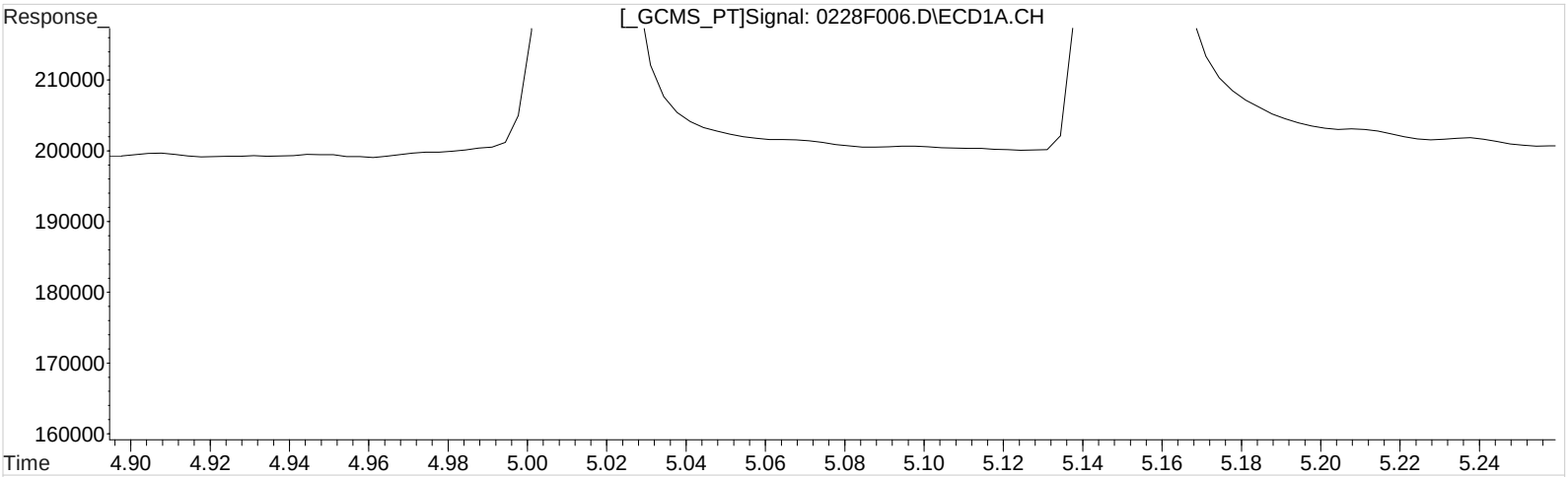
(+) = Expected Retention Time

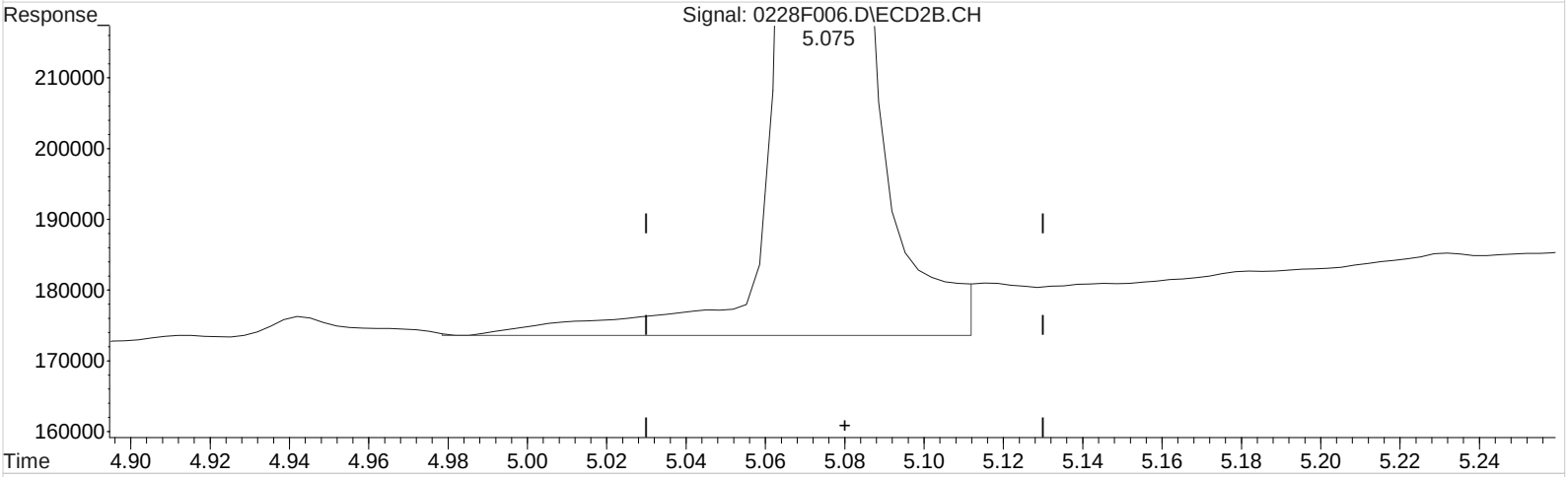
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 5.230 ug/L

response 2489684

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.075min 4.942 ug/L

response 3050029

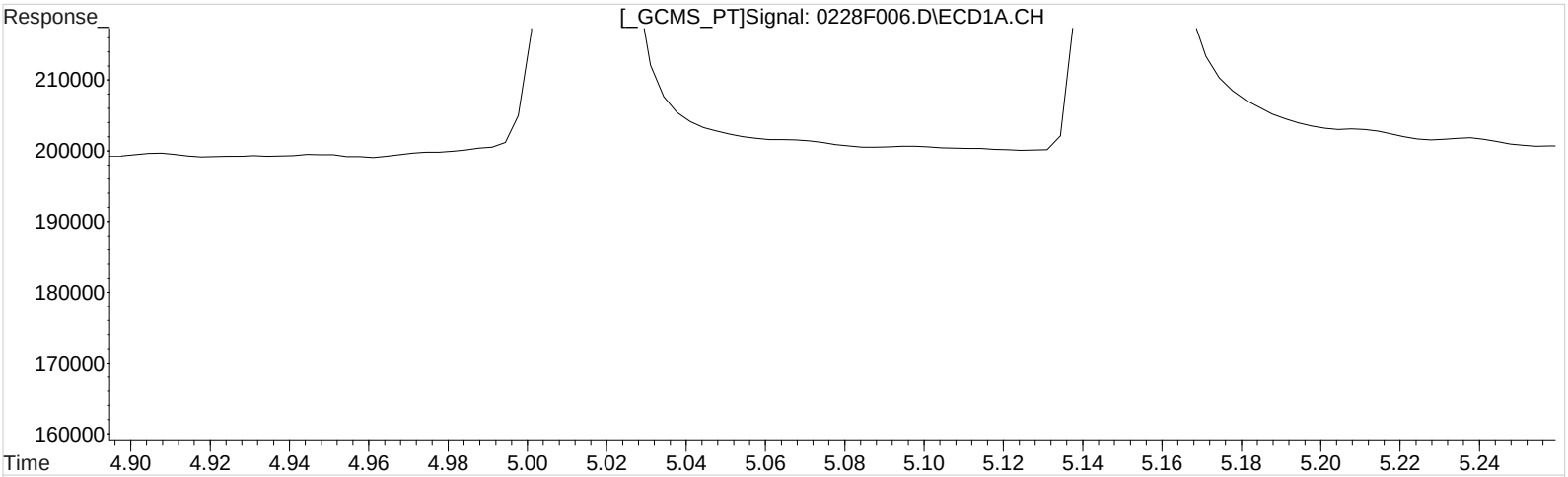
(+) = Expected Retention Time

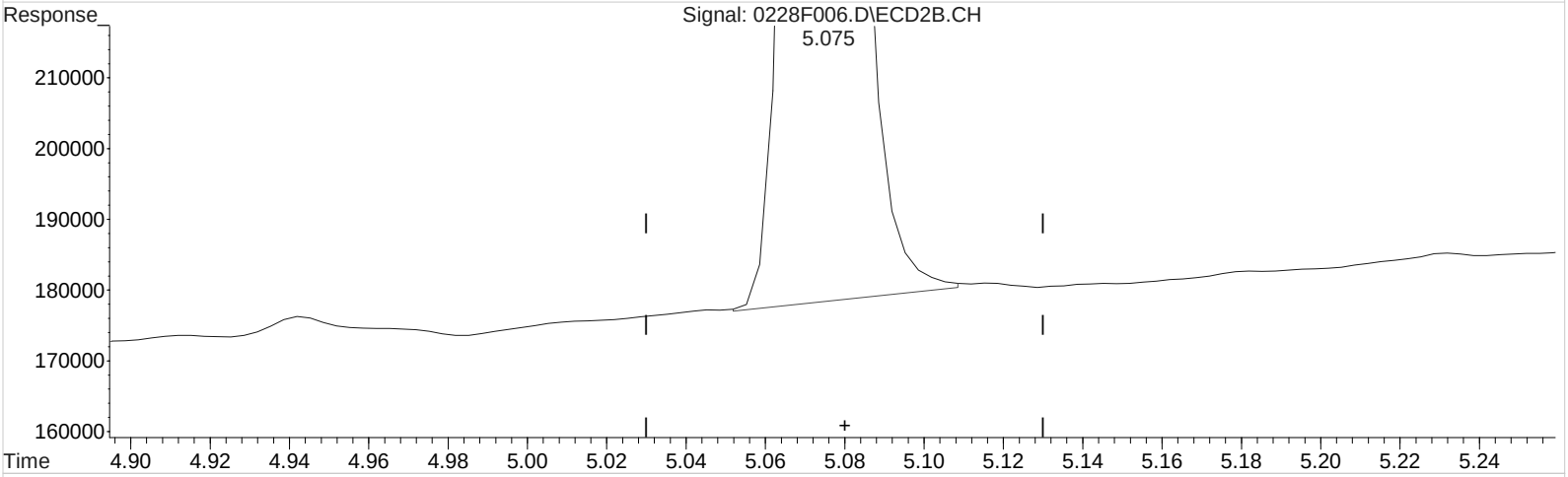
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 5.230 ug/L

response 2489684

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.075min 4.493 ug/L m

response 2773207

(+) = Expected Retention Time

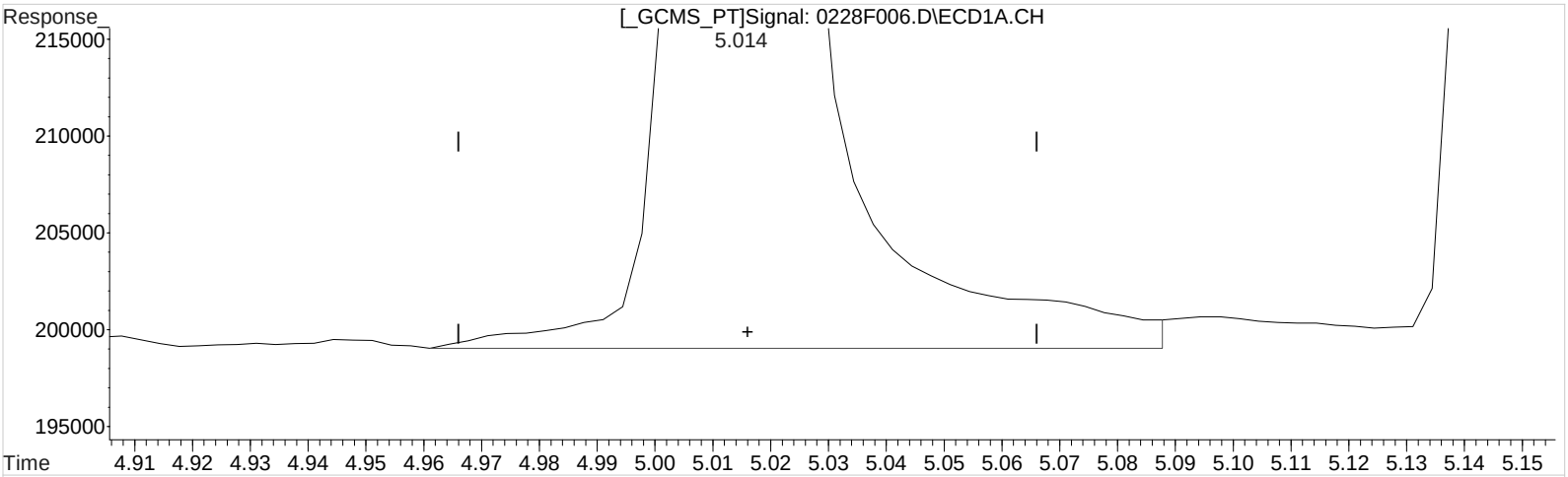
Quantitation Report (Qedit)

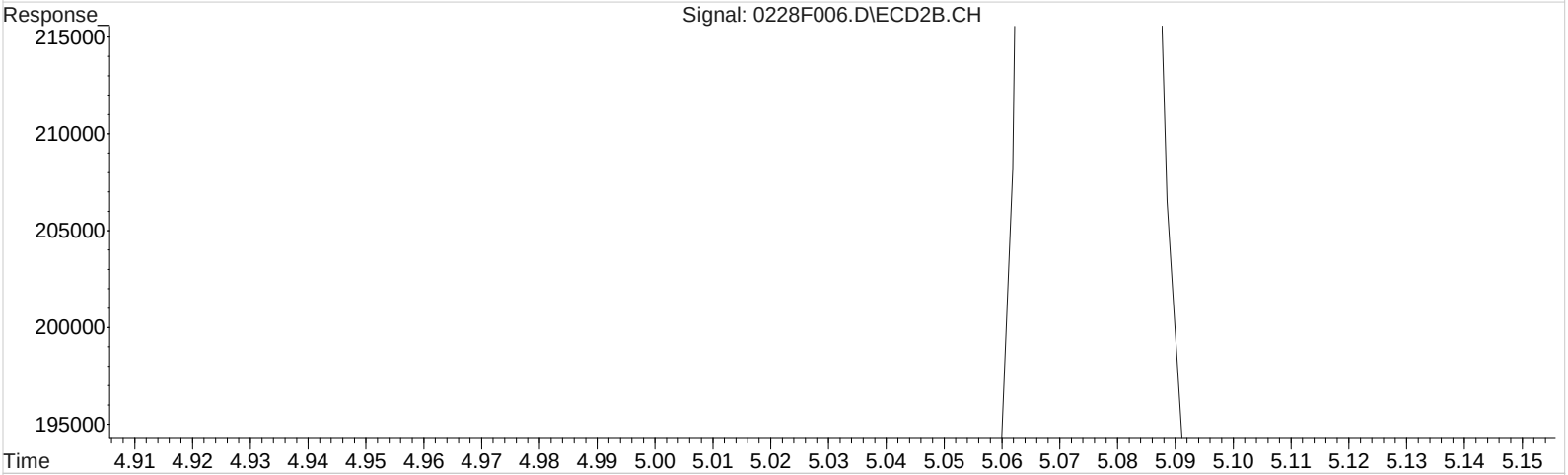
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.014min 5.252 ug/L

response 1974382

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.469min 4.970 ug/L

response 2052365

(+) = Expected Retention Time

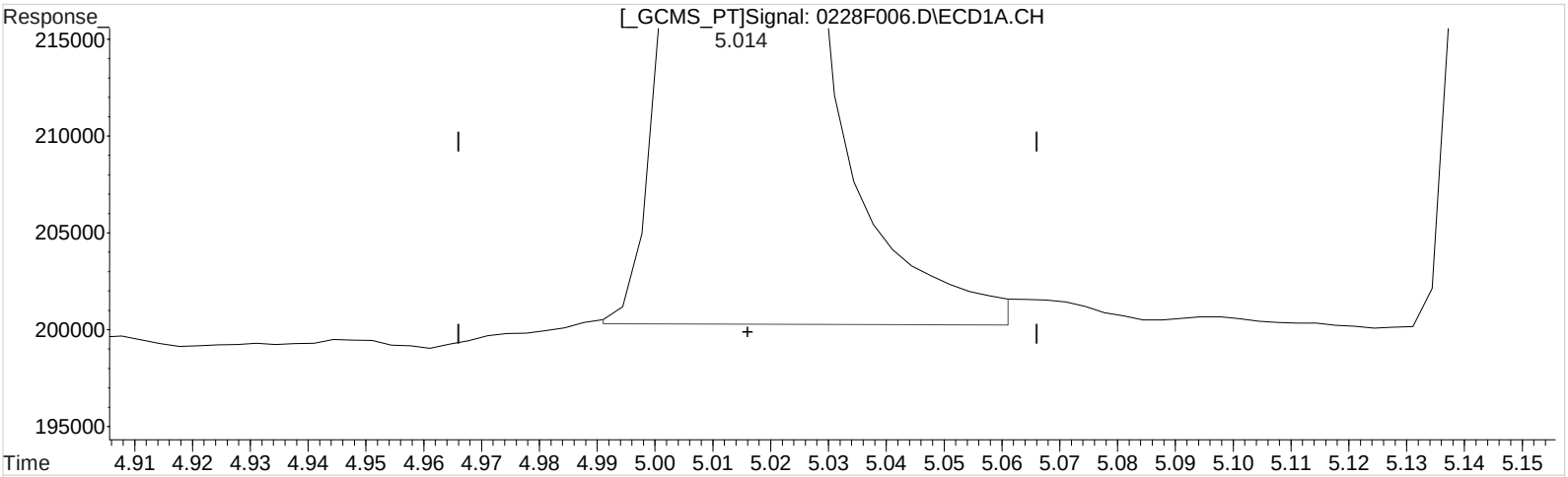
Quantitation Report (Qedit)

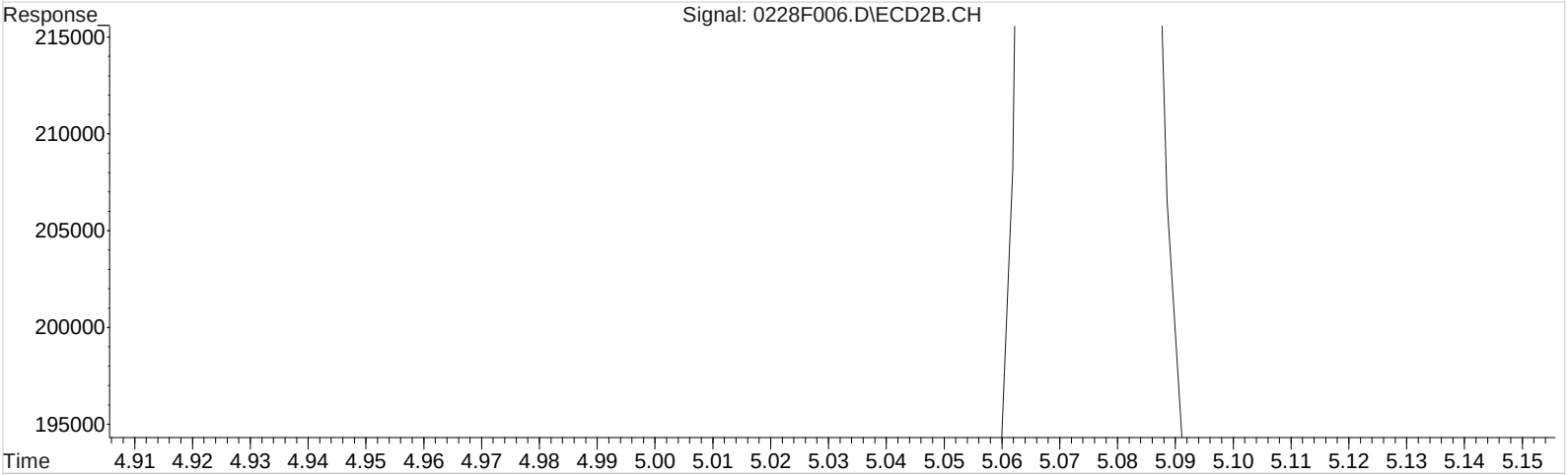
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.014min 4.930 ug/L m

response 1875877

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.469min 4.970 ug/L

response 2052365

(+) = Expected Retention Time

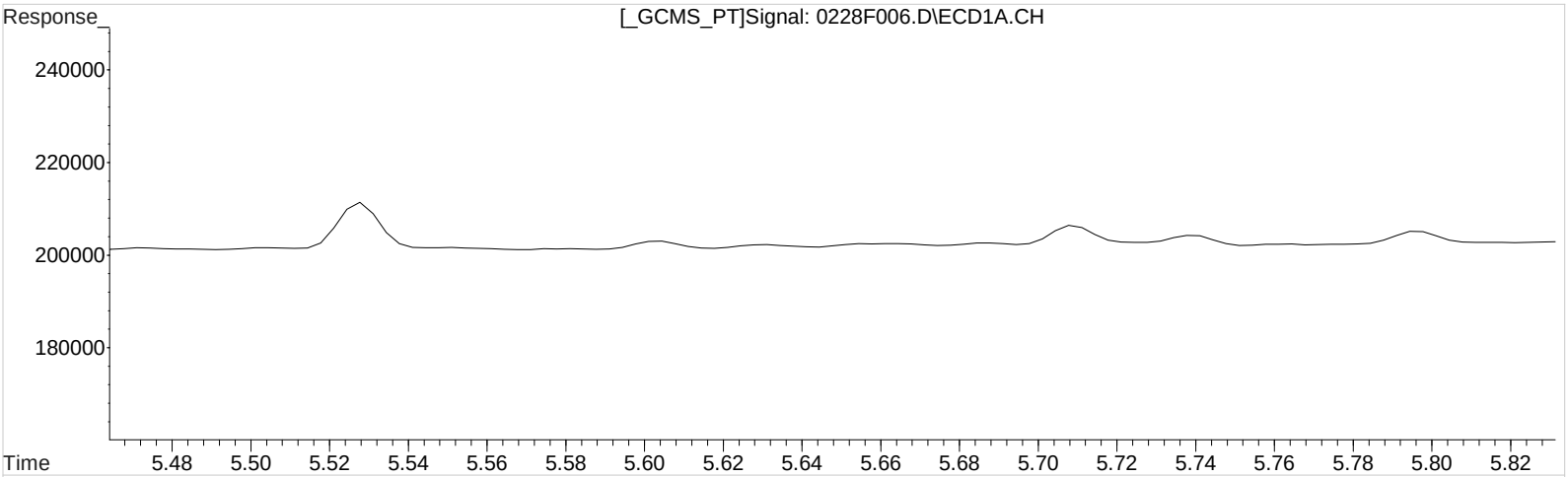
Quantitation Report (Qedit)

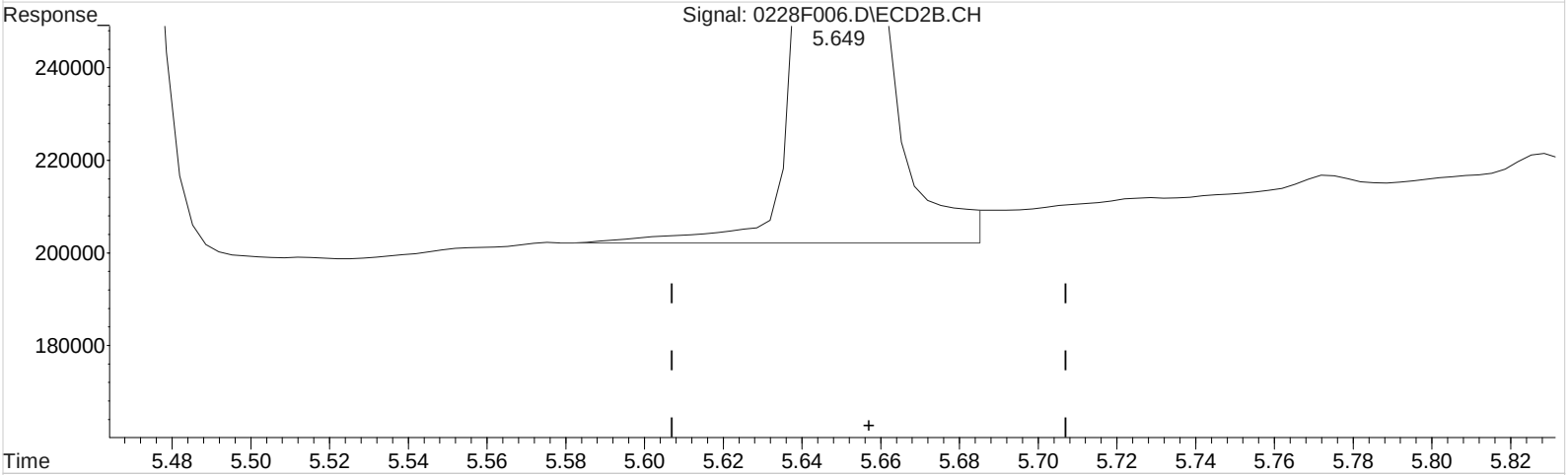
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.151min 5.309 ug/L

response 2839370

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.649min 5.063 ug/L

response 3480960

(+) = Expected Retention Time

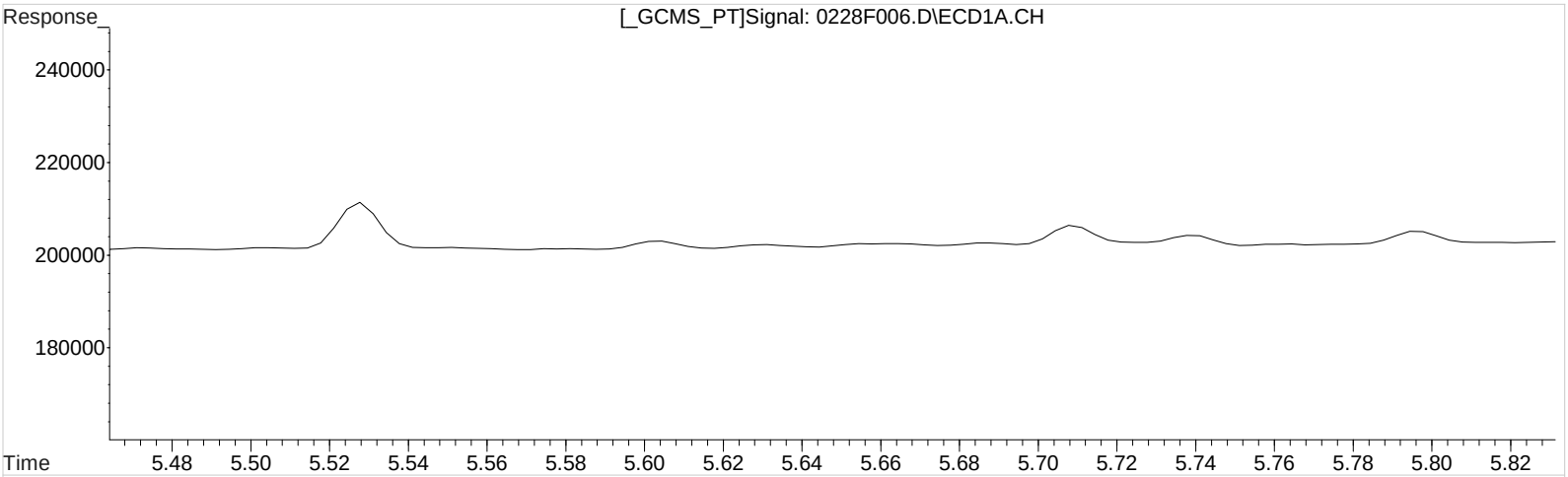
Quantitation Report (Qedit)

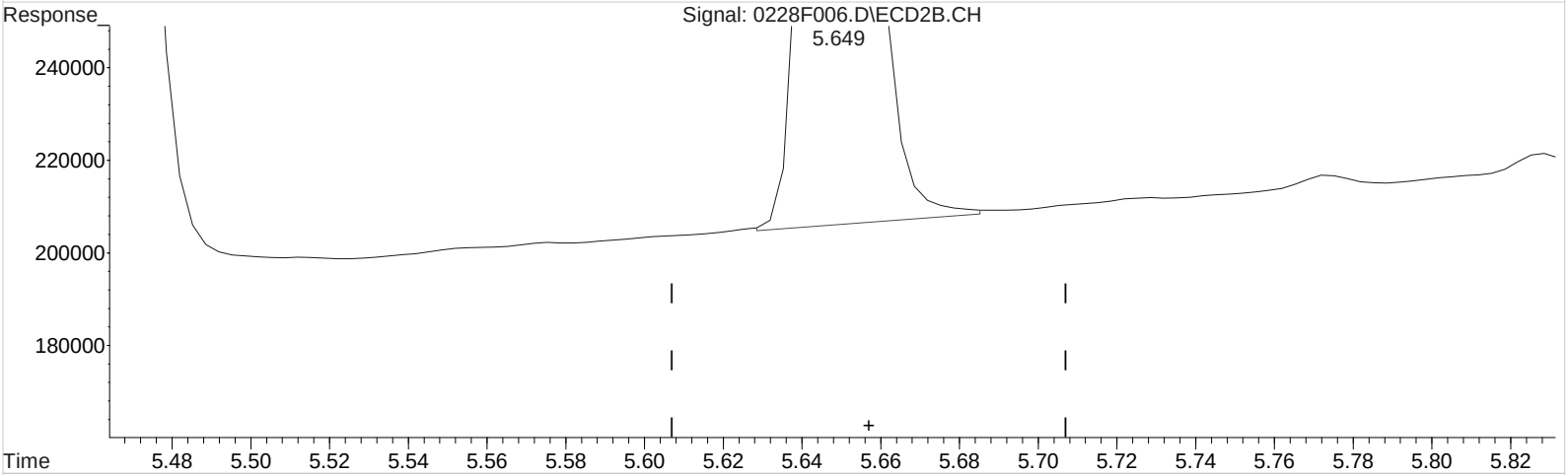
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.151min 5.309 ug/L

response 2839370

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.649min 4.775 ug/L m

response 3283089

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:31:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.033	4.717	4141410	4048056	11.304	9.312
		Target Compounds						
1)		3,4-Dichl...	3.136	3.831	158218	219018	9.573m	9.913
2)		3,5-Dichl...	3.380	4.087	115610	167574	10.545m	10.169
3)		2,4,6-Tri...	3.476	4.291	3397194	3850826	10.122	9.233
5)		2,4,5-Tri...	4.203	4.784	1619859	1881218	10.889	9.413
6)		3,4,5-Tri...	4.233	4.847	1583734	1764529	10.435m	9.401
7)	M	2,3,5,6-T...	4.476	5.077	4654510	5729619	9.778m	9.283
8)	M	2,3,4,5-T...	5.020	5.474	3486028	3874012	10.225m	9.382m
9)	M	Pentachlo...	5.156	5.657	5372015	6532395	10.950	9.501
10)		Pentachlo...	5.156	5.657	5372015	6532395	11.526	10.005

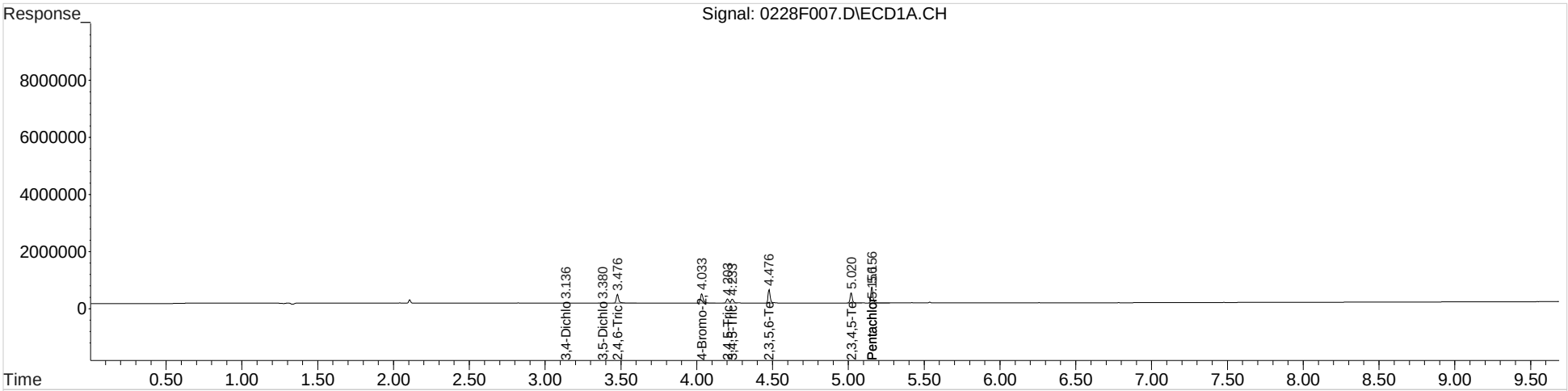
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:31:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



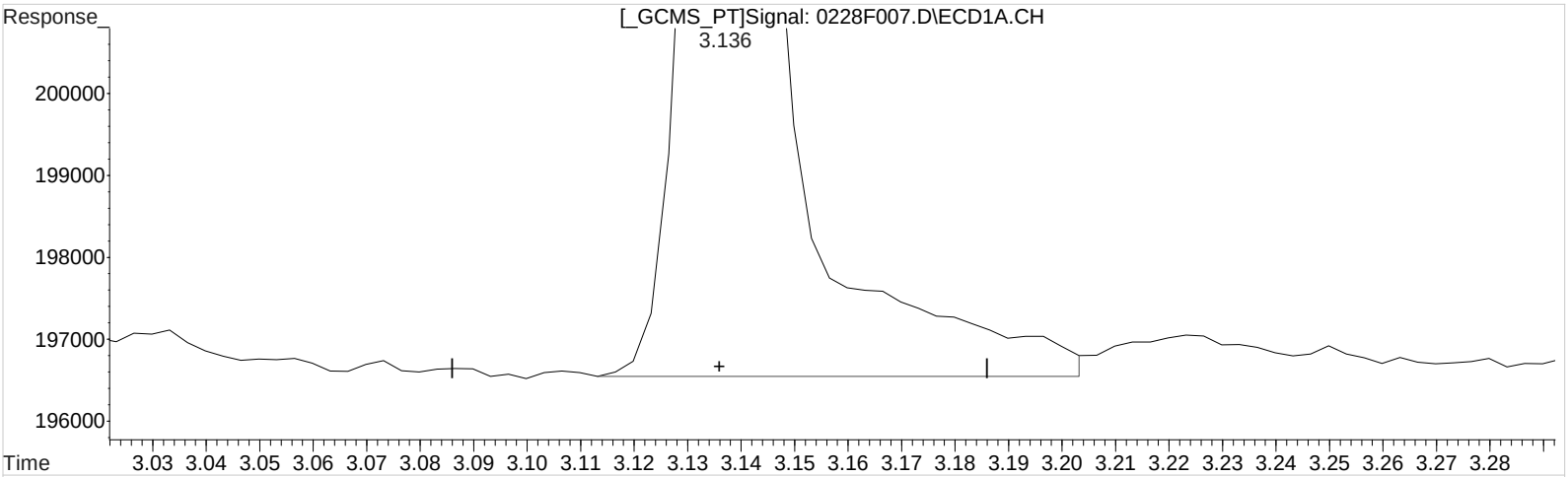
Quantitation Report (Qedit)

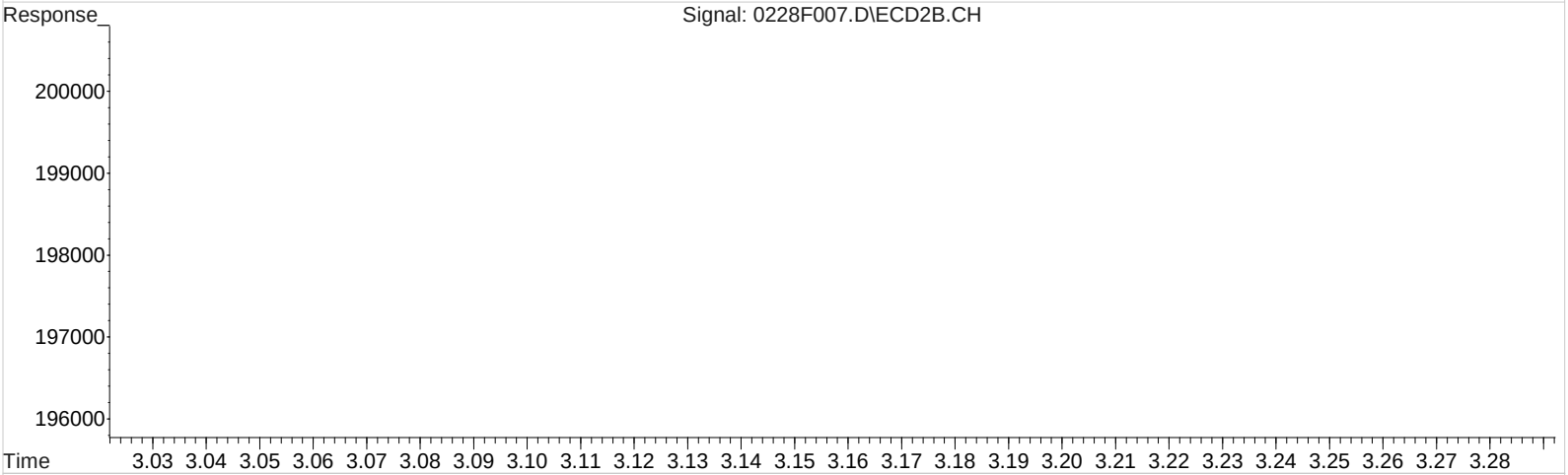
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.136min 10.715 ug/L

response 175614

(1) 3,4-Dichlorophenol #2

3.831min 9.913 ug/L

response 219018

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

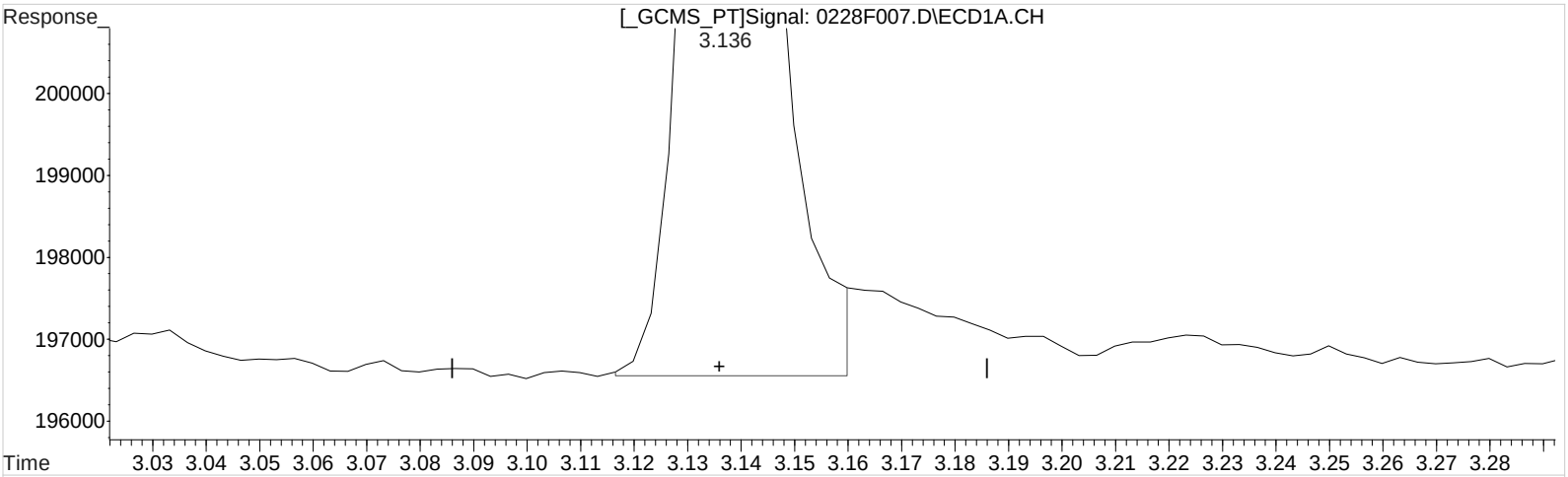
Quantitation Report (Qedit)

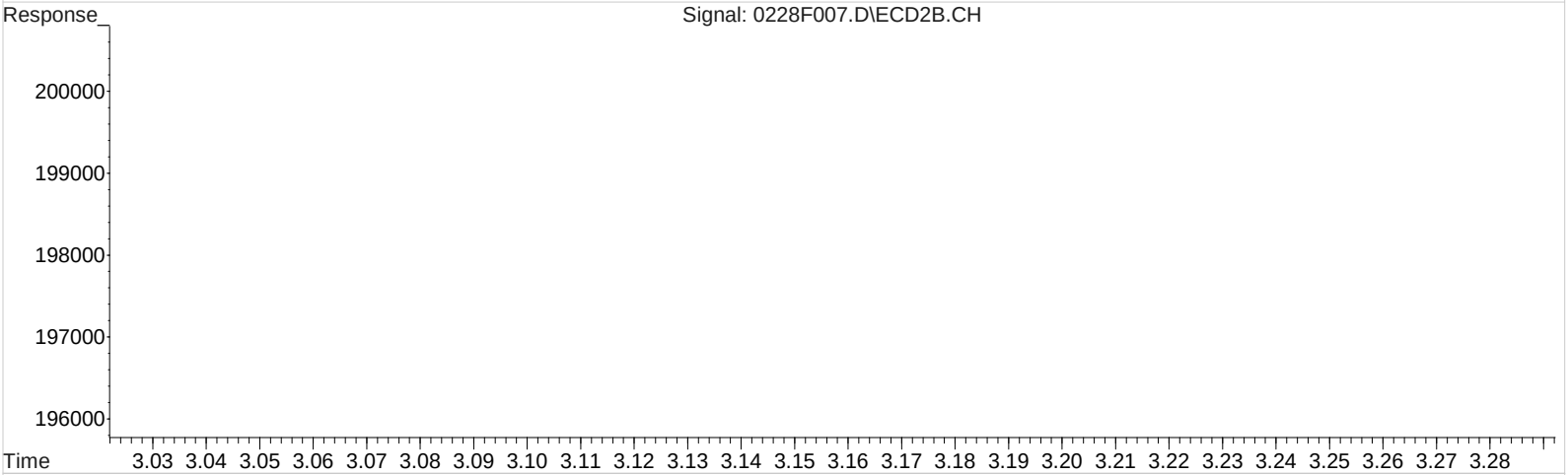
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.136min 9.573 ug/L m

response 158218

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 9.913 ug/L

response 219018

(+) = Expected Retention Time

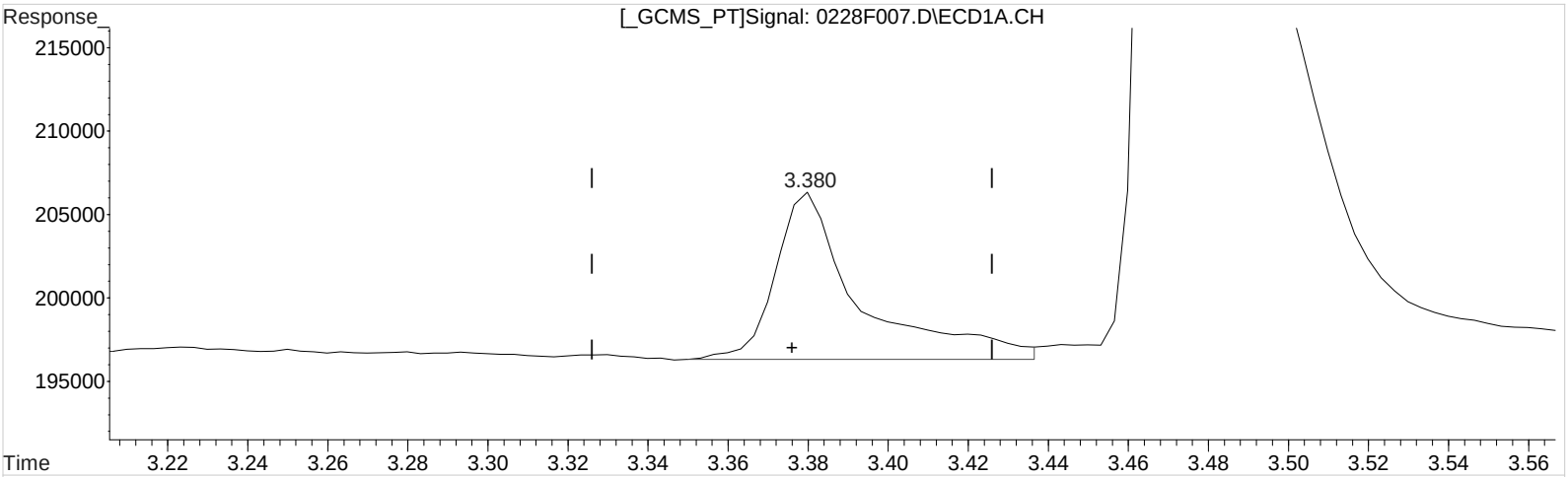
Quantitation Report (Qedit)

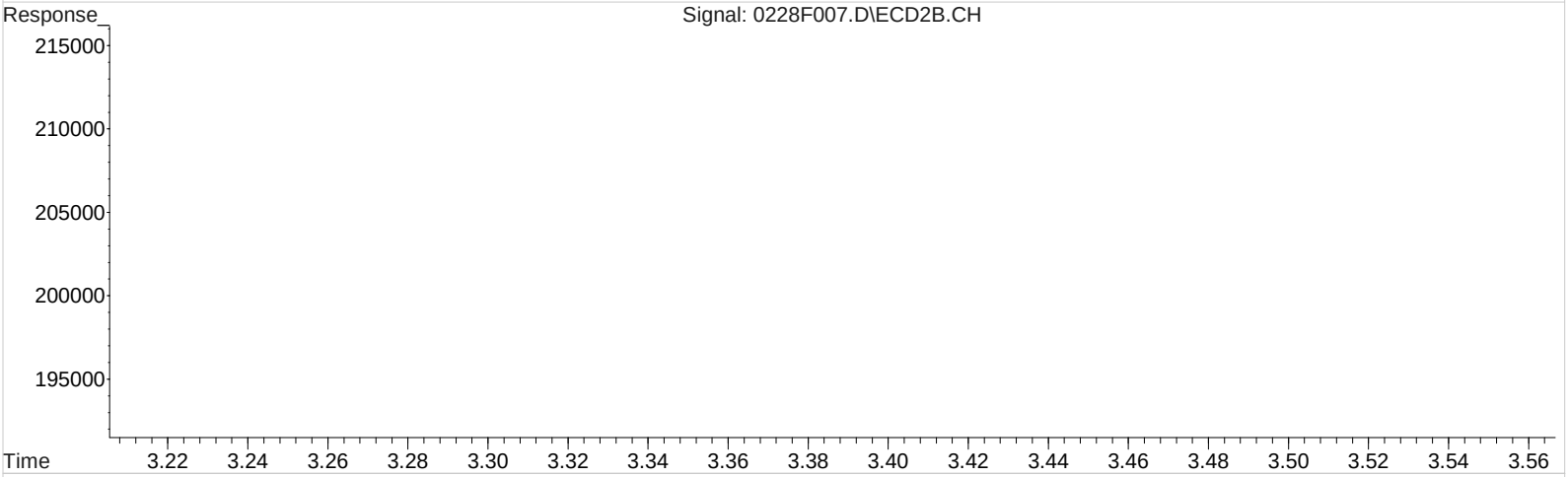
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 13.605 ug/L

response 146982

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.087min 10.169 ug/L

response 167574

(+) = Expected Retention Time

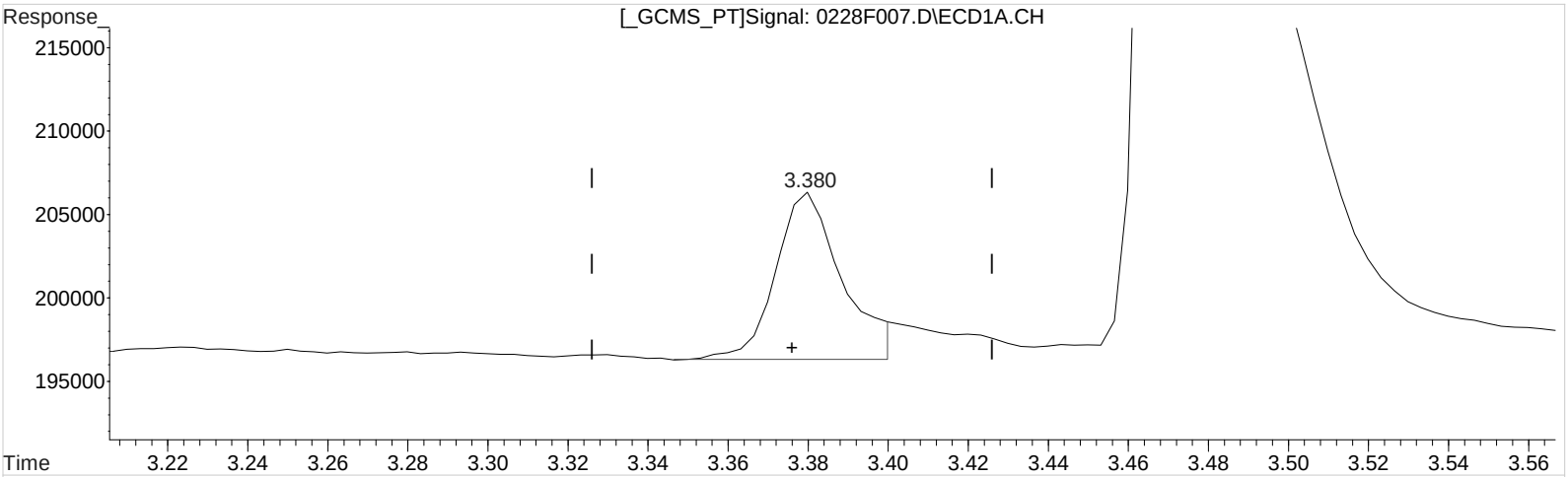
Quantitation Report (Qedit)

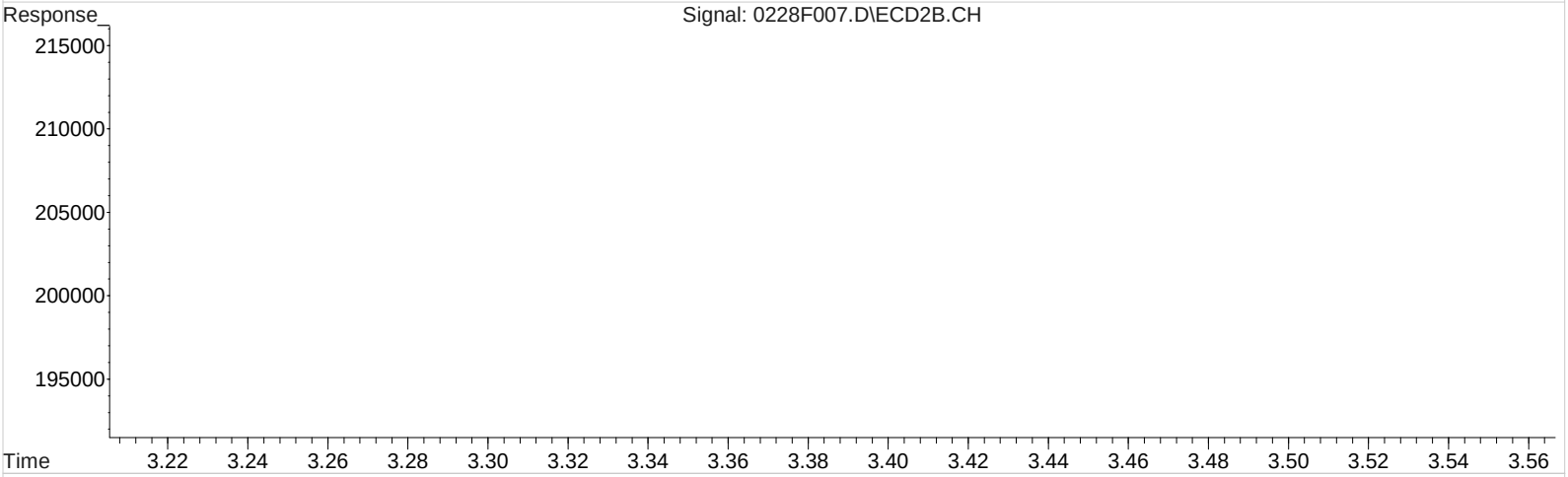
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 10.545 ug/L m

response 115610

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.087min 10.169 ug/L

response 167574

(+) = Expected Retention Time

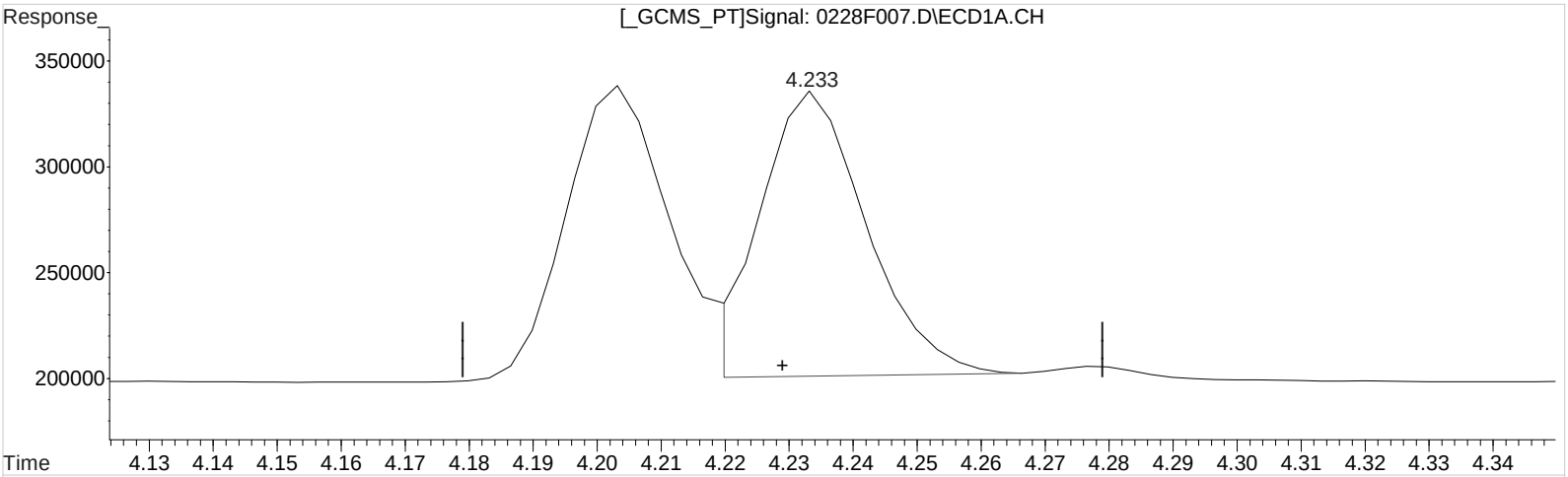
Quantitation Report (Qedit)

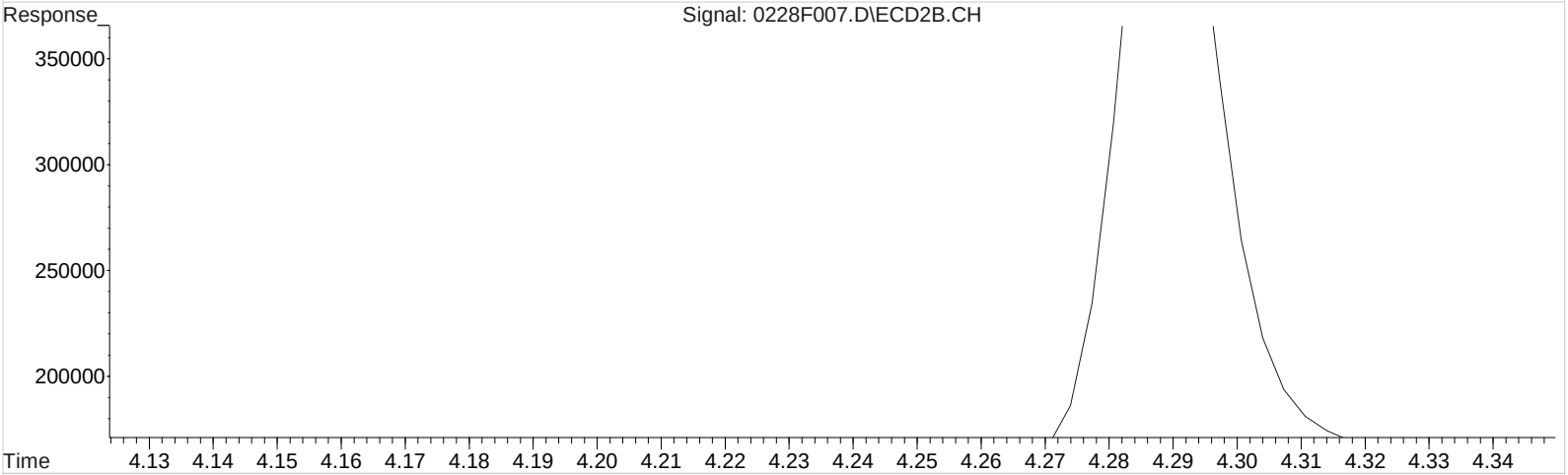
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 9.891 ug/L

response 1506370

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 9.401 ug/L

response 1764529

(+) = Expected Retention Time

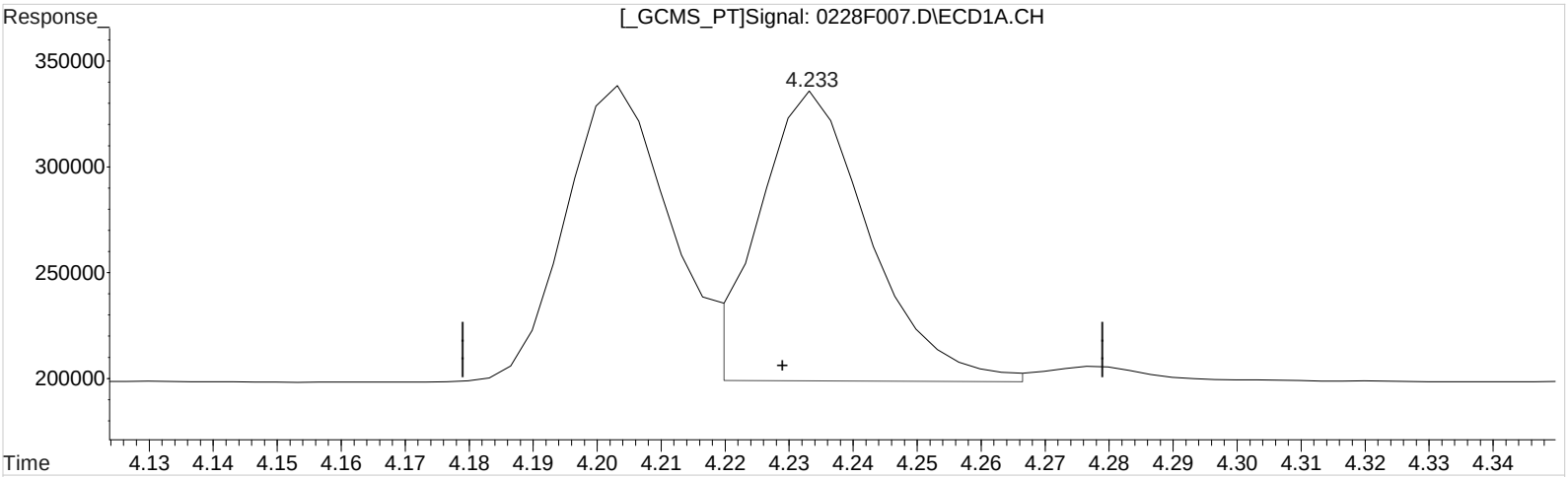
Quantitation Report (Qedit)

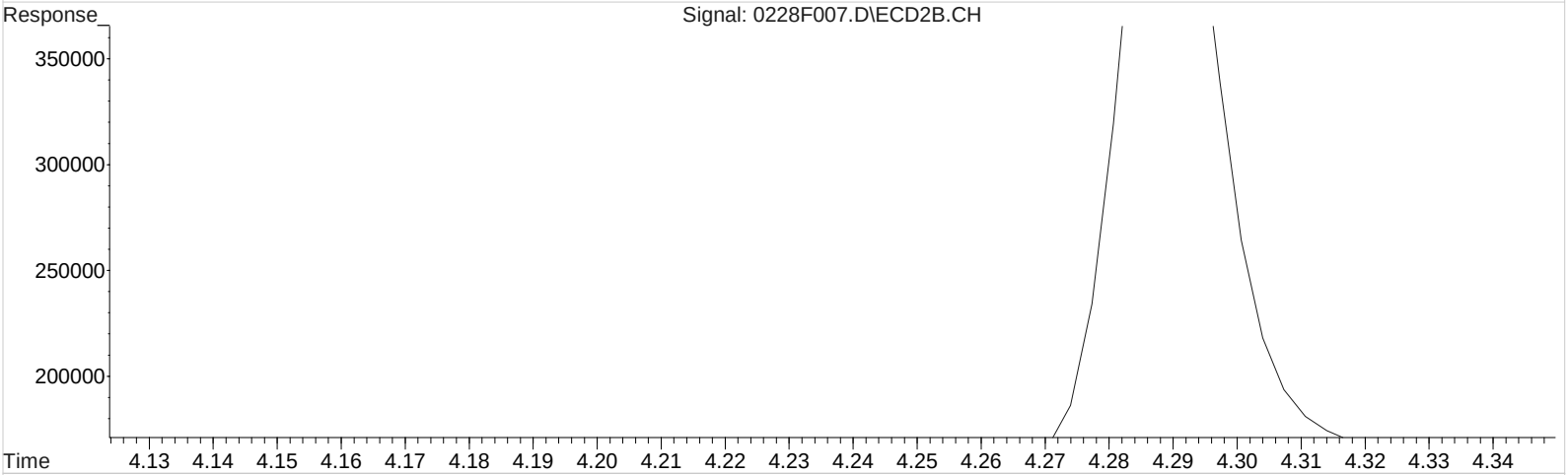
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 10.435 ug/L m

response 1583734

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 9.401 ug/L

response 1764529

(+) = Expected Retention Time

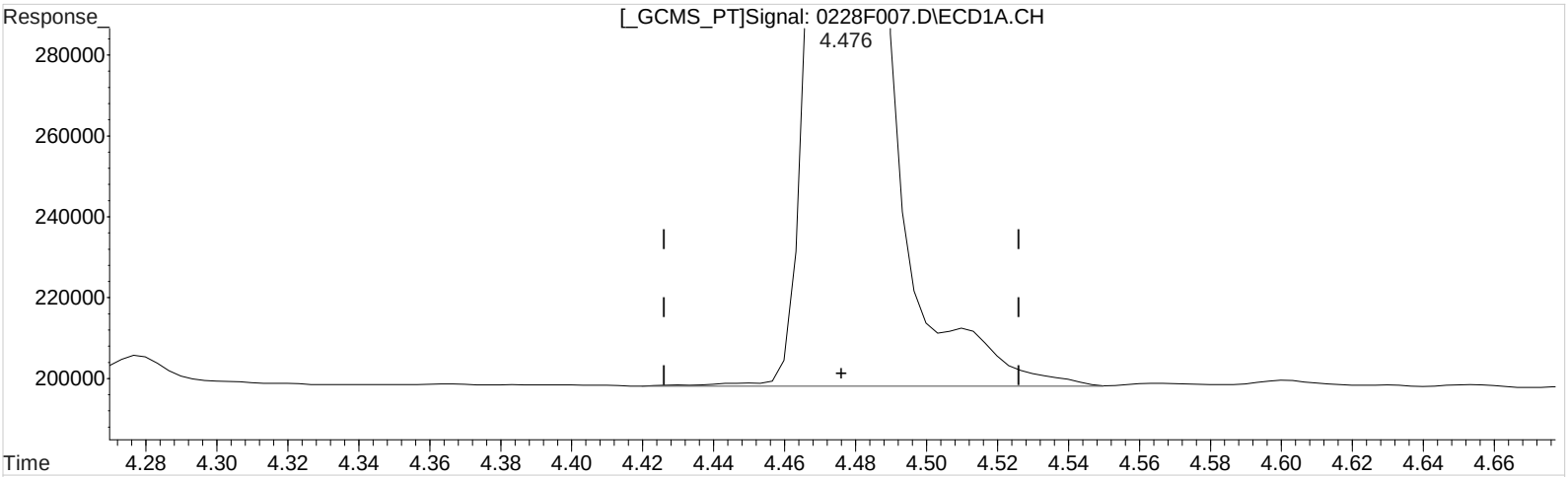
Quantitation Report (Qedit)

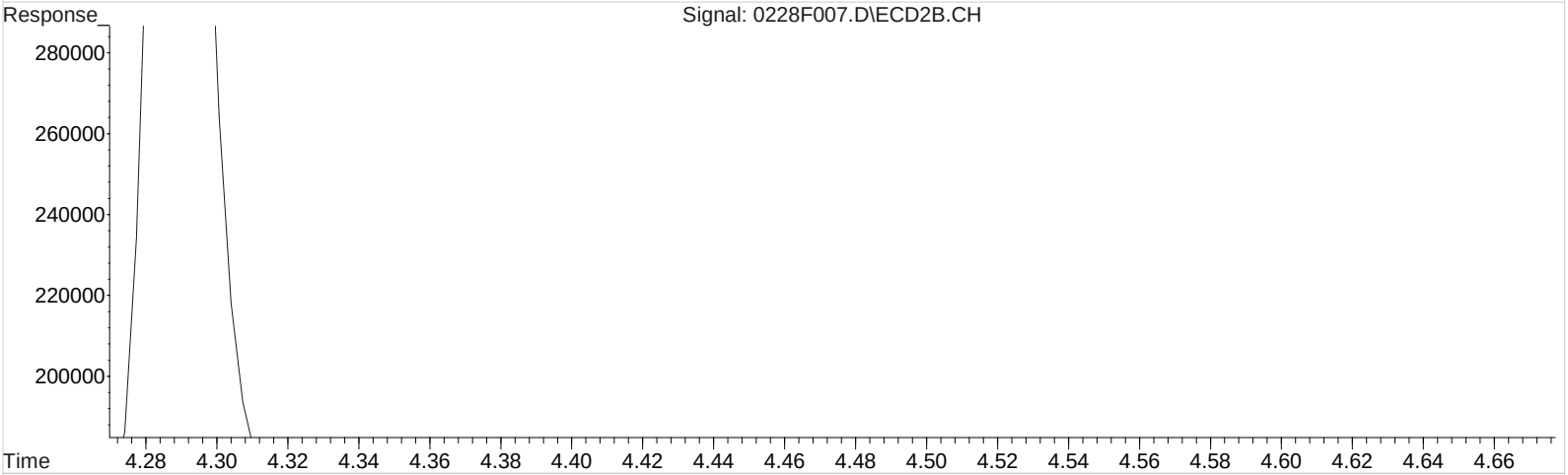
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.476min 10.180 ug/L

response 4845604

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.077min 9.283 ug/L

response 5729619

(+) = Expected Retention Time

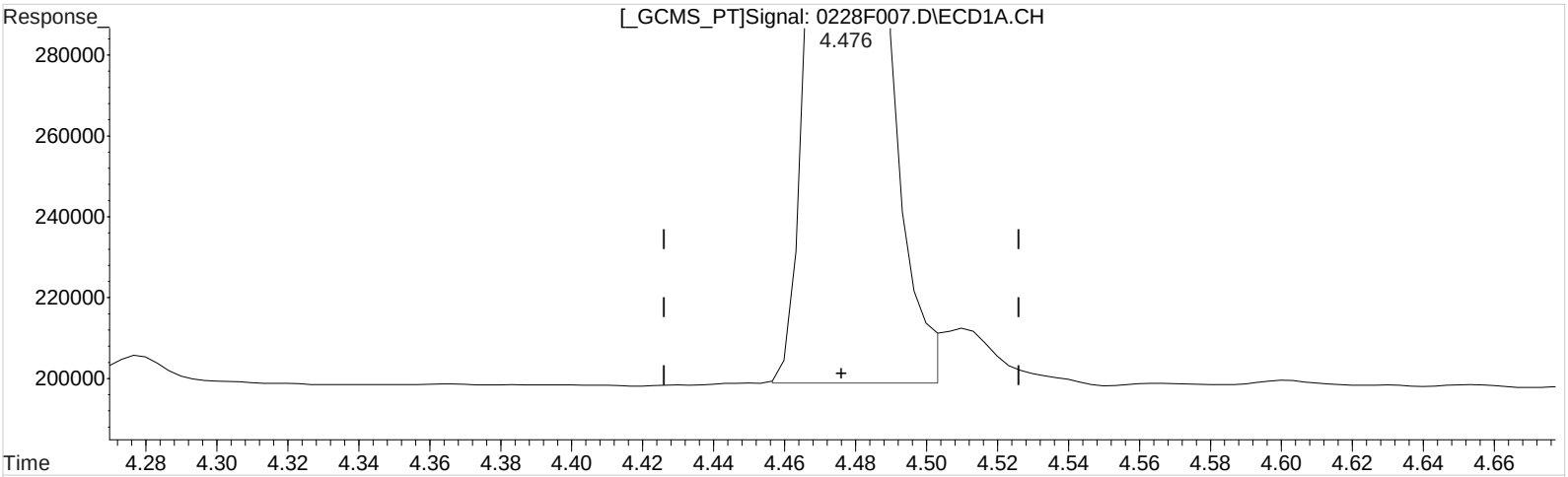
Quantitation Report (Qedit)

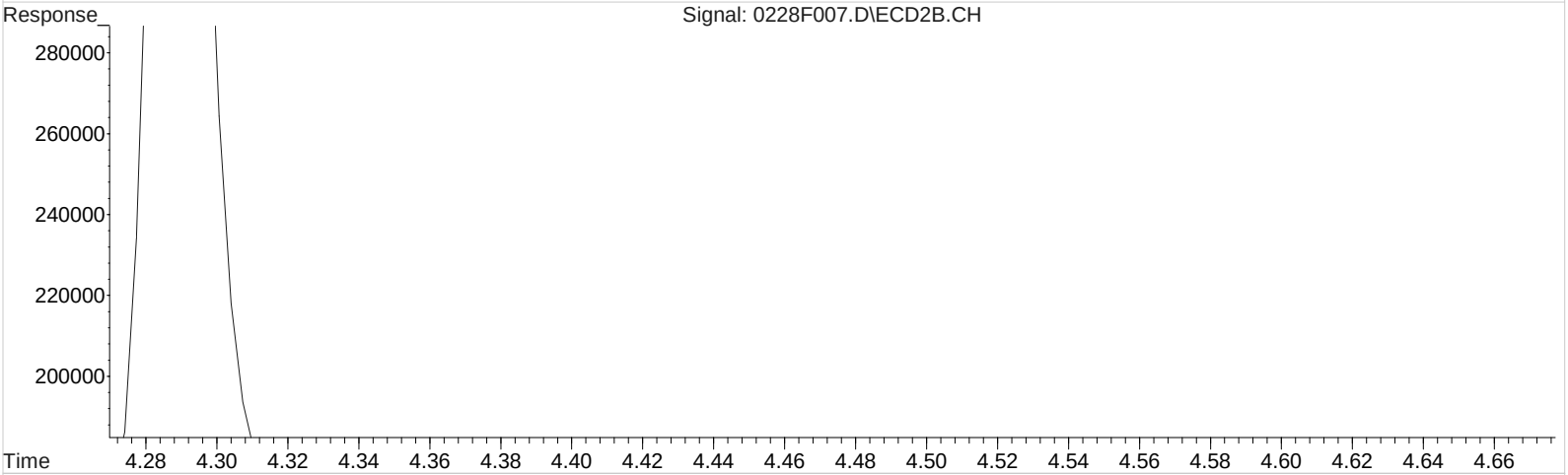
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.476min 9.778 ug/L m

response 4654510

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.077min 9.283 ug/L

response 5729619

(+) = Expected Retention Time

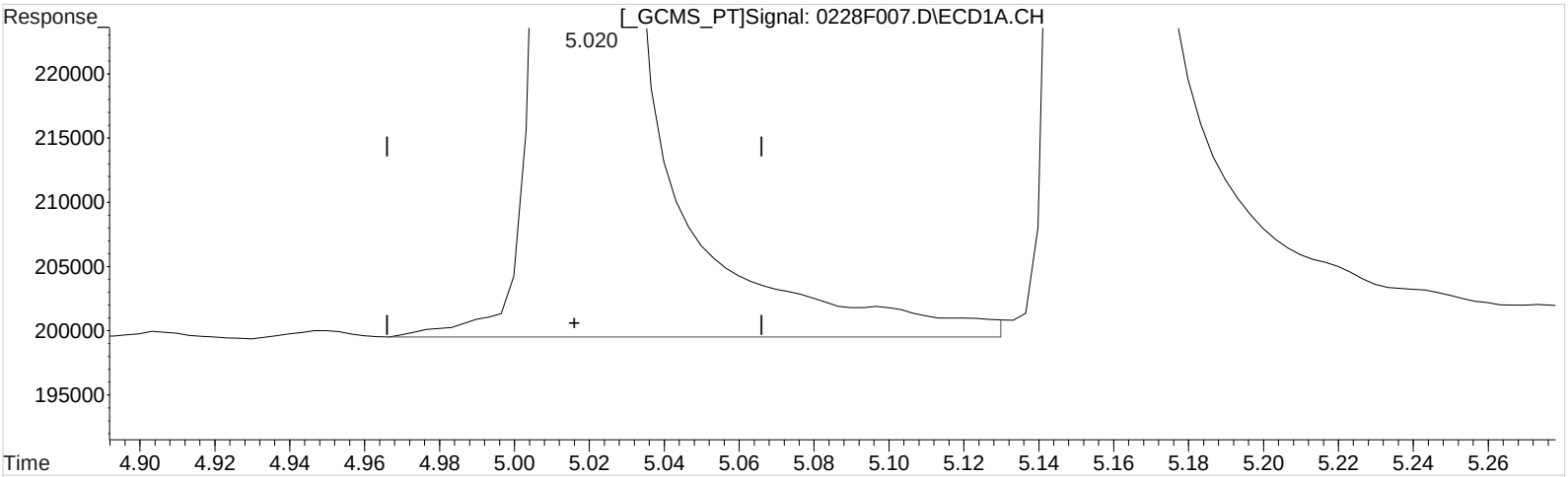
Quantitation Report (Qedit)

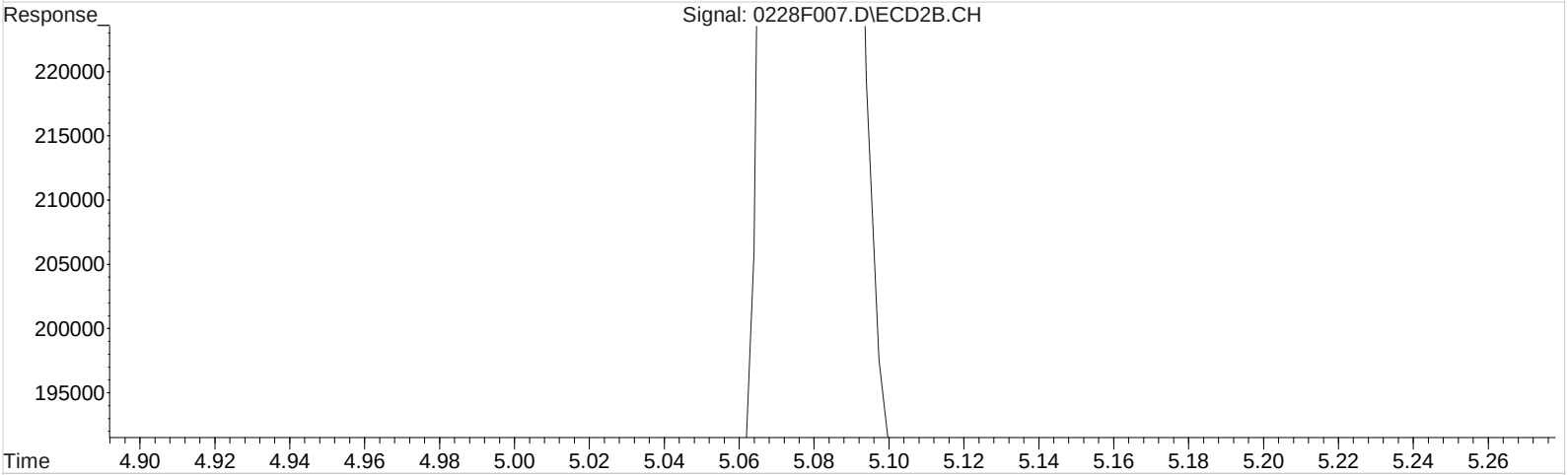
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.552 ug/L

response 3584964

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

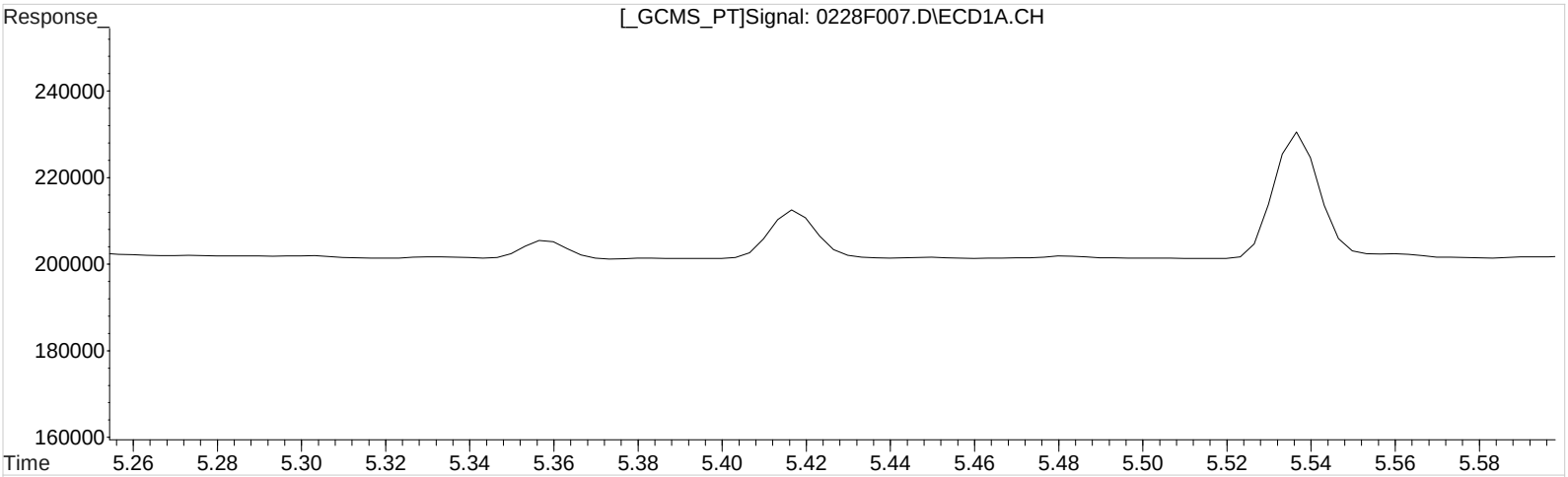
Quantitation Report (Qedit)

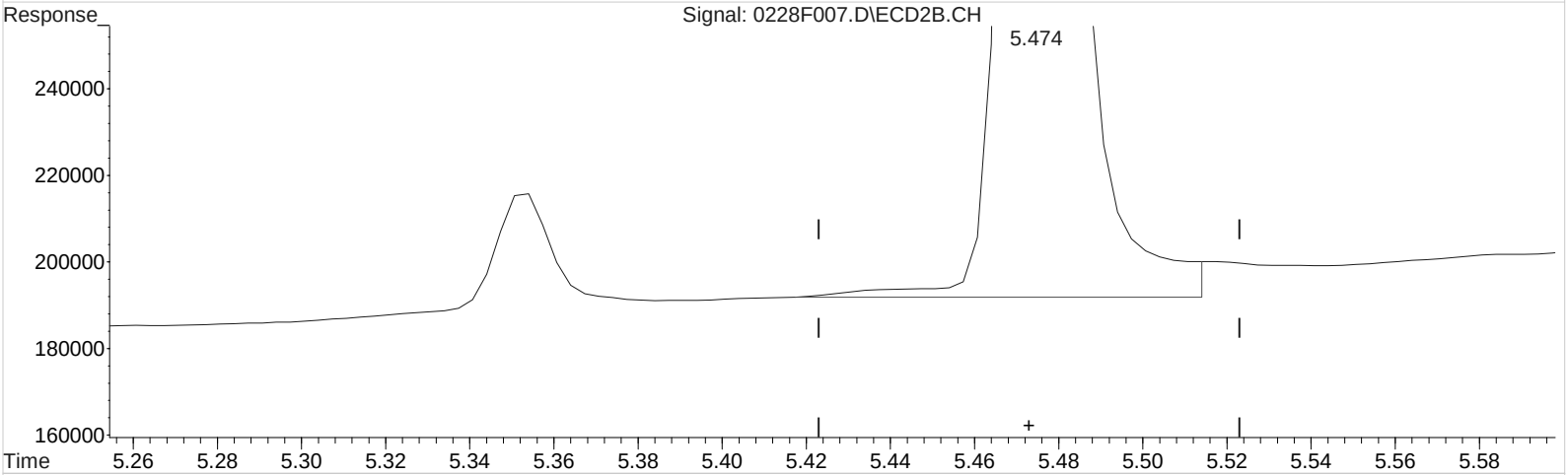
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

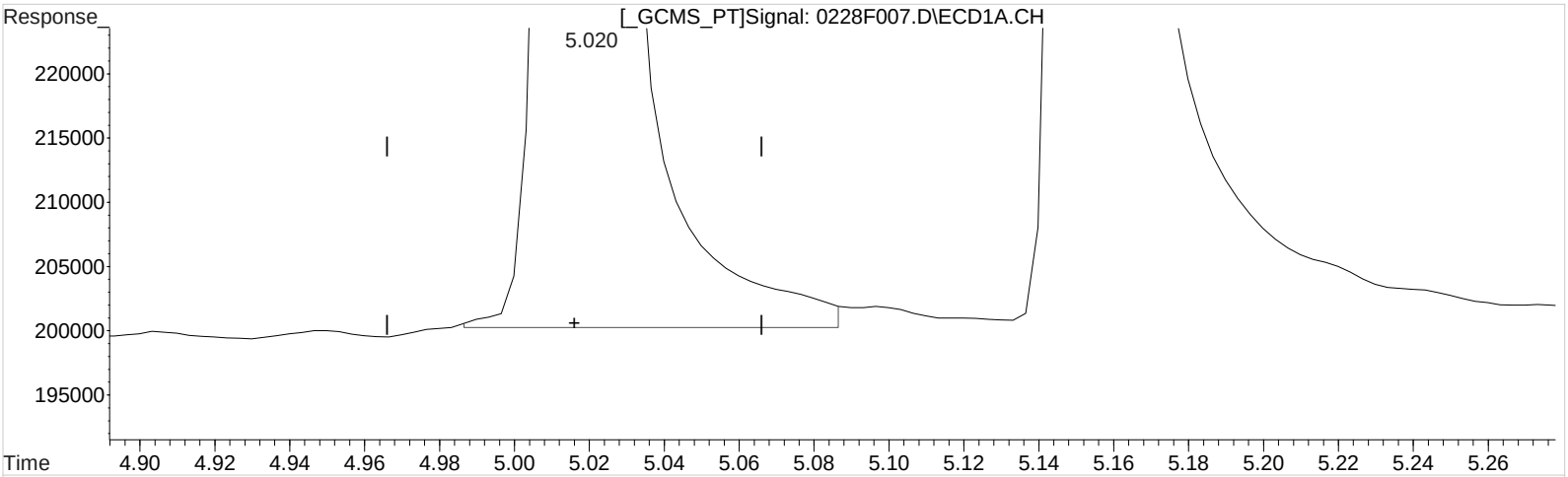
Quantitation Report (Qedit)

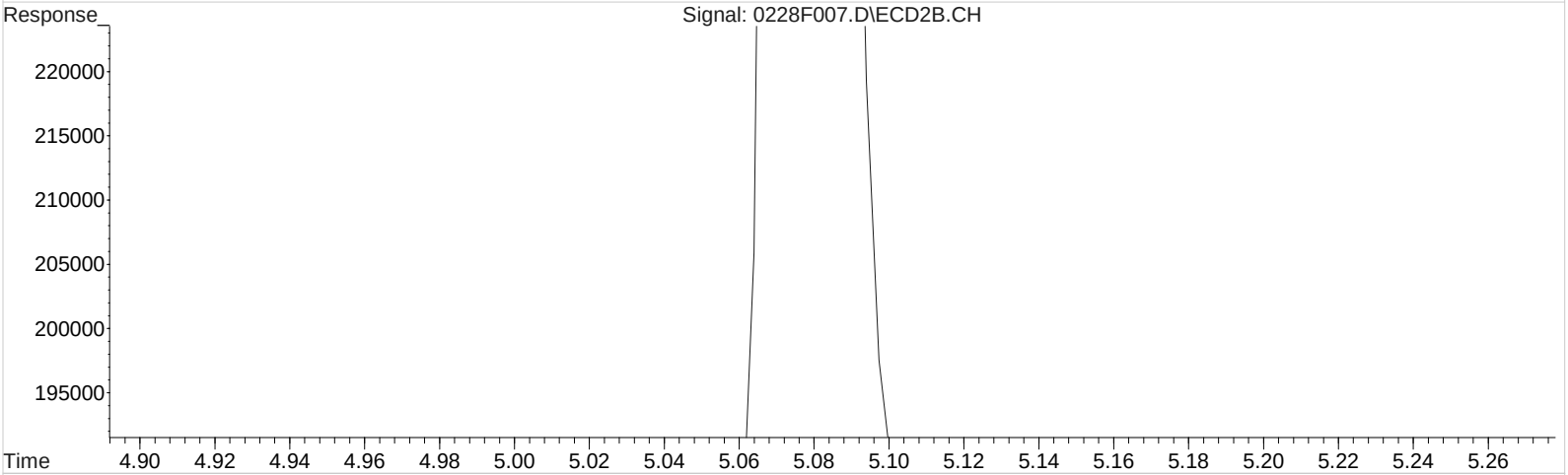
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

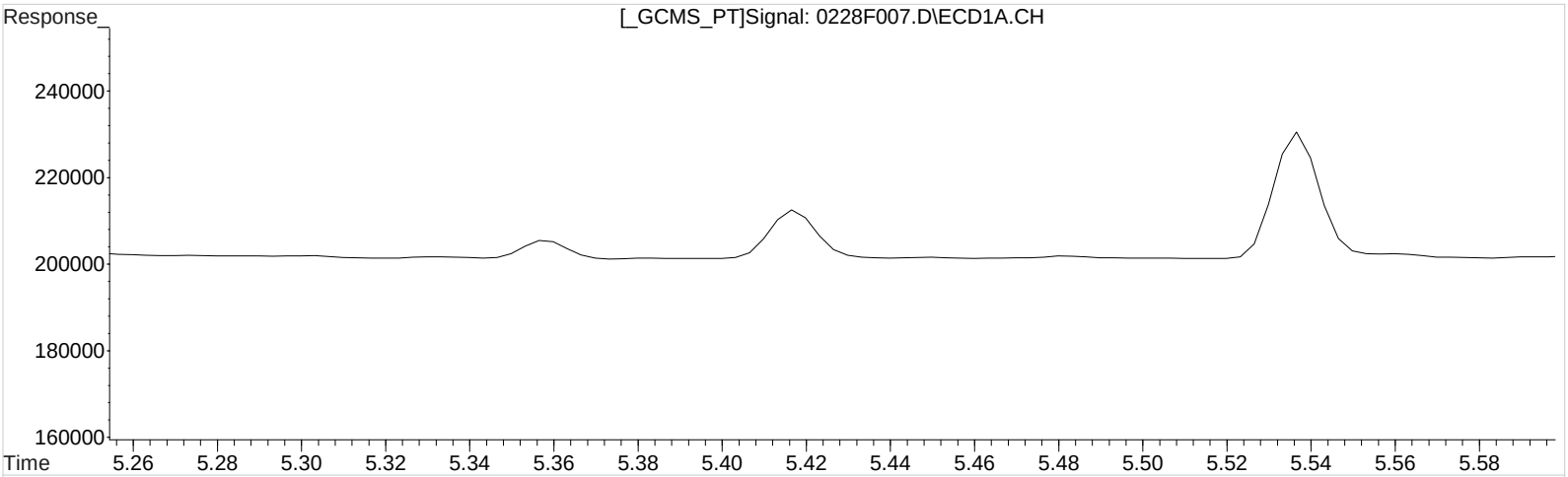
Quantitation Report (Qedit)

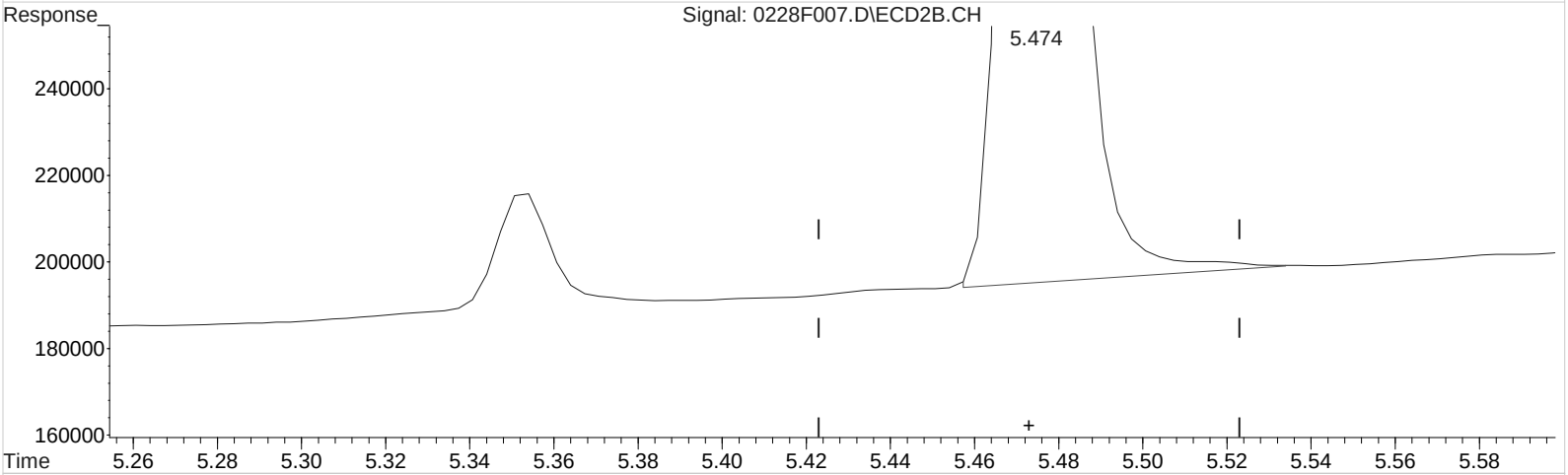
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.382 ug/L m

response 3874012

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.033	4.720	9384726	10345828	26.823	23.800
		Target Compounds						
1)		3,4-Dichl...	3.139	3.833	364718	495787	23.304m	22.440
2)		3,5-Dichl...	3.379	4.090	247686	371212	23.594m	22.526
3)		2,4,6-Tri...	3.476	4.290	7528057	9199994	23.385	22.059
5)		2,4,5-Tri...	4.203	4.783	3465348	4268979	24.581	21.360
6)		3,4,5-Tri...	4.233	4.847	3537210	4043017	24.409m	21.539
7)	M	2,3,5,6-T...	4.476	5.080	10557180	13711688	22.178	22.215
8)	M	2,3,4,5-T...	5.019	5.477	7682979	9204669	24.286	22.291
9)	M	Pentachlo...	5.156	5.660	12370956	15378050	26.604	22.366
10)		Pentachlo...	5.156	5.660	12370956	15378050	28.002	23.554

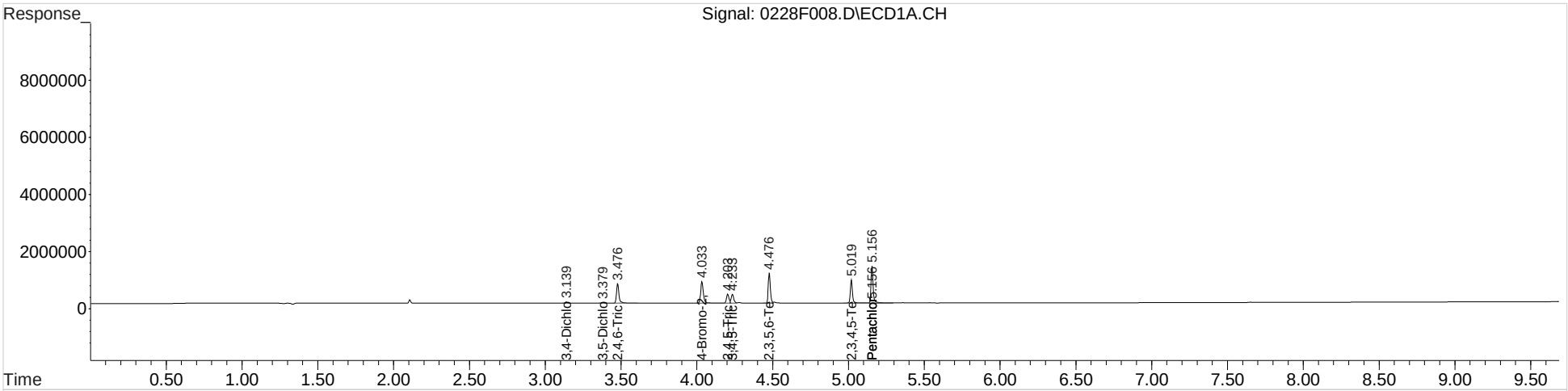
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



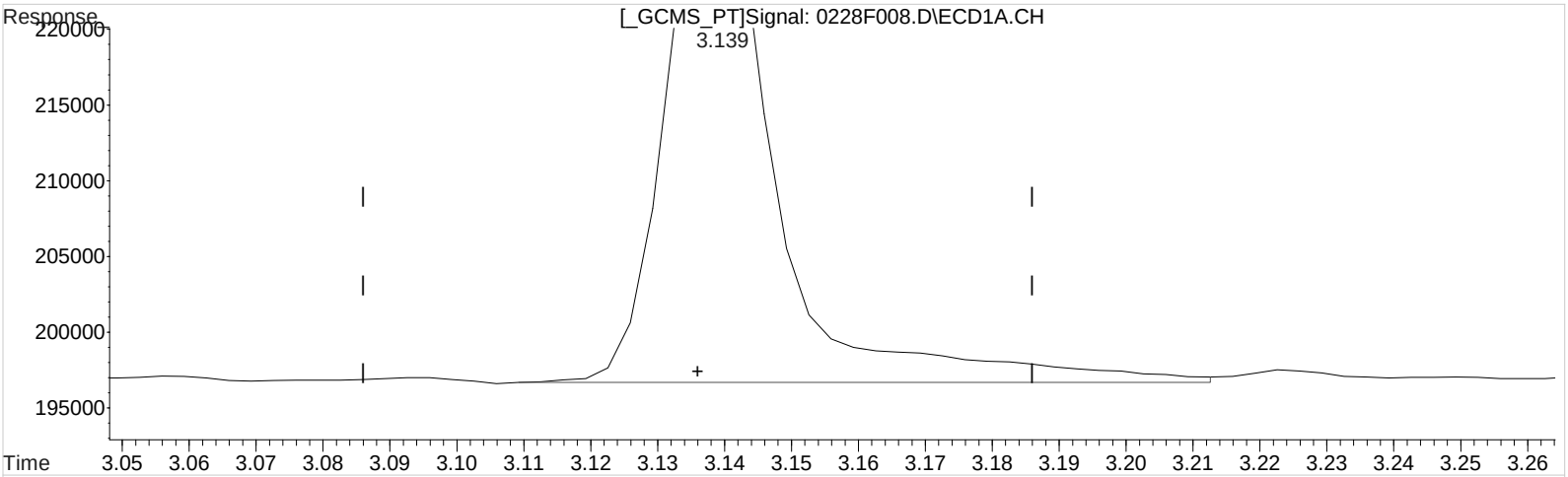
Quantitation Report (Qedit)

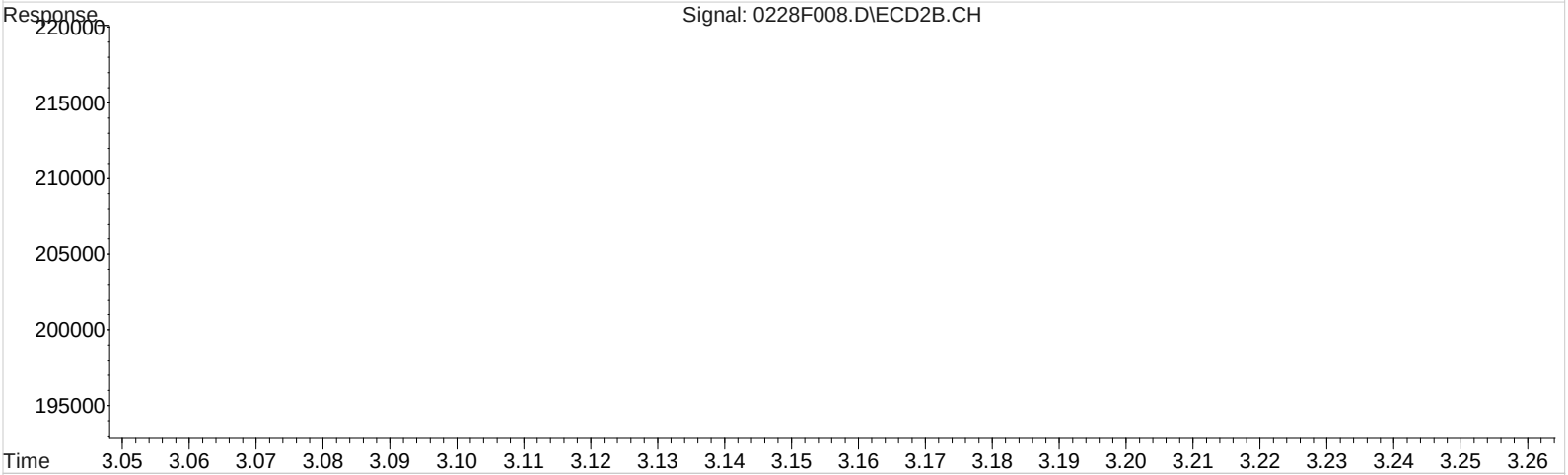
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 25.378 ug/L

response 395414

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 22.440 ug/L

response 495787

(+) = Expected Retention Time

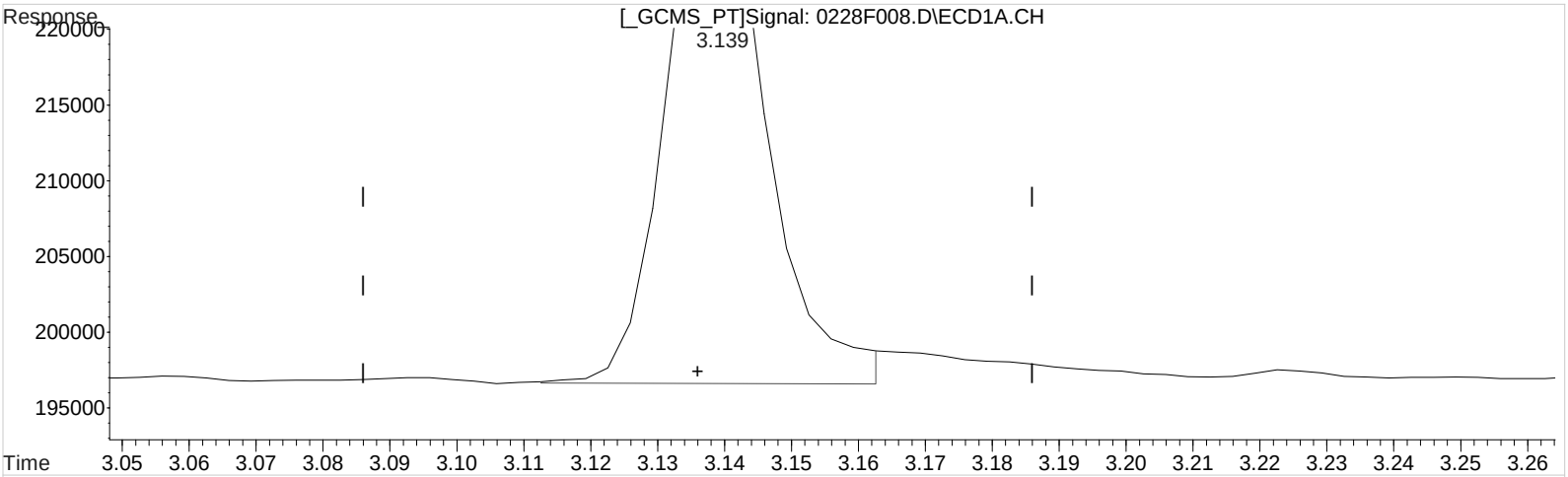
Quantitation Report (Qedit)

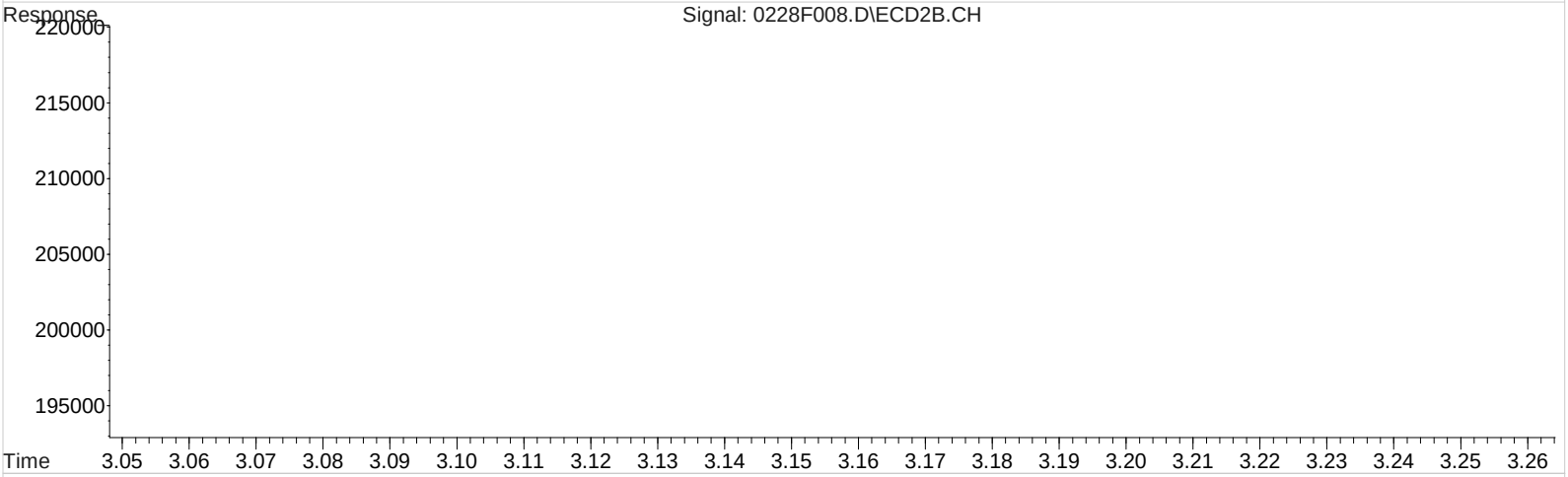
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 23.304 ug/L m

response 364718

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 22.440 ug/L

response 495787

(+) = Expected Retention Time

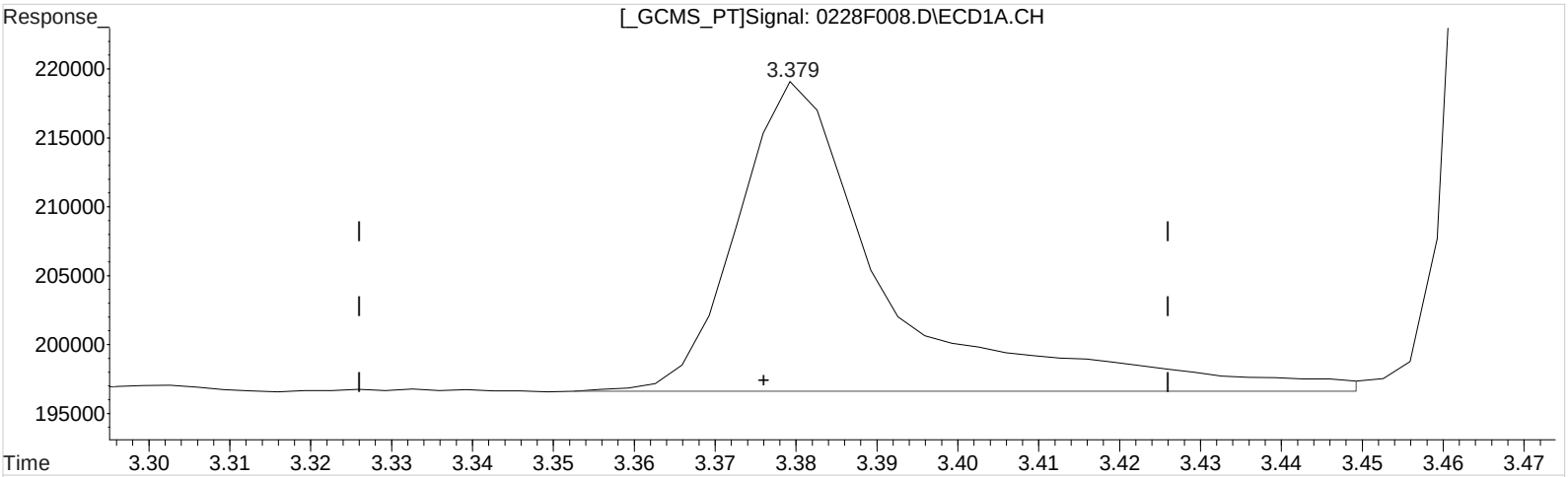
Quantitation Report (Qedit)

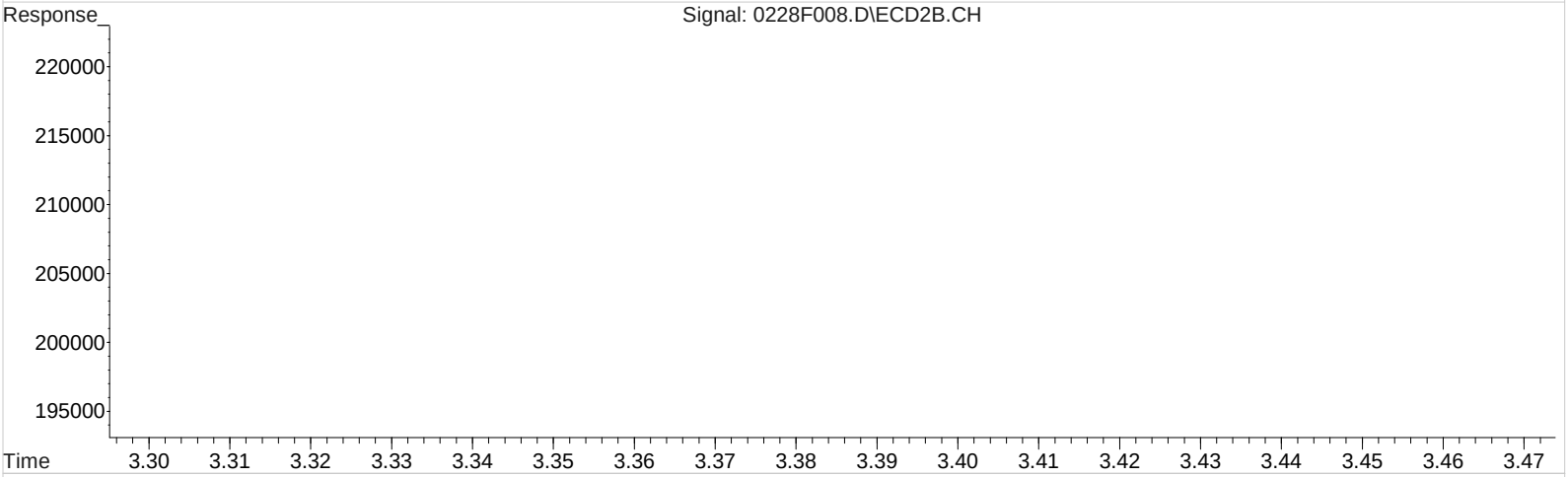
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 27.619 ug/L

response 287533

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 22.526 ug/L

response 371212

(+) = Expected Retention Time

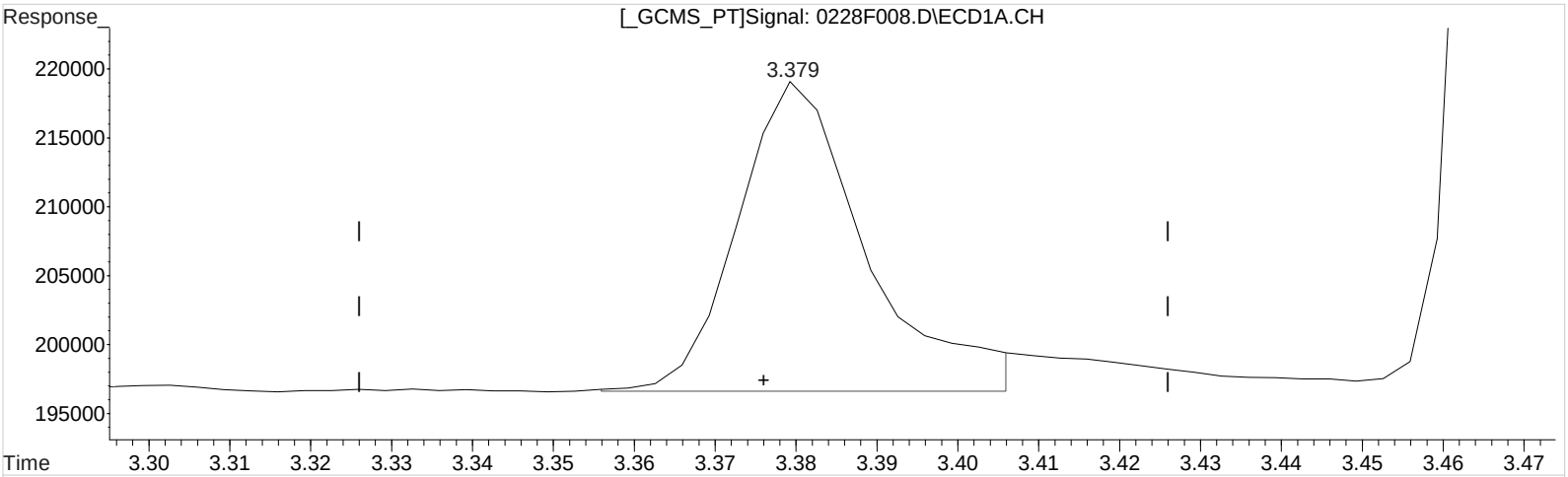
Quantitation Report (Qedit)

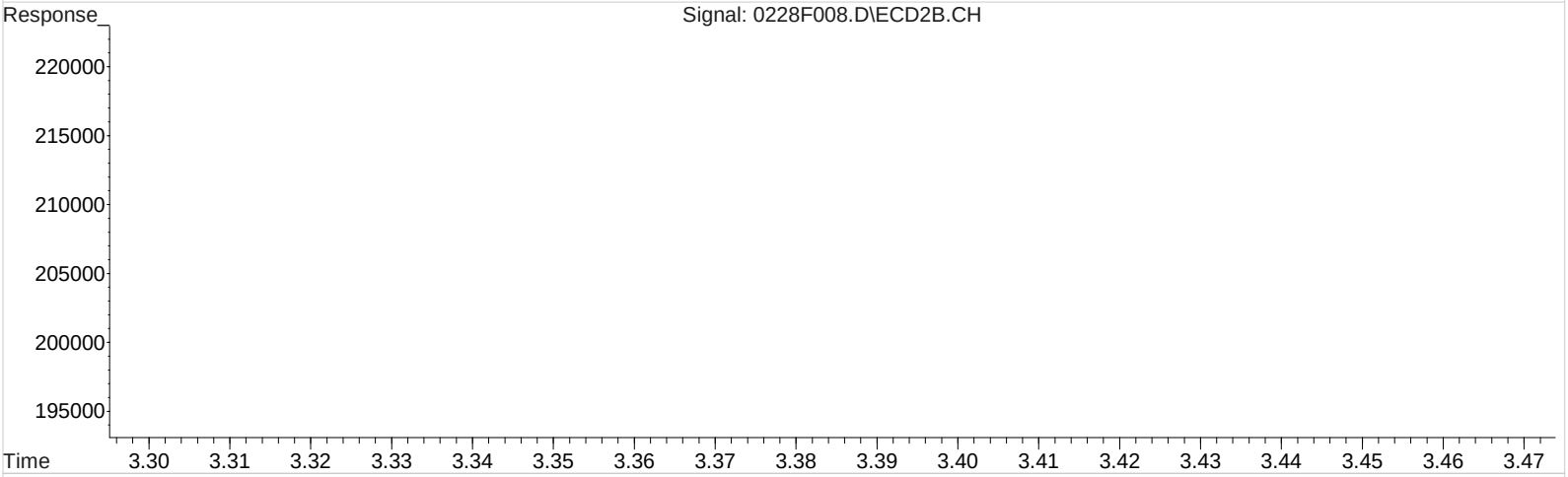
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 23.594 ug/L m

response 247686

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 22.526 ug/L

response 371212

(+) = Expected Retention Time

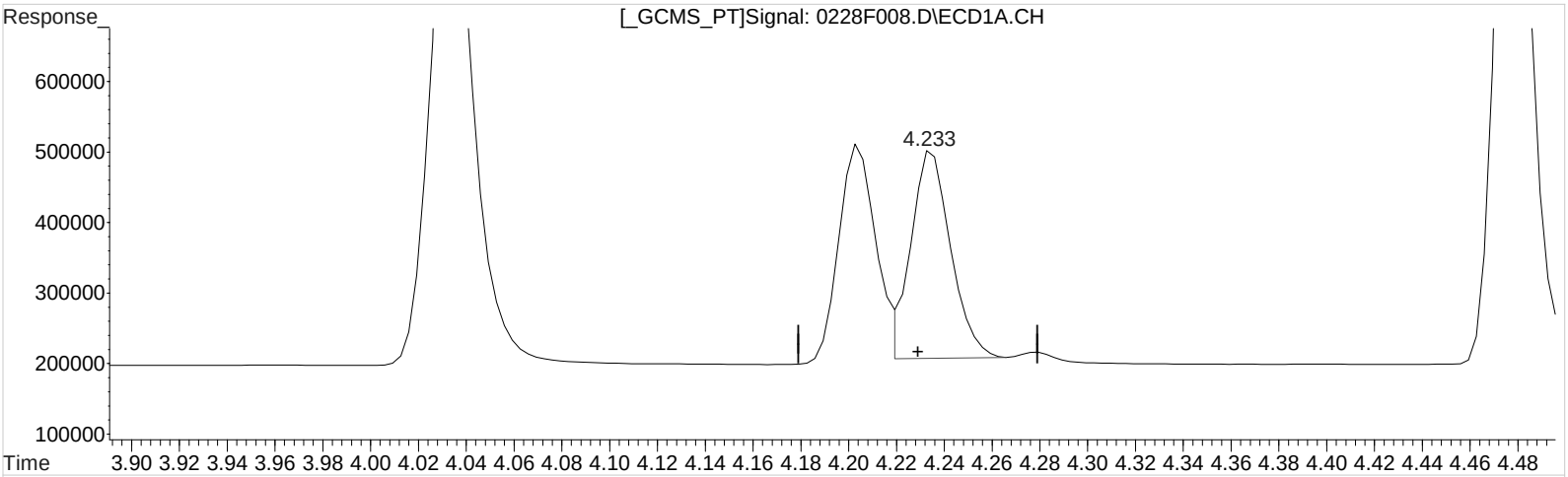
Quantitation Report (Qedit)

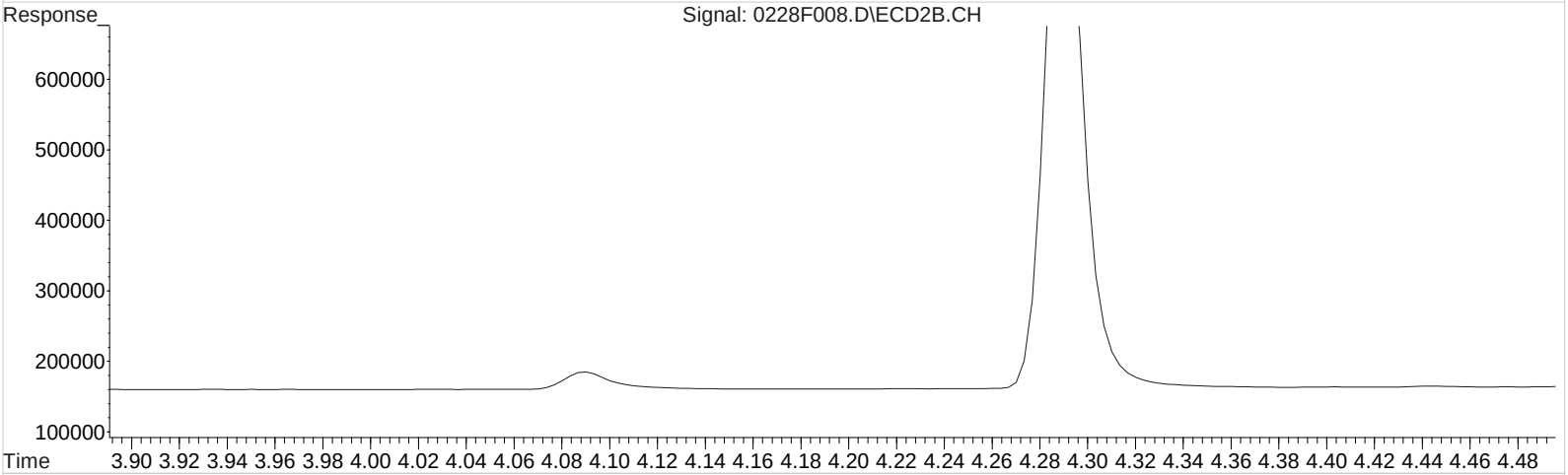
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 22.824 ug/L

response 3318986

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 21.539 ug/L

response 4043017

(+) = Expected Retention Time

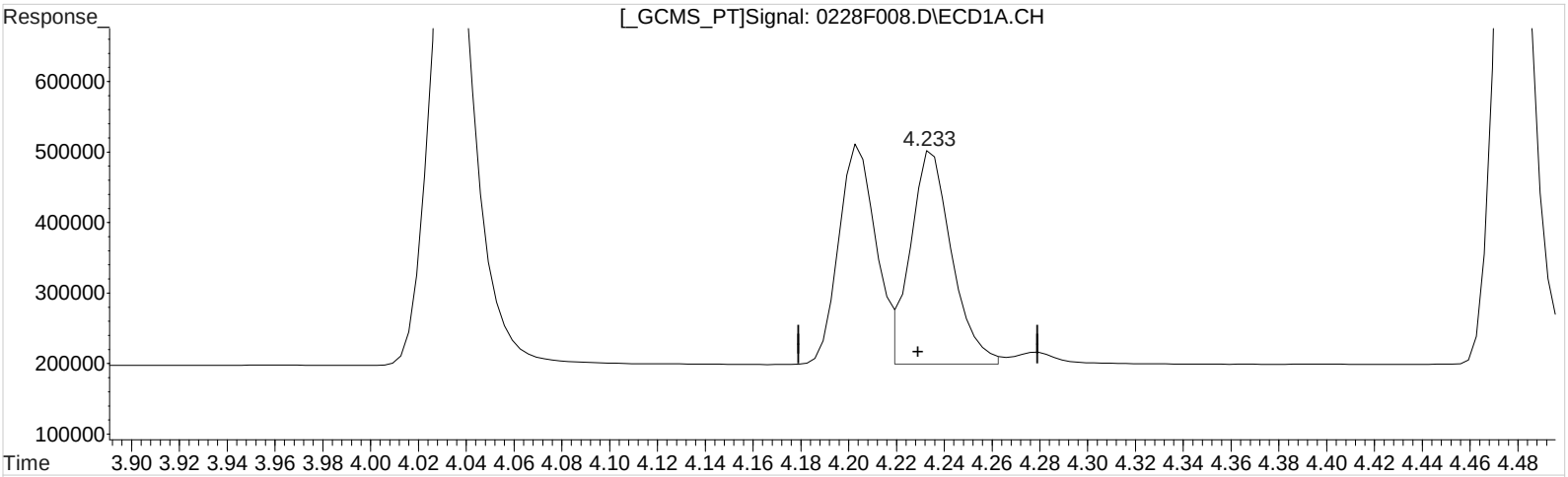
Quantitation Report (Qedit)

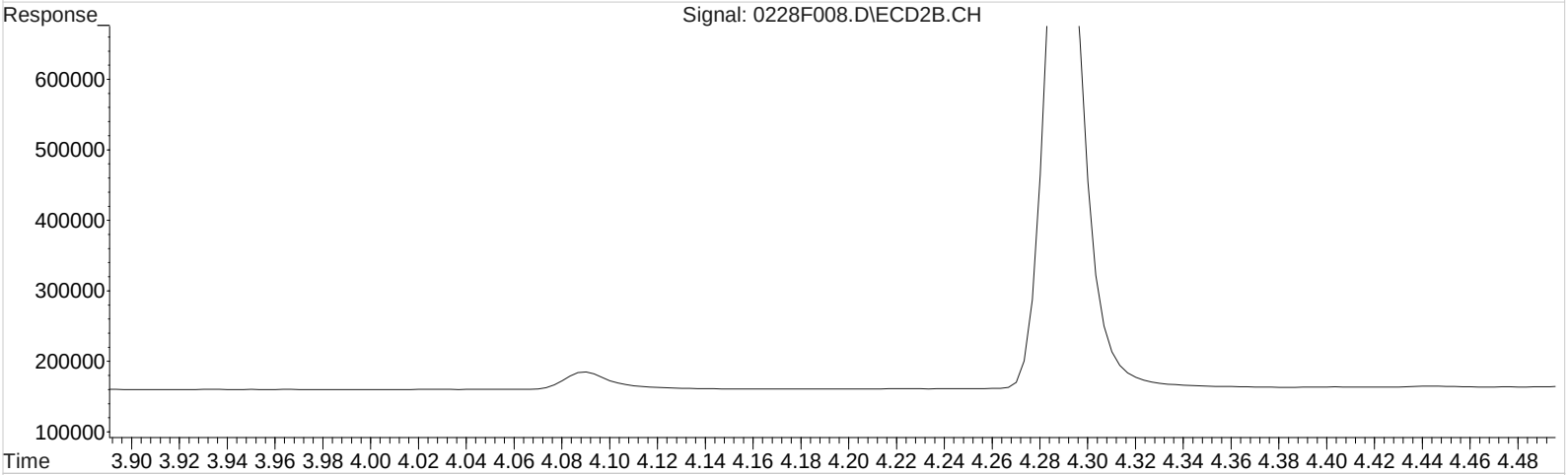
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 24.409 ug/L m

response 3537210

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 21.539 ug/L

response 4043017

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.034	4.718	18373800	22111030	53.653	50.866
		Target Compounds						
1)		3,4-Dichl...	3.137	3.831	717598	975860	47.710m	44.168
2)		3,5-Dichl...	3.380	4.088	527946	707614	52.883m	42.939
3)		2,4,6-Tri...	3.477	4.291	14477823	19027390	46.510	45.622
5)		2,4,5-Tri...	4.204	4.784	6258374	8346897	46.243	41.763
6)		3,4,5-Tri...	4.234	4.848	6723516	8022672	48.287m	42.741
7)	M	2,3,5,6-T...	4.477	5.078	20376062	27736415	42.806	44.938
8)	M	2,3,4,5-T...	5.017	5.474	14199642	17989254	46.931	43.566
9)	M	Pentachlo...	5.154	5.658	23456614	30413144	51.593	44.234
10)		Pentachlo...	5.154	5.658	23456614	30413144	54.305	46.582

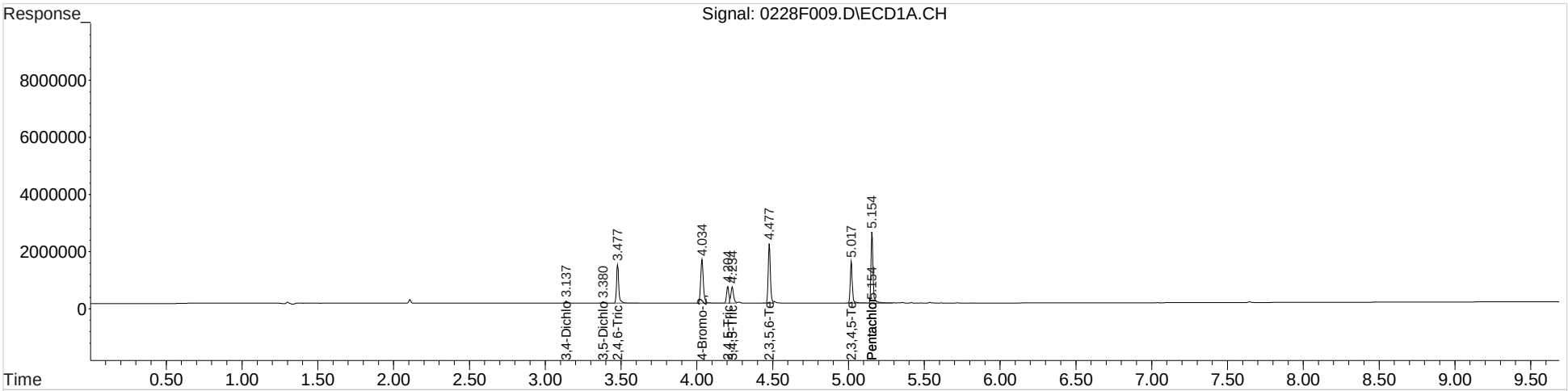
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



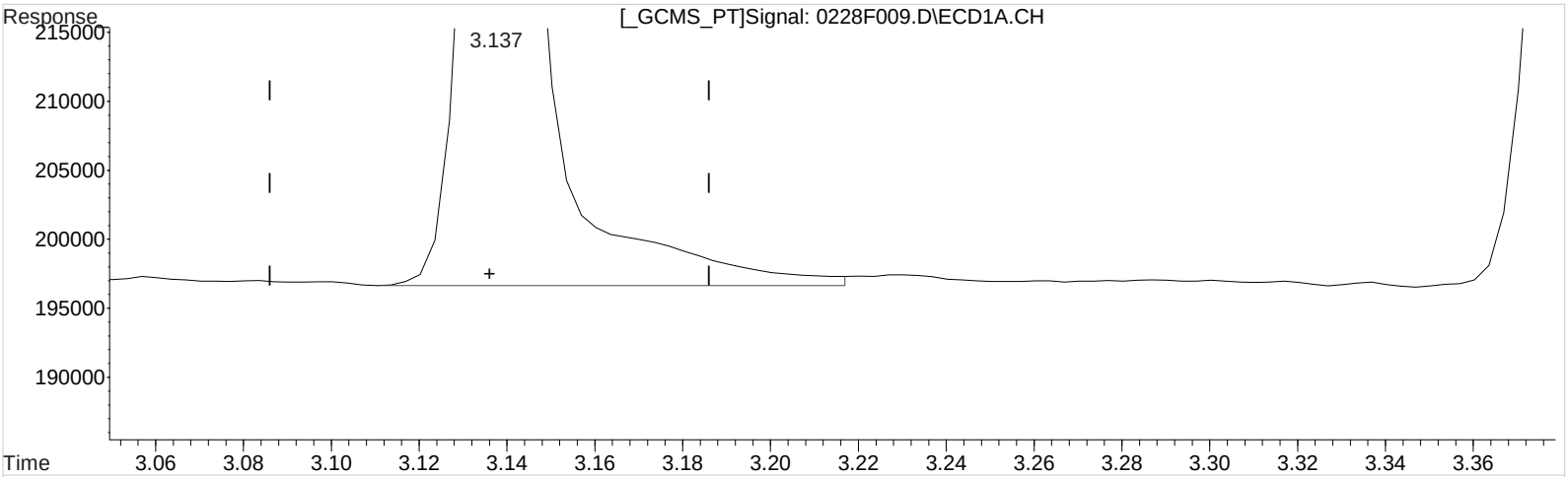
Quantitation Report (Qedit)

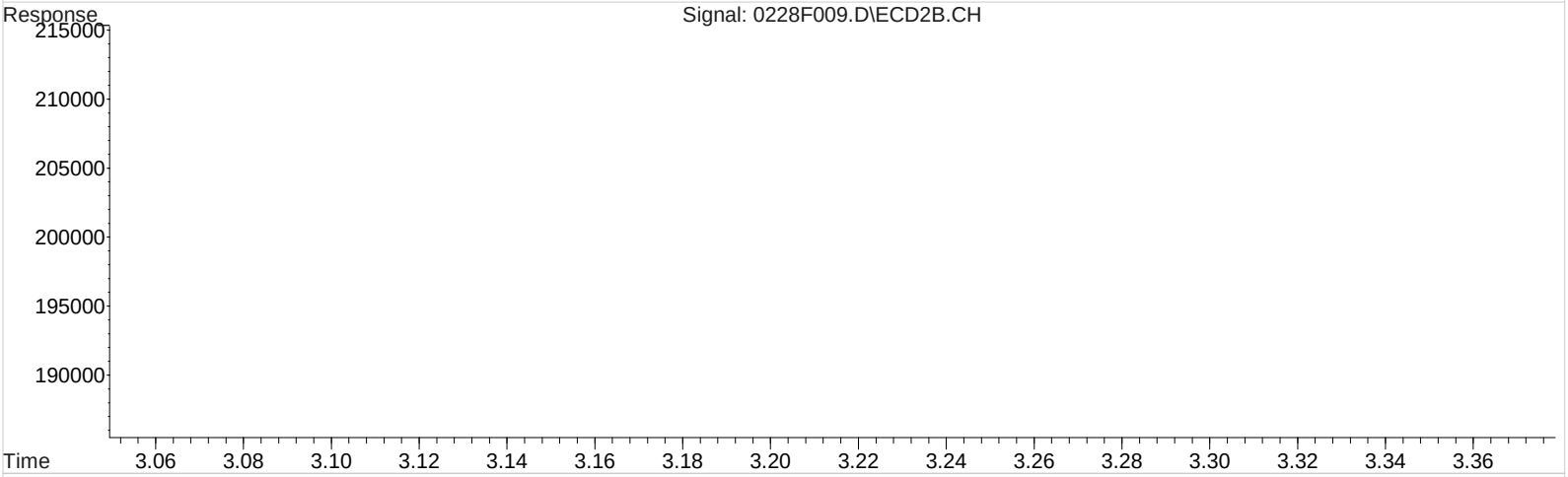
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 51.582 ug/L

response 771918

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 44.168 ug/L

response 975860

(+) = Expected Retention Time

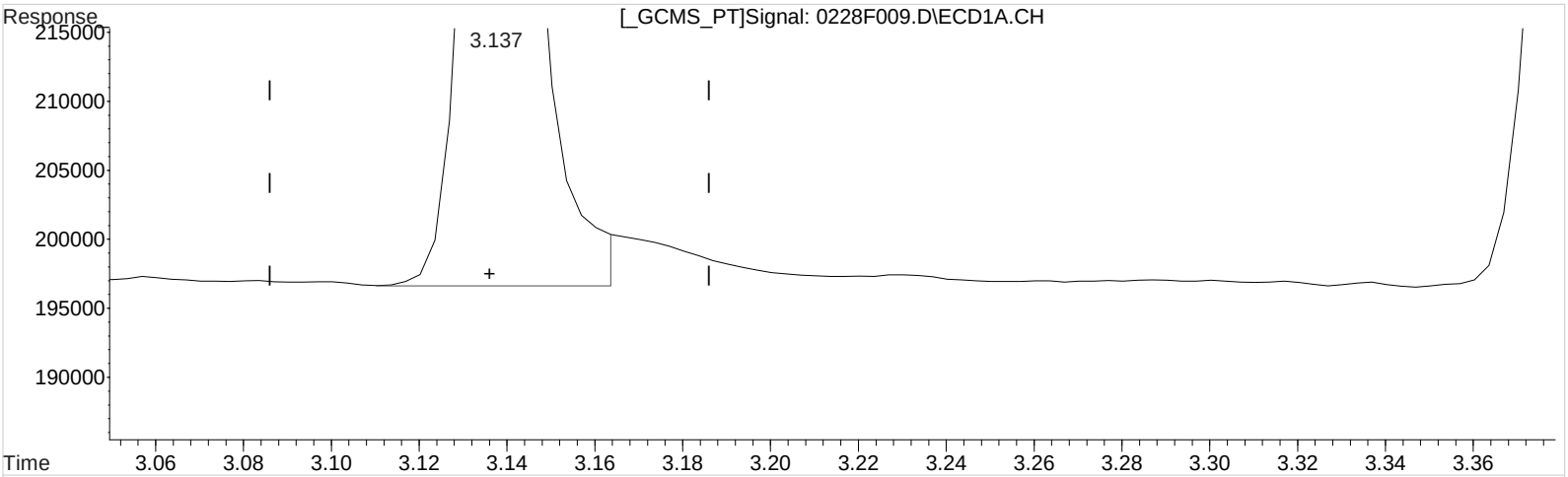
Quantitation Report (Qedit)

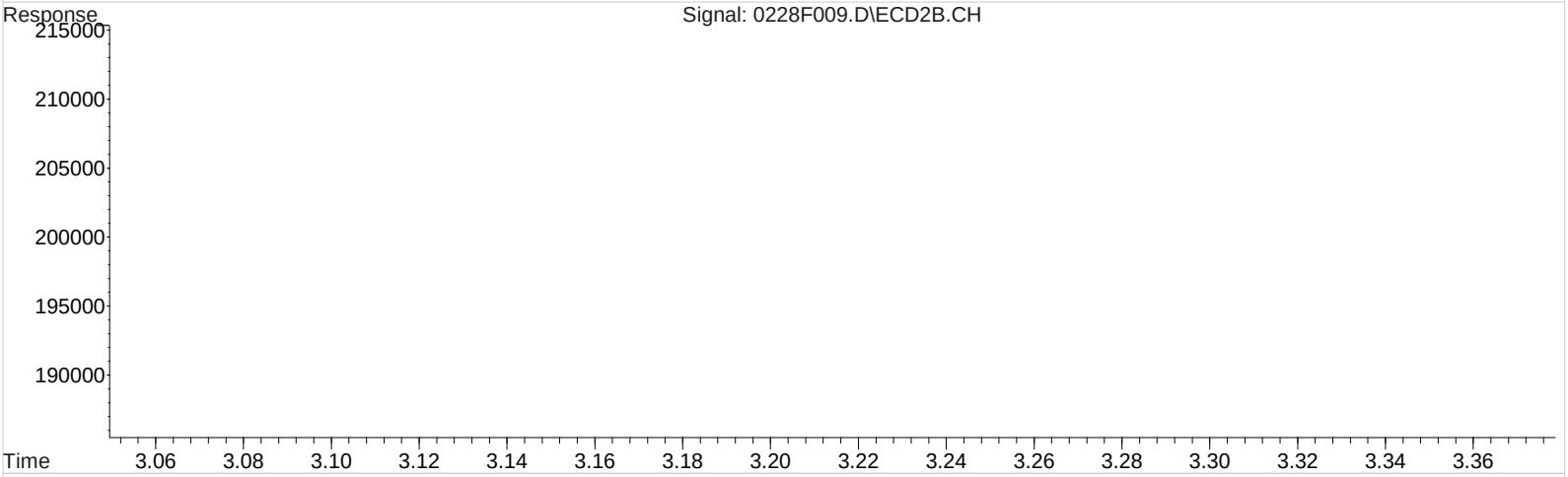
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 47.710 ug/L m

response 717598

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 44.168 ug/L

response 975860

(+) = Expected Retention Time

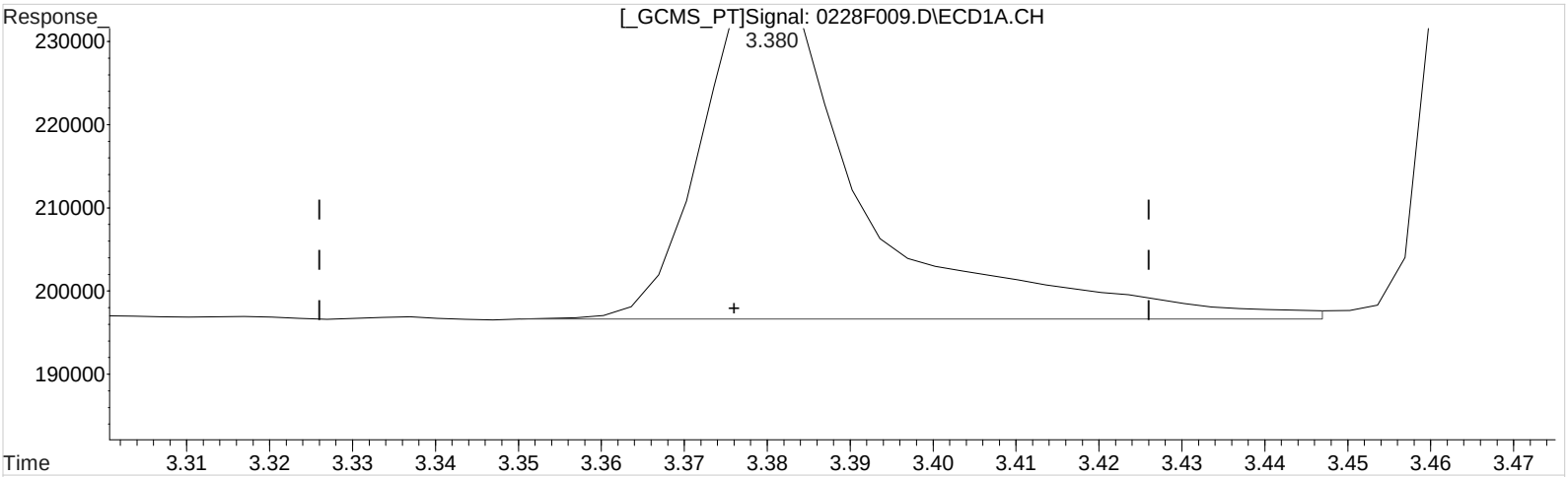
Quantitation Report (Qedit)

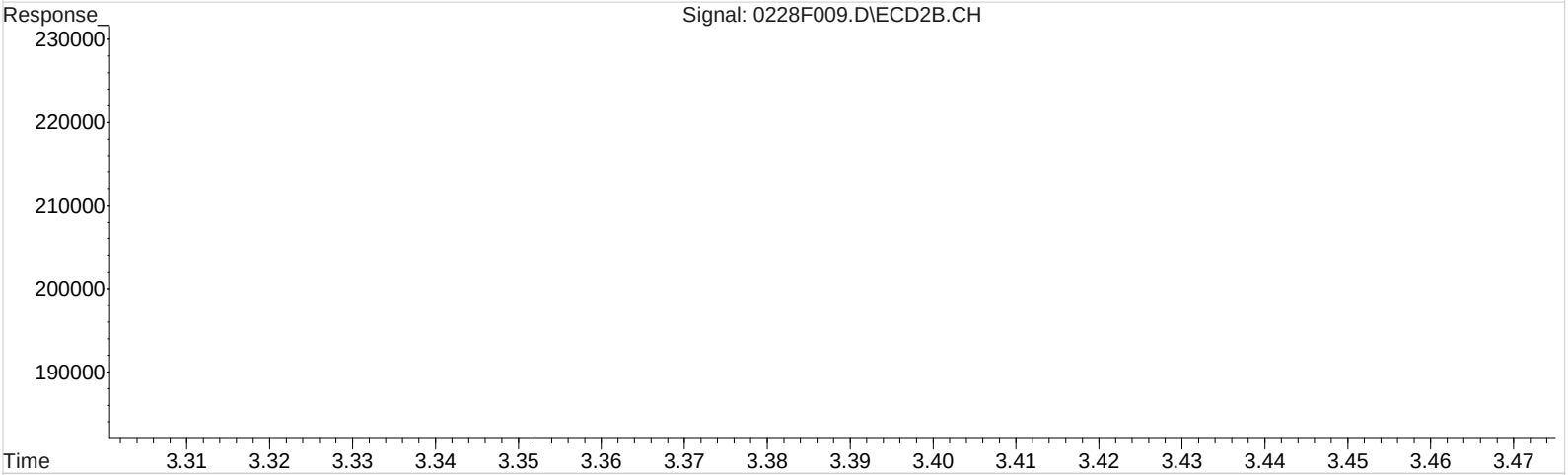
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 55.786 ug/L

response 554512

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 42.939 ug/L

response 707614

(+) = Expected Retention Time

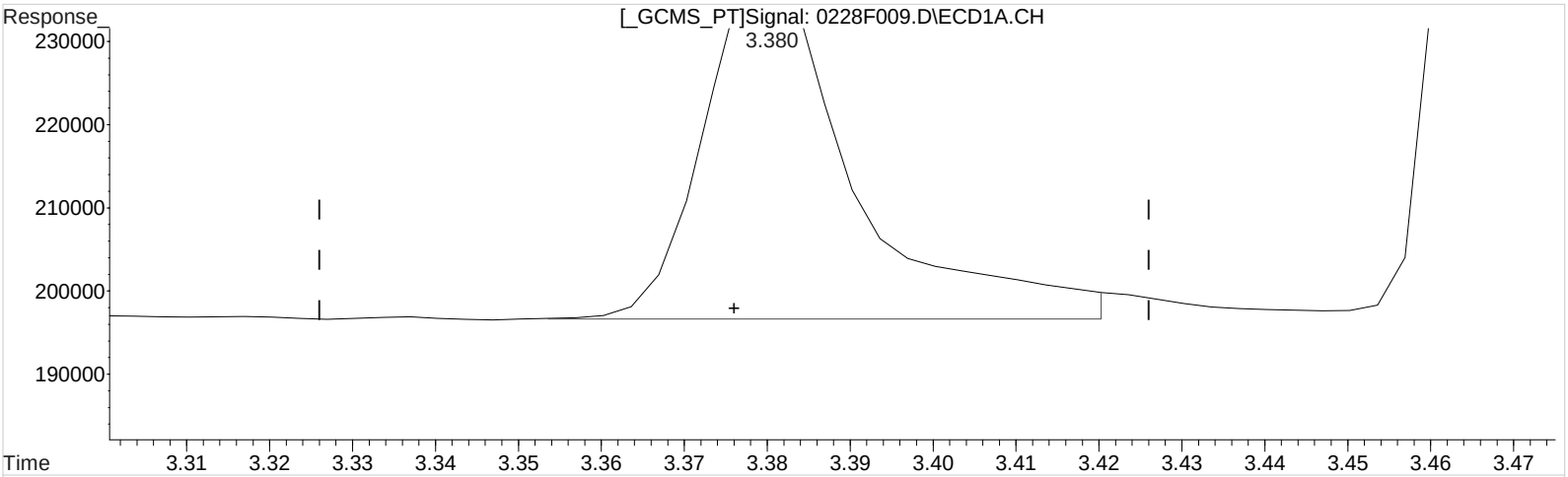
Quantitation Report (Qedit)

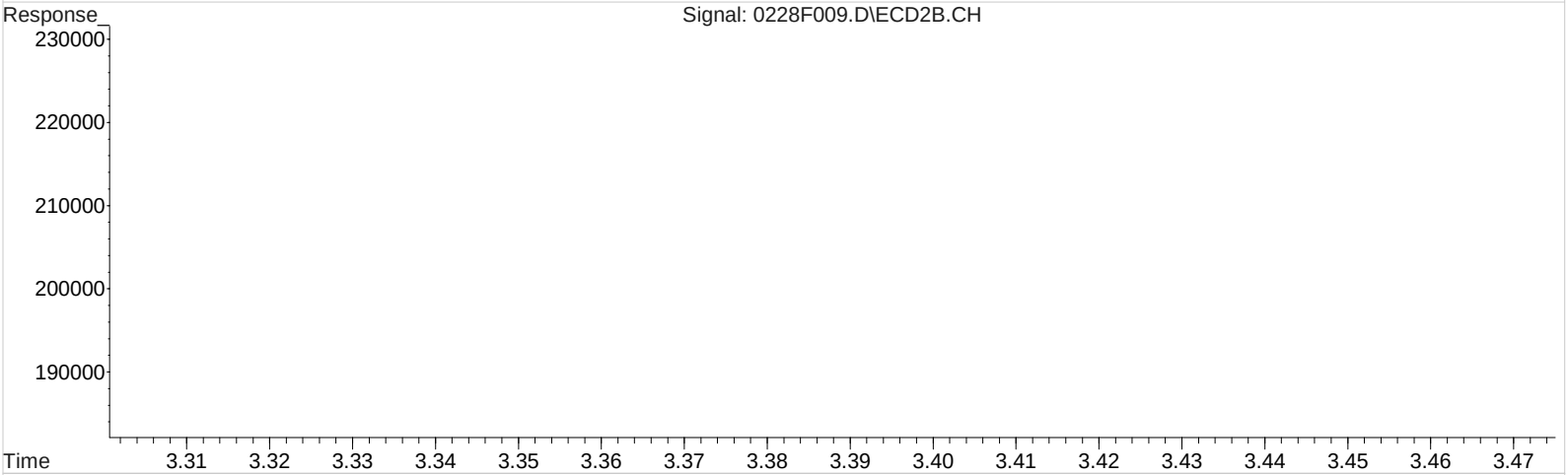
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 52.883 ug/L m

response 527946

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 42.939 ug/L

response 707614

(+) = Expected Retention Time

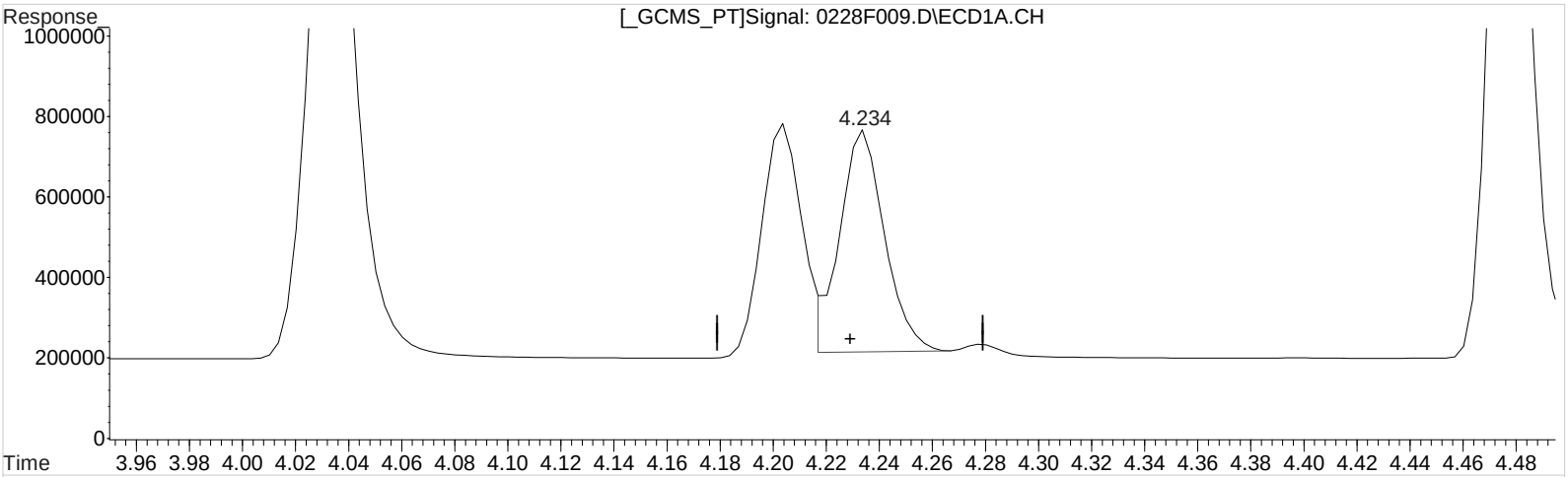
Quantitation Report (Qedit)

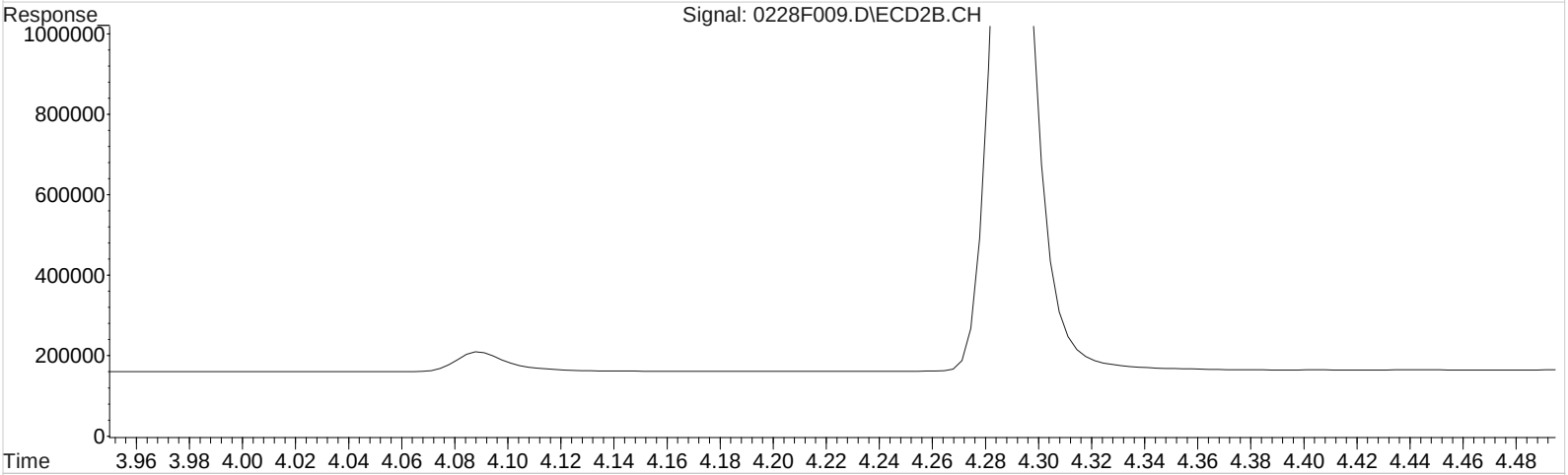
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.234min 45.176 ug/L

response 6319301

(6) 3,4,5-Trichlorophenol #2

4.848min 42.741 ug/L

response 8022672

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

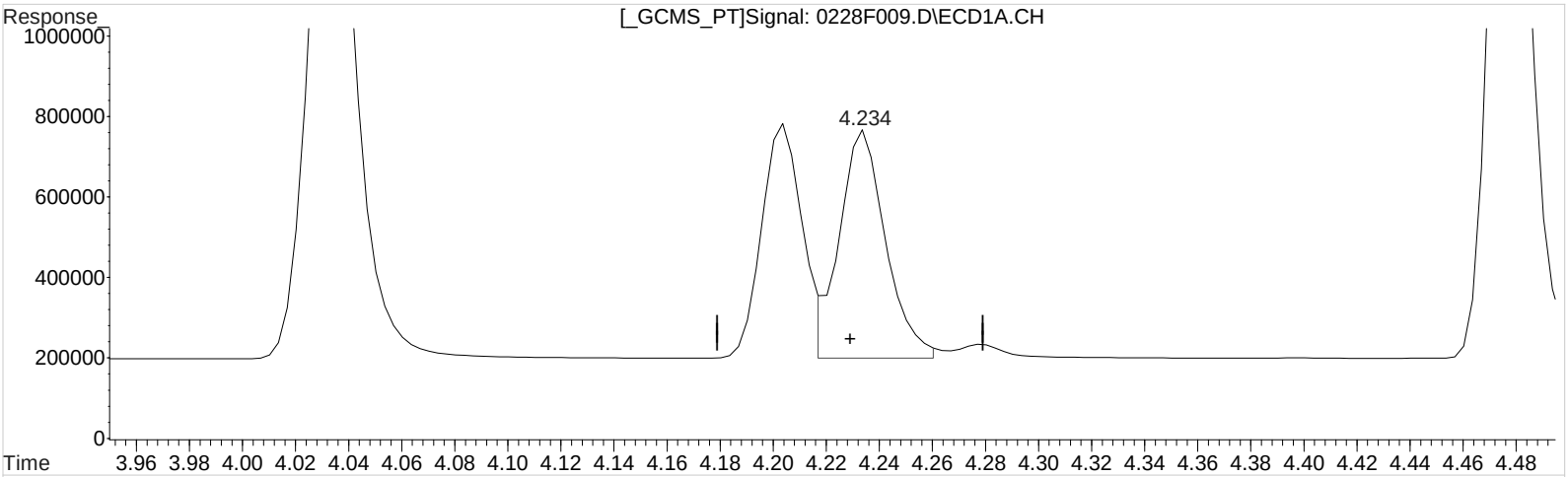
Quantitation Report (Qedit)

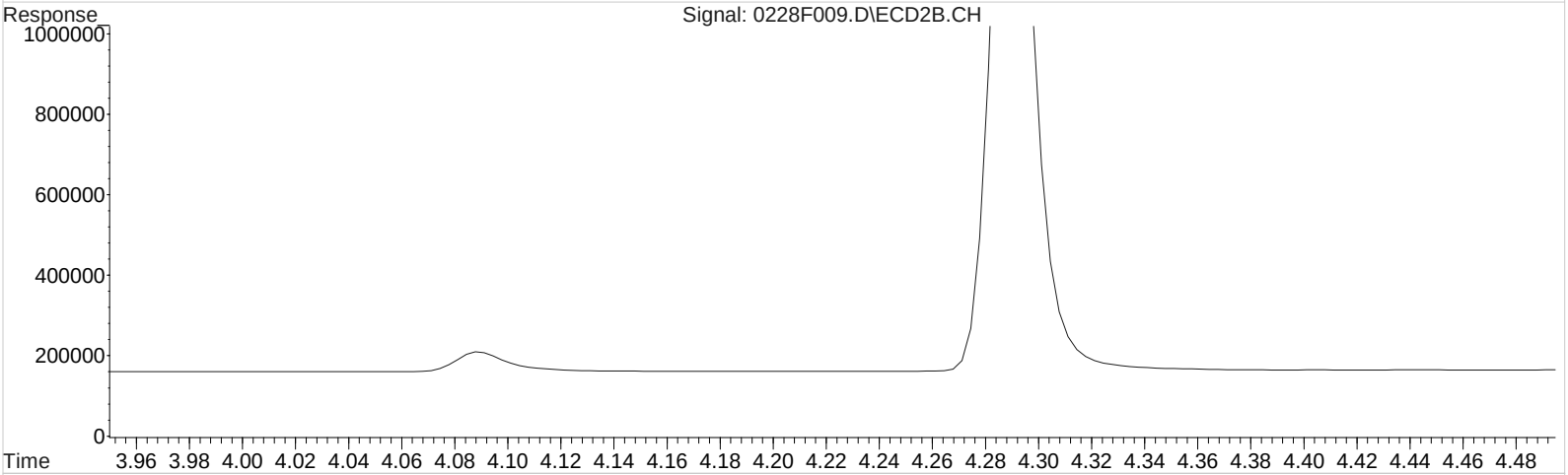
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.234min 48.287 ug/L m

response 6723516

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.848min 42.741 ug/L

response 8022672

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:22:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.032	4.719	34413155	43435506	102.249	99.922
		Target Compounds						
1)		3,4-Dichl...	3.138	3.833	1331525	1763970	93.560	79.838
2)		3,5-Dichl...	3.378	4.089	862010	1296503	91.350m	78.674
3)		2,4,6-Tri...	3.478	4.289	26311215	36325037	88.628	87.097
5)		2,4,5-Tri...	4.202	4.783	11366036	15617448	89.447	78.141
6)		3,4,5-Tri...	4.232	4.846	11877626	15048739	90.412	80.172
7)	M	2,3,5,6-T...	4.478	5.079	37783526	53764292	79.375	87.108
8)	M	2,3,4,5-T...	5.018	5.476	26302592	34720321	92.085	84.084
9)	M	Pentachlo...	5.155	5.659	44955036	59841010	100.762	87.035
10)		Pentachlo...	5.155	5.659	44955036	59841010	106.058	91.655

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

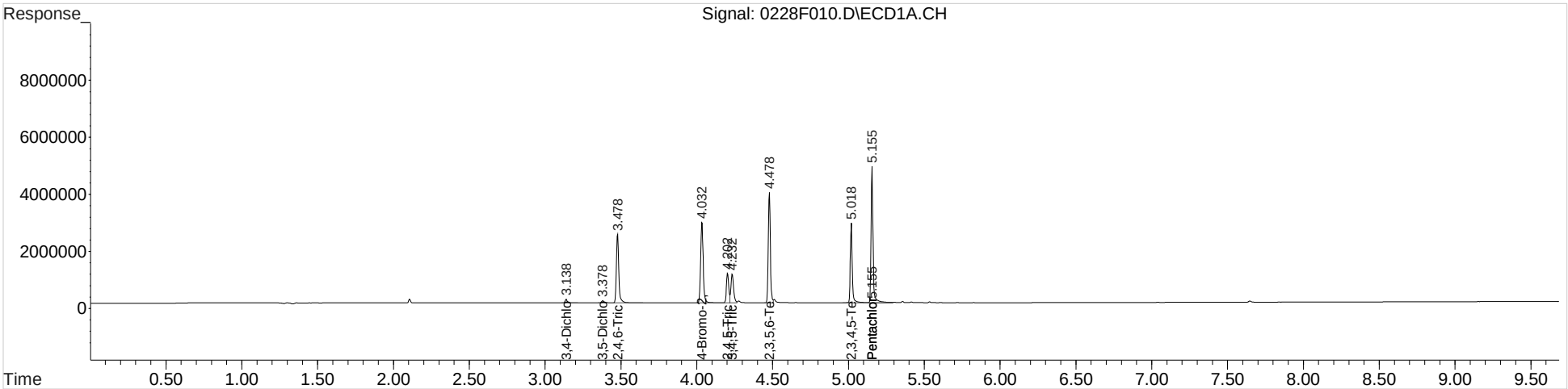
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:22:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



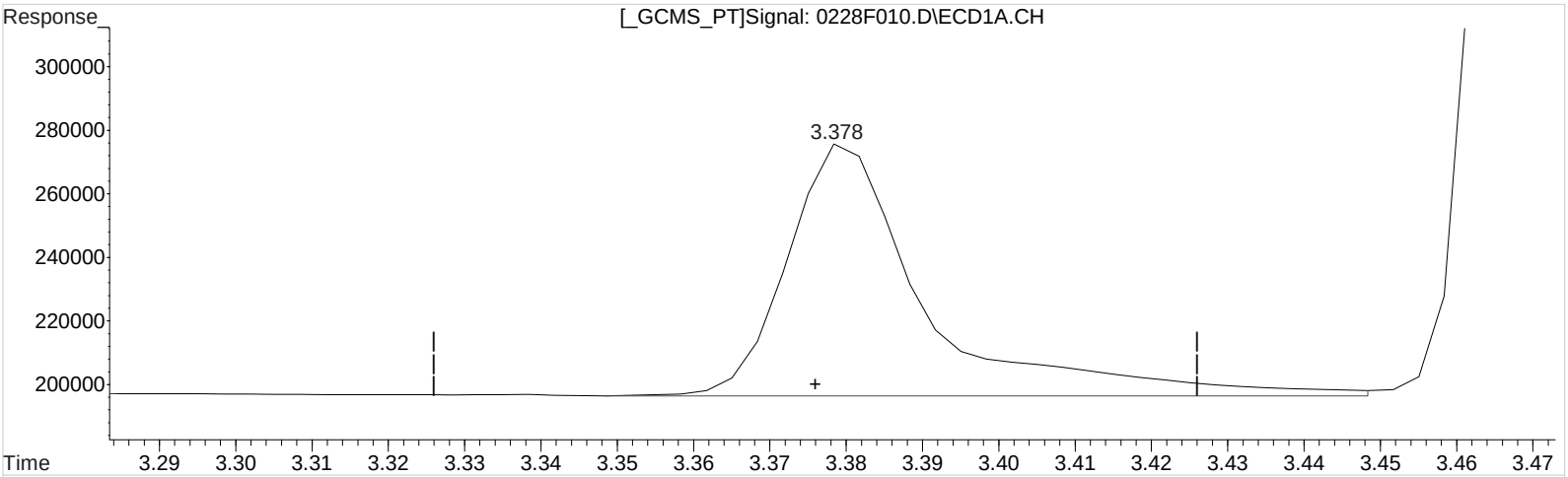
Quantitation Report (Qedit)

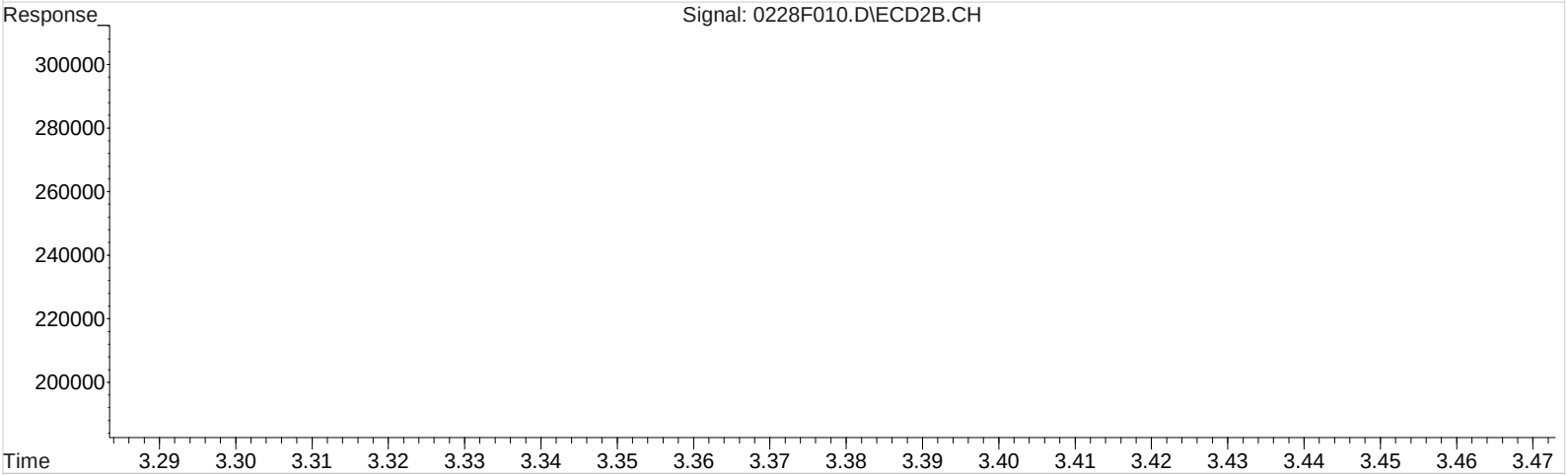
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 107.753 ug/L

response 992711

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 78.674 ug/L

response 1296503

(+) = Expected Retention Time

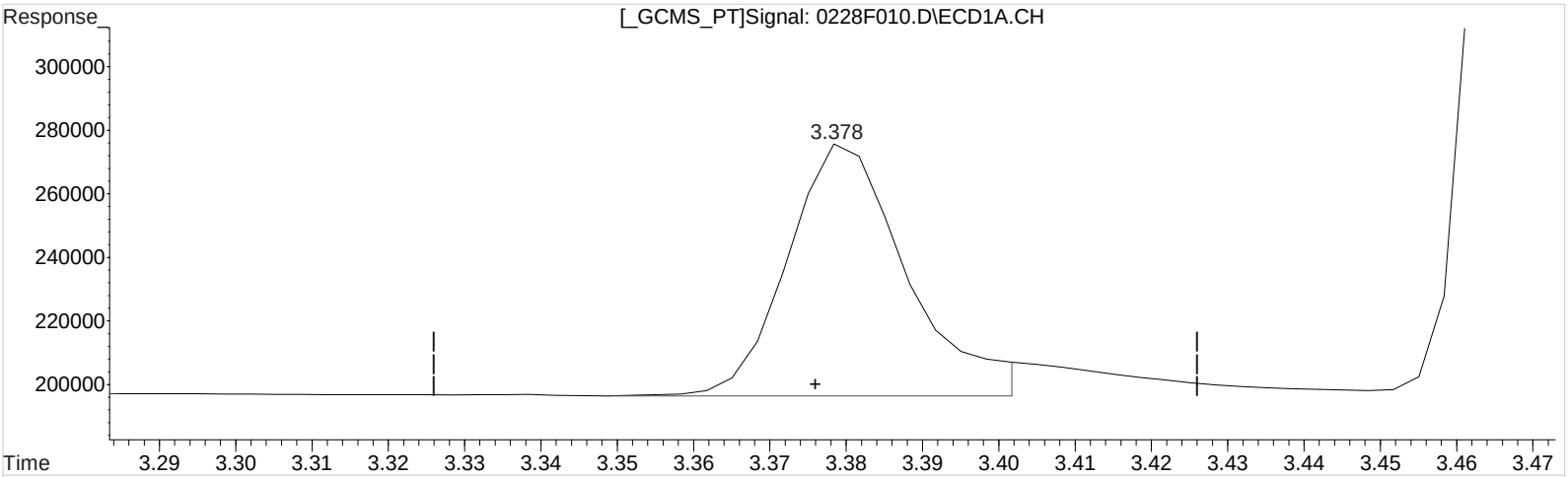
Quantitation Report (Qedit)

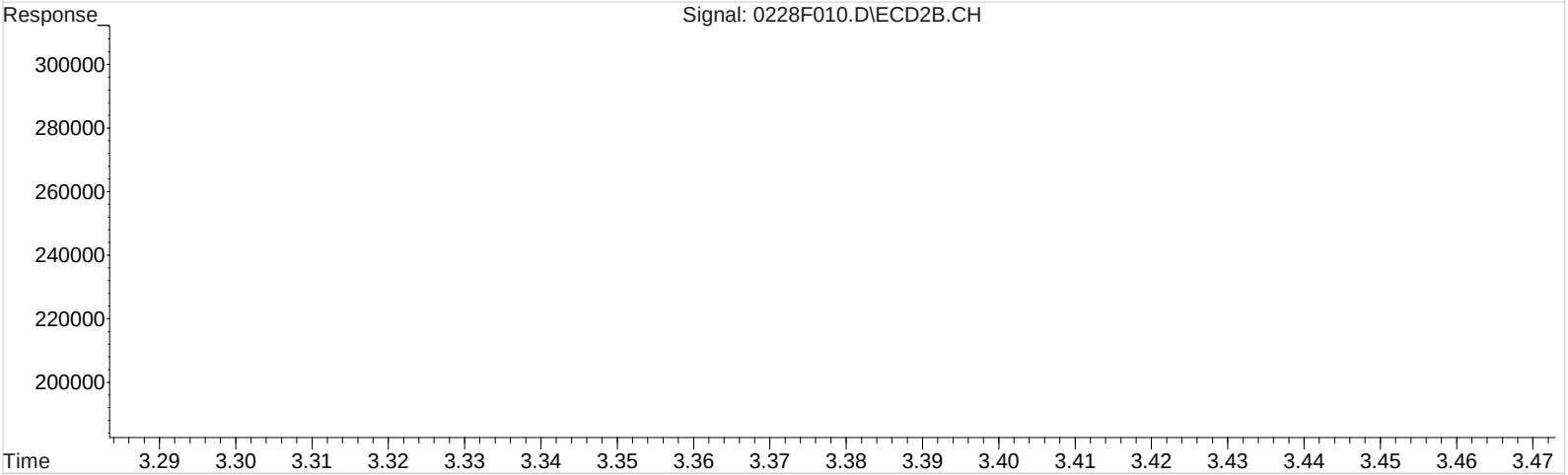
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 91.350 ug/L m

response 862010

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 78.674 ug/L

response 1296503

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:40:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.032	4.720	81814734	111.2E6	251.811	255.909	
		Target Compounds							
1)		3,4-Dichl...	3.139	3.833	2857364	4032207	239.203m	182.500	
2)		3,5-Dichl...	3.379	4.090	1819808	2874954	247.123m	174.458	#
3)		2,4,6-Tri...	3.479	4.290	60385111	91468356	241.870	219.315	
5)		2,4,5-Tri...	4.202	4.783	24998272	37739444	250.979	188.827	
6)		3,4,5-Tri...	4.232	4.846	25742104	36413226	245.950m	193.992	
7)	M	2,3,5,6-T...	4.479	5.076	86546934	134.6E6	181.817	218.076	
8)	M	2,3,4,5-T...	5.016	5.473	58240789	85792304	243.632	207.768	
9)	M	Pentachlo...	5.152	5.656	102.6E6	149.9E6	237.563	218.038	
10)		Pentachlo...	5.152	5.656	102.6E6	149.9E6	250.048	229.611	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

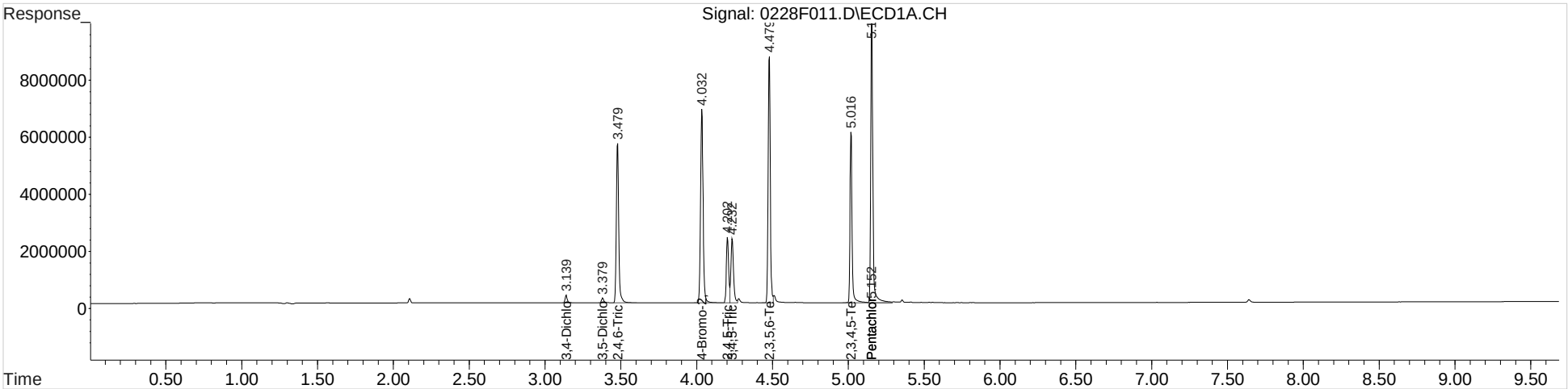
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:40:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



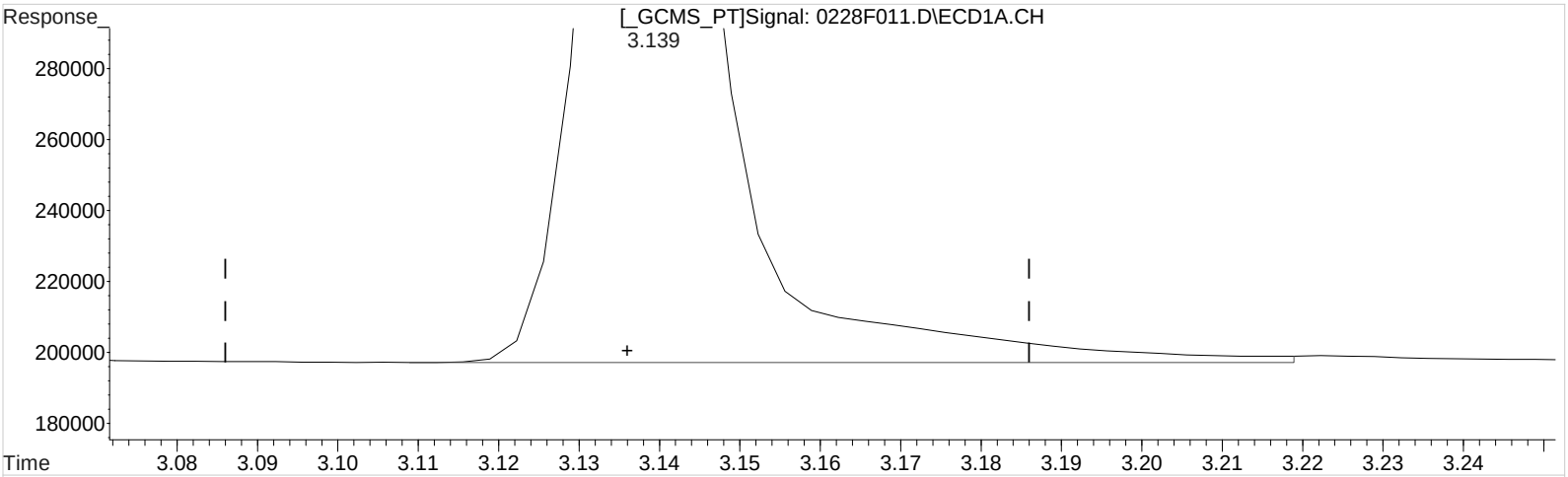
Quantitation Report (Qedit)

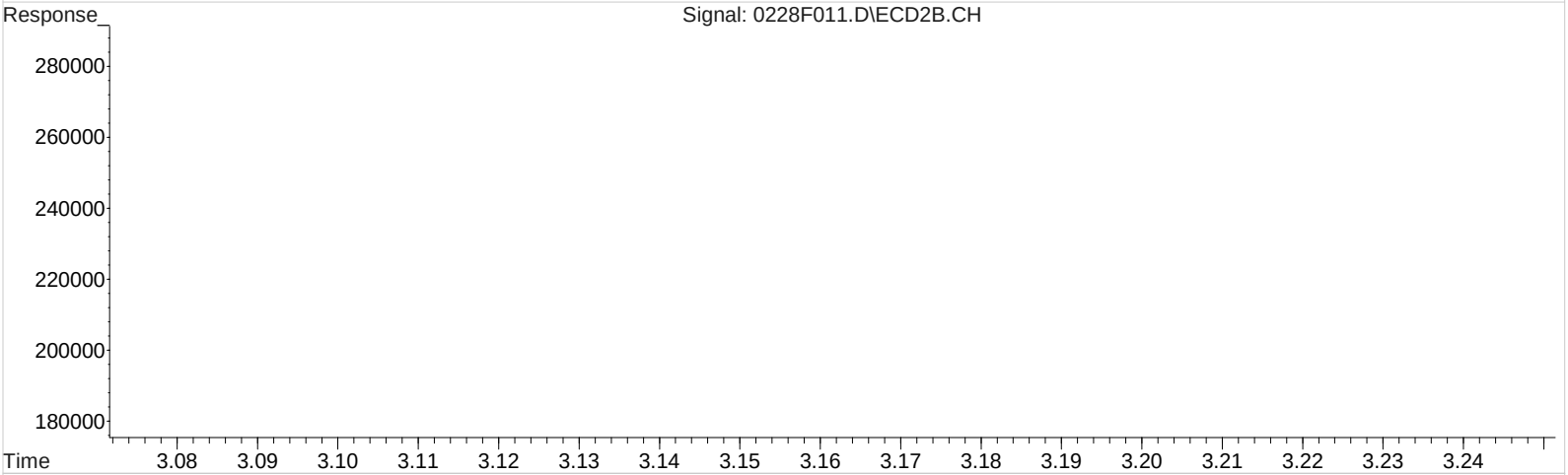
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 239.087 ug/L

response 2856406

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 182.500 ug/L

response 4032207

(+) = Expected Retention Time

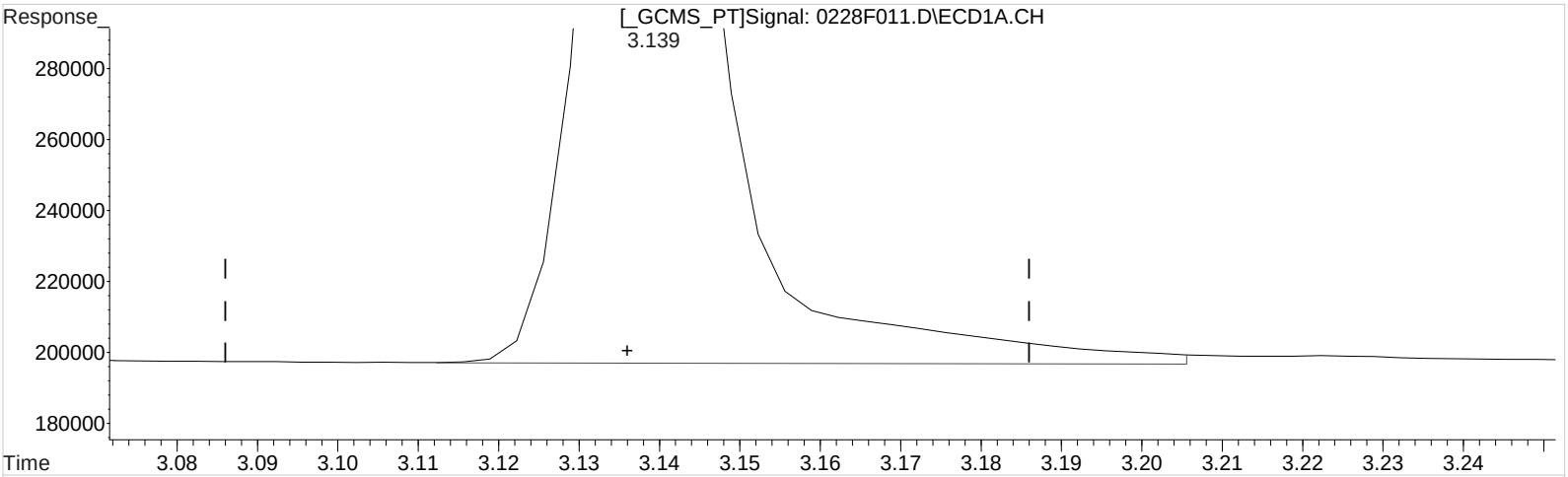
Quantitation Report (Qedit)

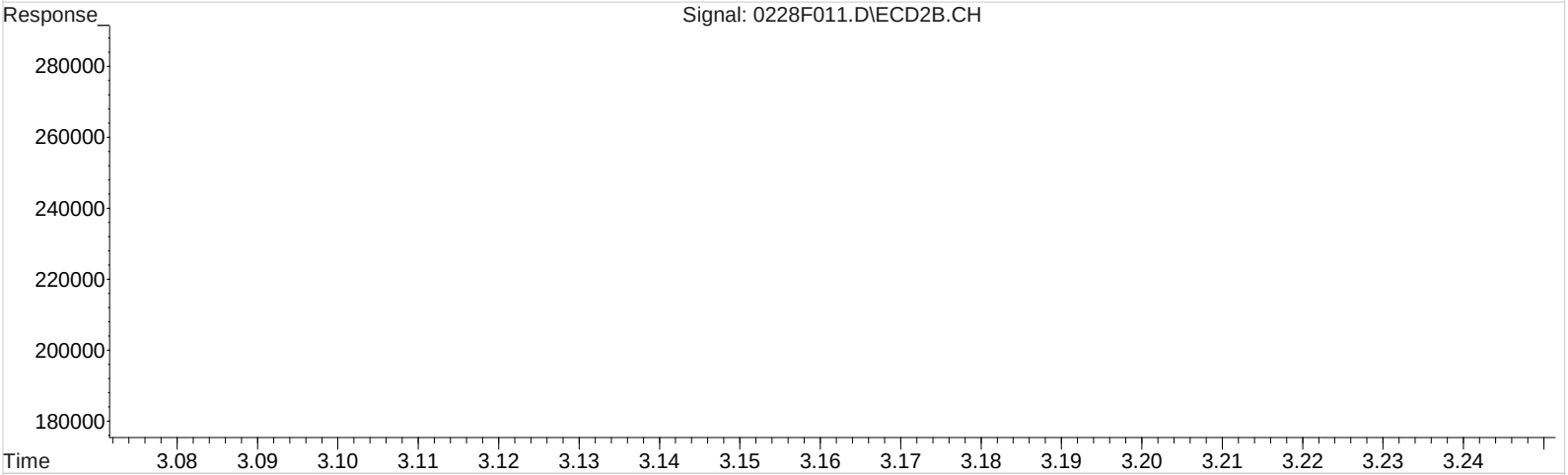
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 239.203 ug/L m

response 2857364

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 182.500 ug/L

response 4032207

(+) = Expected Retention Time

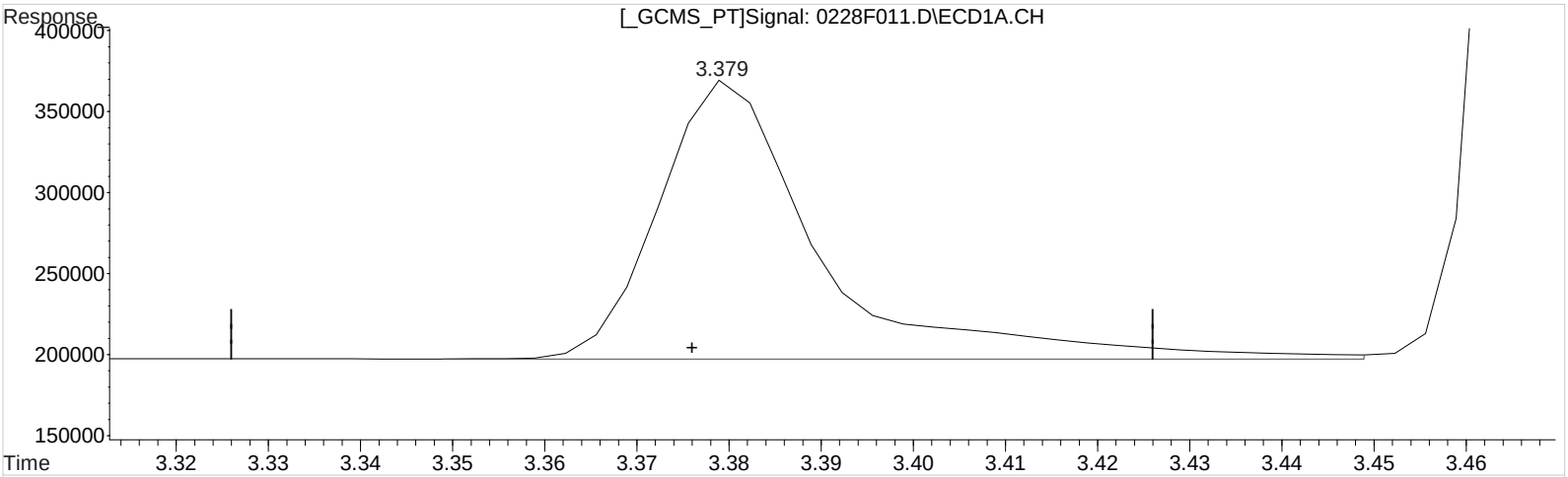
Quantitation Report (Qedit)

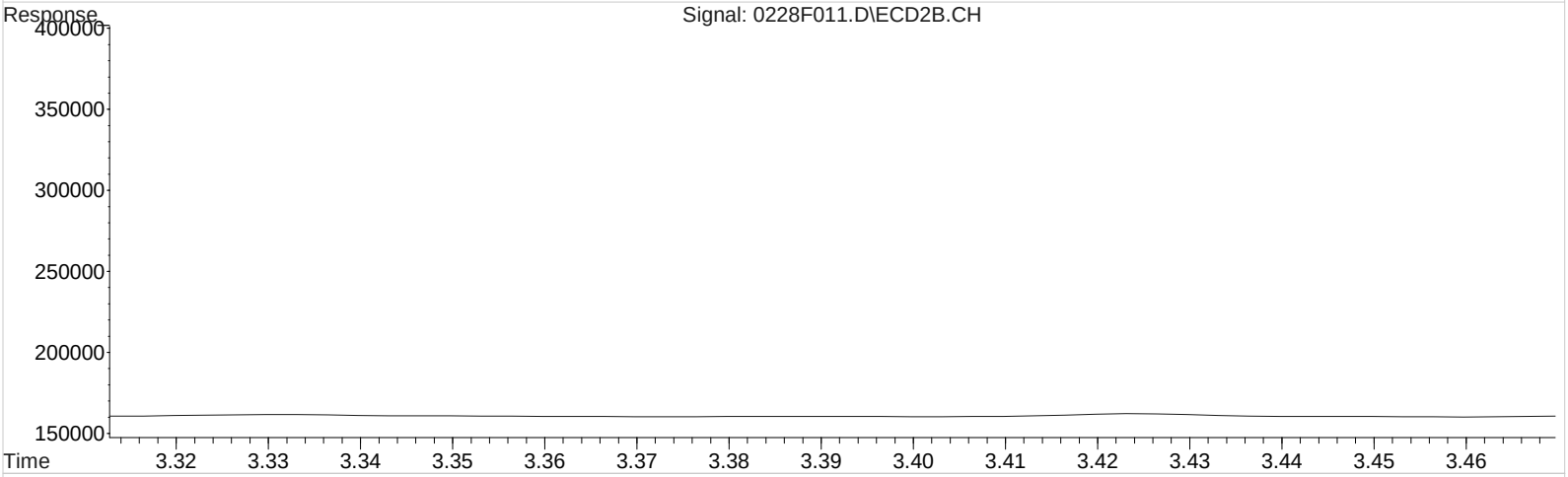
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 331.758 ug/L

response 2074587

(2) 3,5-Dichlorophenol #2

4.090min 174.458 ug/L

response 2874954

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

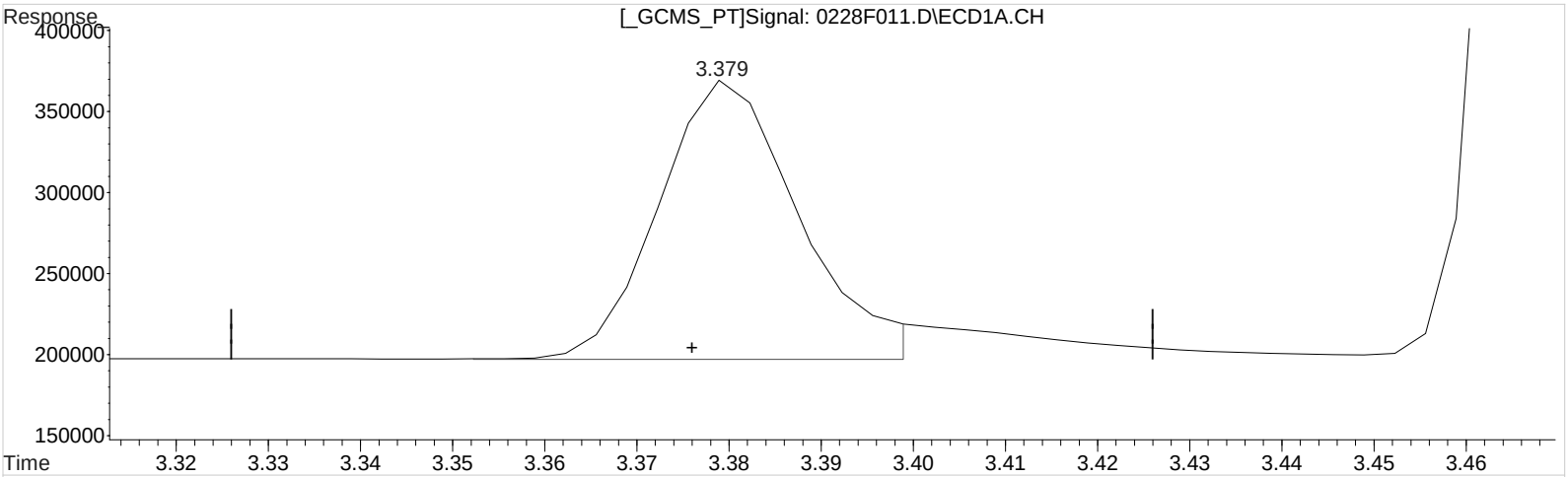
Quantitation Report (Qedit)

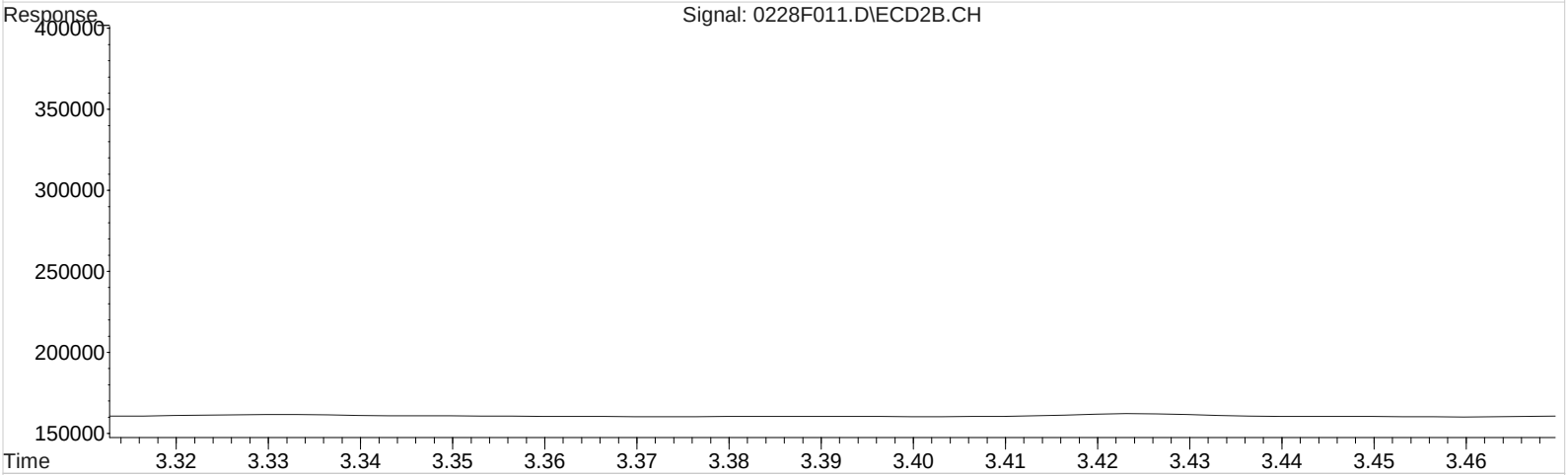
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 247.123 ug/L m

response 1819808

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 174.458 ug/L

response 2874954

(+) = Expected Retention Time

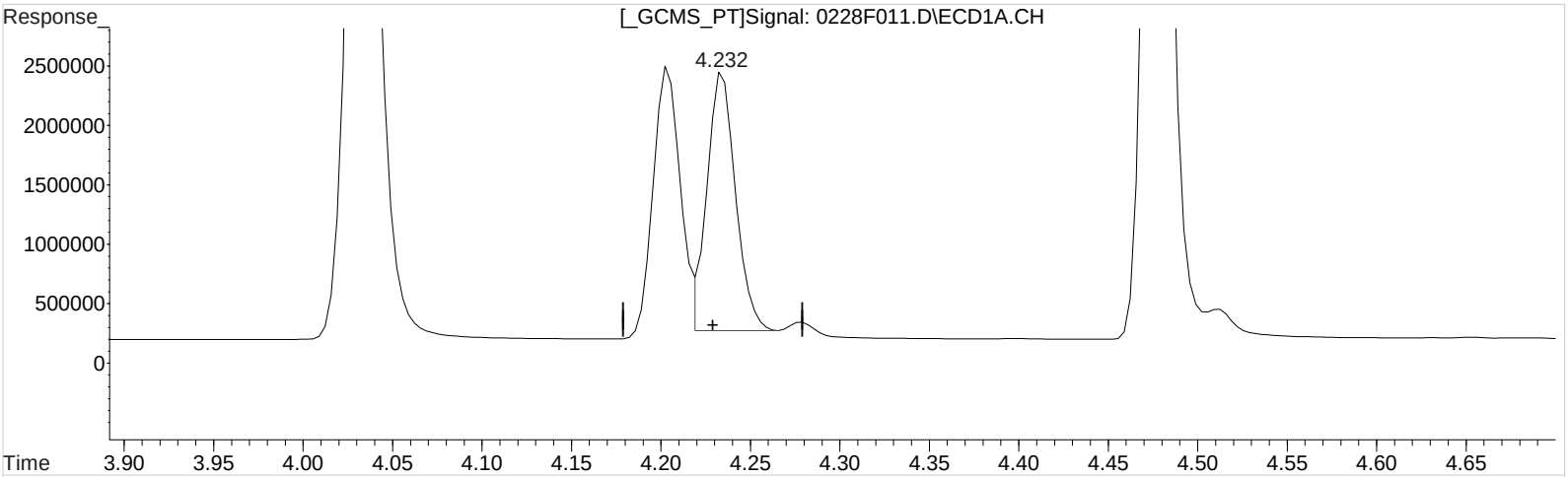
Quantitation Report (Qedit)

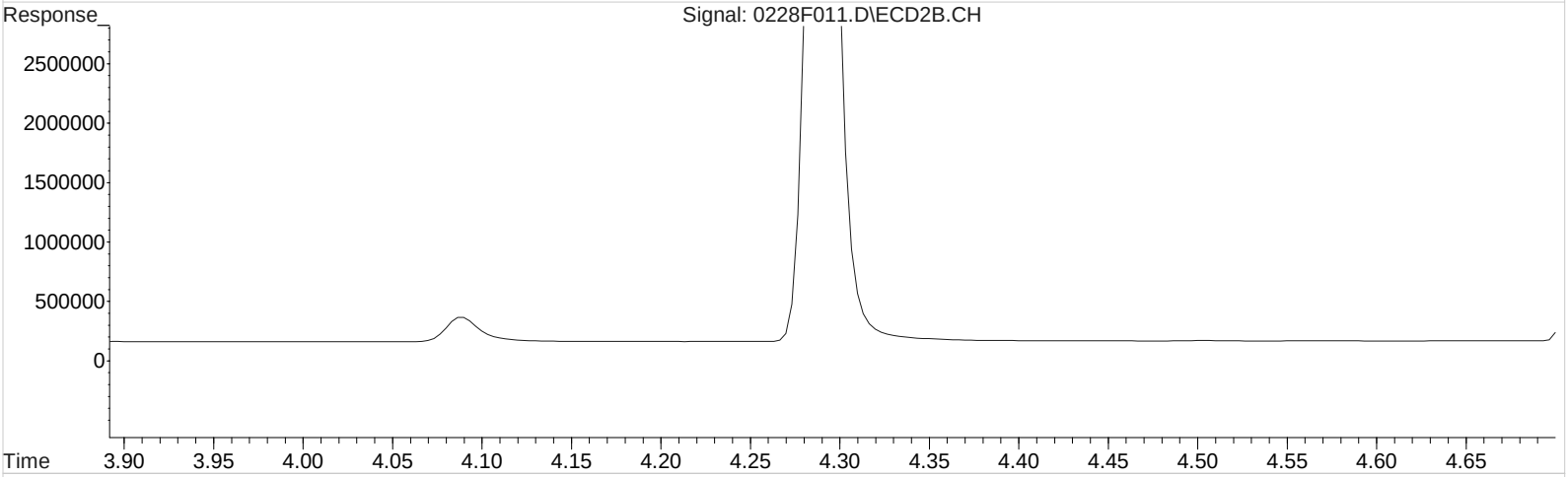
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min 214.424 ug/L

response 23588772

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.846min 193.992 ug/L

response 36413226

(+) = Expected Retention Time

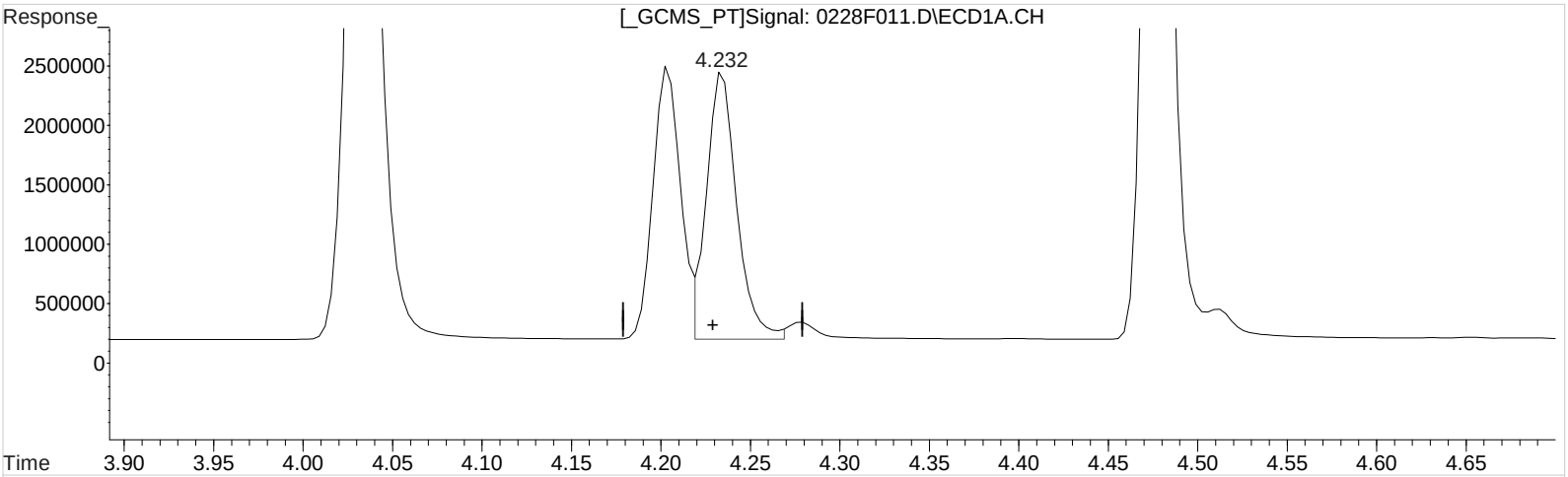
Quantitation Report (Qedit)

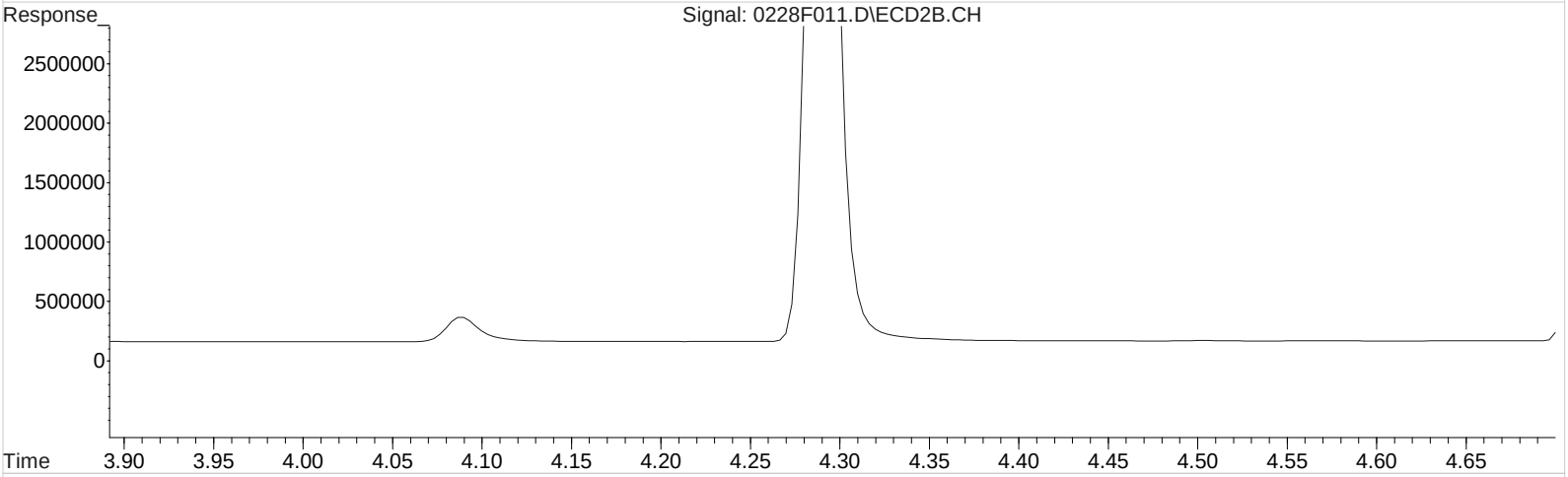
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min 245.950 ug/L m

response 25742104

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.846min 193.992 ug/L

response 36413226

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:02:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.034	4.718	148.9E6	219.7E6	481.796	505.496
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D. d
9)	M	Pentachlo...	5.154	5.658	187.0E6	302.6E6	453.396	440.083
10)		Pentachlo...	5.154	5.658	187.0E6	302.6E6	477.226	463.441

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

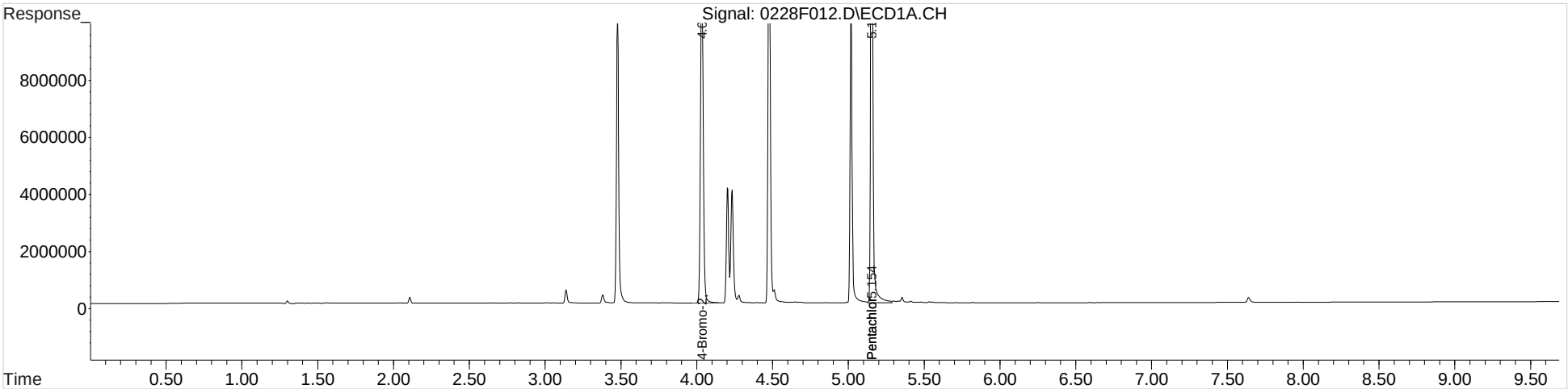
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:02:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



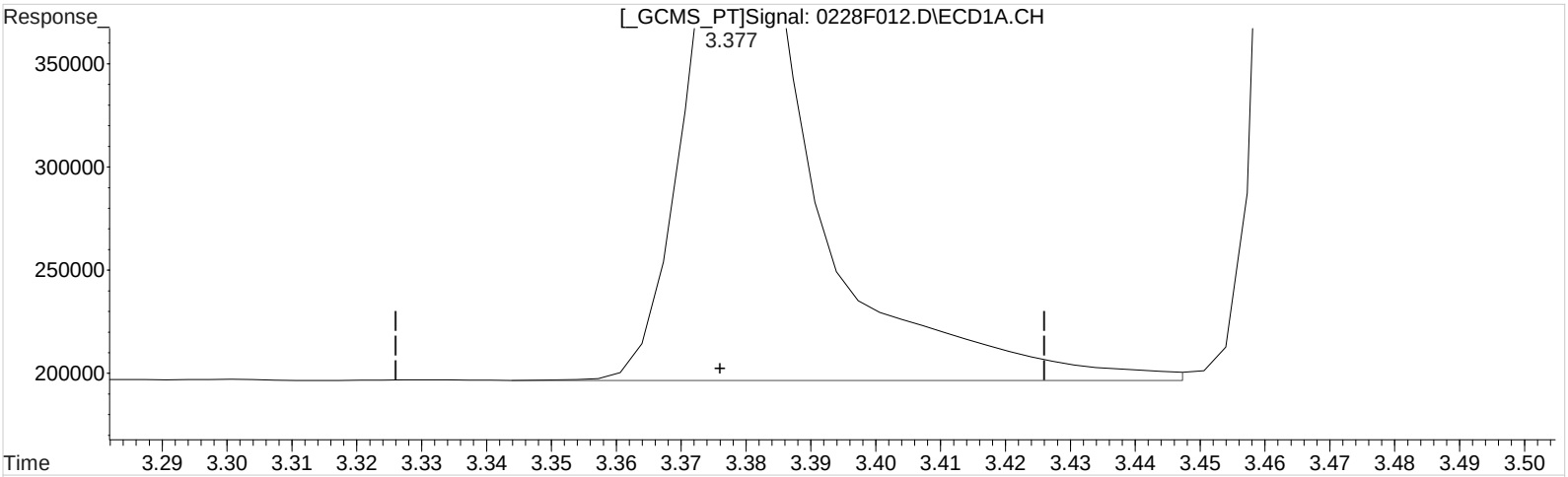
Quantitation Report (Qedit)

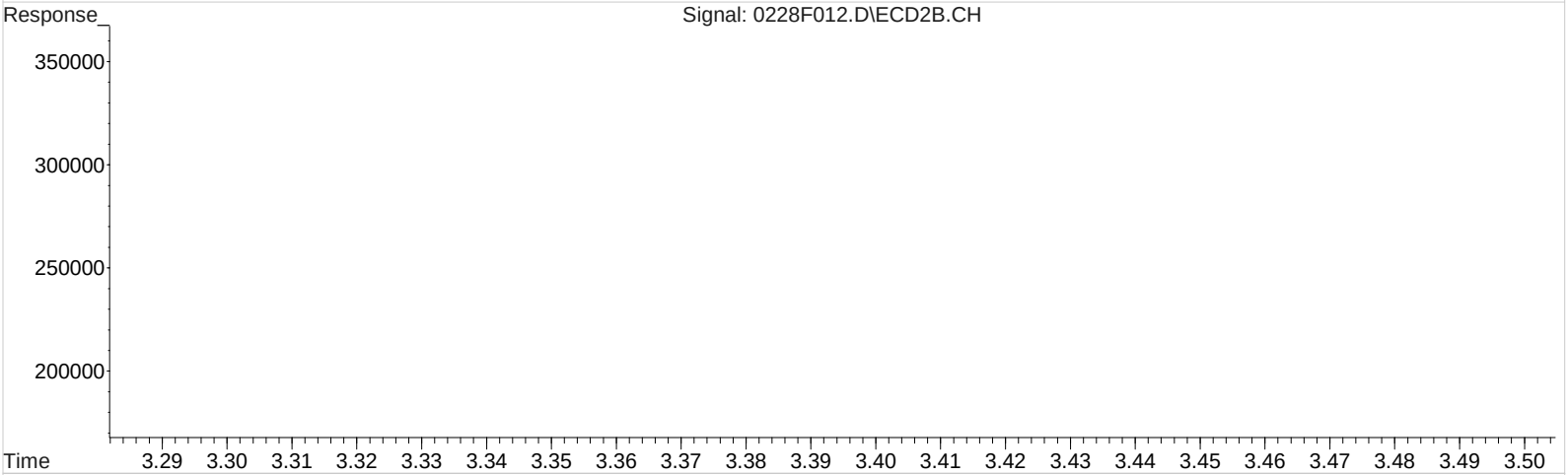
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:57:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min -1.000 ug/L

response 3515486

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 308.529 ug/L

response 5084362

(+) = Expected Retention Time

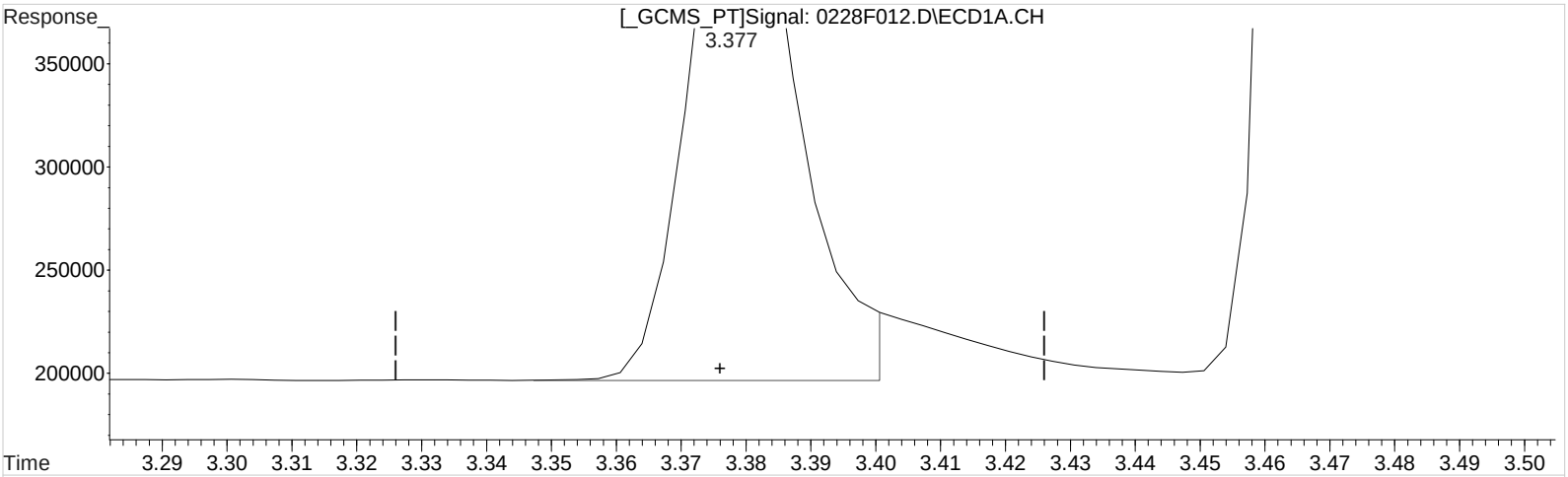
Quantitation Report (Qedit)

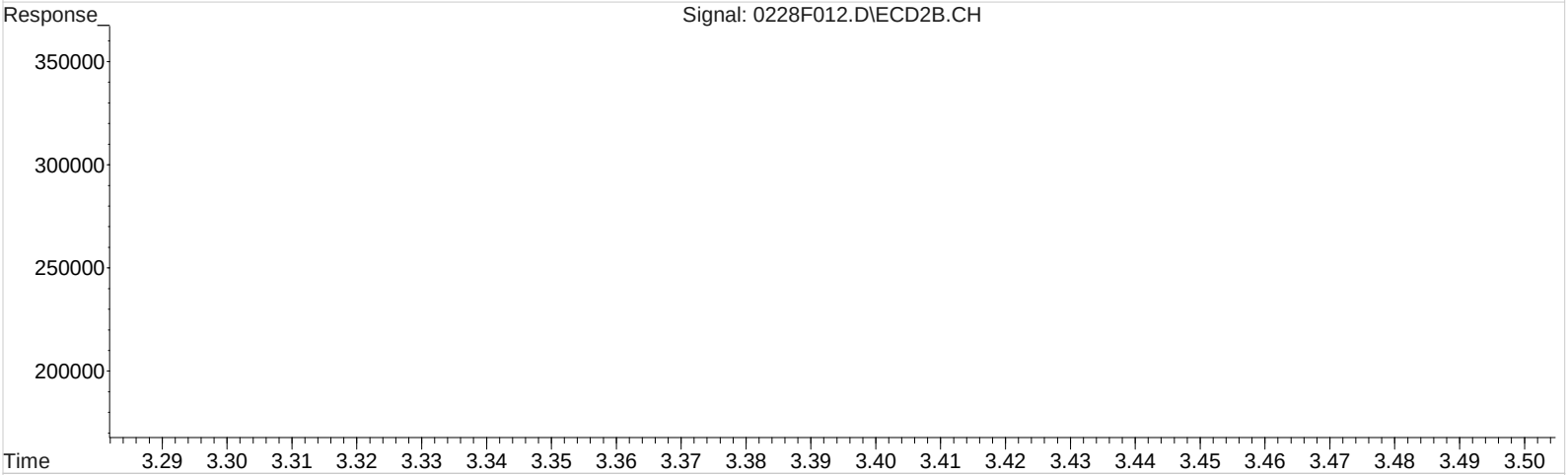
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:57:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min -1.000 ug/L m

response 3148268

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 308.529 ug/L

response 5084362

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:03:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.032	4.720	275.5E6	454.2E6	1004.956	1044.829
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D. d
9)	M	Pentachlo...	5.152	5.657	351.1E6	624.5E6	951.331	908.276
10)		Pentachlo...	5.152	5.657	351.1E6	624.5E6	1001.338	956.483

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

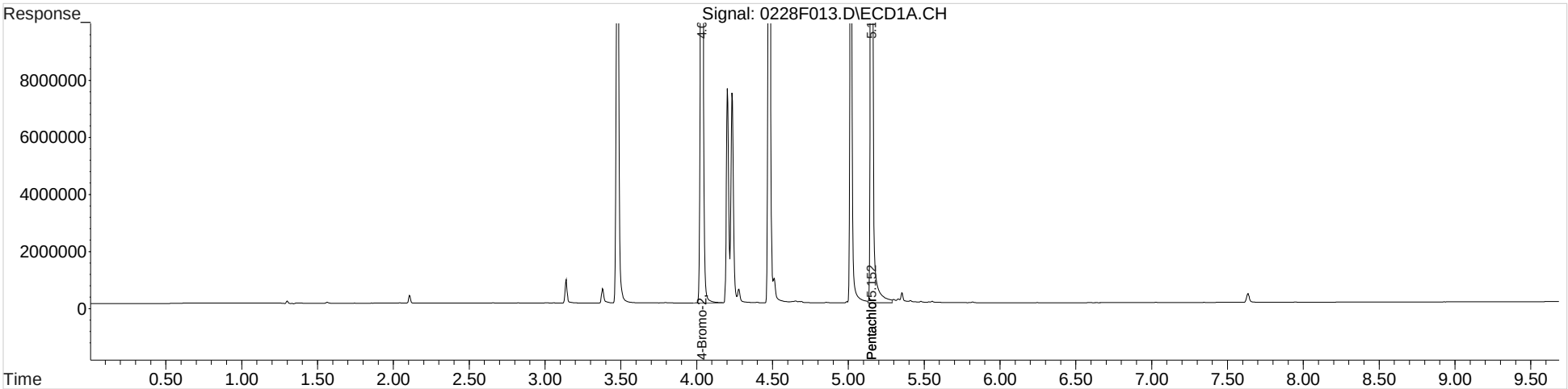
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:03:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



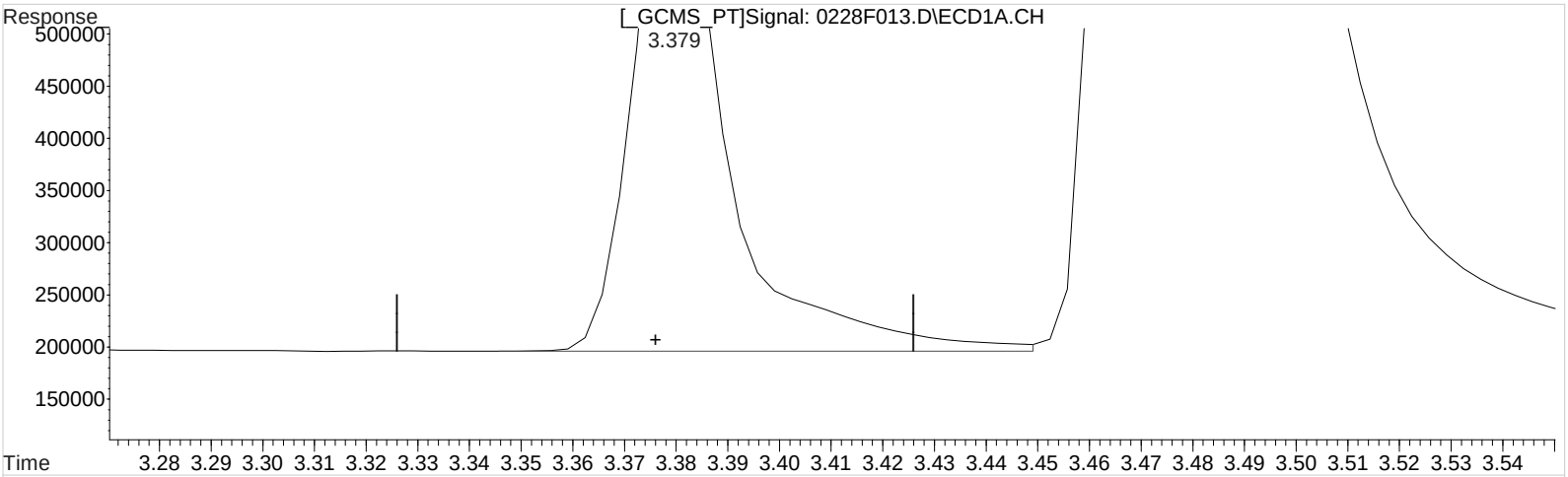
Quantitation Report (Qedit)

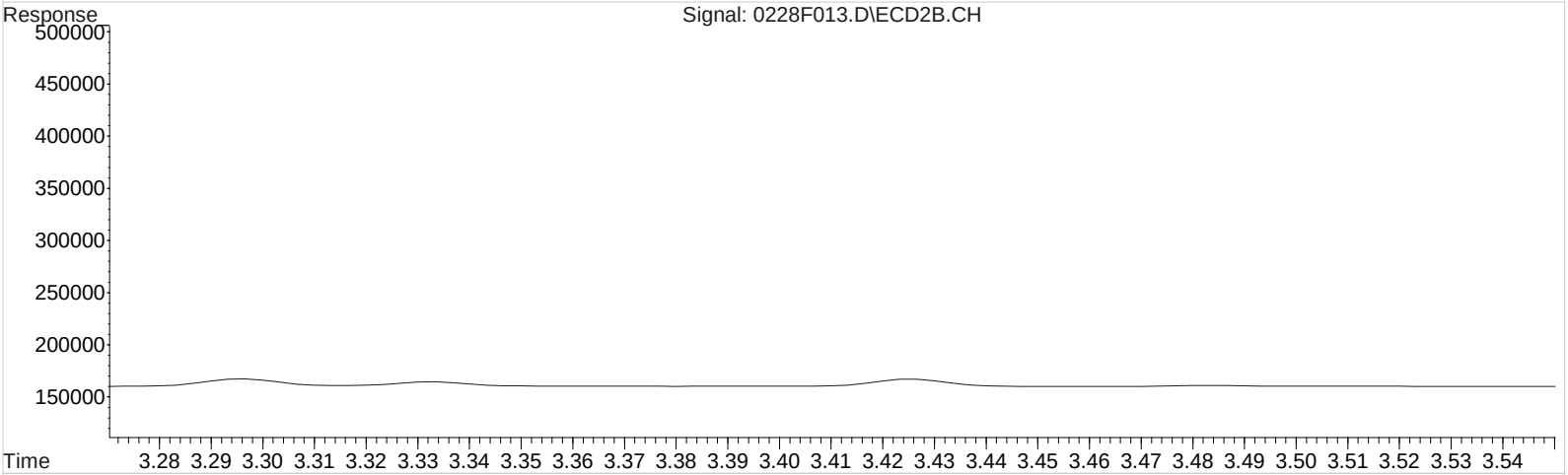
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min -1.000 ug/L

response 6094712

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 574.054 ug/L

response 9460033

(+) = Expected Retention Time

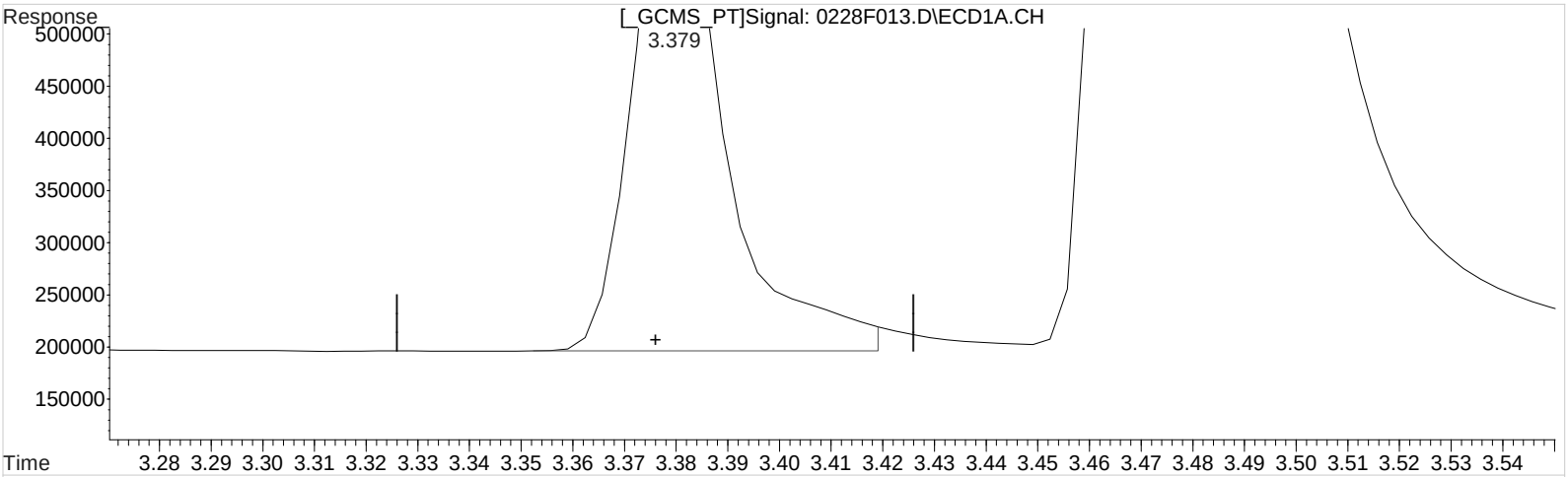
Quantitation Report (Qedit)

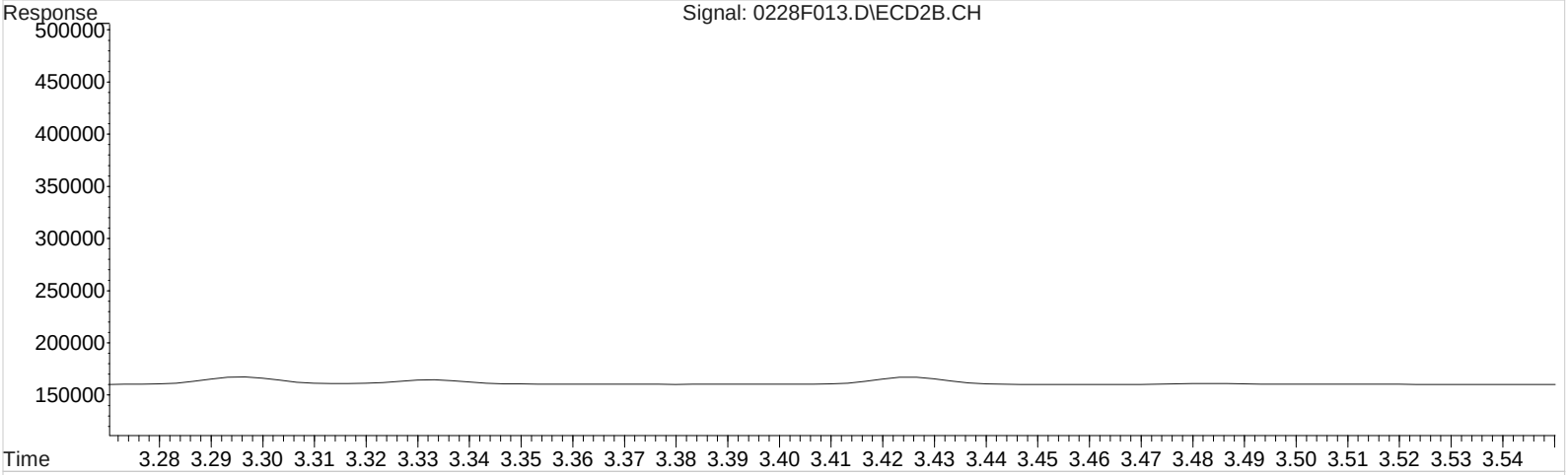
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min -1.000 ug/L m

response 5889814

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 574.054 ug/L

response 9460033

(+) = Expected Retention Time

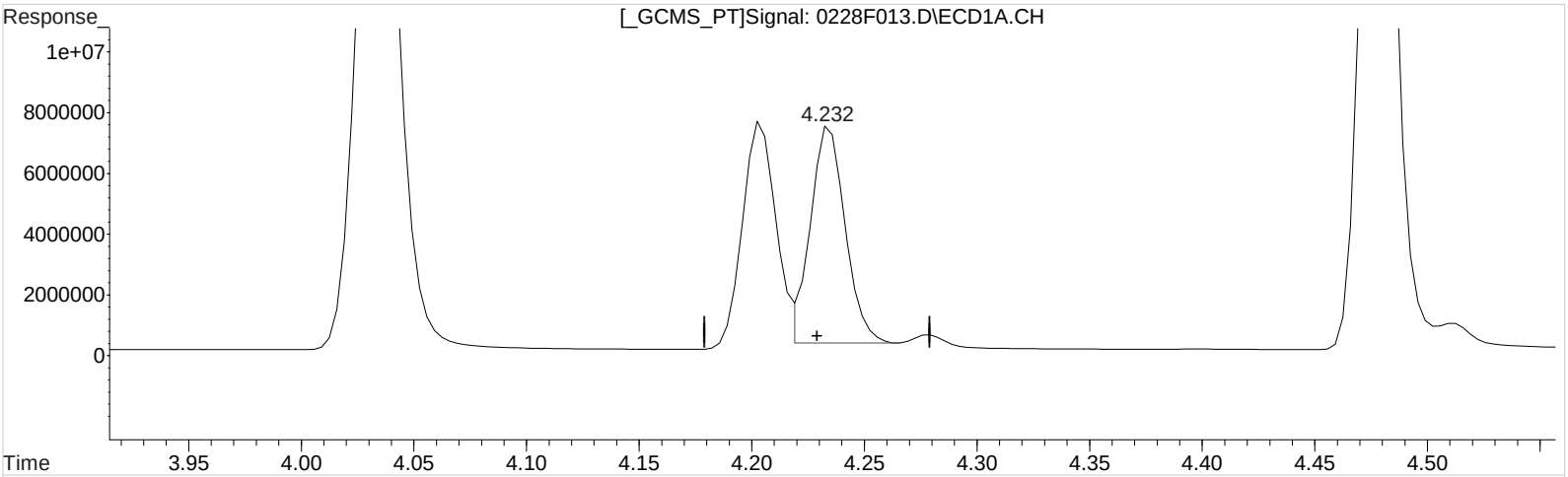
Quantitation Report (Qedit)

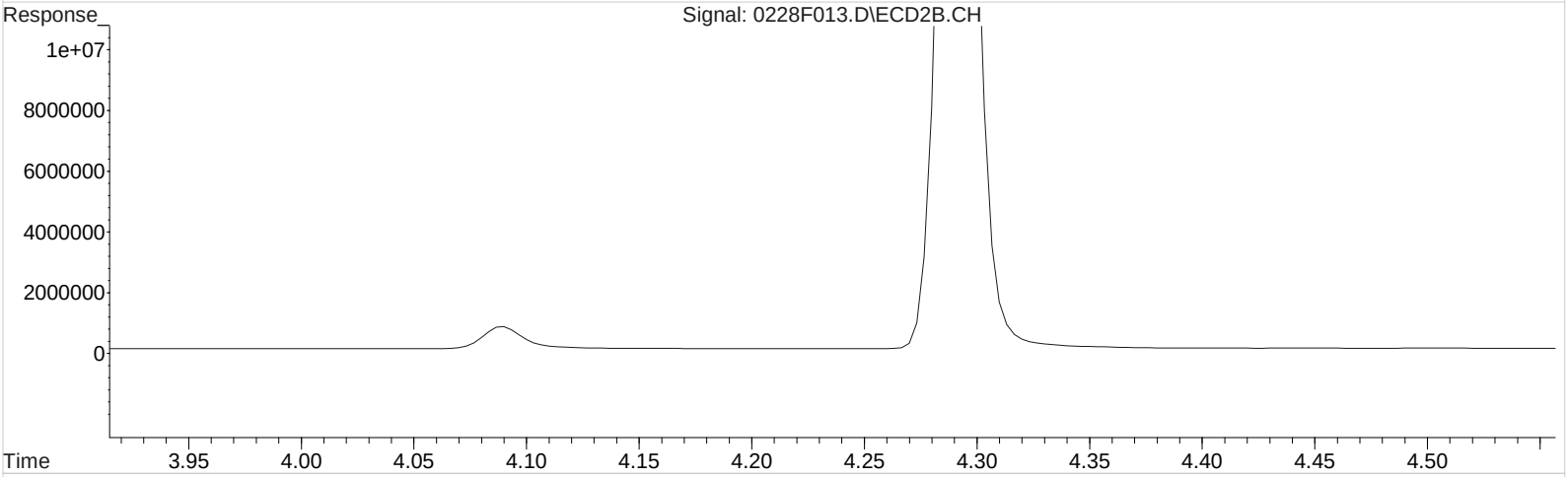
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min -1.000 ug/L

response 74934079

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 737.496 ug/L

response 138431346

(+) = Expected Retention Time

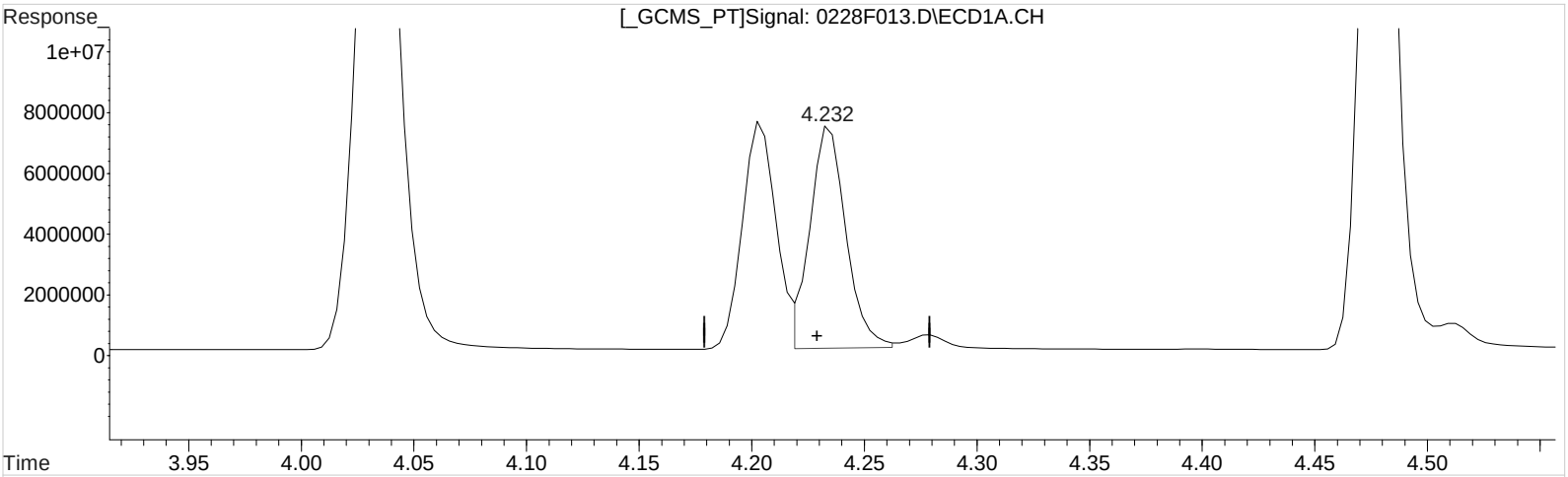
Quantitation Report (Qedit)

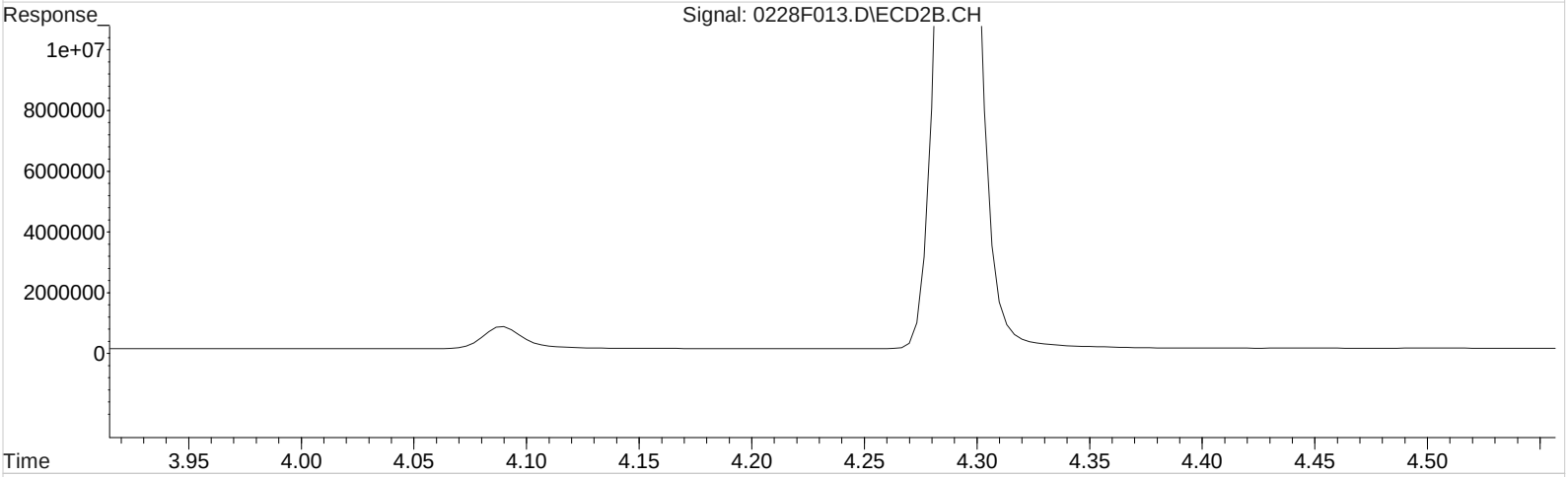
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min -1.000 ug/L m

response 79254186

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 737.496 ug/L

response 138431346

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:00:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.035	4.719	1168028	983474	2.544	2.262
		Target Compounds						
1)		3,4-Dichl...	3.138	3.832	45256	55247	2.218	2.501
2)		3,5-Dichl...	3.378	4.089	31638	44372	2.469m	2.693
3)		2,4,6-Tri...	3.478	4.289	951850	996024	2.425	2.388
5)		2,4,5-Tri...	4.205	4.785	468262	535226	2.569	2.678
6)		3,4,5-Tri...	4.235	4.849	464016	493606	2.630	2.630
7)	M	2,3,5,6-T...	4.478	5.079	1355696	1503718	2.848	2.436m
8)	M	2,3,4,5-T...	5.018	5.472	1121382	1115328	2.467m	2.701
9)	M	Pentachlo...	5.155	5.655	1532111	1786099	2.401	2.598m
10)		Pentachlo...	5.155	5.655	1532111	1782521	2.528	2.730m

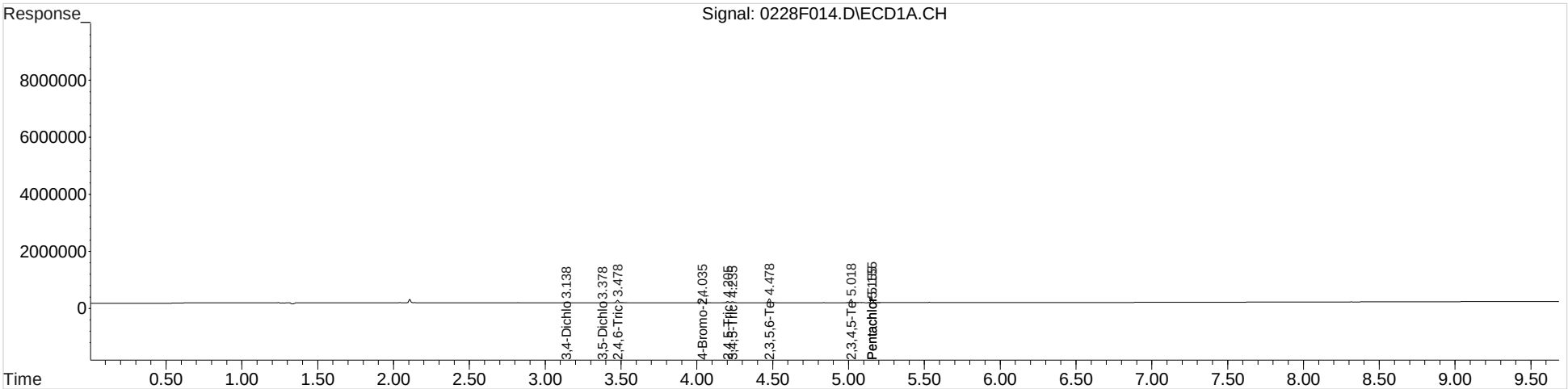
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:00:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



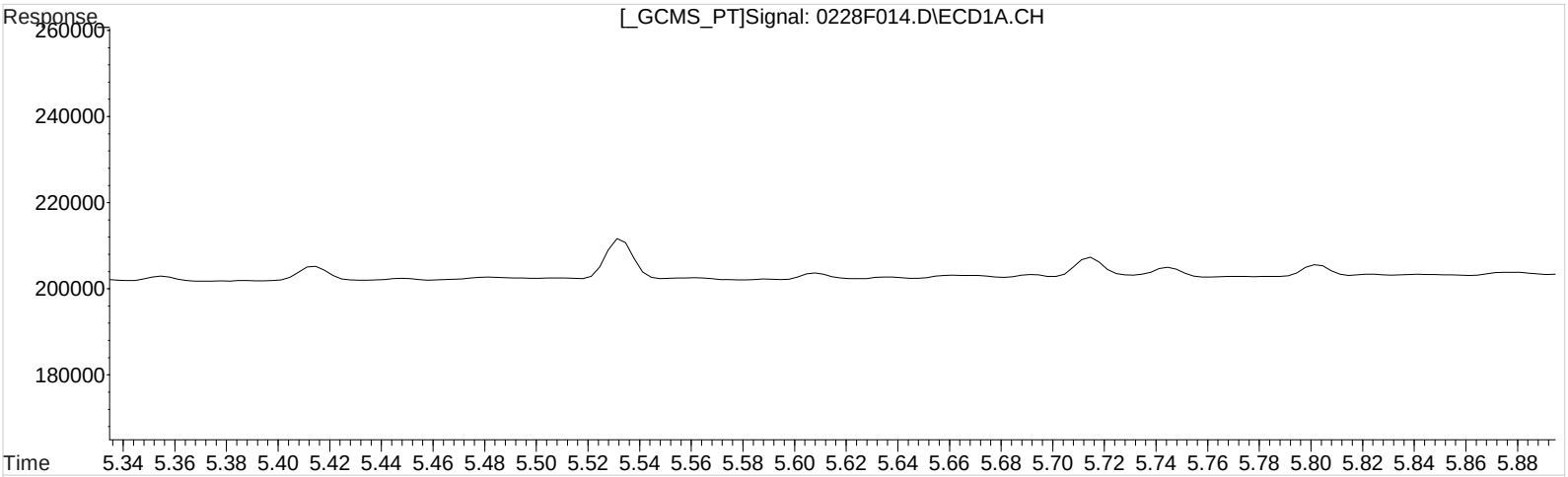
Quantitation Report (Qedit)

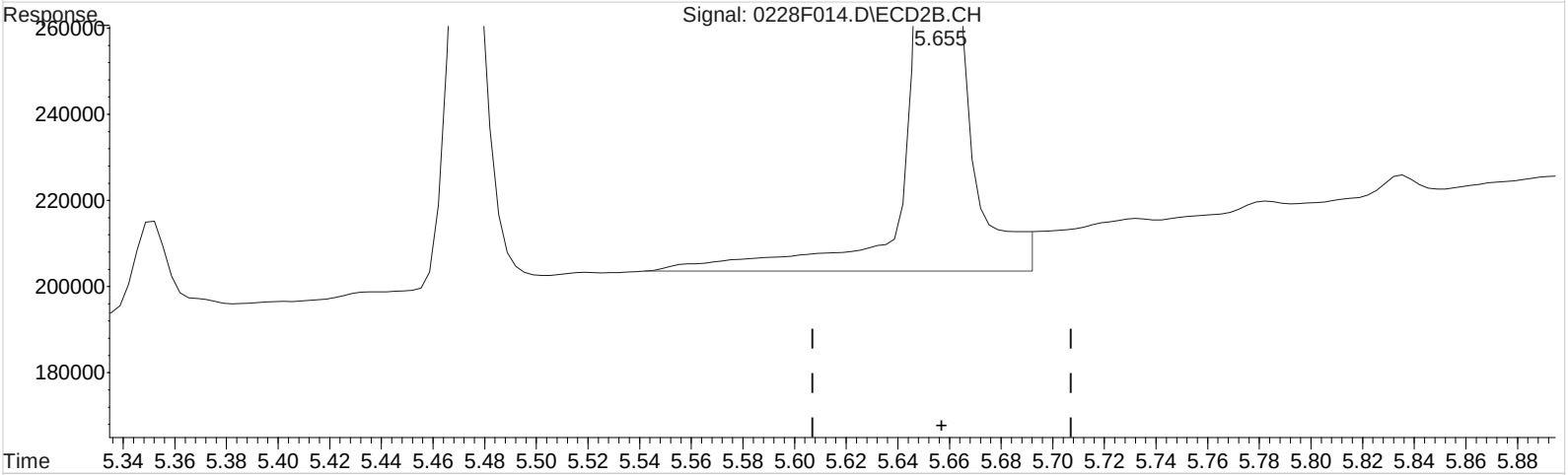
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.155min 2.528 ug/L

response 1532111

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.655min 3.364 ug/L

response 2196034

(+) = Expected Retention Time

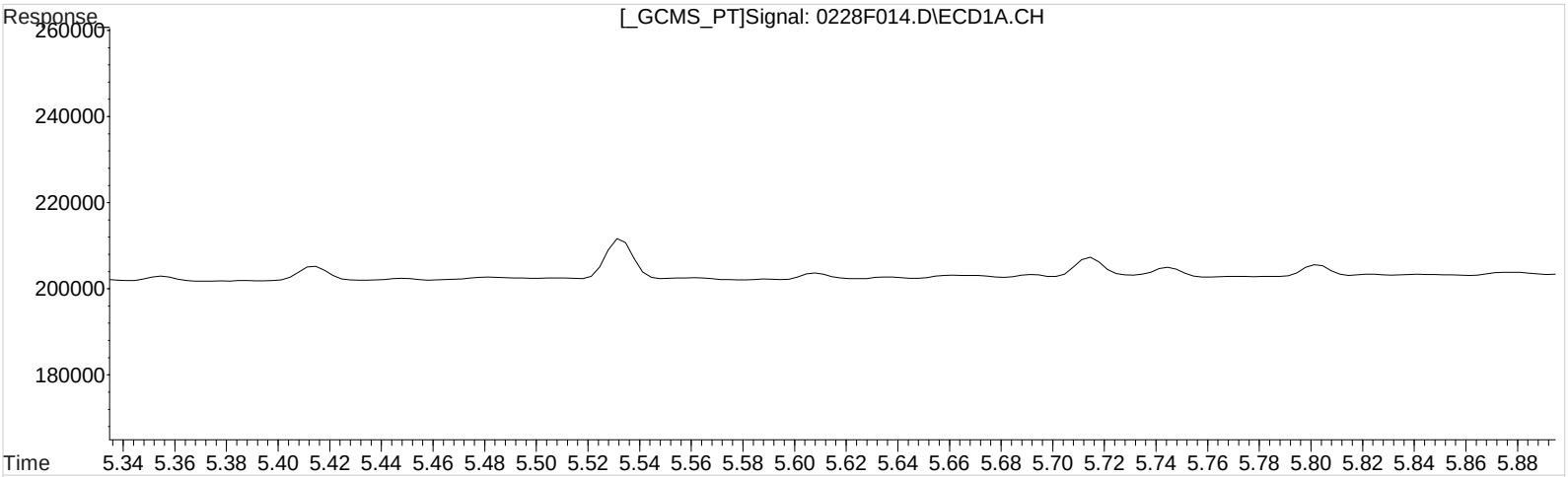
Quantitation Report (Qedit)

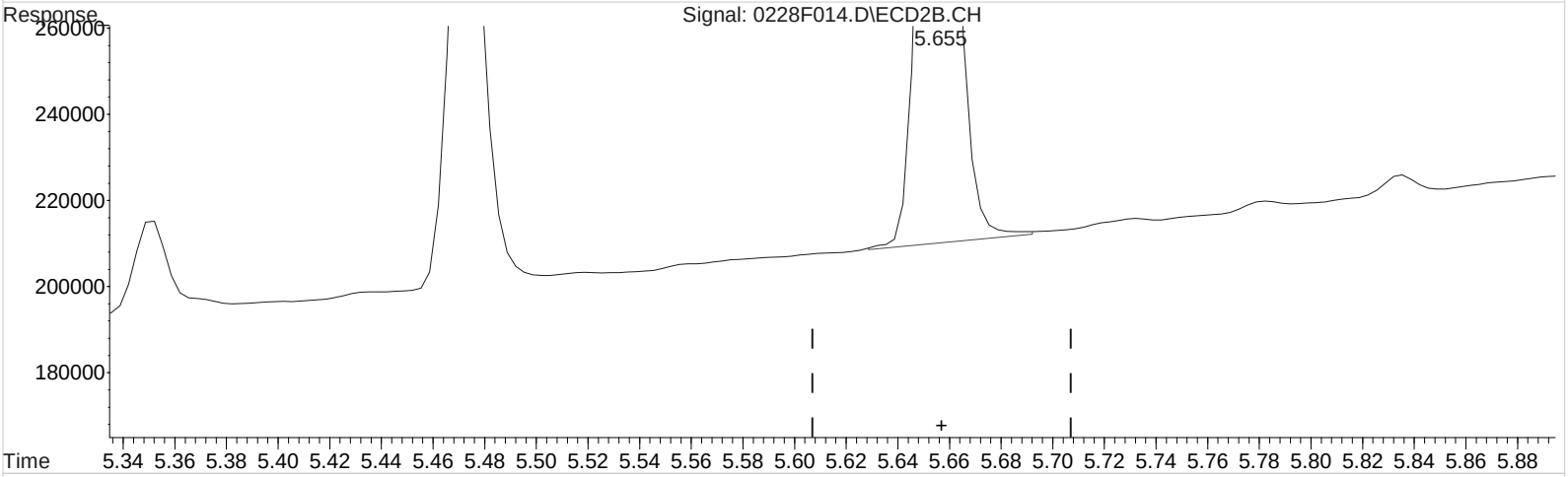
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.155min 2.528 ug/L

response 1532111

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.655min 2.730 ug/L m

response 1782521

(+) = Expected Retention Time

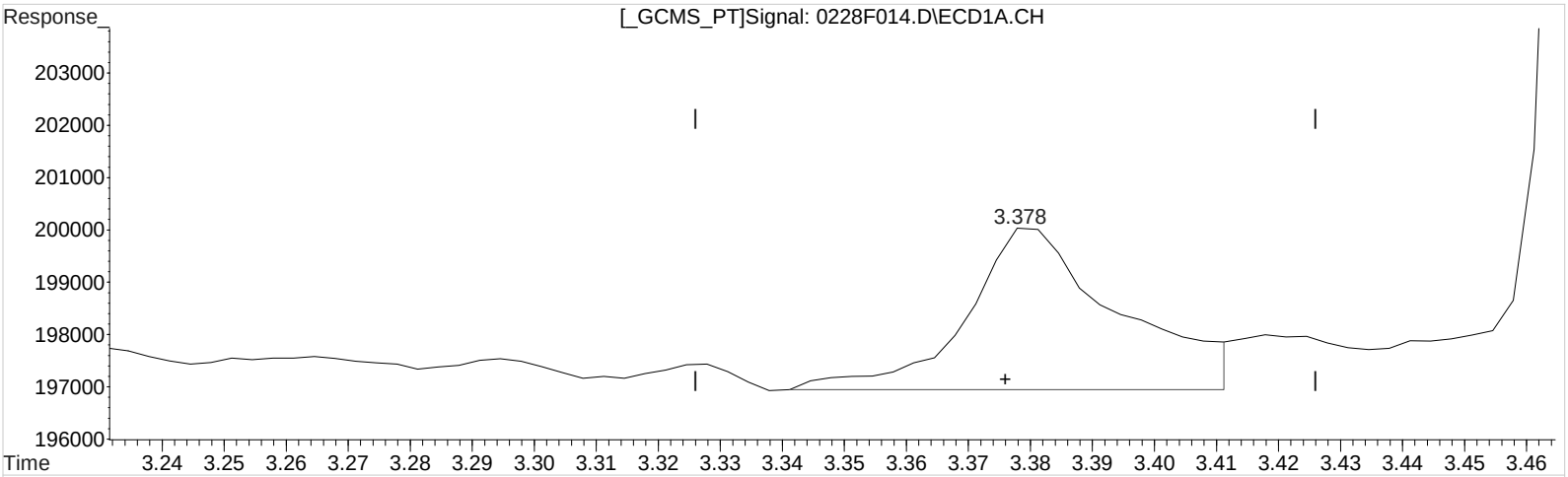
Quantitation Report (Qedit)

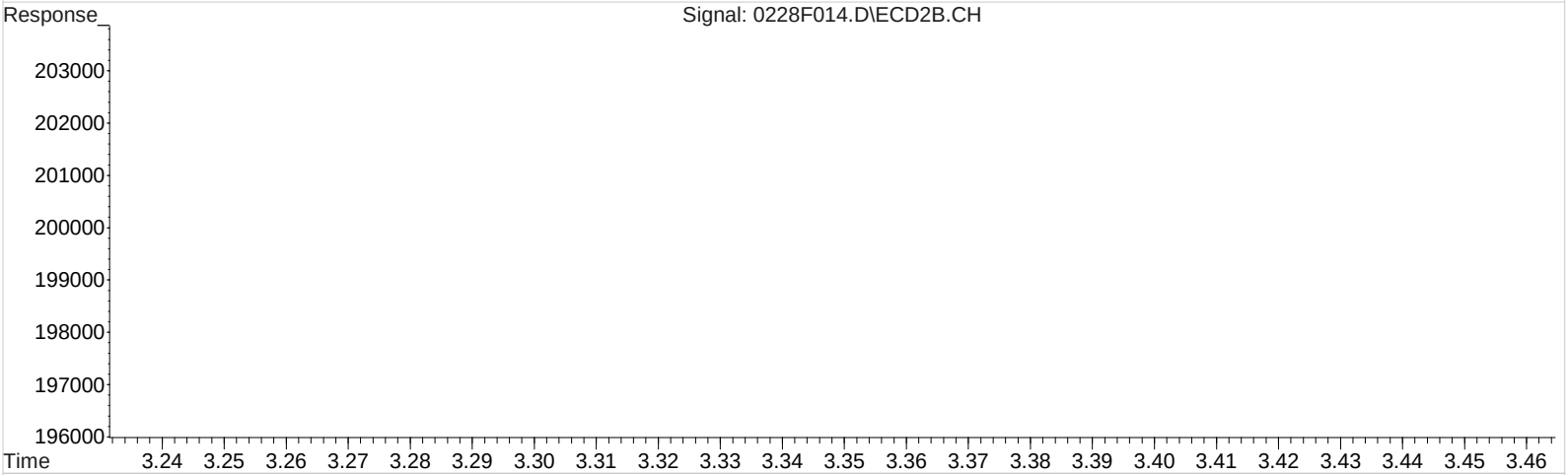
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 4.540 ug/L

response 53339

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 2.693 ug/L

response 44372

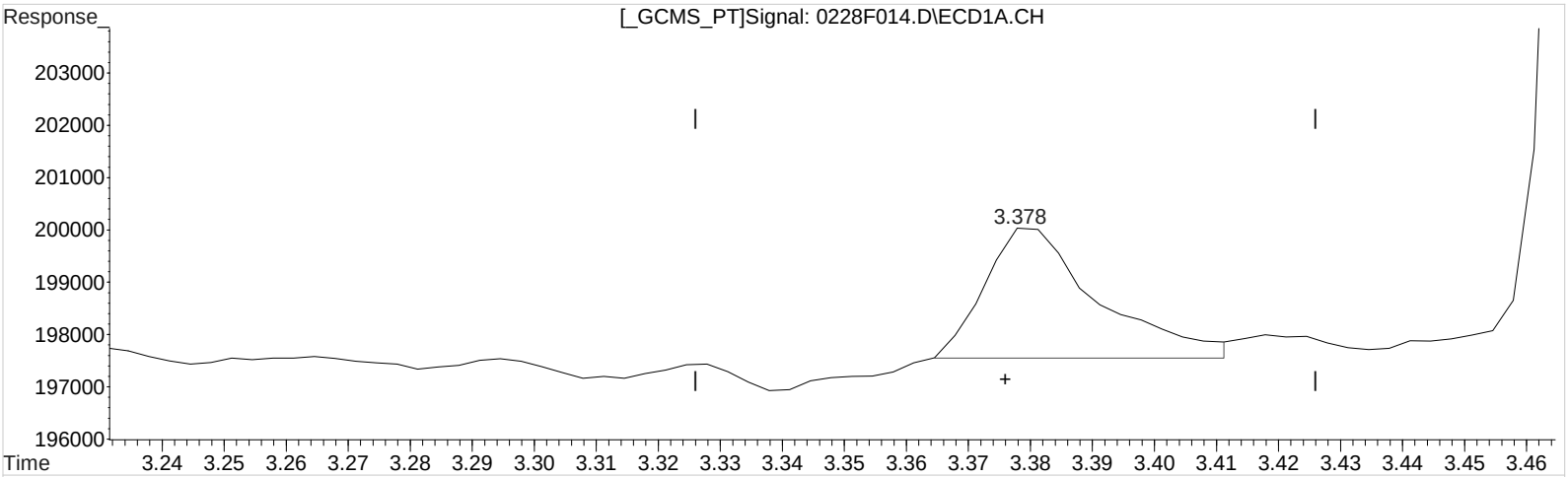
(+) = Expected Retention Time

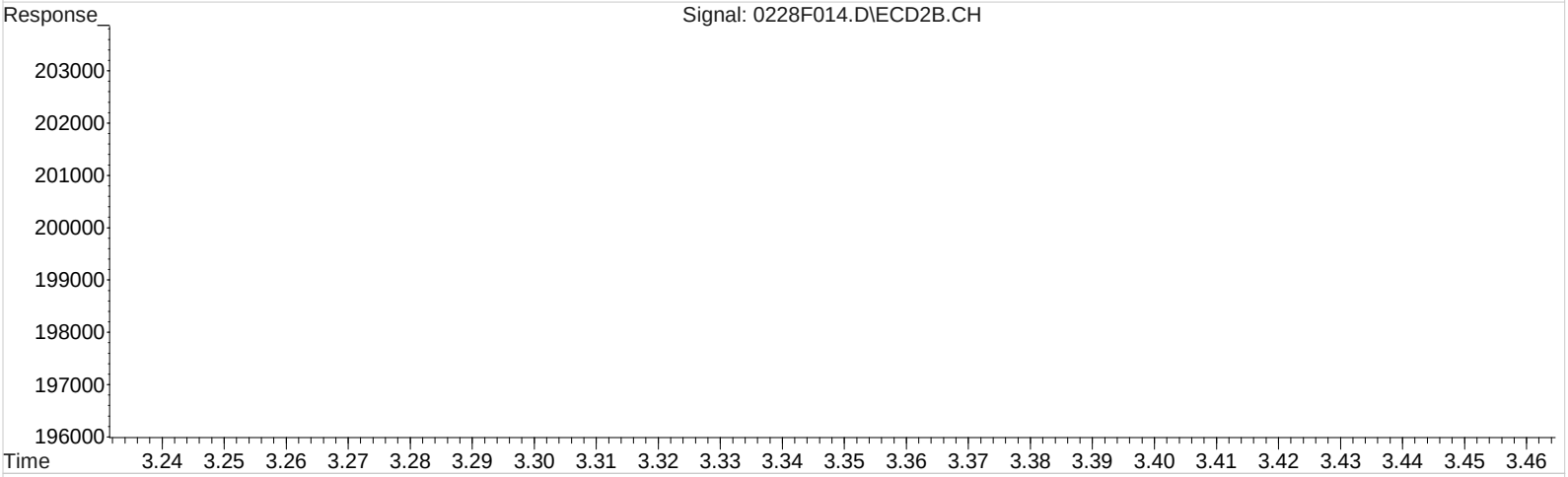
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 2.469 ug/L m

response 31638

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 2.693 ug/L

response 44372

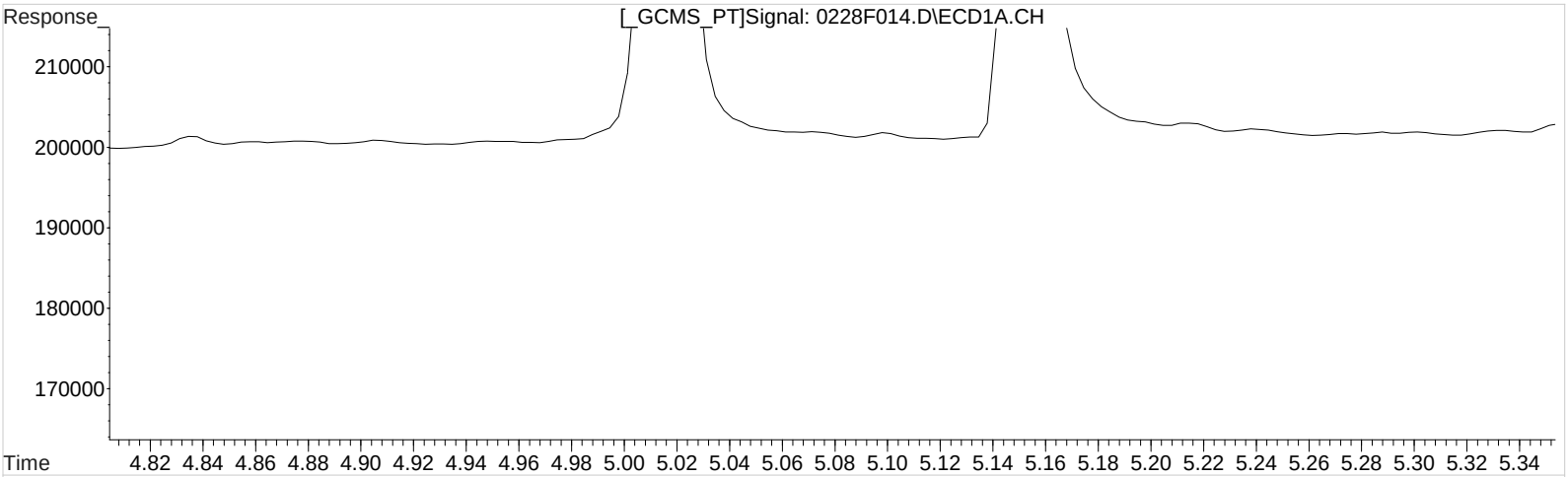
(+) = Expected Retention Time

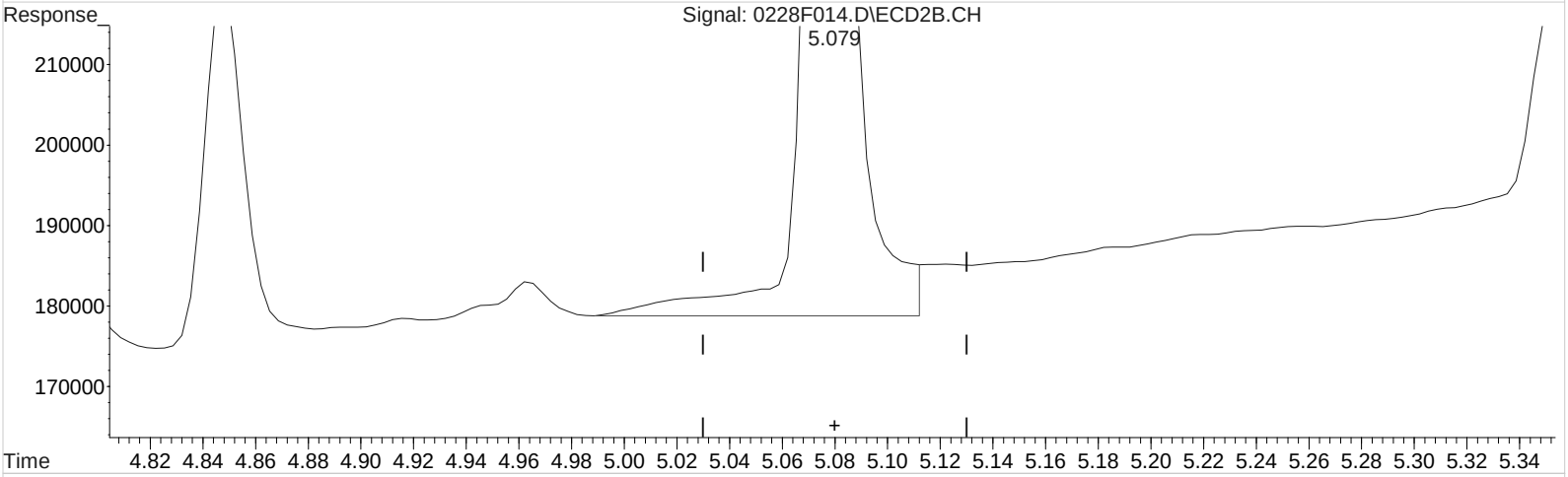
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 2.848 ug/L

response 1355696

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.079min 2.775 ug/L

response 1712944

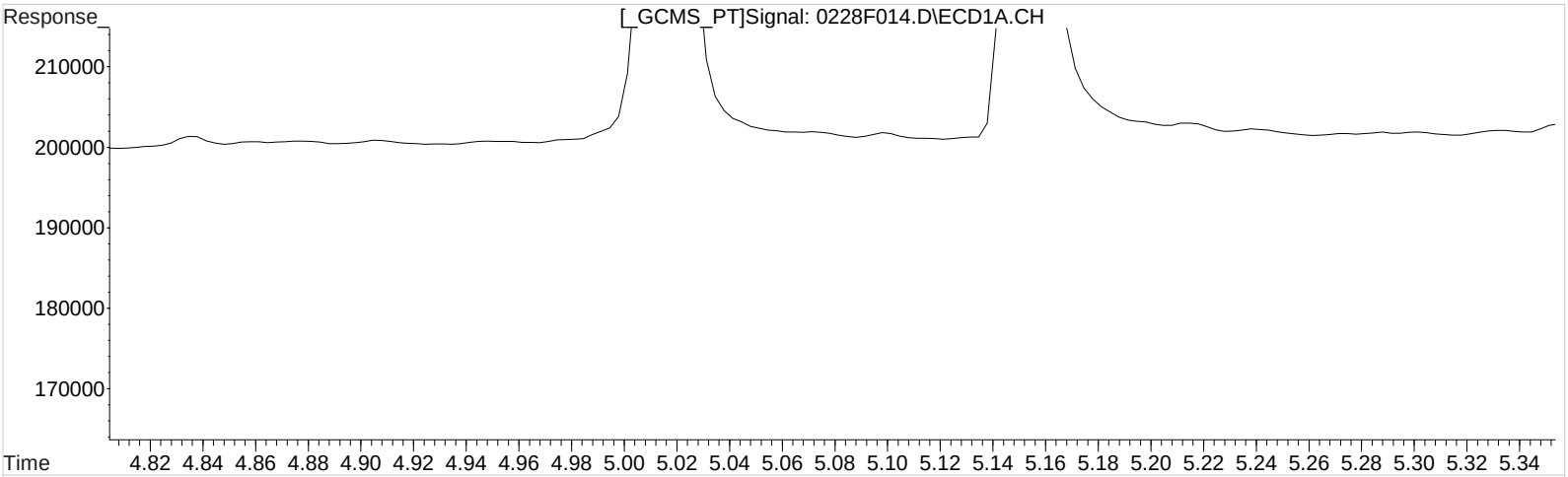
(+) = Expected Retention Time

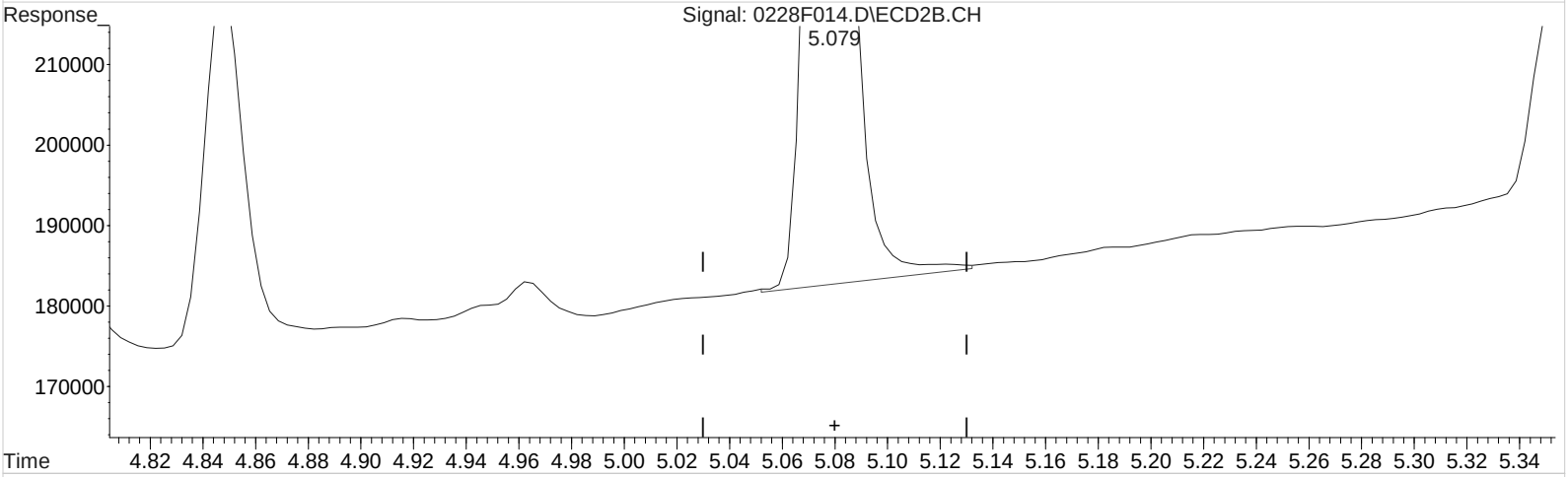
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 2.848 ug/L

response 1355696

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.079min 2.436 ug/L m

response 1503718

(+) = Expected Retention Time

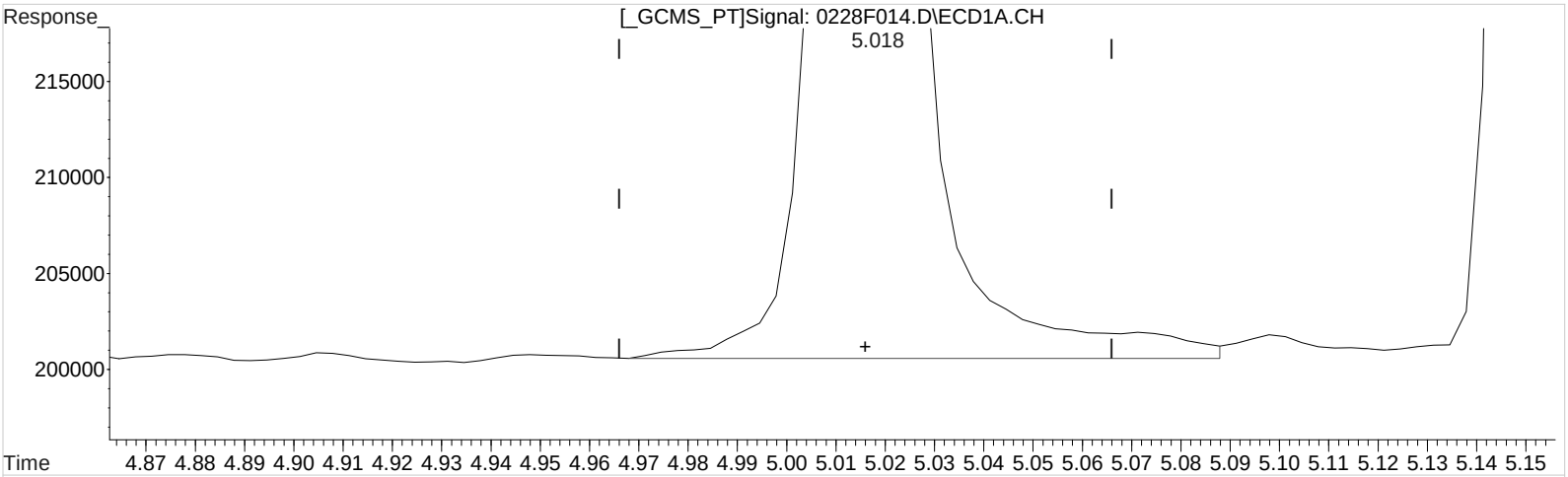
Quantitation Report (Qedit)

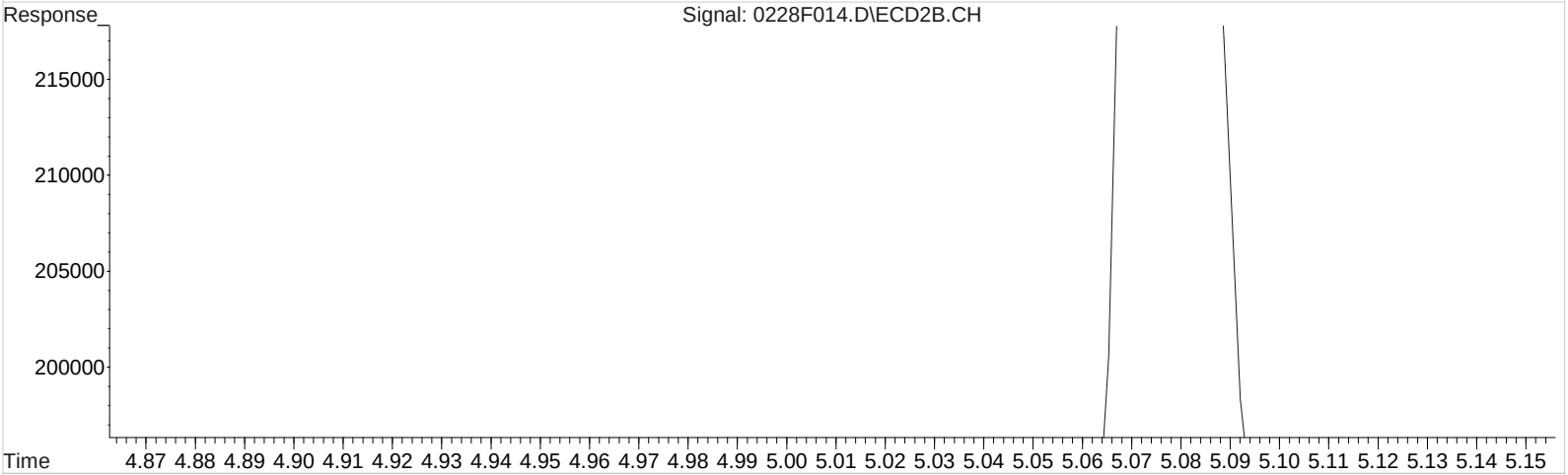
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.018min 2.609 ug/L

response 1164930

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.472min 2.701 ug/L

response 1115328

(+) = Expected Retention Time

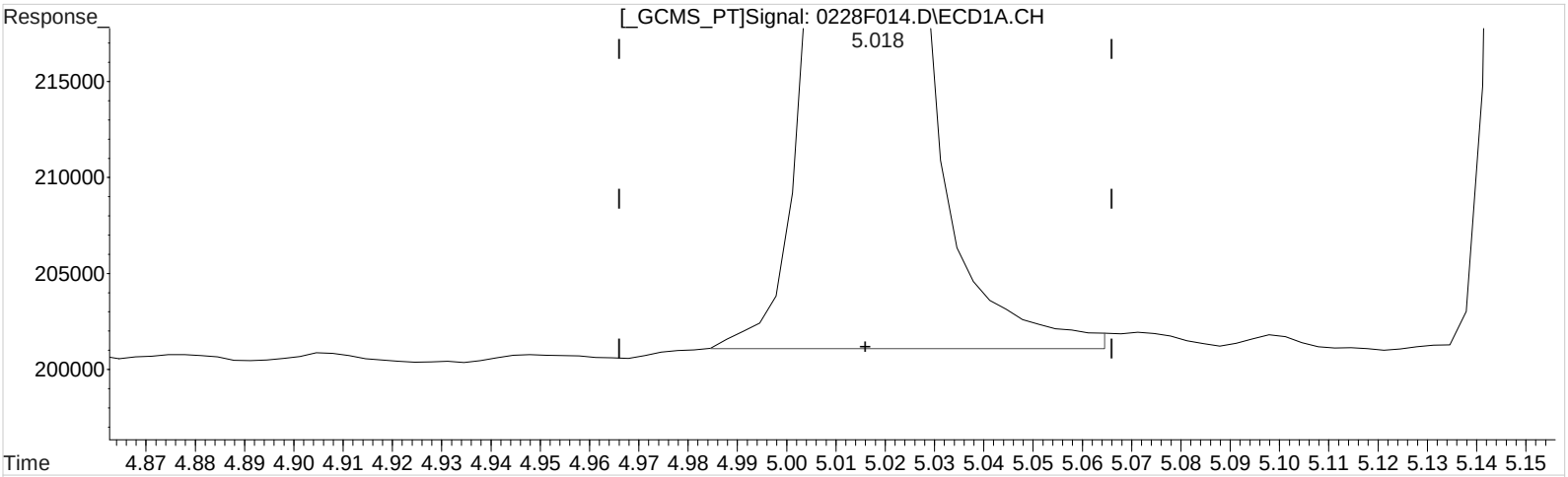
Quantitation Report (Qedit)

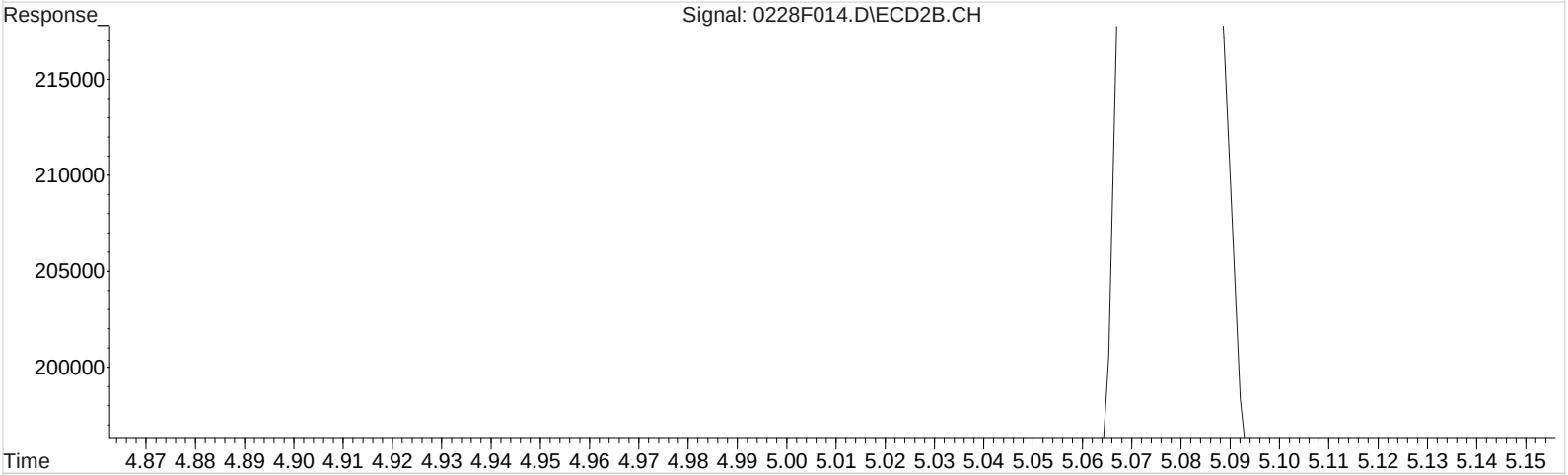
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.018min 2.467 ug/L m

response 1121382

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.472min 2.701 ug/L

response 1115328

(+) = Expected Retention Time

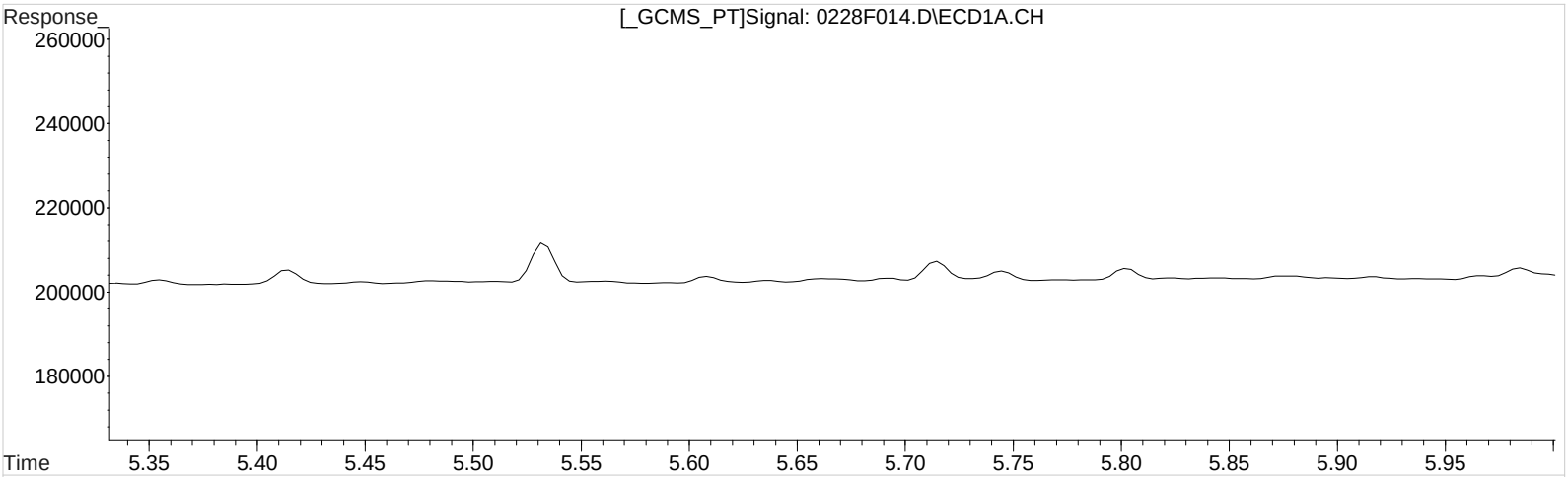
Quantitation Report (Qedit)

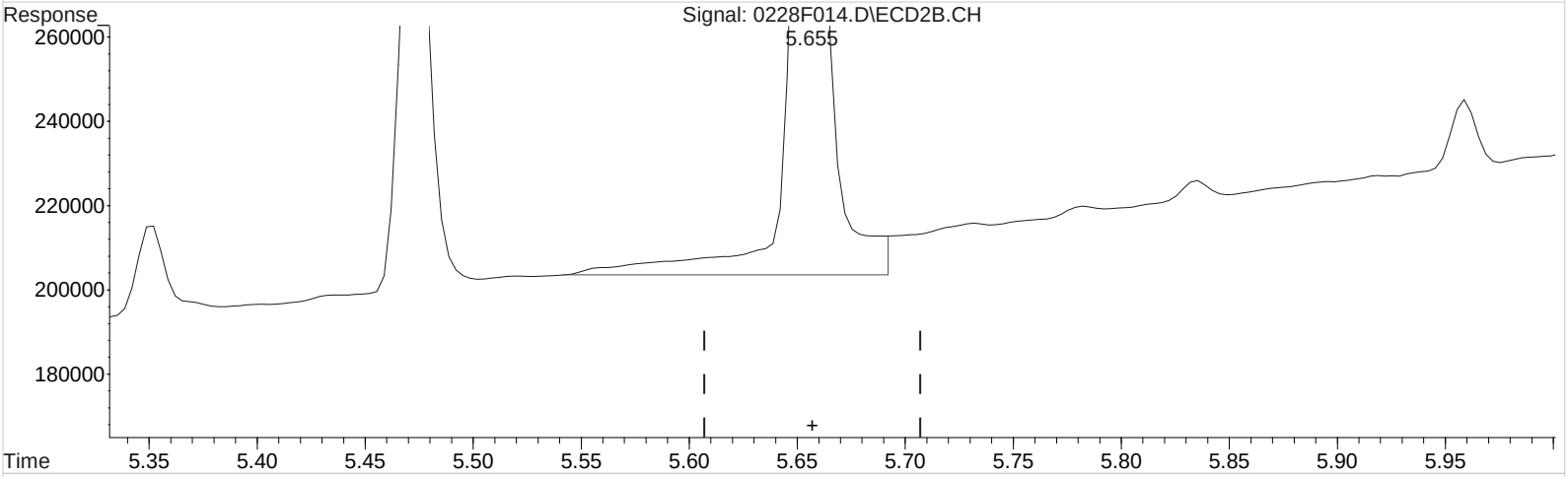
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.155min 2.401 ug/L

response 1532111

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.655min 3.194 ug/L

response 2196034

(+) = Expected Retention Time

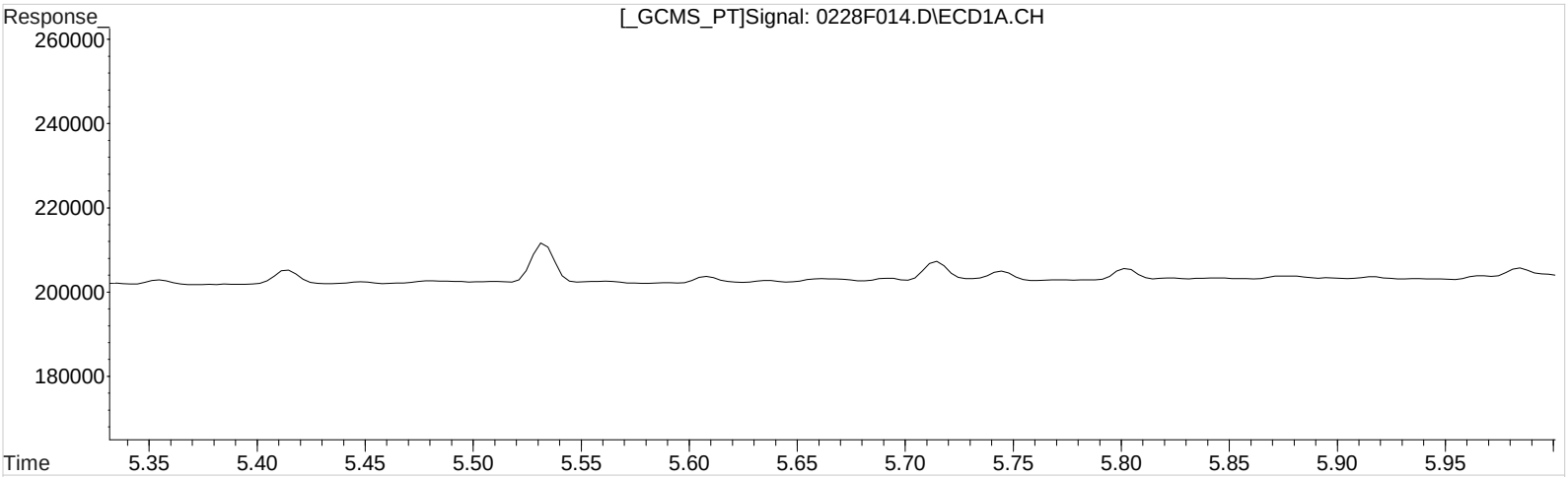
Quantitation Report (Qedit)

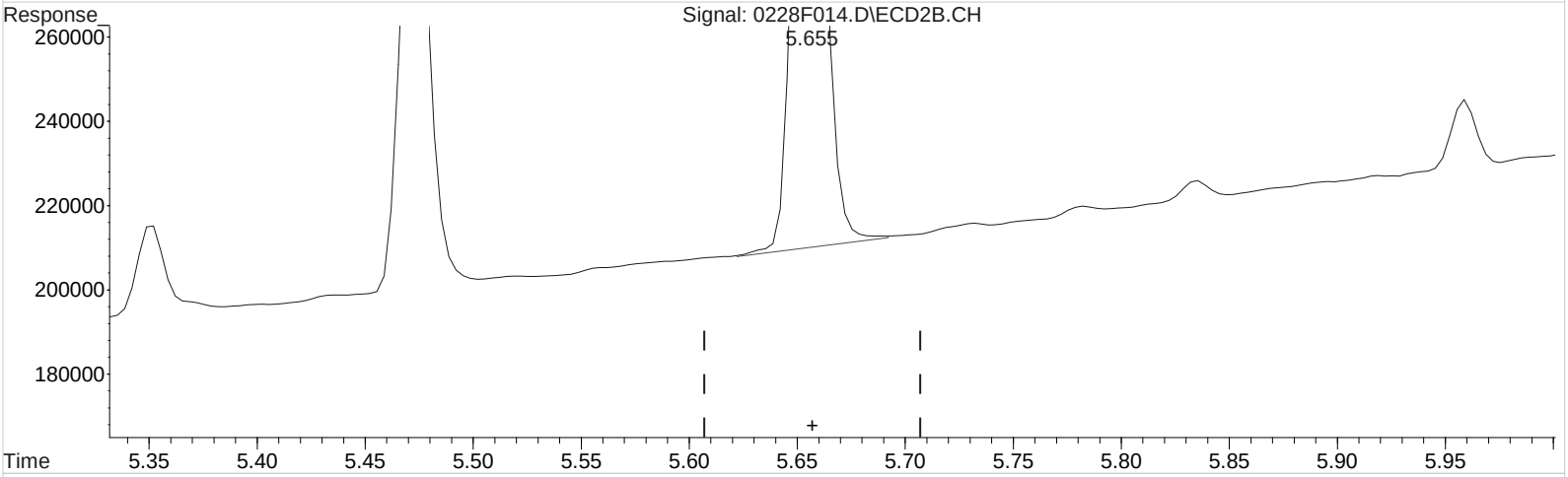
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.155min 2.401 ug/L

response 1532111

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.655min 2.598 ug/L m

response 1786099

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 12:00 pm Operator: MC
Sample : PENTA01-95D ICV Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:59:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	3.139	3.833	771944	1008155	50.405	46.475
2)		3,5-Dichl...	3.379	4.090	576261	745111	54.814	48.925
3)		2,4,6-Tri...	3.479	4.290	14461186	19074371	47.208	46.729
5)		2,4,5-Tri...	4.202	4.783	6741744	8923551	49.950	50.676
6)		3,4,5-Tri...	4.232	4.846	7001162	8168830	49.502	48.393
7)	M	2,3,5,6-T...	4.479	5.076	21719554	28913168	50.742	47.890
8)	M	2,3,4,5-T...	5.019	5.473	15112649	19440727	50.125	46.743
9)	M	Pentachlo...	5.152	5.656	25413518	33232162	55.308	48.834
10)		Pentachlo...	5.152	5.656	25413518	33232162	58.215	51.424

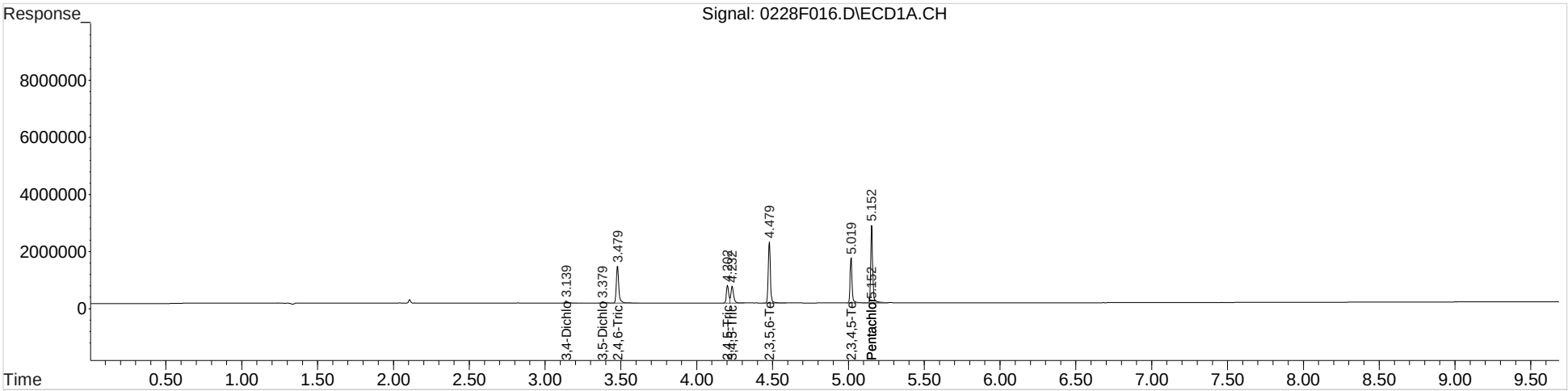
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 12:00 pm Operator: MC
Sample : PENTA01-95D ICV Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:59:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Sequence Name: C:\GC28\SEQUENCE\032119B.S
Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\032119B\
Pre-Seq Cmd:
Post-Seq Cmd:

Run 629161

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0321F001	PENTHOT2	PRIMER
2	IB	100	0321F002	PENTHOT2	PRIMER
3	CCV	1	0321F003	PENTHOT2	CCV 50PPB PENTA01-94L OK
4	IB	2	0321F004	PENTHOT2	IB
5	MB	3	0321F005	PENTHOT2	KQ1903604-04 MB
6	LCS	4	0321F006	PENTHOT2	KQ1903604-03 LCS
7	SMPL	5	0321F007	PENTHOT2	K1902351-021
8	SMPL	6	0321F008	PENTHOT2	K1902351-022
9	SMPL	7	0321F009	PENTHOT2	K1902351-023
10	SMPL	8	0321F010	PENTHOT2	K1902351-024
11	SMPL	9	0321F011	PENTHOT2	K1902351-025
12	SMPL	10	0321F012	PENTHOT2	K1902351-026
13	SMPL	11	0321F013	PENTHOT2	K1902351-027
14	SMPL	12	0321F014	PENTHOT2	K1902351-028
15	SMPL	13	0321F015	PENTHOT2	K1902351-029
16	SMPL	14	0321F016	PENTHOT2	K1902351-030
17	CCV	1	0321F017	PENTHOT2	CCV 50PPB PENTA01-94L OK
18	IB	2	0321F018	PENTHOT2	IB
19	SMPL	15	0321F019	PENTHOT2	K1902359-004 - See also 5x PCP
20	SMPL	16	0321F020	PENTHOT2	K1902361-001
21	SMPL	17	0321F021	PENTHOT2	K1902361-002
22	MS	18	0321F022	PENTHOT2	K1902361-002 MS
23	DMS	19	0321F023	PENTHOT2	K1902361-002 DMS
24	CCV	1	0321F024	PENTHOT2	CCV 50PPB PENTA01-94L OK
25	IB	2	0321F025	PENTHOT2	IB
26					

Last Modified: Thu Mar 21 16:18:39 2019

Sequence Name: J:\GC28\SEQUENCE\032219.S
Comment: Pentachlorophenol and Breakdown Products
Operator: SMS
Data Path: J:\GC28\DATA\032219\
Pre-Seq Cmd:
Post-Seq Cmd:

Run 629174

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0322F001	PENTHOT2	PRIMER
2	IB	100	0322F002	PENTHOT2	PRIMER
3	CCV	1	0322F003	PENTHOT2	CCV 50PPB PENTA01-94L
4	IB	2	0322F004	PENTHOT2	IB
5	MB	3	0322F005	PENTHOT2	K1902359-004 5X
6	CCV	1	0322F006	PENTHOT2	CCV 50PPB PENTA01-94L
7	IB	2	0322F007	PENTHOT2	IB

Last Modified: Fri Mar 22 08:35:55 2019

DILUTION LOG

LAB ID	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	DATE	ANALYST	SOLVENT LOT	COMMENTS
2359-4	200ul	1ml	5x	032219	[illegible]	180	PCP over range

Preparation Information Benchsheet

ID: 4/5

Prep Run#: 333285 **Prep WorkFlow:** OrgExtSimAq(7) **Status:** Prepped
Team: Semivoa GCMS/JDUNFIELD **Prep Method:** EPA 3511 **Prep Date/Time:** 3/20/19 12:39 PM
Number of Copies to make: 2

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1902351-002	MW-15	.02	8270D/PAH SIM	6	Water	450mL	2.00mL	
2	K1902351-003	MW-16	.02	8270D/PAH SIM	6	Water	450mL	2.00mL	
3	K1902351-004	MW-17	.02	8270D/PAH SIM	6	Water	450mL	2.00mL	
4	K1902351-014	MW-30	.02	8270D/PAH SIM	6	Water	450mL	4.00mL	
5	K1902351-019	MW-35	.02	8270D/PAH SIM	6	Water	450mL	4.00mL	
6	K1902351-020	MW-36	.02	8270D/PAH SIM	6	Water	450mL	4.00mL	
7	K1902351-021	MW-37	.02	8270D/PAH SIM	7	Water	450mL	2.00mL	
8	K1902351-027	MW-44	.02	8270D/PAH SIM	6	Water	450mL	2.00mL	
9	K1902351-028	FIELD BLANK RINSATE	.02	8270D/PAH SIM	6	Water	450mL	2.00mL	
10	K1902351-029	MW-3	.02	8270D/PAH SIM	7	Water	450mL	2.00mL	
11	K1902351-030	MW-2	.02	8270D/PAH SIM	7	Water	450mL	2.00mL	
12	K1902361-001	BXS-1	.03	8270D/PAH SIM	7	Water	450mL	2.00mL	
13	K1902361-002	BXS-2	.03	8270D/PAH SIM	7	Water	450mL	2.00mL	
14	KQ1903571-01	LCS	–	8270D/PAH SIM	5	Liquid	450mL	2.00mL	
15	KQ1903571-02	DLCS	–	8270D/PAH SIM	5	Liquid	450mL	2.00mL	
16	KQ1903571-03	MB	–	8270D/PAH SIM	5	Liquid	450mL	2.00mL	

Spiking Solutions

Name: 8270 ALL PURPOSE SURROGATE Inventory ID 189727 Logbook Ref: SVM60-15D Expires On: 06/21/2019

K1902351-002	20.00µL	K1902351-003	20.00µL	K1902351-004	20.00µL	K1902351-014	20.00µL	K1902351-019	20.00µL	K1902351-020	20.00µL
K1902351-021	20.00µL	K1902351-027	20.00µL	K1902351-028	20.00µL	K1902351-029	20.00µL	K1902351-030	20.00µL	K1902361-001	20.00µL
K1902361-002	20.00µL	KQ1903571-01	20.00µL	KQ1903571-02	20.00µL	KQ1903571-03	20.00µL				

Name: SIM PAH Matrix Spike Inventory ID 196650 Logbook Ref: SVM60-16M Expires On: 06/21/2019

K1902351-002	50.00µL	KQ1903571-01	50.00µL	KQ1903571-02	50.00µL

IS = SVM60-41D

Preparation Steps

Step:	Extraction	Step:	Final Volume
Started:	3/20/19 12:39	Started:	3/21/19 10:00
Finished:	3/20/19 13:09	Finished:	3/21/19 10:00
By:	JDUNFIELD	By:	JDUNFIELD
Comments		Comments	

Preparation Information Benchsheet

Prep Run#: 333285
Team: Semivoa GCMS/JDUNFIELD

Prep WorkFlow: OrgExtSimAq(7)
Prep Method: EPA 3511

Status: Prepped
Prep Date/Time: 3/20/19 12:39 PM

Comments: _____

Reviewed By: CWilliams Date: 3/25/19

Chain of Custody

Relinquished By: _____ Date: 3.21.19

Received By: _____ Date: 3/26/19

Extracts Examined
(Yes) No

Preparation Information Benchsheet

Prep Run#: 333285 **Prep WorkFlow:** OrgExtSimAq(7) **Status:** Draft
Team: Semivoa GCMS/JDUNFIELD **Prep Method:** EPA 3511 **Prep Date/Time:** 3/20/19 09:14 AM
Number of Copies to make: 2

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. mL	pH	Int. Vol mL	Final Vol mL	Surr Amt µL	Spike Amt µL
1	**K1902351-002**	MW-15	.02		8270D / PAH SIM	Water	450	6	N/A	2	20	–
2	**K1902351-003**	MW-16	.02		8270D / PAH SIM	Water	450	6		2		–
3	**K1902351-004**	MW-17	.02		8270D / PAH SIM	Water	450	6		2		–
4	**K1902351-014**	MW-30	.02		8270D / PAH SIM	Water	450	6		4		–
5	**K1902351-019**	MW-35	.02		8270D / PAH SIM	Water	450	6		4		–
6	**K1902351-020**	MW-36	.02		8270D / PAH SIM	Water	450	6		4		–
7	**K1902351-021**	MW-37	.02		8270D / PAH SIM	Water	450	7		2		–
8	**K1902351-027**	MW-44	.02		8270D / PAH SIM	Water	450	6		2		–
9	**K1902351-028**	FIELD BLANK RINSATE	.02		8270D / PAH SIM	Water	450	6		2		–
10	**K1902351-029**	MW-3	.02		8270D / PAH SIM	Water	450	7		2		–
11	**K1902351-030**	MW-2	.02		8270D / PAH SIM	Water	450	7		2		–
12	**K1902361-001**	BXS-1	.03		8270D / PAH SIM	Water	450	7		2		–
13	**K1902361-002**	BXS-2	.03		8270D / PAH SIM	Water	450	7		2		–
14	**KQ1903571-01**	LCS			8270D / PAH SIM	Liquid	450	5		2		50
15	**KQ1903571-02**	DLCS			8270D / PAH SIM	Liquid	450	5		2		–
16	**KQ1903571-03**	MB			8270D / PAH SIM	Liquid	450	5		2		–

Comments: K1902351-2 some sample loss during shaker table sequence, Estimated 2 mL loss. JD 3/20/19
extract from sample 2351-19 was turned to a dark yellow color TA 3.20.19 Insufficient sample volume for MS/DMS. JD 3/25/19

Surrogate ID: 189,727-SVM60-15D 189,727-SVM60-15D 189,727-SVM60-15D 189,727-SVM60-15D 189
100/150 ppm xp 6/21/19 20 µL syringe

Spike ID: 189,727-SVM60-15D 196,650-SVM60-16M 189,727-SVM60-15D 196,650-SVM60-16M
25 ppm xp 6/21/19 50 µL syringe

Witnessed By: BWillard 3/20/19

Analyst: [signature] 3/20/19

Assisted By: BWillard

Pest/PCB/PAH by 3511

Service Request # K1902351; K1902361 **Work Group # Pest:** —
PCB: —
PAH: KQ1903571

Solvent Lot # 195734

Extraction Start (time/date/initial): 12:39 3/20/19 JD

Extraction Stop (time/date/initial): 13:09 3/20/19 JD

NaCL Lot# 0000197939

Sulfate Lot # 201611057S

Carbon Clean-up (Ext-Car)(time/date/initial): — Carbon Lot # —

1:1 DCM/Hexane Lot # —

Sulfuric Acid Clean-up (3665) (time/date/initial): — Acid Lot # —

Other Clean-up (type/time/date/initial) —

Lot# —

Pipette (5 mL) Lot # — Pipette (2 mL) Lot # 1641874

Pipette (1mL) 20717645

Pest Vial: — Vial Storage: —

PCB Vial: — Vial Storage: —

PAH Vial: Green Vial Storage: K-Tundra

Archived Extract Storage: none

Additional Comments: _____

Bench Sheet Review Check List
☑ Hold times met; if no, reason: _____
☑ Prep date, time, method, department, product code correct
☑ Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☑ Weights/Volumes and units correct on raw and final bench sheets
☑ Sample IDs have been checked - bottle numbers appended if required
☑ Names present for: started by, completed by, relinquished by, and witnessed by
☑ Extract storage recorded
☑ Additional prep sheet completely filled out (NA or line out blanks)
☑ All clean-ups have been noted on additional prep sheet

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F025.D\
Lab ID: K1902361-001
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 18:30:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F025.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 18:30:00	**Vial:**	8
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902361-001	**Raw Units:**	ng/mL

Bottle ID:	K1902361-001.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	K1902361
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		33437	200.00	NA
Chrysene-d12	10.17		64881	200.00	NA
Naphthalene-d8	4.79		69281	200.00	NA
Perylene-d12	13.39	-0.02	70688	200.00	NA
Phenanthrene-d10	7.60		62647	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		412560	1124.82	112	42 - 133	Y
Fluorene-d10	6.79		212670	918.03	92	42 - 131	Y
Terphenyl-d14	8.94		312940	1093.45	109	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		228	0.94	0.0042	J	Y
Acenaphthene	6.38		86	0.36	0.0016	J	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.17	+0.01	198	0.43	0.0019	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y
Fluorene	6.81	-0.01	118	0.39	0.0017	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F025.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 18:30:00	**Vial:**	8
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902361-001	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.81		693	1.78	0.0079	J	Y
Phenanthrene	7.62		545	1.37	0.0061	J	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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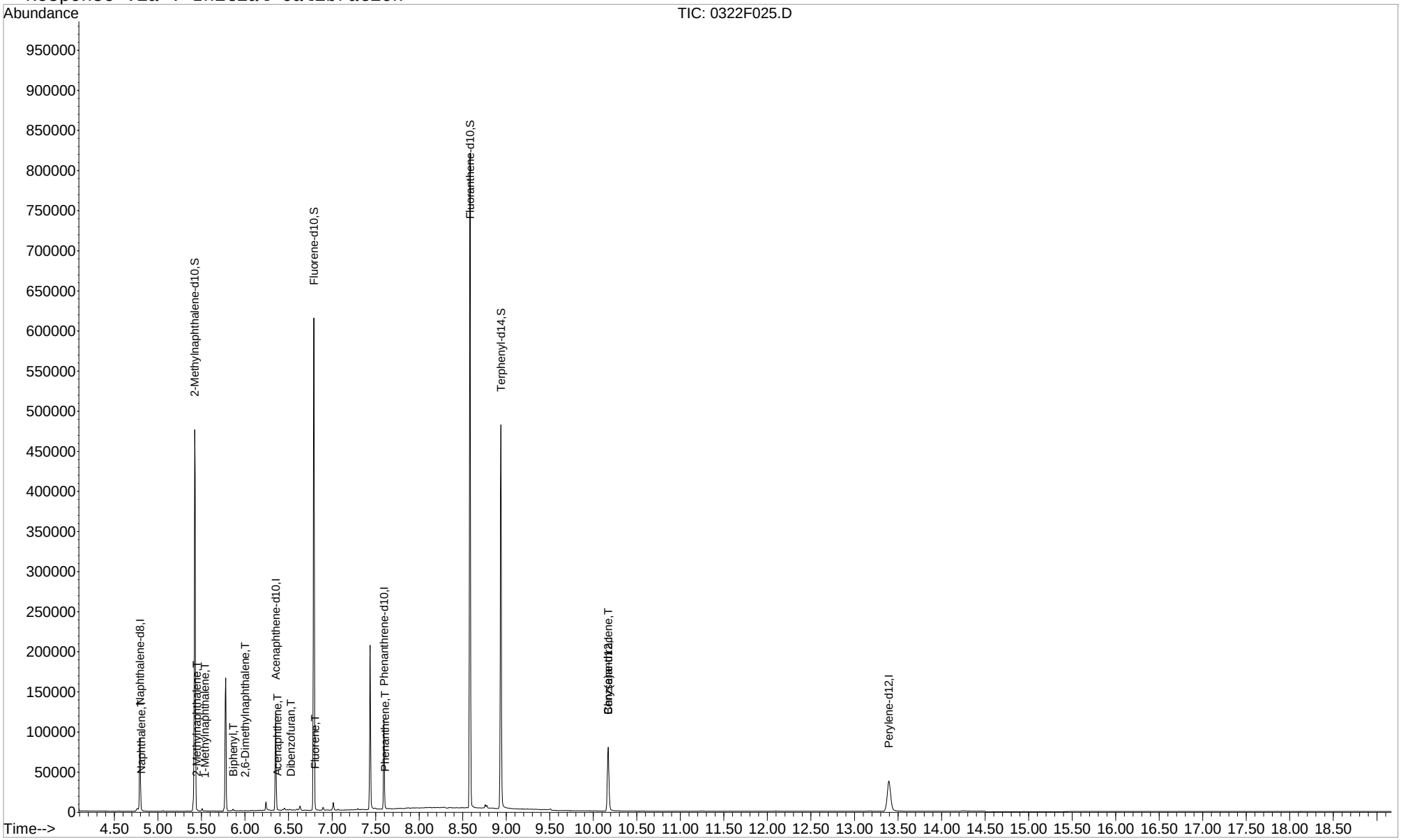
Quantitation Report (QT Reviewed)

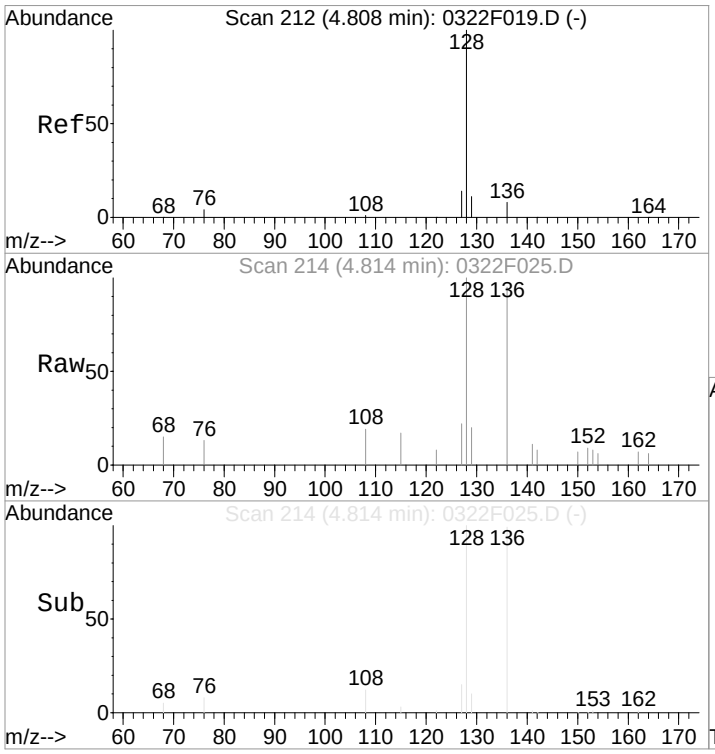
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F025.D Vial: 22
Acq On : 22 Mar 2019 6:30 pm Operator: LWeiskopf
Sample : K1902361-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:49 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



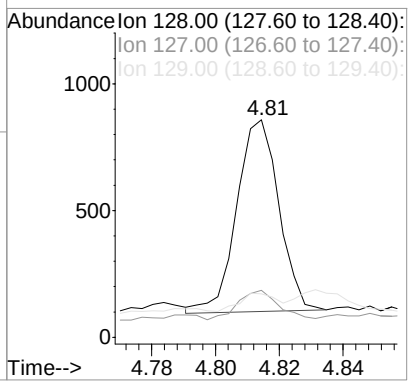
1st 03/25/19
2nd 03/26/19

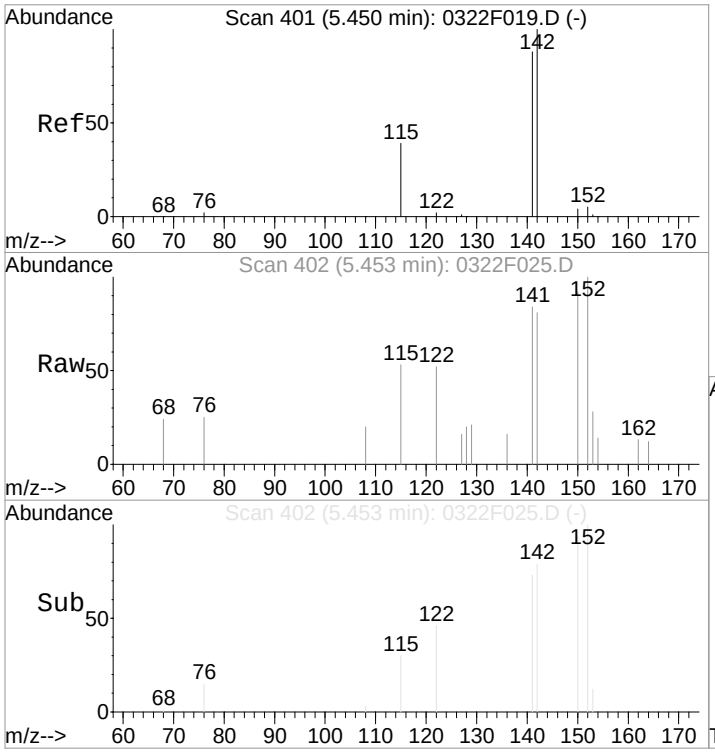


#2
Naphthalene
Concen: 1.78 ng/ml
RT: 4.81 min Scan# 214
Delta R.T. -0.02 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:128 Resp: 693

Ion	Ratio	Lower	Upper
128	100		
127	13.6	0.0	43.9
129	7.9	0.0	30.8

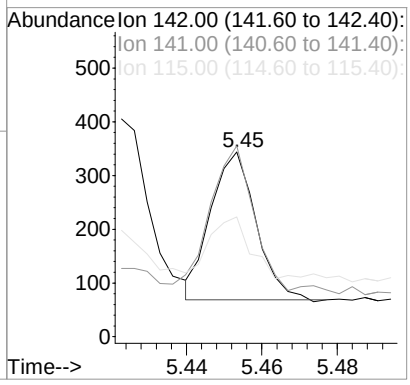




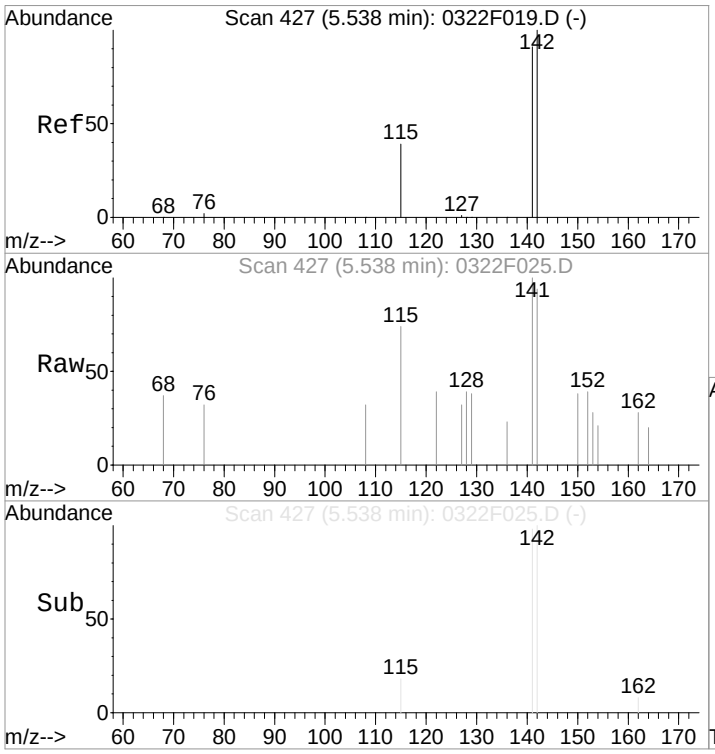
#4
2-Methylnaphthalene
Concen: 0.94 ng/ml
RT: 5.45 min Scan# 402
Delta R.T. -0.01 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:142 Resp: 228

Ion	Ratio	Lower	Upper
142	100		
141	97.5	57.4	117.4
115	41.1	21.9	61.9



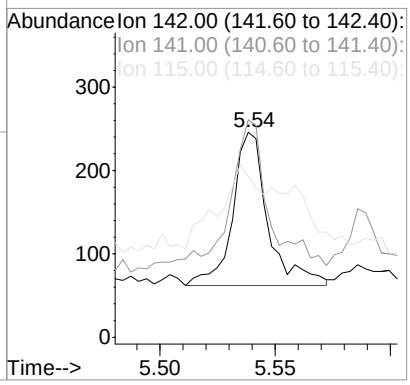
1st 03/25/19
2nd 03/26/19

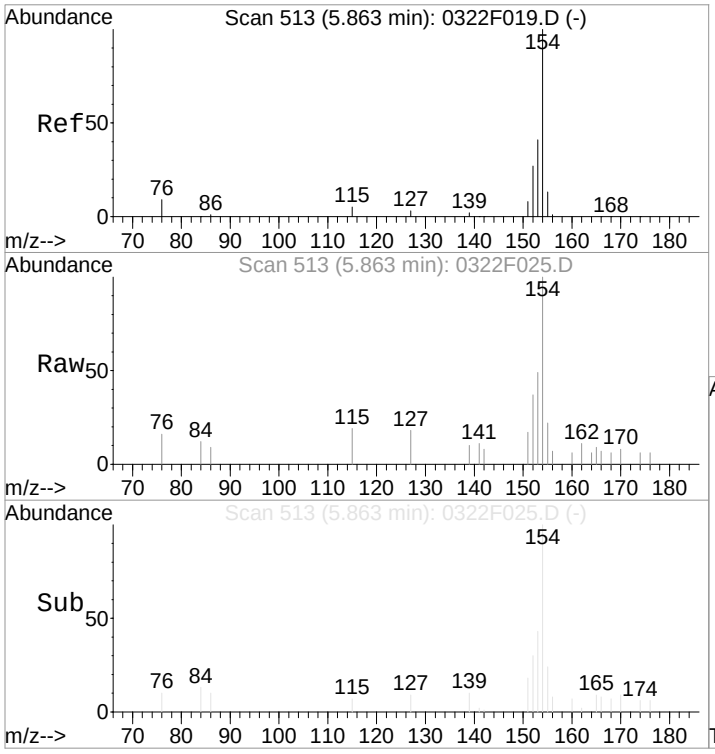


#5
1-Methylnaphthalene
Concen: 0.84 ng/ml
RT: 5.54 min Scan# 427
Delta R.T. -0.01 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:142 Resp: 196

Ion	Ratio	Lower	Upper
142	100		
141	95.1	61.0	121.0
115	47.3	26.2	66.2

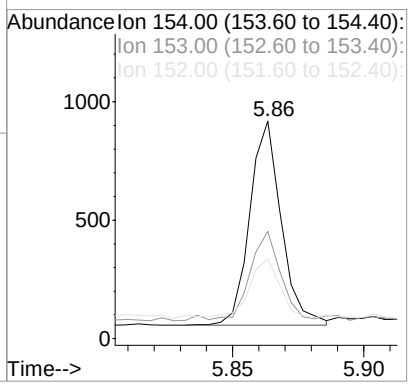




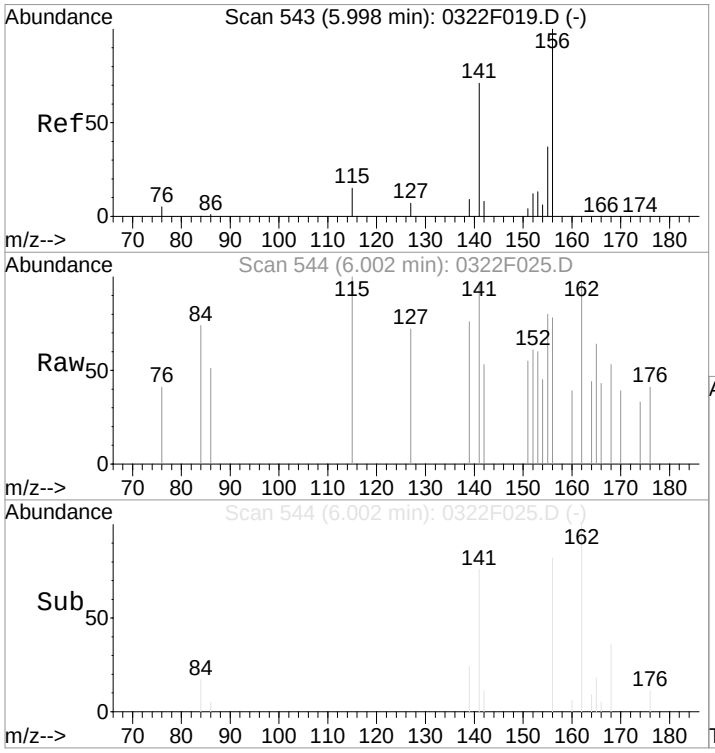
#6
Biphenyl
Concen: 2.28 ng/ml
RT: 5.86 min Scan# 513
Delta R.T. -0.01 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:154 Resp: 720

Ion	Ratio	Lower	Upper
154	100		
153	43.5	11.5	71.5
152	27.8	6.9	46.9



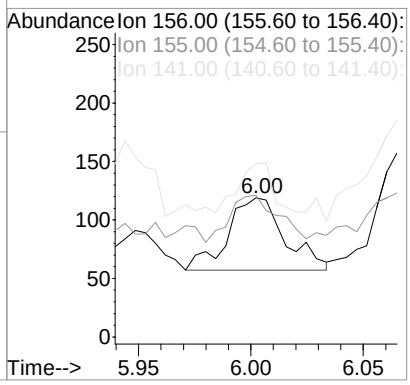
1st 03/25/19
2nd 03/26/19

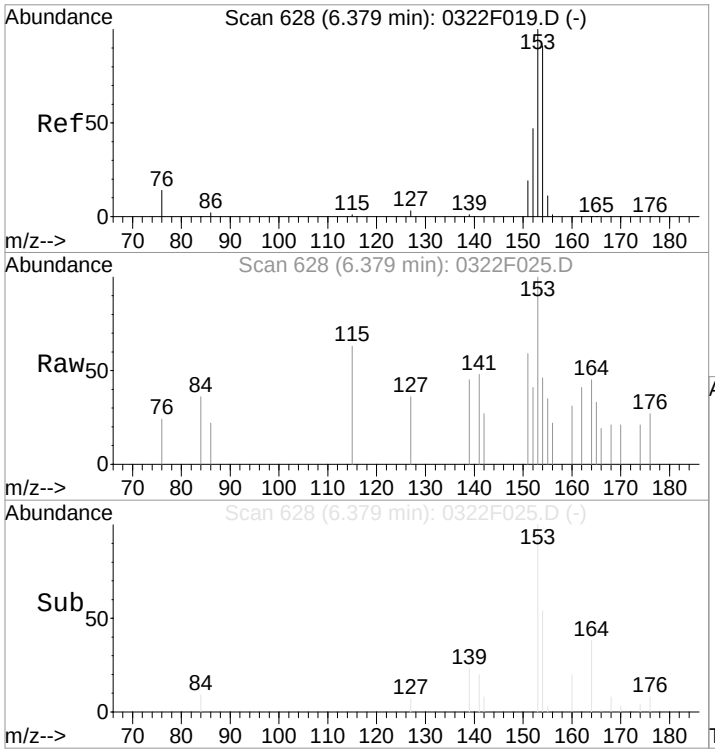


#7
2,6-Dimethylnaphthalene
Concen: 0.50 ng/ml
RT: 6.00 min Scan# 544
Delta R.T. -0.00 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:156 Resp: 110

Ion	Ratio	Lower	Upper
156	100		
155	54.8	7.6	67.6
141	79.0	60.6	100.6

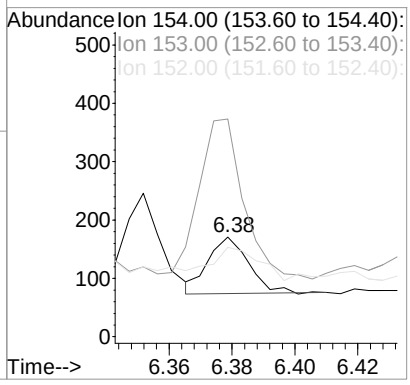




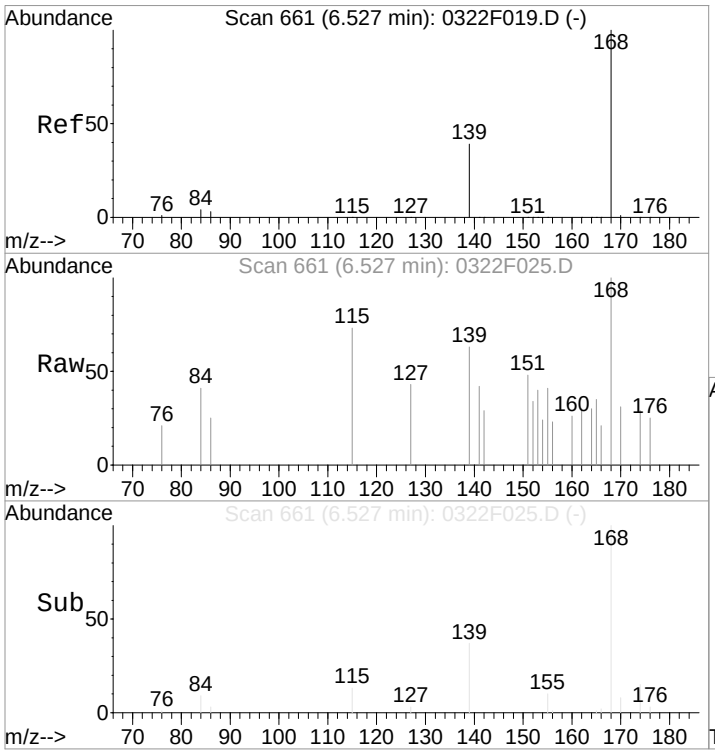
#10
Acenaphthene
Concen: 0.36 ng/ml
RT: 6.38 min Scan# 628
Delta R.T. -0.01 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:154 Resp: 86

Ion	Ratio	Lower	Upper
154	100		
153	277.9	77.6	137.6#
152	51.6	19.9	79.9



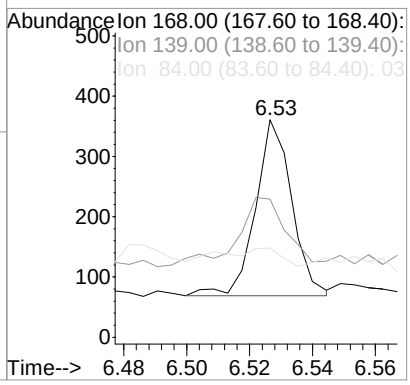
1st 03/25/19
2nd 03/26/19

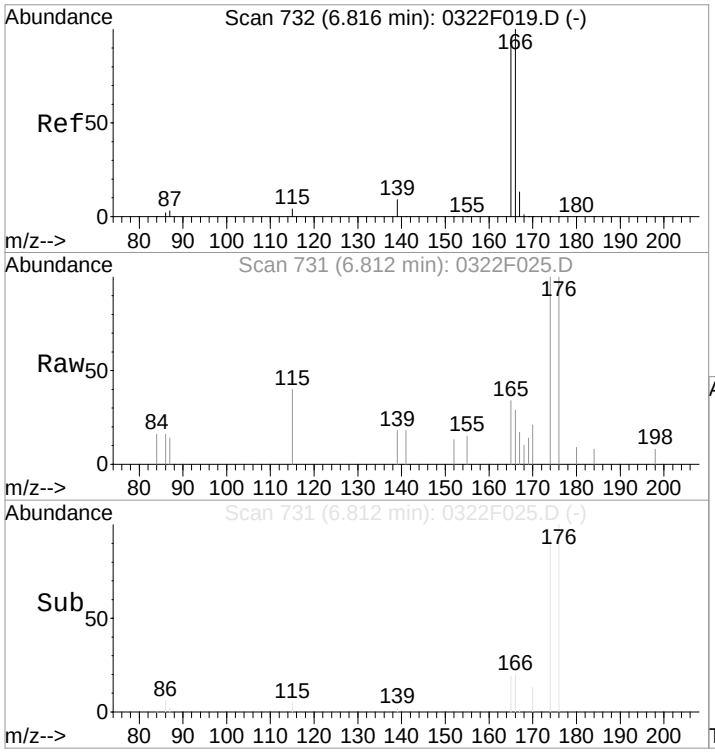


#11
Dibenzofuran
Concen: 0.61 ng/ml
RT: 6.53 min Scan# 661
Delta R.T. -0.01 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:168 Resp: 234

Ion	Ratio	Lower	Upper
168	100		
139	35.3	1.8	61.8
84	7.5	0.0	23.2

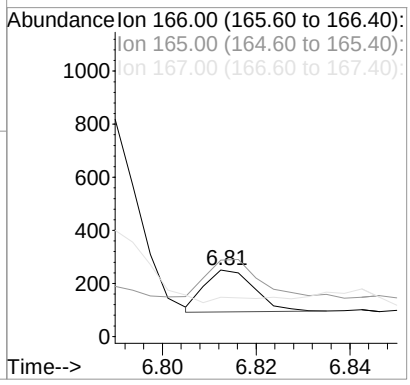




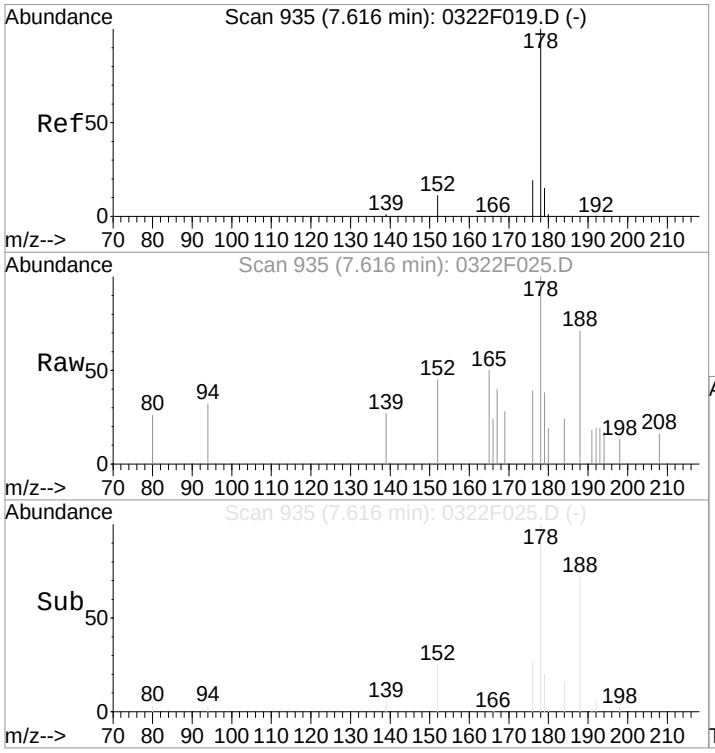
#14
Fluorene
Concen: 0.39 ng/ml
RT: 6.81 min Scan# 731
Delta R.T. -0.01 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:166 Resp: 118

Ion	Ratio	Lower	Upper
166	100		
165	88.4	65.3	125.3
167	0.0	0.0	33.1



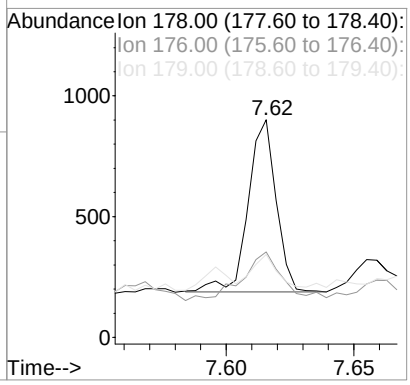
1st 03/25/19
2nd 03/26/19

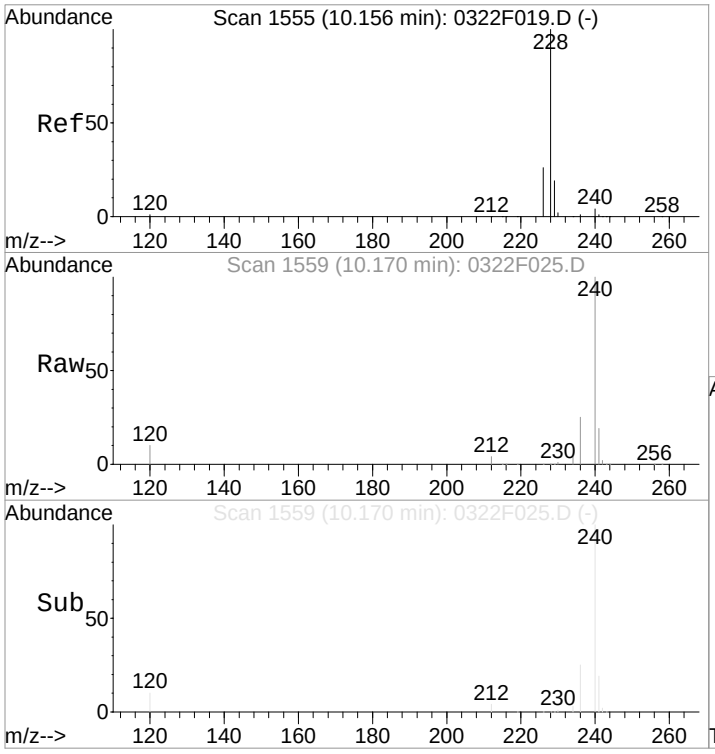


#17
Phenanthrene
Concen: 1.37 ng/ml
RT: 7.62 min Scan# 935
Delta R.T. -0.00 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:178 Resp: 545

Ion	Ratio	Lower	Upper
178	100		
176	28.2	0.0	48.6
179	20.8	0.0	35.2

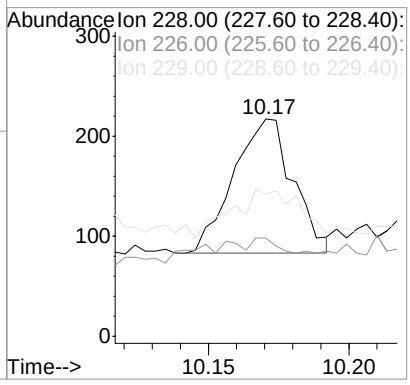




#26
Benz(a)anthracene
Concen: 0.43 ng/ml
RT: 10.17 min Scan# 1559
Delta R.T. -0.00 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:228 Resp: 198

Ion	Ratio	Lower	Upper
228	100		
226	9.7	0.0	56.6
229	29.1	0.0	39.5



1st 03/25/19
2nd 03/26/19

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\032219\0322F025.D Vial: 22
Acq On : 22 Mar 2019 6:30 pm Operator: LWeiskopf
Sample : K1902361-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:52 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	69281m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	33437	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	62647	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	64881	200.00	ng/ml	-0.01
28) Perylene-d12	13.39	264	70688	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	155156	794.21	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	79.42%		
13) Fluorene-d10	6.79	176	212670	918.03	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	91.80%		
22) Fluoranthene-d10	8.58	212	412560	1124.82	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	112.48%		
25) Terphenyl-d14	8.94	244	312940	1093.45	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	109.35%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	693	1.78	ng/ml	96
4) 2-Methylnaphthalene	5.45	142	228	0.94	ng/ml	92
5) 1-Methylnaphthalene	5.54	142	196	0.84	ng/ml	97
6) Biphenyl	5.86	154	720	2.28	ng/ml	97
7) 2,6-Dimethylnaphthalene	6.00	156	110	0.50	ng/ml	90
10) Acenaphthene	6.38	154	86	0.36	ng/ml#	1
11) Dibenzofuran	6.53	168	234	0.61	ng/ml	93
14) Fluorene	6.81	166	118	0.39	ng/ml	90
17) Phenanthrene	7.62	178	545	1.37	ng/ml	82
26) Benz(a)anthracene	10.17	228	198	0.43	ng/ml	72

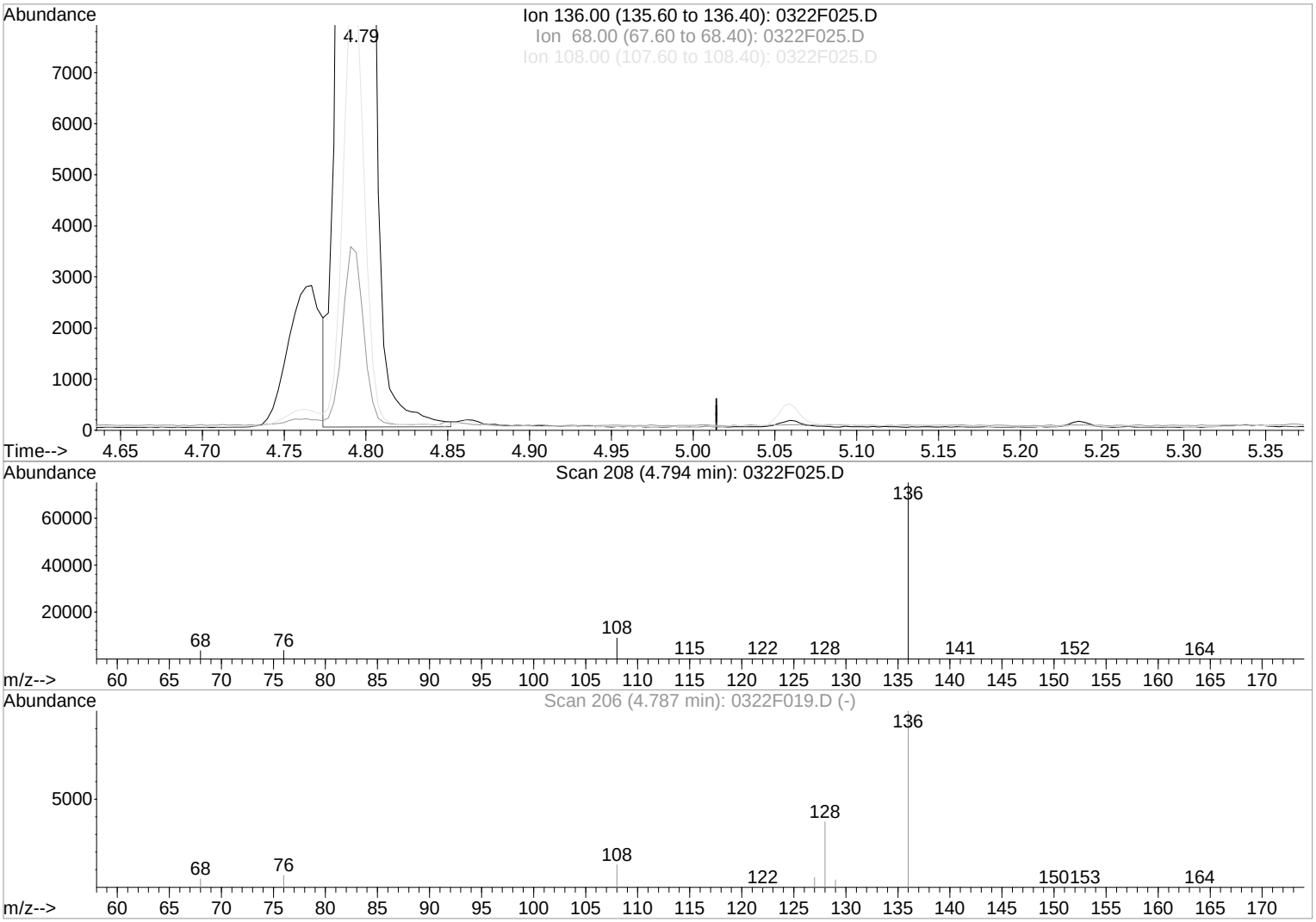
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F025.D Vial: 22
Acq On : 22 Mar 2019 6:30 pm Operator: LWeiskopf
Sample : K1902361-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F025.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 65248

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.42
108.00	13.60	11.67
0.00	0.00	0.00

Manual Integration:

Before

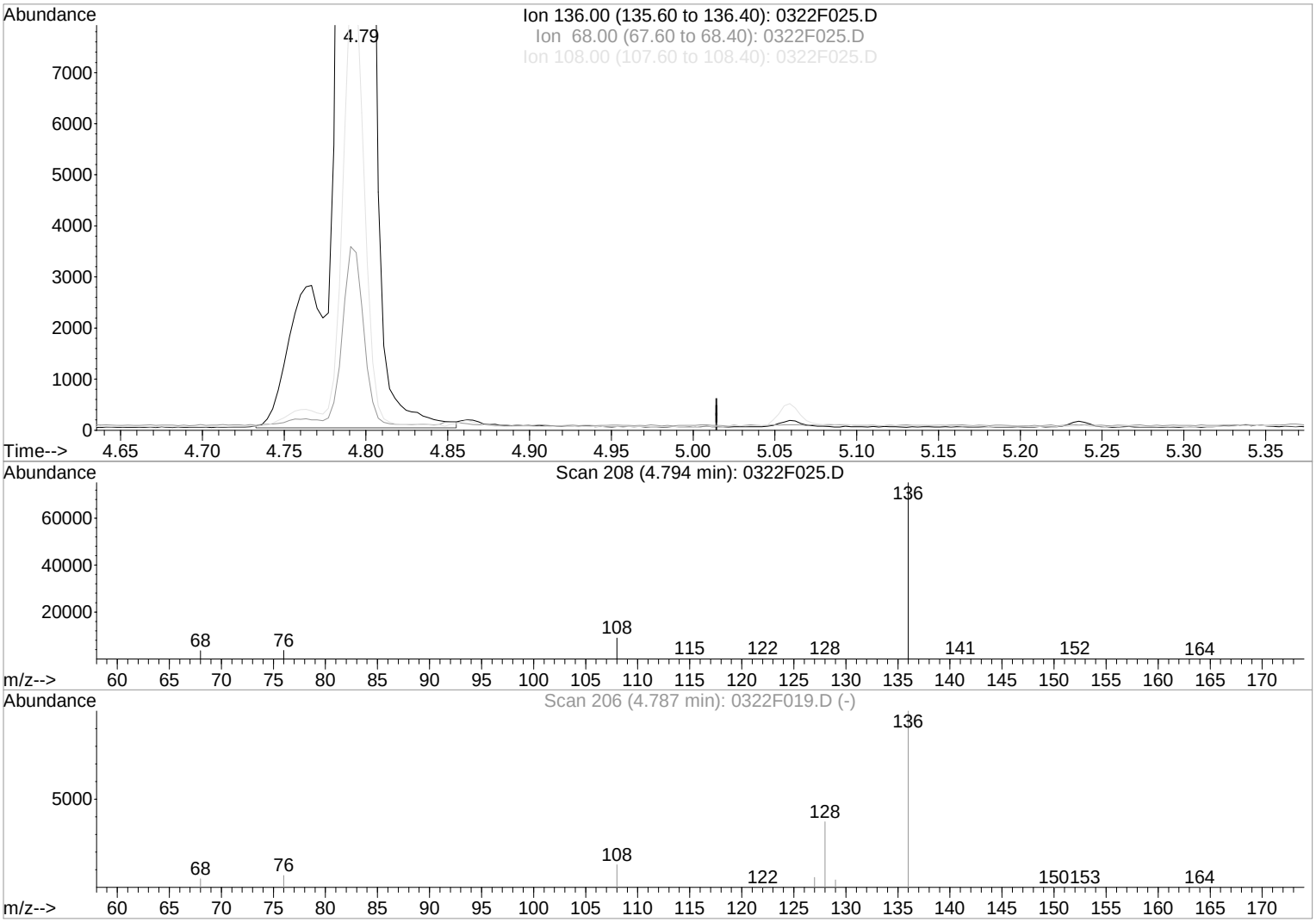
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F025.D Vial: 22
Acq On : 22 Mar 2019 6:30 pm Operator: LWeiskopf
Sample : K1902361-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:48 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F025.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 69281

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.62
108.00	13.60	11.79
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F024.D\
Lab ID: K1902361-002
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 17:58:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F024.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 17:58:00	**Vial:**	7
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902361-002	**Raw Units:**	ng/mL

Bottle ID:	K1902361-002.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	K1902361
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		32877	200.00	NA
Chrysene-d12	10.17		65615	200.00	NA
Naphthalene-d8	4.79		67862	200.00	NA
Perylene-d12	13.40	-0.01	72653	200.00	NA
Phenanthrene-d10	7.60		63261	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		435273	1175.23	118	42 - 133	Y
Fluorene-d10	6.79		217104	953.14	95	42 - 131	Y
Terphenyl-d14	8.94		340423	1176.18	118	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		468	1.96	0.0087	J	Y
Acenaphthene	6.38		95	0.41	0.0018	J	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.17	+0.01	241	0.51	0.0023	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y
Fluorene	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F024.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 17:58:00	**Vial:**	7
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902361-002	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.81		1247	3.27	0.015	J	Y
Phenanthrene	7.62		404	1.00	0.0044	J	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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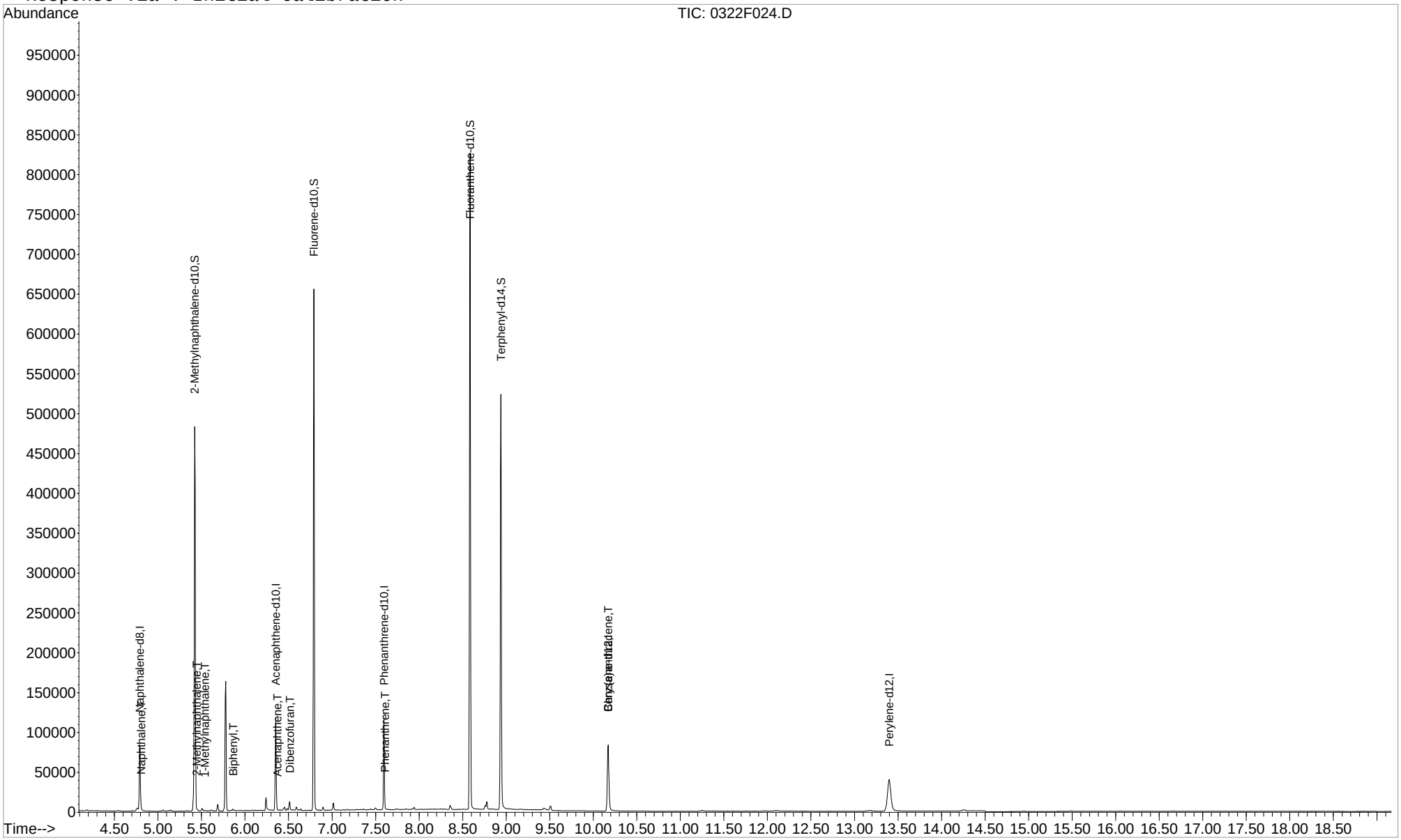
Quantitation Report (QT Reviewed)

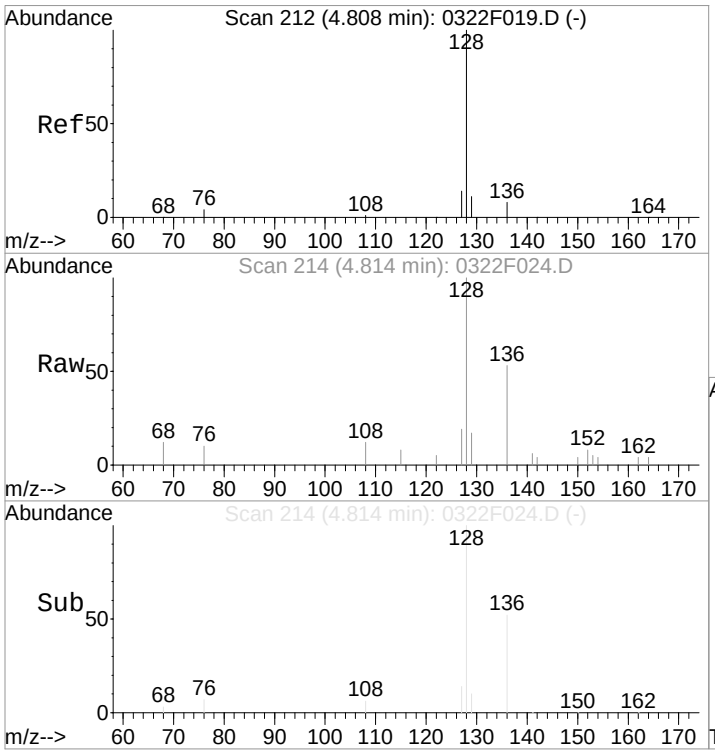
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F024.D Vial: 21
Acq On : 22 Mar 2019 5:58 pm Operator: LWeiskopf
Sample : K1902361-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:48 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



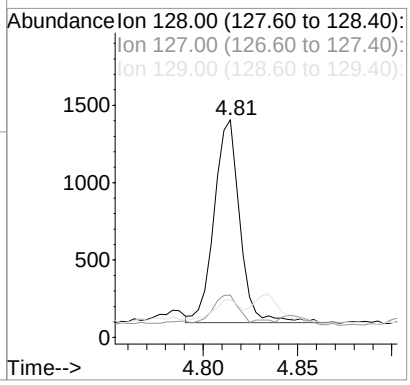
1st 03/25/19
2nd 03/26/19

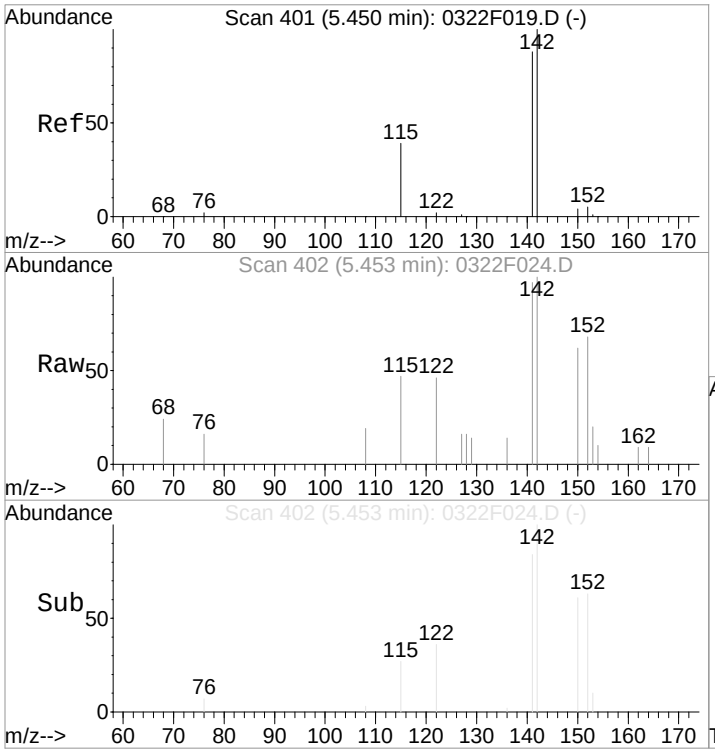


#2
Naphthalene
Concen: 3.27 ng/ml
RT: 4.81 min Scan# 214
Delta R.T. -0.02 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:128 Resp: 1247

Ion	Ratio	Lower	Upper
128	100		
127	14.6	0.0	43.9
129	11.1	0.0	30.8

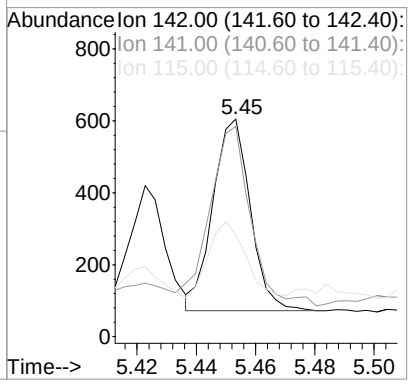




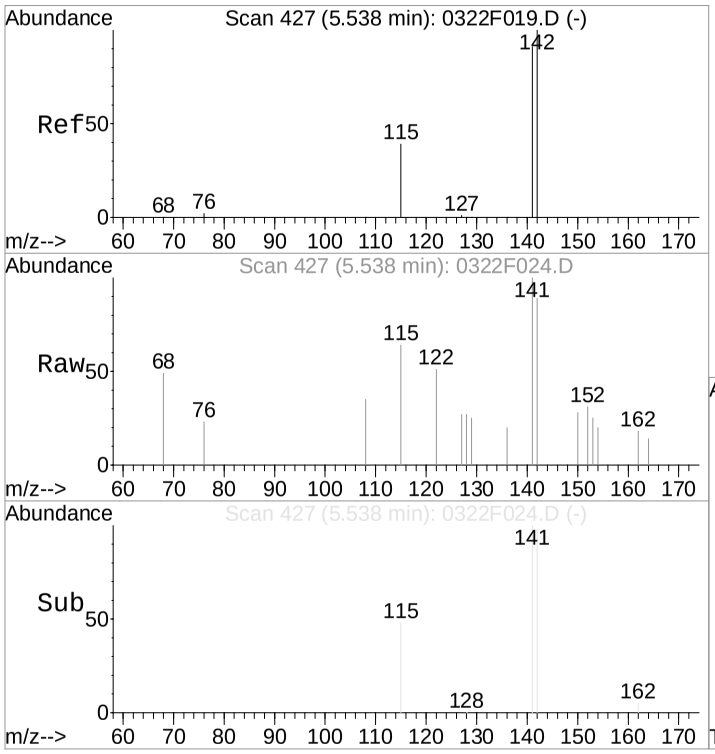
#4
2-Methylnaphthalene
Concen: 1.96 ng/ml
RT: 5.45 min Scan# 402
Delta R.T. -0.01 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:142 Resp: 468

Ion	Ratio	Lower	Upper
142	100		
141	92.7	57.4	117.4
115	32.6	21.9	61.9



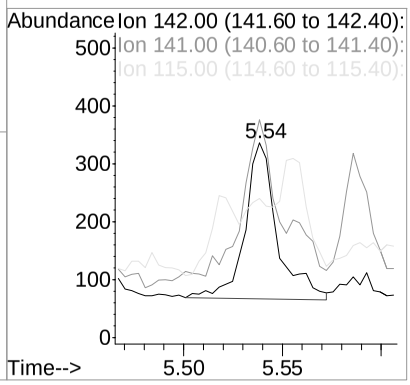
1st 03/25/19
2nd 03/26/19

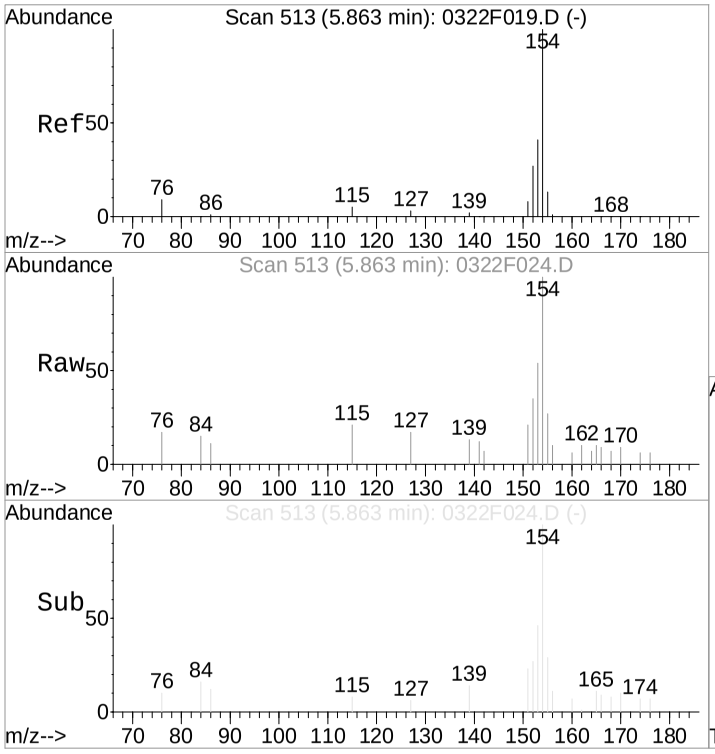


#5
1-Methylnaphthalene
Concen: 1.33 ng/ml
RT: 5.54 min Scan# 427
Delta R.T. -0.01 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:142 Resp: 305

Ion	Ratio	Lower	Upper
142	100		
141	98.1	61.0	121.0
115	49.8	26.2	66.2

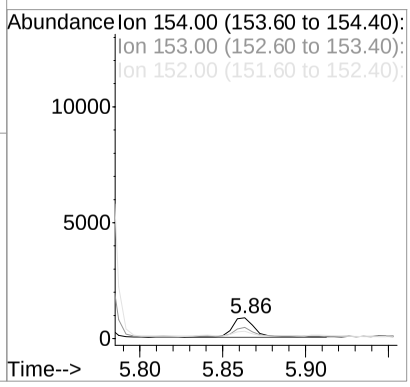




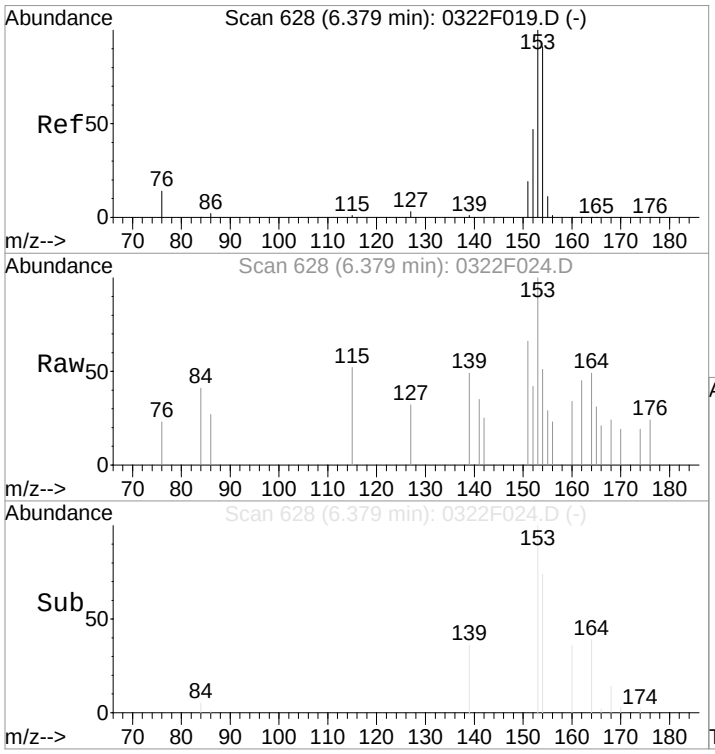
#6
Biphenyl
Concen: 2.62 ng/ml
RT: 5.86 min Scan# 513
Delta R.T. -0.01 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:154 Resp: 810

Ion	Ratio	Lower	Upper
154	100		
153	47.1	11.5	71.5
152	26.0	6.9	46.9



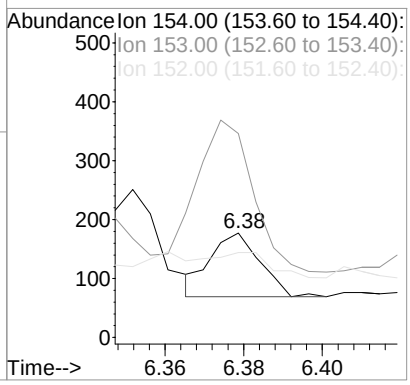
1st 03/25/19
2nd 03/26/19

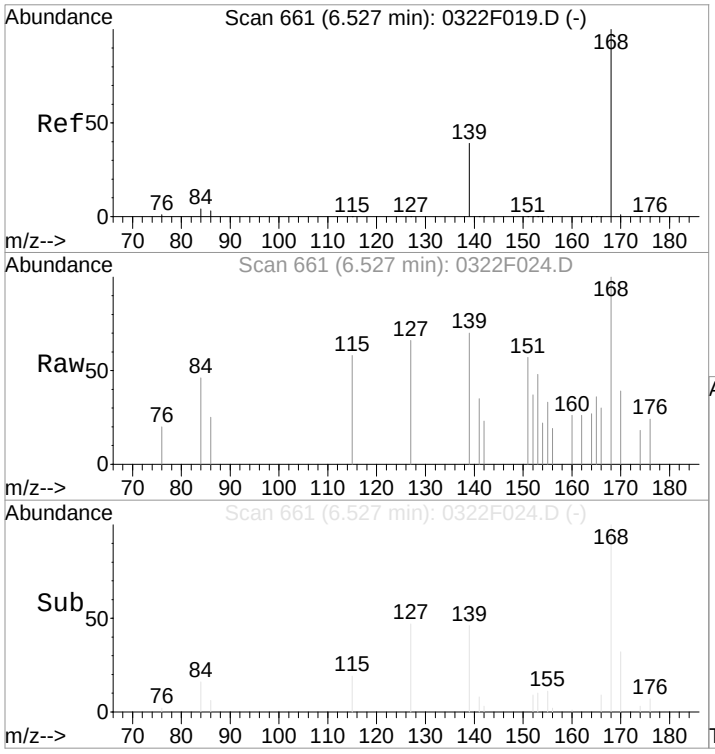


#10
Acenaphthene
Concen: 0.41 ng/ml
RT: 6.38 min Scan# 628
Delta R.T. -0.01 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:154 Resp: 95

Ion	Ratio	Lower	Upper
154	100		
153	217.6	77.6	137.6#
152	39.8	19.9	79.9

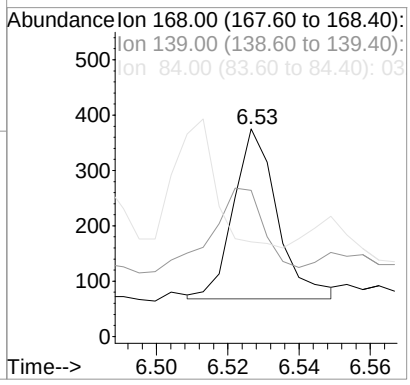




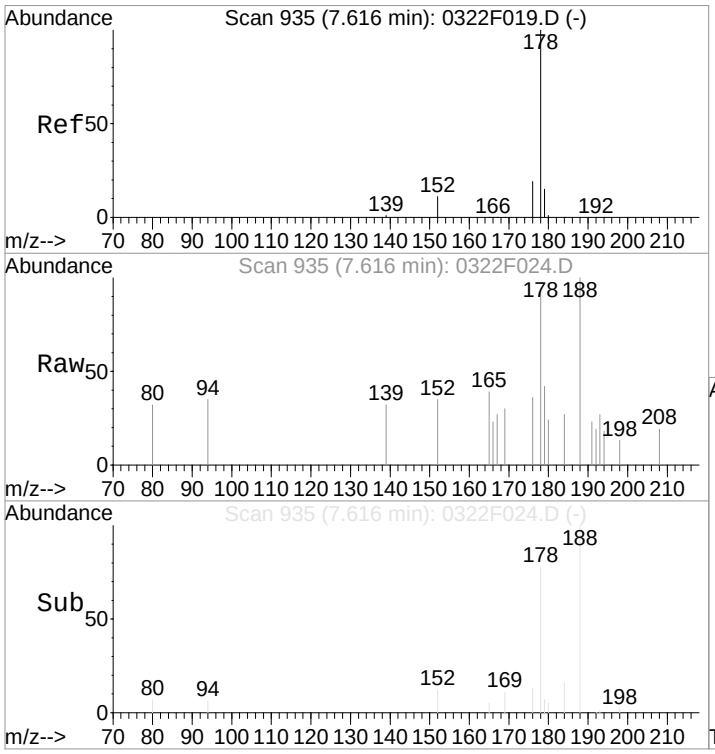
#11
Dibenzofuran
Concen: 0.70 ng/ml m
RT: 6.53 min Scan# 661
Delta R.T. -0.01 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:168 Resp: 264

Ion	Ratio	Lower	Upper
168	100		
139	70.4	1.8	61.8#
84	45.6	0.0	23.2#



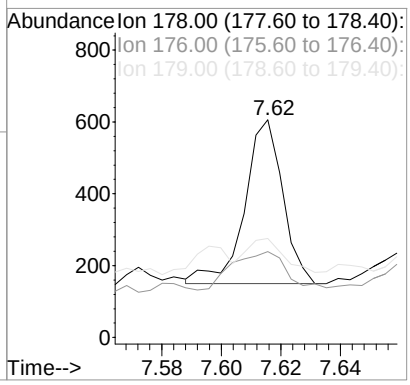
1st 03/25/19
2nd 03/26/19

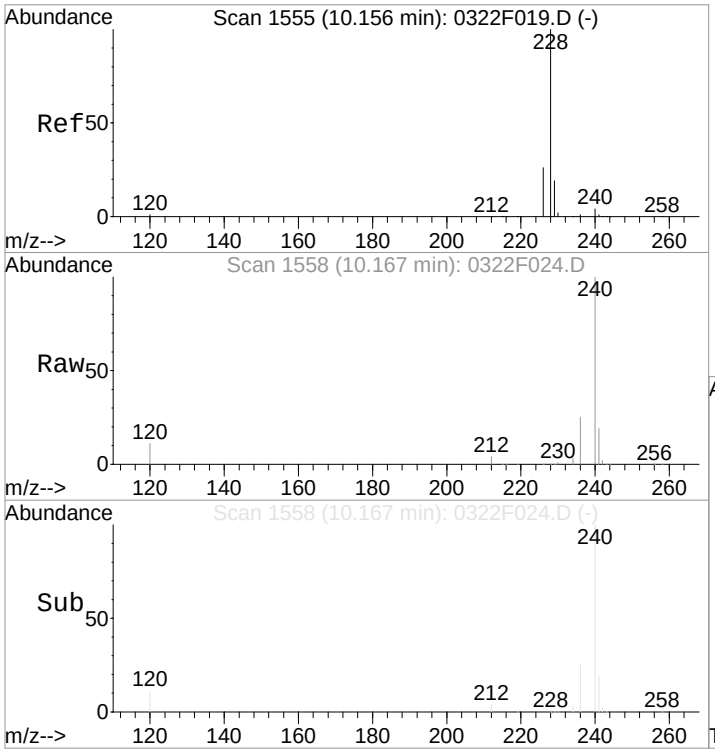


#17
Phenanthrene
Concen: 1.00 ng/ml
RT: 7.62 min Scan# 935
Delta R.T. -0.00 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:178 Resp: 404

Ion	Ratio	Lower	Upper
178	100		
176	22.1	0.0	48.6
179	20.4	0.0	35.2

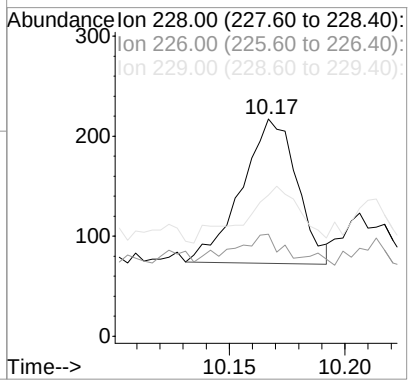




#26
Benz(a)anthracene
Concen: 0.51 ng/ml
RT: 10.17 min Scan# 1558
Delta R.T. -0.00 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:228 Resp: 241

Ion	Ratio	Lower	Upper
228	100		
226	17.5	0.0	56.6
229	32.2	0.0	39.5



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F024.D Vial: 21
Acq On : 22 Mar 2019 5:58 pm Operator: LWeiskopf
Sample : K1902361-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:50 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	67862m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	32877	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	63261	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	65615	200.00	ng/ml	-0.01
28) Perylene-d12	13.40	264	72653	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	159065	831.25	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	83.13%		
13) Fluorene-d10	6.79	176	217104	953.14	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	95.31%		
22) Fluoranthene-d10	8.58	212	435273	1175.23	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	117.52%		
25) Terphenyl-d14	8.94	244	340423	1176.18	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	117.62%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	1247	3.27	ng/ml	99
4) 2-Methylnaphthalene	5.45	142	468	1.96	ng/ml	91
5) 1-Methylnaphthalene	5.54	142	305	1.33	ng/ml	93
6) Biphenyl	5.86	154	810	2.62	ng/ml	94
10) Acenaphthene	6.38	154	95	0.41	ng/ml#	23
11) Dibenzofuran	6.53	168	264m	0.70	ng/ml	
17) Phenanthrene	7.62	178	404	1.00	ng/ml	90
26) Benz(a)anthracene	10.17	228	241	0.51	ng/ml	78

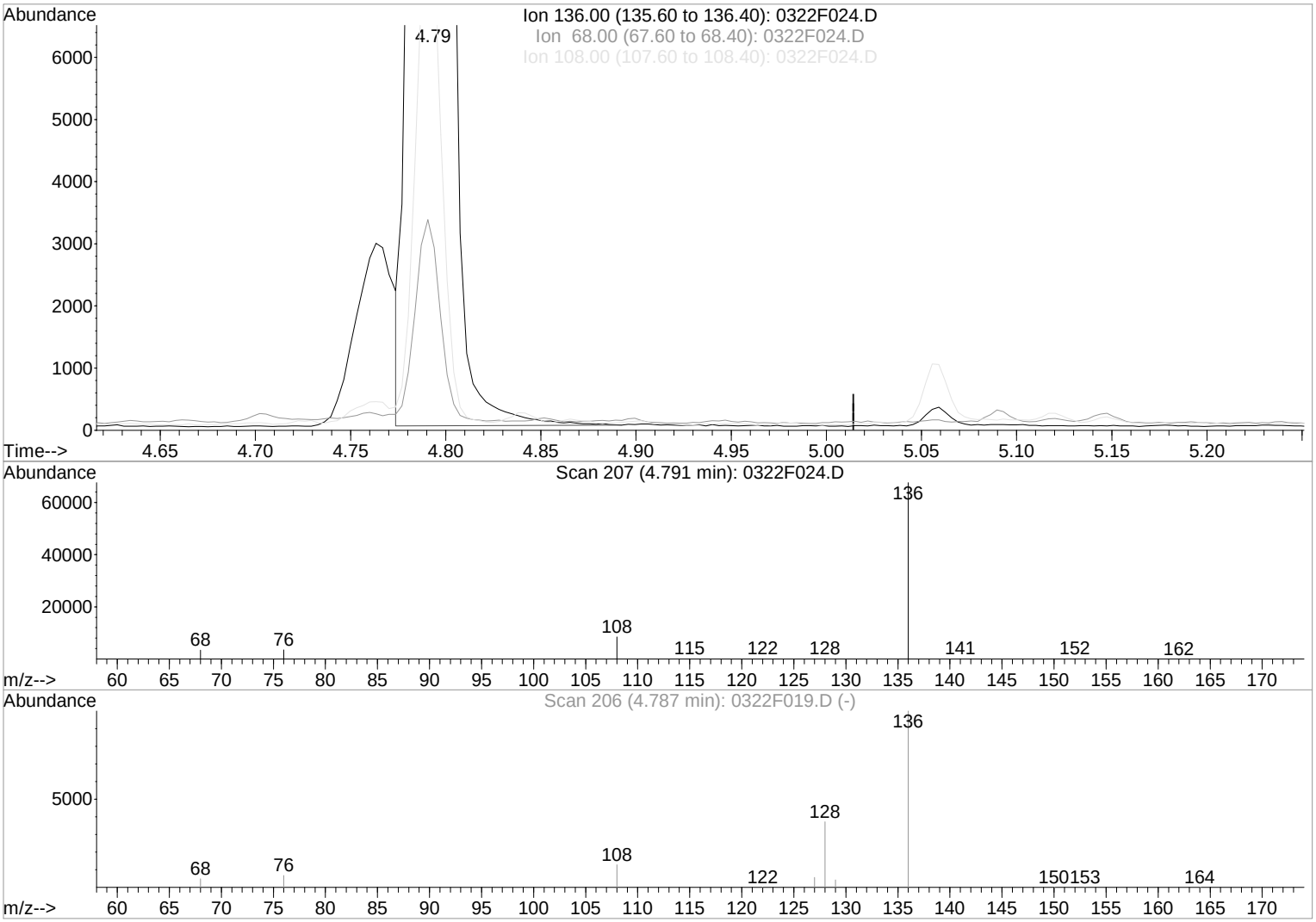
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F024.D Vial: 21
Acq On : 22 Mar 2019 5:58 pm Operator: LWeiskopf
Sample : K1902361-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F024.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 63431

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.78
108.00	13.60	12.36
0.00	0.00	0.00

Manual Integration:

Before

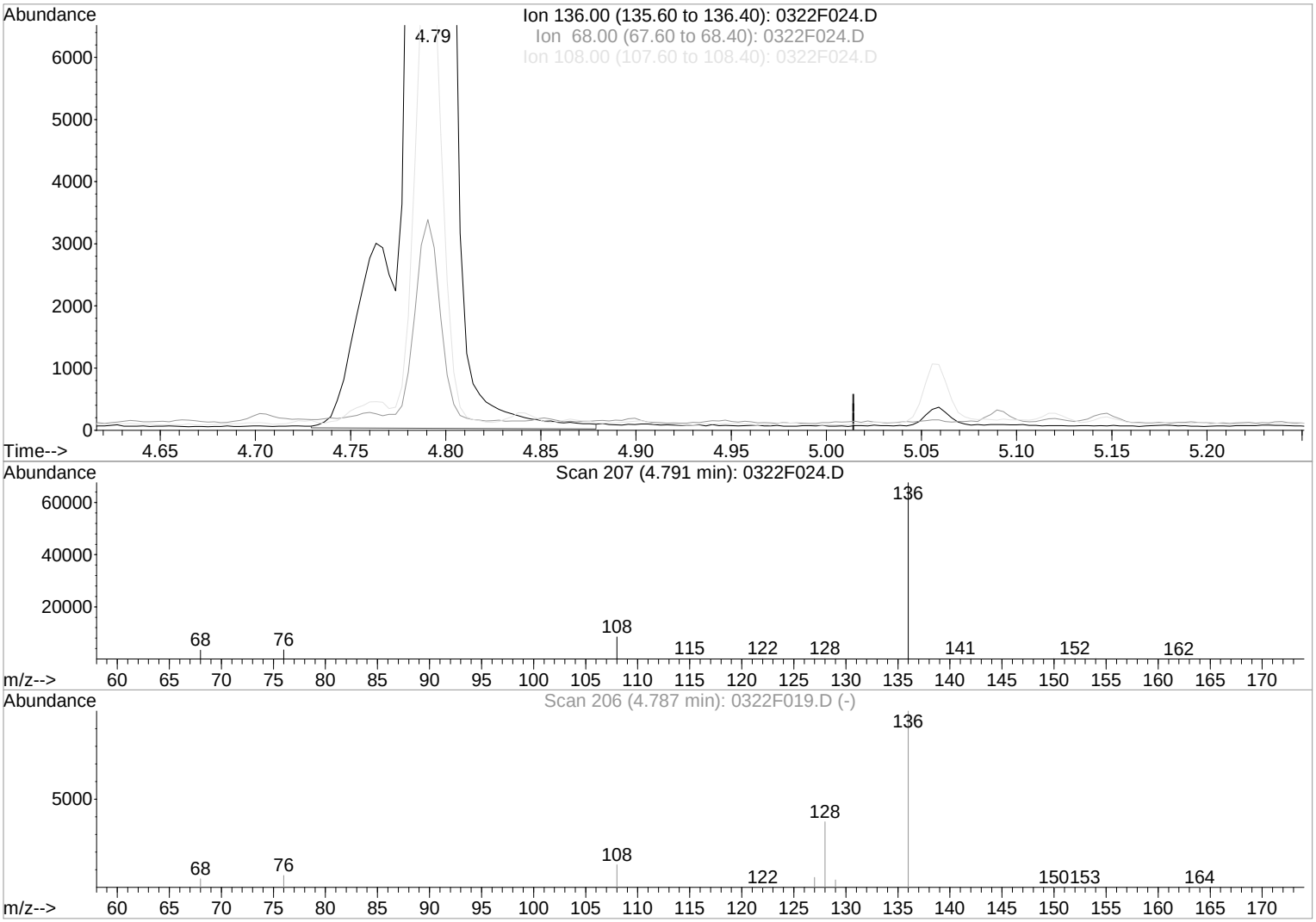
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F024.D Vial: 21
Acq On : 22 Mar 2019 5:58 pm Operator: LWeiskopf
Sample : K1902361-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:46 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F024.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 67862

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	5.01
108.00	13.60	12.53
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

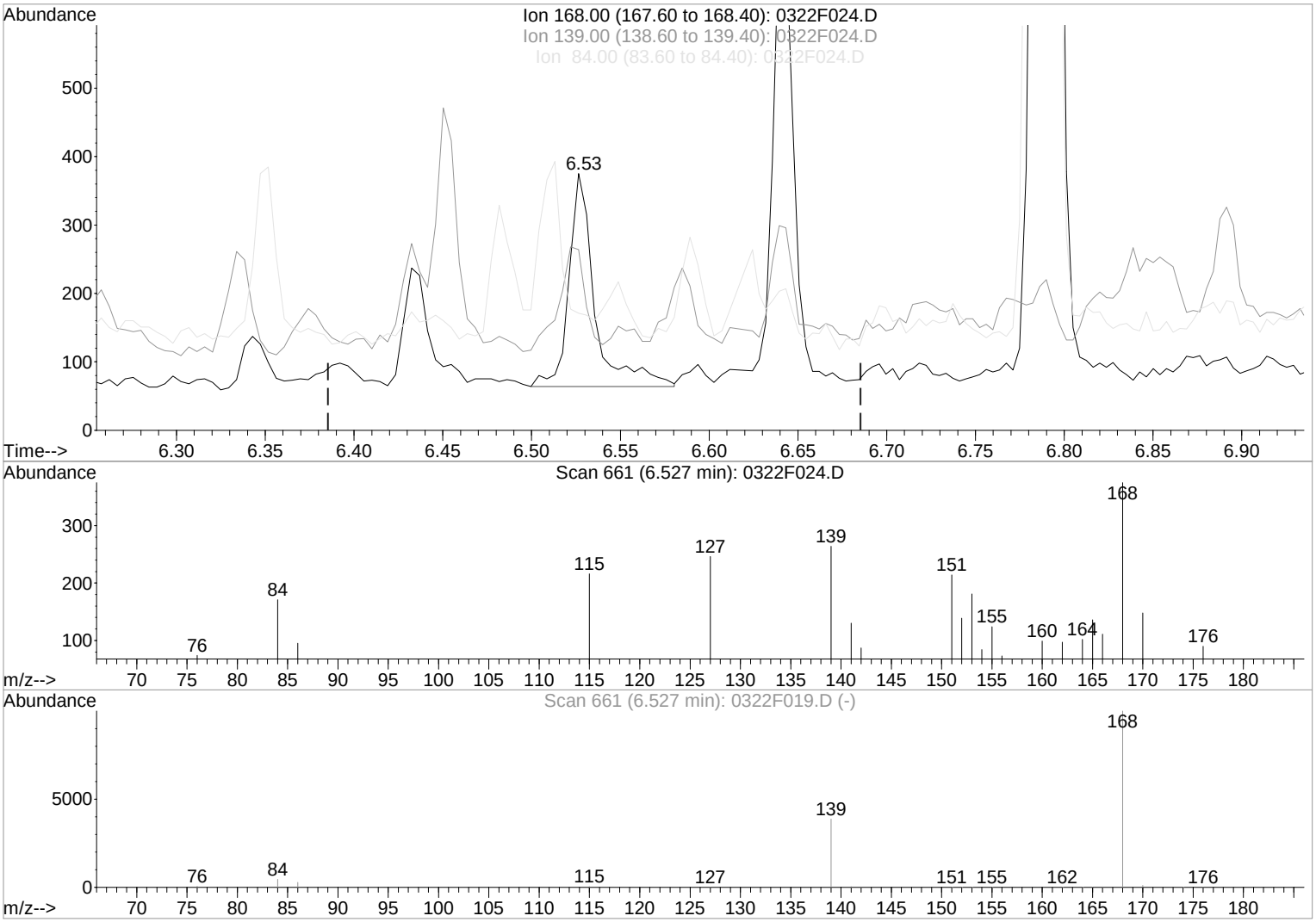
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F024.D Vial: 21
Acq On : 22 Mar 2019 5:58 pm Operator: LWeiskopf
Sample : K1902361-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:47 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F024.D

(11) Dibenzofuran (T)

6.53min 0.84ng/ml

response 314

Ion	Exp%	Act%
168.00	100	100
139.00	31.80	47.27
84.00	3.20	1.93
0.00	0.00	0.00

Manual Integration:

Before

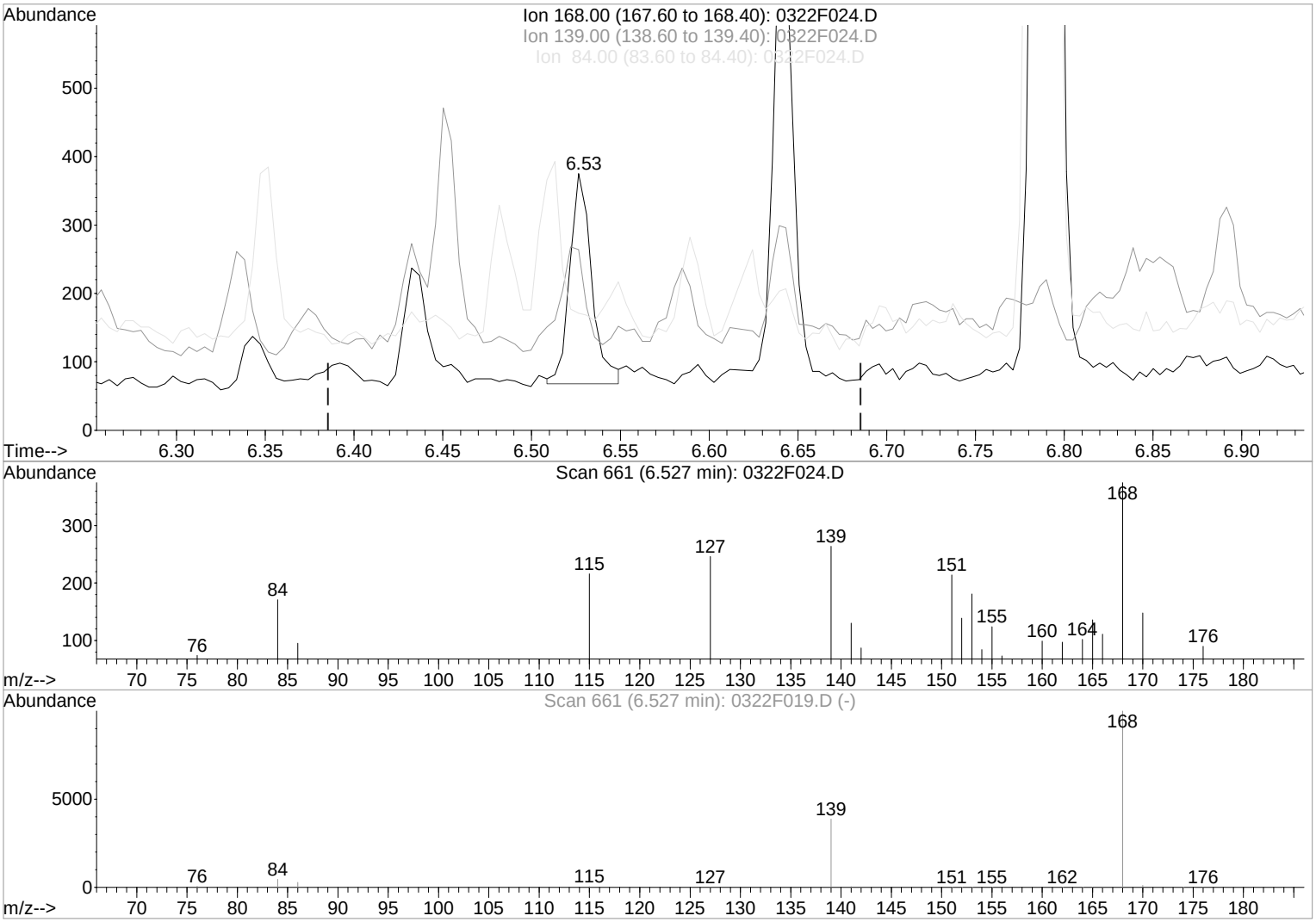
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F024.D Vial: 21
Acq On : 22 Mar 2019 5:58 pm Operator: LWeiskopf
Sample : K1902361-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:47 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F024.D

(11) Dibenzofuran (T)

6.53min 0.70ng/ml m

response 264

Ion	Exp%	Act%
168.00	100	100
139.00	31.80	70.40#
84.00	3.20	45.60#
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F020.D\
Lab ID: KQ1903571-03
RunType: MB
Matrix: Water

Date Acquired: 3/22/19 15:50:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 3/25/19 8:54
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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F020.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 15:50:00	**Vial:**	3
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1903571-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	KQ1903571
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		32909	200.00	NA
Chrysene-d12	10.17		64957	200.00	NA
Naphthalene-d8	4.79		67353	200.00	NA
Perylene-d12	13.40	-0.01	71936	200.00	NA
Phenanthrene-d10	7.60		63268	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		435863	1176.69	118	42 - 133	Y
Fluorene-d10	6.79		222308	975.03	98	42 - 131	Y
Terphenyl-d14	8.94		312004	1088.91	109	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		110	0.46	0.0020	J	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.17	+0.01	237	0.51	0.0023	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	15.93	-0.01	233	0.48	0.0021	J	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y
Fluorene	0.00		0	0.00	0	U	Y

1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F020.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 15:50:00	**Vial:**	3
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1903571-03	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	15.53	-0.01	134	0.31	0.0014	J	Y
Naphthalene	4.81		264	0.70	0.0031	J	Y
Phenanthrene	7.62		261	0.65	0.0029	J	Y
Pyrene	8.80		104	0.21	0.00093	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 3/25/19 8:54
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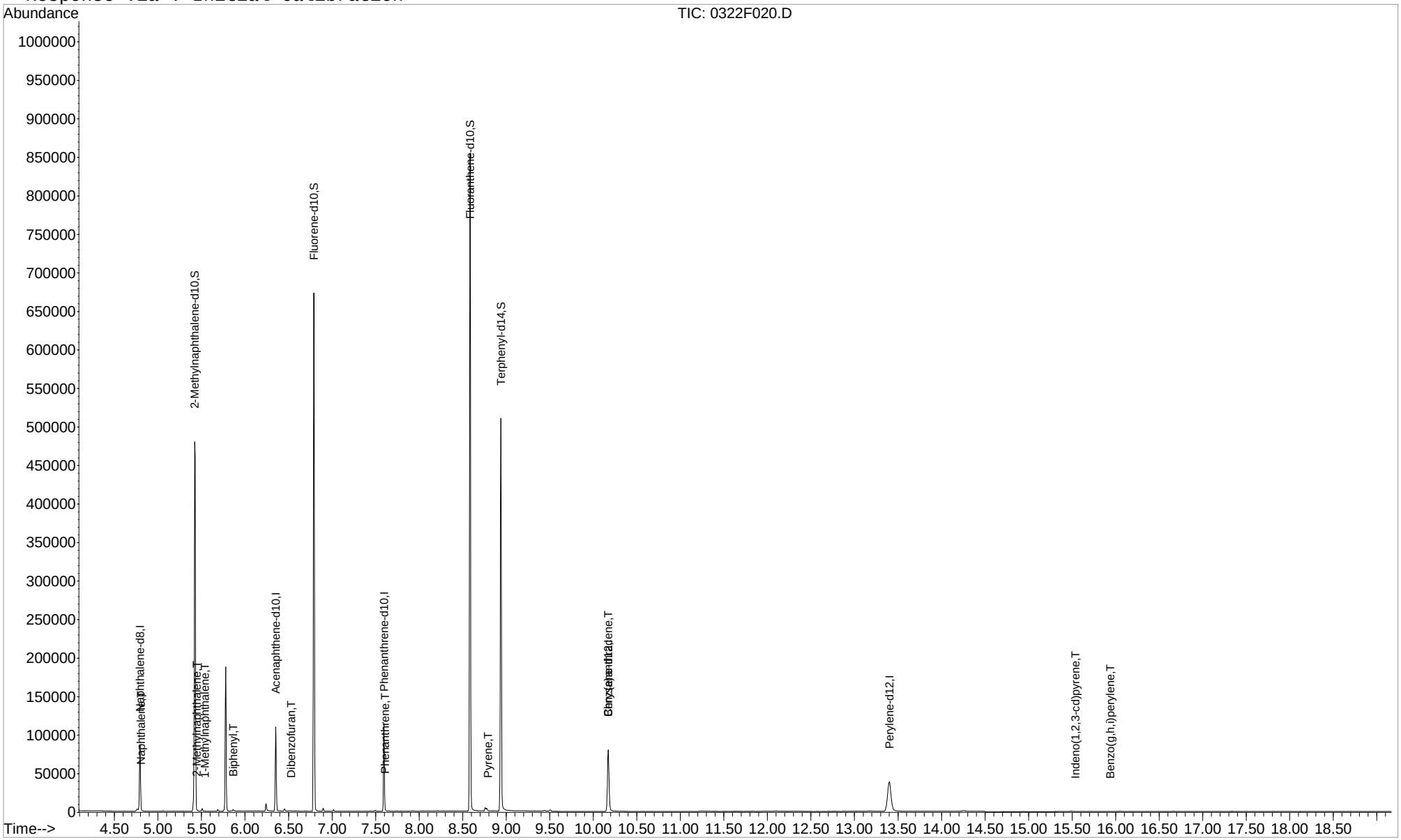
Quantitation Report (QT Reviewed)

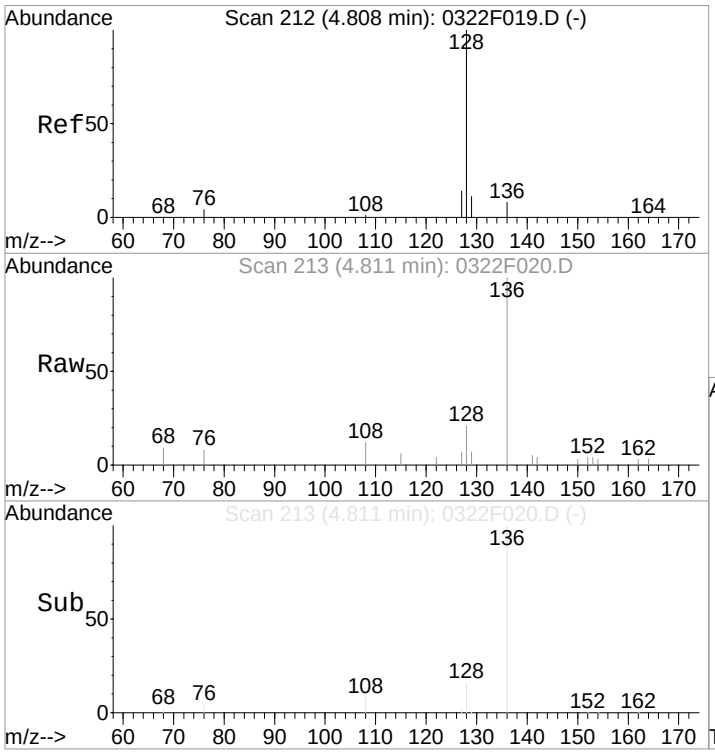
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F020.D Vial: 17
Acq On : 22 Mar 2019 3:50 pm Operator: LWeiskopf
Sample : KQ1903571-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:23 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



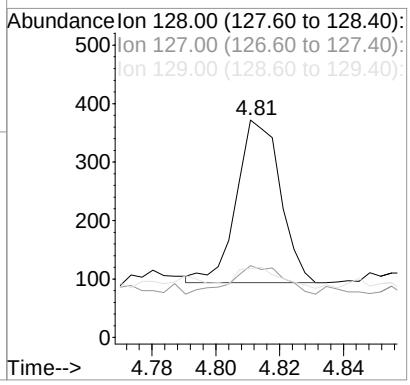
1st 03/25/19
2nd 03/26/19

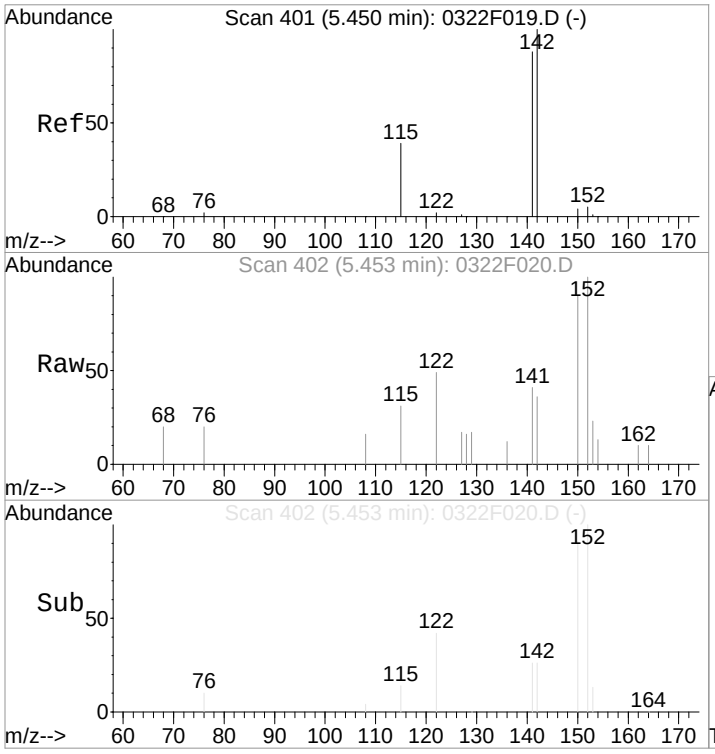


#2
Naphthalene
Concen: 0.70 ng/ml
RT: 4.81 min Scan# 213
Delta R.T. -0.02 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:128 Resp: 264

Ion	Ratio	Lower	Upper
128	100		
127	17.6	0.0	43.9
129	10.1	0.0	30.8

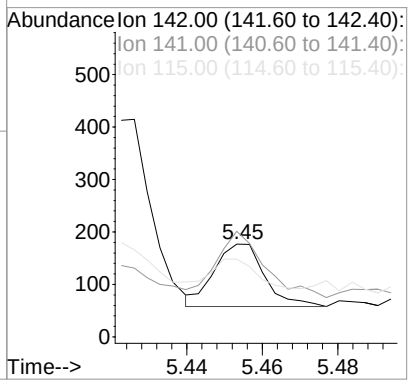




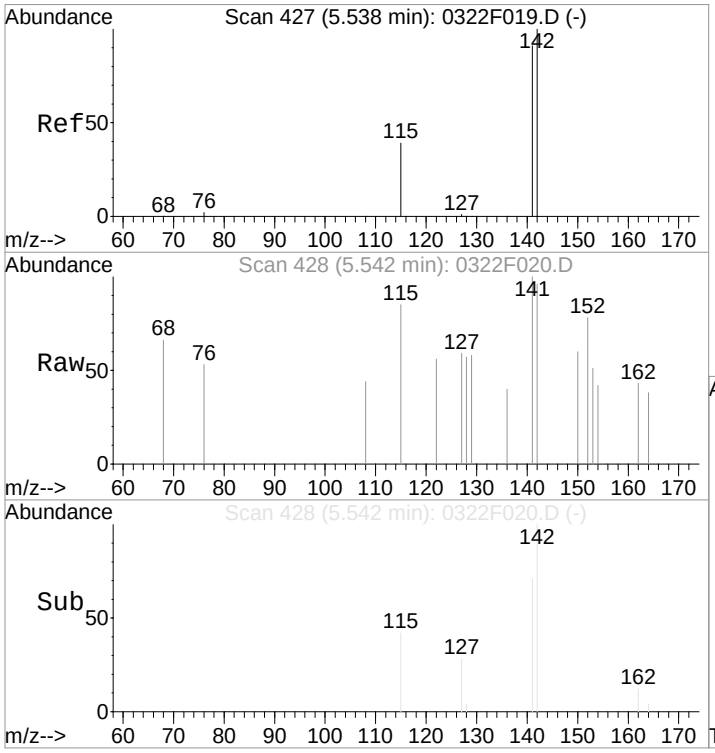
#4
2-Methylnaphthalene
Concen: 0.46 ng/ml
RT: 5.45 min Scan# 402
Delta R.T. -0.01 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:142 Resp: 110

Ion	Ratio	Lower	Upper
142	100		
141	105.9	57.4	117.4
115	36.1	21.9	61.9



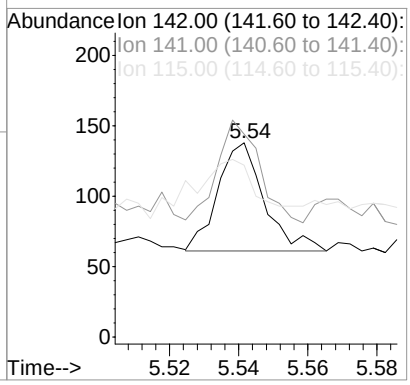
1st 03/25/19
2nd 03/26/19

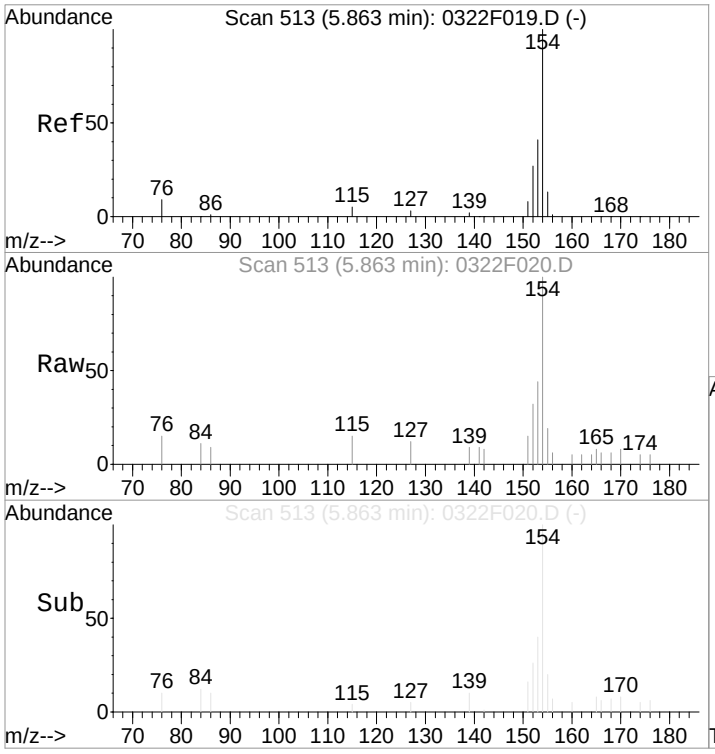


#5
1-Methylnaphthalene
Concen: 0.32 ng/ml
RT: 5.54 min Scan# 428
Delta R.T. -0.01 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:142 Resp: 72

Ion	Ratio	Lower	Upper
142	100		
141	79.2	61.0	121.0
115	36.4	26.2	66.2

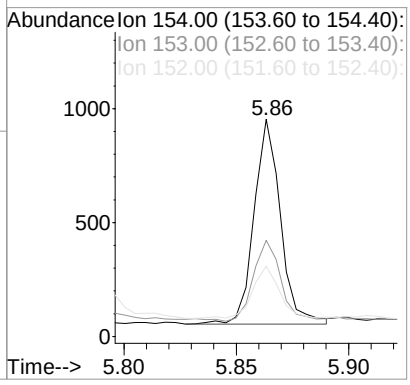




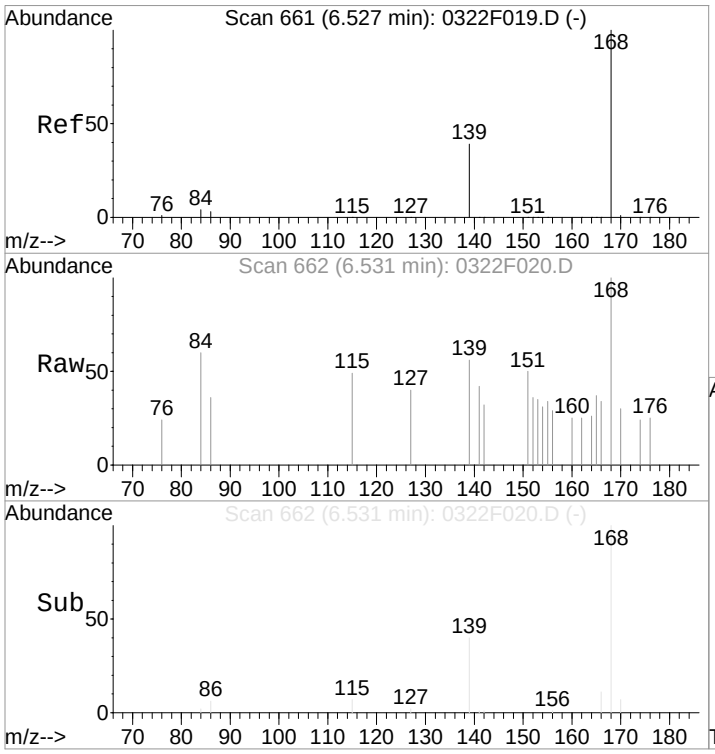
#6
Biphenyl
Concen: 2.41 ng/ml
RT: 5.86 min Scan# 513
Delta R.T. -0.01 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:154 Resp: 739

Ion	Ratio	Lower	Upper
154	100		
153	38.7	11.5	71.5
152	25.4	6.9	46.9



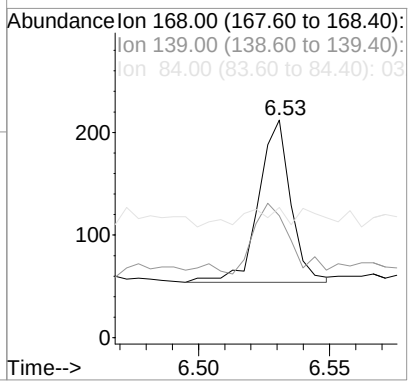
1st 03/25/19
2nd 03/26/19

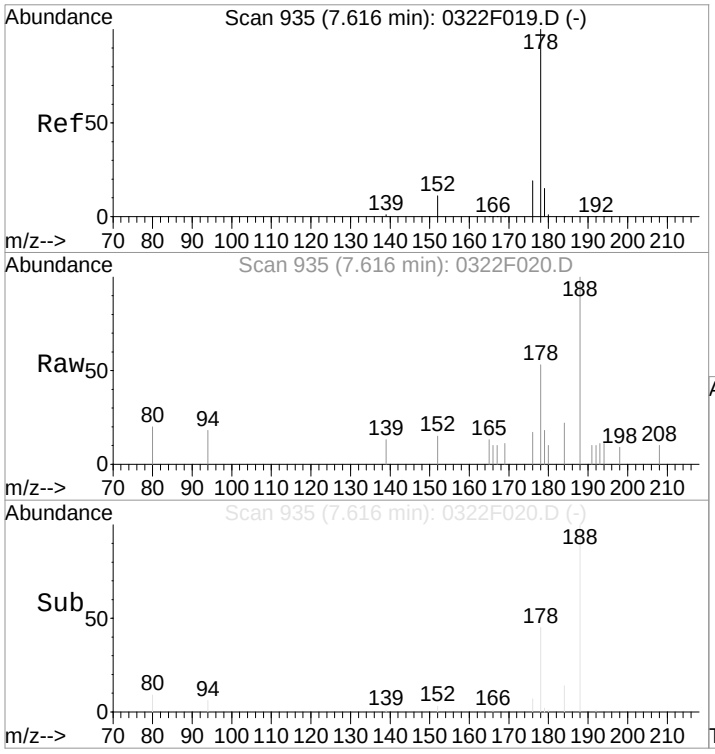


#11
Dibenzofuran
Concen: 0.36 ng/ml
RT: 6.53 min Scan# 662
Delta R.T. -0.00 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:168 Resp: 135

Ion	Ratio	Lower	Upper
168	100		
139	33.5	1.8	61.8
84	6.3	0.0	23.2

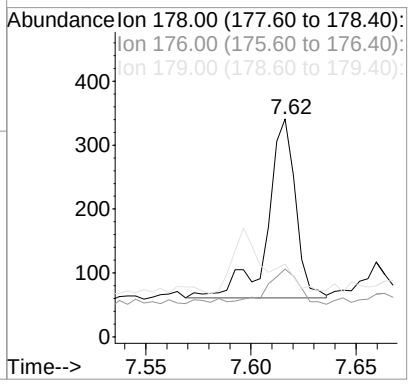


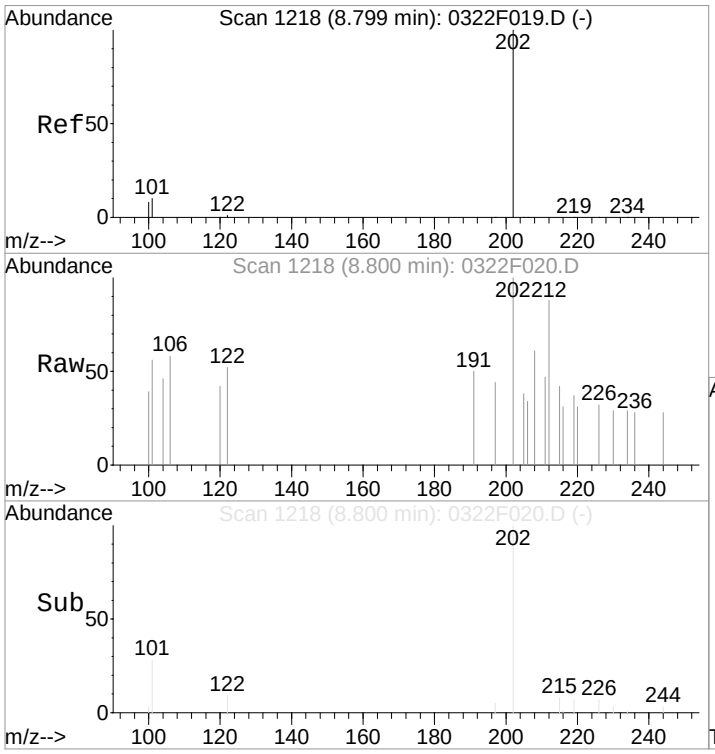


#17
Phenanthrene
Concen: 0.65 ng/ml
RT: 7.62 min Scan# 935
Delta R.T. -0.00 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:178 Resp: 261

Ion	Ratio	Lower	Upper
178	100		
176	19.6	0.0	48.6
179	14.6	0.0	35.2

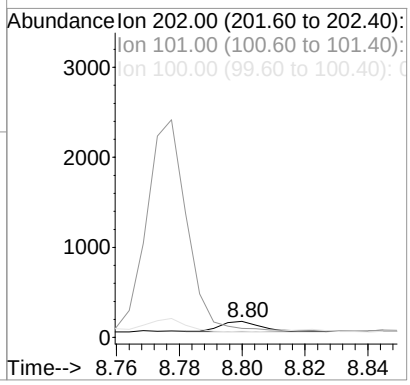


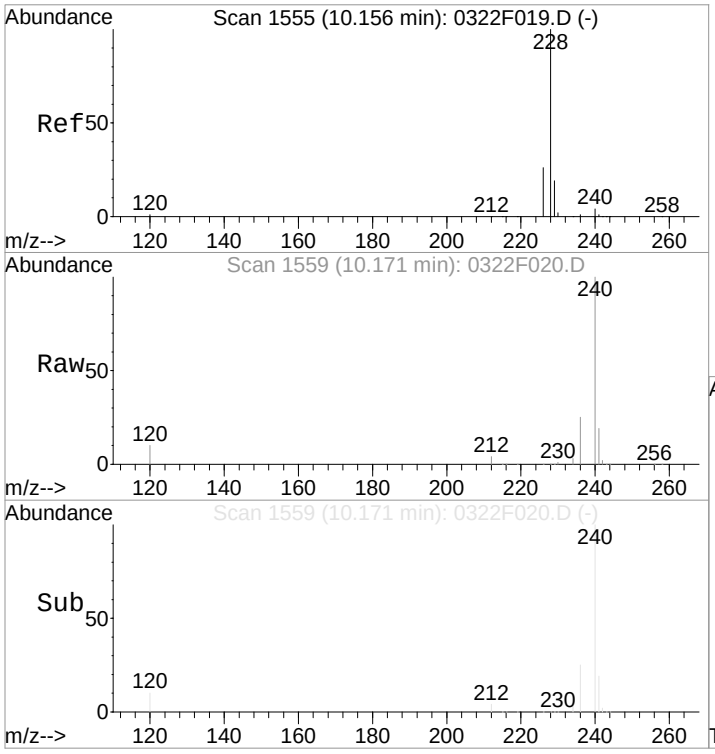


#24
Pyrene
Concen: 0.21 ng/ml
RT: 8.80 min Scan# 1218
Delta R.T. -0.01 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:202 Resp: 104

Ion	Ratio	Lower	Upper
202	100		
101	25.0	0.0	39.7
100	0.0	0.0	27.7

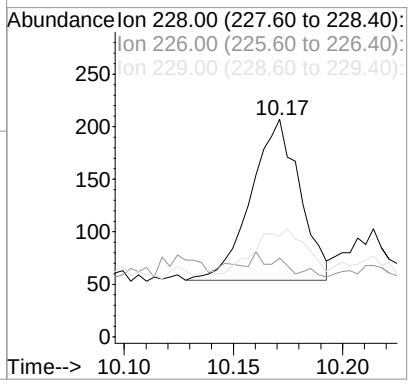




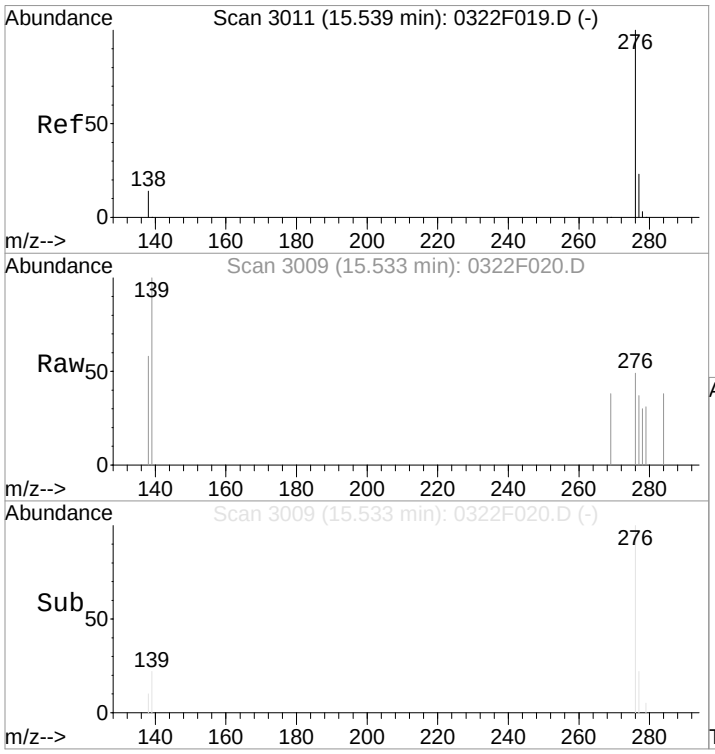
#26
Benz(a)anthracene
Concen: 0.51 ng/ml
RT: 10.17 min Scan# 1559
Delta R.T. 0.00 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:228 Resp: 237

Ion	Ratio	Lower	Upper
228	100		
226	11.8	0.0	56.6
229	22.2	0.0	39.5



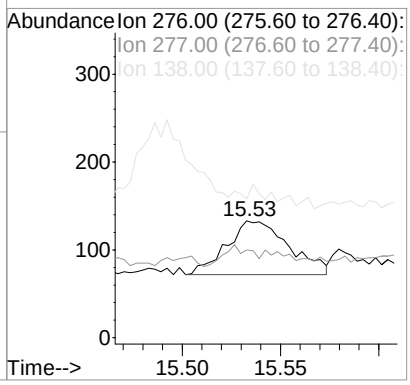
1st 03/25/19
2nd 03/26/19

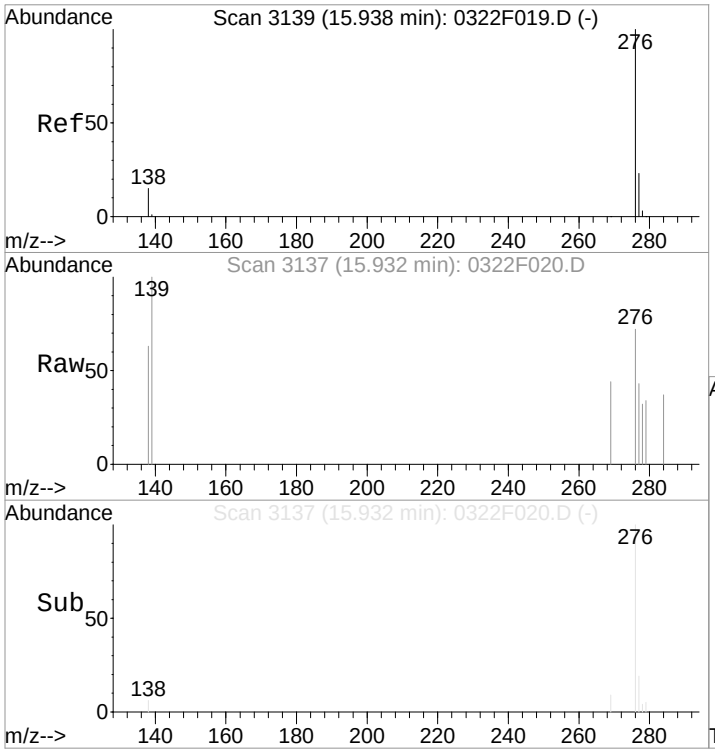


#34
Indeno(1,2,3-cd)pyrene
Concen: 0.31 ng/ml
RT: 15.53 min Scan# 3009
Delta R.T. -0.00 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:276 Resp: 134

Ion	Ratio	Lower	Upper
276	100		
277	21.3	0.0	53.4
138	8.2	0.0	35.7

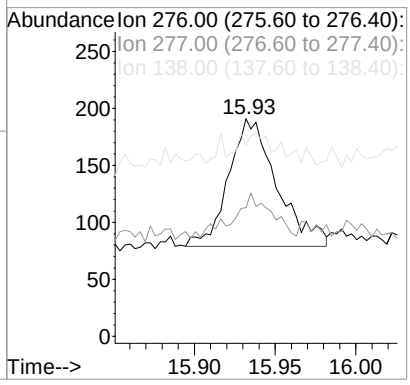




#36
Benzo(g,h,i)perylene
Concen: 0.48 ng/ml
RT: 15.93 min Scan# 3137
Delta R.T. -0.00 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:276 Resp: 233

Ion	Ratio	Lower	Upper
276	100		
277	18.8	0.0	53.6
138	12.5	0.0	36.7



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F020.D Vial: 17
Acq On : 22 Mar 2019 3:50 pm Operator: LWeiskopf
Sample : KQ1903571-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:42 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	67353m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	32909	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	63268	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	64957	200.00	ng/ml	-0.01
28) Perylene-d12	13.40	264	71936	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	165788	872.93	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 87.29%			
13) Fluorene-d10	6.79	176	222308	975.03	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 97.50%			
22) Fluoranthene-d10	8.58	212	435863	1176.69	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 117.67%			
25) Terphenyl-d14	8.94	244	312004	1088.91	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 108.89%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	264	0.70	ng/ml	94
4) 2-Methylnaphthalene	5.45	142	110	0.46	ng/ml	84
5) 1-Methylnaphthalene	5.54	142	72	0.32	ng/ml	87
6) Biphenyl	5.86	154	739	2.41	ng/ml	96
11) Dibenzofuran	6.53	168	135	0.36	ng/ml	96
17) Phenanthrene	7.62	178	261	0.65	ng/ml	98
24) Pyrene	8.80	202	104	0.21	ng/ml	67
26) Benz(a)anthracene	10.17	228	237	0.51	ng/ml	81
34) Indeno(1,2,3-cd)pyrene	15.53	276	134	0.31	ng/ml	90
36) Benzo(g,h,i)perylene	15.93	276	233	0.48	ng/ml	90

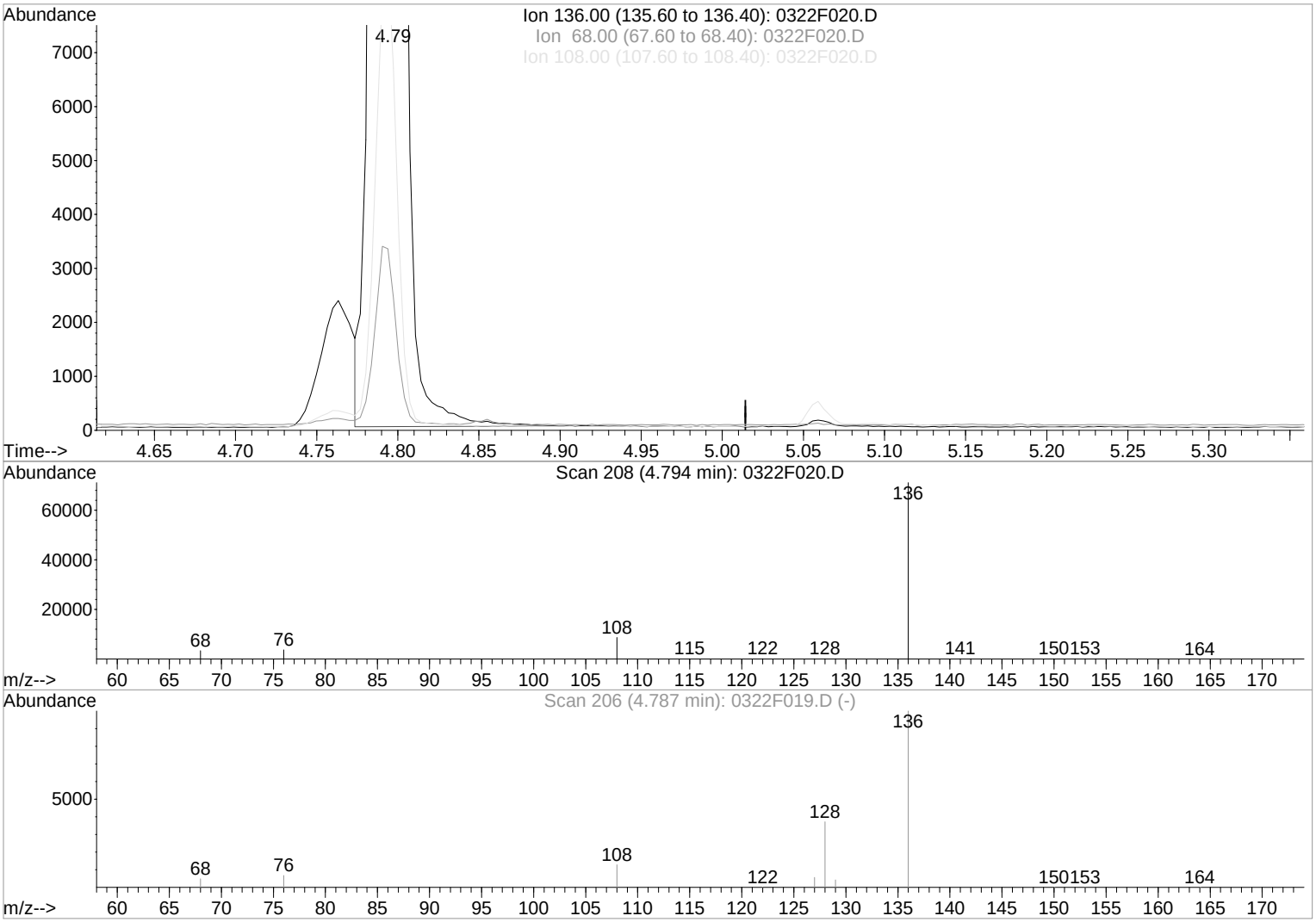
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F020.D Vial: 17
Acq On : 22 Mar 2019 3:50 pm Operator: LWeiskopf
Sample : KQ1903571-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F020.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 63801

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.58
108.00	13.60	12.12
0.00	0.00	0.00

Manual Integration:

Before

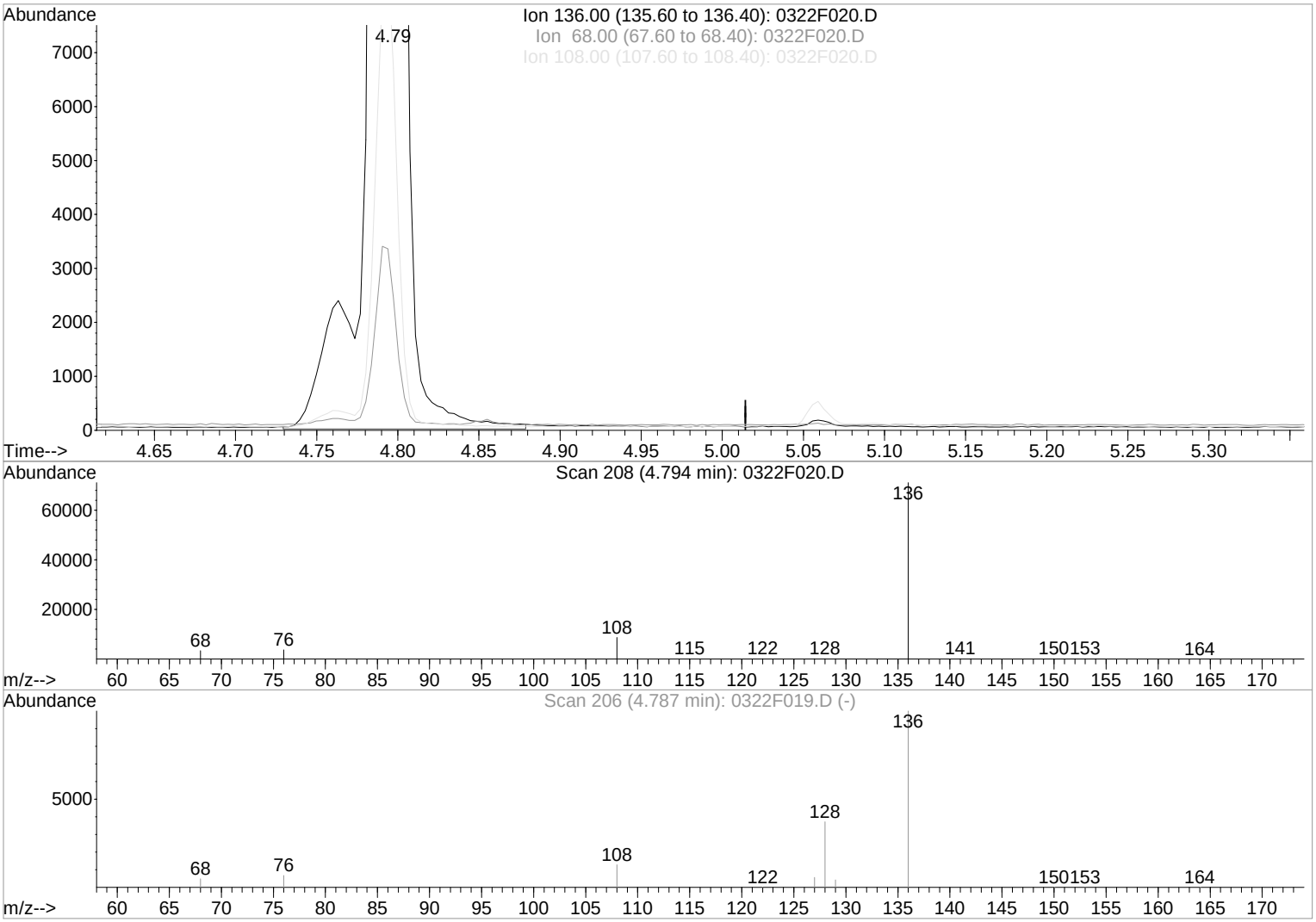
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F020.D Vial: 17
Acq On : 22 Mar 2019 3:50 pm Operator: LWeiskopf
Sample : KQ1903571-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:22 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F020.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 67353

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.72
108.00	13.60	12.21
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

03/25/19

Validation Report

1st 03/25/19
2nd 03/26/19

Data File: J:\MS14\DATA\032219\0322F021.D\
Lab ID: KQ1903571-01
RunType: LCS
Matrix: Water

Date Acquired: 3/22/19 16:22:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F021.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 16:22:00	**Vial:**	4
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1903571-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	KQ1903571
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		31222	200.00	NA
Chrysene-d12	10.17		63468	200.00	NA
Naphthalene-d8	4.79		69740	200.00	NA
Perylene-d12	13.40	-0.01	69603	200.00	NA
Phenanthrene-d10	7.60		60572	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		421510	1188.59	119	42 - 133	Y
Fluorene-d10	6.79		208990	966.15	97	42 - 131	Y
Terphenyl-d14	8.94		274918	981.99	98	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		141123	575.92	2.56		Y
Acenaphthene	6.38		134696	609.24	2.71		Y
Acenaphthylene	6.24		227656	587.39	2.61		Y
Anthracene	7.66		248773	672.13	2.99		Y
Benz(a)anthracene	10.16		284387	624.40	2.78		Y
Benzo(a)pyrene	13.23	+0.01	267177	612.61	2.72		Y
Benzo(b)fluoranthene	12.31		309065	665.97	2.96		Y
Benzo(g,h,i)perylene	15.94		296617	631.44	2.81		Y
Benzo(k)fluoranthene	12.39		299439	682.37	3.03		Y
Chrysene	10.21		274644	663.55	2.95		Y
Dibenz(a,h)anthracene	15.59		242174	626.15	2.78		Y
Fluoranthene	8.60		283335	643.23	2.86		Y
Fluorene	6.82		159612	558.64	2.48		Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 3/25/19 8:54
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F021.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 16:22:00	**Vial:**	4
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1903571-01	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	15.54		245084	590.85	2.63		Y
Naphthalene	4.81		233178	595.25	2.65		Y
Phenanthrene	7.62		246153	638.22	2.84		Y
Pyrene	8.80		312390	652.82	2.90		Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

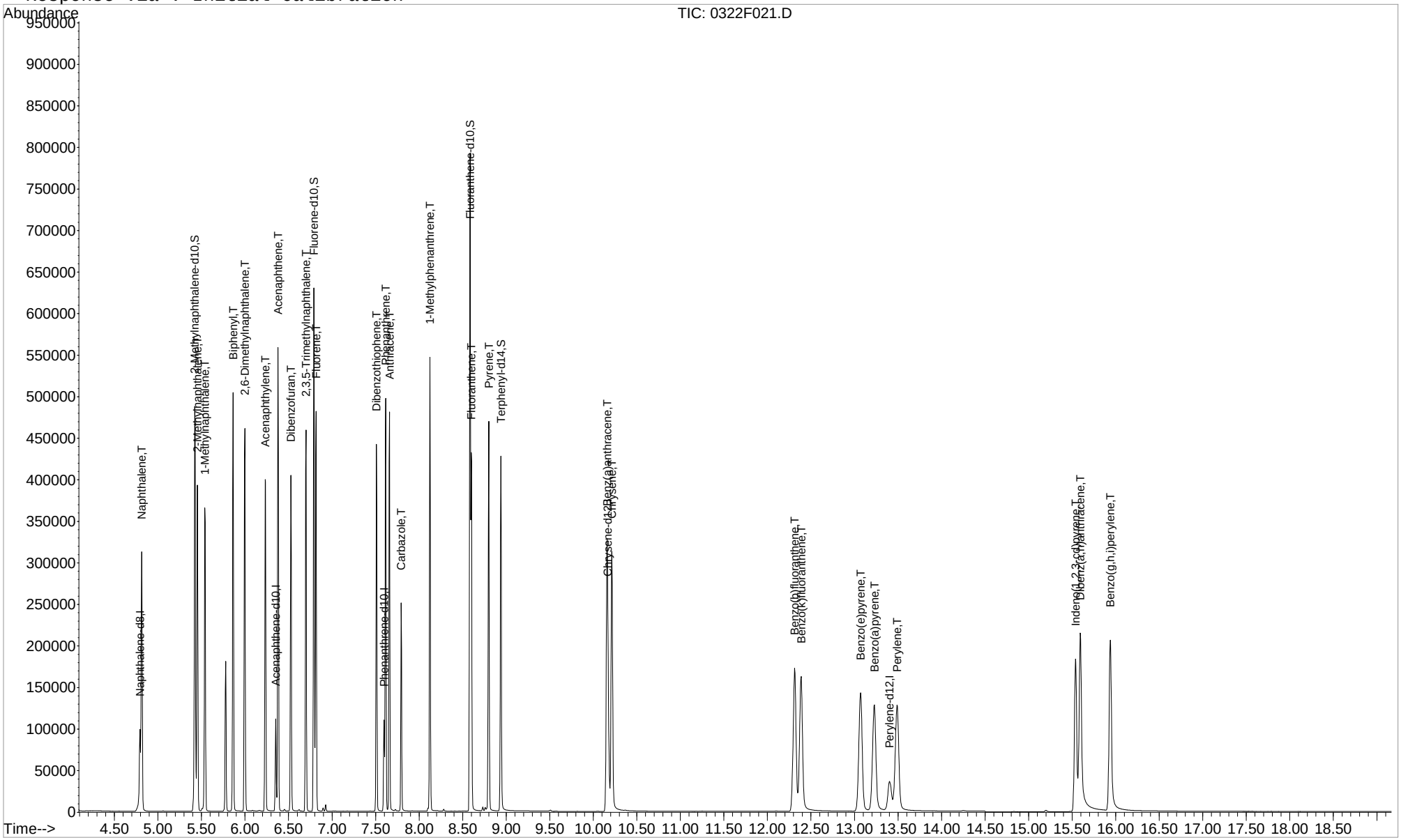
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:23 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:44 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	69740m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	31222	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	60572	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	63468	200.00	ng/ml	-0.01
28) Perylene-d12	13.40	264	69603	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	163949	833.70	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	83.37%		
13) Fluorene-d10	6.79	176	208990	966.15	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	96.61%		
22) Fluoranthene-d10	8.58	212	421510	1188.59	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	118.86%		
25) Terphenyl-d14	8.94	244	274918	981.99	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	98.20%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	233178m	595.25	ng/ml	
4) 2-Methylnaphthalene	5.45	142	141123	575.92	ng/ml	98
5) 1-Methylnaphthalene	5.54	142	132191	559.85	ng/ml	98
6) Biphenyl	5.86	154	178686	563.03	ng/ml	100
7) 2,6-Dimethylnaphthalene	6.00	156	127175	568.86	ng/ml	91
9) Acenaphthylene	6.24	152	227656	587.39	ng/ml	98
10) Acenaphthene	6.38	154	134696	609.24	ng/ml	98
11) Dibenzofuran	6.53	168	221161	620.29	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.70	170	125442	595.80	ng/ml	98
14) Fluorene	6.82	166	159612	558.64	ng/ml	98
16) Dibenzothiophene	7.51	184	262908	665.52	ng/ml	96
17) Phenanthrene	7.62	178	246153	638.22	ng/ml	99
18) Anthracene	7.66	178	248773	672.13	ng/ml	100
19) Carbazole	7.79	167	131855	388.23	ng/ml	99
20) 1-Methylphenanthrene	8.12	192	191271	667.86	ng/ml	100
21) Fluoranthene	8.60	202	283335	643.23	ng/ml	96
24) Pyrene	8.80	202	312390	652.82	ng/ml	100
26) Benz(a)anthracene	10.16	228	284387	624.40	ng/ml	100
27) Chrysene	10.21	228	274644	663.55	ng/ml	100
29) Benzo(b)fluoranthene	12.31	252	309065	665.97	ng/ml	99
30) Benzo(k)fluoranthene	12.39	252	299439	682.37	ng/ml	100
31) Benzo(e)pyrene	13.07	252	293497	674.48	ng/ml	99
32) Benzo(a)pyrene	13.23	252	267177	612.61	ng/ml	98
33) Perylene	13.49	252	272030	657.56	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.54	276	245084	590.85	ng/ml	100
35) Dibenz(a,h)anthracene	15.59	278	242174	626.15	ng/ml	100
36) Benzo(g,h,i)perylene	15.94	276	296617	631.44	ng/ml	100

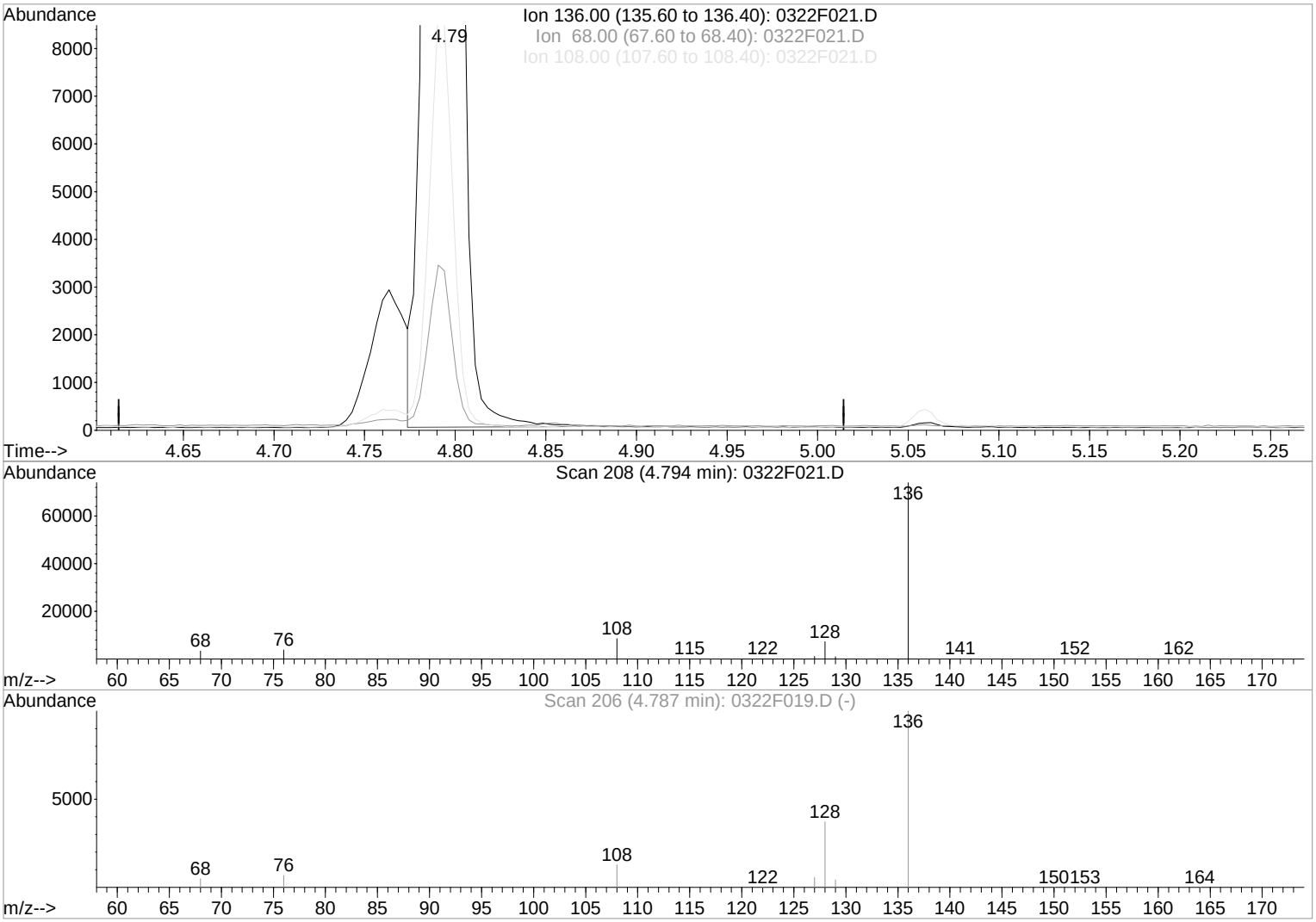
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F021.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 65927

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.39
108.00	13.60	11.39
0.00	0.00	0.00

Manual Integration:

Before

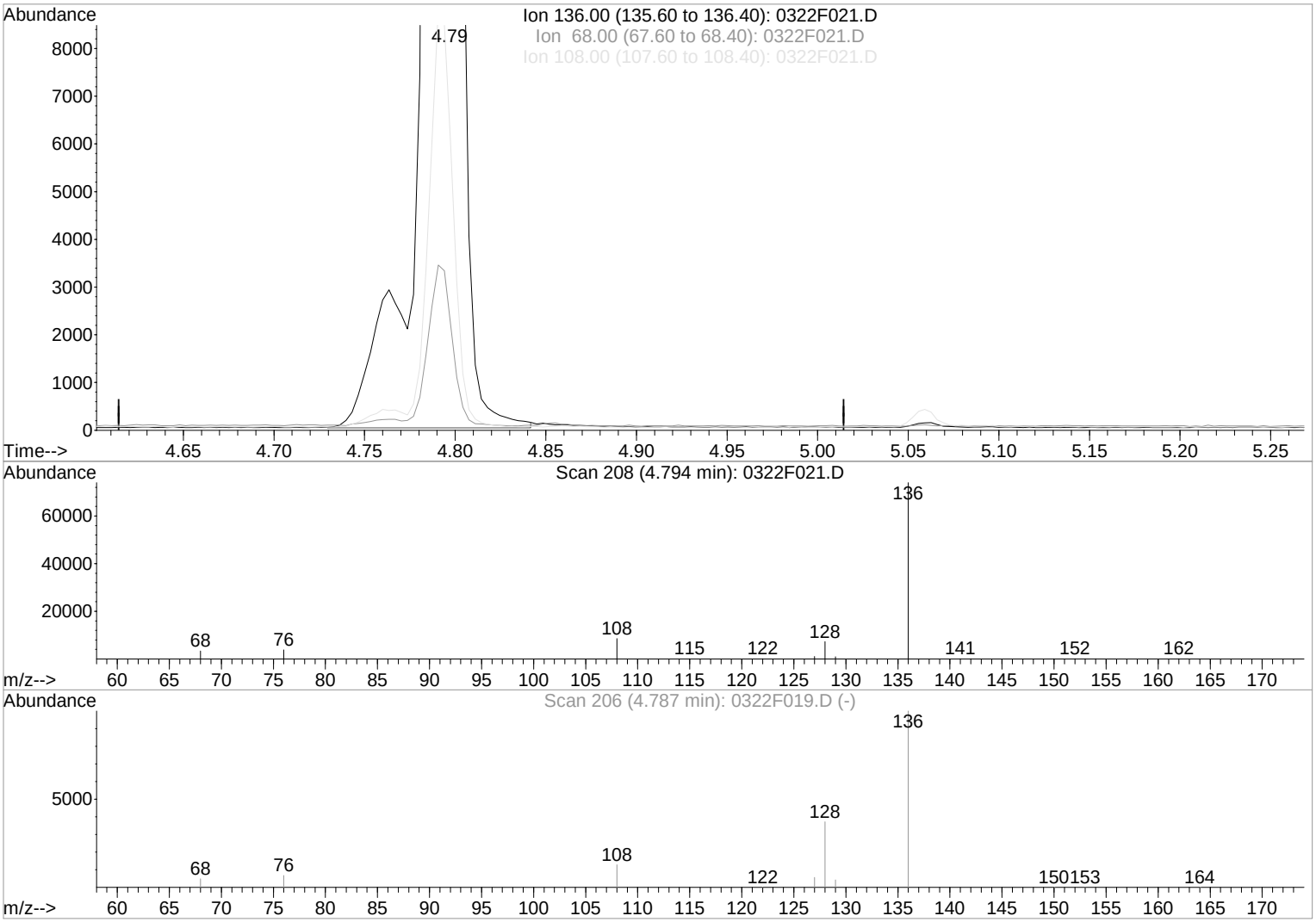
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:23 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F021.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 69740

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.51
108.00	13.60	11.47
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

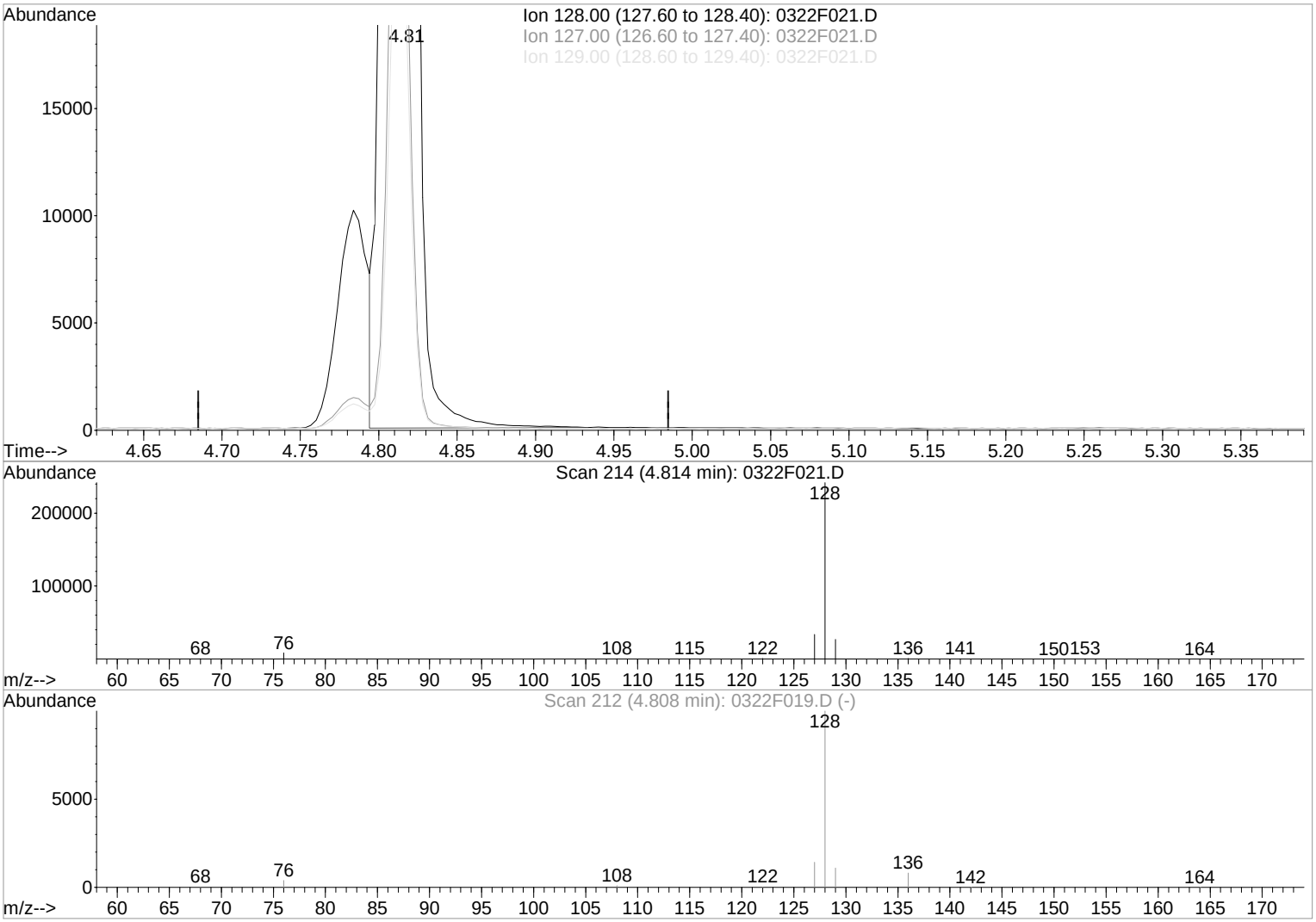
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:23 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F021.D

(2) Naphthalene (T)

4.81min 560.00ng/ml

response 219368

Ion	Exp%	Act%
128.00	100	100
127.00	13.90	13.80
129.00	10.80	11.04
0.00	0.00	0.00

Manual Integration:

Before

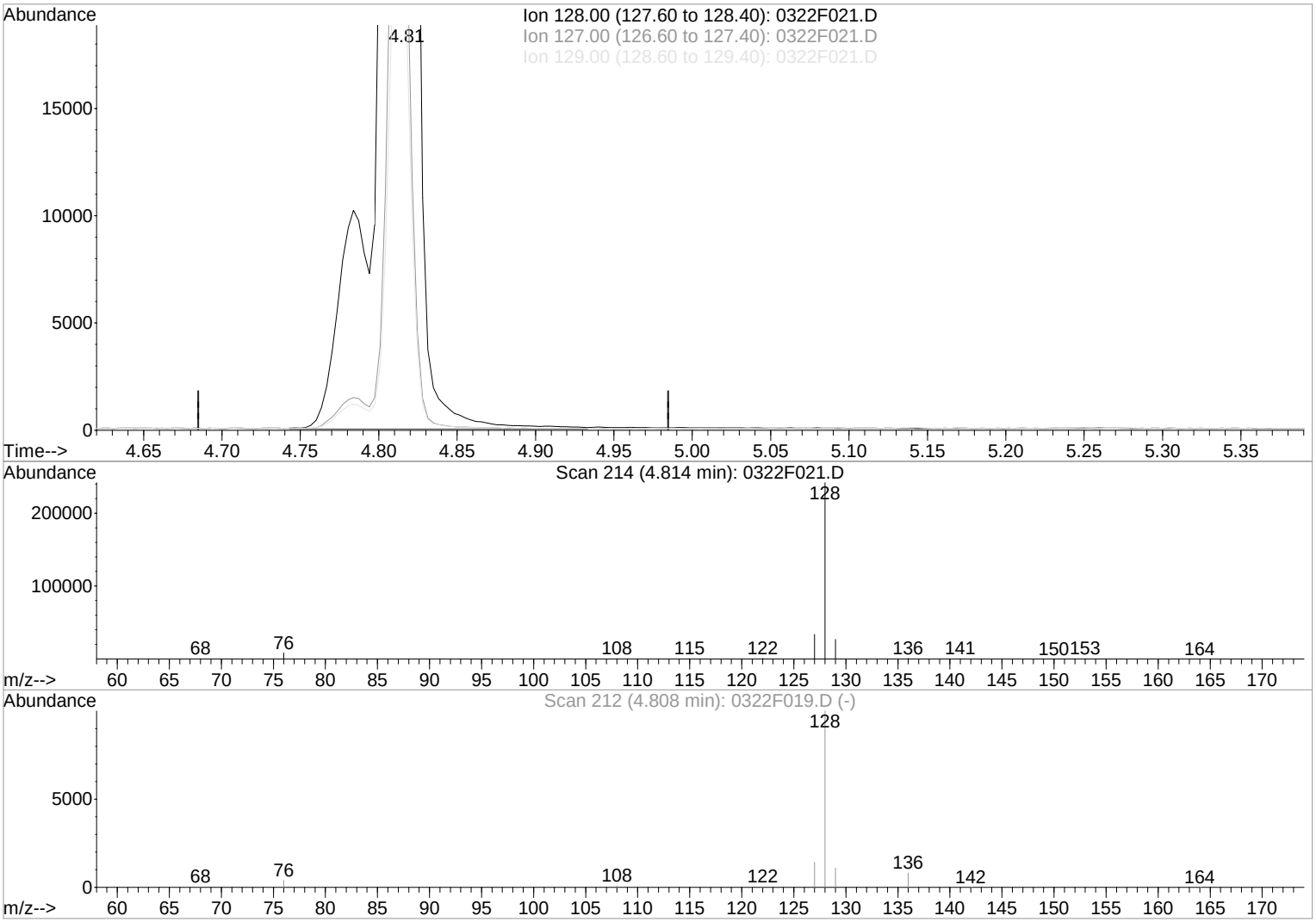
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:23 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F021.D

(2) Naphthalene (T)

4.81min 595.25ng/ml m

response 233178

Ion	Exp%	Act%
128.00	100	100
127.00	13.90	13.82
129.00	10.80	11.06
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F022.D\
Lab ID: KQ1903571-02
RunType: DLCS
Matrix: Water

Date Acquired: 3/22/19 16:54:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 3/25/19 8:54
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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F022.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 16:54:00	**Vial:**	5
Run Type:	DLCS	**Dilution:**	1
Lab ID:	KQ1903571-02	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	KQ1903571
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		30977	200.00	NA
Chrysene-d12	10.17		62330	200.00	NA
Naphthalene-d8	4.79		67848	200.00	NA
Perylene-d12	13.40	-0.01	67518	200.00	NA
Phenanthrene-d10	7.60		59921	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		370383	1055.77	106	42 - 133	Y
Fluorene-d10	6.79		181500	845.70	85	42 - 131	Y
Terphenyl-d14	8.94		245532	893.03	89	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		143124	600.38	2.67		Y
Acenaphthene	6.38		135845	619.29	2.75		Y
Acenaphthylene	6.24		229490	596.81	2.65		Y
Anthracene	7.66		252106	688.54	3.06		Y
Benz(a)anthracene	10.16		283160	633.06	2.81		Y
Benzo(a)pyrene	13.22		266787	630.61	2.80		Y
Benzo(b)fluoranthene	12.31		310824	690.45	3.07		Y
Benzo(g,h,i)perylene	15.94		298117	654.23	2.91		Y
Benzo(k)fluoranthene	12.38	-0.01	297423	698.71	3.11		Y
Chrysene	10.21		273159	672.01	2.99		Y
Dibenz(a,h)anthracene	15.59		245438	654.19	2.91		Y
Fluoranthene	8.60		285158	654.40	2.91		Y
Fluorene	6.82		161447	569.53	2.53		Y

1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F022.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 16:54:00	**Vial:**	5
Run Type:	DLCS	**Dilution:**	1
Lab ID:	KQ1903571-02	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	15.54		241794	600.92	2.67		Y
Naphthalene	4.81		234434	615.15	2.73		Y
Phenanthrene	7.62		250793	657.31	2.92		Y
Pyrene	8.80		314806	669.88	2.98		Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

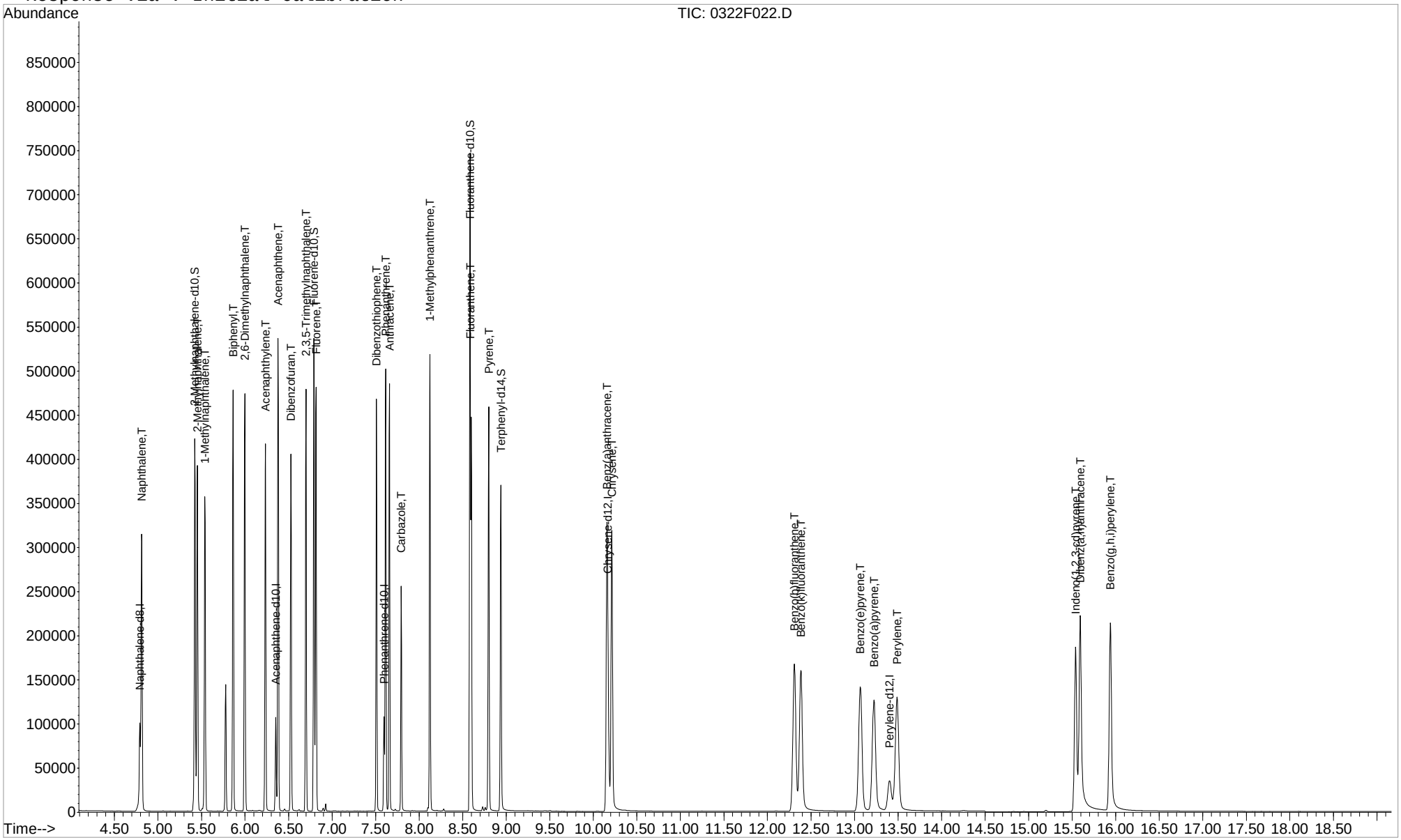
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:24 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:46 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	67848m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	30977	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	59921	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	62330	200.00	ng/ml	-0.01
28) Perylene-d12	13.40	264	67518	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	135390	707.67	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 70.77%			
13) Fluorene-d10	6.79	176	181500	845.70	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 84.57%			
22) Fluoranthene-d10	8.58	212	370383	1055.77	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 105.58%			
25) Terphenyl-d14	8.94	244	245532	893.03	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 89.30%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	234434m	615.15	ng/ml	
4) 2-Methylnaphthalene	5.45	142	143124	600.38	ng/ml	97
5) 1-Methylnaphthalene	5.54	142	133217	579.92	ng/ml	98
6) Biphenyl	5.86	154	180368	584.18	ng/ml	100
7) 2,6-Dimethylnaphthalene	6.00	156	128121	589.08	ng/ml	92
9) Acenaphthylene	6.24	152	229490	596.81	ng/ml	98
10) Acenaphthene	6.38	154	135845	619.29	ng/ml	98
11) Dibenzofuran	6.53	168	216364	611.63	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.70	170	127129	608.59	ng/ml	98
14) Fluorene	6.82	166	161447	569.53	ng/ml	98
16) Dibenzothiophene	7.51	184	265331	678.95	ng/ml	97
17) Phenanthrene	7.62	178	250793	657.31	ng/ml	100
18) Anthracene	7.66	178	252106	688.54	ng/ml	100
19) Carbazole	7.79	167	134330	399.82	ng/ml	99
20) 1-Methylphenanthrene	8.12	192	192099	678.04	ng/ml	100
21) Fluoranthene	8.60	202	285158	654.40	ng/ml	99
24) Pyrene	8.80	202	314806	669.88	ng/ml	100
26) Benz(a)anthracene	10.16	228	283160	633.06	ng/ml	100
27) Chrysene	10.21	228	273159	672.01	ng/ml	100
29) Benzo(b)fluoranthene	12.31	252	310824	690.45	ng/ml	100
30) Benzo(k)fluoranthene	12.38	252	297423	698.71	ng/ml	99
31) Benzo(e)pyrene	13.07	252	294845	698.50	ng/ml	99
32) Benzo(a)pyrene	13.22	252	266787	630.61	ng/ml	98
33) Perylene	13.49	252	272636	679.37	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.54	276	241794	600.92	ng/ml	99
35) Dibenz(a,h)anthracene	15.59	278	245438	654.19	ng/ml	99
36) Benzo(g,h,i)perylene	15.94	276	298117	654.23	ng/ml	100

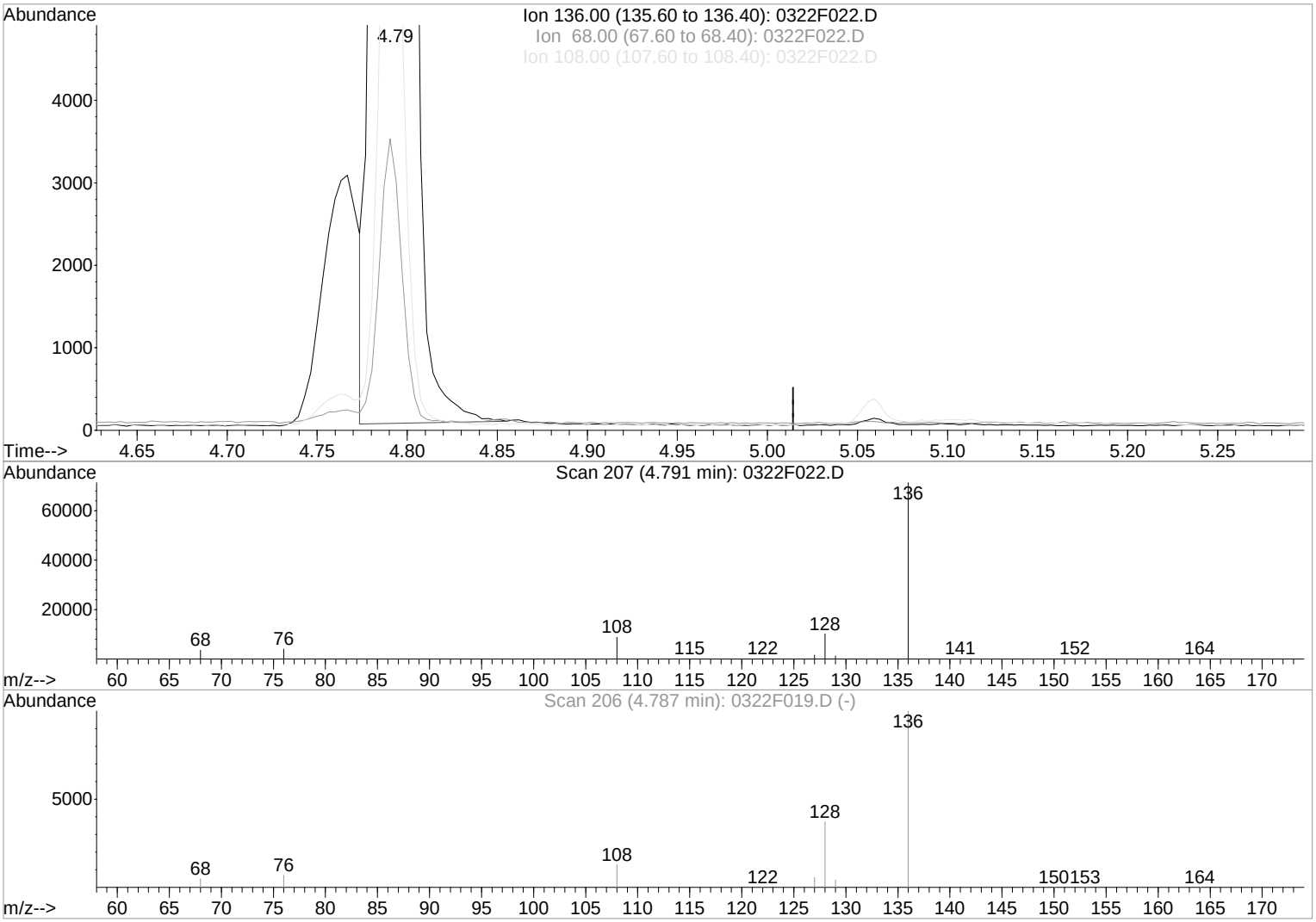
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F022.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 63653

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.77
108.00	13.60	12.23
0.00	0.00	0.00

Manual Integration:

Before

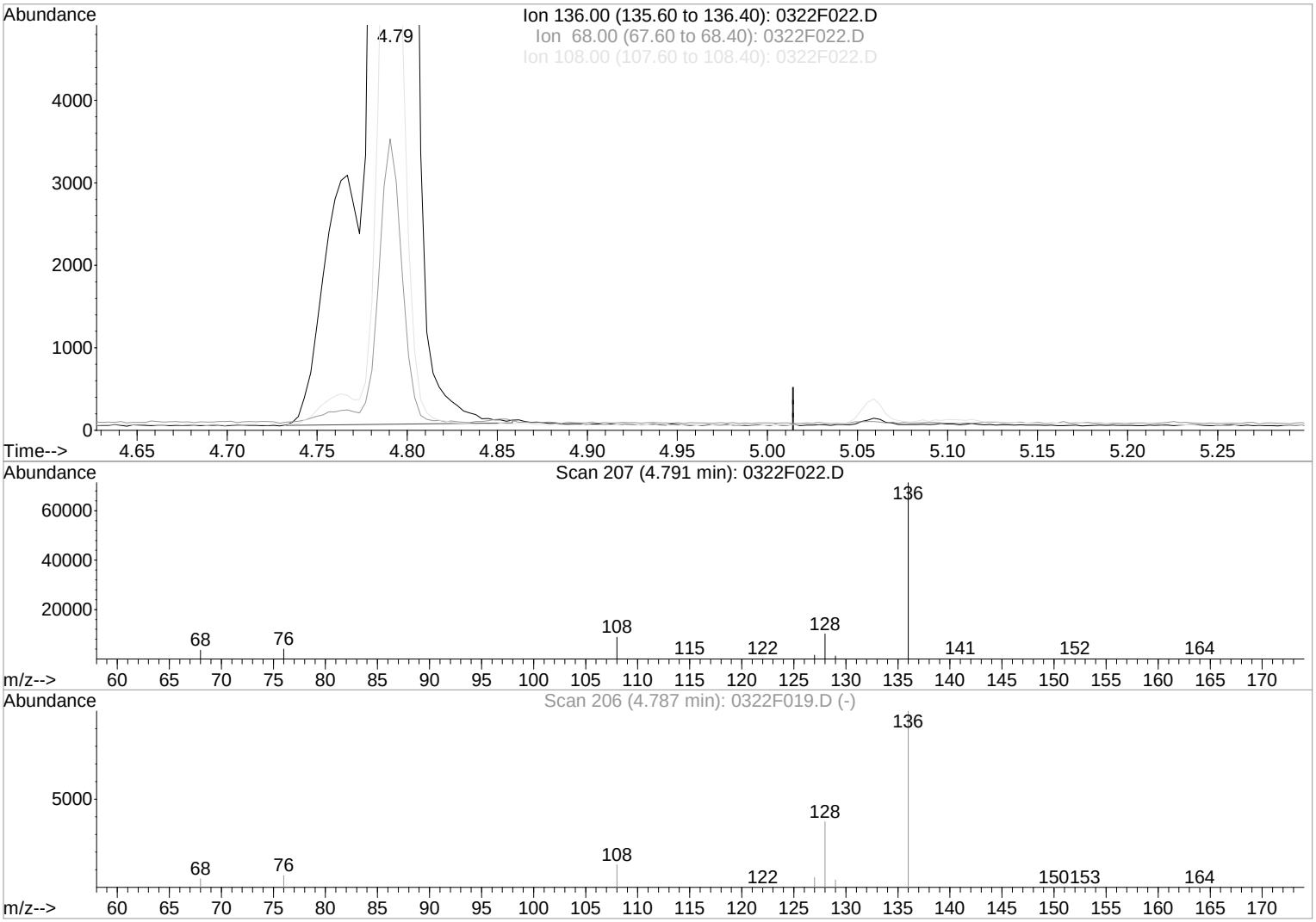
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:24 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F022.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 67848

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.95
108.00	13.60	12.32
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

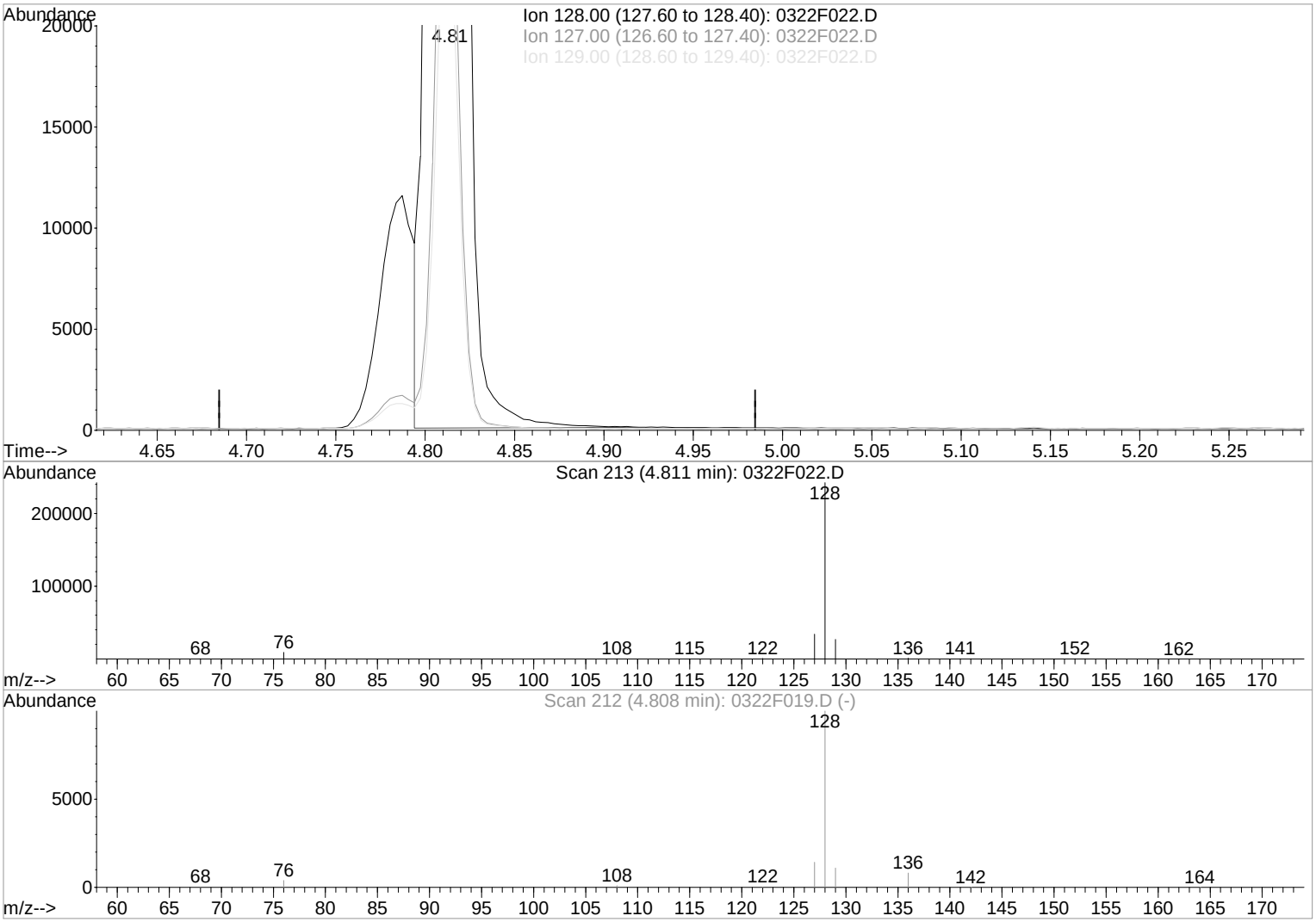
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:24 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F022.D

(2) Naphthalene (T)

4.81min 574.42ng/ml

response 218911

Ion	Exp%	Act%
128.00	100	100
127.00	13.90	13.98
129.00	10.80	11.02
0.00	0.00	0.00

Manual Integration:

Before

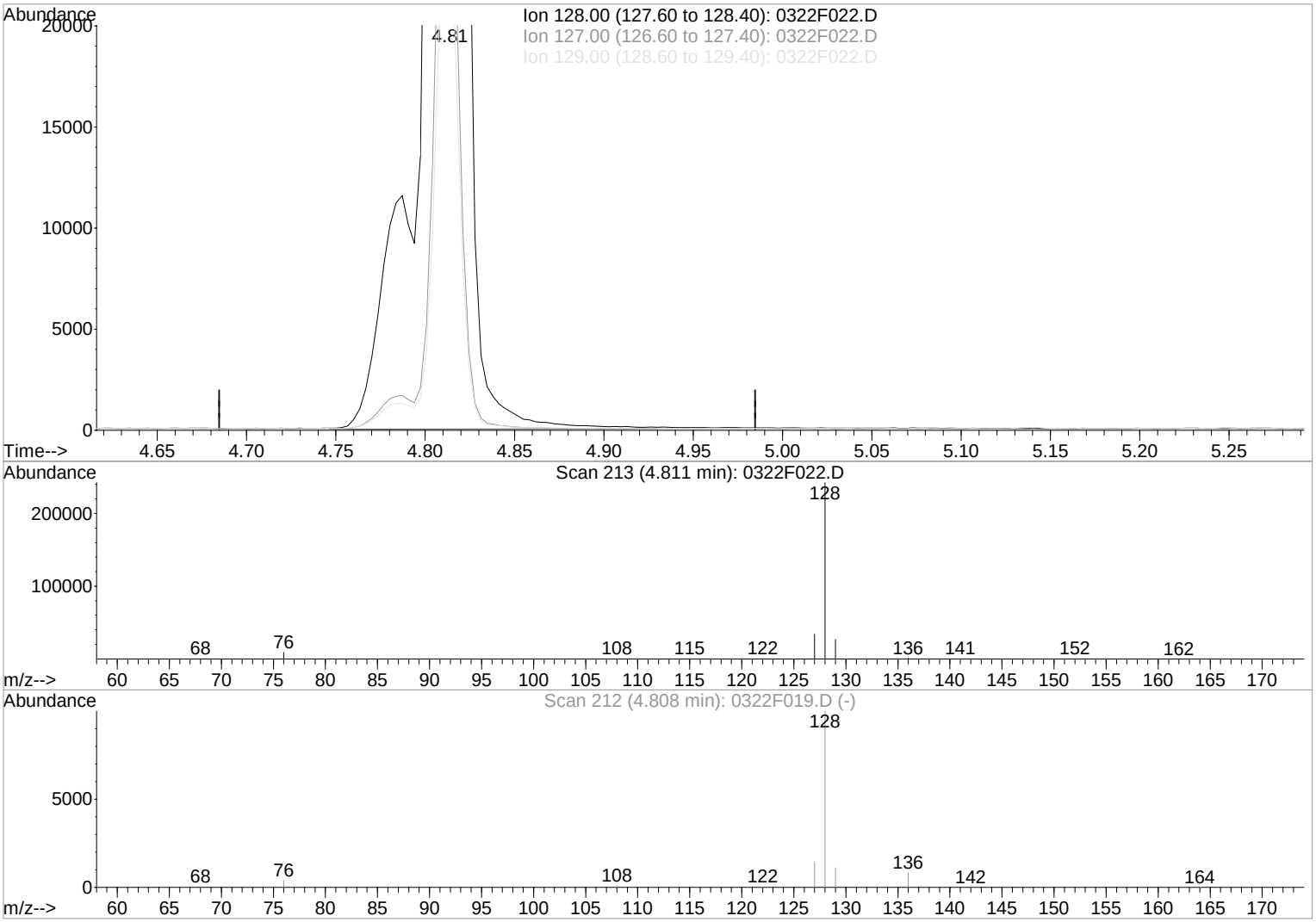
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:24 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F022.D

(2) Naphthalene (T)

4.81min 615.15ng/ml m

response 234434

Ion	Exp%	Act%
128.00	100	100
127.00	13.90	14.00
129.00	10.80	11.05
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F019.D\
Lab ID: KQ1903805-01
RunType: CCV
Matrix: Water

Date Acquired: 3/22/19 15:18:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Internal Standards	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F019.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 15:18:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903805-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**		**Report Group:**	KQ1903805
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		26263	200.00	NA
Chrysene-d12	10.17		65229	200.00	NA
Naphthalene-d8	4.79		55165	200.00	NA
Perylene-d12	13.41		72282	200.00	NA
Phenanthrene-d10	7.60		53755	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Fluoranthene-d10	8.58		146906	466.79	Y
Fluorene-d10	6.79		62782	345.04	Y
Terphenyl-d14	8.94		120322	418.18	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2-Methylnaphthalene	5.45		72907	376.14	Y
Acenaphthene	6.38		67725	364.16	Y
Acenaphthylene	6.24		110527	339.03	Y
Anthracene	7.66		124987	380.51	Y
Benz(a)anthracene	10.16		170993	365.30	Y
Benzo(a)pyrene	13.22		163737	361.52	Y
Benzo(b)fluoranthene	12.31		187092	388.20	Y
Benzo(g,h,i)perylene	15.94		170337	349.17	Y
Benzo(k)fluoranthene	12.39		182390	400.23	Y
Chrysene	10.21		165907	390.02	Y
Dibenz(a,h)anthracene	15.59		145011	361.04	Y
Fluoranthene	8.60		170037	434.97	Y
Fluorene	6.82		81004	337.05	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F019.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 15:18:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903805-01	**Raw Units:**	ng/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Indeno(1,2,3-cd)pyrene	15.54		137214	318.54	Y
Naphthalene	4.81		116275	375.25	Y
Phenanthrene	7.62		131211	383.34	Y
Pyrene	8.80		183372	372.86	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

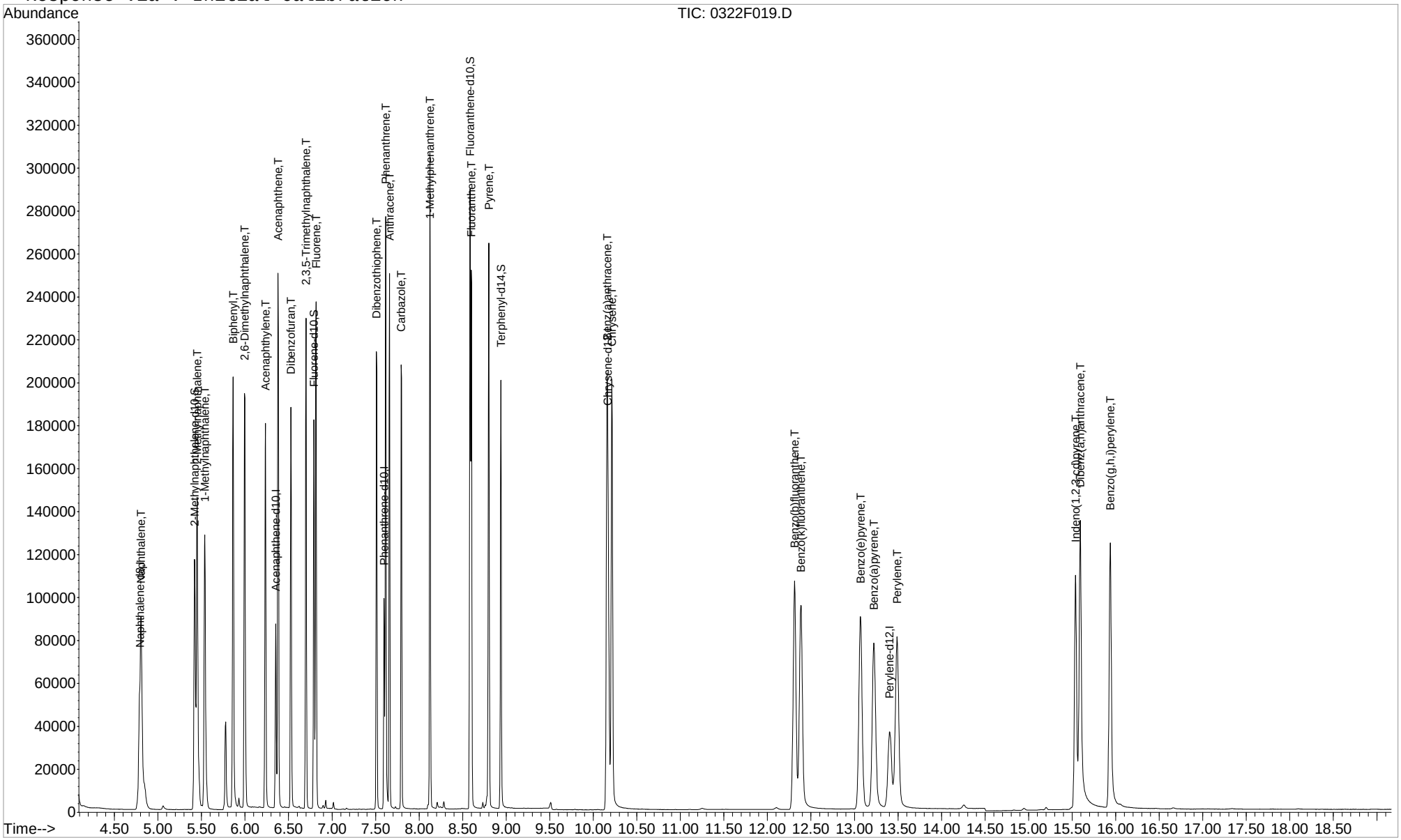
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F019.D Vial: 2
Acq On : 22 Mar 2019 3:18 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL | SVM60-69C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:20 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F019.D Vial: 2
Acq On : 22 Mar 2019 3:18 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL | SVM60-69C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:20:47 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	55165	200.00	ng/ml	-0.03
8) Acenaphthene-d10	6.35	164	26263	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	53755	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	65229	200.00	ng/ml	-0.01
28) Perylene-d12	13.41	264	72282	200.00	ng/ml	-0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	58346	375.09	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	37.51%		
13) Fluorene-d10	6.79	176	62782	345.04	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	34.50%		
22) Fluoranthene-d10	8.58	212	146906	466.79	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	46.68%		
25) Terphenyl-d14	8.94	244	120322	418.18	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	41.82%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	116275	375.25	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	72907	376.14	ng/ml	98
5) 1-Methylnaphthalene	5.54	142	66905	358.21	ng/ml	97
6) Biphenyl	5.86	154	89085	354.87	ng/ml	100
7) 2,6-Dimethylnaphthalene	6.00	156	63162	357.18	ng/ml	93
9) Acenaphthylene	6.24	152	110527	339.03	ng/ml	99
10) Acenaphthene	6.38	154	67725	364.16	ng/ml	98
11) Dibenzofuran	6.53	168	105824	352.85	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.70	170	62733	354.22	ng/ml	94
14) Fluorene	6.82	166	81004	337.05	ng/ml	98
16) Dibenzothiophene	7.51	184	135127	385.44	ng/ml	98
17) Phenanthrene	7.62	178	131211	383.34	ng/ml	100
18) Anthracene	7.66	178	124987	380.51	ng/ml	100
19) Carbazole	7.79	167	118731	393.92	ng/ml	99
20) 1-Methylphenanthrene	8.12	192	106933	420.73	ng/ml	99
21) Fluoranthene	8.60	202	170037	434.97	ng/ml	96
24) Pyrene	8.80	202	183372	372.86	ng/ml	99
26) Benz(a)anthracene	10.16	228	170993	365.30	ng/ml	100
27) Chrysene	10.21	228	165907	390.02	ng/ml	100
29) Benzo(b)fluoranthene	12.31	252	187092	388.20	ng/ml	99
30) Benzo(k)fluoranthene	12.39	252	182390	400.23	ng/ml	99
31) Benzo(e)pyrene	13.07	252	179399	396.99	ng/ml	99
32) Benzo(a)pyrene	13.22	252	163737	361.52	ng/ml	98
33) Perylene	13.49	252	163527	380.63	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.54	276	137214	318.54	ng/ml	98
35) Dibenz(a,h)anthracene	15.59	278	145011	361.04	ng/ml	99
36) Benzo(g,h,i)perylene	15.94	276	170337	349.17	ng/ml	98

(#) = qualifier out of range (m) = manual integration

Evaluate Continuing Calibration Report

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F019.D Vial: 2
Acq On : 22 Mar 2019 3:18 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL | SVM60-69C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 06:51:50 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	1.000	1.000	0.0	110	-0.03
2	T	Naphthalene	1.123	1.054	6.1	106	-0.03
3	S	2-Methylnaphthalene-d10	0.564	0.529	6.2	110	-0.02
4	T	2-Methylnaphthalene	0.703	0.661	6.0	110	-0.02
5	T	1-Methylnaphthalene	0.677	0.606	10.5	106	-0.01
6	T	Biphenyl	0.910	0.807	11.3	104	0.00
7	T	2,6-Dimethylnaphthalene	0.641	0.572	10.8	104	0.00
8	I	Acenaphthene-d10	1.000	1.000	0.0	113	0.00
9	T	Acenaphthylene	2.483	2.104	15.3	97	0.00
10	T	Acenaphthene	1.416	1.289	9.0	103	0.00
11	T	Dibenzofuran	2.284	2.015	11.8	102	0.00
12	T	2,3,5-Trimethylnaphthalene	1.349	1.194	11.5	101	0.00
13	S	Fluorene-d10	1.386	1.195	13.8	103	0.00
14	T	Fluorene	1.830	1.542	15.7	99	0.00
15	I	Phenanthrene-d10	1.000	1.000	0.0	105	0.00
16	T	Dibenzothiophene	1.304	1.257	3.6	101	0.00
17	T	Phenanthrene	1.273	1.220	4.2	103	0.00
18	T	Anthracene	1.222	1.163	4.8	100	0.00
19	T	Carbazole	1.121	1.104	1.5	103	-0.01
20	T	1-Methylphenanthrene	0.946	0.995	-5.2	109	0.00
21	T	Fluoranthene	1.454	1.582	-8.8	115	0.00
22	S	Fluoranthene-d10	1.171	1.366	-16.7	121	0.00
23	I	Chrysene-d12	1.000	1.000	0.0	121	-0.01
24	T	Pyrene	1.508	1.406	6.8	117	0.00
25	S	Terphenyl-d14	0.882	0.922	-4.5	135	0.00
26	T	Benz(a)anthracene	1.435	1.311	8.6	114	-0.01
27	T	Chrysene	1.304	1.272	2.5	118	-0.01
28	I	Perylene-d12	1.000	1.000	0.0	122	-0.01
29	T	Benzo(b)fluoranthene	1.334	1.294	3.0	116	-0.01
30	T	Benzo(k)fluoranthene	1.261	1.262	-0.1	118	0.00
31	T	Benzo(e)pyrene	1.250	1.241	0.7	121	0.00
32	T	Benzo(a)pyrene	1.253	1.133	9.6	115	-0.02
33	T	Perylene	1.189	1.131	4.9	115	0.00
34	T	Indeno(1,2,3-cd)pyrene	1.192	0.949	20.4#	96	0.00
35	T	Dibenz(a,h)anthracene	1.111	1.003	9.7	111	0.00
36	T	Benzo(g,h,i)perylene	1.350	1.178	12.7	109	0.00

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

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F018.D\
Lab ID: KQ1903805-02
RunType: TUNE
Matrix: Water

Date Acquired: 3/22/19 14:45:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Tune Ion Ratio	X	

Primary Review: _____

Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F018.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 14:45:00	**Vial:**	1
Run Type:	TUNE	**Dilution:**	1
Lab ID:	KQ1903805-02	**Raw Units:**	

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**		**Report Group:**	KQ1903805
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	30.23	53530	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	32.42	57420	Pass
70	69	0	2	0.57	327	Pass
127	198	10	80	40.85	72333	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	48.26	177088	Pass
199	198	5	9	6.55	11598	Pass
275	198	10	60	34.59	61253	Pass
365	442	1	50	2.63	9658	Pass
441	443	0.01	100	74.70	53258	Pass
442	442	30	100	100.00	366933	Pass
443	442	15	24	19.43	71298	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

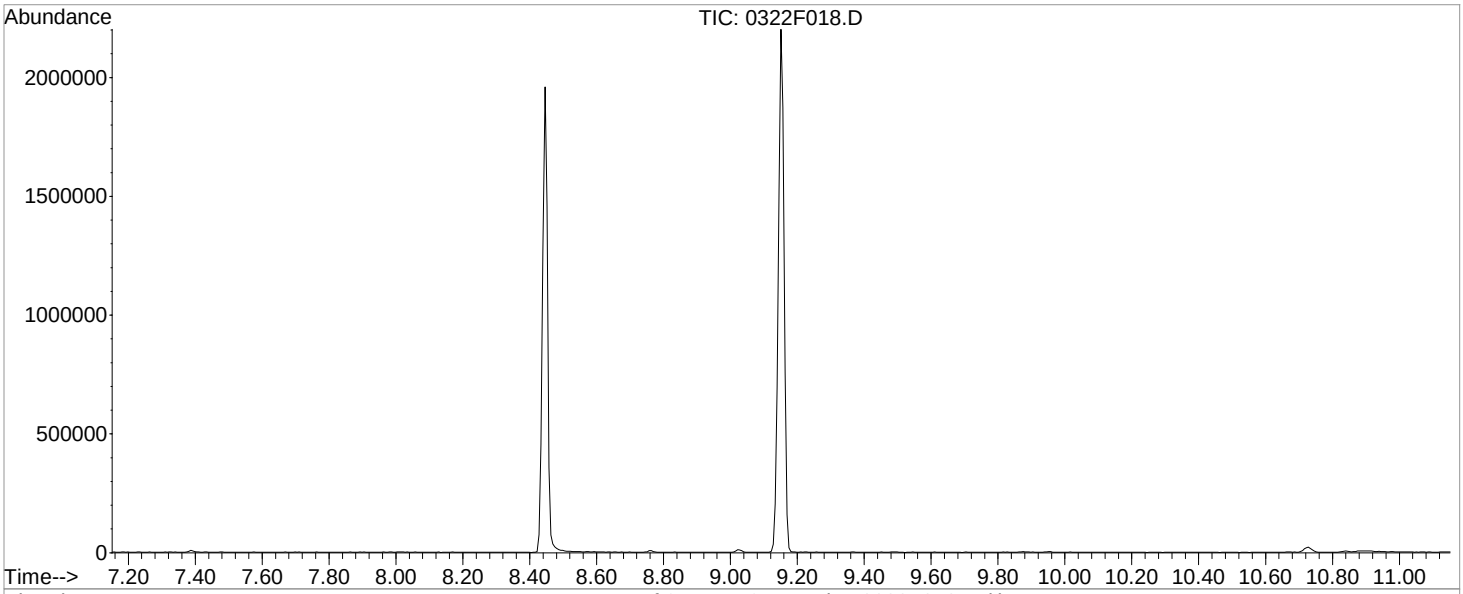
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

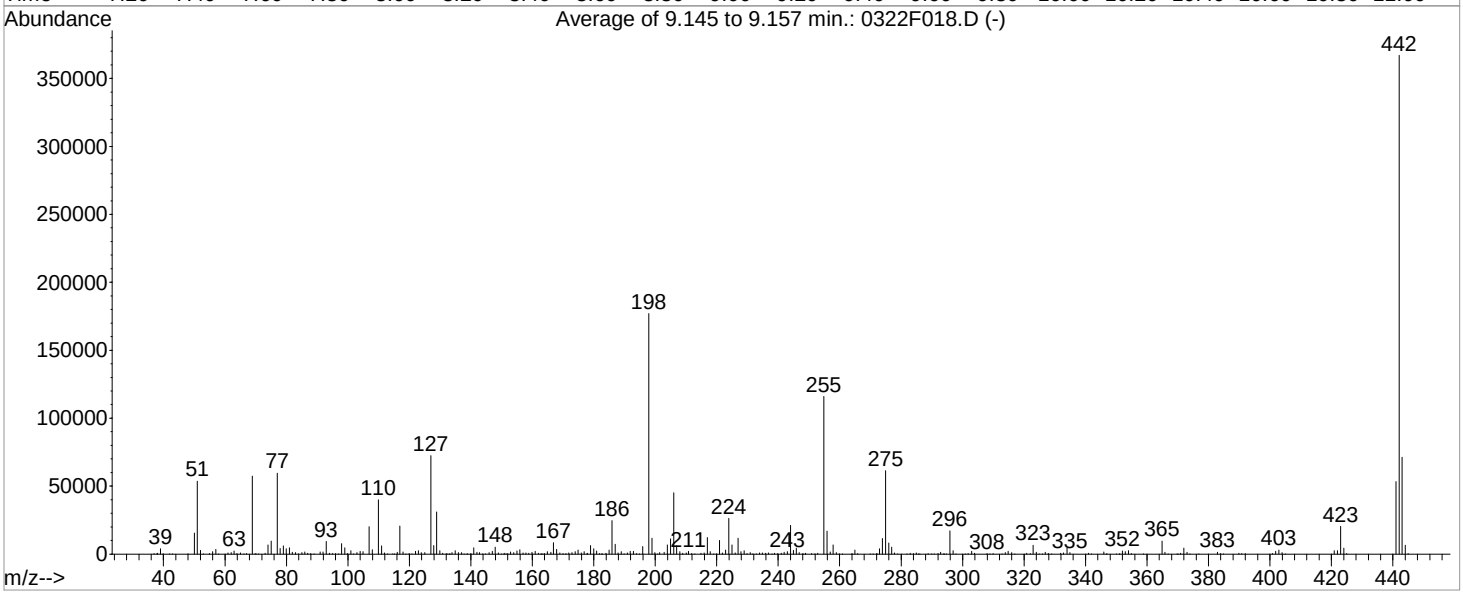
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 3/25/19 8:54
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F018.D Vial: 1
Acq On : 22 Mar 2019 2:45 pm Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix





AutoFind: Scans 520, 521, 522; Background Corrected with Scan 513

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	30.2	53530	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	32.4	57420	PASS
70	69	0.00	2	0.6	327	PASS
127	198	10	80	40.8	72333	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	48.3	177088	PASS
199	198	5	9	6.5	11598	PASS
275	198	10	60	34.6	61253	PASS
365	442	1	50	2.6	9658	PASS
441	443	0.01	100	74.7	53258	PASS
442	442	30	100	100.0	366933	PASS
443	442	15	24	19.4	71298	PASS

1st 03/25/19
2nd 03/26/19

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.90	362	53.00	141	67.05	314	79.95	3866
37.90	296	54.95	410	68.90	57420	80.95	4589
38.05	706	55.95	1704	69.85	327	81.95	1265
39.00	3970	57.00	3374	70.10	167	82.95	1069
39.90	249	58.00	58	71.00	43	83.85	199
42.05	159	60.95	745	73.10	564	85.00	961
43.00	117	62.00	999	74.00	6676	85.95	1589
47.95	126	63.00	2243	75.00	9575	86.95	679
50.05	15395	63.95	351	77.00	59426	87.80	57
51.00	53530	65.05	857	78.00	4066	87.95	180
52.00	2684	66.20	77	78.95	5978	89.00	50

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
90.95	1488	101.90	135	115.10	150	126.95	72333
91.95	1450	102.95	1166	116.05	1225	127.95	6189
92.90	9371	103.95	2041	116.90	20528	128.90	30957
93.95	582	104.95	1754	117.90	1430	129.90	2594
95.05	308	106.95	20189	118.90	169	130.90	499
95.95	356	107.95	3276	119.95	294	131.95	271
97.00	54	109.95	39981	120.90	227	132.50	66
97.95	7669	110.95	6063	121.95	2003	133.00	67
98.95	4537	111.95	759	122.95	2400	133.20	53
99.85	441	112.95	244	123.90	1034	133.90	1165
100.95	2542	114.60	81	125.00	1036	134.95	2464

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
135.95	1121	145.95	976	155.00	2166	164.00	337
136.95	1177	146.95	2030	155.95	3234	164.90	1799
137.85	139	147.90	5062	156.95	835	166.00	1327
138.75	187	148.95	921	157.90	854	166.90	8261
139.00	78	149.90	254	158.85	593	167.90	3462
140.05	452	150.70	120	159.90	1309	168.95	807
140.90	4600	151.00	536	160.90	1916	170.00	256
141.95	1395	151.80	275	161.95	586	170.90	462
142.85	975	152.10	119	162.80	59	171.90	759
143.85	189	152.90	1638	163.00	59	172.90	1018
144.85	233	153.95	1049	163.40	55	173.95	1796

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.90	3059	183.95	661	194.90	83	206.95	6015
175.95	952	184.95	2945	195.90	5563	207.95	1883
176.90	1734	185.95	24549	197.90	177088	208.90	648
177.80	229	186.95	7222	198.90	11598	210.05	757
177.95	503	187.95	865	199.85	978	210.85	1969
178.90	6317	188.95	1770	200.80	154	211.80	283
179.95	3969	189.85	195	201.40	972	212.90	83
180.90	2180	190.90	777	202.90	1385	214.85	613
181.85	315	191.90	1985	203.95	6609	215.95	807
182.50	67	192.95	2114	204.95	11100	216.90	12052
182.85	171	193.95	469	206.00	45186	217.90	1813

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
219.05	192	229.85	355	240.95	718	250.85	272
220.00	181	230.90	999	241.95	1420	251.90	221
220.90	10030	231.75	203	243.00	1801	252.90	611
221.80	859	232.85	147	244.00	21208	254.90	116042
222.90	2912	233.90	741	244.95	2810	255.90	16962
223.95	26192	234.90	813	245.90	4467	256.95	1464
224.95	6758	235.85	553	246.85	982	257.90	6653
226.00	820	236.85	843	247.90	85	258.90	1144
226.90	11782	237.95	149	248.20	54	259.80	61
227.90	1717	238.85	579	248.80	229	260.85	233
228.90	2397	239.90	362	248.95	578	263.90	51

Average of 9.145 to 9.157 min.: 0322F018.D

1st 03/25/19
2nd 03/26/19

DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
264.10	55	276.90	5199	290.80	51	302.95	2085
264.90	2888	277.90	873	292.00	350	303.90	610
265.85	473	278.90	247	292.85	1341	307.95	290
269.90	136	281.90	212	293.80	97	308.85	172
270.85	250	282.95	482	294.05	160	309.95	257
272.00	277	284.00	380	294.70	127	312.80	207
272.20	194	284.95	729	295.90	17104	313.90	1088
272.95	3920	285.70	90	296.90	2515	314.85	2045
273.95	11339	286.10	104	297.85	156	315.95	1143
274.90	61253	288.80	290	300.90	230	317.00	249
275.95	8139	289.90	50	301.85	368	320.90	598

Average of 9.145 to 9.157 min.: 0322F018.D

DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
321.95	340	334.00	4275	352.95	1666	373.00	1205
322.95	6392	334.95	1138	353.95	2527	373.95	113
323.95	1321	340.90	713	354.90	440	376.90	82
324.90	201	341.90	77	358.85	119	382.90	1279
326.00	134	345.95	1615	364.90	9658	383.95	261
326.90	1265	346.75	172	365.85	1372	384.90	51
327.80	147	347.00	75	366.90	54	389.90	613
327.95	398	350.10	61	369.80	83	390.85	390
329.00	127	351.00	147	370.05	221	391.95	310
331.90	533	351.20	56	370.95	556	400.85	321
332.85	736	351.95	2242	372.00	4433	401.90	1982

Average of 9.145 to 9.157 min.: 0322F018.D

DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
402.90	2951	444.00	6520				
403.90	1060	444.95	391				
405.00	117						
420.95	2419						
421.95	2516						
423.00	20340						
424.00	4269						
425.00	359						
441.00	53258						
442.00	366933						
443.00	71298						

Injection Log

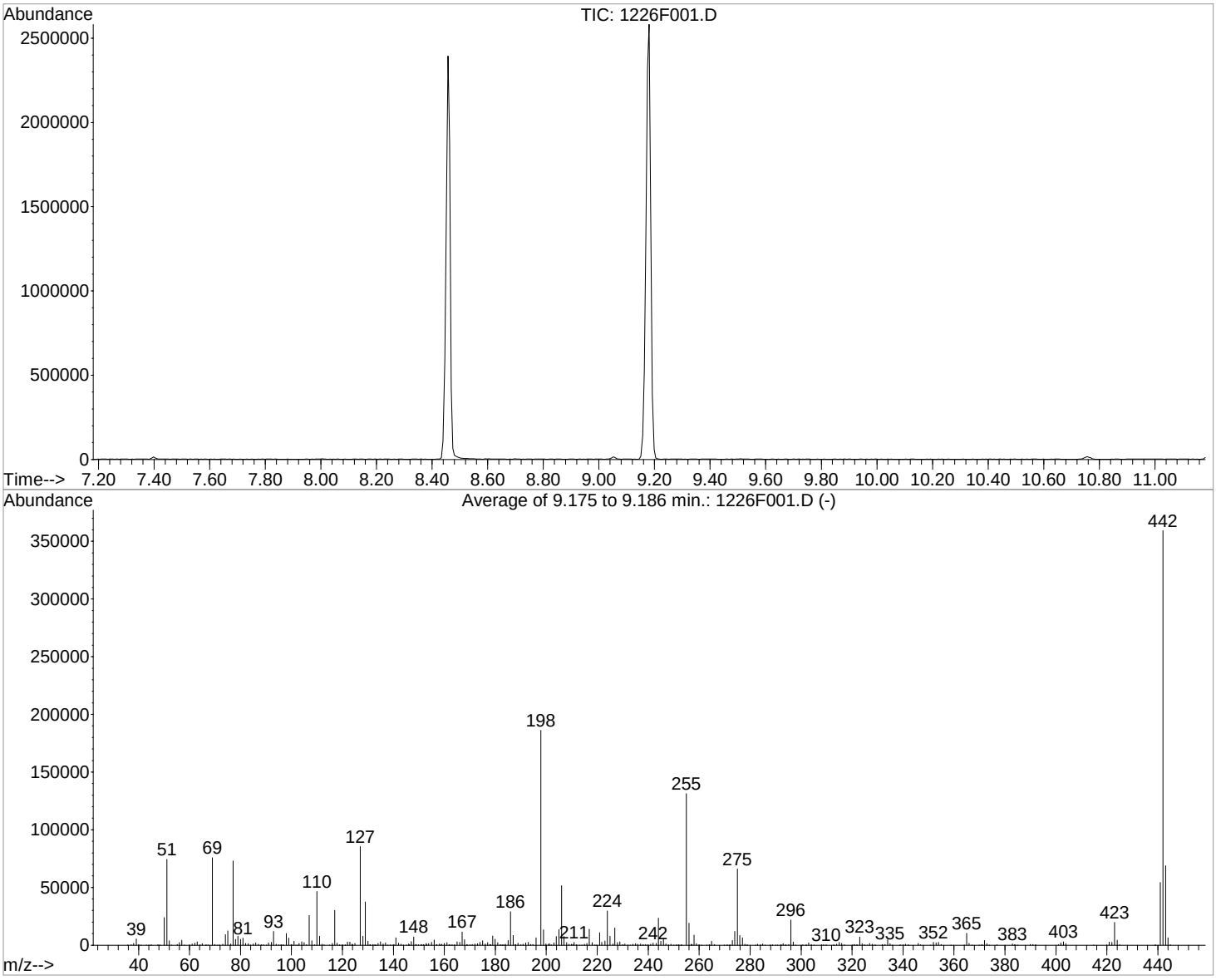
Directory: J:\MS14\DATA\122618a

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1226F001.D	1.	DFTPP @ 10ug/mL | SVM60-10C		26 Dec 2018 06:05
2	20	1226F005.D	1.	IB		26 Dec 2018 07:49
3	5	1226F006.D	1.	SIM-PAH ICAL @.002ug/mL | SVM59-4A		26 Dec 2018 08:15
4	6	1226F007.D	1.	SIM-PAH ICAL @.004ug/mL | SVM59-4B		26 Dec 2018 08:41
5	7	1226F008.D	1.	SIM-PAH ICAL @.008ug/mL | SVM59-4C		26 Dec 2018 09:07
6	8	1226F009.D	1.	SIM-PAH ICAL @0.02ug/mL | SVM59-4D		26 Dec 2018 09:33
7	9	1226F010.D	1.	SIM-PAH ICAL @0.1ug/mL | SVM59-4E		26 Dec 2018 09:59
8	10	1226F011.D	1.	SIM-PAH ICAL @0.2ug/mL | SVM59-4F		26 Dec 2018 10:26
9	11	1226F012.D	1.	SIM-PAH ICAL @0.4ug/mL | SVM59-4G		26 Dec 2018 10:52
10	12	1226F013.D	1.	SIM-PAH ICAL @1.0ug/mL | SVM59-4H		26 Dec 2018 11:18
11	13	1226F014.D	1.	SIM-PAH ICAL @1.6ug/mL | SVM59-4I		26 Dec 2018 11:45
12	14	1226F015.D	1.	SIM-PAH ICAL @2.0ug/mL | SVM59-4J		26 Dec 2018 12:12
13	15	1226F016.D	1.	SIM-PAH ICV @0.4ug/mL | SVM60-14A		26 Dec 2018 12:38

CAL 15930
12/27/18
1/2/19

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F001.D Vial: 1
Acq On : 26 Dec 2018 6:05 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-10C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix



AutoFind: Scans 525, 526, 527; Background Corrected with Scan 518

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	40.0	74400	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	40.7	75770	PASS
70	69	0.00	2	0.8	589	PASS
127	198	10	80	45.9	85370	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	51.8	186133	PASS
199	198	5	9	7.1	13267	PASS
275	198	10	60	35.5	66066	PASS
365	442	1	50	2.9	10321	PASS
441	443	0.01	100	79.1	54346	PASS
442	442	30	100	100.0	359232	PASS
443	442	15	24	19.1	68744	PASS

1st 12/27/18
2nd 01/02/19

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.80	52	47.90	85	61.00	1060	71.80	57
37.10	435	48.35	233	62.10	1747	73.05	712
38.05	1590	50.10	23997	63.05	2883	74.05	9088
39.10	5483	51.10	74400	64.20	313	75.00	12266
40.05	681	52.00	3813	65.00	1318	76.20	1125
41.00	186	52.90	103	66.30	77	77.10	73082
43.10	143	55.15	650	66.80	198	78.05	5050
44.00	51	56.05	2212	67.30	147	79.00	7632
44.90	75	56.95	4247	68.95	75770	80.00	5022
45.10	51	58.05	157	69.85	589	81.00	6215
47.50	70	60.00	50	71.00	63	82.05	1547

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
83.00	1241	94.05	821	101.70	88	111.95	816
84.00	230	95.10	241	102.40	96	112.85	321
85.00	1040	95.85	262	103.00	1458	115.00	66
86.00	1947	96.10	123	104.00	3005	116.00	1396
87.00	742	96.65	211	105.00	2231	117.00	30189
88.15	248	96.90	70	105.90	409	117.95	1791
89.00	301	98.00	10132	107.00	25710	118.80	106
90.20	101	98.95	6219	108.00	3887	119.00	127
91.00	1991	99.85	531	109.00	355	119.85	220
92.10	2328	100.30	218	110.00	46525	120.10	103
93.00	11883	101.00	3289	111.00	7803	121.00	80

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
121.20	126	131.00	425	139.90	399	148.80	521
121.95	2684	132.00	531	140.20	309	148.95	650
122.95	2780	132.60	87	140.95	6348	149.85	302
123.80	902	132.90	171	142.00	1743	150.90	560
124.00	700	133.20	115	142.95	923	151.20	121
124.95	1472	133.95	1407	143.95	207	151.85	686
127.00	85370	134.95	2948	145.20	139	152.90	1481
128.00	7660	135.95	1078	145.95	1080	153.10	283
129.00	37552	136.95	2079	146.30	260	153.85	1268
130.00	3284	137.90	148	147.00	3020	154.95	2414
130.80	267	138.90	315	148.00	6949	156.00	4535

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
156.90	660	163.90	441	174.00	2417	182.60	159
157.10	273	164.95	2918	175.00	3713	182.95	260
158.05	1099	166.00	2436	176.05	1061	183.50	181
158.50	67	166.95	11400	177.00	2284	184.00	881
158.95	792	167.90	4636	177.80	565	185.00	4149
159.95	1599	168.85	511	178.20	326	186.00	28840
161.00	2288	169.10	137	178.95	7955	187.00	8506
161.85	460	170.00	336	179.95	5251	187.80	292
162.10	335	170.90	495	181.00	2194	188.00	574
162.80	222	171.95	1161	181.85	388	188.90	1852
163.10	77	173.00	1242	182.10	187	190.00	472

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
190.90	814	201.95	398	211.75	391	221.75	2502
191.95	2014	203.00	2095	212.00	114	223.00	3688
192.95	2478	203.90	7549	213.00	159	224.00	29669
193.95	521	205.00	13568	213.90	57	225.00	7747
194.70	489	206.00	51632	215.00	755	226.10	1144
195.95	6339	206.95	7510	215.90	1417	226.90	14999
197.90	186133	208.00	2307	216.90	13853	227.95	2280
198.90	13267	208.95	759	218.00	2256	228.90	2974
199.90	1106	209.90	937	219.00	51	229.85	319
200.90	921	210.35	603	219.55	164	230.30	117
201.25	1179	210.90	2426	220.95	10624	230.90	989

Average of 9.175 to 9.186 min.: 1226F001.D

DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

1st 12/27/18
2nd 01/02/19

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
231.95	126	241.90	1852	251.70	53	260.20	68
232.90	113	243.15	1559	252.00	297	260.95	221
233.95	901	244.00	23329	252.90	156	263.00	121
235.00	1234	244.90	3332	253.05	430	263.90	241
235.90	909	246.00	6049	255.00	131357	264.10	151
237.00	972	246.90	1152	256.00	19096	264.90	3459
237.90	161	247.90	141	256.90	942	266.00	566
238.05	322	248.10	126	257.10	647	269.85	178
238.95	648	248.90	901	257.95	8693	270.85	221
239.90	337	250.10	55	258.90	1256	271.20	104
240.95	748	250.95	271	259.90	118	272.00	232

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
272.20	238	284.05	453	294.10	142	307.95	270
273.00	3956	284.90	1138	295.15	700	308.85	245
273.95	11909	285.90	186	295.95	21709	309.90	349
275.00	66066	287.85	180	296.95	2553	312.70	69
275.95	8495	288.75	241	297.85	145	313.00	90
276.95	6309	290.05	183	300.70	265	313.90	901
277.95	940	290.80	56	301.80	183	314.95	2444
278.80	75	291.95	299	302.10	95	315.90	1575
279.00	81	292.40	74	302.95	2076	316.95	304
282.20	77	293.00	1326	304.00	656	320.05	115
282.95	757	293.90	247	305.05	151	320.80	155

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

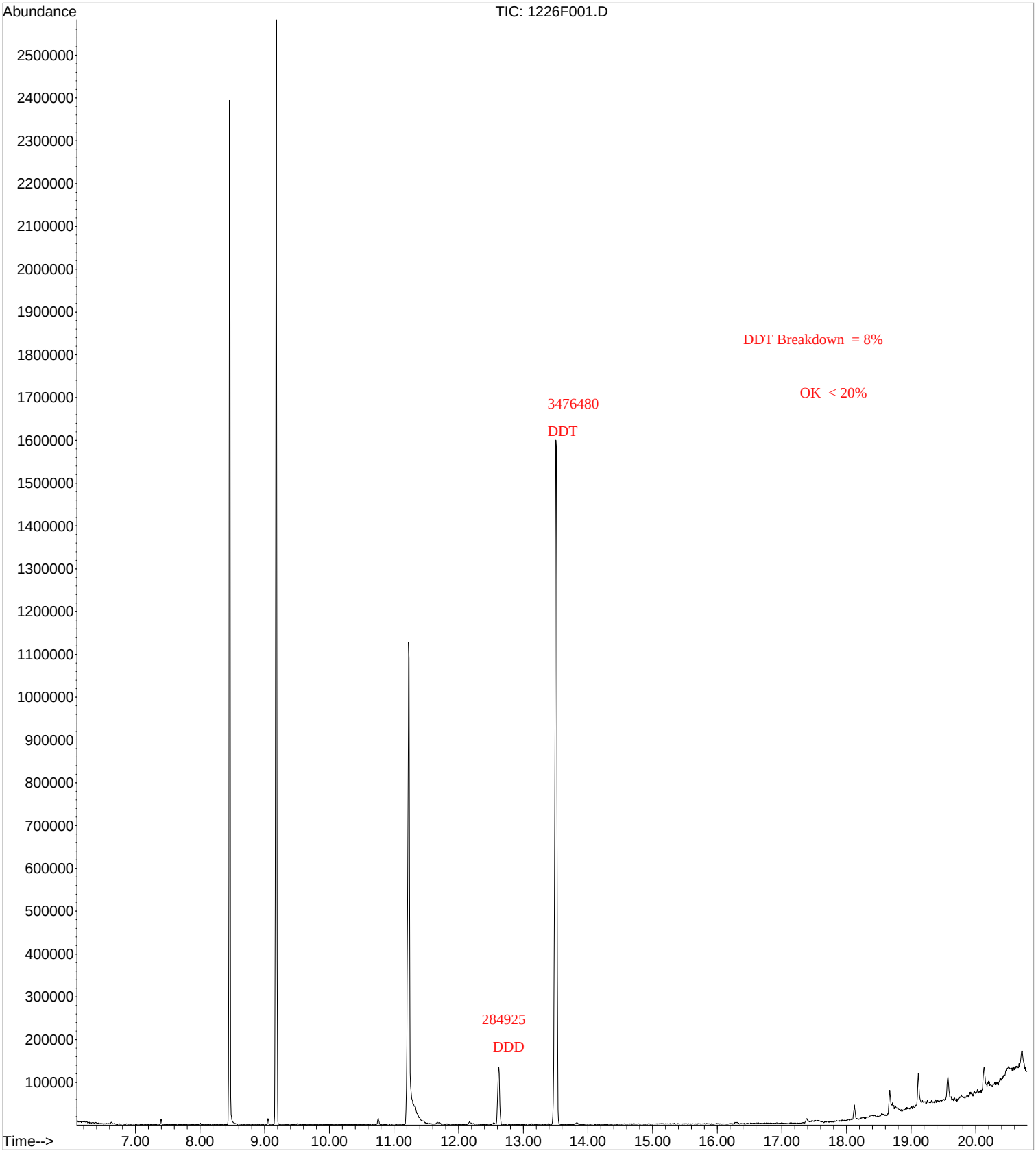
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
320.95	481	329.20	63	342.00	114	364.95	10321
321.90	350	331.85	503	342.20	53	365.95	1603
322.20	105	332.90	586	345.95	1558	367.10	73
323.00	7101	334.00	4806	346.85	271	369.85	168
323.95	1329	334.90	1366	350.90	84	370.95	666
324.70	81	335.90	209	351.90	2362	371.95	4141
325.10	65	338.70	60	353.00	2011	372.90	1252
326.00	133	339.00	77	353.95	2540	373.80	67
326.85	1430	339.90	82	355.00	563	376.85	284
327.95	719	340.10	69	358.85	138	382.95	1115
328.80	71	341.00	808	364.00	140	383.80	290

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
384.10	94	419.95	112	444.00	6337		
384.90	97	420.95	2561	444.95	452		
389.95	631	422.00	2465				
390.95	614	423.00	19650				
391.85	210	424.00	4242				
392.10	65	425.00	256				
400.95	408	438.90	125				
401.90	1882	439.20	143				
402.95	2817	441.00	54346				
403.95	1182	442.00	359232				
414.85	117	443.00	68744				

1st 12/27/18
2nd 01/02/19

File : J:\MS14\DATA\122618A\1226F001.D
Operator : LWeiskopf
Acquired : 26 Dec 2018 6:05 am using AcqMethod SIMLOC
Instrument : MS14
Sample Name: DFTPP @ 10ug/mL | SVM60-10C
Misc Info :
Vial Number: 1

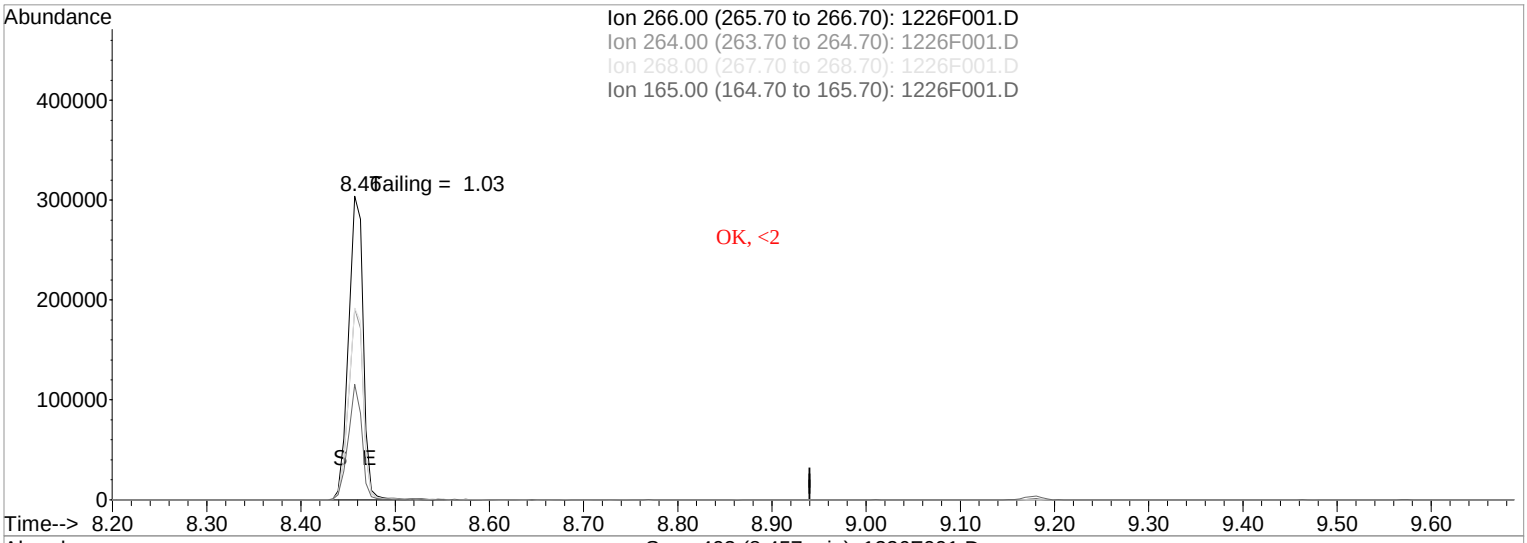


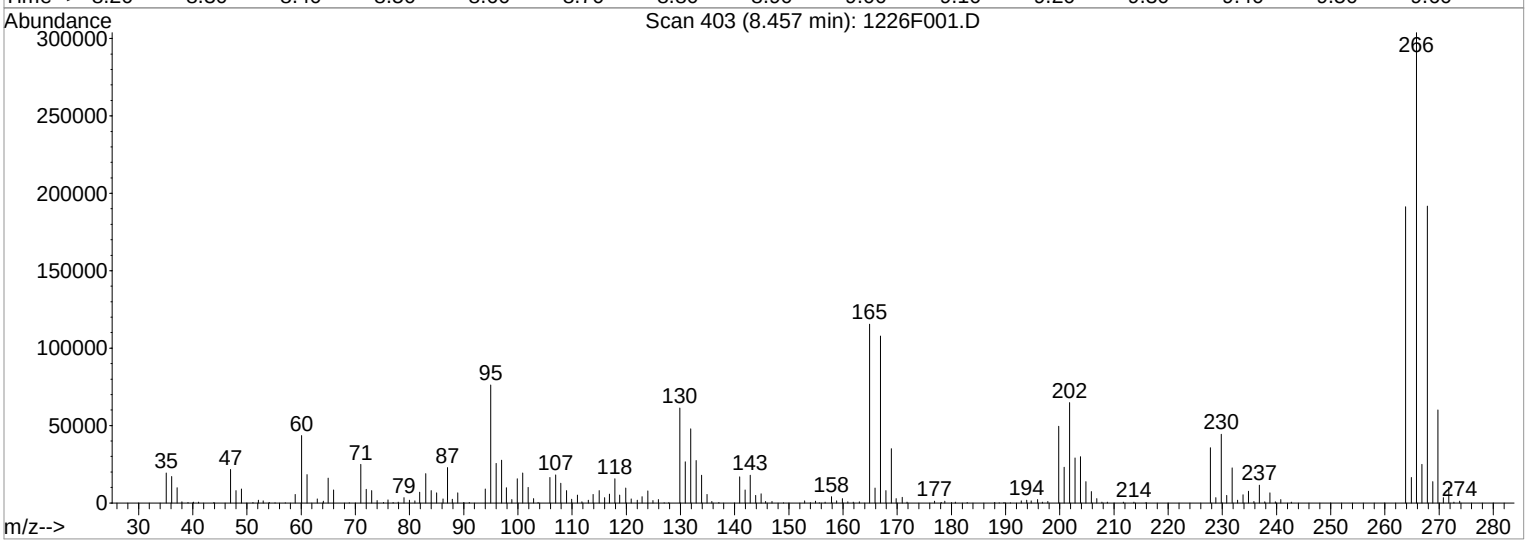
Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F001.D Vial: 1
Acq On : 26 Dec 2018 6:05 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-10C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 26 6:54 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Thu Sep 20 12:42:13 2018
Response via : Single Level Calibration





TIC: 1226F001.D

(1) Pentachlorophenol

8.46min 14.27ng/ml

response 328335

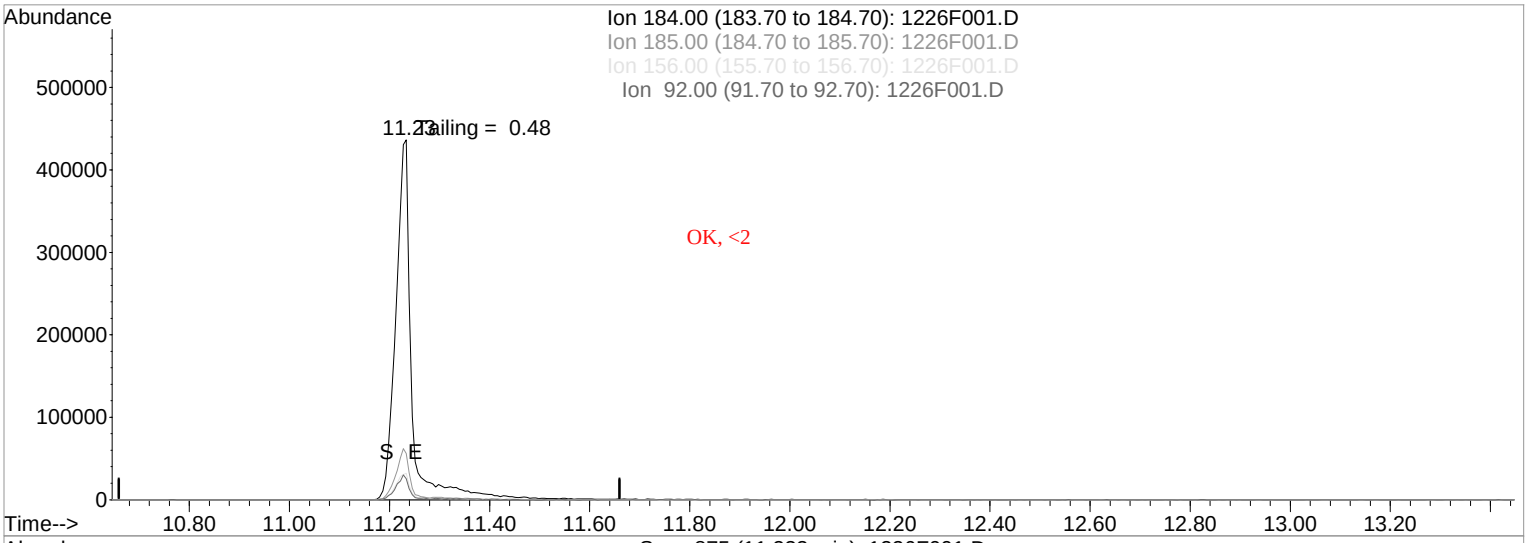
Ion	Exp%	Act%
266.00	100	100
264.00	62.30	62.95
268.00	72.30	63.08
165.00	42.00	37.99

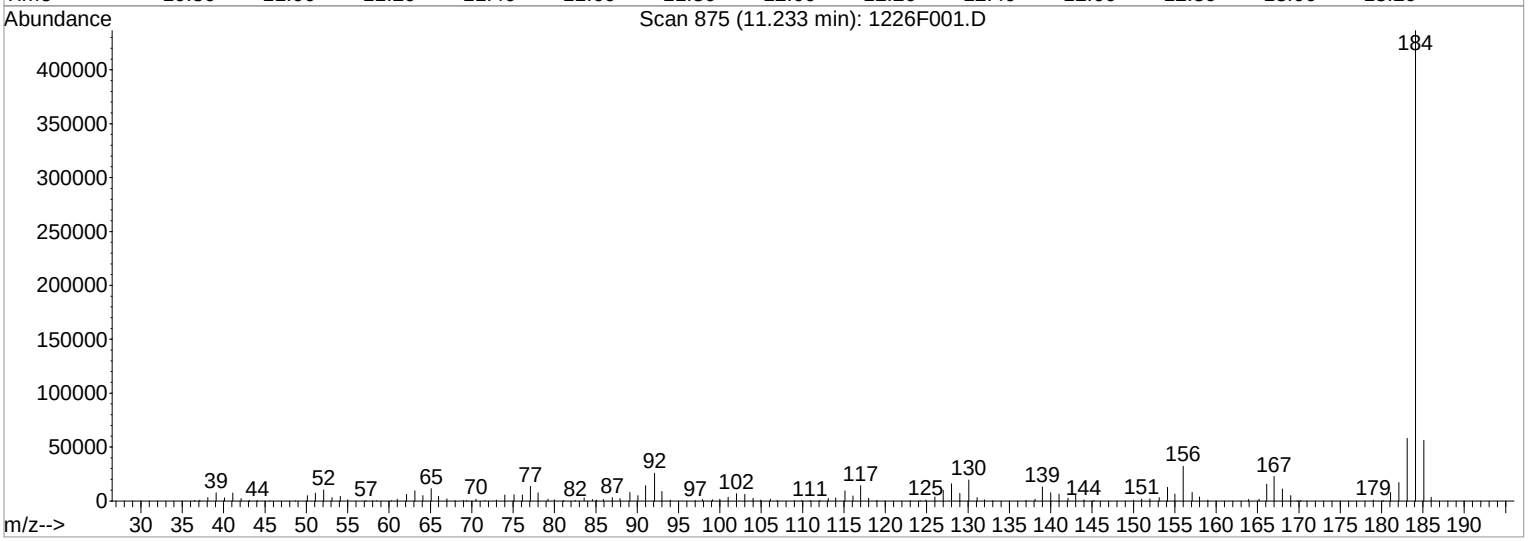
Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F001.D Vial: 1
Acq On : 26 Dec 2018 6:05 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-10C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 26 6:54 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Thu Sep 20 12:42:13 2018
Response via : Single Level Calibration





TIC: 1226F001.D

(3) Benzidine (T)

11.23min 15.43ug/ml

response 889431

Ion	Exp%	Act%
184.00	100	100
185.00	14.70	12.87
156.00	9.50	7.38
92.00	7.60	5.86

1st 12/27/18
2nd 01/02/19

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\122618A\1226F005.D Vial: 20
Acq On : 26 Dec 2018 7:49 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:47 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

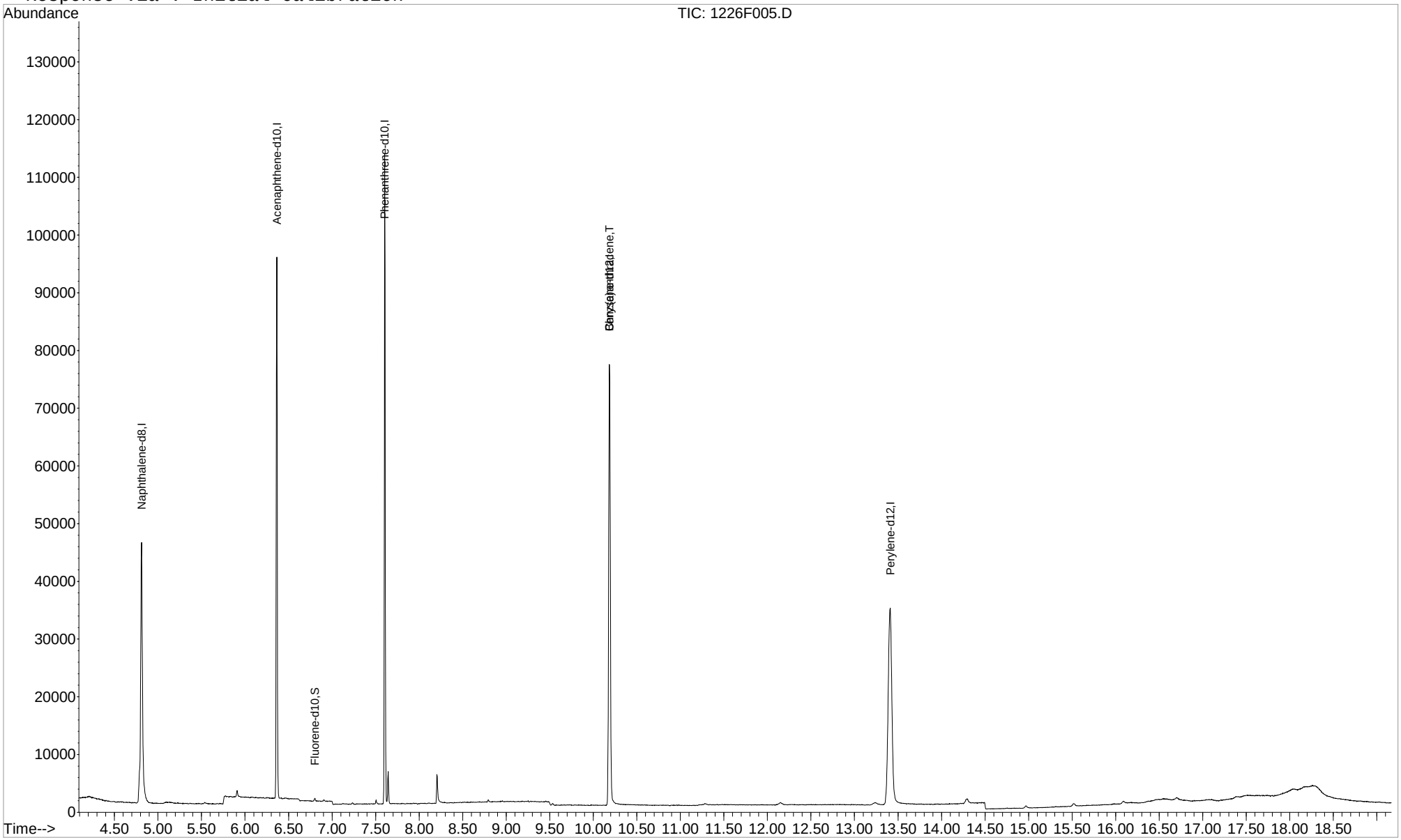
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)	
1) Naphthalene-d8	4.81	136	54203	200.00	ng/ml	0.00	
8) Acenaphthene-d10	6.37	164	26925	200.00	ng/ml	0.00	
15) Phenanthrene-d10	7.60	188	59493	200.00	ng/ml	0.00	
23) Chrysene-d12	10.19	240	60805	200.00	ng/ml	0.00	
28) Perylene-d12	13.41	264	65678	200.00	ng/ml	0.00	
System Monitoring Compounds							
3) 2-Methylnaphthalene-d10	0.00	152	0	0.00	ng/ml		
Spiked Amount 1000.000			Recovery =	0.00%			
13) Fluorene-d10	6.80	176	187	1.06	ng/ml	0.00	
Spiked Amount 1000.000			Recovery =	0.11%			
22) Fluoranthene-d10	0.00	212	0d	0.00	ng/ml		
Spiked Amount 1000.000			Recovery =	0.00%			
25) Terphenyl-d14	0.00	244	0d	0.00	ng/ml		
Spiked Amount 1000.000			Recovery =	0.00%			
Target Compounds						Qvalue	
26) Benz(a)anthracene	10.19	228	168	0.39	ng/ml#	36	< 1/2 MRL

(#) = qualifier out of range (m) = manual integration

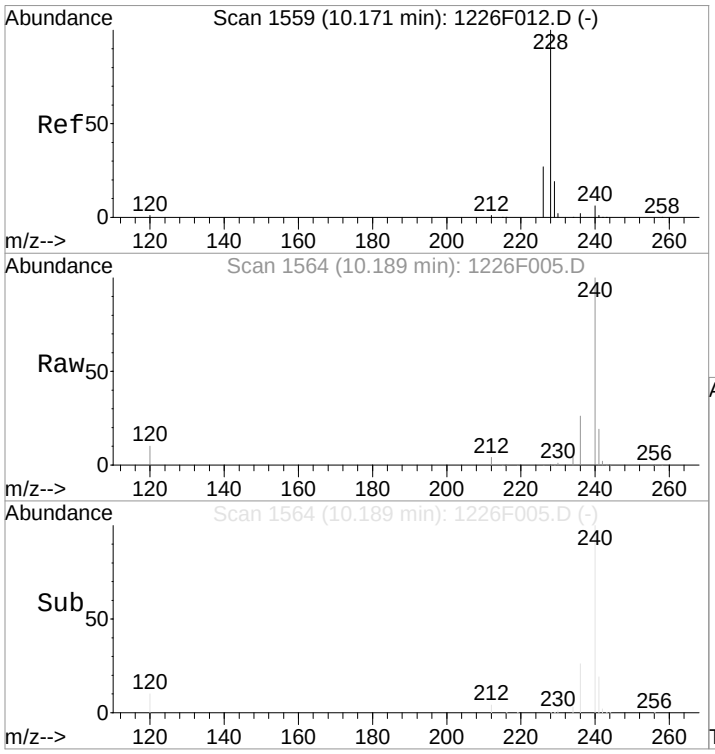
1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F005.D Vial: 20
Acq On : 26 Dec 2018 7:49 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:08 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 27 07:07:12 2018
Response via : Initial Calibration



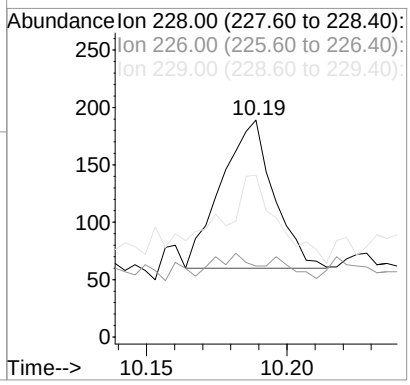
1st 12/27/18
2nd 01/02/19



#26
Benz(a)anthracene
Concen: 0.39 ng/ml
RT: 10.19 min Scan# 1564
Delta R.T. 0.01 min
Lab File: 1226F005.D
Acq: 26 Dec 2018 7:49 am

Tgt Ion:228 Resp: 168

Ion	Ratio	Lower	Upper
228	100		
226	3.1	0.0	56.1
229	59.7	0.0	39.2#



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:48 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

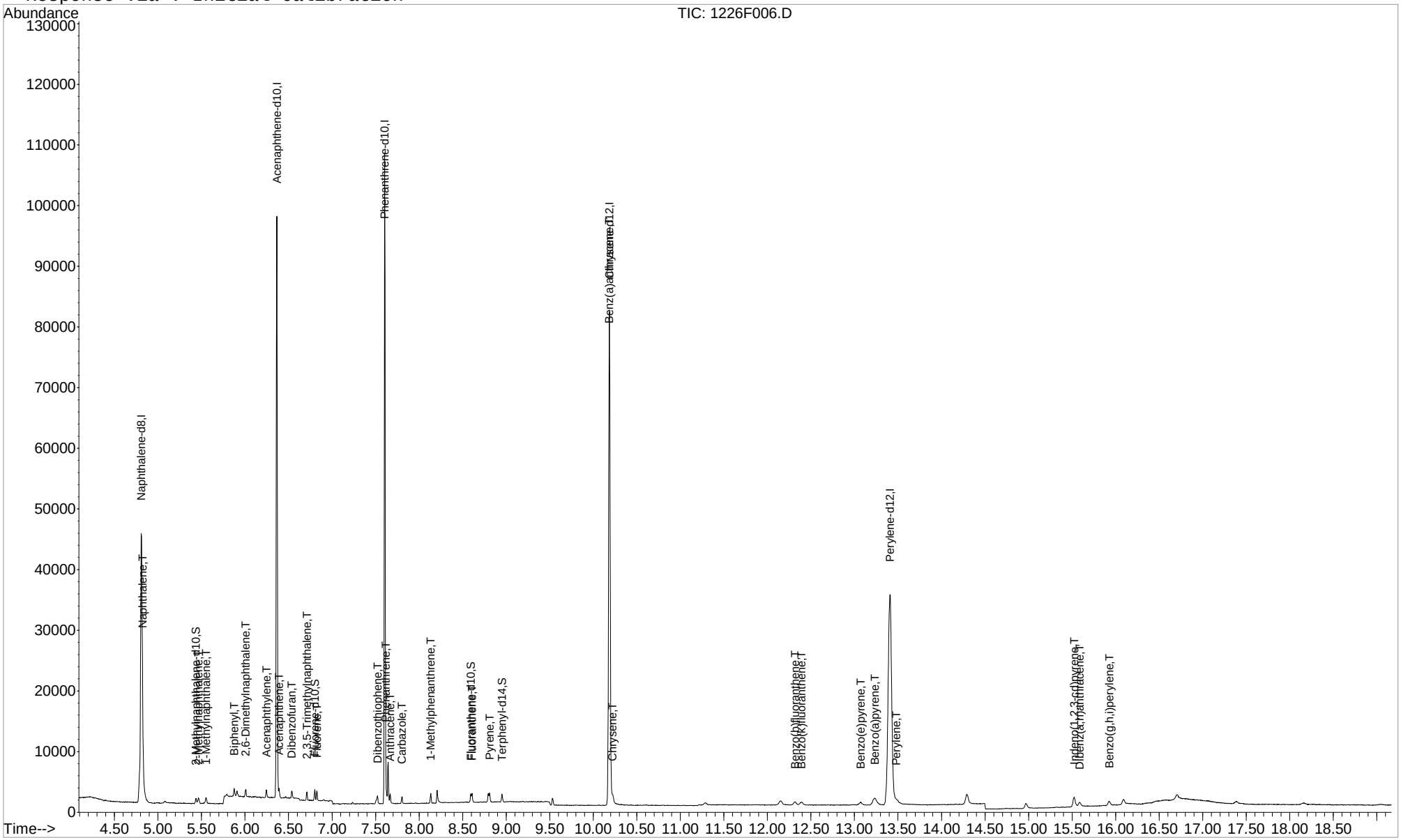
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	54693	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	27097	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	58181	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	59563	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	64363	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	376	2.49	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.25%		
13) Fluorene-d10	6.80	176	583	3.27	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.33%		
22) Fluoranthene-d10	8.59	212	693	1.87	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.19%		
25) Terphenyl-d14	8.95	244	867	3.31	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.33%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	691	2.21	ng/ml	96
4) 2-Methylnaphthalene	5.46	142	405m	2.12	ng/ml	
5) 1-Methylnaphthalene	5.55	142	439m	2.43	ng/ml	
6) Biphenyl	5.88	154	593	2.48	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	409	2.48	ng/ml	93
9) Acenaphthylene	6.24	152	735	2.16	ng/ml	99
10) Acenaphthene	6.39	154	416	2.18	ng/ml	100
11) Dibenzofuran	6.54	168	690	2.26	ng/ml	84
12) 2,3,5-Trimethylnaphthalene	6.71	170	397	2.25	ng/ml	89
14) Fluorene	6.82	166	572	2.46	ng/ml	96
16) Dibenzothiophene	7.52	184	819	2.21	ng/ml	99
17) Phenanthrene	7.62	178	782m	2.11	ng/ml	
18) Anthracene	7.67	178	718	1.98	ng/ml	96
19) Carbazole	7.80	167	699	2.02	ng/ml	96
20) 1-Methylphenanthrene	8.13	192	566	1.92	ng/ml	90
21) Fluoranthene	8.61	202	910	1.97	ng/ml	97
24) Pyrene	8.81	202	946	2.04	ng/ml	98
26) Benz(a)anthracene	10.17	228	1044	2.47	ng/ml	94
27) Chrysene	10.22	228	790	2.01	ng/ml	97
29) Benzo(b)fluoranthene	12.32	252	901	2.14	ng/ml	91
30) Benzo(k)fluoranthene	12.39	252	794	1.95	ng/ml	97
31) Benzo(e)pyrene	13.07	252	850	2.13	ng/ml	91
32) Benzo(a)pyrene	13.23	252	1147	2.86	ng/ml#	1
33) Perylene	13.49	252	814	2.16	ng/ml	96
34) Indeno(1,2,3-cd)pyrene	15.53	276	808	2.40	ng/ml#	52
35) Dibenz(a,h)anthracene	15.58	278	691	2.10	ng/ml	93
36) Benzo(g,h,i)perylene	15.93	276	949	2.36	ng/ml	88

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:58 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration

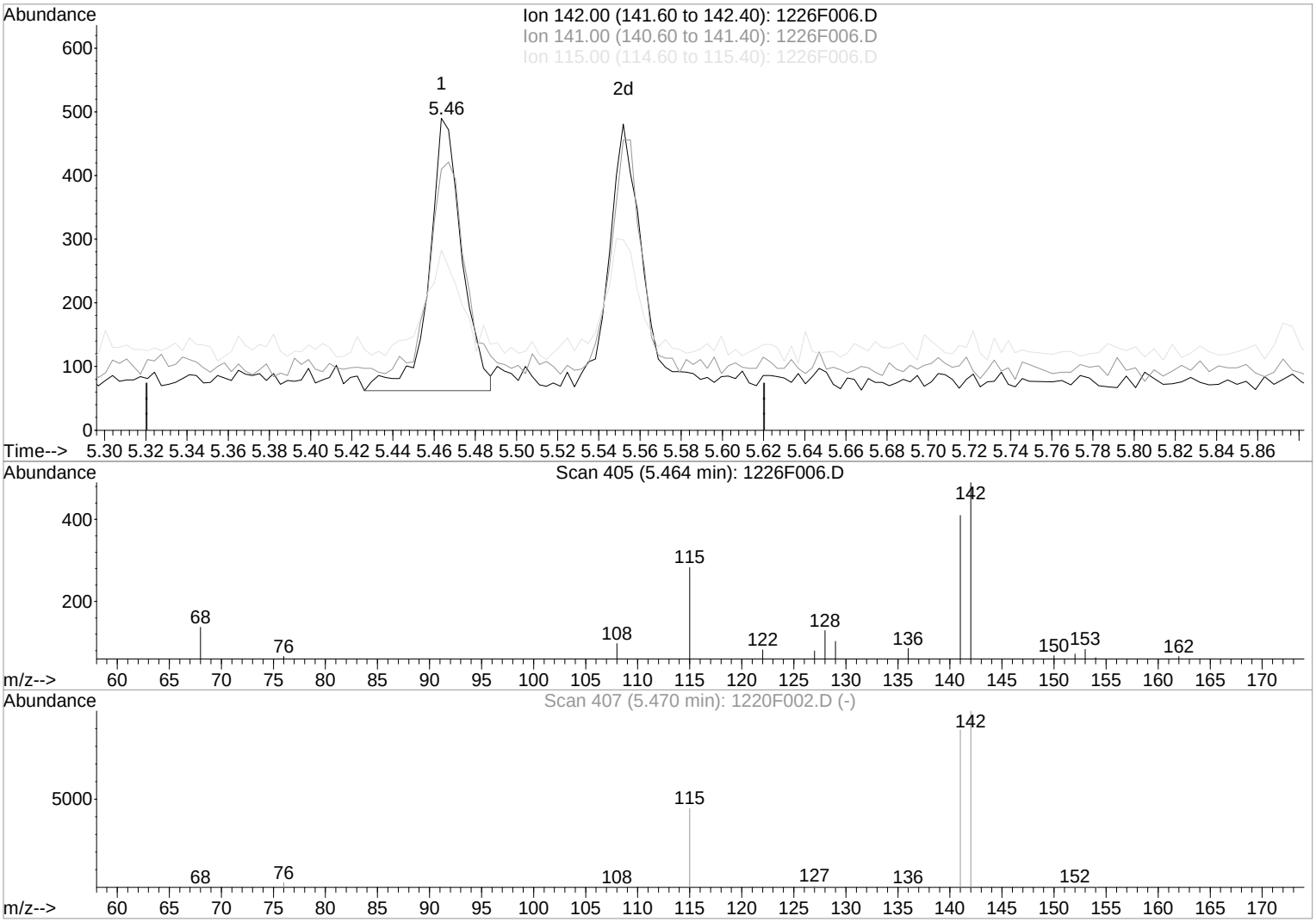


Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(4) 2-Methylnaphthalene (T)

5.46min 2.48ng/ml

response 474

Ion	Exp%	Act%
142.00	100	100
141.00	87.30	73.13
115.00	39.10	36.45
0.00	0.00	0.00

Manual Integration:

Before

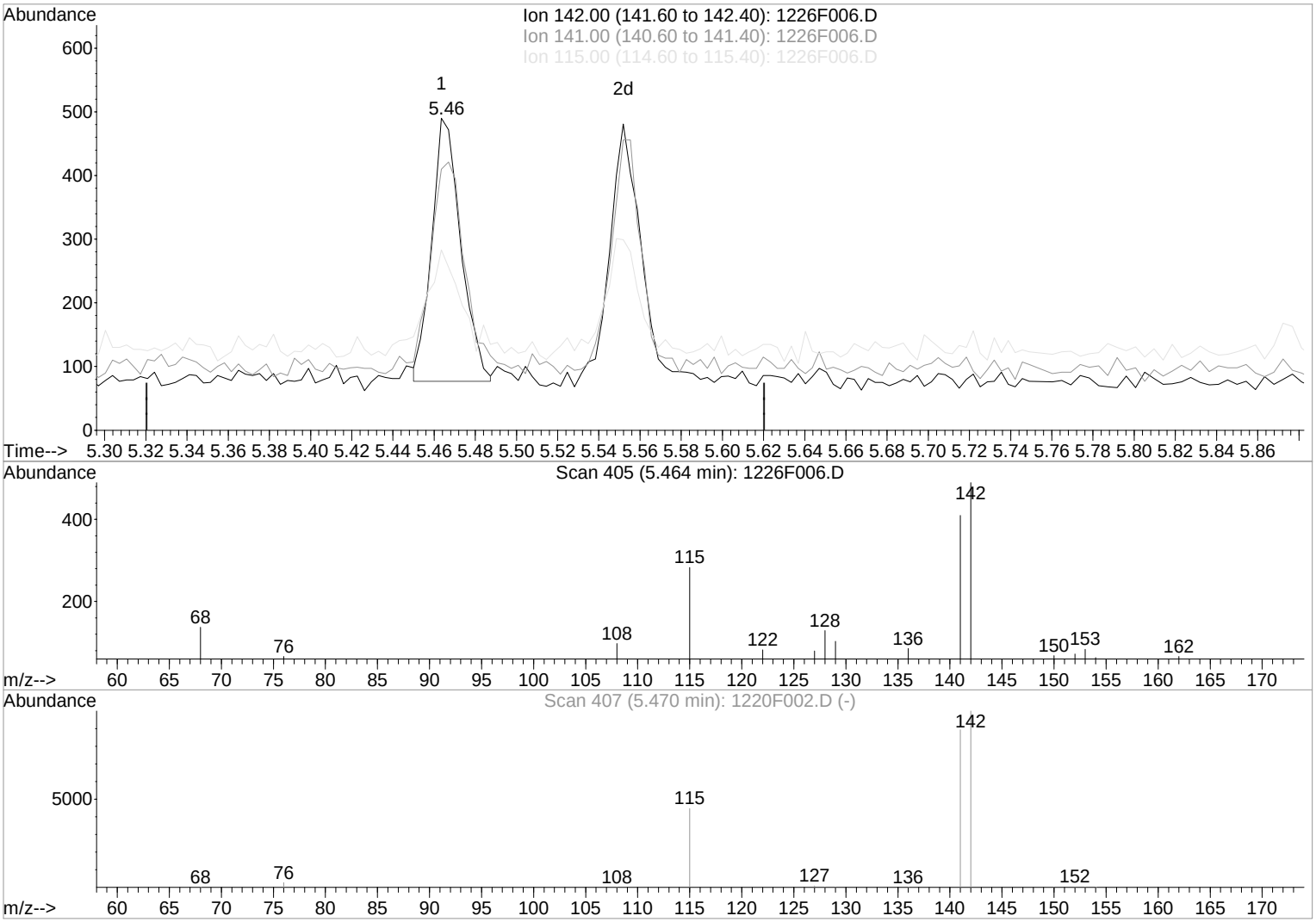
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:57 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(4) 2-Methylnaphthalene (T)

5.46min 2.12ng/ml m

response 405

Ion	Exp%	Act%
142.00	100	100
141.00	87.30	83.67
115.00	39.10	57.76
0.00	0.00	0.00

Manual Integration:

After

BLC

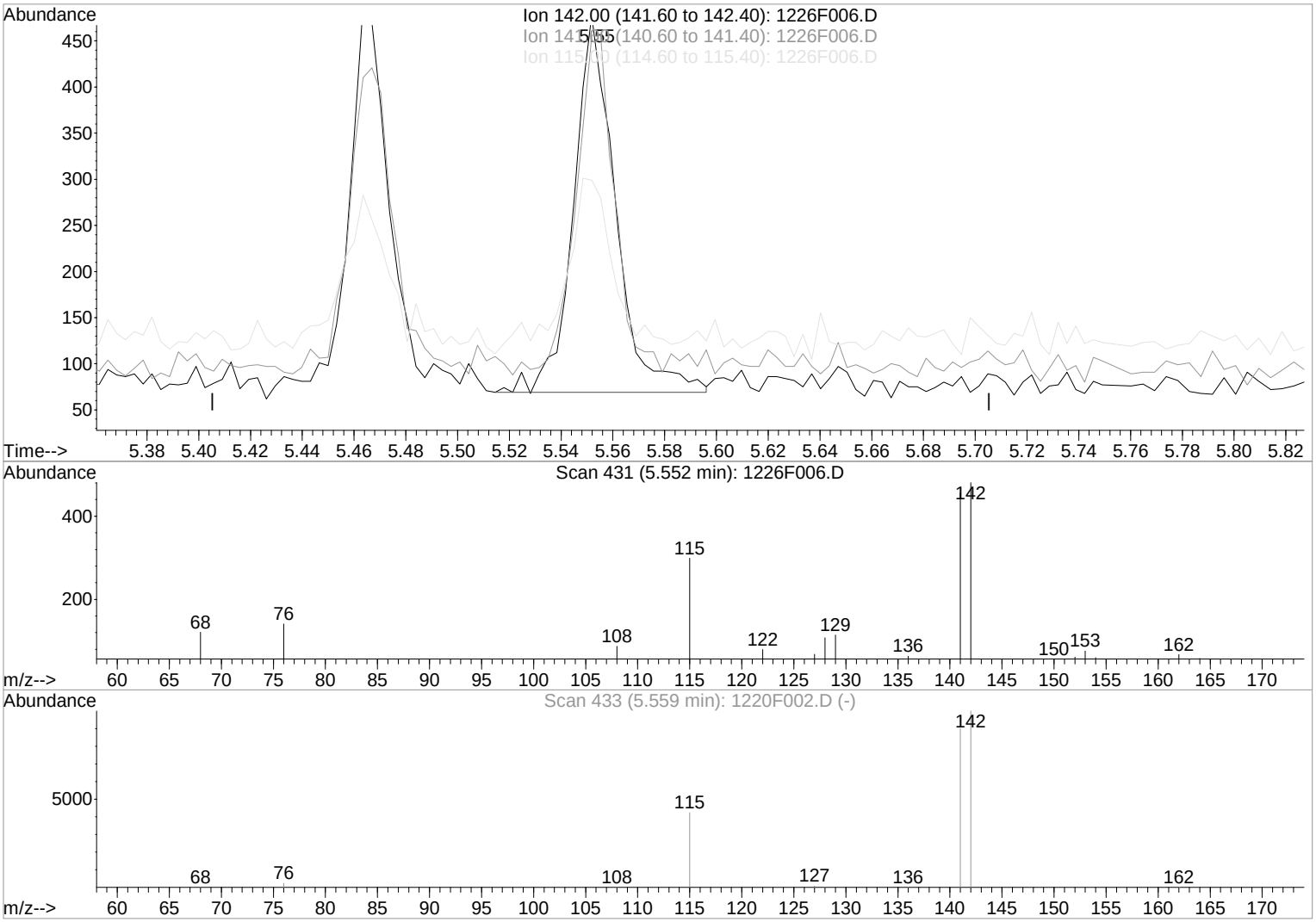
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:57 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(5) 1-Methylnaphthalene (T)

5.55min 2.55ng/ml

response 461

Ion	Exp%	Act%
142.00	100	100
141.00	91.90	84.47
115.00	42.60	45.63
0.00	0.00	0.00

Manual Integration:

Before

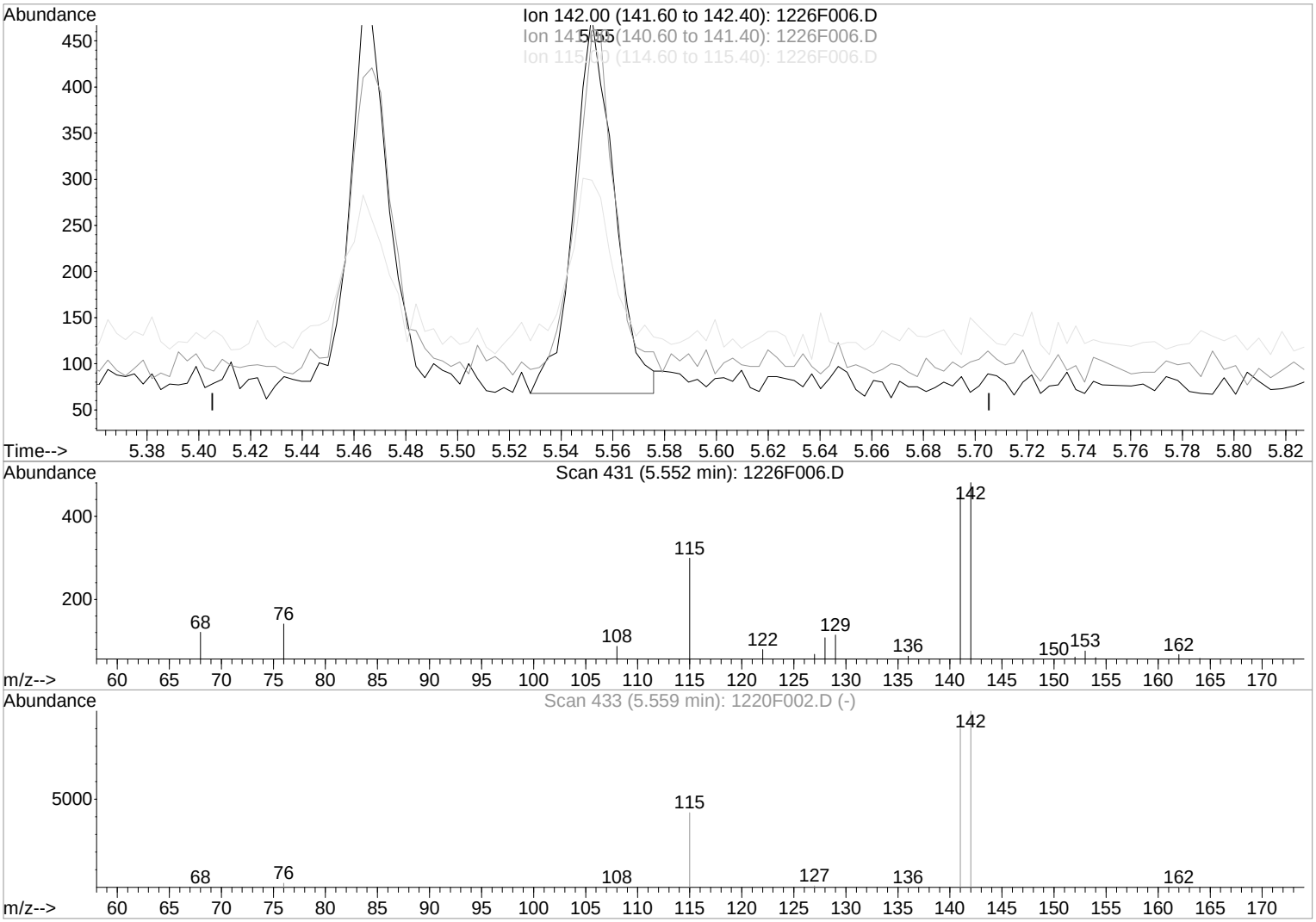
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:58 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(5) 1-Methylnaphthalene (T)

5.55min 2.43ng/ml m

response 439

Ion	Exp%	Act%
142.00	100	100
141.00	91.90	94.80
115.00	42.60	62.16
0.00	0.00	0.00

Manual Integration:

After

BLC

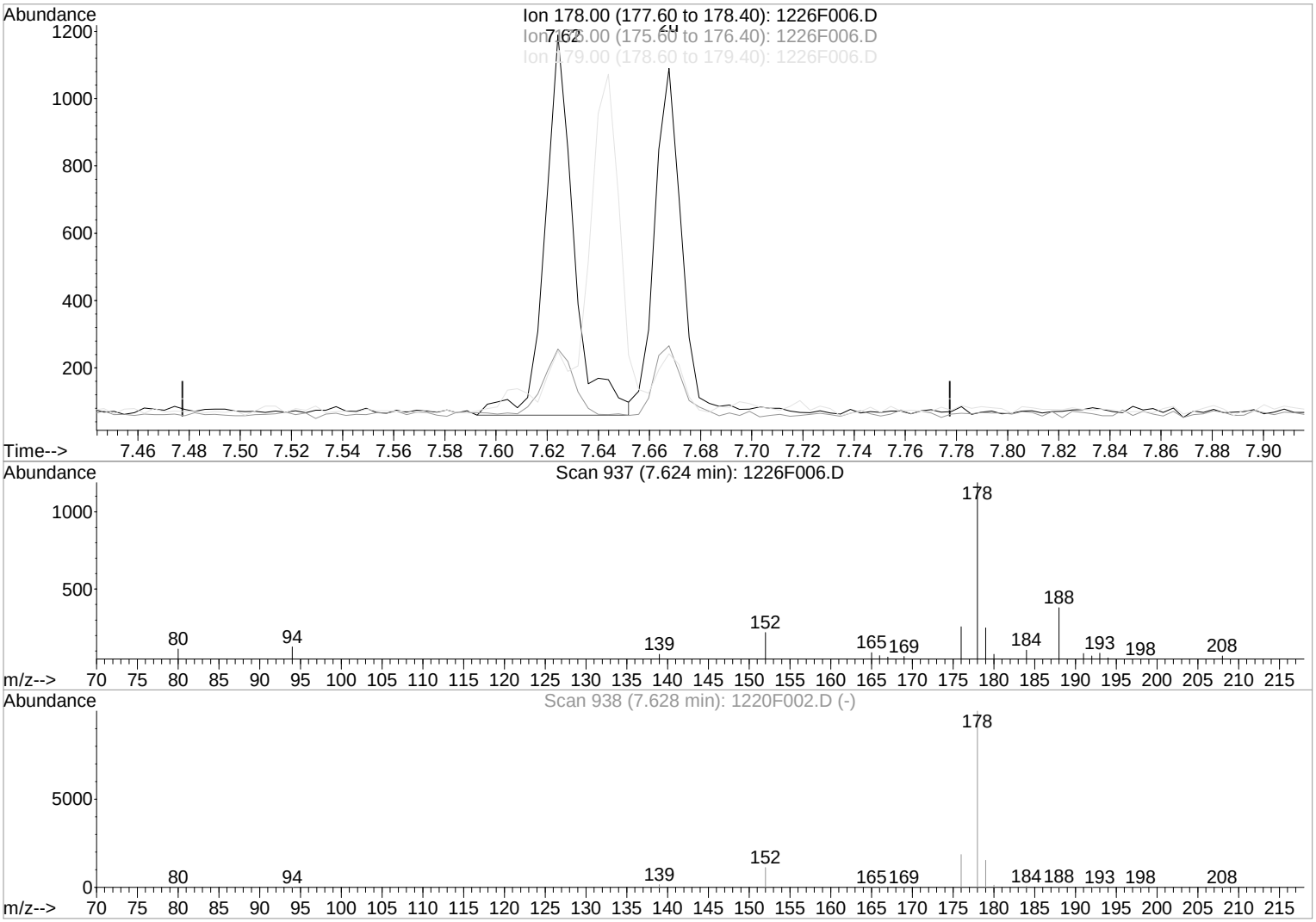
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:58 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(17) Phenanthrene (T)

7.62min 2.41ng/ml

response 890

Ion	Exp%	Act%
178.00	100	100
176.00	18.70	17.45
179.00	15.20	15.68
0.00	0.00	0.00

Manual Integration:

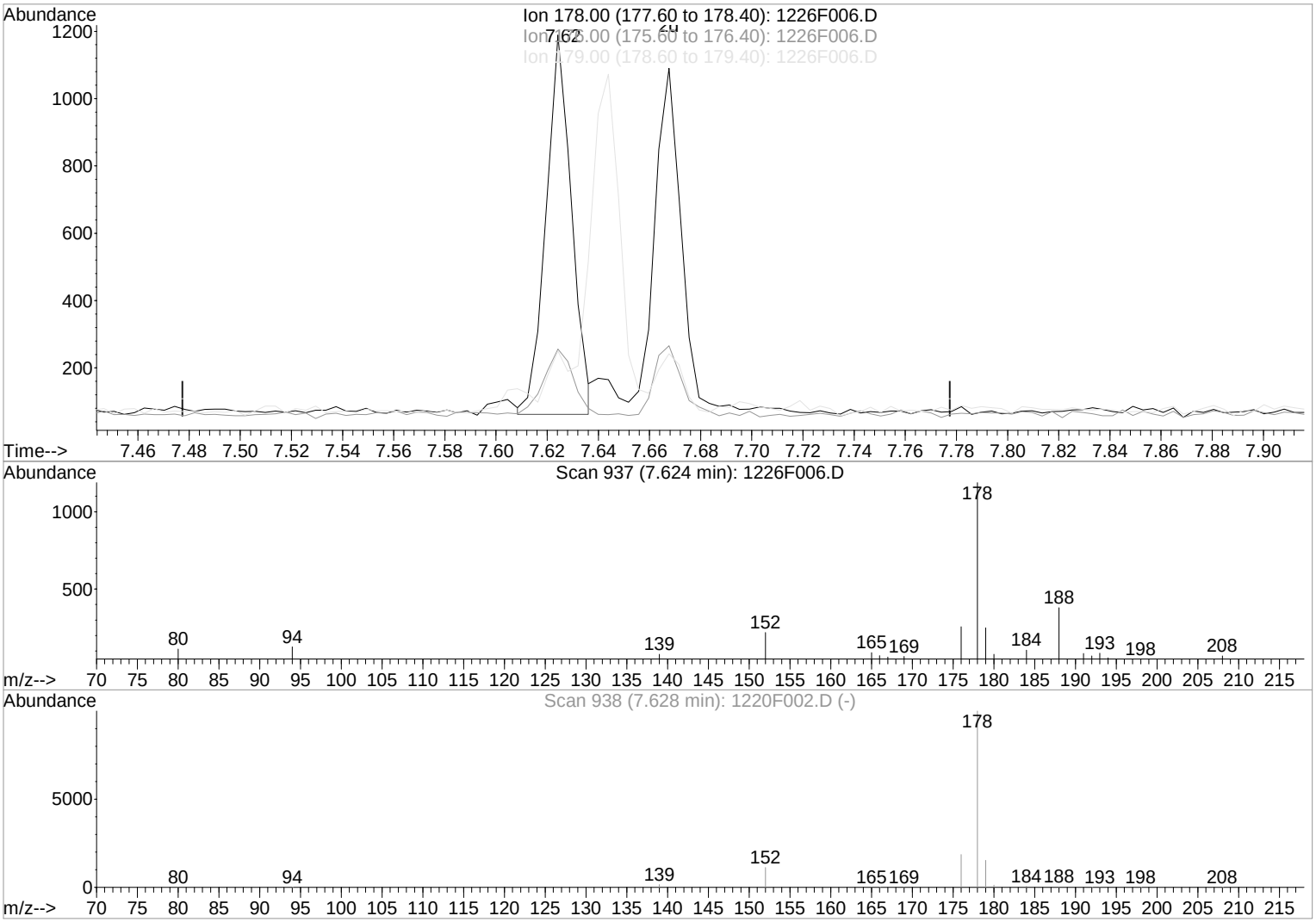
Before

12/27/18

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:58 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(17) Phenanthrene (T)

7.62min 2.11ng/ml m

response 782

Ion	Exp%	Act%
178.00	100	100
176.00	18.70	21.53
179.00	15.20	21.03
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

12/27/18

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:48 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

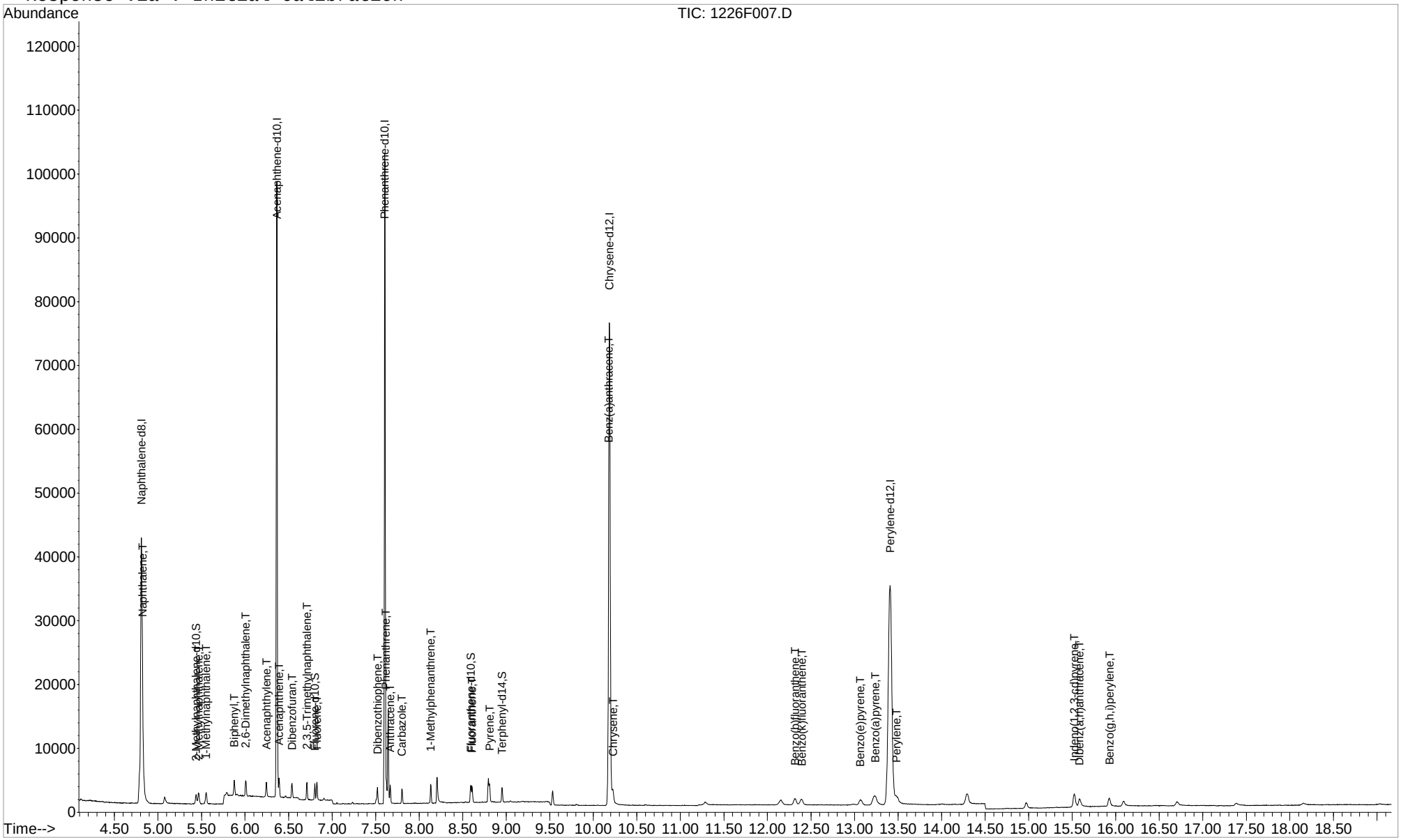
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	52196	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	26431	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.61	188	58714	200.00	ng/ml	0.00
23) Chrysene-d12	10.18	240	59892	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	64816	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	626	4.35	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.43%		
13) Fluorene-d10	6.80	176	872	5.02	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.50%		
22) Fluoranthene-d10	8.59	212	1335	3.57	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.36%		
25) Terphenyl-d14	8.95	244	1338	5.08	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.51%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	1173m	3.94	ng/ml	
4) 2-Methylnaphthalene	5.47	142	842	4.61	ng/ml	97
5) 1-Methylnaphthalene	5.55	142	768	4.45	ng/ml	89
6) Biphenyl	5.88	154	1038	4.54	ng/ml	96
7) 2,6-Dimethylnaphthalene	6.01	156	694	4.41	ng/ml	96
9) Acenaphthylene	6.24	152	1343	4.06	ng/ml	98
10) Acenaphthene	6.39	154	753	4.05	ng/ml	96
11) Dibenzofuran	6.54	168	1192	4.00	ng/ml	94
12) 2,3,5-Trimethylnaphthalene	6.71	170	712	4.14	ng/ml	89
14) Fluorene	6.82	166	985	4.34	ng/ml	96
16) Dibenzothiophene	7.52	184	1507	4.03	ng/ml	96
17) Phenanthrene	7.62	178	1550m	4.15	ng/ml	
18) Anthracene	7.67	178	1427	3.90	ng/ml	97
19) Carbazole	7.80	167	1301	3.73	ng/ml	95
20) 1-Methylphenanthrene	8.14	192	1092	3.67	ng/ml	99
21) Fluoranthene	8.61	202	1687	3.62	ng/ml	94
24) Pyrene	8.81	202	1889	4.05	ng/ml	94
26) Benz(a)anthracene	10.17	228	1762	4.15	ng/ml	98
27) Chrysene	10.22	228	1524	3.85	ng/ml	94
29) Benzo(b)fluoranthene	12.32	252	1679	3.96	ng/ml	99
30) Benzo(k)fluoranthene	12.39	252	1616m	3.94	ng/ml	
31) Benzo(e)pyrene	13.07	252	1644	4.08	ng/ml	94
32) Benzo(a)pyrene	13.23	252	1918	4.75	ng/ml#	12
33) Perylene	13.48	252	1443	3.81	ng/ml	96
34) Indeno(1,2,3-cd)pyrene	15.53	276	1475	4.35	ng/ml#	70
35) Dibenz(a,h)anthracene	15.58	278	1339	4.05	ng/ml	95
36) Benzo(g,h,i)perylene	15.92	276	1762	4.34	ng/ml	97

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration

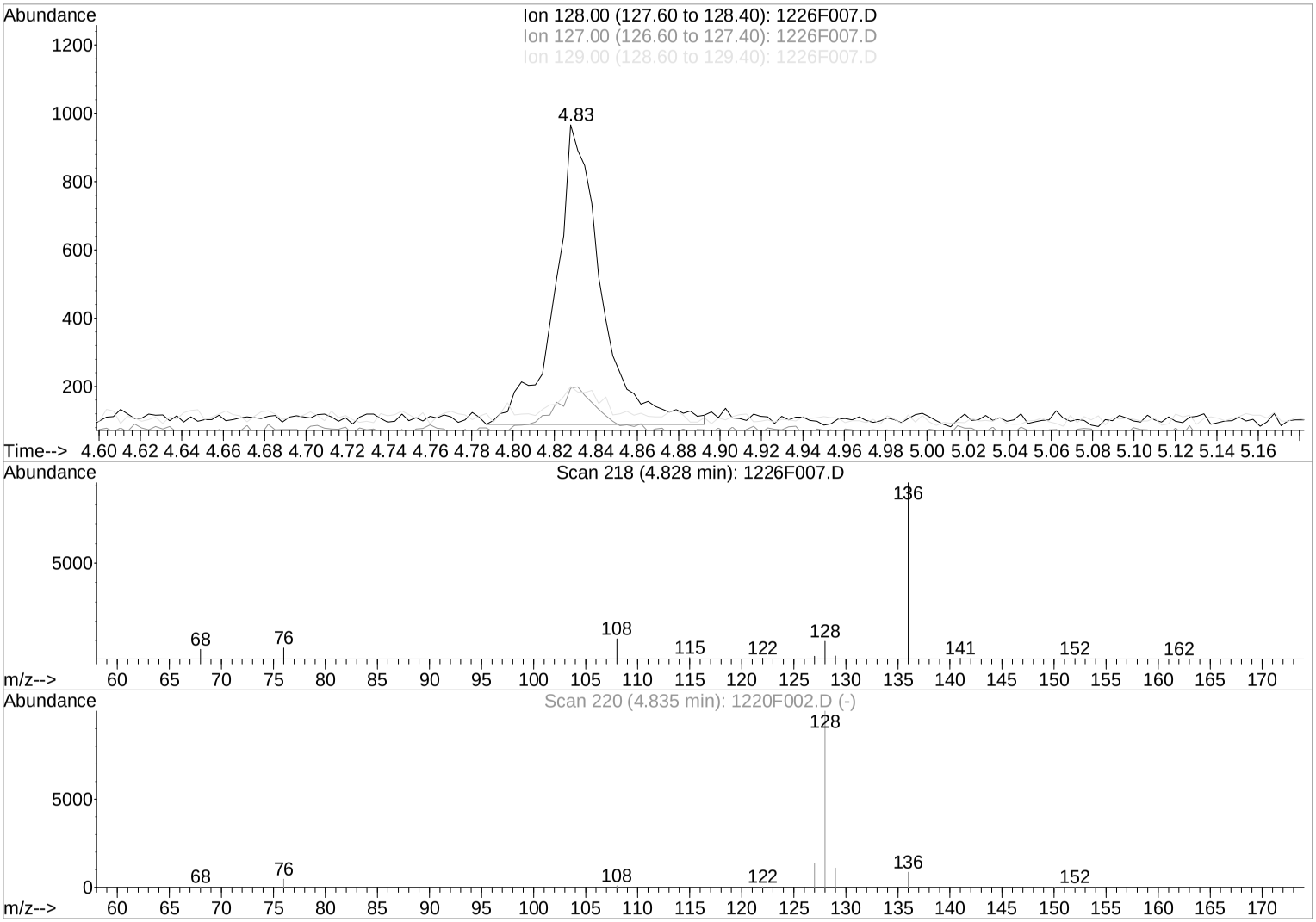


Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(2) Naphthalene (T)

4.83min 4.61ng/ml

response 1374

Ion	Exp%	Act%
128.00	100	100
127.00	13.70	13.91
129.00	10.90	10.38
0.00	0.00	0.00

Manual Integration:

Before

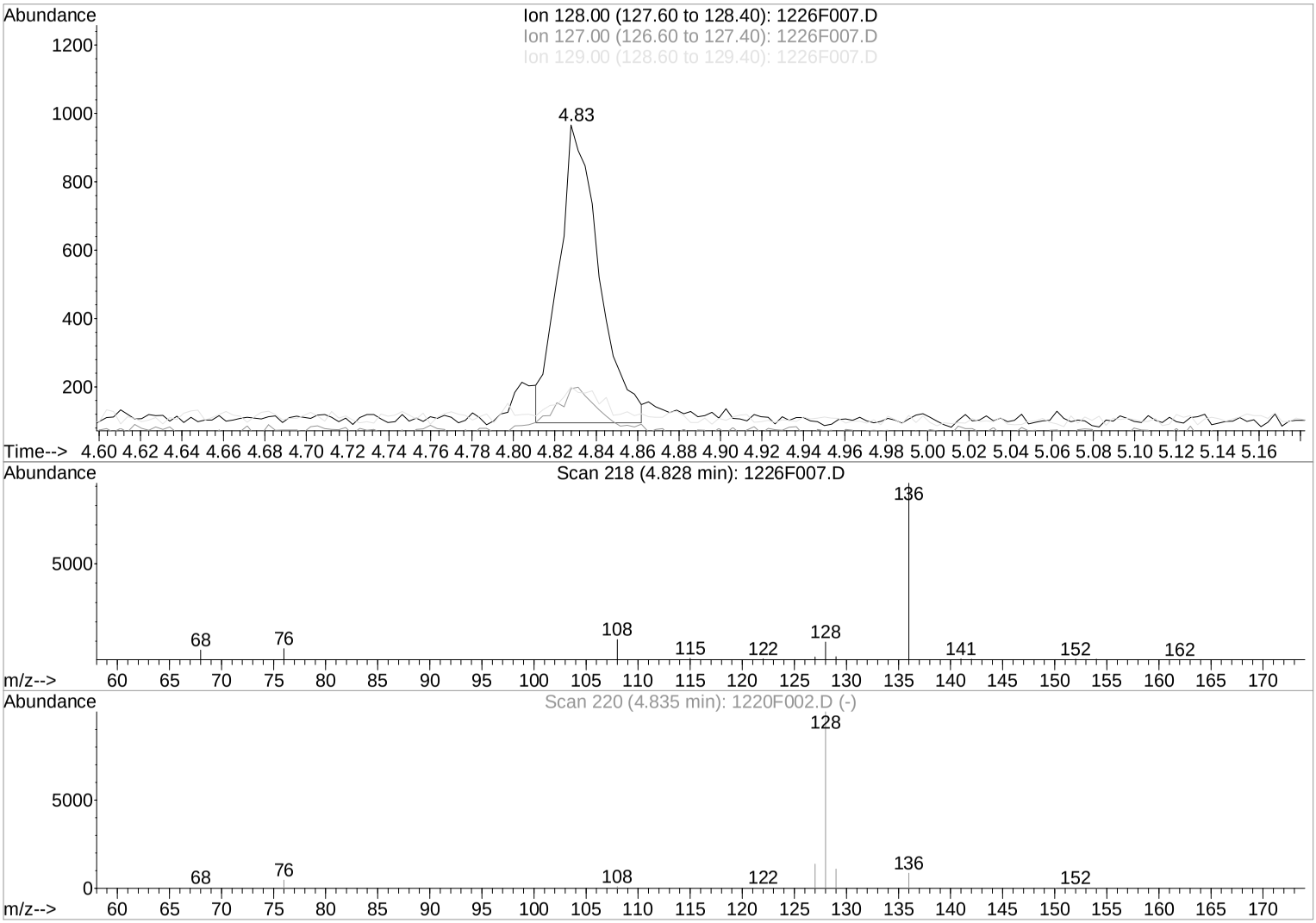
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(2) Naphthalene (T)

4.83min 3.94ng/ml m

response 1173

Ion	Exp%	Act%
128.00	100	100
127.00	13.70	20.19
129.00	10.90	20.70
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

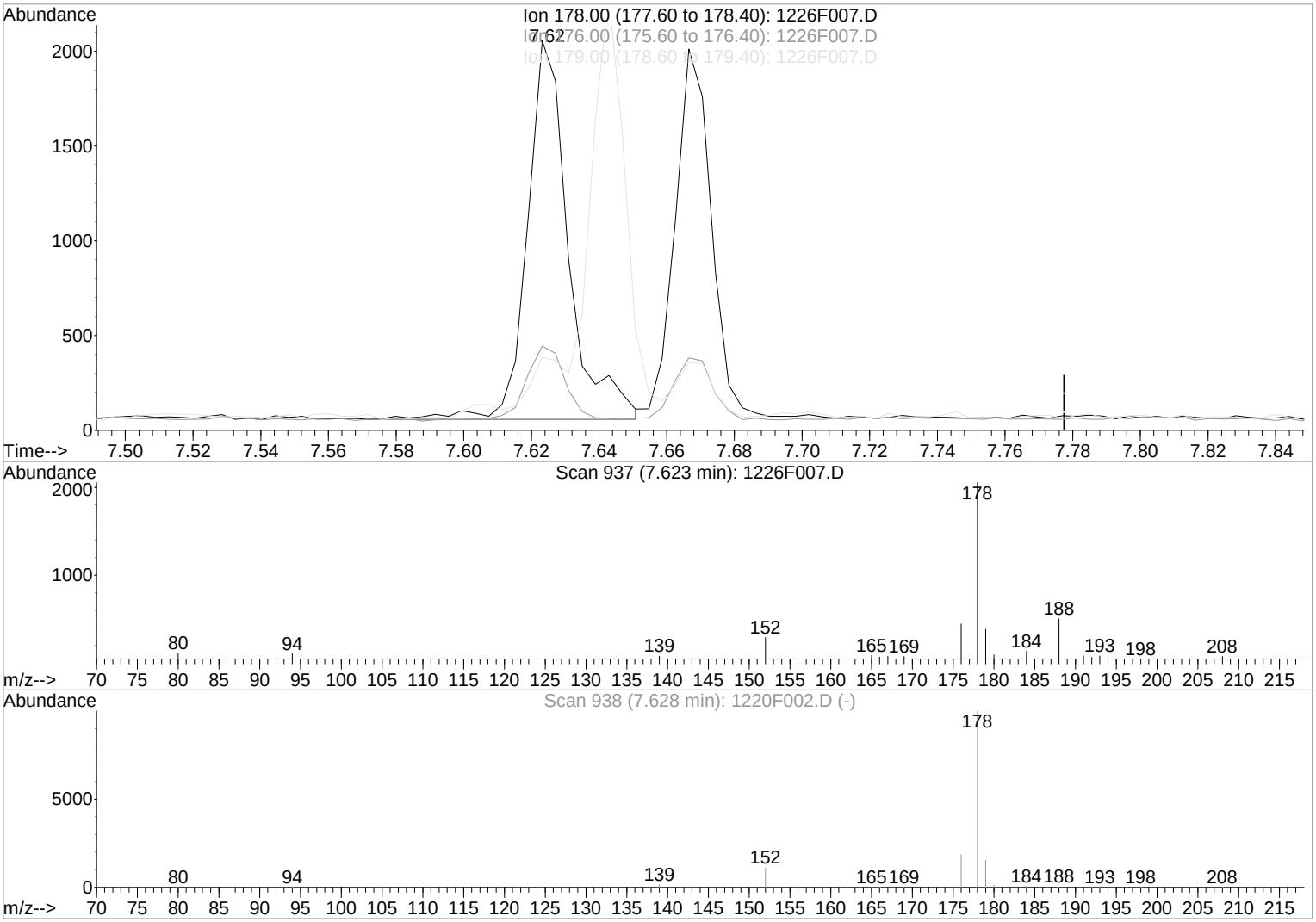
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(17) Phenanthrene (T)

7.62min 4.53ng/ml

response 1692

Ion	Exp%	Act%
178.00	100	100
176.00	18.70	19.33
179.00	15.20	15.07
0.00	0.00	0.00

Manual Integration:

Before

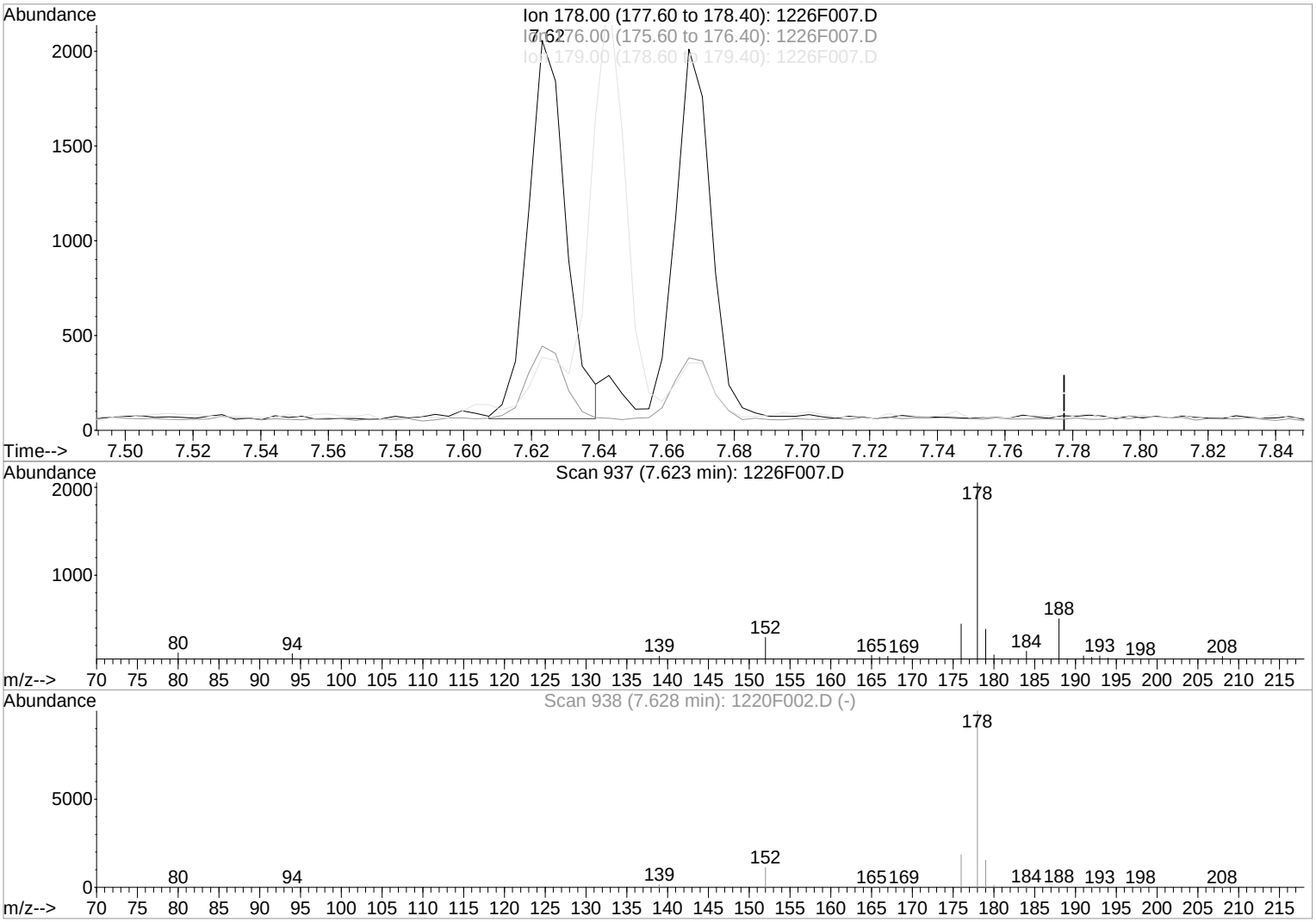
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(17) Phenanthrene (T)

7.62min 4.15ng/ml m

response 1550

Ion	Exp%	Act%
178.00	100	100
176.00	18.70	21.61
179.00	15.20	18.69
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

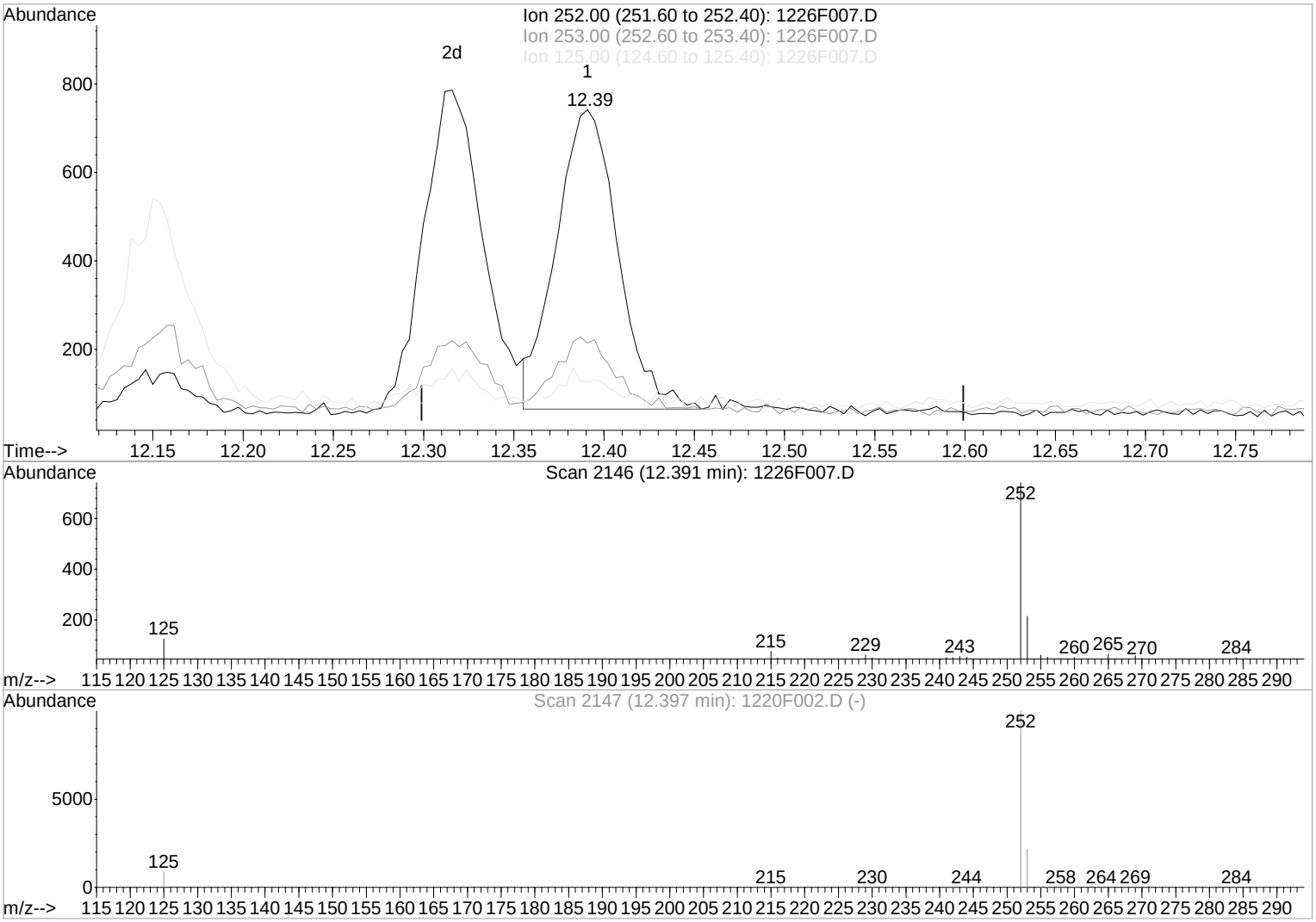
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(30) Benzo(k)fluoranthene (T)

12.39min 3.91ng/ml

response 1607

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.01
125.00	9.00	6.35
0.00	0.00	0.00

Manual Integration:

Before

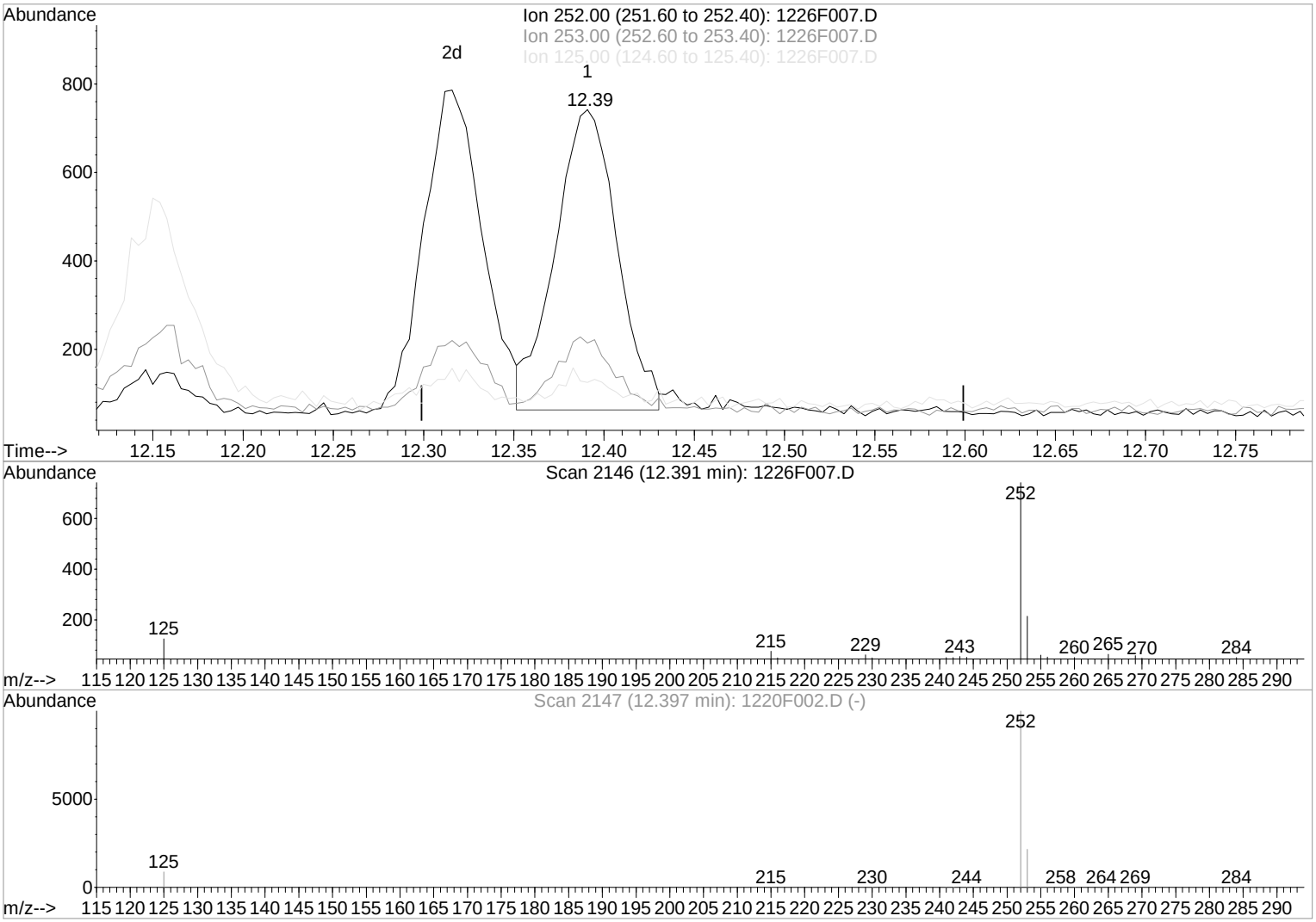
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(30) Benzo(k)fluoranthene (T)

12.39min 3.94ng/ml m

response 1616

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	28.84
125.00	9.00	16.85
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

12/27/18

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F008.D Vial: 7
Acq On : 26 Dec 2018 9:07 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008ug/mL | SVM59-4C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:49 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	51817	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	25763	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	57163	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	59253	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	63871	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	1225	8.57	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.86%		
13) Fluorene-d10	6.80	176	1531	9.04	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.90%		
22) Fluoranthene-d10	8.59	212	2584	7.10	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.71%		
25) Terphenyl-d14	8.95	244	2317	8.90	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.89%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	2453	8.30	ng/ml	94
4) 2-Methylnaphthalene	5.47	142	1556	8.58	ng/ml	97
5) 1-Methylnaphthalene	5.55	142	1472	8.58	ng/ml	94
6) Biphenyl	5.88	154	1988	8.76	ng/ml	97
7) 2,6-Dimethylnaphthalene	6.01	156	1398	8.95	ng/ml	90
9) Acenaphthylene	6.24	152	2484	7.70	ng/ml	97
10) Acenaphthene	6.39	154	1435	7.93	ng/ml	96
11) Dibenzofuran	6.54	168	2371	8.16	ng/ml	86
12) 2,3,5-Trimethylnaphthalene	6.71	170	1346	8.03	ng/ml	94
14) Fluorene	6.82	166	1903	8.60	ng/ml	97
16) Dibenzothiophene	7.52	184	2900	7.96	ng/ml	96
17) Phenanthrene	7.62	178	3109	8.55	ng/ml	99
18) Anthracene	7.67	178	2819	7.91	ng/ml	99
19) Carbazole	7.80	167	2427	7.15	ng/ml	97
20) 1-Methylphenanthrene	8.13	192	2099	7.25	ng/ml	96
21) Fluoranthene	8.61	202	3294	7.27	ng/ml	98
24) Pyrene	8.81	202	3700	8.03	ng/ml	97
26) Benz(a)anthracene	10.17	228	3351	7.97	ng/ml	96
27) Chrysene	10.22	228	3010	7.68	ng/ml	99
29) Benzo(b)fluoranthene	12.32	252	3252	7.78	ng/ml	97
30) Benzo(k)fluoranthene	12.39	252	2983	7.37	ng/ml	96
31) Benzo(e)pyrene	13.07	252	3133	7.90	ng/ml	98
32) Benzo(a)pyrene	13.22	252	3364	8.46	ng/ml#	51
33) Perylene	13.49	252	3027	8.11	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.52	276	2907	8.69	ng/ml	83
35) Dibenz(a,h)anthracene	15.59	278	2542	7.80	ng/ml	97
36) Benzo(g,h,i)perylene	15.93	276	3424	8.57	ng/ml	98

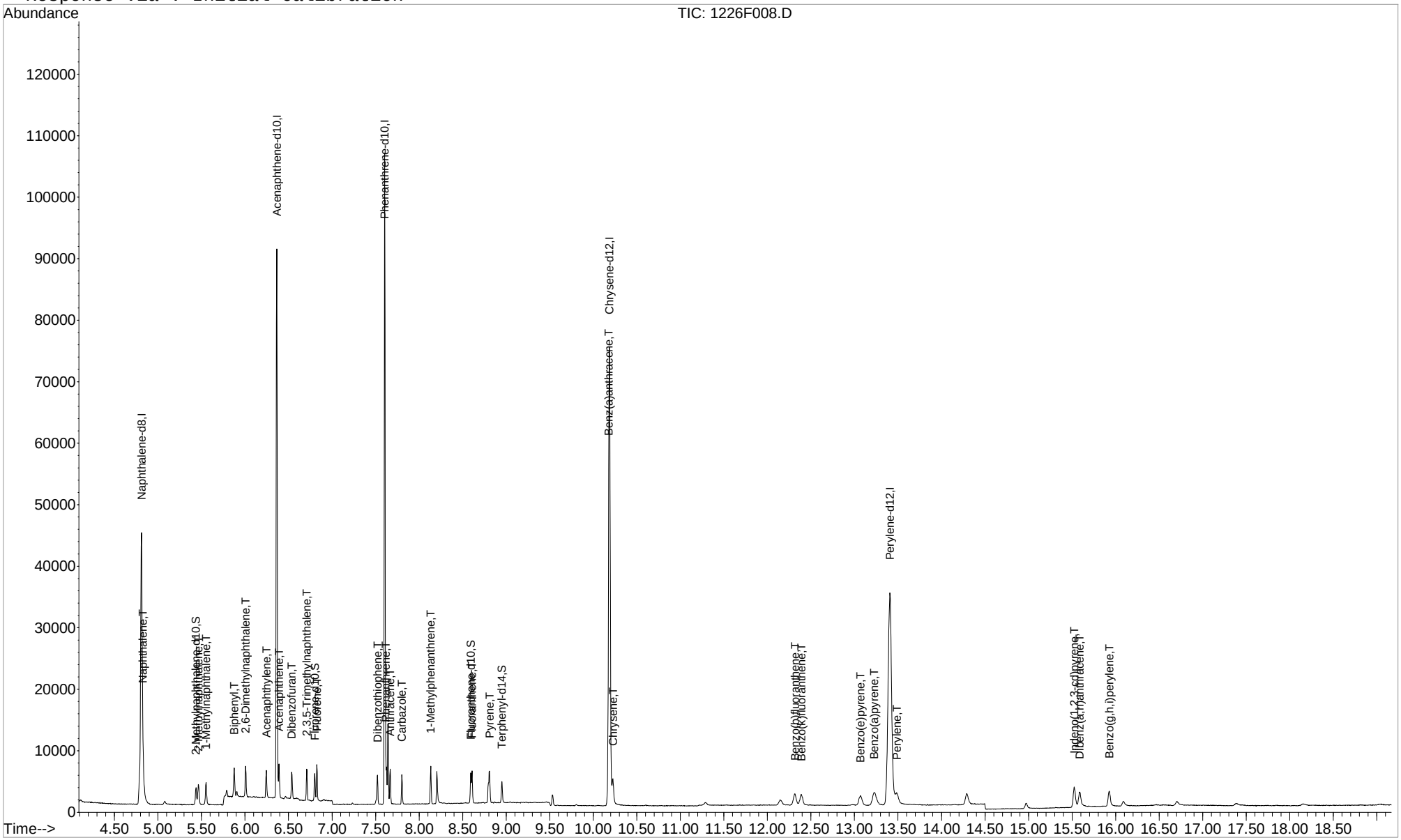
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F008.D Vial: 7
Acq On : 26 Dec 2018 9:07 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008ug/mL | SVM59-4C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:49 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	51004	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	25448	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	55640	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	57575	200.00	ng/ml	0.00
28) Perylene-d12	13.40	264	61399	200.00	ng/ml	-0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	2904	20.64	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	2.06%		
13) Fluorene-d10	6.80	176	3478	20.80	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	2.08%		
22) Fluoranthene-d10	8.59	212	6256	17.66	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	1.77%		
25) Terphenyl-d14	8.95	244	5039	19.91	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	1.99%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	5944	20.43	ng/ml	98
4) 2-Methylnaphthalene	5.47	142	3784	21.21	ng/ml	97
5) 1-Methylnaphthalene	5.55	142	3614	21.41	ng/ml	96
6) Biphenyl	5.88	154	4702	21.05	ng/ml	95
7) 2,6-Dimethylnaphthalene	6.01	156	3363	21.87	ng/ml	96
9) Acenaphthylene	6.24	152	6146	19.28	ng/ml	97
10) Acenaphthene	6.39	154	3546	19.83	ng/ml	99
11) Dibenzofuran	6.54	168	5644	19.65	ng/ml	89
12) 2,3,5-Trimethylnaphthalene	6.71	170	3325	20.09	ng/ml	97
14) Fluorene	6.82	166	4564	20.88	ng/ml	96
16) Dibenzothiophene	7.52	184	6983	19.70	ng/ml	97
17) Phenanthrene	7.62	178	7015	19.83	ng/ml	99
18) Anthracene	7.67	178	6618	19.09	ng/ml	99
19) Carbazole	7.80	167	5887	17.82	ng/ml	98
20) 1-Methylphenanthrene	8.13	192	5058	17.95	ng/ml	99
21) Fluoranthene	8.61	202	7949	18.02	ng/ml	99
24) Pyrene	8.81	202	8446	18.86	ng/ml	98
26) Benz(a)anthracene	10.17	228	7867	19.26	ng/ml	99
27) Chrysene	10.22	228	7474	19.63	ng/ml	98
29) Benzo(b)fluoranthene	12.32	252	8010	19.94	ng/ml	98
30) Benzo(k)fluoranthene	12.39	252	7737m	19.90	ng/ml	
31) Benzo(e)pyrene	13.07	252	7584	19.89	ng/ml	99
32) Benzo(a)pyrene	13.22	252	7674	20.08	ng/ml	81
33) Perylene	13.49	252	6855	19.11	ng/ml	99
34) Indeno(1,2,3-cd)pyrene	15.53	276	7152	22.25	ng/ml	95
35) Dibenz(a,h)anthracene	15.59	278	6875m	21.93	ng/ml	
36) Benzo(g,h,i)perylene	15.93	276	8516	22.17	ng/ml	97

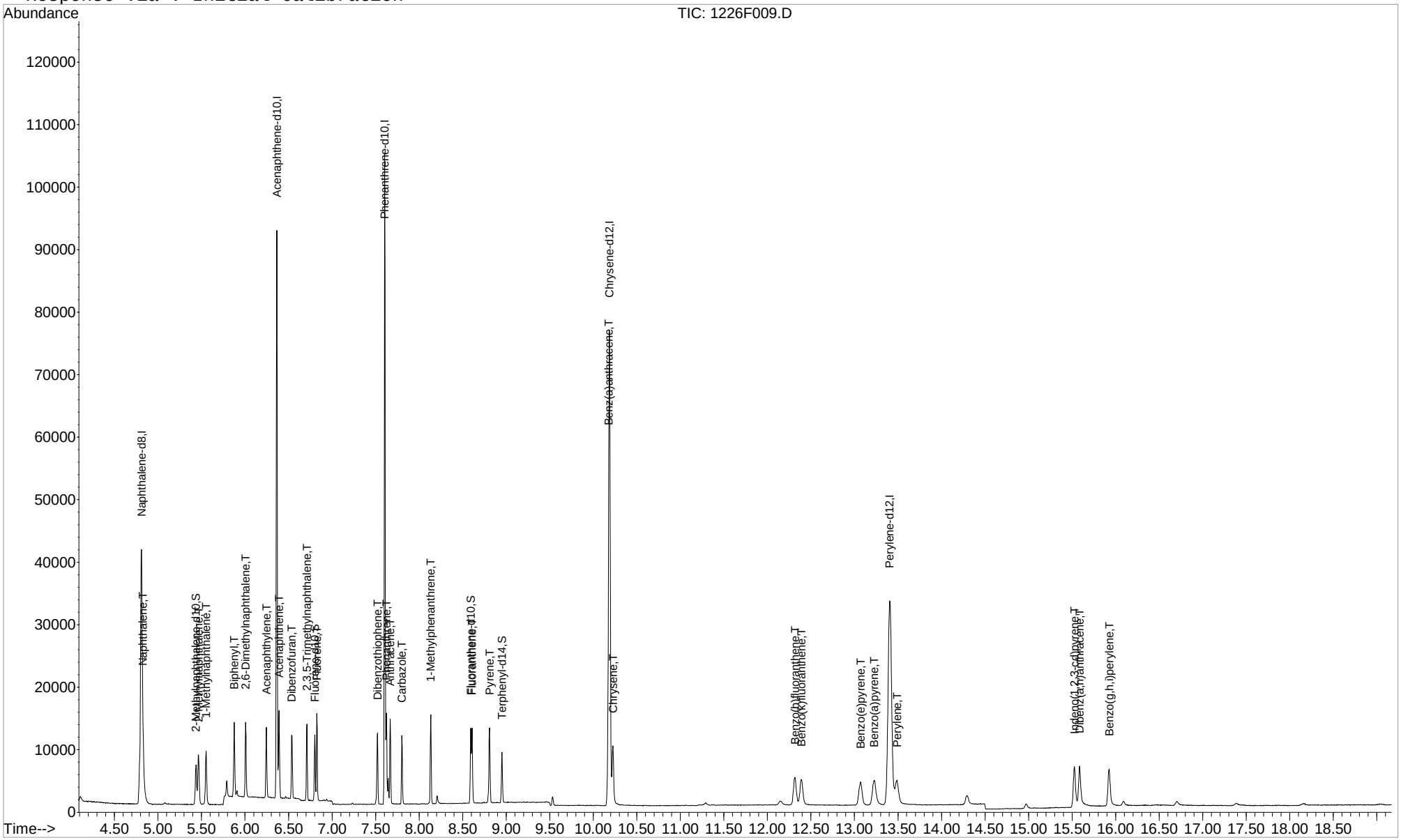
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration

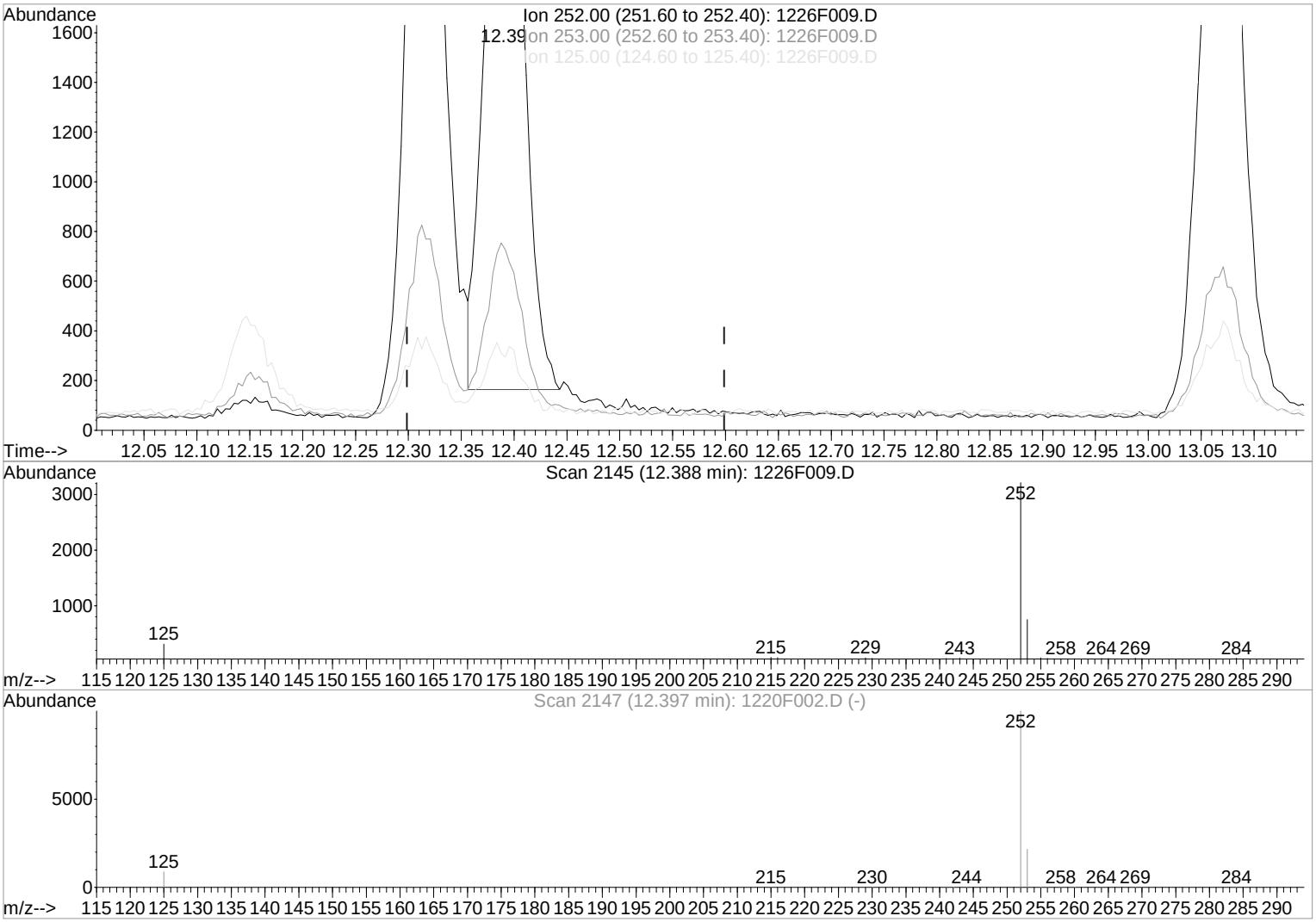


Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F009.D

(30) Benzo(k)fluoranthene (T)

12.39min 18.09ng/ml

response 7036

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	21.44
125.00	9.00	7.44
0.00	0.00	0.00

Manual Integration:

Before

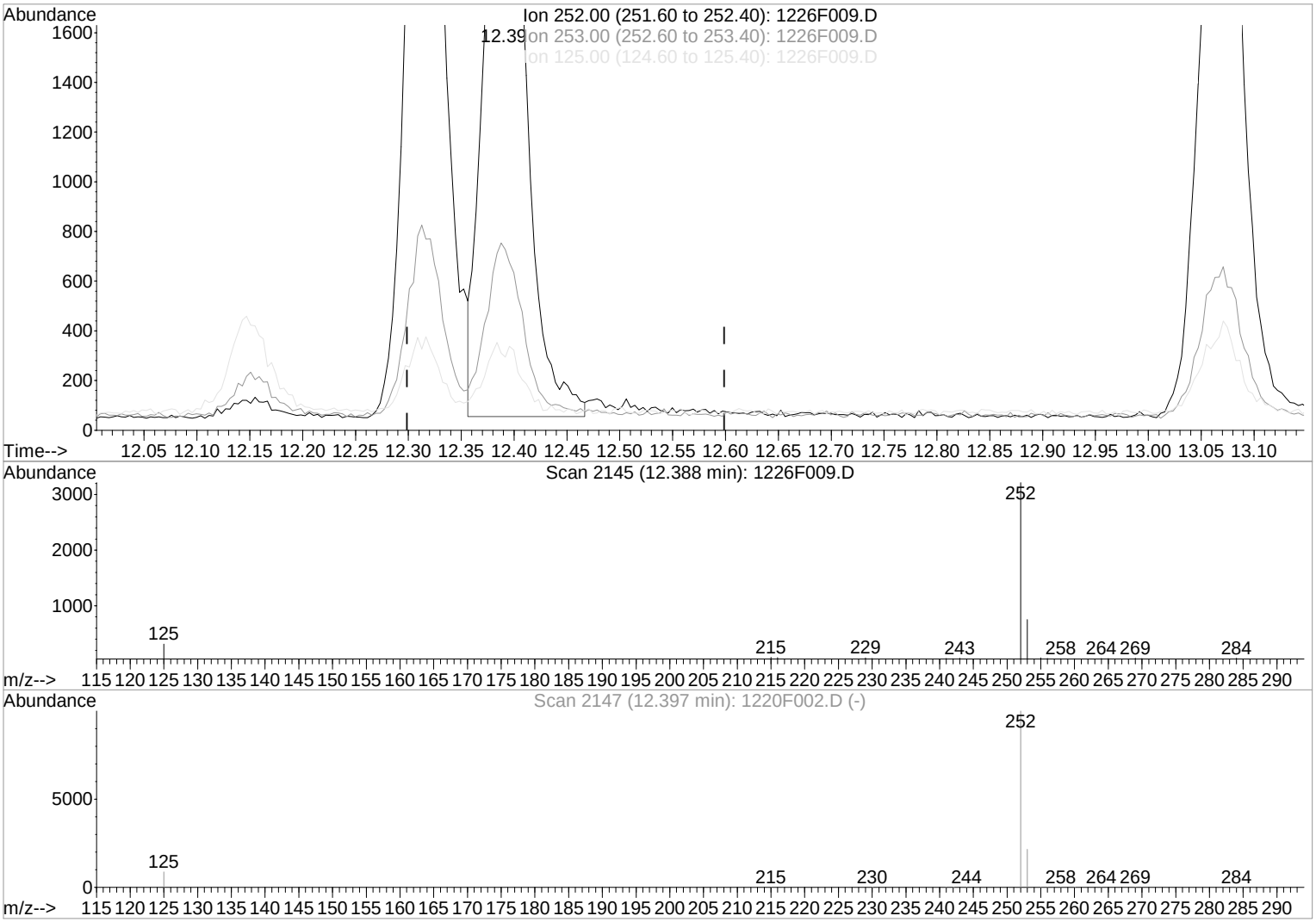
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F009.D

(30) Benzo(k)fluoranthene (T)

12.39min 19.90ng/ml m

response 7737

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	23.45
125.00	9.00	9.64
0.00	0.00	0.00

Manual Integration:

After

BLC

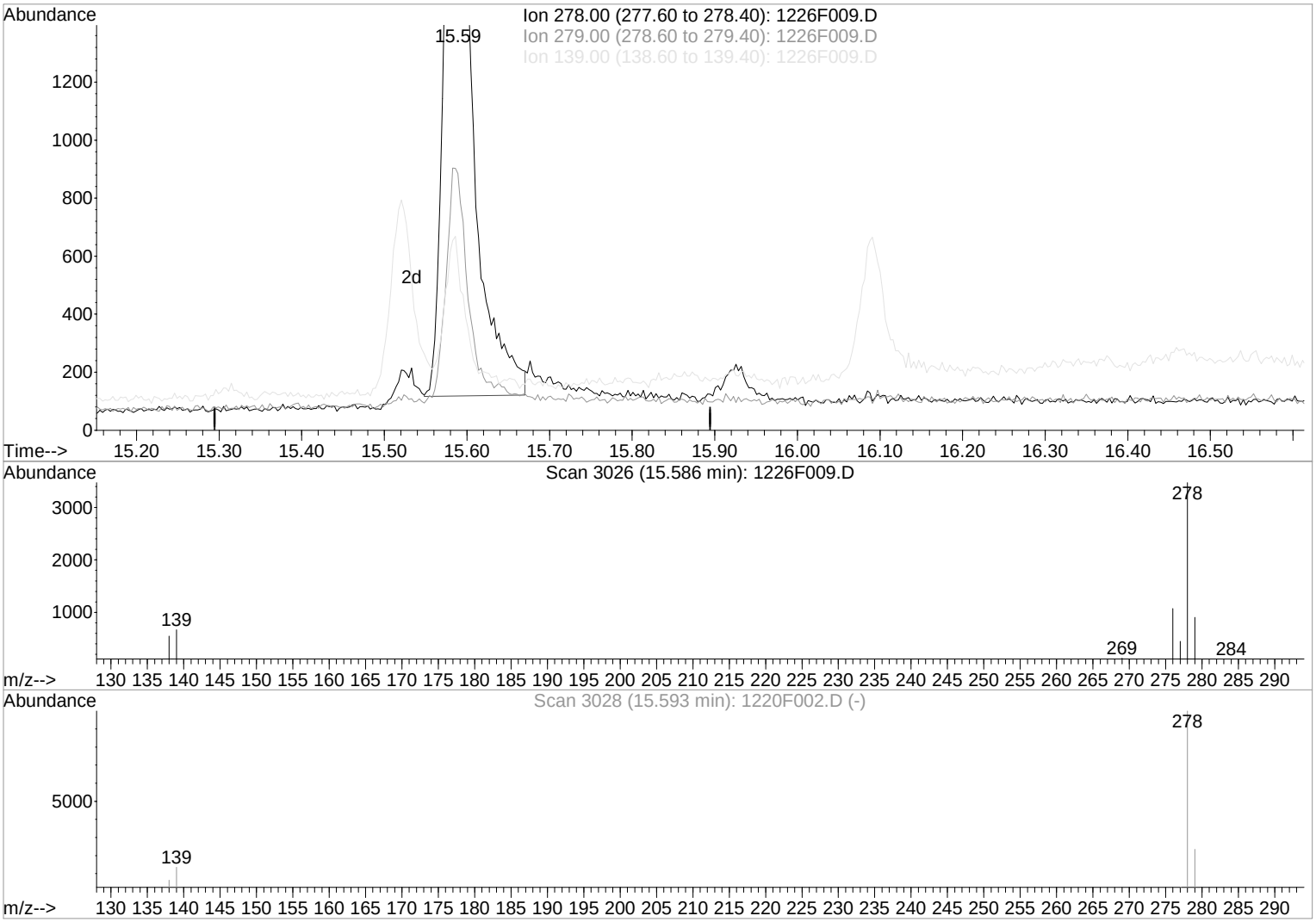
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F009.D

(35) Dibenz(a,h)anthracene (T)

15.59min 20.26ng/ml

response 6351

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	24.12
139.00	14.40	15.21
0.00	0.00	0.00

Manual Integration:

Before

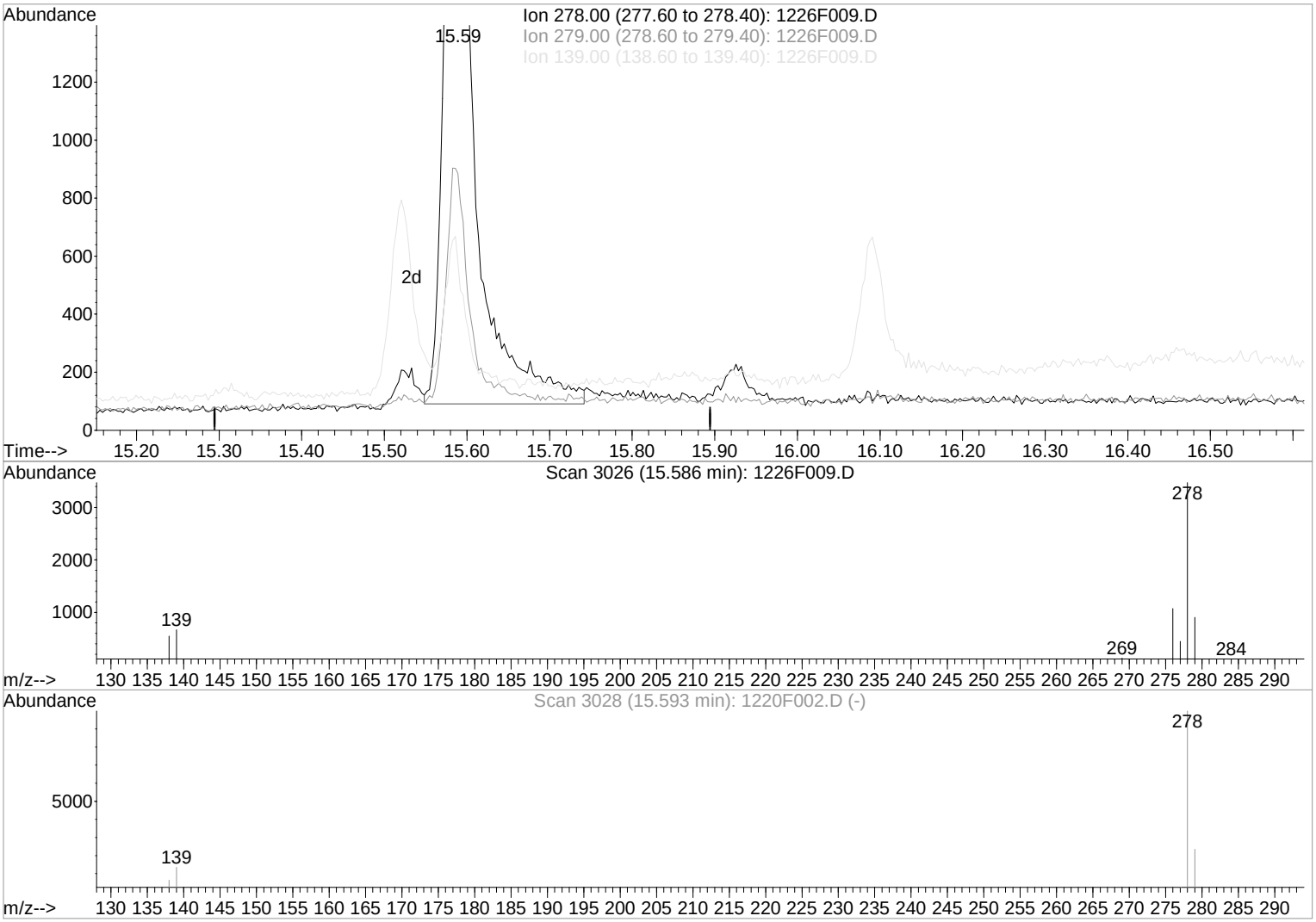
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F009.D

(35) Dibenz(a,h)anthracene (T)

15.59min 21.93ng/ml m

response 6875

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	25.99
139.00	14.40	19.22
0.00	0.00	0.00

Manual Integration:

After

BLC

12/27/18

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F010.D Vial: 9
Acq On : 26 Dec 2018 9:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:50 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

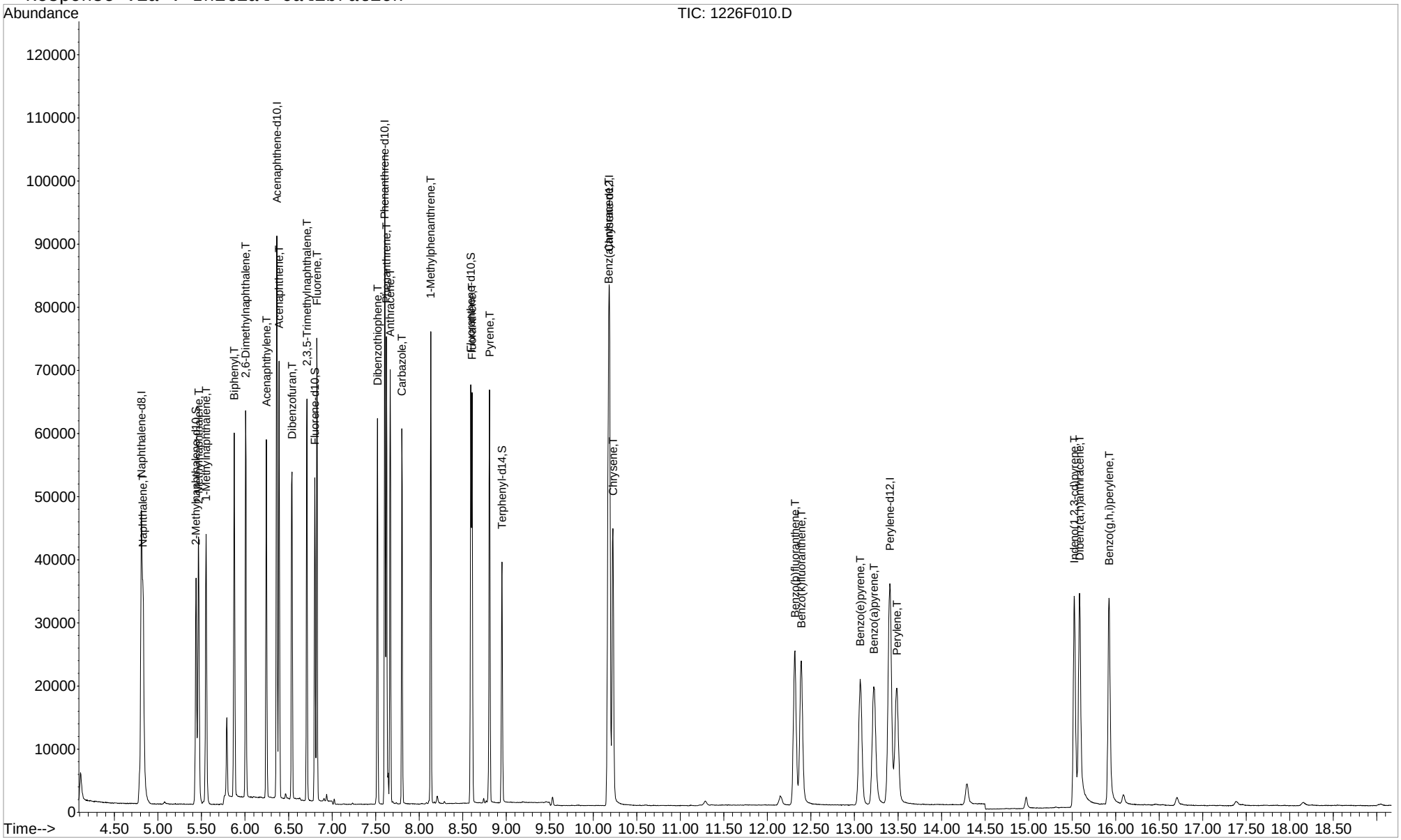
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	51839	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	25109	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	55657	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	58564	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	63691	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	14535	101.64	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	10.16%		
13) Fluorene-d10	6.80	176	16914	102.50	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	10.25%		
22) Fluoranthene-d10	8.59	212	32194	90.87	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	9.09%		
25) Terphenyl-d14	8.95	244	24735	96.09	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	9.61%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	29213	98.78	ng/ml	99
4) 2-Methylnaphthalene	5.47	142	18698	103.11	ng/ml	98
5) 1-Methylnaphthalene	5.55	142	17723	103.31	ng/ml	97
6) Biphenyl	5.88	154	23653	104.21	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	16719	107.00	ng/ml	93
9) Acenaphthylene	6.24	152	31050	98.70	ng/ml	99
10) Acenaphthene	6.39	154	17625	99.90	ng/ml	99
11) Dibenzofuran	6.54	168	28706	101.31	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.71	170	16719	102.36	ng/ml	90
14) Fluorene	6.82	166	23134	107.28	ng/ml	99
16) Dibenzothiophene	7.52	184	35874	101.17	ng/ml	98
17) Phenanthrene	7.62	178	35182	99.43	ng/ml	100
18) Anthracene	7.67	178	34718	100.11	ng/ml	100
19) Carbazole	7.80	167	30666	92.79	ng/ml	98
20) 1-Methylphenanthrene	8.13	192	26122	92.67	ng/ml	100
21) Fluoranthene	8.61	202	40741	92.31	ng/ml	99
24) Pyrene	8.81	202	43281	95.01	ng/ml	98
26) Benz(a)anthracene	10.17	228	39526	95.15	ng/ml	99
27) Chrysene	10.22	228	37625	97.13	ng/ml	100
29) Benzo(b)fluoranthene	12.32	252	42420	101.79	ng/ml	99
30) Benzo(k)fluoranthene	12.39	252	41322	102.44	ng/ml	99
31) Benzo(e)pyrene	13.07	252	39446	99.71	ng/ml	98
32) Benzo(a)pyrene	13.22	252	39445	99.48	ng/ml	94
33) Perylene	13.49	252	38191	102.61	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.52	276	38698	116.06	ng/ml	99
35) Dibenz(a,h)anthracene	15.59	278	38770m	119.24	ng/ml	
36) Benzo(g,h,i)perylene	15.92	276	44393	111.39	ng/ml	98

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F010.D Vial: 9
Acq On : 26 Dec 2018 9:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration

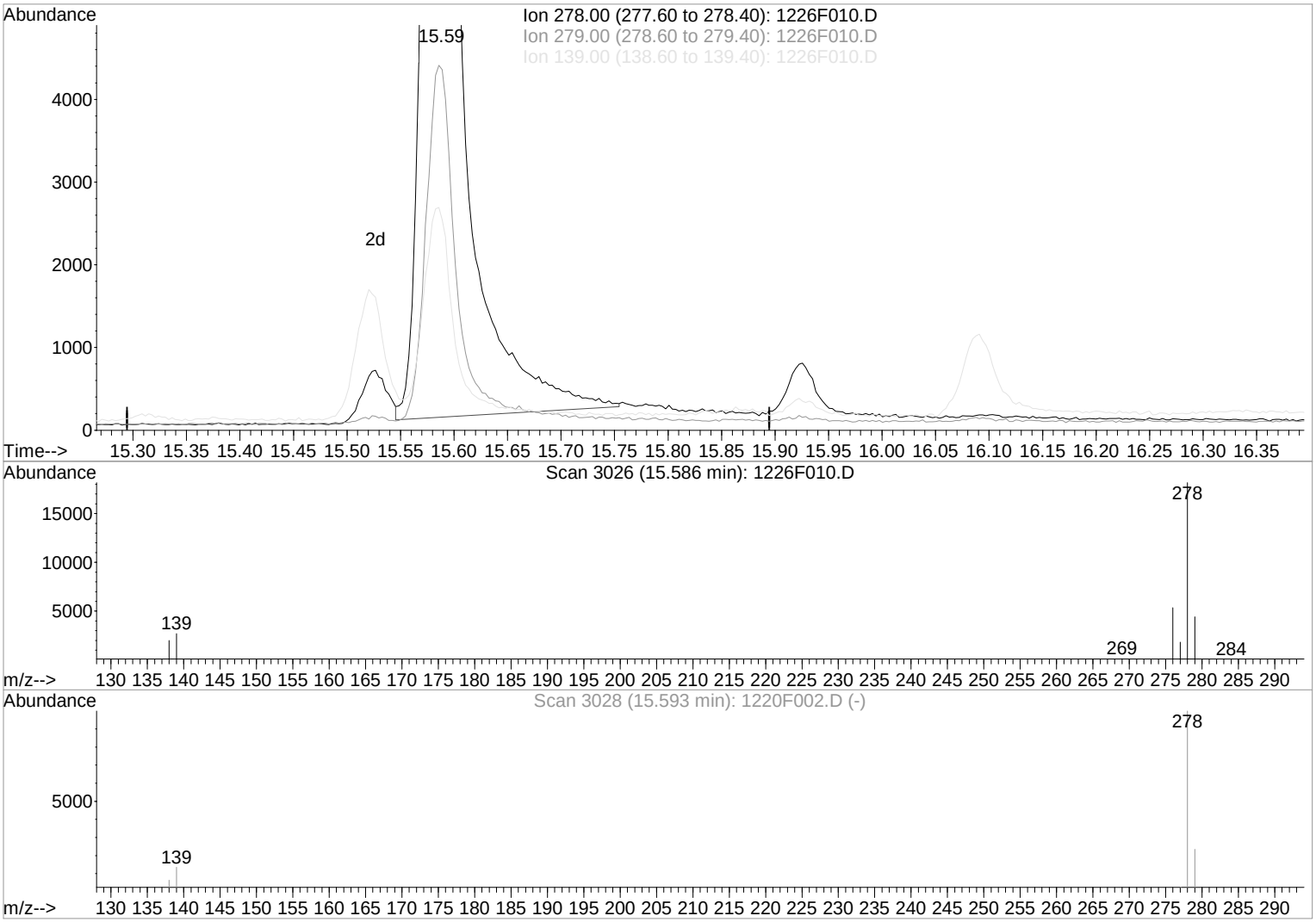


Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F010.D Vial: 9
Acq On : 26 Dec 2018 9:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F010.D

(35) Dibenz(a,h)anthracene (T)

15.59min 111.75ng/ml

response 36335

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	24.02
139.00	14.40	14.00
0.00	0.00	0.00

Manual Integration:

Before

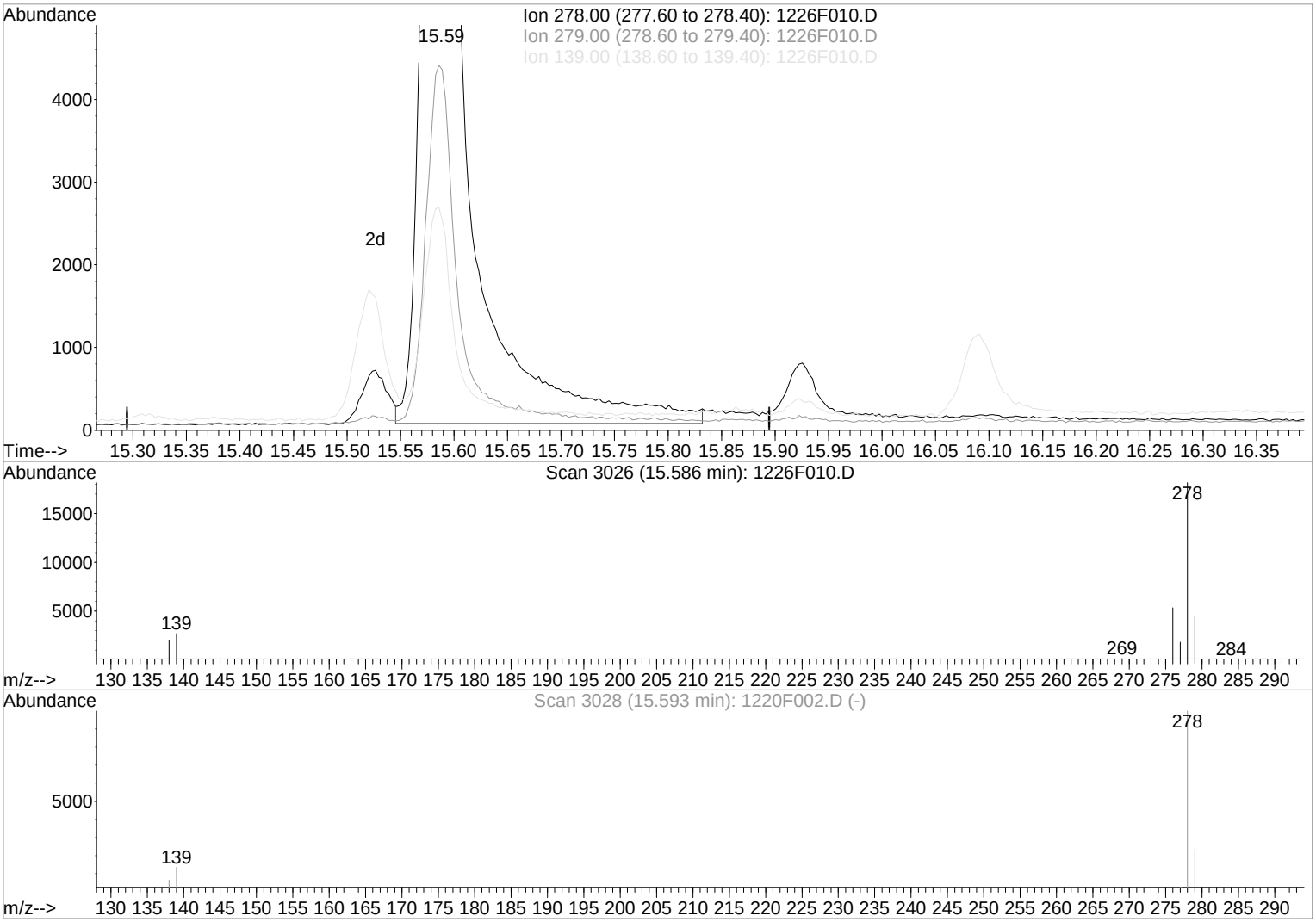
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F010.D Vial: 9
Acq On : 26 Dec 2018 9:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F010.D

(35) Dibenz(a,h)anthracene (T)

15.59min 119.24ng/ml m

response 38770

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	24.26
139.00	14.40	14.81
0.00	0.00	0.00

Manual Integration:

After

BLC

12/27/18

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F011.D Vial: 10
Acq On : 26 Dec 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:50 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

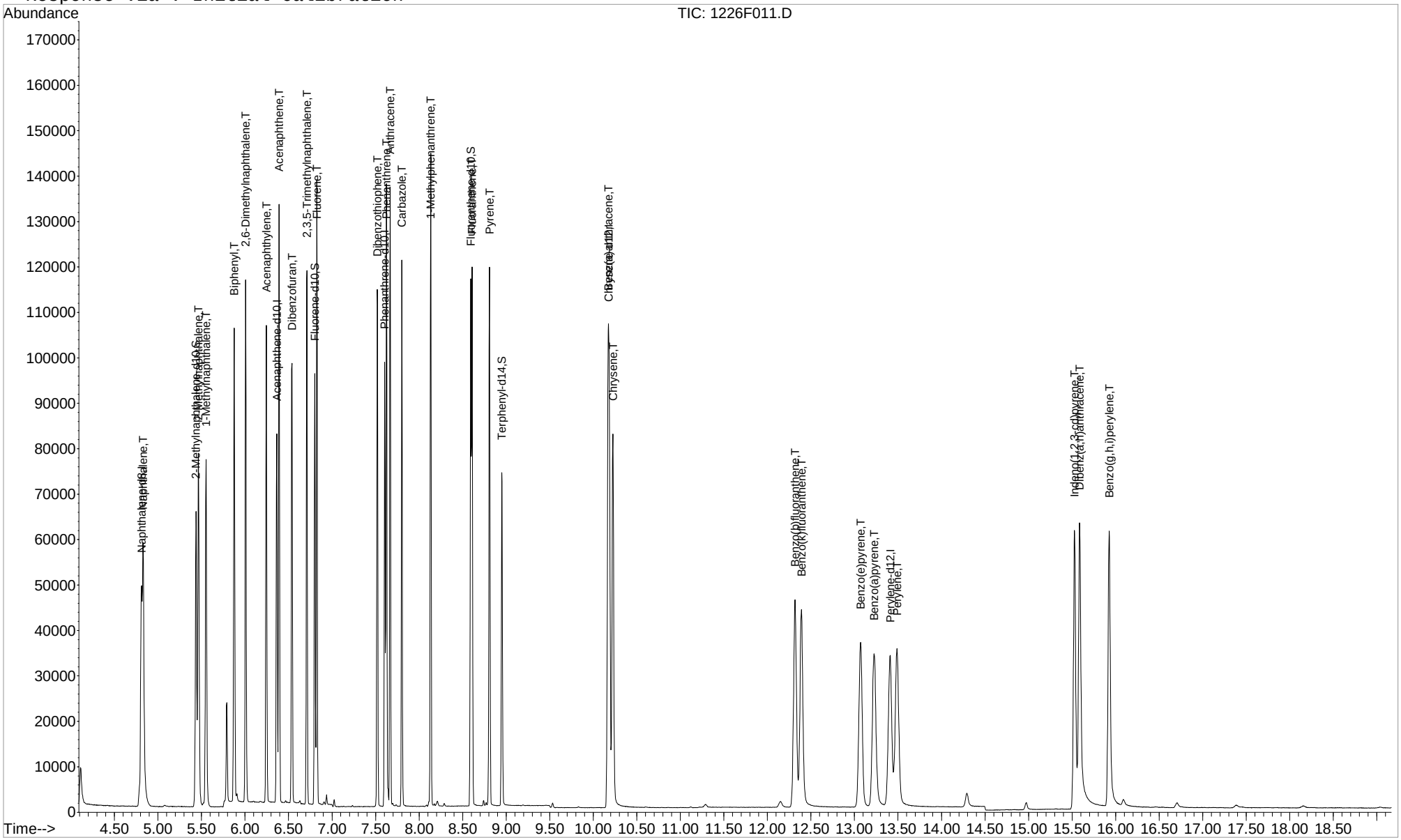
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	51736	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	23610	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	52814	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	55726	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	60878	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	26892	188.43	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	18.84%		
13) Fluorene-d10	6.80	176	31672	204.11	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	20.41%		
22) Fluoranthene-d10	8.59	212	61808	183.85	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	18.38%		
25) Terphenyl-d14	8.95	244	46697	190.64	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	19.06%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	57141	193.59	ng/ml	100
4) 2-Methylnaphthalene	5.47	142	34360	189.85	ng/ml	98
5) 1-Methylnaphthalene	5.55	142	32324	188.79	ng/ml	98
6) Biphenyl	5.88	154	43385	191.52	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	30635	196.45	ng/ml	95
9) Acenaphthylene	6.24	152	57845	195.54	ng/ml	99
10) Acenaphthene	6.39	154	32981	198.81	ng/ml	98
11) Dibenzofuran	6.54	168	53549	200.99	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.71	170	31773	206.88	ng/ml	96
14) Fluorene	6.82	166	42714	210.66	ng/ml	98
16) Dibenzothiophene	7.52	184	68128	202.48	ng/ml	99
17) Phenanthrene	7.62	178	65711	195.70	ng/ml	100
18) Anthracene	7.67	178	65177	198.05	ng/ml	100
19) Carbazole	7.80	167	58950	187.98	ng/ml	99
20) 1-Methylphenanthrene	8.13	192	49881	186.48	ng/ml	98
21) Fluoranthene	8.61	202	77131	184.17	ng/ml	98
24) Pyrene	8.81	202	81524	188.07	ng/ml	96
26) Benz(a)anthracene	10.17	228	75800	191.77	ng/ml	100
27) Chrysene	10.22	228	72536	196.78	ng/ml	100
29) Benzo(b)fluoranthene	12.32	252	80595	202.34	ng/ml	99
30) Benzo(k)fluoranthene	12.39	252	77403	200.75	ng/ml	98
31) Benzo(e)pyrene	13.07	252	74680	197.51	ng/ml	99
32) Benzo(a)pyrene	13.22	252	73346	193.53	ng/ml	98
33) Perylene	13.49	252	72298	203.23	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.53	276	74117	232.56	ng/ml	99
35) Dibenz(a,h)anthracene	15.59	278	72212m	232.36	ng/ml	
36) Benzo(g,h,i)perylene	15.93	276	82328	216.12	ng/ml	98

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F011.D Vial: 10
Acq On : 26 Dec 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:02 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration

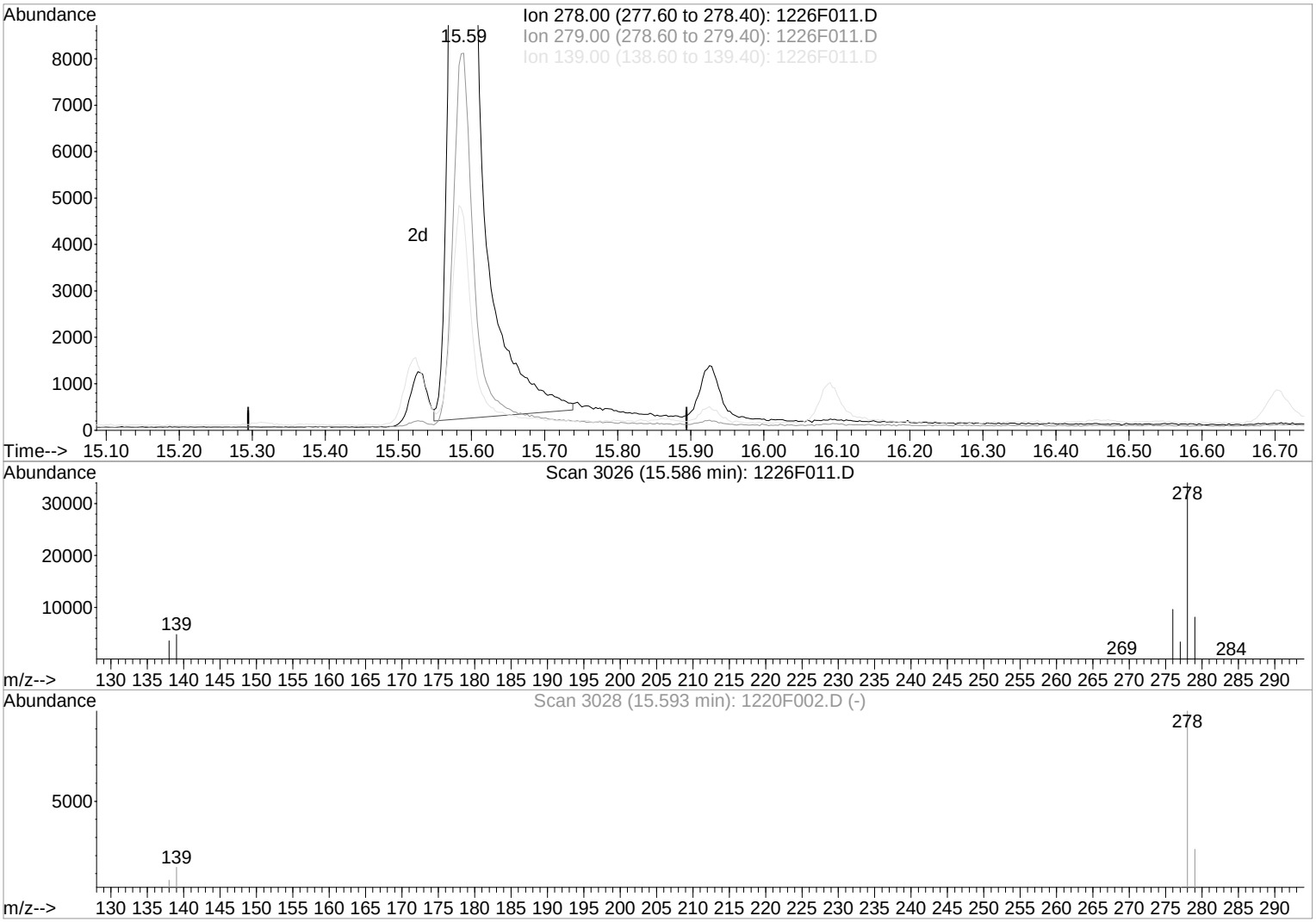


Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F011.D Vial: 10
Acq On : 26 Dec 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F011.D

(35) Dibenz(a,h)anthracene (T)

15.59min 218.83ng/ml

response 68009

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	23.77
139.00	14.40	13.66
0.00	0.00	0.00

Manual Integration:

Before

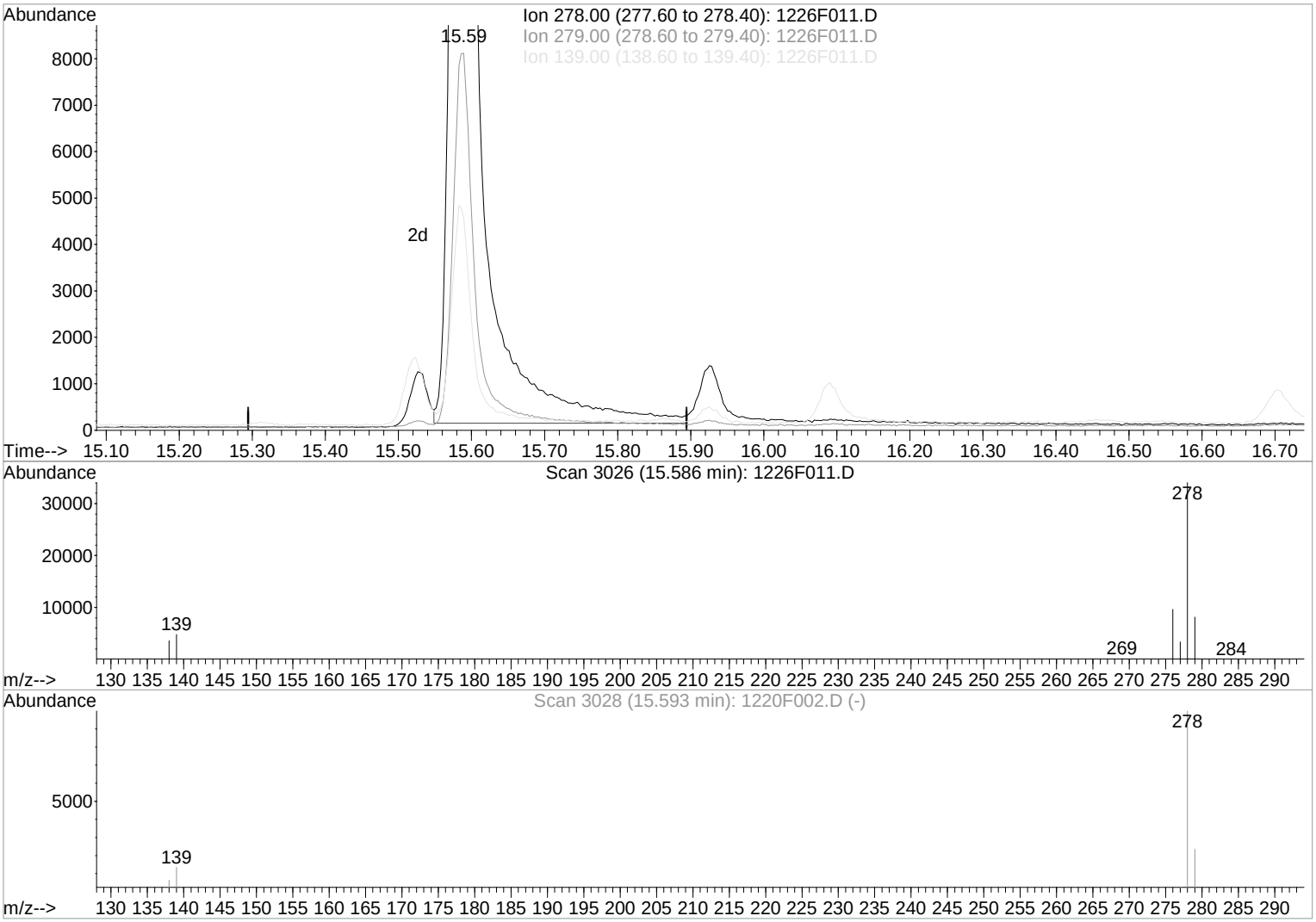
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F011.D Vial: 10
Acq On : 26 Dec 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:02 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F011.D

(35) Dibenz(a,h)anthracene (T)

15.59min 232.36ng/ml m

response 72212

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	23.82
139.00	14.40	14.04
0.00	0.00	0.00

Manual Integration:

After

BLC

12/27/18

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F012.D Vial: 11
Acq On : 26 Dec 2018 10:52 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.4ug/mL | SVM59-4G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:51 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	50298	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	23233	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	51353	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	53837	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	59038	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	52888	381.18	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	38.12%		
13) Fluorene-d10	6.80	176	60873	398.67	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	39.87%		
22) Fluoranthene-d10	8.59	212	121121	370.52	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.05%		
25) Terphenyl-d14	8.95	244	89163	376.78	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.68%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	109374	381.15	ng/ml	99
4) 2-Methylnaphthalene	5.47	142	66559	378.27	ng/ml	99
5) 1-Methylnaphthalene	5.55	142	62999	378.48	ng/ml	98
6) Biphenyl	5.88	154	85579	388.59	ng/ml	100
7) 2,6-Dimethylnaphthalene	6.01	156	60811	401.10	ng/ml	94
9) Acenaphthylene	6.24	152	114293	392.63	ng/ml	99
10) Acenaphthene	6.39	154	65480	401.11	ng/ml	99
11) Dibenzofuran	6.54	168	104158	397.28	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.71	170	62192	411.51	ng/ml	96
14) Fluorene	6.82	166	81916	410.55	ng/ml	100
16) Dibenzothiophene	7.52	184	133739	408.79	ng/ml	98
17) Phenanthrene	7.62	178	127302	389.92	ng/ml	100
18) Anthracene	7.67	178	125540	392.32	ng/ml	100
19) Carbazole	7.80	167	115791	379.74	ng/ml	100
20) 1-Methylphenanthrene	8.13	192	97724	375.74	ng/ml	99
21) Fluoranthene	8.61	202	148438	364.51	ng/ml	99
24) Pyrene	8.81	202	156841	374.51	ng/ml	98
26) Benz(a)anthracene	10.17	228	149815	392.33	ng/ml	99
27) Chrysene	10.23	228	140906	395.68	ng/ml	100
29) Benzo(b)fluoranthene	12.32	252	161471	418.01	ng/ml	99
30) Benzo(k)fluoranthene	12.40	252	154351	412.80	ng/ml	99
31) Benzo(e)pyrene	13.07	252	148292	404.41	ng/ml	98
32) Benzo(a)pyrene	13.23	252	142631	388.07	ng/ml	99
33) Perylene	13.49	252	141758	410.89	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.53	276	142915	462.40	ng/ml	97
35) Dibenz(a,h)anthracene	15.59	278	131224	435.40	ng/ml	98
36) Benzo(g,h,i)perylene	15.93	276	156747	424.31	ng/ml	98

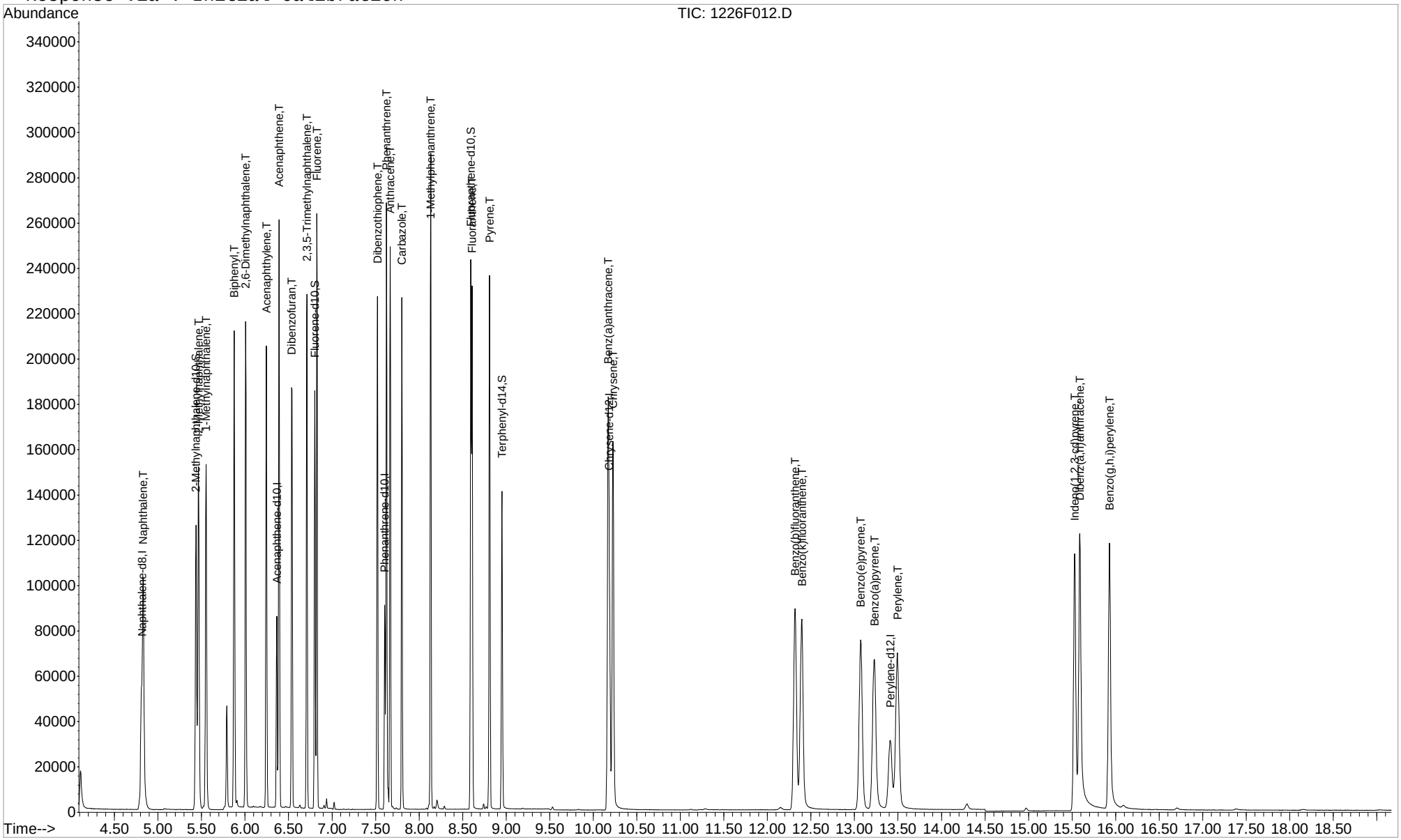
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F012.D Vial: 11
Acq On : 26 Dec 2018 10:52 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.4ug/mL | SVM59-4G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F013.D Vial: 12
Acq On : 26 Dec 2018 11:18 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.0ug/mL | SVM59-4H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:51 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

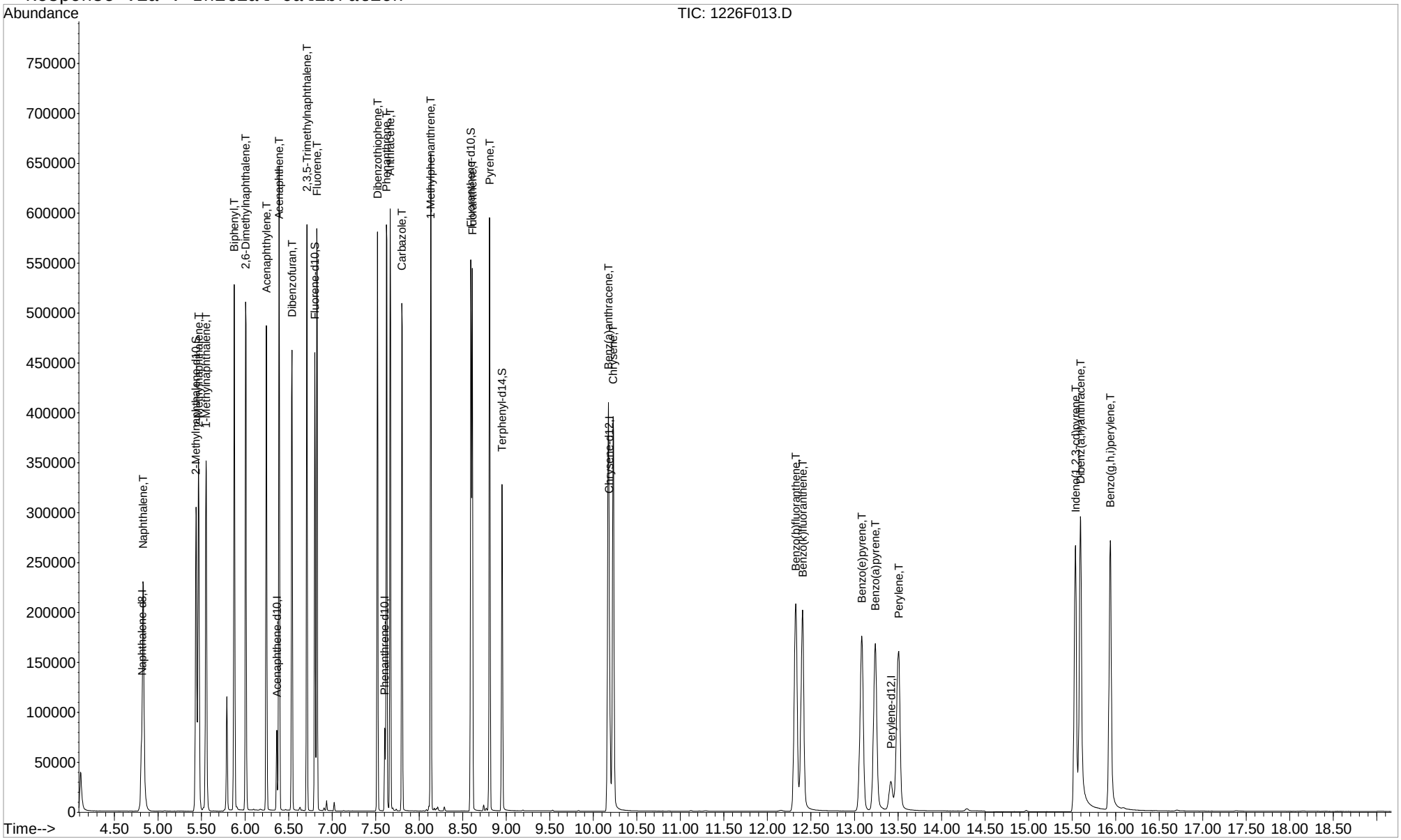
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	48061	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.36	164	21900	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	48218	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	50779	200.00	ng/ml	0.00
28) Perylene-d12	13.42	264	56617	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	127145	959.01	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	95.90%		
13) Fluorene-d10	6.80	176	143873	999.61	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	99.96%		
22) Fluoranthene-d10	8.59	212	292174	951.90	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	95.19%		
25) Terphenyl-d14	8.95	244	208534	934.28	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	93.43%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	256996	937.28	ng/ml	100
4) 2-Methylnaphthalene	5.47	142	156202	929.05	ng/ml	98
5) 1-Methylnaphthalene	5.55	142	149994	943.06	ng/ml	98
6) Biphenyl	5.88	154	201213	956.17	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	143187	988.39	ng/ml	97
9) Acenaphthylene	6.24	152	270667	986.40	ng/ml	99
10) Acenaphthene	6.39	154	153742	999.11	ng/ml	99
11) Dibenzofuran	6.54	168	245681	994.12	ng/ml	91
12) 2,3,5-Trimethylnaphthalene	6.71	170	147248	1033.60	ng/ml	93
14) Fluorene	6.82	166	191435	1017.83	ng/ml	100
16) Dibenzothiophene	7.52	184	320696	1043.99	ng/ml	96
17) Phenanthrene	7.62	178	300375	979.86	ng/ml	99
18) Anthracene	7.67	178	295966	985.04	ng/ml	99
19) Carbazole	7.80	167	278541	972.89	ng/ml	97
20) 1-Methylphenanthrene	8.13	192	233518	956.23	ng/ml	100
21) Fluoranthene	8.61	202	349699	914.57	ng/ml	96
24) Pyrene	8.81	202	375224	949.94	ng/ml	99
26) Benz(a)anthracene	10.17	228	359290	997.56	ng/ml	99
27) Chrysene	10.23	228	333982	994.33	ng/ml	99
29) Benzo(b)fluoranthene	12.33	252	389805	1052.27	ng/ml	99
30) Benzo(k)fluoranthene	12.40	252	366215	1021.30	ng/ml	99
31) Benzo(e)pyrene	13.08	252	358764	1020.23	ng/ml	99
32) Benzo(a)pyrene	13.24	252	342350	971.30	ng/ml	98
33) Perylene	13.51	252	345613	1044.62	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.54	276	340025	1147.18	ng/ml	97
35) Dibenz(a,h)anthracene	15.60	278	313374	1084.24	ng/ml	99
36) Benzo(g,h,i)perylene	15.94	276	370765	1046.57	ng/ml	98

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F013.D Vial: 12
Acq On : 26 Dec 2018 11:18 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.0ug/mL | SVM59-4H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F014.D Vial: 13
Acq On : 26 Dec 2018 11:45 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.6ug/mL | SVM59-4I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:52 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

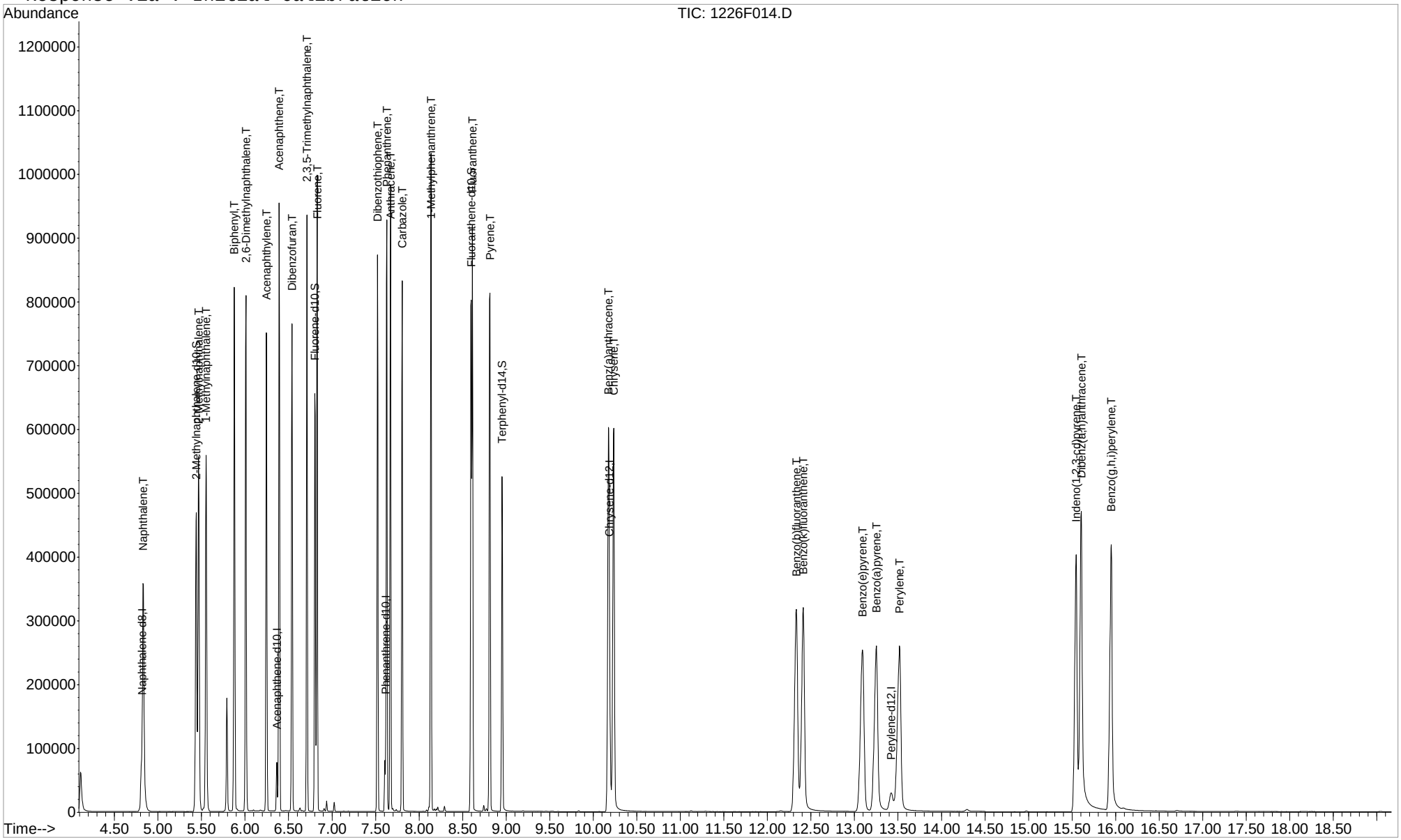
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	45755	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	21412	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.61	188	47325	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	48800	200.00	ng/ml	0.00
28) Perylene-d12	13.42	264	56541	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	196010	1552.95	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 155.30%			
13) Fluorene-d10	6.80	176	230058	1634.84	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 163.48%			
22) Fluoranthene-d10	8.60	212	461126	1530.69	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 153.07%			
25) Terphenyl-d14	8.95	244	325396	1516.98	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 151.70%			
Target Compounds						Qvalue
2) Naphthalene	4.83	128	393657	1508.05	ng/ml	100
4) 2-Methylnaphthalene	5.47	142	239873	1498.60	ng/ml	97
5) 1-Methylnaphthalene	5.55	142	232713	1536.88	ng/ml	97
6) Biphenyl	5.88	154	314968	1572.17	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	225875	1637.74	ng/ml	98
9) Acenaphthylene	6.24	152	424501	1582.29	ng/ml	99
10) Acenaphthene	6.39	154	242452	1611.51	ng/ml	99
11) Dibenzofuran	6.54	168	387050	1601.84	ng/ml	96
12) 2,3,5-Trimethylnaphthalene	6.71	170	234098	1680.70	ng/ml	90
14) Fluorene	6.83	166	304453	1655.62	ng/ml	99
16) Dibenzothiophene	7.52	184	504811	1674.37	ng/ml	92
17) Phenanthrene	7.63	178	471272	1566.36	ng/ml	99
18) Anthracene	7.67	178	463250	1570.89	ng/ml	99
19) Carbazole	7.81	167	436555	1553.57	ng/ml	100
20) 1-Methylphenanthrene	8.14	192	370089	1544.07	ng/ml	98
21) Fluoranthene	8.61	202	547946	1460.09	ng/ml	99
24) Pyrene	8.81	202	593813	1564.29	ng/ml	96
26) Benz(a)anthracene	10.17	228	560151	1618.31	ng/ml	99
27) Chrysene	10.24	228	527325	1633.62	ng/ml	100
29) Benzo(b)fluoranthene	12.33	252	611068	1651.79	ng/ml	98
30) Benzo(k)fluoranthene	12.41	252	580914	1622.23	ng/ml	98
31) Benzo(e)pyrene	13.09	252	567014	1614.60	ng/ml	98
32) Benzo(a)pyrene	13.25	252	544462	1546.80	ng/ml	98
33) Perylene	13.52	252	551208	1668.27	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.55	276	545483	1842.83	ng/ml	98
35) Dibenz(a,h)anthracene	15.60	278	521906	1808.16	ng/ml	99
36) Benzo(g,h,i)perylene	15.95	276	588805	1664.27	ng/ml	98

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F014.D Vial: 13
Acq On : 26 Dec 2018 11:45 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.6ug/mL | SVM59-4I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F015.D Vial: 14
Acq On : 26 Dec 2018 12:12 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @2.0ug/mL | SVM59-4J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:52 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

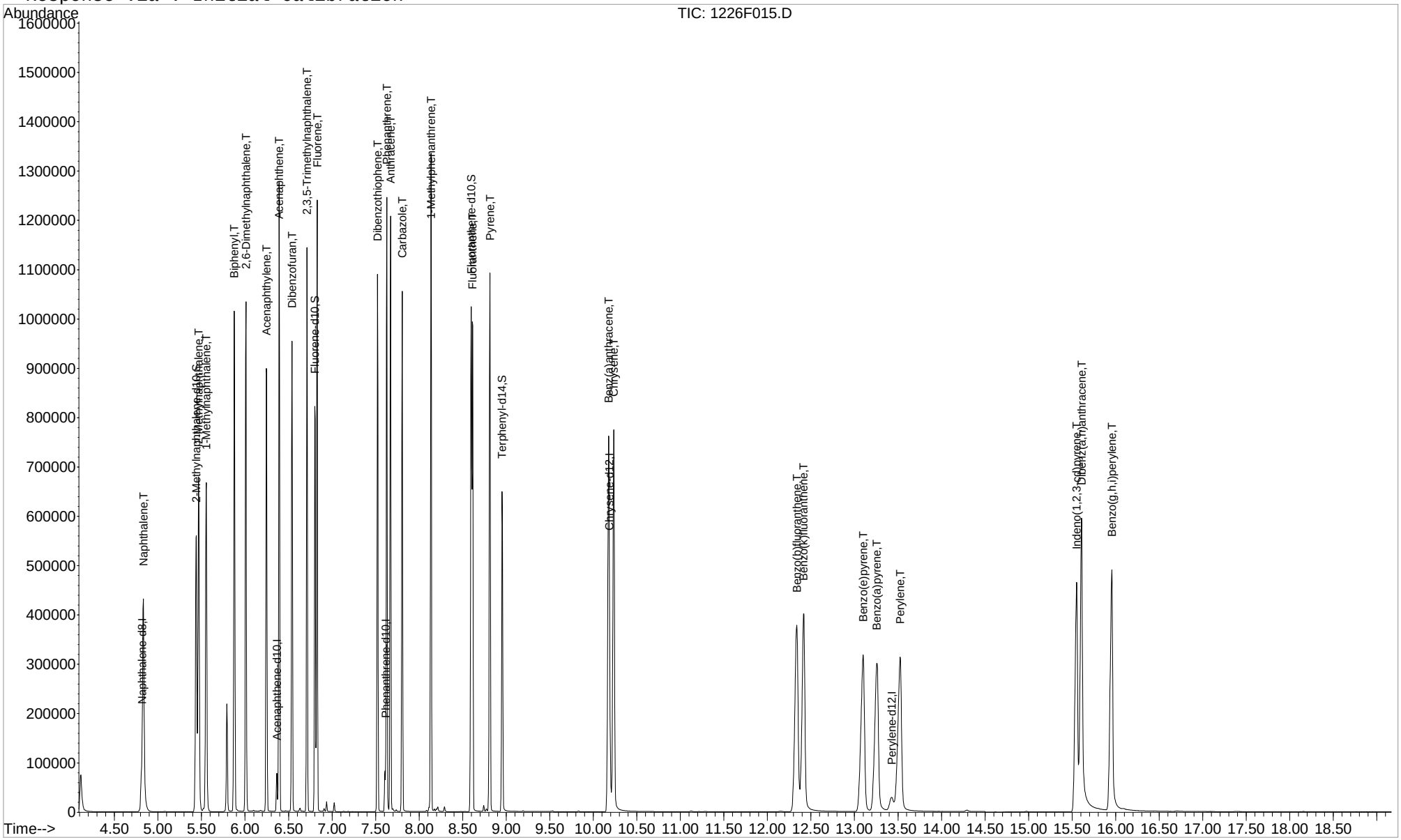
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	46539	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	21976	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.61	188	48765	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	50367	200.00	ng/ml	0.00
28) Perylene-d12	13.43	264	57984	200.00	ng/ml	0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	242539	1889.22	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 188.92%			
13) Fluorene-d10	6.81	176	288571	1998.01	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 199.80%			
22) Fluoranthene-d10	8.60	212	580582	1870.31	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 187.03%			
25) Terphenyl-d14	8.95	244	405199	1830.24	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 183.02%			
Target Compounds						Qvalue
2) Naphthalene	4.83	128	481353	1812.94	ng/ml	99
4) 2-Methylnaphthalene	5.47	142	295515	1815.12	ng/ml	97
5) 1-Methylnaphthalene	5.56	142	288346	1872.21	ng/ml	98
6) Biphenyl	5.88	154	391885	1923.15	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	283955	2024.18	ng/ml	98
9) Acenaphthylene	6.25	152	530763	1927.59	ng/ml	99
10) Acenaphthene	6.39	154	304898	1974.56	ng/ml	99
11) Dibenzofuran	6.54	168	487867	1967.27	ng/ml	99
12) 2,3,5-Trimethylnaphthalene	6.71	170	293341	2051.98	ng/ml	86
14) Fluorene	6.83	166	383996	2034.58	ng/ml	98
16) Dibenzothiophene	7.52	184	626389	2016.27	ng/ml	91
17) Phenanthrene	7.63	178	590908	1906.00	ng/ml	99
18) Anthracene	7.67	178	582356	1916.47	ng/ml	99
19) Carbazole	7.81	167	551652	1905.19	ng/ml	99
20) 1-Methylphenanthrene	8.14	192	461166	1867.24	ng/ml	99
21) Fluoranthene	8.62	202	686084	1774.20	ng/ml	95
24) Pyrene	8.81	202	750182	1914.73	ng/ml	98
26) Benz(a)anthracene	10.18	228	703557	1969.38	ng/ml	99
27) Chrysene	10.24	228	662200	1987.63	ng/ml	99
29) Benzo(b)fluoranthene	12.34	252	760244	2003.88	ng/ml	98
30) Benzo(k)fluoranthene	12.42	252	723170	1969.23	ng/ml	99
31) Benzo(e)pyrene	13.10	252	702317	1950.12	ng/ml	98
32) Benzo(a)pyrene	13.26	252	677296	1876.30	ng/ml	98
33) Perylene	13.52	252	684988	2021.57	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.55	276	680156	2240.62	ng/ml	97
35) Dibenz(a,h)anthracene	15.61	278	647356	2186.97	ng/ml	99
36) Benzo(g,h,i)perylene	15.96	276	725843	2000.56	ng/ml	98

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F015.D Vial: 14
Acq On : 26 Dec 2018 12:12 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @2.0ug/mL | SVM59-4J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F016.D Vial: 15
Acq On : 26 Dec 2018 12:38 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @0.4ug/mL | SVM60-14A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 07:07:26 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 27 07:07:12 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

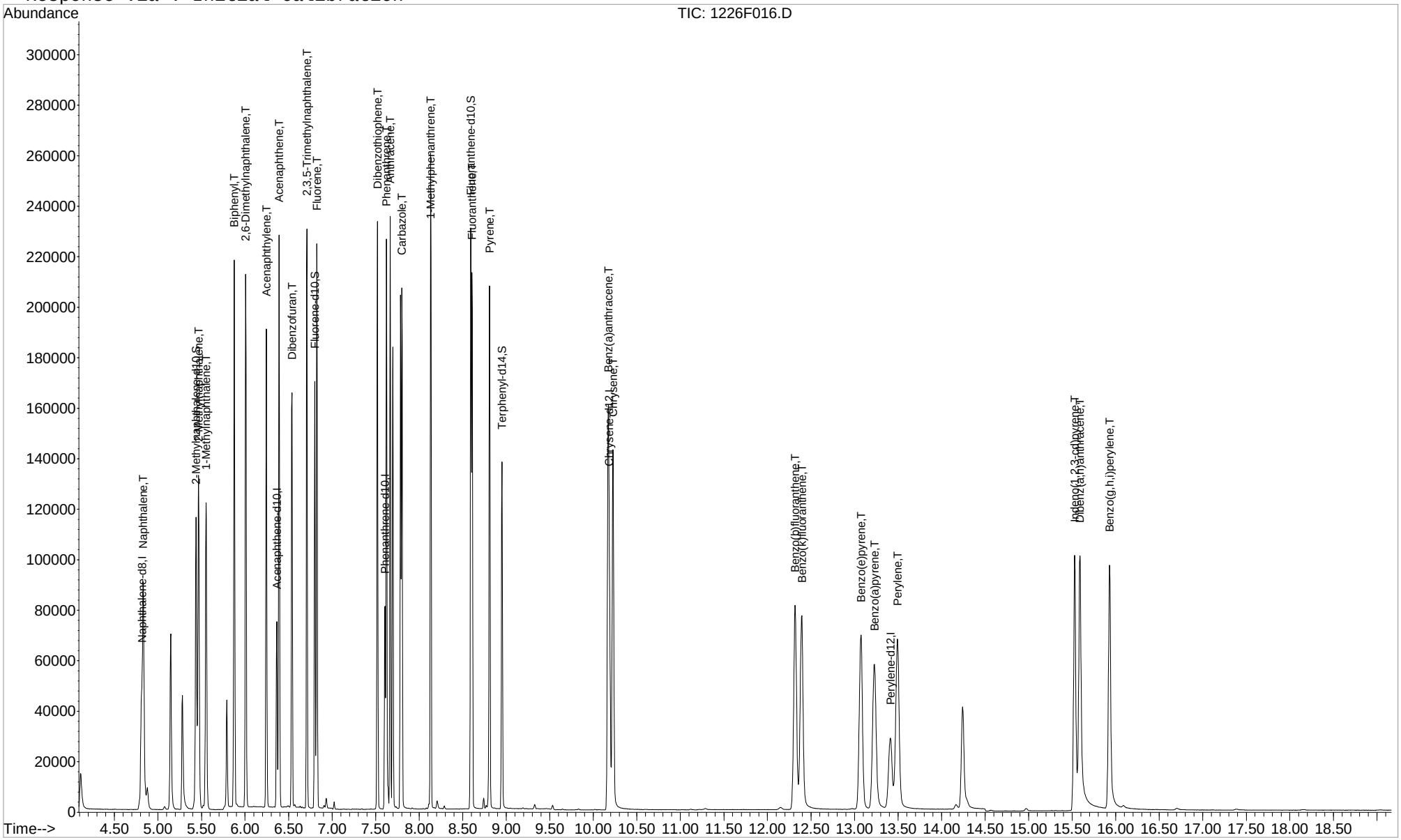
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	43952	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	20745	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.61	188	47024	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	50551	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	54138	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	46844	377.97	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.80%		
13) Fluorene-d10	6.80	176	55889	388.86	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	38.89%		
22) Fluoranthene-d10	8.59	212	112768	409.60	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	40.96%		
25) Terphenyl-d14	8.95	244	84597	379.39	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.94%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	93932	380.48	ng/ml	99
4) 2-Methylnaphthalene	5.47	142	58529	379.00	ng/ml	99
5) 1-Methylnaphthalene	5.55	142	52283	351.34	ng/ml	98
6) Biphenyl	5.88	154	80597	402.96	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	57435	407.65	ng/ml	99
9) Acenaphthylene	6.24	152	99147	385.01	ng/ml	100
10) Acenaphthene	6.39	154	55759	379.57	ng/ml	97
11) Dibenzofuran	6.54	168	87667	370.06	ng/ml	99
12) 2,3,5-Trimethylnaphthalene	6.71	170	57274	409.42	ng/ml	99
14) Fluorene	6.82	166	72335	381.03	ng/ml	100
16) Dibenzothiophene	7.52	184	129909	423.60	ng/ml	99
17) Phenanthrene	7.62	178	112392	375.36	ng/ml	99
18) Anthracene	7.67	178	112301	390.83	ng/ml	99
19) Carbazole	7.80	167	108673	412.16	ng/ml	99
20) 1-Methylphenanthrene	8.13	192	93505	420.56	ng/ml	99
21) Fluoranthene	8.61	202	138746	405.73	ng/ml	99
24) Pyrene	8.81	202	141281	370.68	ng/ml	100
26) Benz(a)anthracene	10.17	228	133026	366.71	ng/ml	99
27) Chrysene	10.22	228	125667	381.20	ng/ml	100
29) Benzo(b)fluoranthene	12.32	252	144374	399.97	ng/ml	100
30) Benzo(k)fluoranthene	12.39	252	138990	407.21	ng/ml	99
31) Benzo(e)pyrene	13.07	252	134682	397.92	ng/ml	99
32) Benzo(a)pyrene	13.23	252	126431	372.71	ng/ml	99
33) Perylene	13.49	252	138037	428.98	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.53	276	123006	381.25	ng/ml	100
35) Dibenz(a,h)anthracene	15.59	278	113266	376.51	ng/ml	99
36) Benzo(g,h,i)perylene	15.93	276	131584	360.13	ng/ml	100

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F016.D Vial: 15
Acq On : 26 Dec 2018 12:38 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @0.4ug/mL | SVM60-14A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:07 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 27 07:07:12 2018
Response via : Initial Calibration



Injection Log

Directory: J:\MS14\DATA\032219

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
~~1~~	~~1~~	~~0322F001.D~~	~~1.~~	~~DFTPP @ 10ug/mL | SVM60-55B~~		~~22 Mar 2019 05:41~~
~~2~~	~~2~~	~~0322F002.D~~	~~1.~~	~~SIM-PAH CCV @ 0.4ug/mL | SVM60-69C~~		~~22 Mar 2019 06:14~~
~~3~~	~~3~~	~~0322F003.D~~	~~1.~~	~~KWG1901112-3 MB~~		~~22 Mar 2019 06:46~~
~~4~~	~~8~~	~~0322F008.D~~	~~1.~~	~~KWG1901112-1 LCS~~		~~22 Mar 2019 09:26~~
~~5~~	~~9~~	~~0322F009.D~~	~~1.~~	~~KWG1901112-2 DLCS~~		~~22 Mar 2019 09:58~~
~~6~~	~~10~~	~~0322F010.D~~	~~1.~~	~~K1901507-007~~		~~22 Mar 2019 10:29~~
~~7~~	~~11~~	~~0322F011.D~~	~~1.~~	~~K1901605-001~~		~~22 Mar 2019 11:01~~
~~8~~	~~12~~	~~0322F012.D~~	~~1.~~	~~K1901605-002~~		~~22 Mar 2019 11:33~~
~~9~~	~~13~~	~~0322F013.D~~	~~1.~~	~~K1901605-003~~		~~22 Mar 2019 12:05~~
~~10~~	~~14~~	~~0322F014.D~~	~~1.~~	~~K1901782-001~~		~~22 Mar 2019 12:37~~
~~11~~	~~15~~	~~0322F015.D~~	~~1.~~	~~K1901782-002~~		~~22 Mar 2019 13:09~~
~~12~~	~~16~~	~~0322F016.D~~	~~1.~~	~~K1901782-003~~		~~22 Mar 2019 13:41~~
~~13~~	~~100~~	~~0322F017.D~~	~~1~~	~~DCM~~		~~22 Mar 2019 14:13~~
14	1	0322F018.D	1.	DFTPP @ 10ug/mL | SVM60-55B		22 Mar 2019 14:45
15	2	0322F019.D	1.	SIM-PAH CCV @ 0.4ug/mL | SVM60-69C		22 Mar 2019 15:18
16	17	0322F020.D	1.	KQ1903571-3 MB		22 Mar 2019 15:50
17	18	0322F021.D	1.	KQ1903571-1 LCS		22 Mar 2019 16:22
18	19	0322F022.D	1.	KQ1903571-2 DLCS		22 Mar 2019 16:54
19	20	0322F023.D	1.	K1902351-019DIL 10X	(NR) report 1X	22 Mar 2019 17:26
20	21	0322F024.D	1.	K1902361-002		22 Mar 2019 17:58
21	22	0322F025.D	1.	K1902361-001		22 Mar 2019 18:30
22	23	0322F026.D	1.	K1902351-002		22 Mar 2019 19:02
23	24	0322F027.D	1.	K1902351-003		22 Mar 2019 19:34
24	25	0322F028.D	1.	K1902351-004		22 Mar 2019 20:07
25	26	0322F029.D	1.	K1902351-014		22 Mar 2019 20:39
26	27	0322F030.D	1.	K1902351-020		22 Mar 2019 21:11
27	28	0322F031.D	1.	K1902351-021		22 Mar 2019 21:43
28	29	0322F032.D	1.	K1902351-027		22 Mar 2019 22:15
29	30	0322F033.D	1.	K1902351-028		22 Mar 2019 22:48
30	31	0322F034.D	1.	K1902351-029		22 Mar 2019 23:20
31	32	0322F035.D	1.	K1902351-030		22 Mar 2019 23:52

Arlims # 629289
KC1900055
3/25/19

3/26/19

DILUTION LOG MS 14

Date: 3/22/19 Prepared by: LWeiskopf Solvent Lot #: DT383

LAB ID.	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	COMMENTS
K1902351-19	50ul	0.5mL	10x	Brown extract

3/25/19

Injection Log

Directory: J:\ms14\data\032519

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0325F001.D	1.	DFTPP @ 10ug/mL | SVM60-55B		25 Mar 2019 05:33
2	2	0325F002.D	1.	SIM-PAH CCV @ 0.4ug/mL | SVM60-69C		25 Mar 2019 06:05
3	3	0325F003.D	1.	KWG1901112-3 MB/~~IB~~		25 Mar 2019 07:08
4	4	0325F004.D	1.	K1902351-019		25 Mar 2019 07:44

*Lims # 6294484
KC1900055
3/26/19

Semi-Volatile Organic Compounds by GC/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Preparation Information Benchsheet

ID: 4/5

Prep Run#: 333285 **Prep WorkFlow:** OrgExtSimAq(7) **Status:** Prepped
Team: Semivoa GCMS/JDUNFIELD **Prep Method:** EPA 3511 **Prep Date/Time:** 3/20/19 12:39 PM
Number of Copies to make: 2

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1902351-002	MW-15	.02	8270D/PAH SIM	6	Water	450mL	2.00mL	
2	K1902351-003	MW-16	.02	8270D/PAH SIM	6	Water	450mL	2.00mL	
3	K1902351-004	MW-17	.02	8270D/PAH SIM	6	Water	450mL	2.00mL	
4	K1902351-014	MW-30	.02	8270D/PAH SIM	6	Water	450mL	4.00mL	
5	K1902351-019	MW-35	.02	8270D/PAH SIM	6	Water	450mL	4.00mL	
6	K1902351-020	MW-36	.02	8270D/PAH SIM	6	Water	450mL	4.00mL	
7	K1902351-021	MW-37	.02	8270D/PAH SIM	7	Water	450mL	2.00mL	
8	K1902351-027	MW-44	.02	8270D/PAH SIM	6	Water	450mL	2.00mL	
9	K1902351-028	FIELD BLANK RINSATE	.02	8270D/PAH SIM	6	Water	450mL	2.00mL	
10	K1902351-029	MW-3	.02	8270D/PAH SIM	7	Water	450mL	2.00mL	
11	K1902351-030	MW-2	.02	8270D/PAH SIM	7	Water	450mL	2.00mL	
12	K1902361-001	BXS-1	.03	8270D/PAH SIM	7	Water	450mL	2.00mL	
13	K1902361-002	BXS-2	.03	8270D/PAH SIM	7	Water	450mL	2.00mL	
14	KQ1903571-01	LCS	–	8270D/PAH SIM	5	Liquid	450mL	2.00mL	
15	KQ1903571-02	DLCS	–	8270D/PAH SIM	5	Liquid	450mL	2.00mL	
16	KQ1903571-03	MB	–	8270D/PAH SIM	5	Liquid	450mL	2.00mL	

Spiking Solutions

Name: 8270 ALL PURPOSE SURROGATE Inventory ID 189727 Logbook Ref: SVM60-15D Expires On: 06/21/2019

K1902351-002	20.00µL	K1902351-003	20.00µL	K1902351-004	20.00µL	K1902351-014	20.00µL	K1902351-019	20.00µL	K1902351-020	20.00µL
K1902351-021	20.00µL	K1902351-027	20.00µL	K1902351-028	20.00µL	K1902351-029	20.00µL	K1902351-030	20.00µL	K1902361-001	20.00µL
K1902361-002	20.00µL	KQ1903571-01	20.00µL	KQ1903571-02	20.00µL	KQ1903571-03	20.00µL				

Name: SIM PAH Matrix Spike Inventory ID 196650 Logbook Ref: SVM60-16M Expires On: 06/21/2019

K1902351-002	50.00µL	KQ1903571-01	50.00µL	KQ1903571-02	50.00µL

IS = SVM60-41D

Preparation Steps

Step:	Extraction	Step:	Final Volume
Started:	3/20/19 12:39	Started:	3/21/19 10:00
Finished:	3/20/19 13:09	Finished:	3/21/19 10:00
By:	JDUNFIELD	By:	JDUNFIELD
Comments		Comments	

Preparation Information Benchsheet

Prep Run#: 333285
Team: Semivoa GCMS/JDUNFIELD

Prep WorkFlow: OrgExtSimAq(7)
Prep Method: EPA 3511

Status: Prepped
Prep Date/Time: 3/20/19 12:39 PM

Comments: _____

Reviewed By: CWilliams Date: 3/25/19

Chain of Custody

Relinquished By: _____ Date: 3.21.19

Received By: _____ Date: 3/26/19

Extracts Examined
(Yes) No

Preparation Information Benchsheet

Prep Run#: 333285 **Prep WorkFlow:** OrgExtSimAq(7) **Status:** Draft
Team: Semivoa GCMS/JDUNFIELD **Prep Method:** EPA 3511 **Prep Date/Time:** 3/20/19 09:14 AM
Number of Copies to make: 2

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. mL	pH	Int. Vol mL	Final Vol mL	Surr Amt µL	Spike Amt µL
1	**K1902351-002**	MW-15	.02		8270D / PAH SIM	Water	450	6	N/A	2	20	–
2	**K1902351-003**	MW-16	.02		8270D / PAH SIM	Water	450	6		2		–
3	**K1902351-004**	MW-17	.02		8270D / PAH SIM	Water	450	6		2		–
4	**K1902351-014**	MW-30	.02		8270D / PAH SIM	Water	450	6		4		–
5	**K1902351-019**	MW-35	.02		8270D / PAH SIM	Water	450	6		4		–
6	**K1902351-020**	MW-36	.02		8270D / PAH SIM	Water	450	6		4		–
7	**K1902351-021**	MW-37	.02		8270D / PAH SIM	Water	450	7		2		–
8	**K1902351-027**	MW-44	.02		8270D / PAH SIM	Water	450	6		2		–
9	**K1902351-028**	FIELD BLANK RINSATE	.02		8270D / PAH SIM	Water	450	6		2		–
10	**K1902351-029**	MW-3	.02		8270D / PAH SIM	Water	450	7		2		–
11	**K1902351-030**	MW-2	.02		8270D / PAH SIM	Water	450	7		2		–
12	**K1902361-001**	BXS-1	.03		8270D / PAH SIM	Water	450	7		2		–
13	**K1902361-002**	BXS-2	.03		8270D / PAH SIM	Water	450	7		2		–
14	**KQ1903571-01**	LCS			8270D / PAH SIM	Liquid	450	5		2		50
15	**KQ1903571-02**	DLCS			8270D / PAH SIM	Liquid	450	5		2		–
16	**KQ1903571-03**	MB			8270D / PAH SIM	Liquid	450	5		2		–

Comments: K1902351-2 some sample loss during shaker table sequence, Estimated 2 mL loss. JD 3/20/19
extract from sample 2351-19 was turned to a dark yellow color TA 3.20.19 Insufficient sample volume for MS/DMS. JD 3/25/19

Surrogate ID: 189,727-SVM60-15D 189,727-SVM60-15D 189,727-SVM60-15D 189,727-SVM60-15D 189
100/150 ppm XP 6/21/19 20 µL syringe

Spike ID: 189,727-SVM60-15D 196,650-SVM60-16M 189,727-SVM60-15D 196,650-SVM60-16M
25 ppm XP 6/21/19 50 µL syringe

Witnessed By: BWillard 3/20/19

Analyst: [signature] 3/20/19

Assisted By: BWillard

Pest/PCB/PAH by 3511

Service Request # K1902351; K1902361 **Work Group # Pest:** —
PCB: —
PAH: KQ1903571

Solvent Lot # 195734

Extraction Start (time/date/initial): 12:39 3/20/19 JD

Extraction Stop (time/date/initial): 13:09 3/20/19 JD

NaCL Lot# 0000197939

Sulfate Lot # 2016105773

Carbon Clean-up (Ext-Car)(time/date/initial): — Carbon Lot # —

1:1 DCM/Hexane Lot # —

Sulfuric Acid Clean-up (3665) (time/date/initial): — Acid Lot # —

Other Clean-up (type/time/date/initial) —

Lot# —

Pipette (5 mL) Lot # — Pipette (2 mL) Lot # 1641874

Pipette (1mL) 20717645

Pest Vial: — Vial Storage: —

PCB Vial: — Vial Storage: —

PAH Vial: Green Vial Storage: K-Tundra

Archived Extract Storage: none

Additional Comments: _____

Bench Sheet Review Check List
☑ Hold times met; if no, reason: _____
☑ Prep date, time, method, department, product code correct
☑ Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☑ Weights/Volumes and units correct on raw and final bench sheets
☑ Sample IDs have been checked - bottle numbers appended if required
☑ Names present for: started by, completed by, relinquished by, and witnessed by
☑ Extract storage recorded
☑ Additional prep sheet completely filled out (NA or line out blanks)
☑ All clean-ups have been noted on additional prep sheet

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F025.D\
Lab ID: K1902361-001
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 18:30:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 3/25/19 8:54
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F025.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 18:30:00	**Vial:**	8
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902361-001	**Raw Units:**	ng/mL

Bottle ID:	K1902361-001.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	K1902361
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		33437	200.00	NA
Chrysene-d12	10.17		64881	200.00	NA
Naphthalene-d8	4.79		69281	200.00	NA
Perylene-d12	13.39	-0.02	70688	200.00	NA
Phenanthrene-d10	7.60		62647	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		412560	1124.82	112	42 - 133	Y
Fluorene-d10	6.79		212670	918.03	92	42 - 131	Y
Terphenyl-d14	8.94		312940	1093.45	109	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		228	0.94	0.0042	J	Y
Acenaphthene	6.38		86	0.36	0.0016	J	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.17	+0.01	198	0.43	0.0019	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y
Fluorene	6.81	-0.01	118	0.39	0.0017	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 3/25/19 8:54
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F025.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 18:30:00	**Vial:**	8
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902361-001	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.81		693	1.78	0.0079	J	Y
Phenanthrene	7.62		545	1.37	0.0061	J	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

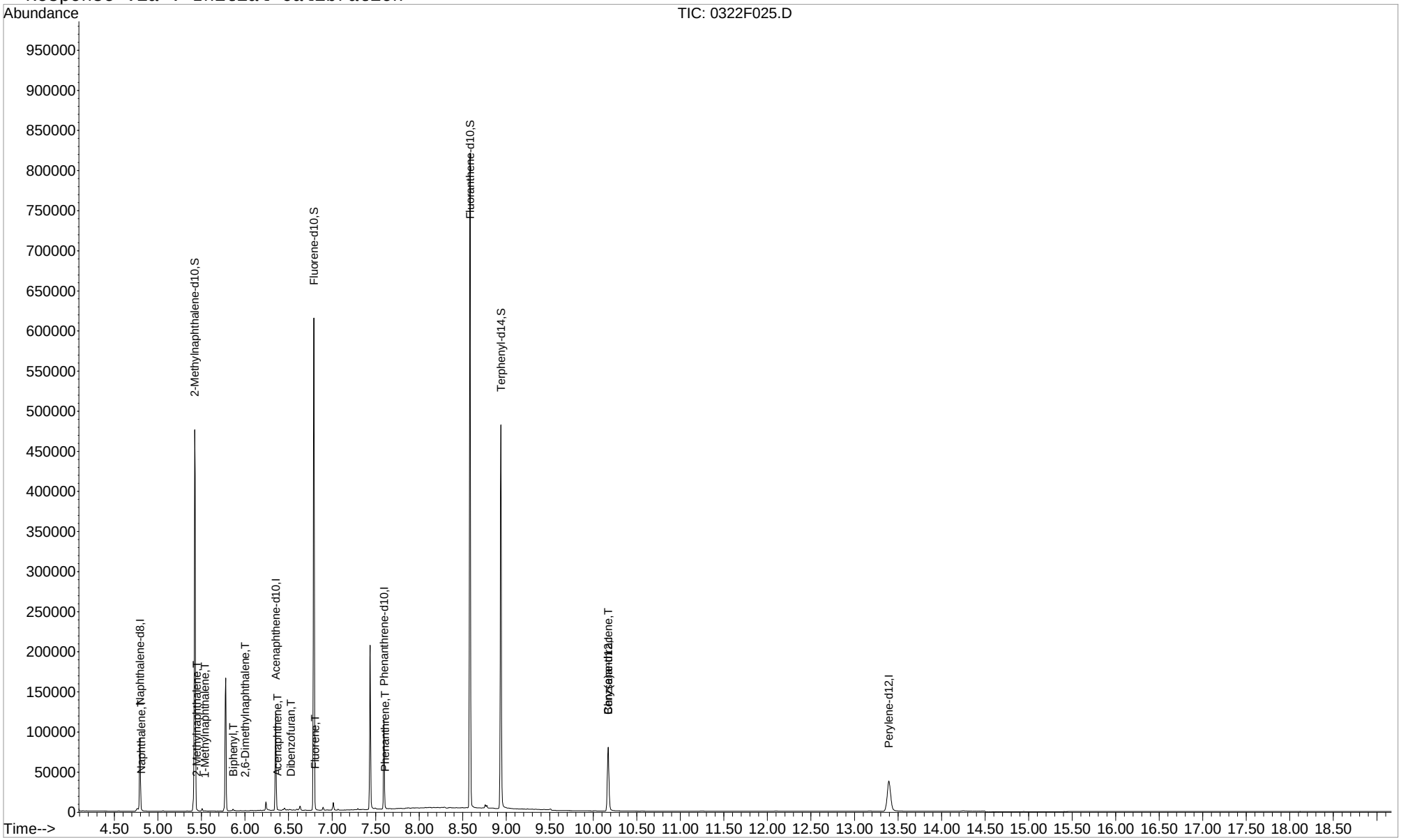
Printed: 3/25/19 8:54
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Quantitation Report (QT Reviewed)

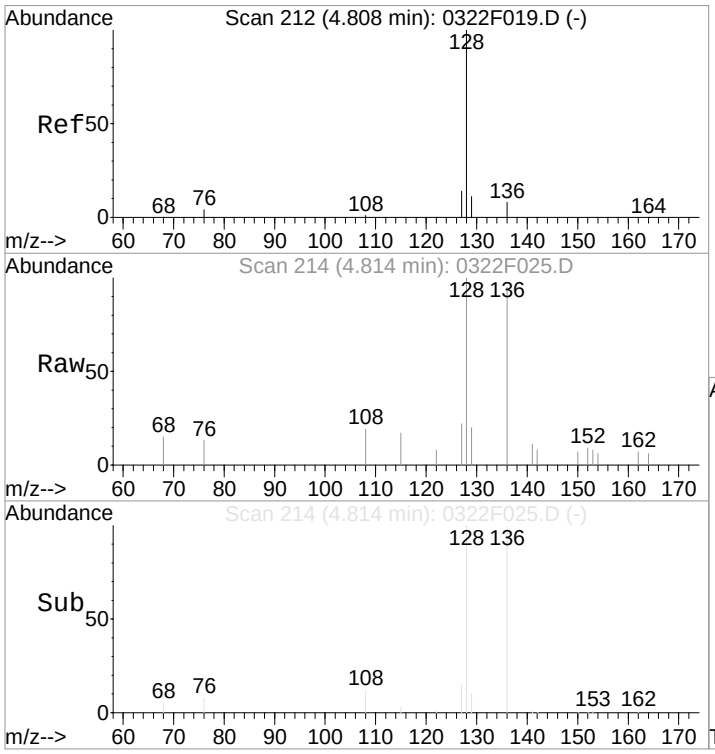
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F025.D Vial: 22
Acq On : 22 Mar 2019 6:30 pm Operator: LWeiskopf
Sample : K1902361-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:49 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



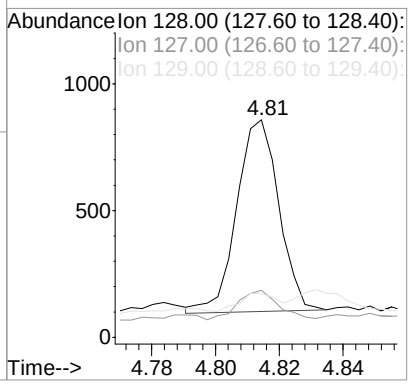
1st 03/25/19
2nd 03/26/19

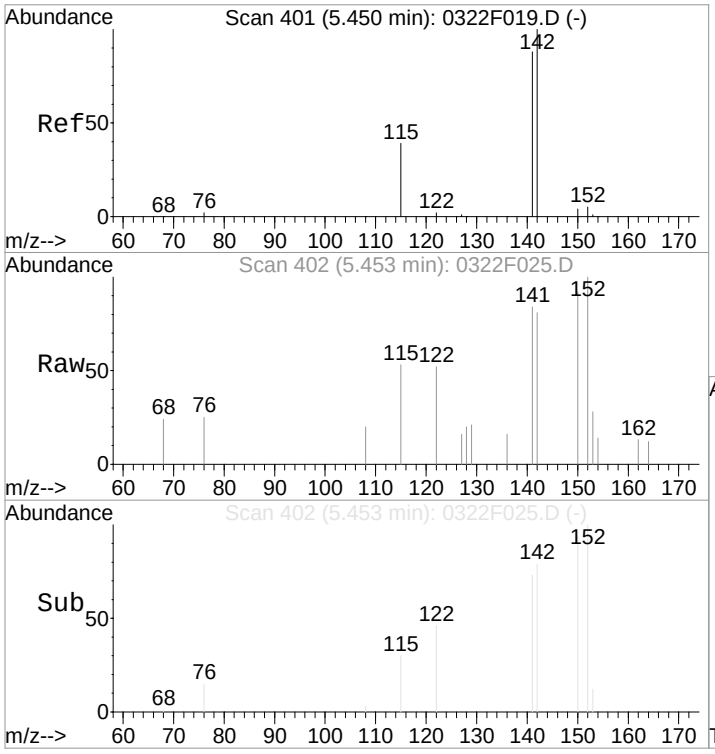


#2
Naphthalene
Concen: 1.78 ng/ml
RT: 4.81 min Scan# 214
Delta R.T. -0.02 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:128 Resp: 693

Ion	Ratio	Lower	Upper
128	100		
127	13.6	0.0	43.9
129	7.9	0.0	30.8

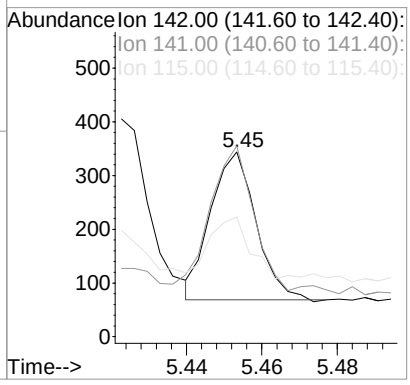




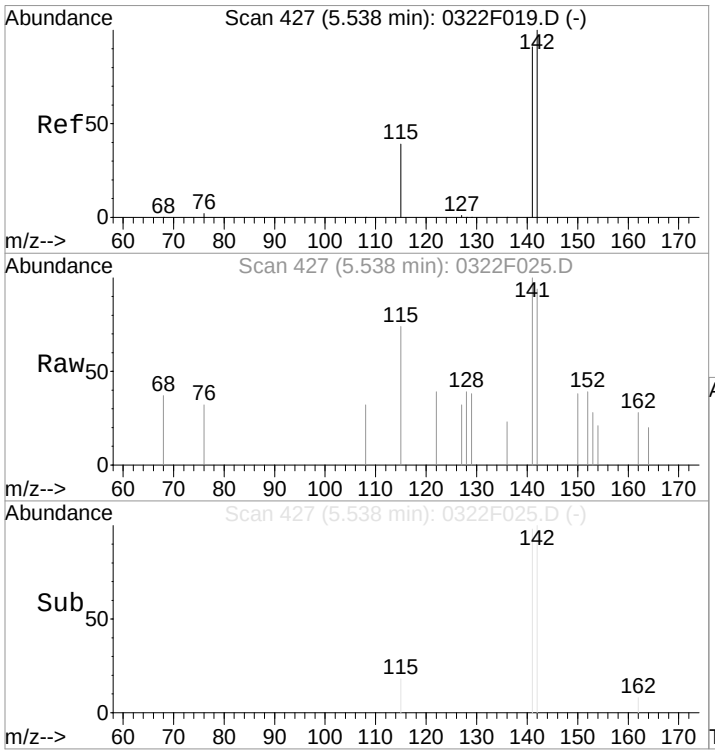
#4
2-Methylnaphthalene
Concen: 0.94 ng/ml
RT: 5.45 min Scan# 402
Delta R.T. -0.01 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:142 Resp: 228

Ion	Ratio	Lower	Upper
142	100		
141	97.5	57.4	117.4
115	41.1	21.9	61.9



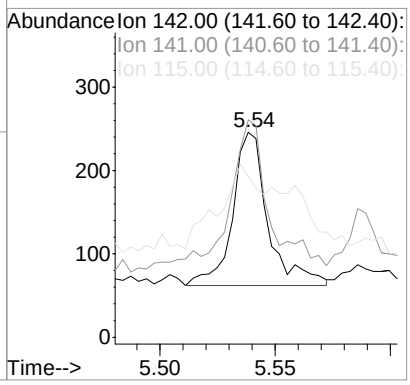
1st 03/25/19
2nd 03/26/19

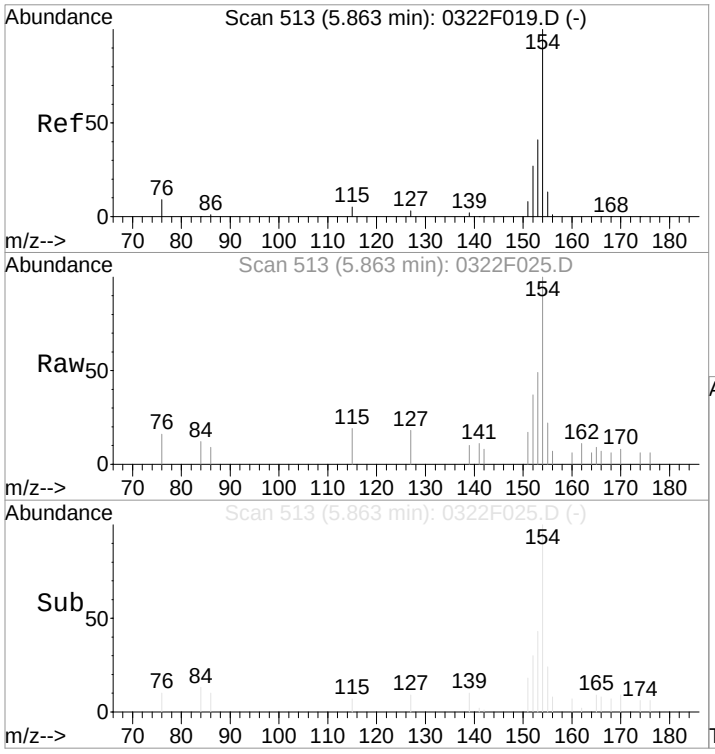


#5
1-Methylnaphthalene
Concen: 0.84 ng/ml
RT: 5.54 min Scan# 427
Delta R.T. -0.01 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:142 Resp: 196

Ion	Ratio	Lower	Upper
142	100		
141	95.1	61.0	121.0
115	47.3	26.2	66.2

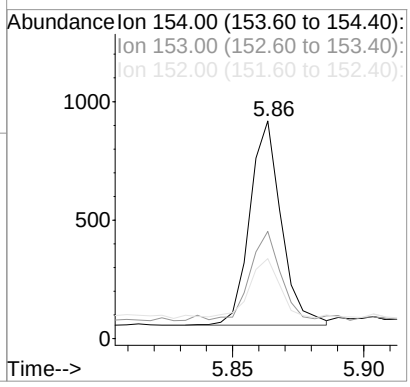




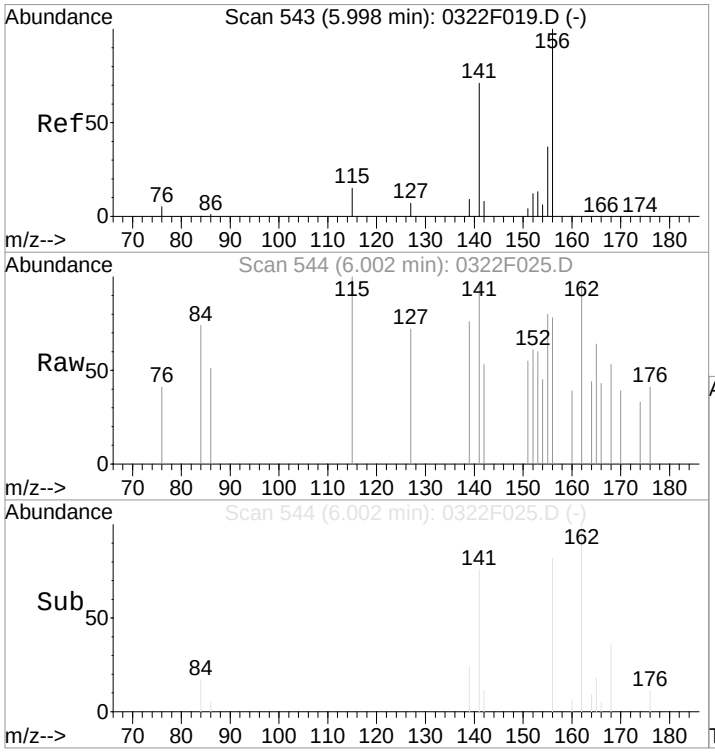
#6
Biphenyl
Concen: 2.28 ng/ml
RT: 5.86 min Scan# 513
Delta R.T. -0.01 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:154 Resp: 720

Ion	Ratio	Lower	Upper
154	100		
153	43.5	11.5	71.5
152	27.8	6.9	46.9



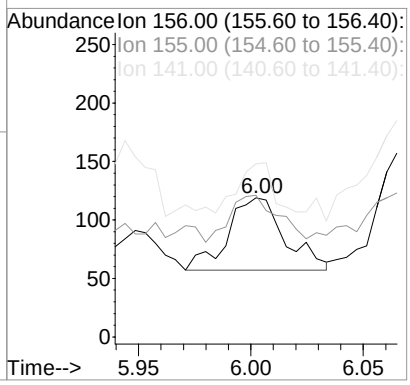
1st 03/25/19
2nd 03/26/19

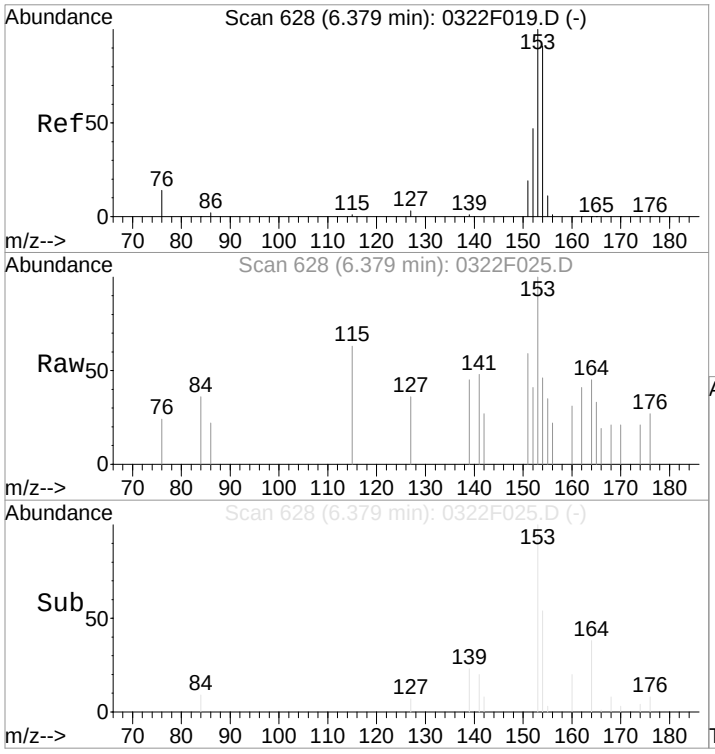


#7
2,6-Dimethylnaphthalene
Concen: 0.50 ng/ml
RT: 6.00 min Scan# 544
Delta R.T. -0.00 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:156 Resp: 110

Ion	Ratio	Lower	Upper
156	100		
155	54.8	7.6	67.6
141	79.0	60.6	100.6

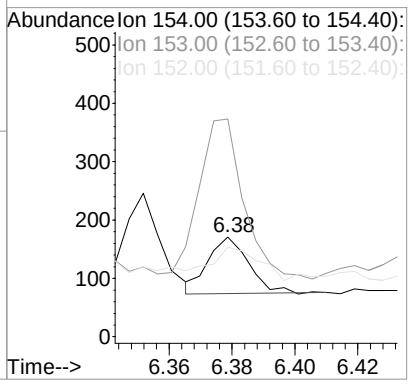




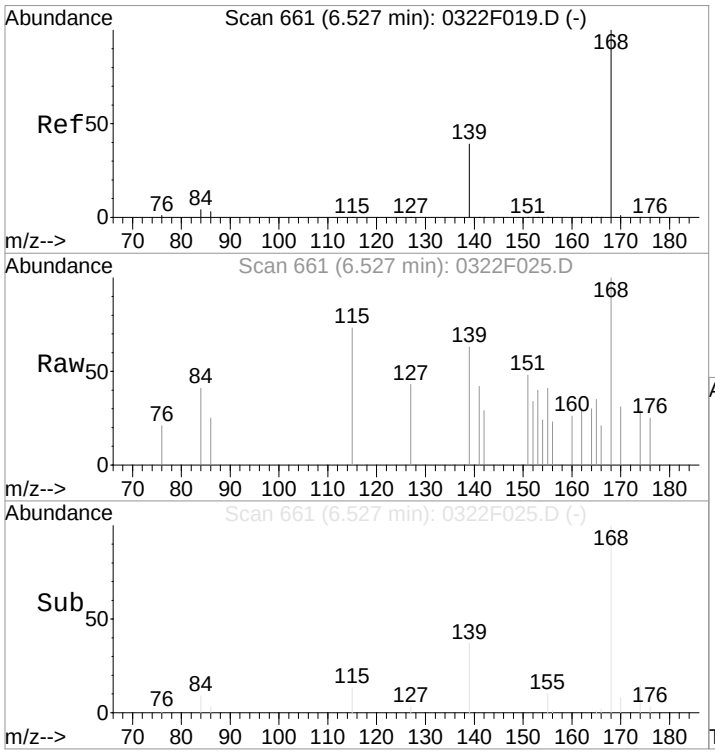
#10
Acenaphthene
Concen: 0.36 ng/ml
RT: 6.38 min Scan# 628
Delta R.T. -0.01 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:154 Resp: 86

Ion	Ratio	Lower	Upper
154	100		
153	277.9	77.6	137.6#
152	51.6	19.9	79.9



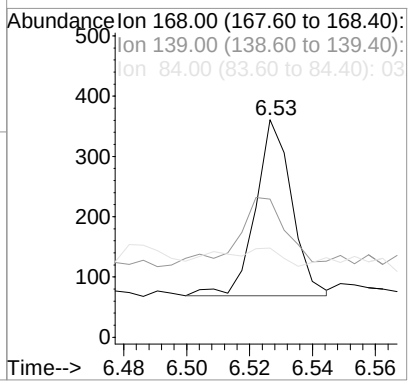
1st 03/25/19
2nd 03/26/19

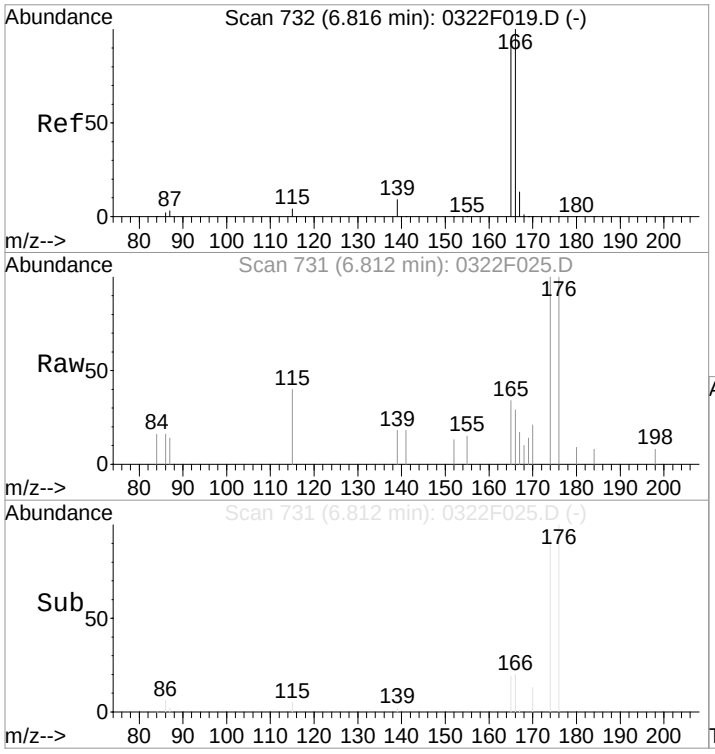


#11
Dibenzofuran
Concen: 0.61 ng/ml
RT: 6.53 min Scan# 661
Delta R.T. -0.01 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:168 Resp: 234

Ion	Ratio	Lower	Upper
168	100		
139	35.3	1.8	61.8
84	7.5	0.0	23.2

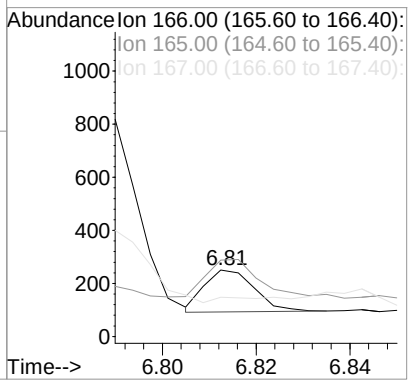




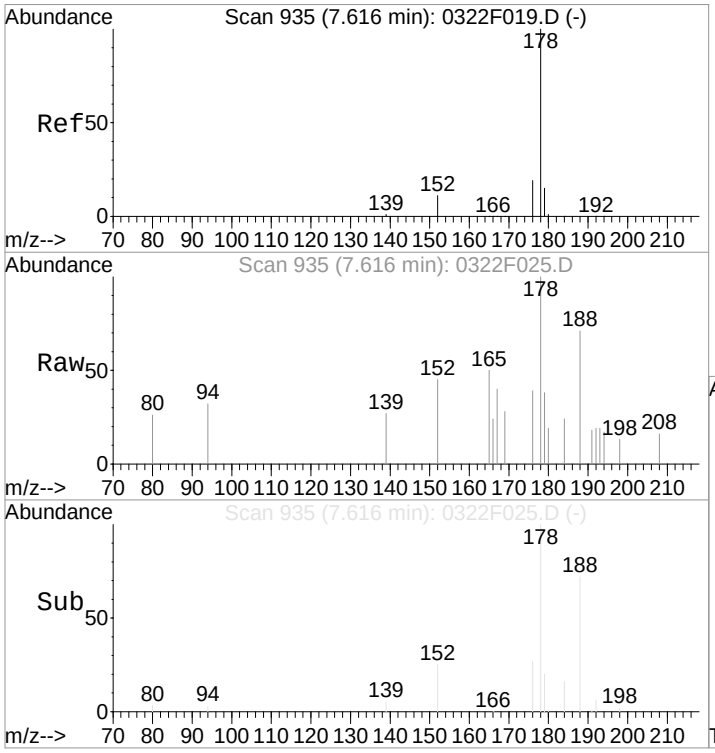
#14
Fluorene
Concen: 0.39 ng/ml
RT: 6.81 min Scan# 731
Delta R.T. -0.01 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:166 Resp: 118

Ion	Ratio	Lower	Upper
166	100		
165	88.4	65.3	125.3
167	0.0	0.0	33.1



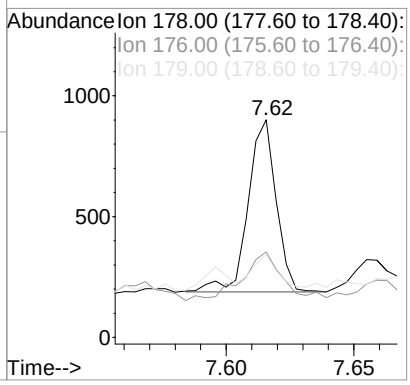
1st 03/25/19
2nd 03/26/19

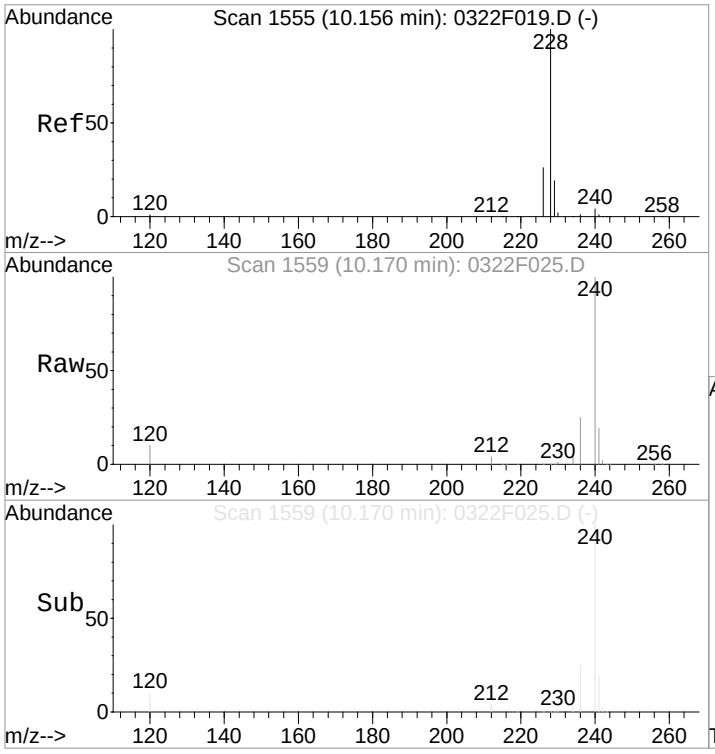


#17
Phenanthrene
Concen: 1.37 ng/ml
RT: 7.62 min Scan# 935
Delta R.T. -0.00 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:178 Resp: 545

Ion	Ratio	Lower	Upper
178	100		
176	28.2	0.0	48.6
179	20.8	0.0	35.2

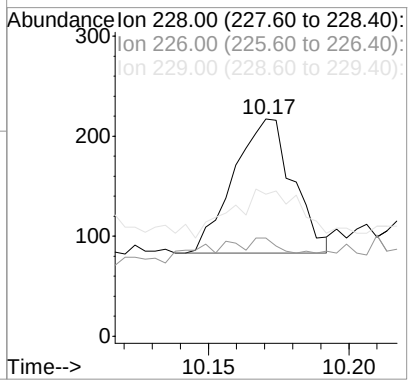




#26
Benz(a)anthracene
Concen: 0.43 ng/ml
RT: 10.17 min Scan# 1559
Delta R.T. -0.00 min
Lab File: 0322F025.D
Acq: 22 Mar 2019 6:30 pm

Tgt Ion:228 Resp: 198

Ion	Ratio	Lower	Upper
228	100		
226	9.7	0.0	56.6
229	29.1	0.0	39.5



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F025.D Vial: 22
Acq On : 22 Mar 2019 6:30 pm Operator: LWeiskopf
Sample : K1902361-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:52 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	69281m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	33437	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	62647	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	64881	200.00	ng/ml	-0.01
28) Perylene-d12	13.39	264	70688	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	155156	794.21	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 79.42%			
13) Fluorene-d10	6.79	176	212670	918.03	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 91.80%			
22) Fluoranthene-d10	8.58	212	412560	1124.82	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 112.48%			
25) Terphenyl-d14	8.94	244	312940	1093.45	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 109.35%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	693	1.78	ng/ml	96
4) 2-Methylnaphthalene	5.45	142	228	0.94	ng/ml	92
5) 1-Methylnaphthalene	5.54	142	196	0.84	ng/ml	97
6) Biphenyl	5.86	154	720	2.28	ng/ml	97
7) 2,6-Dimethylnaphthalene	6.00	156	110	0.50	ng/ml	90
10) Acenaphthene	6.38	154	86	0.36	ng/ml#	1
11) Dibenzofuran	6.53	168	234	0.61	ng/ml	93
14) Fluorene	6.81	166	118	0.39	ng/ml	90
17) Phenanthrene	7.62	178	545	1.37	ng/ml	82
26) Benz(a)anthracene	10.17	228	198	0.43	ng/ml	72

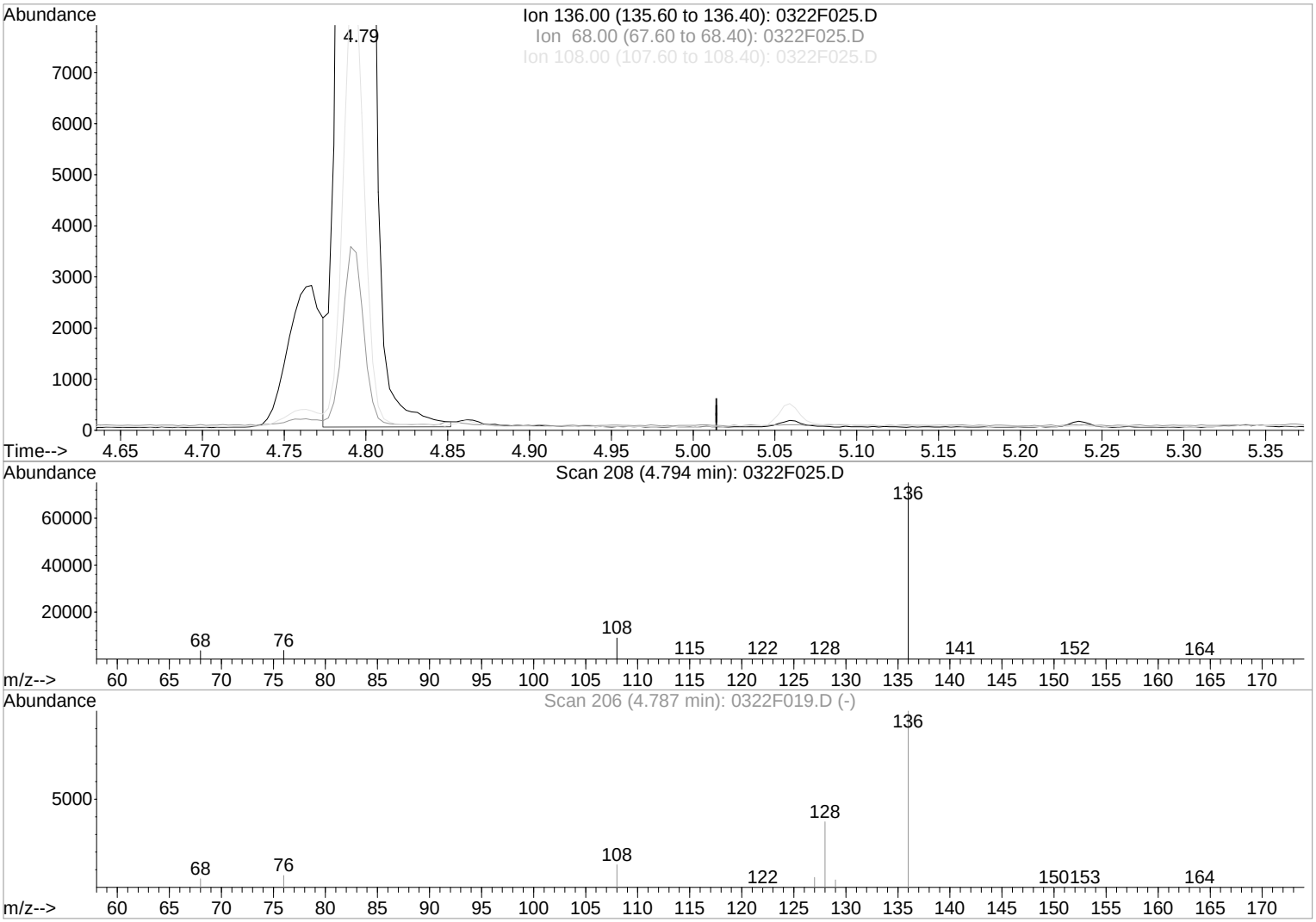
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F025.D Vial: 22
Acq On : 22 Mar 2019 6:30 pm Operator: LWeiskopf
Sample : K1902361-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F025.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 65248

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.42
108.00	13.60	11.67
0.00	0.00	0.00

Manual Integration:

Before

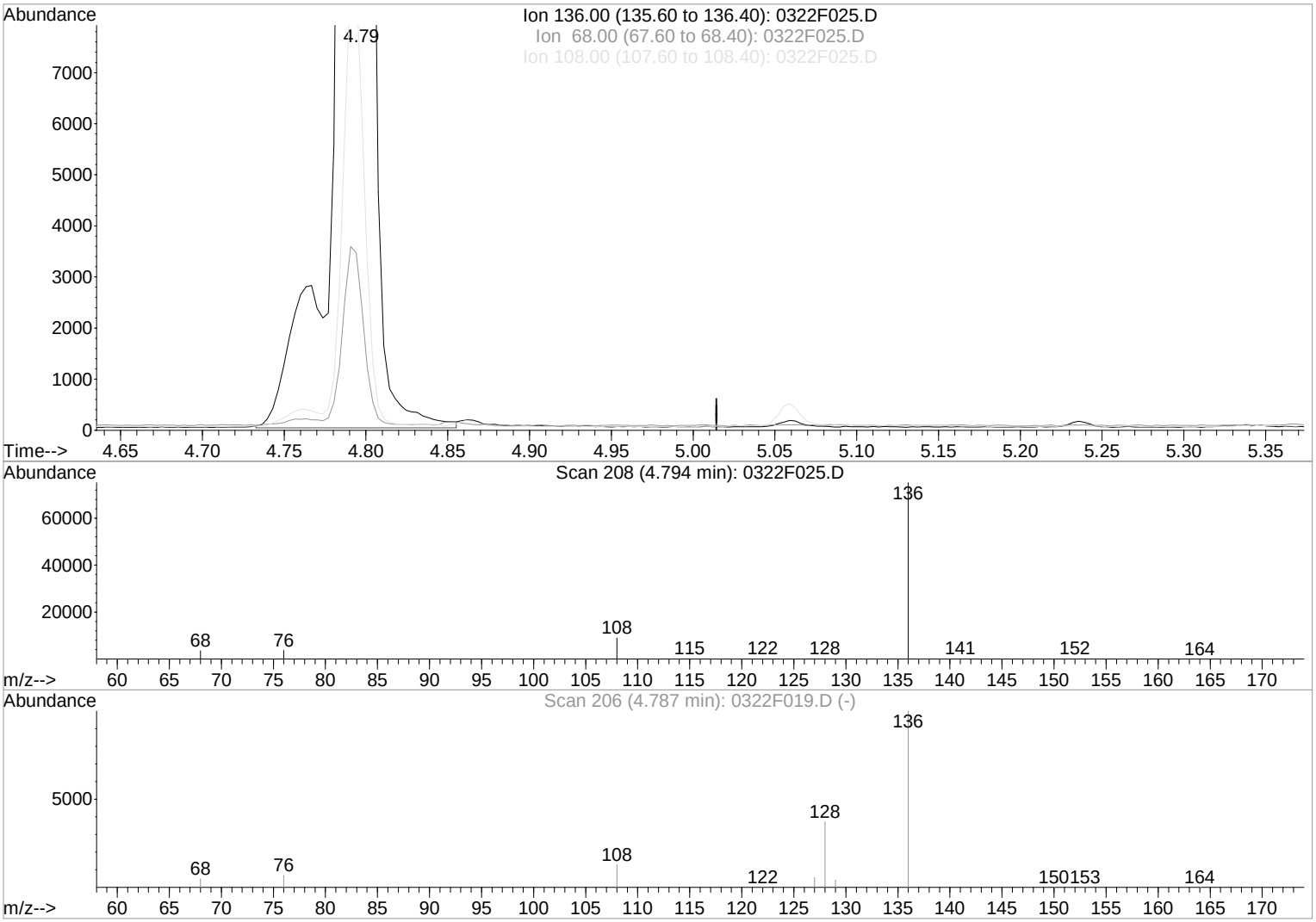
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F025.D Vial: 22
Acq On : 22 Mar 2019 6:30 pm Operator: LWeiskopf
Sample : K1902361-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:48 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F025.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 69281

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.62
108.00	13.60	11.79
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F024.D\
Lab ID: K1902361-002
RunType: N/A
Matrix: Water

Date Acquired: 3/22/19 17:58:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F024.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 17:58:00	**Vial:**	7
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902361-002	**Raw Units:**	ng/mL

Bottle ID:	K1902361-002.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	K1902361
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		32877	200.00	NA
Chrysene-d12	10.17		65615	200.00	NA
Naphthalene-d8	4.79		67862	200.00	NA
Perylene-d12	13.40	-0.01	72653	200.00	NA
Phenanthrene-d10	7.60		63261	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		435273	1175.23	118	42 - 133	Y
Fluorene-d10	6.79		217104	953.14	95	42 - 131	Y
Terphenyl-d14	8.94		340423	1176.18	118	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		468	1.96	0.0087	J	Y
Acenaphthene	6.38		95	0.41	0.0018	J	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.17	+0.01	241	0.51	0.0023	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y
Fluorene	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F024.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 17:58:00	**Vial:**	7
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1902361-002	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.81		1247	3.27	0.015	J	Y
Phenanthrene	7.62		404	1.00	0.0044	J	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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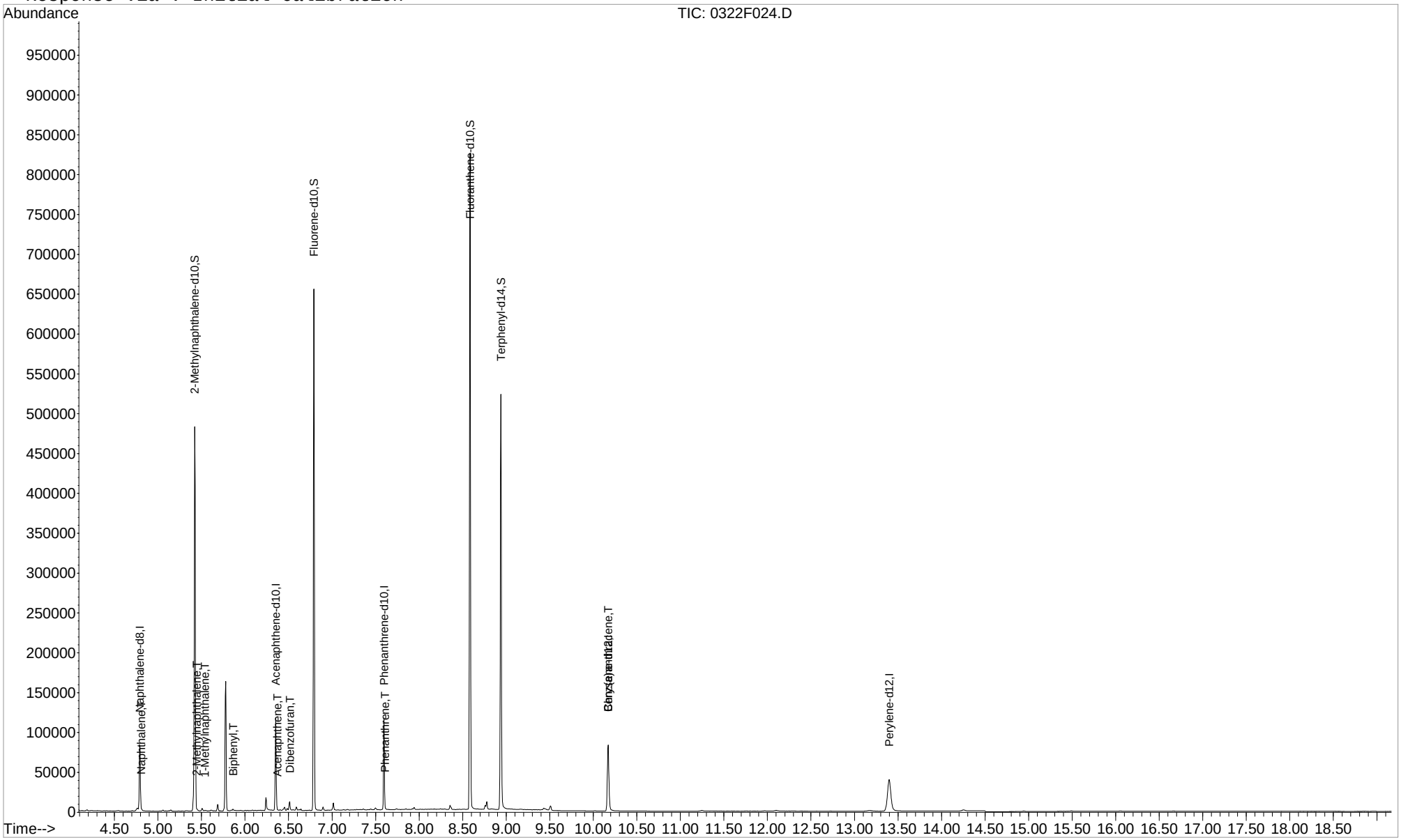
Quantitation Report (QT Reviewed)

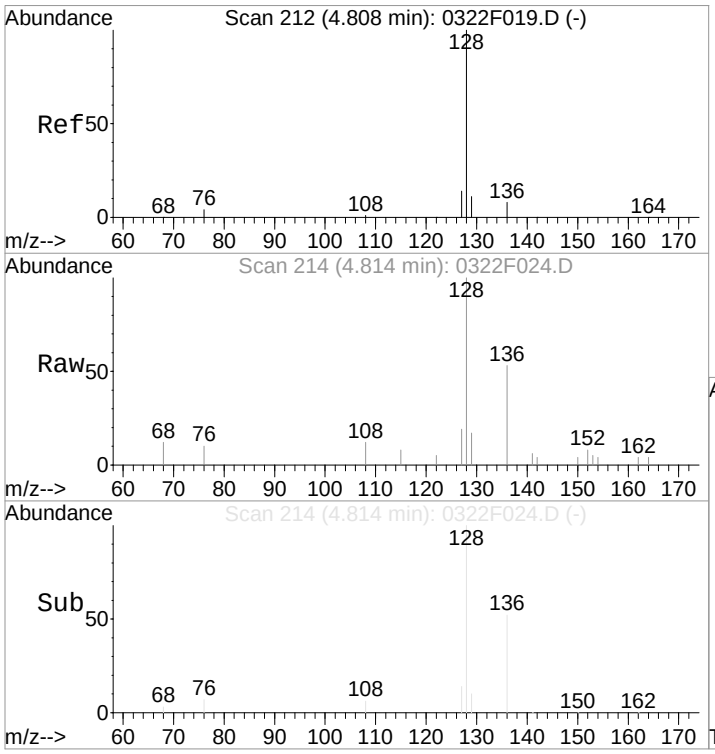
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F024.D Vial: 21
Acq On : 22 Mar 2019 5:58 pm Operator: LWeiskopf
Sample : K1902361-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:48 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



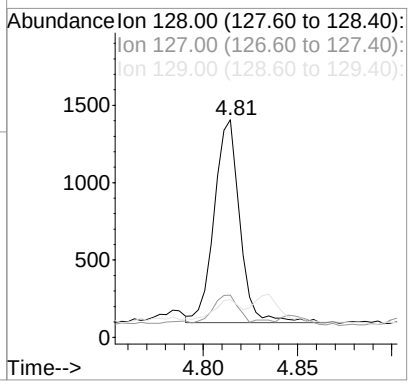
1st 03/25/19
2nd 03/26/19

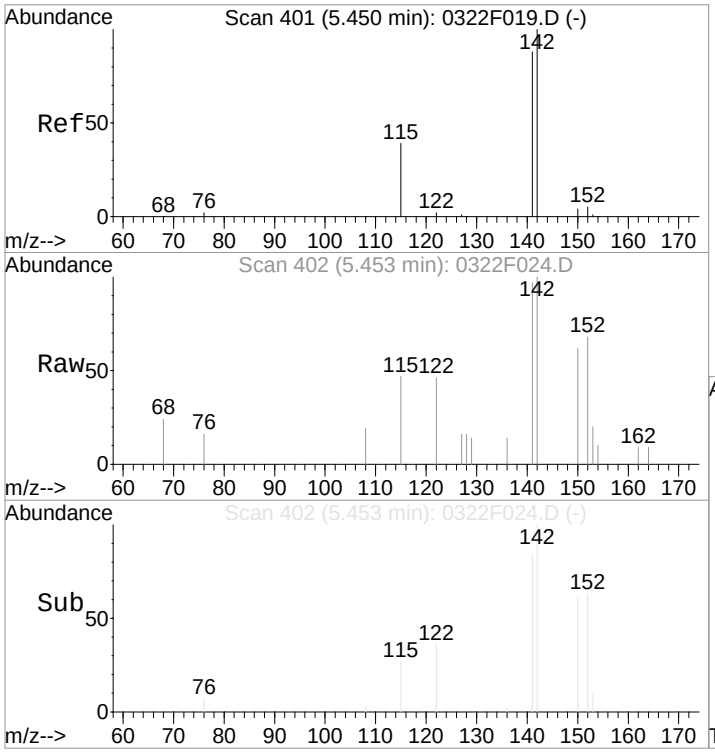


#2
Naphthalene
Concen: 3.27 ng/ml
RT: 4.81 min Scan# 214
Delta R.T. -0.02 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:128 Resp: 1247

Ion	Ratio	Lower	Upper
128	100		
127	14.6	0.0	43.9
129	11.1	0.0	30.8

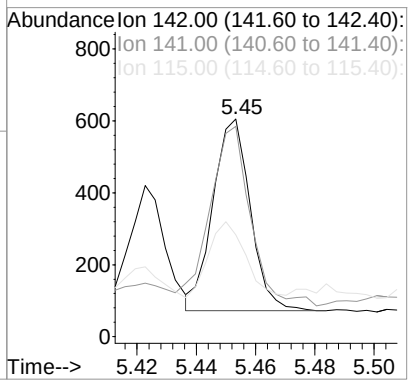




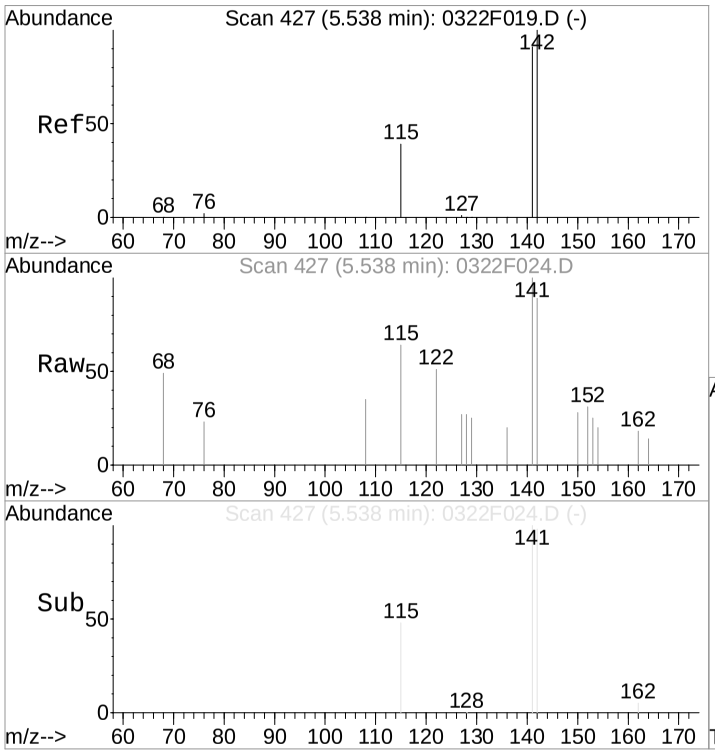
#4
2-Methylnaphthalene
Concen: 1.96 ng/ml
RT: 5.45 min Scan# 402
Delta R.T. -0.01 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:142 Resp: 468

Ion	Ratio	Lower	Upper
142	100		
141	92.7	57.4	117.4
115	32.6	21.9	61.9



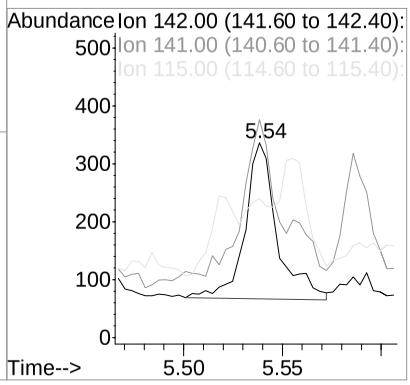
1st 03/25/19
2nd 03/26/19

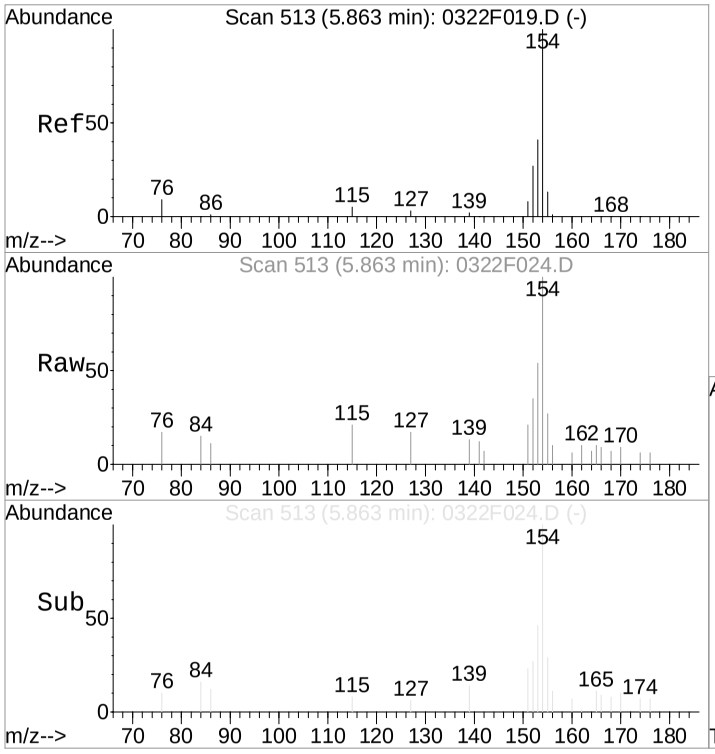


#5
1-Methylnaphthalene
Concen: 1.33 ng/ml
RT: 5.54 min Scan# 427
Delta R.T. -0.01 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:142 Resp: 305

Ion	Ratio	Lower	Upper
142	100		
141	98.1	61.0	121.0
115	49.8	26.2	66.2

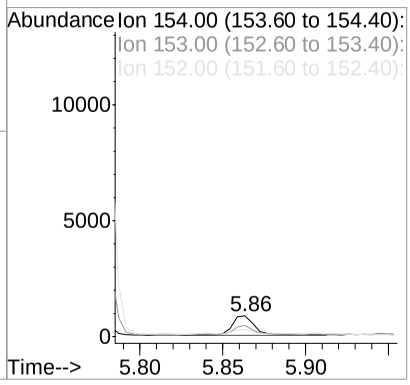




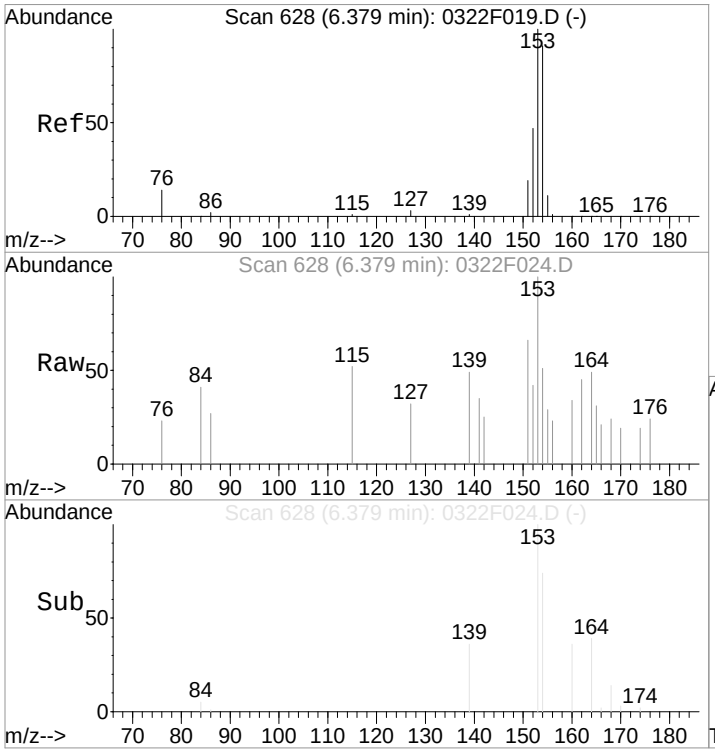
#6
Biphenyl
Concen: 2.62 ng/ml
RT: 5.86 min Scan# 513
Delta R.T. -0.01 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:154 Resp: 810

Ion	Ratio	Lower	Upper
154	100		
153	47.1	11.5	71.5
152	26.0	6.9	46.9



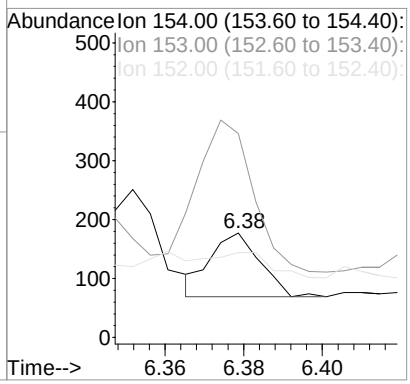
1st 03/25/19
2nd 03/26/19

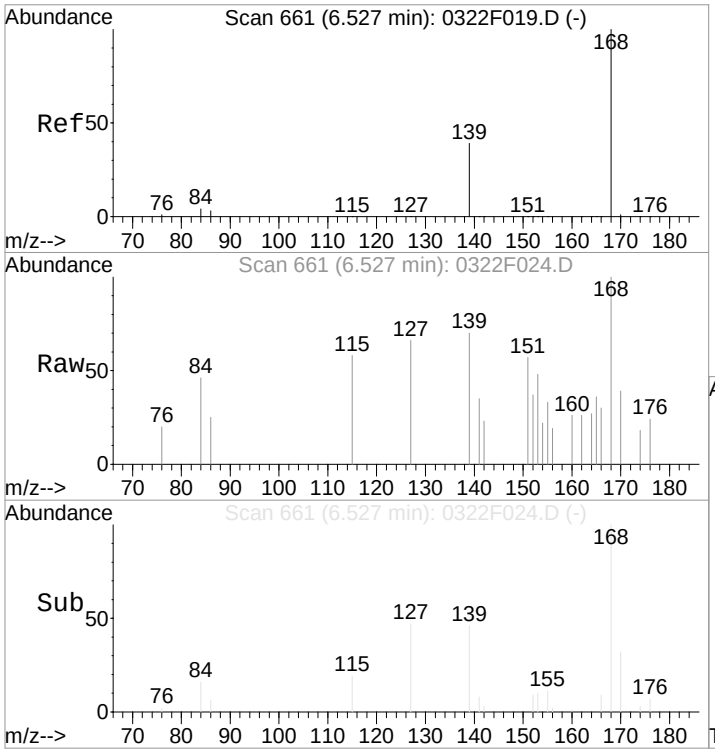


#10
Acenaphthene
Concen: 0.41 ng/ml
RT: 6.38 min Scan# 628
Delta R.T. -0.01 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:154 Resp: 95

Ion	Ratio	Lower	Upper
154	100		
153	217.6	77.6	137.6#
152	39.8	19.9	79.9

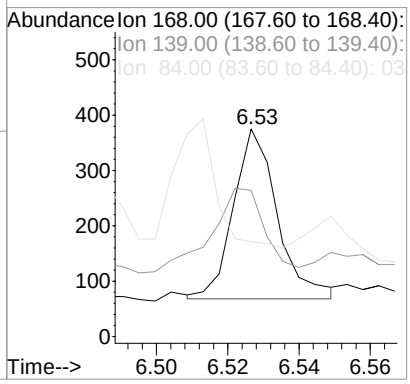




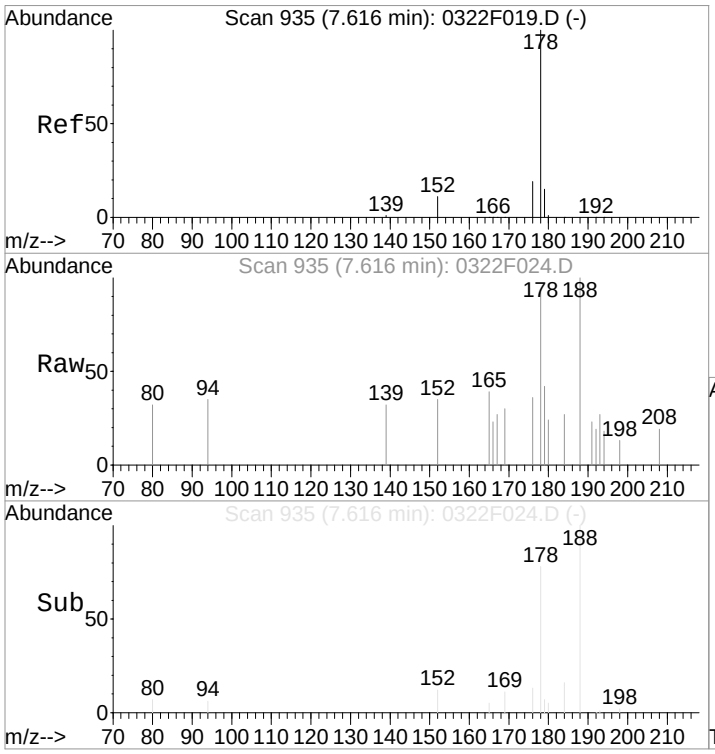
#11
Dibenzofuran
Concen: 0.70 ng/ml m
RT: 6.53 min Scan# 661
Delta R.T. -0.01 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:168 Resp: 264

Ion	Ratio	Lower	Upper
168	100		
139	70.4	1.8	61.8#
84	45.6	0.0	23.2#



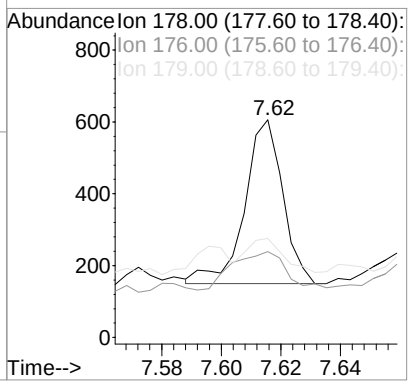
1st 03/25/19
2nd 03/26/19

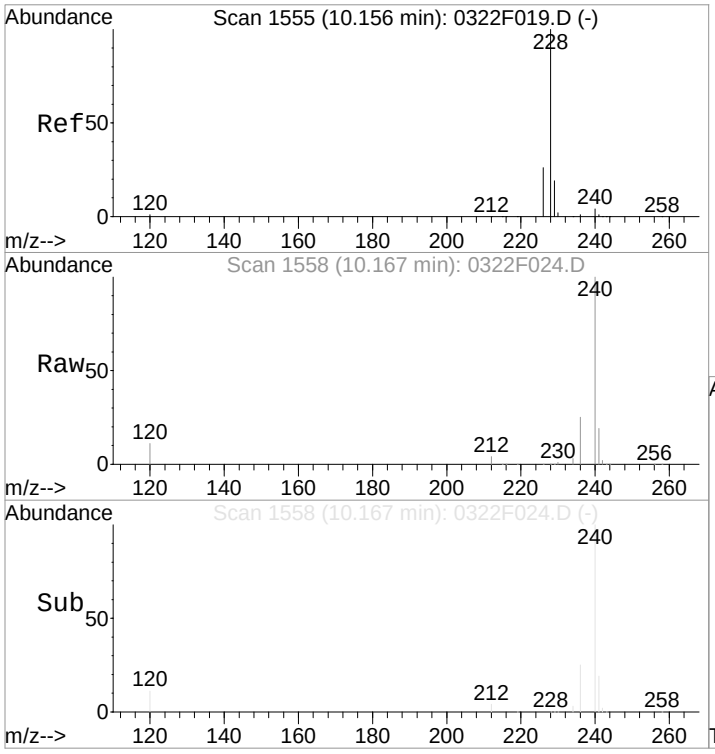


#17
Phenanthrene
Concen: 1.00 ng/ml
RT: 7.62 min Scan# 935
Delta R.T. -0.00 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:178 Resp: 404

Ion	Ratio	Lower	Upper
178	100		
176	22.1	0.0	48.6
179	20.4	0.0	35.2

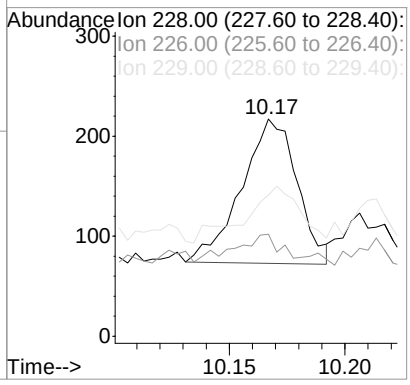




#26
Benz(a)anthracene
Concen: 0.51 ng/ml
RT: 10.17 min Scan# 1558
Delta R.T. -0.00 min
Lab File: 0322F024.D
Acq: 22 Mar 2019 5:58 pm

Tgt Ion:228 Resp: 241

Ion	Ratio	Lower	Upper
228	100		
226	17.5	0.0	56.6
229	32.2	0.0	39.5



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F024.D Vial: 21
Acq On : 22 Mar 2019 5:58 pm Operator: LWeiskopf
Sample : K1902361-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:50 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	67862m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	32877	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	63261	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	65615	200.00	ng/ml	-0.01
28) Perylene-d12	13.40	264	72653	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	159065	831.25	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	83.13%		
13) Fluorene-d10	6.79	176	217104	953.14	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	95.31%		
22) Fluoranthene-d10	8.58	212	435273	1175.23	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	117.52%		
25) Terphenyl-d14	8.94	244	340423	1176.18	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	117.62%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	1247	3.27	ng/ml	99
4) 2-Methylnaphthalene	5.45	142	468	1.96	ng/ml	91
5) 1-Methylnaphthalene	5.54	142	305	1.33	ng/ml	93
6) Biphenyl	5.86	154	810	2.62	ng/ml	94
10) Acenaphthene	6.38	154	95	0.41	ng/ml#	23
11) Dibenzofuran	6.53	168	264m	0.70	ng/ml	
17) Phenanthrene	7.62	178	404	1.00	ng/ml	90
26) Benz(a)anthracene	10.17	228	241	0.51	ng/ml	78

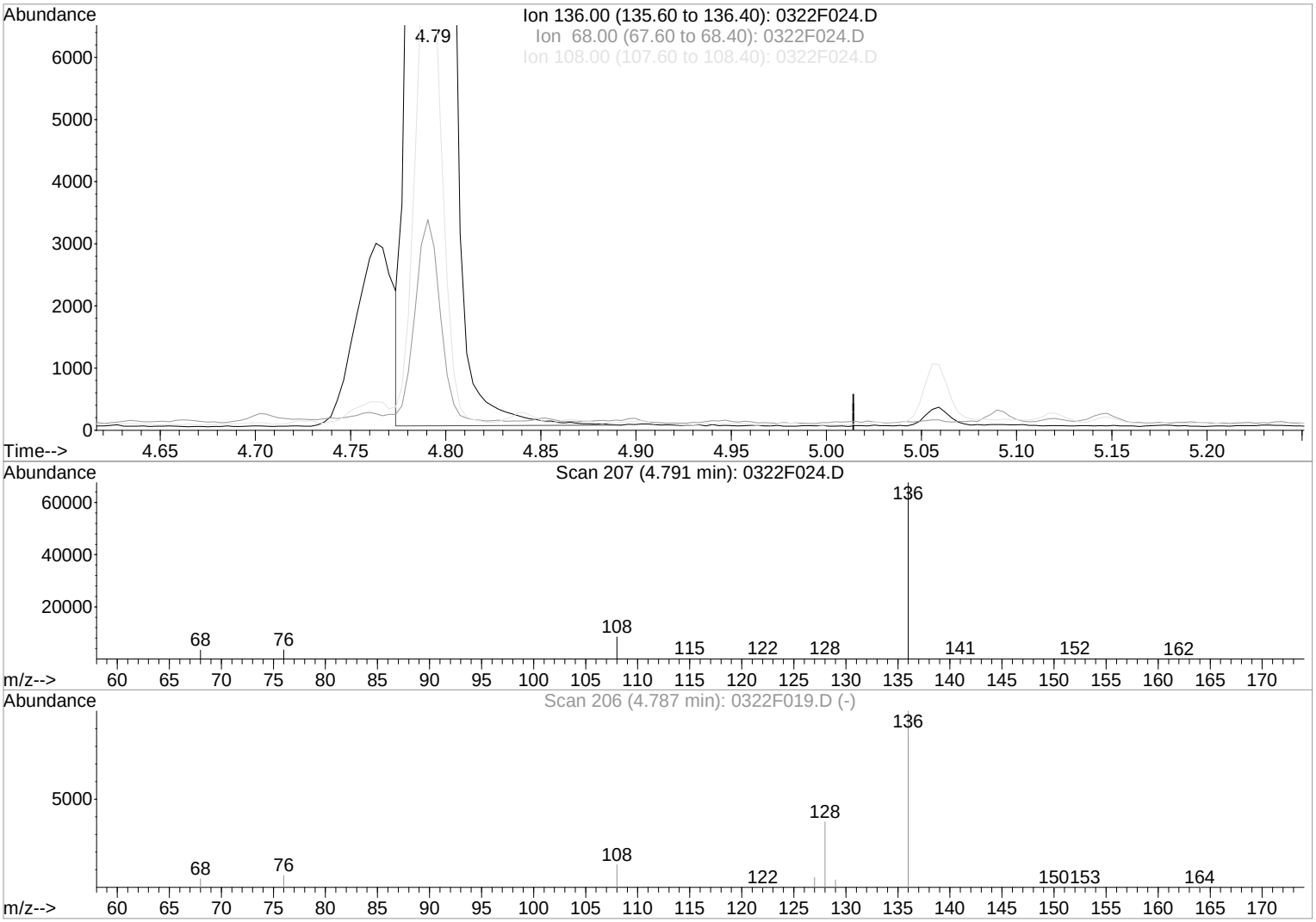
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F024.D Vial: 21
Acq On : 22 Mar 2019 5:58 pm Operator: LWeiskopf
Sample : K1902361-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F024.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 63431

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.78
108.00	13.60	12.36
0.00	0.00	0.00

Manual Integration:

Before

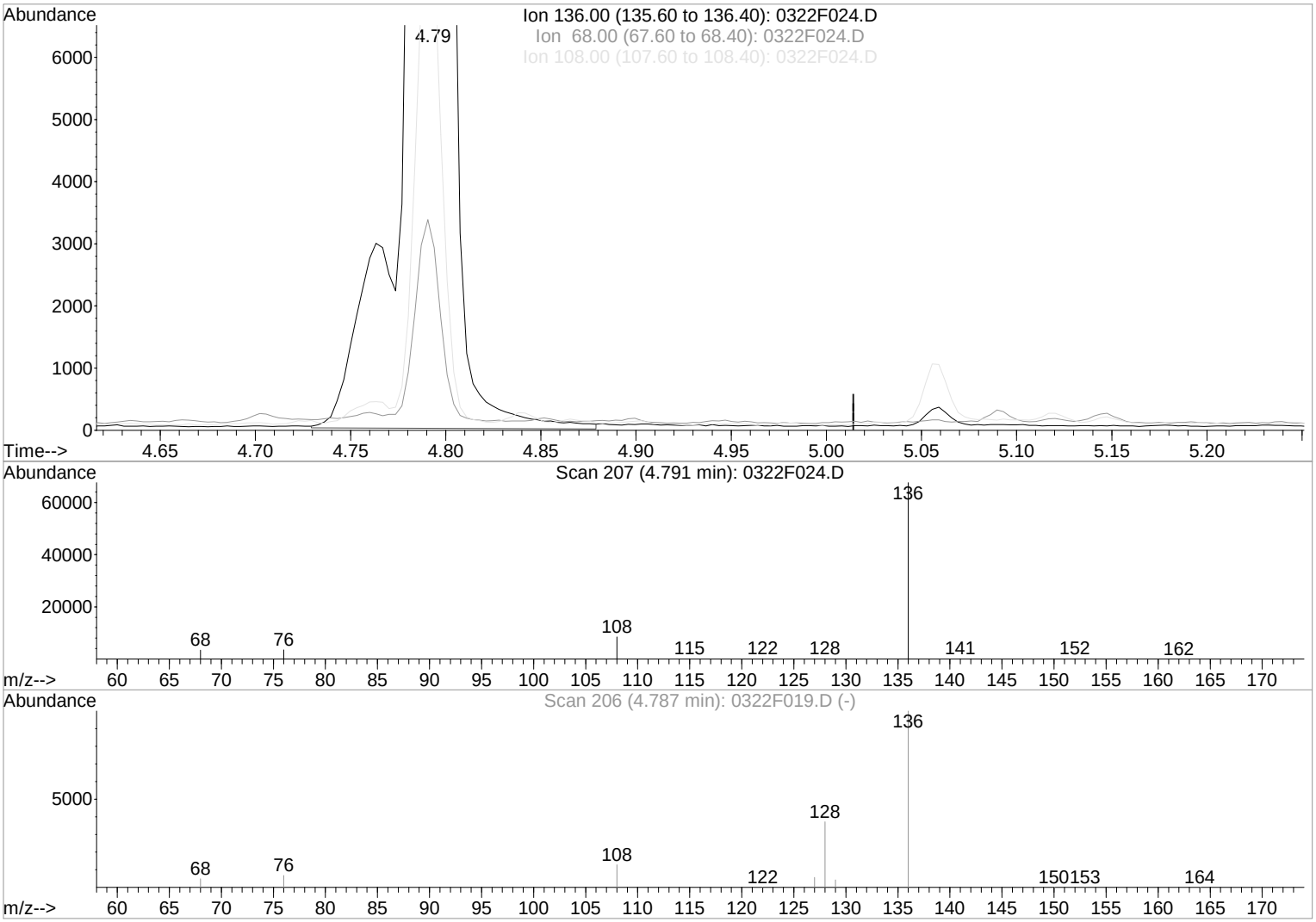
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F024.D Vial: 21
Acq On : 22 Mar 2019 5:58 pm Operator: LWeiskopf
Sample : K1902361-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:46 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F024.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 67862

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	5.01
108.00	13.60	12.53
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

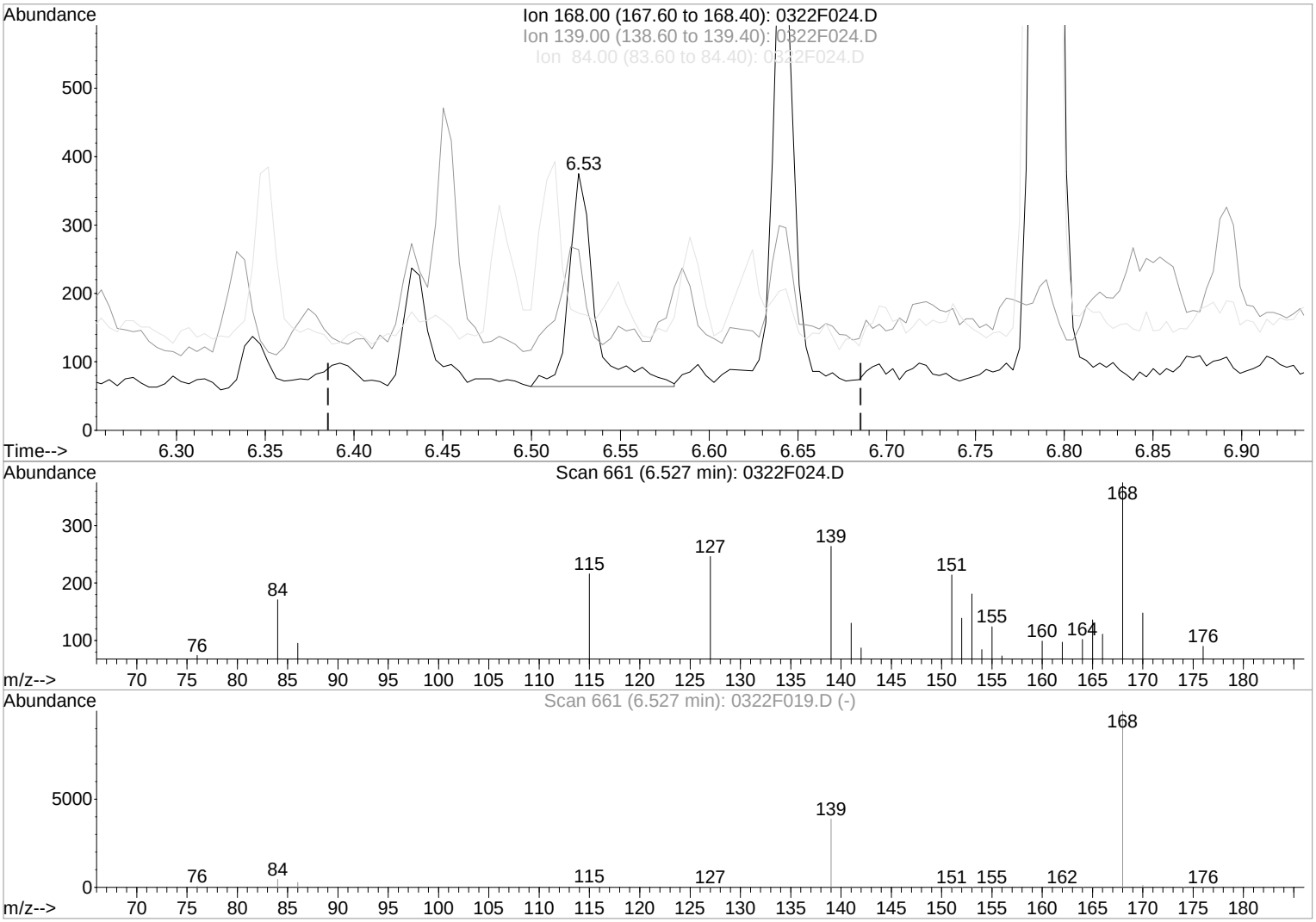
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F024.D Vial: 21
Acq On : 22 Mar 2019 5:58 pm Operator: LWeiskopf
Sample : K1902361-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:47 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F024.D

(11) Dibenzofuran (T)

6.53min 0.84ng/ml

response 314

Ion	Exp%	Act%
168.00	100	100
139.00	31.80	47.27
84.00	3.20	1.93
0.00	0.00	0.00

Manual Integration:

Before

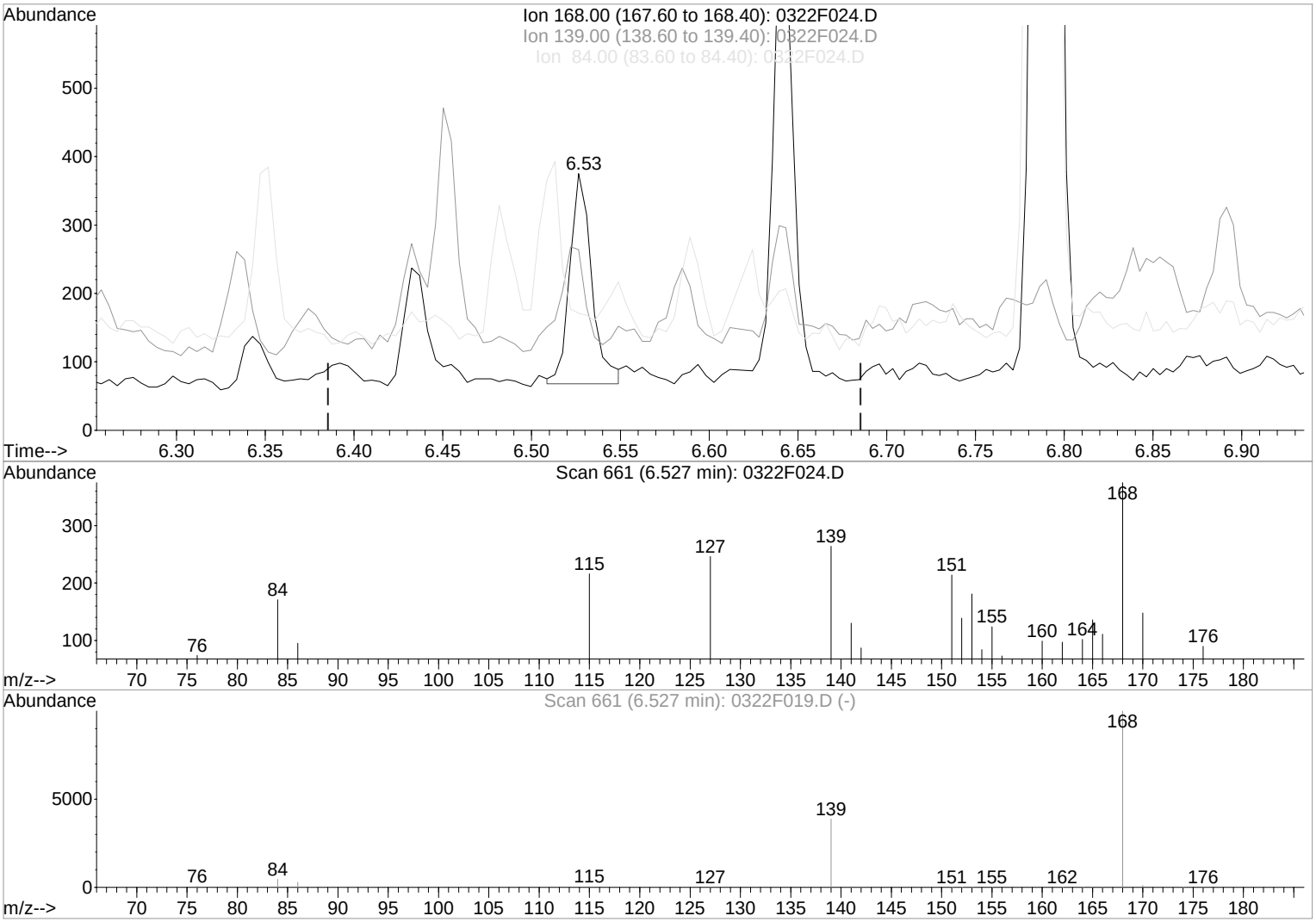
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F024.D Vial: 21
Acq On : 22 Mar 2019 5:58 pm Operator: LWeiskopf
Sample : K1902361-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:47 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F024.D

(11) Dibenzofuran (T)

6.53min 0.70ng/ml m

response 264

Ion	Exp%	Act%
168.00	100	100
139.00	31.80	70.40#
84.00	3.20	45.60#
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F020.D\
Lab ID: KQ1903571-03
RunType: MB
Matrix: Water

Date Acquired: 3/22/19 15:50:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 3/25/19 8:54
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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F020.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 15:50:00	**Vial:**	3
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1903571-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	KQ1903571
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		32909	200.00	NA
Chrysene-d12	10.17		64957	200.00	NA
Naphthalene-d8	4.79		67353	200.00	NA
Perylene-d12	13.40	-0.01	71936	200.00	NA
Phenanthrene-d10	7.60		63268	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		435863	1176.69	118	42 - 133	Y
Fluorene-d10	6.79		222308	975.03	98	42 - 131	Y
Terphenyl-d14	8.94		312004	1088.91	109	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		110	0.46	0.0020	J	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.17	+0.01	237	0.51	0.0023	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	15.93	-0.01	233	0.48	0.0021	J	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y
Fluorene	0.00		0	0.00	0	U	Y

1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F020.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 15:50:00	**Vial:**	3
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1903571-03	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	15.53	-0.01	134	0.31	0.0014	J	Y
Naphthalene	4.81		264	0.70	0.0031	J	Y
Phenanthrene	7.62		261	0.65	0.0029	J	Y
Pyrene	8.80		104	0.21	0.00093	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 3/25/19 8:54
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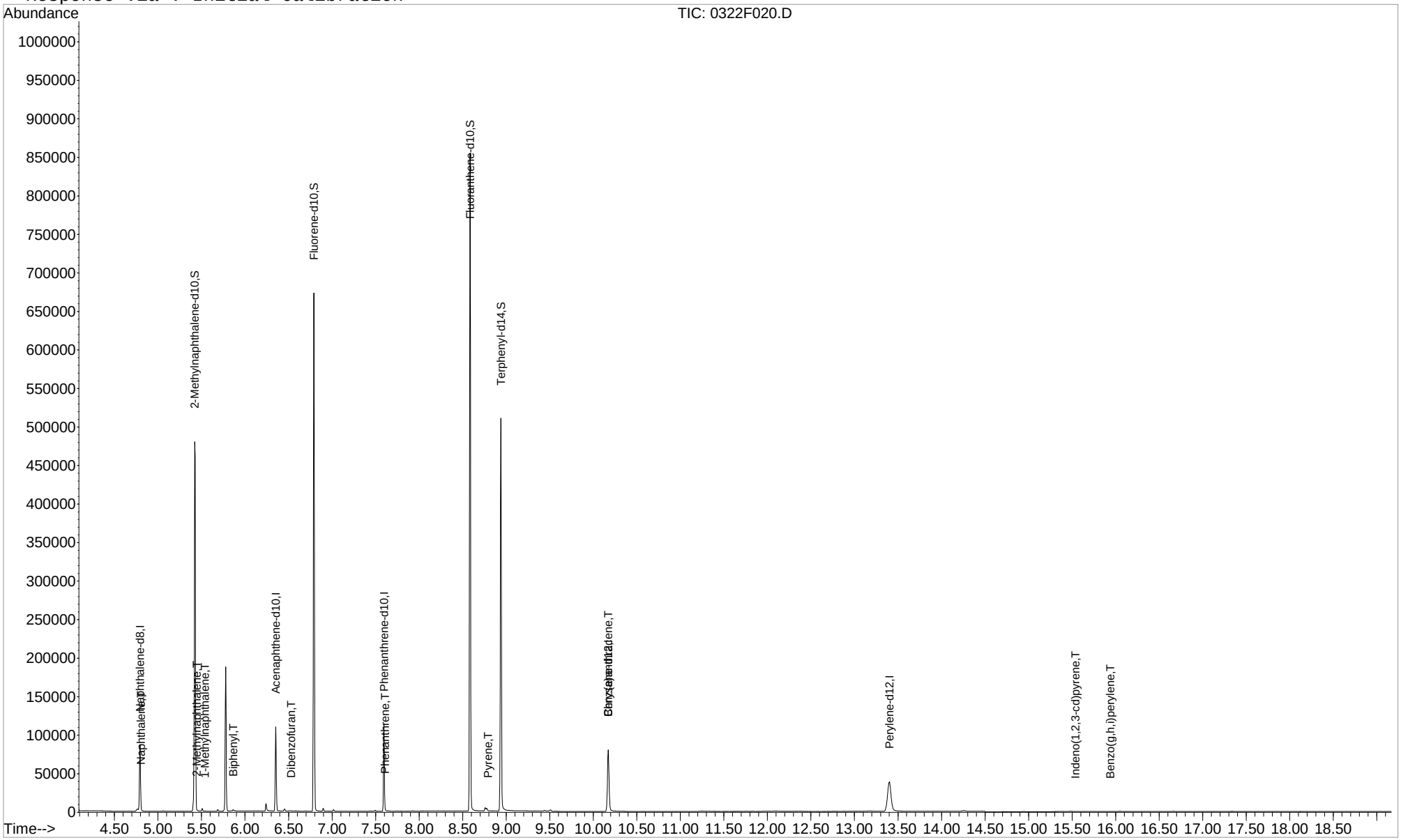
Quantitation Report (QT Reviewed)

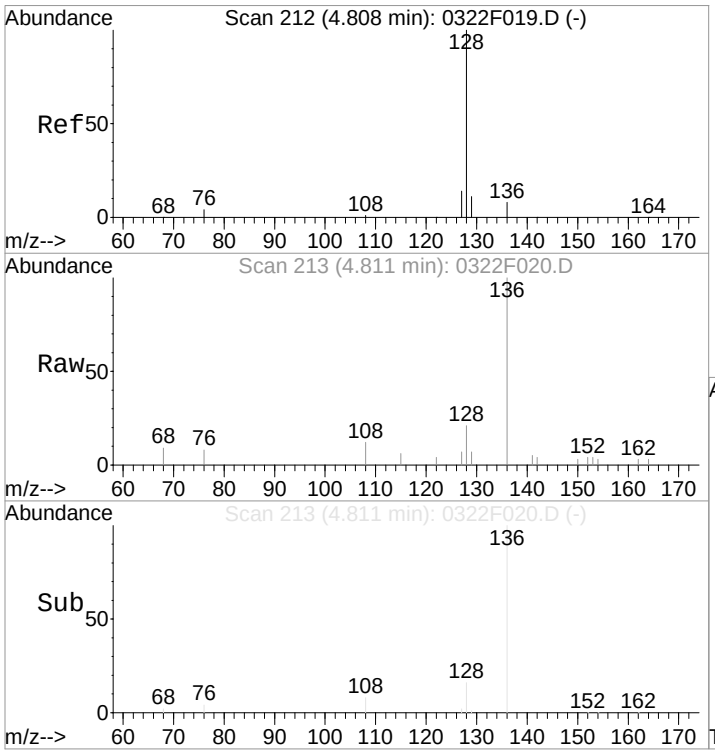
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F020.D Vial: 17
Acq On : 22 Mar 2019 3:50 pm Operator: LWeiskopf
Sample : KQ1903571-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:23 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



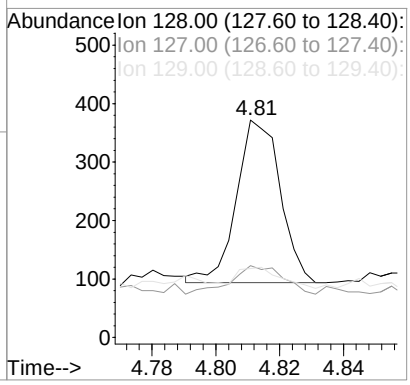
1st 03/25/19
2nd 03/26/19

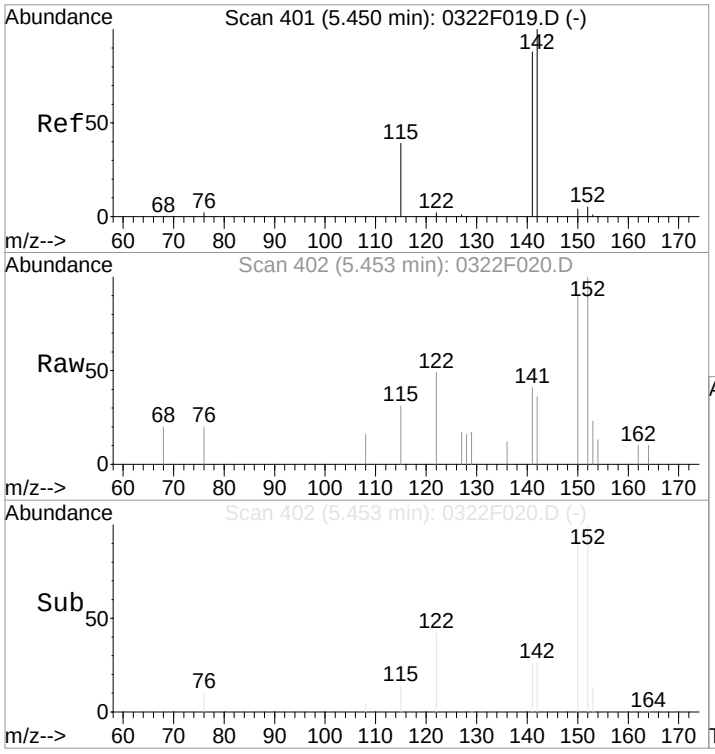


#2
Naphthalene
Concen: 0.70 ng/ml
RT: 4.81 min Scan# 213
Delta R.T. -0.02 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:128 Resp: 264

Ion	Ratio	Lower	Upper
128	100		
127	17.6	0.0	43.9
129	10.1	0.0	30.8

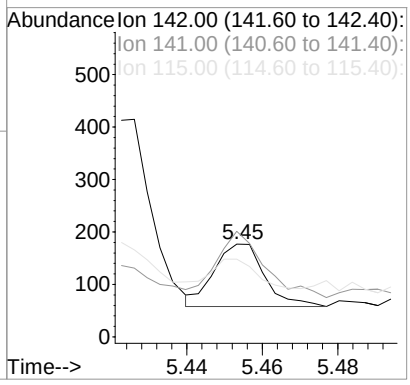


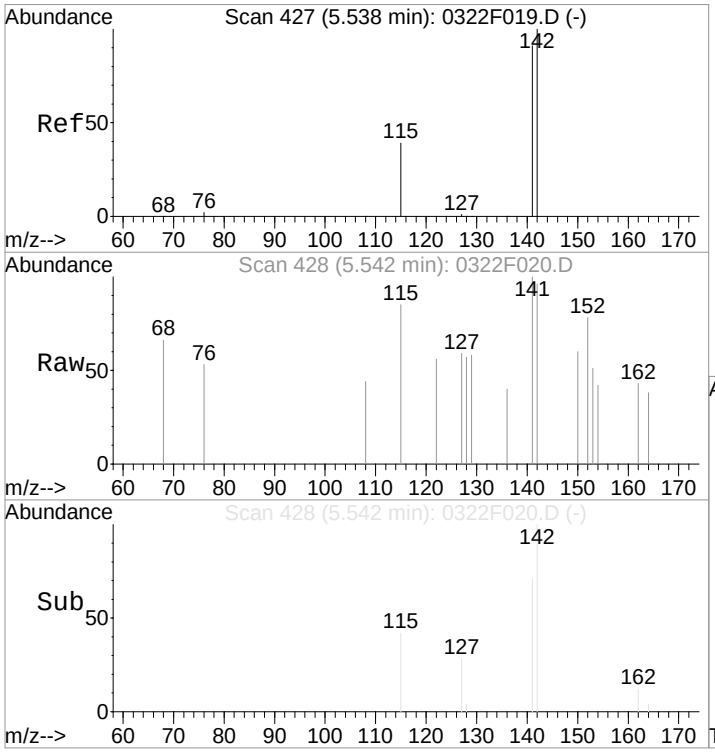


#4
2-Methylnaphthalene
Concen: 0.46 ng/ml
RT: 5.45 min Scan# 402
Delta R.T. -0.01 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:142 Resp: 110

Ion	Ratio	Lower	Upper
142	100		
141	105.9	57.4	117.4
115	36.1	21.9	61.9

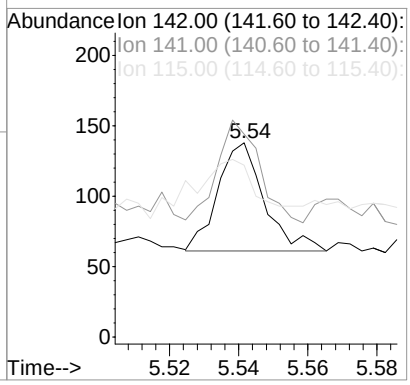


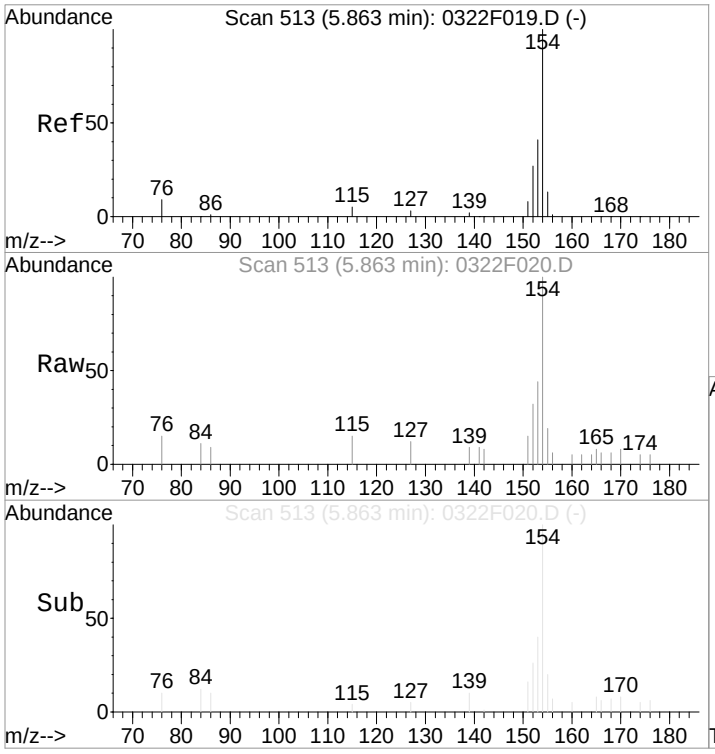


#5
1-Methylnaphthalene
Concen: 0.32 ng/ml
RT: 5.54 min Scan# 428
Delta R.T. -0.01 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:142 Resp: 72

Ion	Ratio	Lower	Upper
142	100		
141	79.2	61.0	121.0
115	36.4	26.2	66.2

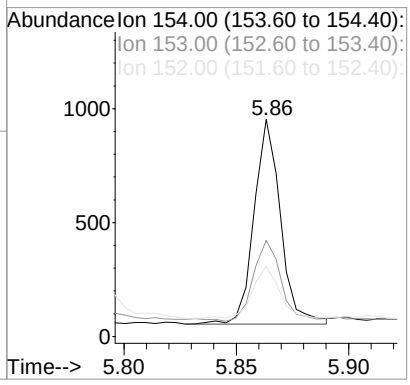




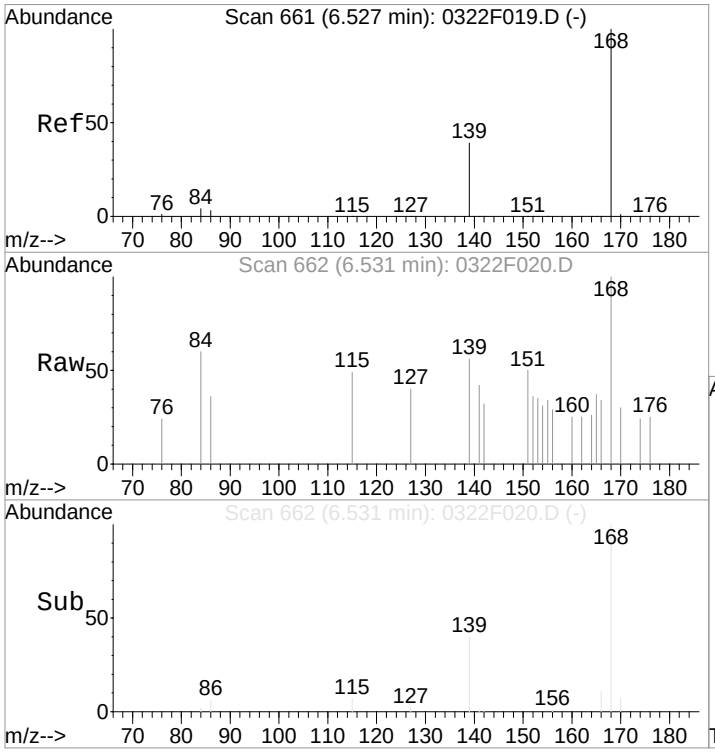
#6
Biphenyl
Concen: 2.41 ng/ml
RT: 5.86 min Scan# 513
Delta R.T. -0.01 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:154 Resp: 739

Ion	Ratio	Lower	Upper
154	100		
153	38.7	11.5	71.5
152	25.4	6.9	46.9



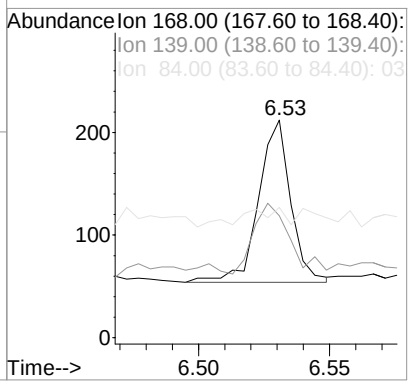
1st 03/25/19
2nd 03/26/19

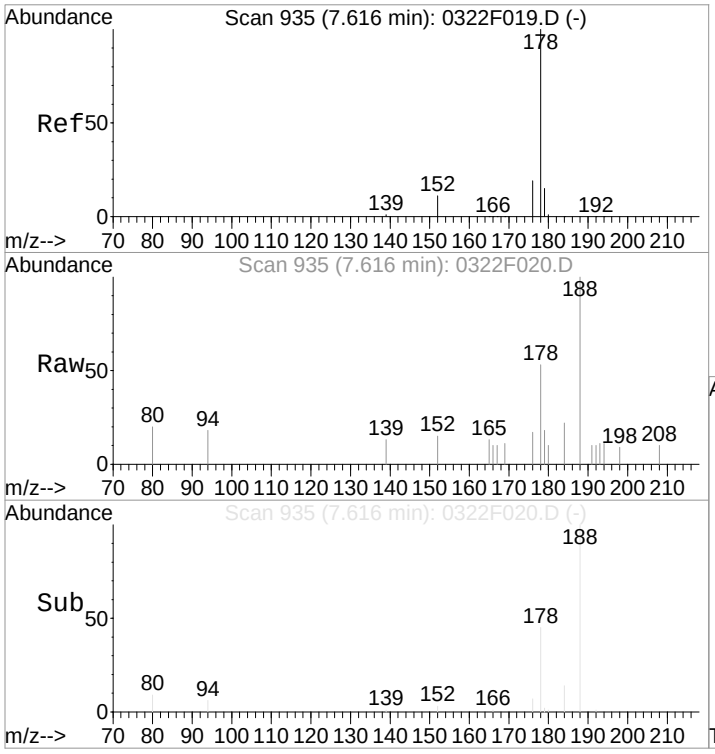


#11
Dibenzofuran
Concen: 0.36 ng/ml
RT: 6.53 min Scan# 662
Delta R.T. -0.00 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:168 Resp: 135

Ion	Ratio	Lower	Upper
168	100		
139	33.5	1.8	61.8
84	6.3	0.0	23.2

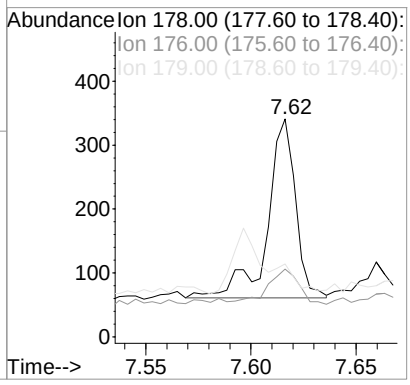




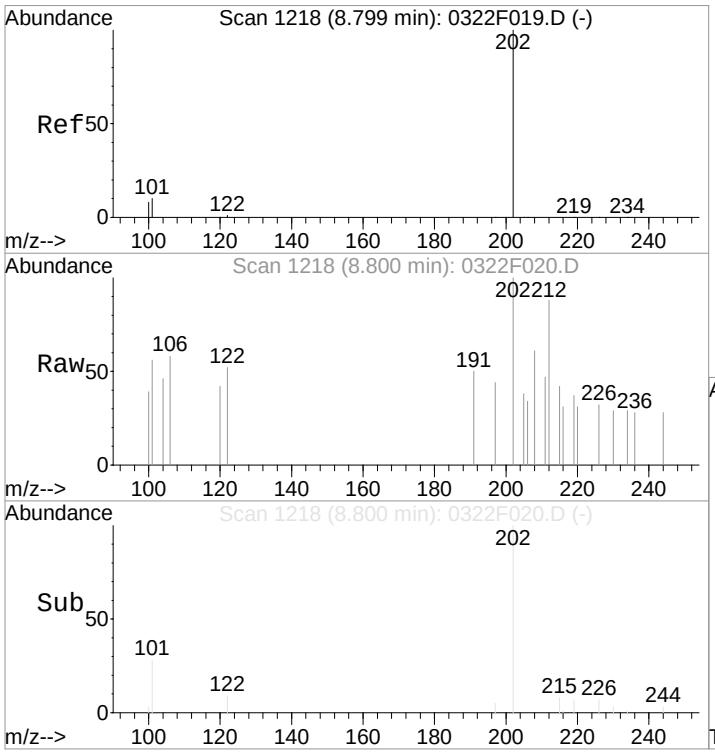
#17
Phenanthrene
Concen: 0.65 ng/ml
RT: 7.62 min Scan# 935
Delta R.T. -0.00 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:178 Resp: 261

Ion	Ratio	Lower	Upper
178	100		
176	19.6	0.0	48.6
179	14.6	0.0	35.2



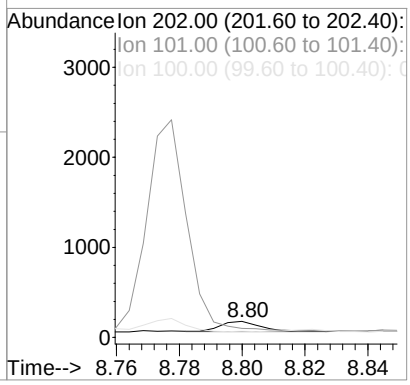
1st 03/25/19
2nd 03/26/19

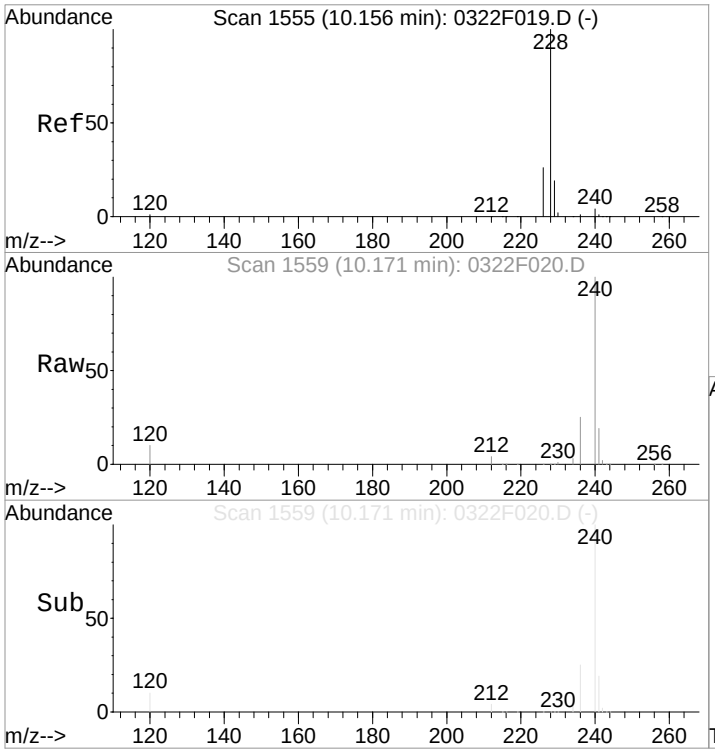


#24
Pyrene
Concen: 0.21 ng/ml
RT: 8.80 min Scan# 1218
Delta R.T. -0.01 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:202 Resp: 104

Ion	Ratio	Lower	Upper
202	100		
101	25.0	0.0	39.7
100	0.0	0.0	27.7

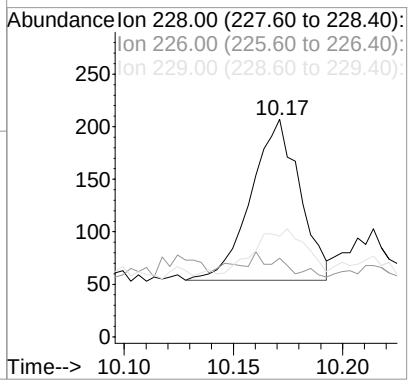




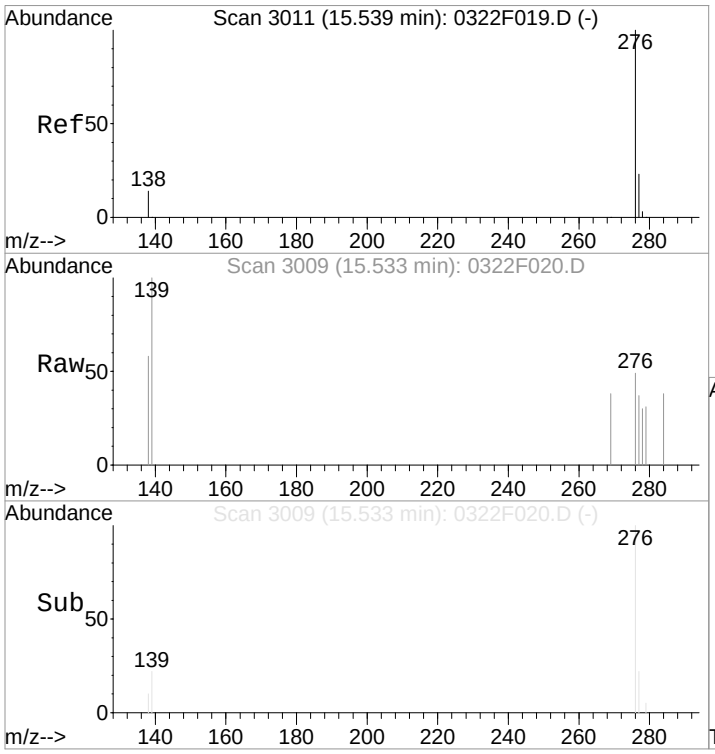
#26
Benz(a)anthracene
Concen: 0.51 ng/ml
RT: 10.17 min Scan# 1559
Delta R.T. 0.00 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:228 Resp: 237

Ion	Ratio	Lower	Upper
228	100		
226	11.8	0.0	56.6
229	22.2	0.0	39.5



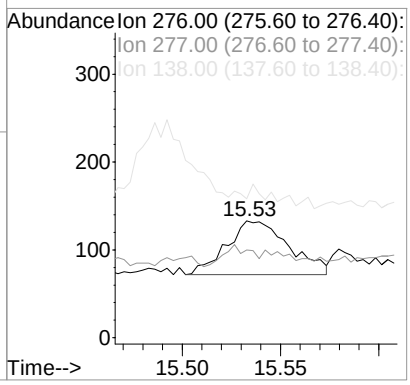
1st 03/25/19
2nd 03/26/19

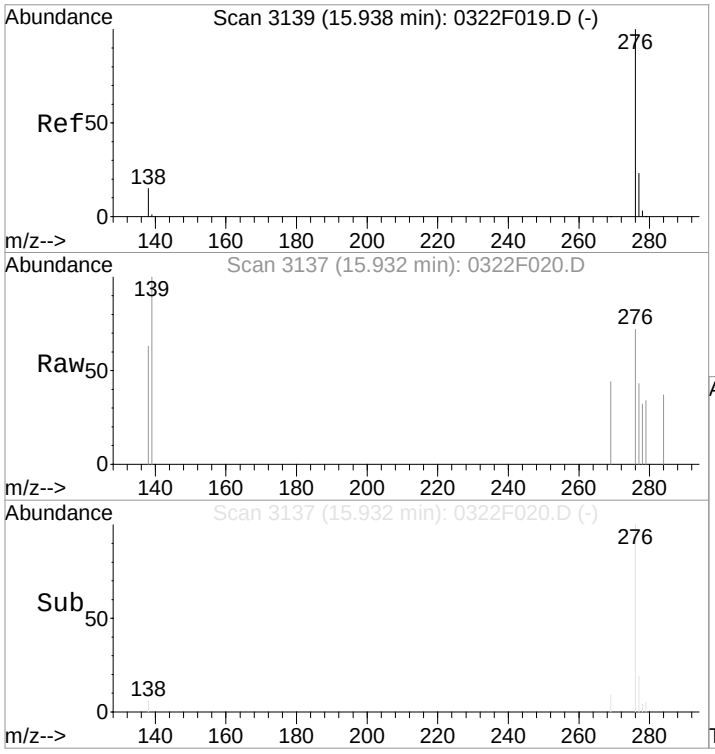


#34
Indeno(1,2,3-cd)pyrene
Concen: 0.31 ng/ml
RT: 15.53 min Scan# 3009
Delta R.T. -0.00 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:276 Resp: 134

Ion	Ratio	Lower	Upper
276	100		
277	21.3	0.0	53.4
138	8.2	0.0	35.7

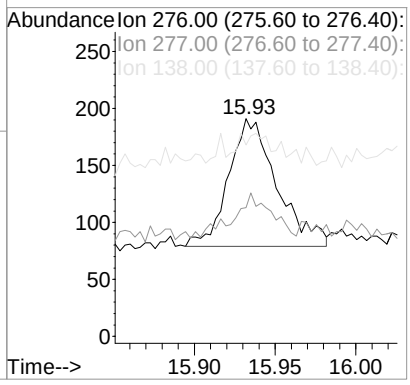




#36
Benzo(g,h,i)perylene
Concen: 0.48 ng/ml
RT: 15.93 min Scan# 3137
Delta R.T. -0.00 min
Lab File: 0322F020.D
Acq: 22 Mar 2019 3:50 pm

Tgt Ion:276 Resp: 233

Ion	Ratio	Lower	Upper
276	100		
277	18.8	0.0	53.6
138	12.5	0.0	36.7



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F020.D Vial: 17
Acq On : 22 Mar 2019 3:50 pm Operator: LWeiskopf
Sample : KQ1903571-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:42 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	67353m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	32909	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	63268	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	64957	200.00	ng/ml	-0.01
28) Perylene-d12	13.40	264	71936	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	165788	872.93	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 87.29%			
13) Fluorene-d10	6.79	176	222308	975.03	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 97.50%			
22) Fluoranthene-d10	8.58	212	435863	1176.69	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 117.67%			
25) Terphenyl-d14	8.94	244	312004	1088.91	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 108.89%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	264	0.70	ng/ml	94
4) 2-Methylnaphthalene	5.45	142	110	0.46	ng/ml	84
5) 1-Methylnaphthalene	5.54	142	72	0.32	ng/ml	87
6) Biphenyl	5.86	154	739	2.41	ng/ml	96
11) Dibenzofuran	6.53	168	135	0.36	ng/ml	96
17) Phenanthrene	7.62	178	261	0.65	ng/ml	98
24) Pyrene	8.80	202	104	0.21	ng/ml	67
26) Benz(a)anthracene	10.17	228	237	0.51	ng/ml	81
34) Indeno(1,2,3-cd)pyrene	15.53	276	134	0.31	ng/ml	90
36) Benzo(g,h,i)perylene	15.93	276	233	0.48	ng/ml	90

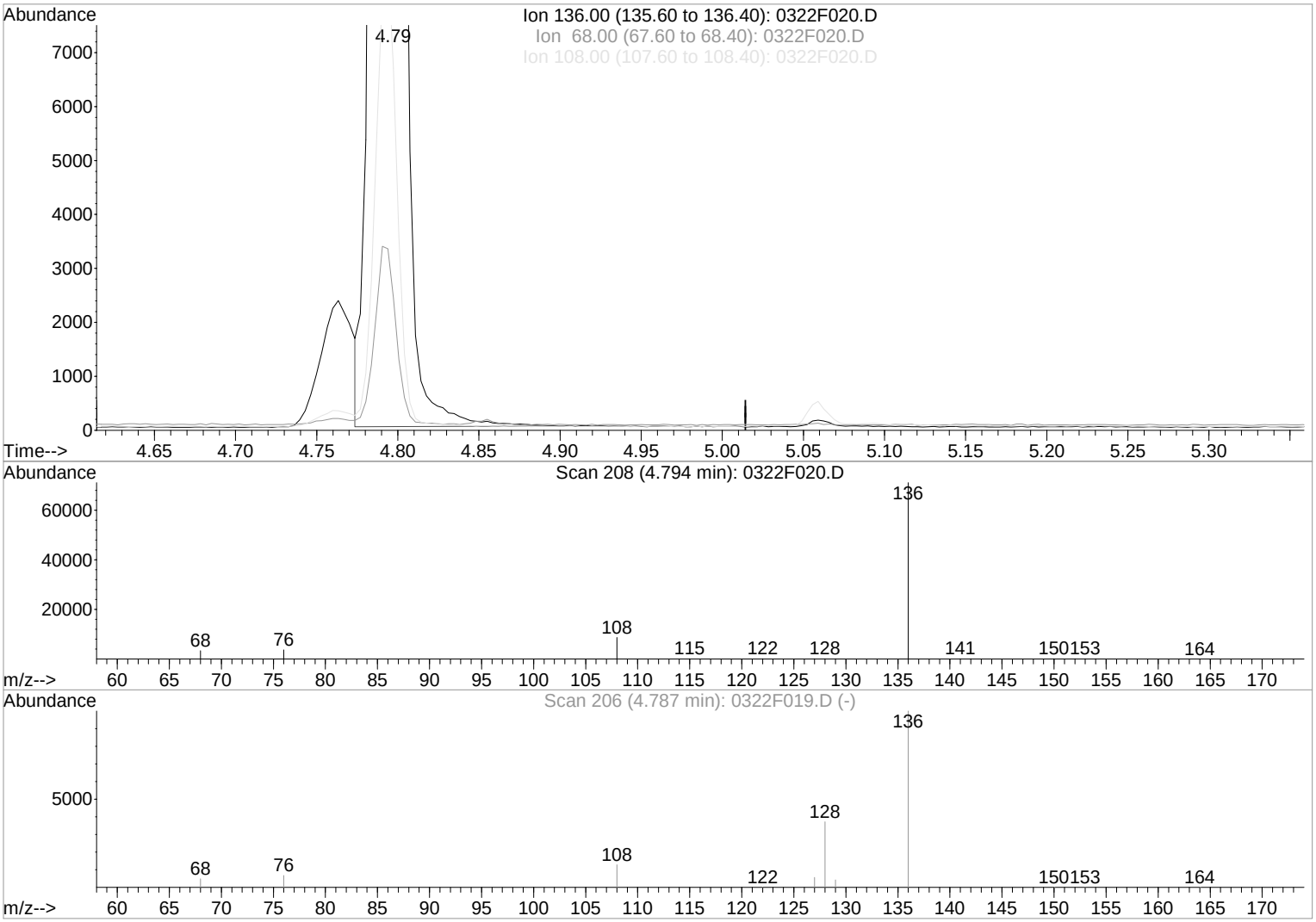
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F020.D Vial: 17
Acq On : 22 Mar 2019 3:50 pm Operator: LWeiskopf
Sample : KQ1903571-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F020.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 63801

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.58
108.00	13.60	12.12
0.00	0.00	0.00

Manual Integration:

Before

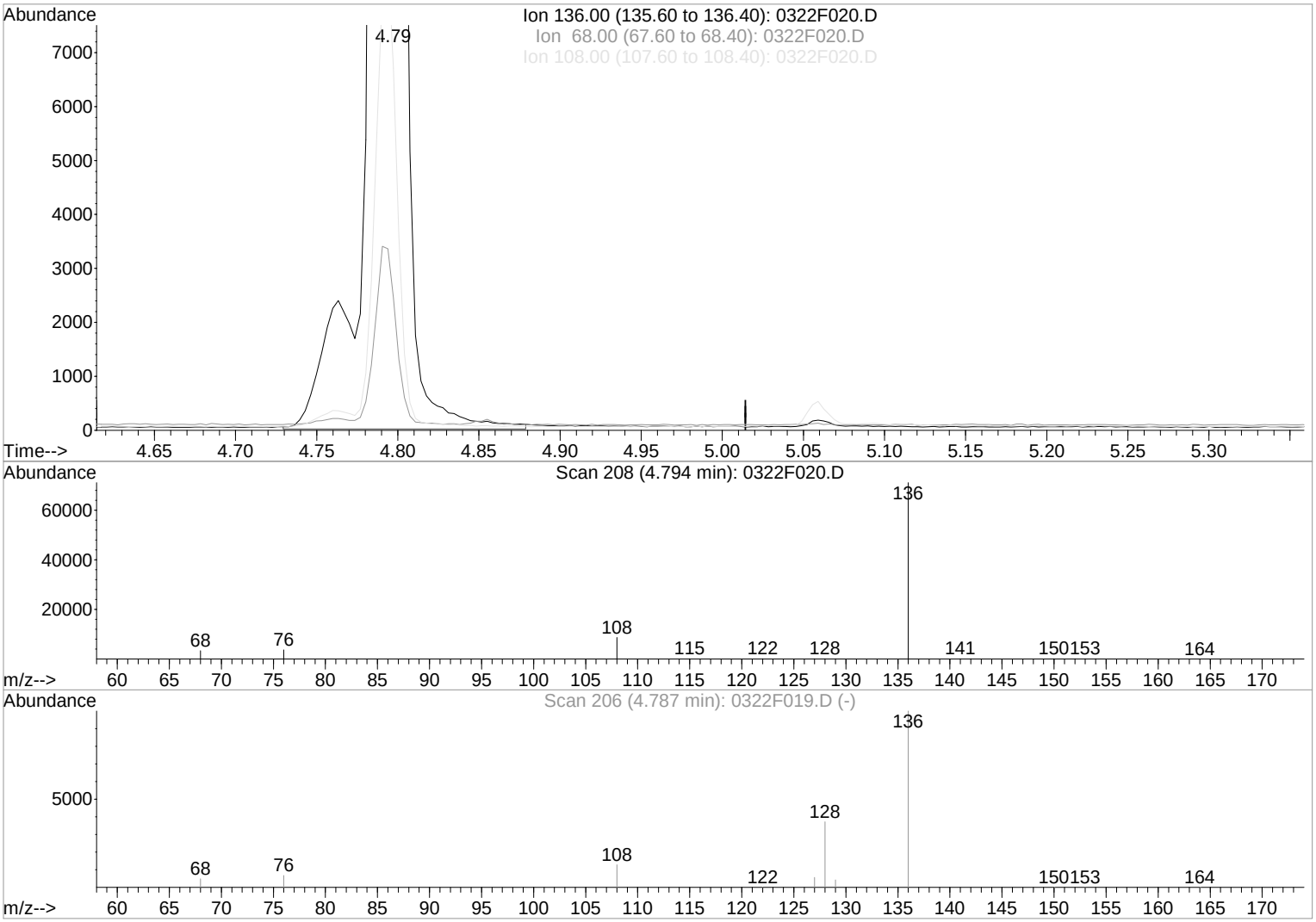
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F020.D Vial: 17
Acq On : 22 Mar 2019 3:50 pm Operator: LWeiskopf
Sample : KQ1903571-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:22 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F020.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 67353

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.72
108.00	13.60	12.21
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F021.D\
Lab ID: KQ1903571-01
RunType: LCS
Matrix: Water

Date Acquired: 3/22/19 16:22:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 3/25/19 8:54
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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F021.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 16:22:00	**Vial:**	4
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1903571-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	KQ1903571
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		31222	200.00	NA
Chrysene-d12	10.17		63468	200.00	NA
Naphthalene-d8	4.79		69740	200.00	NA
Perylene-d12	13.40	-0.01	69603	200.00	NA
Phenanthrene-d10	7.60		60572	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		421510	1188.59	119	42 - 133	Y
Fluorene-d10	6.79		208990	966.15	97	42 - 131	Y
Terphenyl-d14	8.94		274918	981.99	98	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		141123	575.92	2.56		Y
Acenaphthene	6.38		134696	609.24	2.71		Y
Acenaphthylene	6.24		227656	587.39	2.61		Y
Anthracene	7.66		248773	672.13	2.99		Y
Benz(a)anthracene	10.16		284387	624.40	2.78		Y
Benzo(a)pyrene	13.23	+0.01	267177	612.61	2.72		Y
Benzo(b)fluoranthene	12.31		309065	665.97	2.96		Y
Benzo(g,h,i)perylene	15.94		296617	631.44	2.81		Y
Benzo(k)fluoranthene	12.39		299439	682.37	3.03		Y
Chrysene	10.21		274644	663.55	2.95		Y
Dibenz(a,h)anthracene	15.59		242174	626.15	2.78		Y
Fluoranthene	8.60		283335	643.23	2.86		Y
Fluorene	6.82		159612	558.64	2.48		Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 3/25/19 8:54
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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F021.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 16:22:00	**Vial:**	4
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1903571-01	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	15.54		245084	590.85	2.63		Y
Naphthalene	4.81		233178	595.25	2.65		Y
Phenanthrene	7.62		246153	638.22	2.84		Y
Pyrene	8.80		312390	652.82	2.90		Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

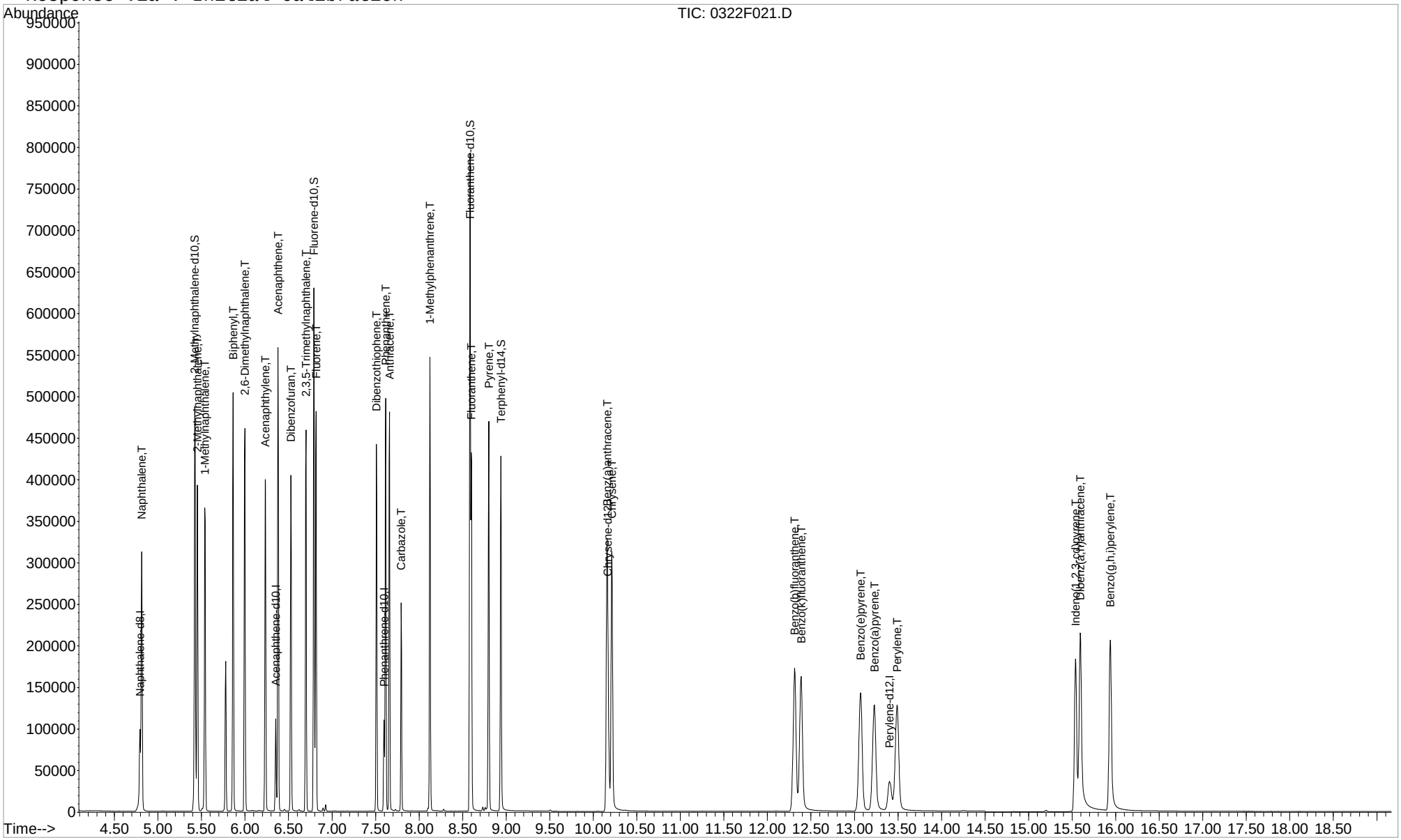
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:23 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:44 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	69740m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	31222	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	60572	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	63468	200.00	ng/ml	-0.01
28) Perylene-d12	13.40	264	69603	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	163949	833.70	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	83.37%		
13) Fluorene-d10	6.79	176	208990	966.15	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	96.61%		
22) Fluoranthene-d10	8.58	212	421510	1188.59	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	118.86%		
25) Terphenyl-d14	8.94	244	274918	981.99	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	98.20%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	233178m	595.25	ng/ml	
4) 2-Methylnaphthalene	5.45	142	141123	575.92	ng/ml	98
5) 1-Methylnaphthalene	5.54	142	132191	559.85	ng/ml	98
6) Biphenyl	5.86	154	178686	563.03	ng/ml	100
7) 2,6-Dimethylnaphthalene	6.00	156	127175	568.86	ng/ml	91
9) Acenaphthylene	6.24	152	227656	587.39	ng/ml	98
10) Acenaphthene	6.38	154	134696	609.24	ng/ml	98
11) Dibenzofuran	6.53	168	221161	620.29	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.70	170	125442	595.80	ng/ml	98
14) Fluorene	6.82	166	159612	558.64	ng/ml	98
16) Dibenzothiophene	7.51	184	262908	665.52	ng/ml	96
17) Phenanthrene	7.62	178	246153	638.22	ng/ml	99
18) Anthracene	7.66	178	248773	672.13	ng/ml	100
19) Carbazole	7.79	167	131855	388.23	ng/ml	99
20) 1-Methylphenanthrene	8.12	192	191271	667.86	ng/ml	100
21) Fluoranthene	8.60	202	283335	643.23	ng/ml	96
24) Pyrene	8.80	202	312390	652.82	ng/ml	100
26) Benz(a)anthracene	10.16	228	284387	624.40	ng/ml	100
27) Chrysene	10.21	228	274644	663.55	ng/ml	100
29) Benzo(b)fluoranthene	12.31	252	309065	665.97	ng/ml	99
30) Benzo(k)fluoranthene	12.39	252	299439	682.37	ng/ml	100
31) Benzo(e)pyrene	13.07	252	293497	674.48	ng/ml	99
32) Benzo(a)pyrene	13.23	252	267177	612.61	ng/ml	98
33) Perylene	13.49	252	272030	657.56	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.54	276	245084	590.85	ng/ml	100
35) Dibenz(a,h)anthracene	15.59	278	242174	626.15	ng/ml	100
36) Benzo(g,h,i)perylene	15.94	276	296617	631.44	ng/ml	100

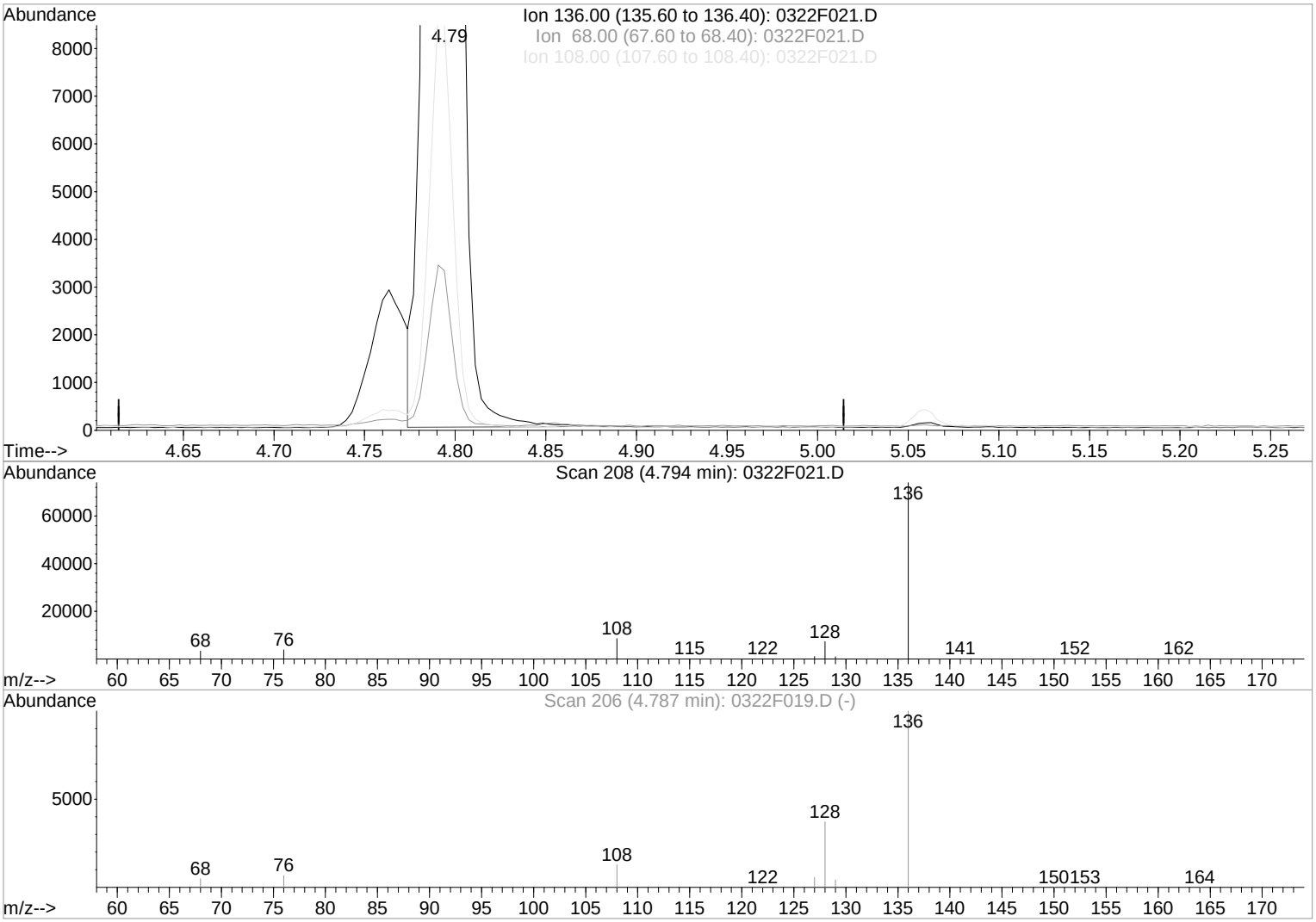
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F021.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 65927

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.39
108.00	13.60	11.39
0.00	0.00	0.00

Manual Integration:

Before

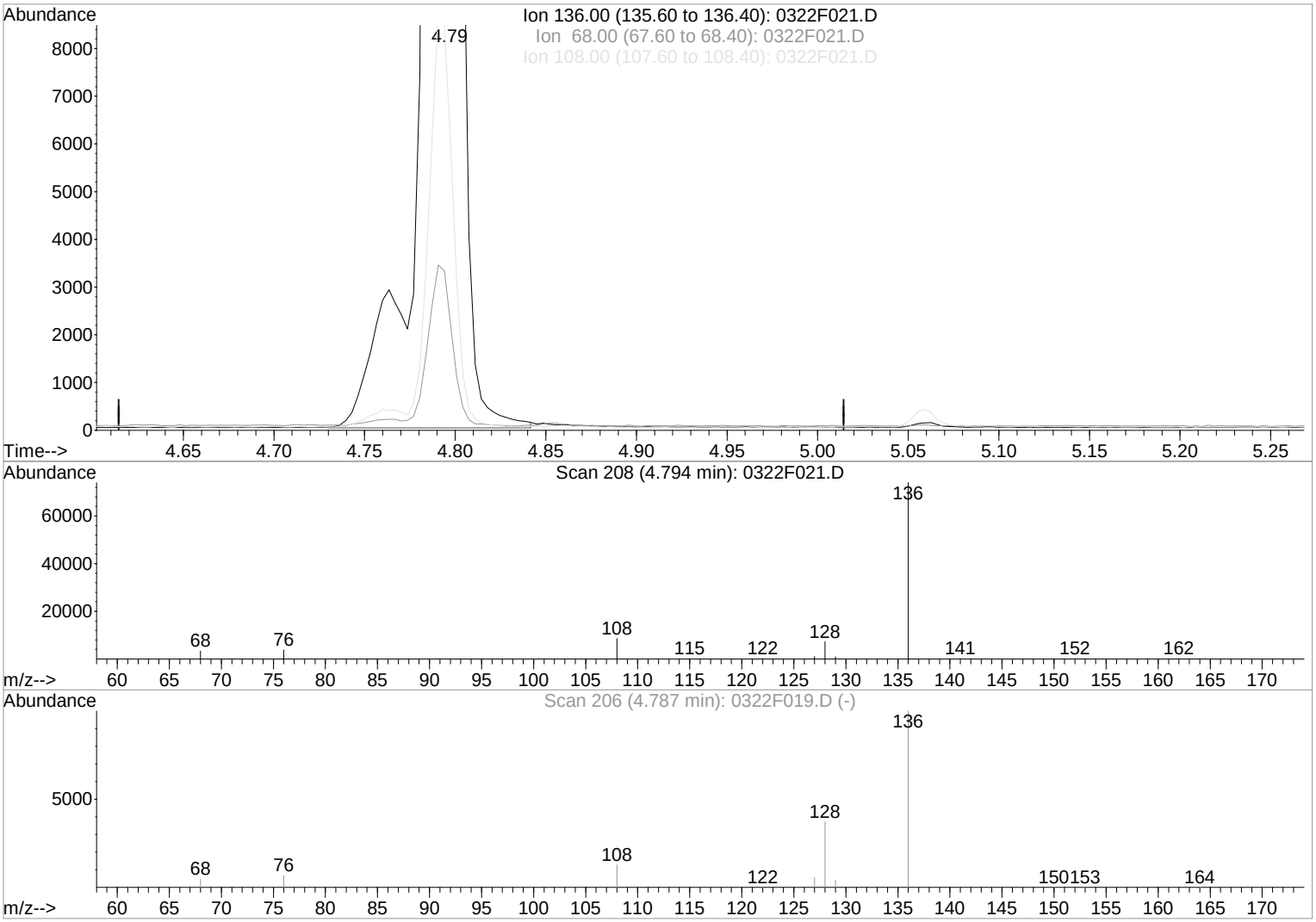
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:23 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F021.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 69740

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.51
108.00	13.60	11.47
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

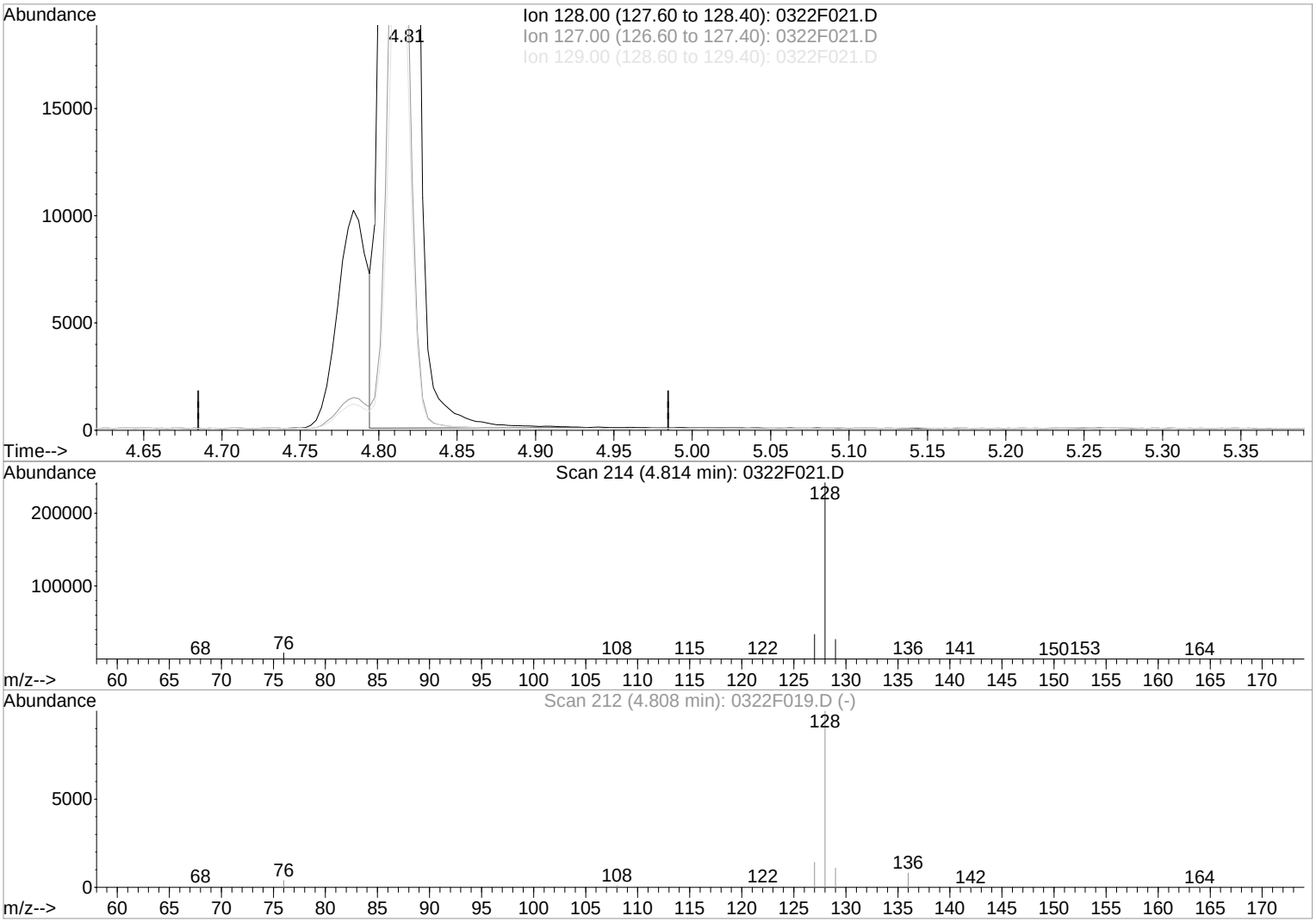
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:23 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F021.D

(2) Naphthalene (T)

4.81min 560.00ng/ml

response 219368

Ion	Exp%	Act%
128.00	100	100
127.00	13.90	13.80
129.00	10.80	11.04
0.00	0.00	0.00

Manual Integration:

Before

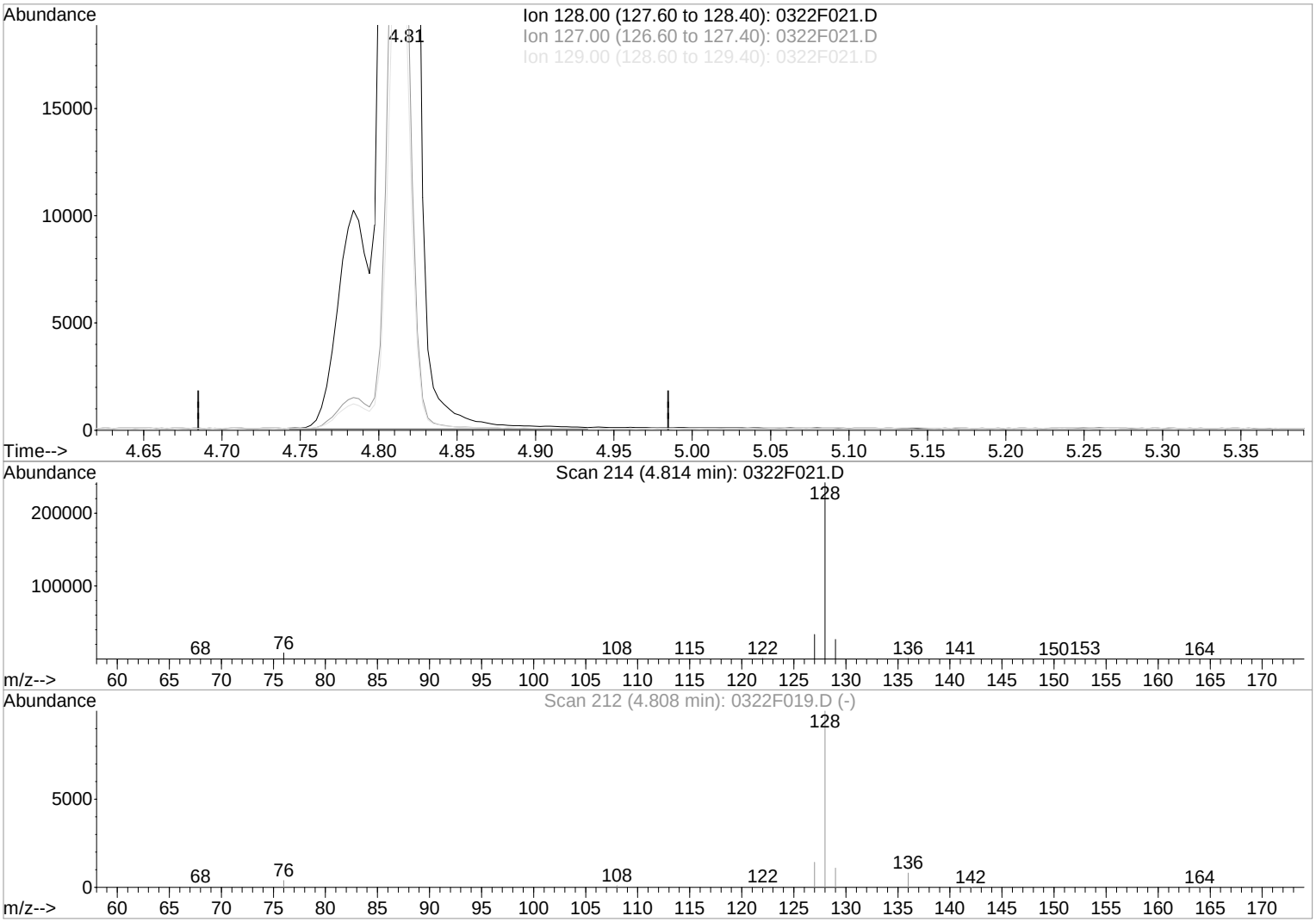
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F021.D Vial: 18
Acq On : 22 Mar 2019 4:22 pm Operator: LWeiskopf
Sample : KQ1903571-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:23 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F021.D

(2) Naphthalene (T)

4.81min 595.25ng/ml m

response 233178

Ion	Exp%	Act%
128.00	100	100
127.00	13.90	13.82
129.00	10.80	11.06
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F022.D\
Lab ID: KQ1903571-02
RunType: DLCS
Matrix: Water

Date Acquired: 3/22/19 16:54:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 3/25/19 8:54
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F022.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 16:54:00	**Vial:**	5
Run Type:	DLCS	**Dilution:**	1
Lab ID:	KQ1903571-02	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**	333285	**Report Group:**	KQ1903571
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	3/20/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		30977	200.00	NA
Chrysene-d12	10.17		62330	200.00	NA
Naphthalene-d8	4.79		67848	200.00	NA
Perylene-d12	13.40	-0.01	67518	200.00	NA
Phenanthrene-d10	7.60		59921	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.58		370383	1055.77	106	42 - 133	Y
Fluorene-d10	6.79		181500	845.70	85	42 - 131	Y
Terphenyl-d14	8.94		245532	893.03	89	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.45		143124	600.38	2.67		Y
Acenaphthene	6.38		135845	619.29	2.75		Y
Acenaphthylene	6.24		229490	596.81	2.65		Y
Anthracene	7.66		252106	688.54	3.06		Y
Benz(a)anthracene	10.16		283160	633.06	2.81		Y
Benzo(a)pyrene	13.22		266787	630.61	2.80		Y
Benzo(b)fluoranthene	12.31		310824	690.45	3.07		Y
Benzo(g,h,i)perylene	15.94		298117	654.23	2.91		Y
Benzo(k)fluoranthene	12.38	-0.01	297423	698.71	3.11		Y
Chrysene	10.21		273159	672.01	2.99		Y
Dibenz(a,h)anthracene	15.59		245438	654.19	2.91		Y
Fluoranthene	8.60		285158	654.40	2.91		Y
Fluorene	6.82		161447	569.53	2.53		Y

1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F022.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 16:54:00	**Vial:**	5
Run Type:	DLCS	**Dilution:**	1
Lab ID:	KQ1903571-02	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Indeno(1,2,3-cd)pyrene	15.54		241794	600.92	2.67		Y
Naphthalene	4.81		234434	615.15	2.73		Y
Phenanthrene	7.62		250793	657.31	2.92		Y
Pyrene	8.80		314806	669.88	2.98		Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

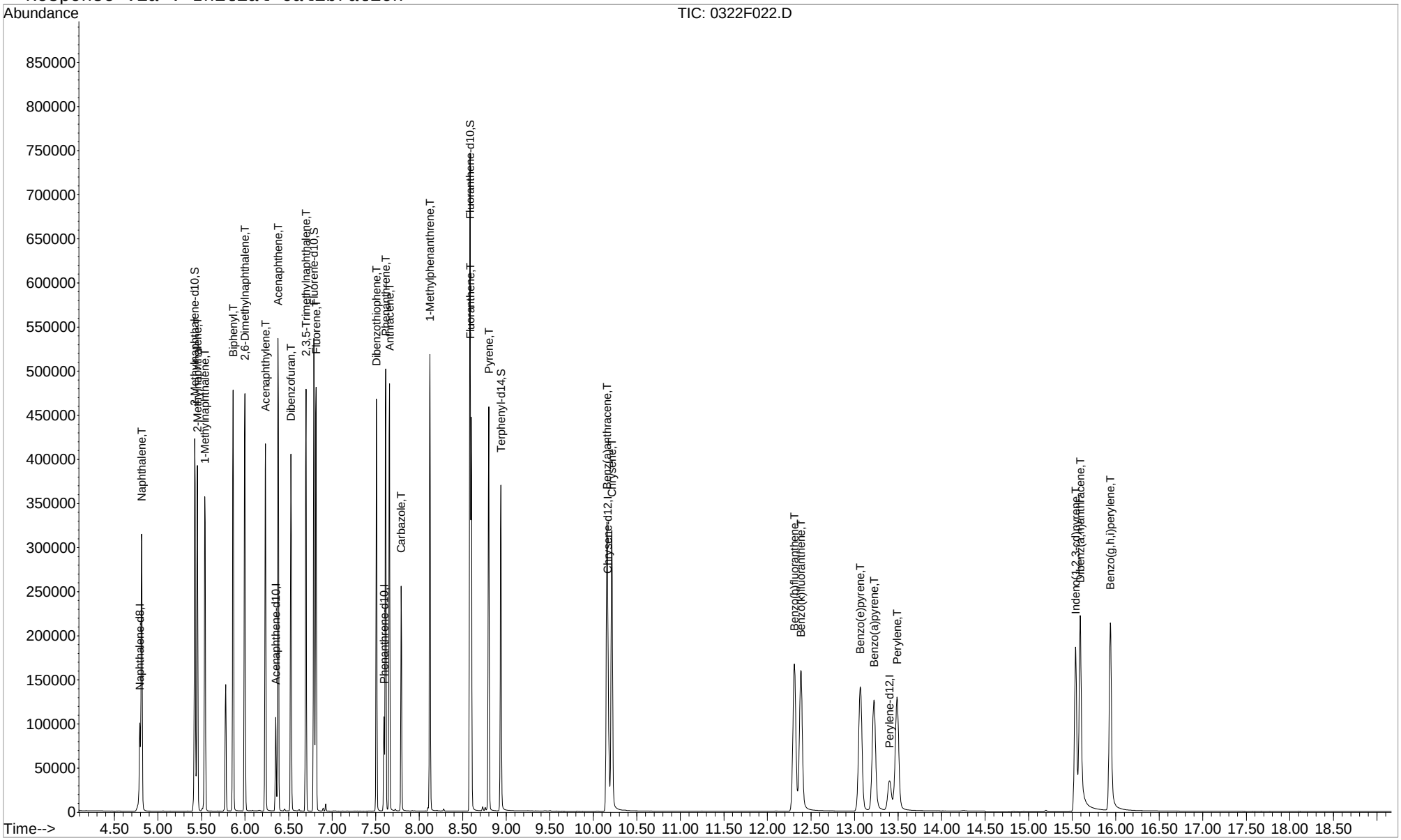
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:24 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



0322F022.D 122618PAH.M Mon Mar 25 07:25:11 2019 Page 2

Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:21:46 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	67848m	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	30977	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	59921	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	62330	200.00	ng/ml	-0.01
28) Perylene-d12	13.40	264	67518	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	135390	707.67	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 70.77%			
13) Fluorene-d10	6.79	176	181500	845.70	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 84.57%			
22) Fluoranthene-d10	8.58	212	370383	1055.77	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 105.58%			
25) Terphenyl-d14	8.94	244	245532	893.03	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 89.30%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	234434m	615.15	ng/ml	
4) 2-Methylnaphthalene	5.45	142	143124	600.38	ng/ml	97
5) 1-Methylnaphthalene	5.54	142	133217	579.92	ng/ml	98
6) Biphenyl	5.86	154	180368	584.18	ng/ml	100
7) 2,6-Dimethylnaphthalene	6.00	156	128121	589.08	ng/ml	92
9) Acenaphthylene	6.24	152	229490	596.81	ng/ml	98
10) Acenaphthene	6.38	154	135845	619.29	ng/ml	98
11) Dibenzofuran	6.53	168	216364	611.63	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.70	170	127129	608.59	ng/ml	98
14) Fluorene	6.82	166	161447	569.53	ng/ml	98
16) Dibenzothiophene	7.51	184	265331	678.95	ng/ml	97
17) Phenanthrene	7.62	178	250793	657.31	ng/ml	100
18) Anthracene	7.66	178	252106	688.54	ng/ml	100
19) Carbazole	7.79	167	134330	399.82	ng/ml	99
20) 1-Methylphenanthrene	8.12	192	192099	678.04	ng/ml	100
21) Fluoranthene	8.60	202	285158	654.40	ng/ml	99
24) Pyrene	8.80	202	314806	669.88	ng/ml	100
26) Benz(a)anthracene	10.16	228	283160	633.06	ng/ml	100
27) Chrysene	10.21	228	273159	672.01	ng/ml	100
29) Benzo(b)fluoranthene	12.31	252	310824	690.45	ng/ml	100
30) Benzo(k)fluoranthene	12.38	252	297423	698.71	ng/ml	99
31) Benzo(e)pyrene	13.07	252	294845	698.50	ng/ml	99
32) Benzo(a)pyrene	13.22	252	266787	630.61	ng/ml	98
33) Perylene	13.49	252	272636	679.37	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.54	276	241794	600.92	ng/ml	99
35) Dibenz(a,h)anthracene	15.59	278	245438	654.19	ng/ml	99
36) Benzo(g,h,i)perylene	15.94	276	298117	654.23	ng/ml	100

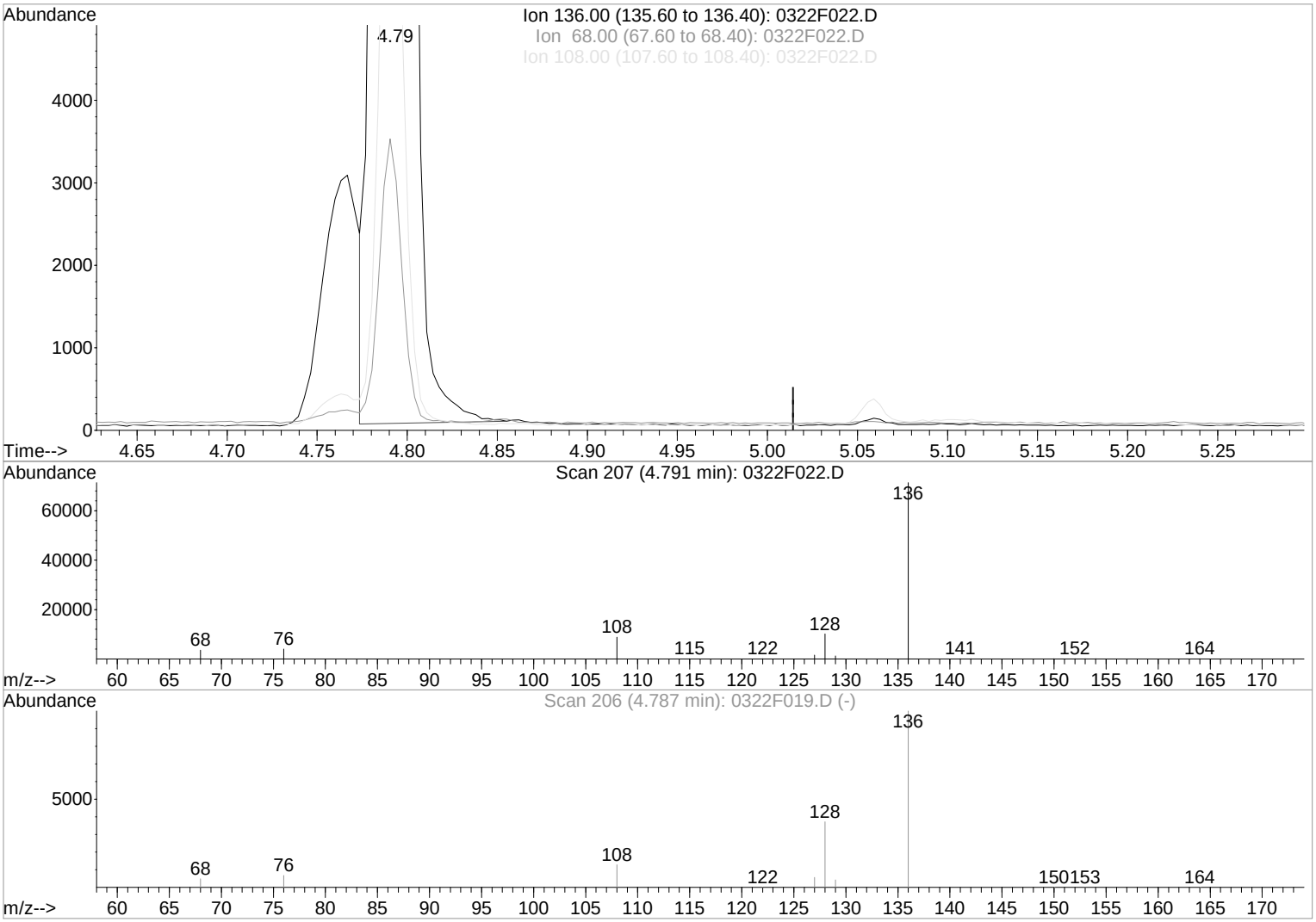
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F022.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml

response 63653

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.77
108.00	13.60	12.23
0.00	0.00	0.00

Manual Integration:

Before

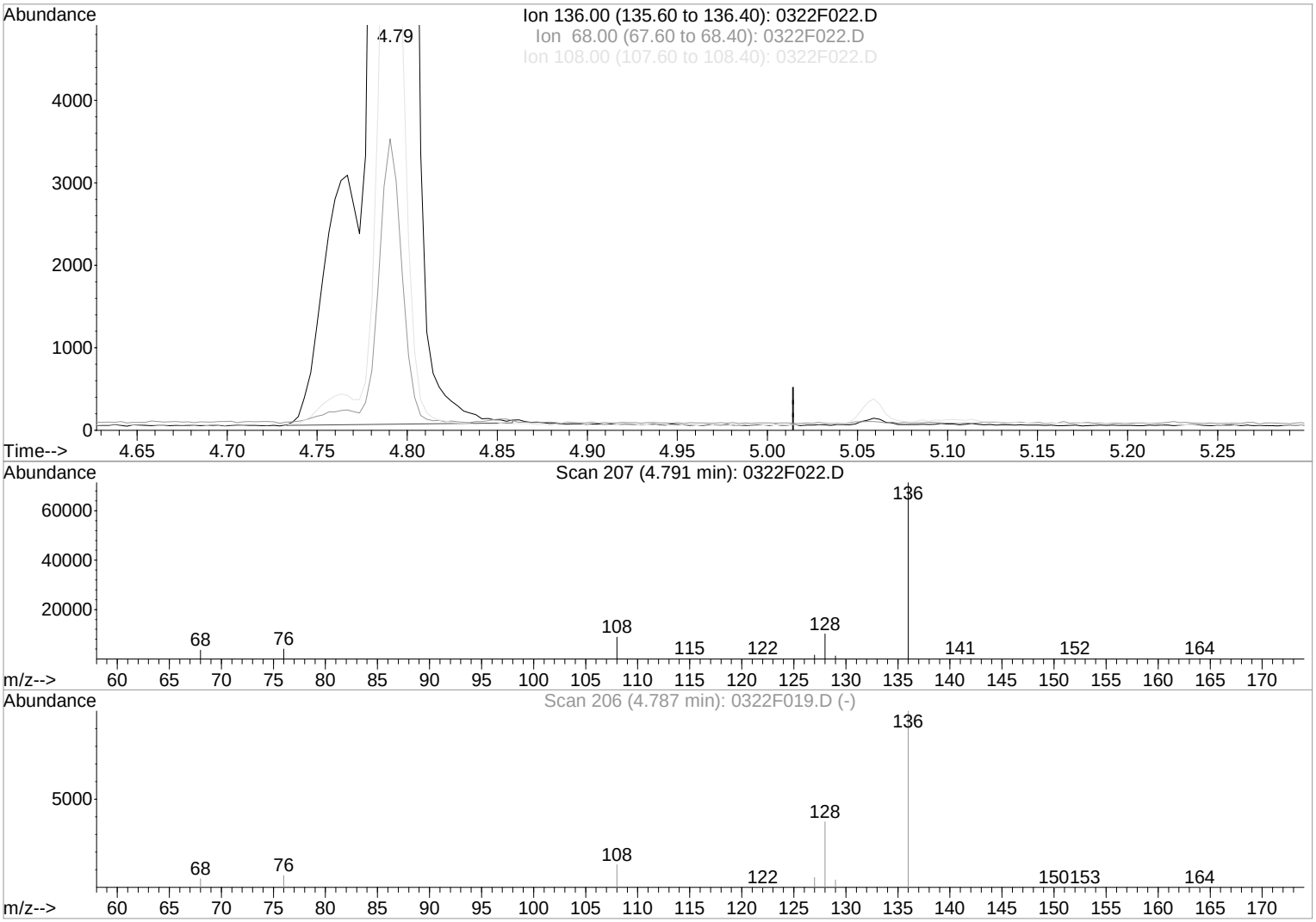
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:24 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F022.D

(1) Naphthalene-d8 (I)

4.79min 200.00ng/ml m

response 67848

Ion	Exp%	Act%
136.00	100	100
68.00	4.50	4.95
108.00	13.60	12.32
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

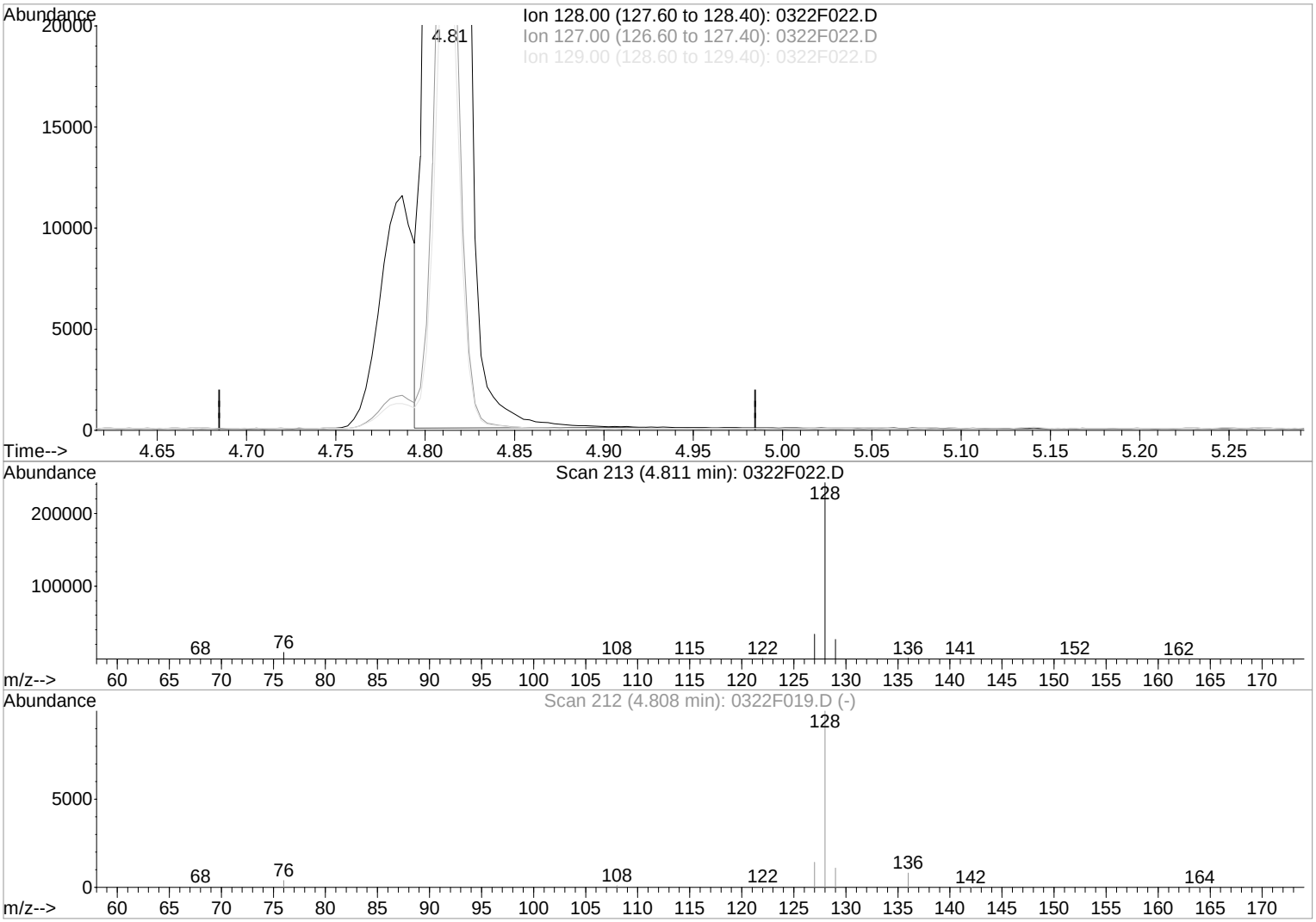
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:24 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F022.D

(2) Naphthalene (T)

4.81min 574.42ng/ml

response 218911

Ion	Exp%	Act%
128.00	100	100
127.00	13.90	13.98
129.00	10.80	11.02
0.00	0.00	0.00

Manual Integration:

Before

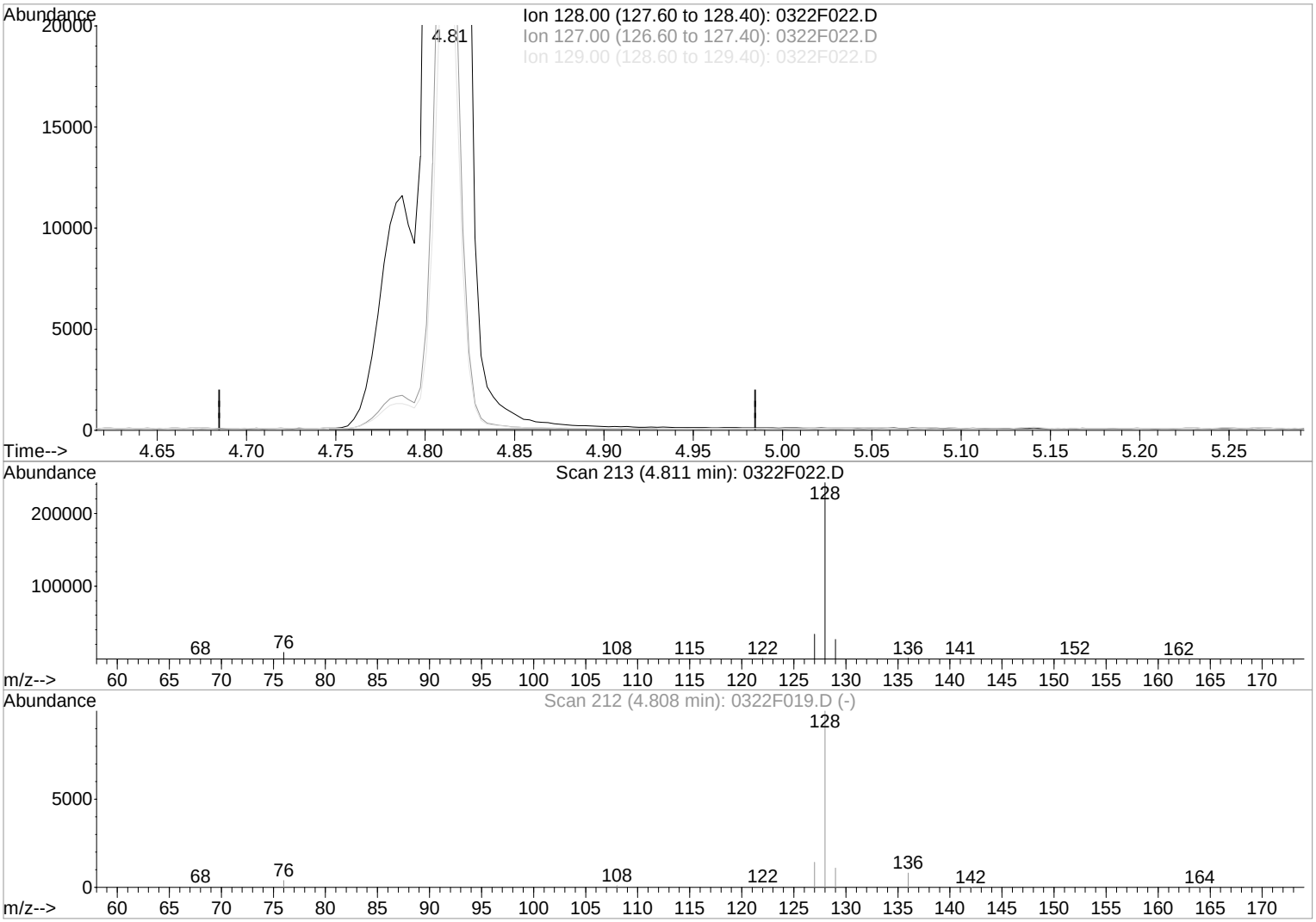
03/25/19

Quantitation Report (Qedit)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F022.D Vial: 19
Acq On : 22 Mar 2019 4:54 pm Operator: LWeiskopf
Sample : KQ1903571-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 7:24 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Multiple Level Calibration



TIC: 0322F022.D

(2) Naphthalene (T)

4.81min 615.15ng/ml m

response 234434

Ion	Exp%	Act%
128.00	100	100
127.00	13.90	14.00
129.00	10.80	11.05
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

03/25/19

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F019.D\
Lab ID: KQ1903805-01
RunType: CCV
Matrix: Water

Date Acquired: 3/22/19 15:18:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Internal Standards	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 3/25/19 8:54
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F019.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 15:18:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903805-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**		**Report Group:**	KQ1903805
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.35		26263	200.00	NA
Chrysene-d12	10.17		65229	200.00	NA
Naphthalene-d8	4.79		55165	200.00	NA
Perylene-d12	13.41		72282	200.00	NA
Phenanthrene-d10	7.60		53755	200.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Fluoranthene-d10	8.58		146906	466.79	Y
Fluorene-d10	6.79		62782	345.04	Y
Terphenyl-d14	8.94		120322	418.18	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2-Methylnaphthalene	5.45		72907	376.14	Y
Acenaphthene	6.38		67725	364.16	Y
Acenaphthylene	6.24		110527	339.03	Y
Anthracene	7.66		124987	380.51	Y
Benz(a)anthracene	10.16		170993	365.30	Y
Benzo(a)pyrene	13.22		163737	361.52	Y
Benzo(b)fluoranthene	12.31		187092	388.20	Y
Benzo(g,h,i)perylene	15.94		170337	349.17	Y
Benzo(k)fluoranthene	12.39		182390	400.23	Y
Chrysene	10.21		165907	390.02	Y
Dibenz(a,h)anthracene	15.59		145011	361.04	Y
Fluoranthene	8.60		170037	434.97	Y
Fluorene	6.82		81004	337.05	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 03/25/19
2nd 03/26/19

Data File:	J:\MS14\DATA\032219\0322F019.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 15:18:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1903805-01	**Raw Units:**	ng/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Indeno(1,2,3-cd)pyrene	15.54		137214	318.54	Y
Naphthalene	4.81		116275	375.25	Y
Phenanthrene	7.62		131211	383.34	Y
Pyrene	8.80		183372	372.86	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

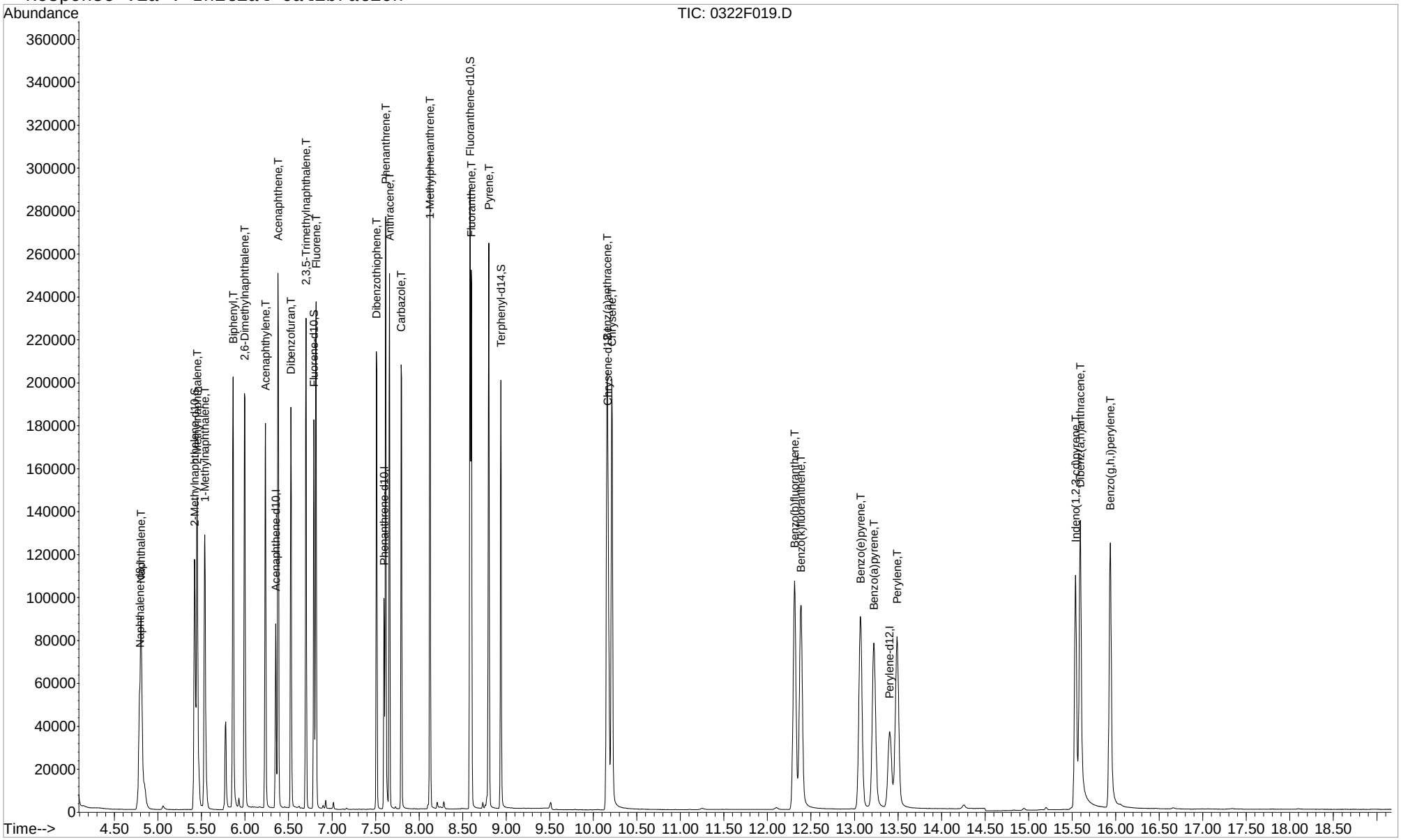
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F019.D Vial: 2
Acq On : 22 Mar 2019 3:18 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL | SVM60-69C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 5:20 2019 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 07:21:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F019.D Vial: 2
Acq On : 22 Mar 2019 3:18 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL | SVM60-69C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 25 05:20:47 2019 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 21 05:48:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	55165	200.00	ng/ml	-0.03
8) Acenaphthene-d10	6.35	164	26263	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	53755	200.00	ng/ml	0.00
23) Chrysene-d12	10.17	240	65229	200.00	ng/ml	-0.01
28) Perylene-d12	13.41	264	72282	200.00	ng/ml	-0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	58346	375.09	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	37.51%		
13) Fluorene-d10	6.79	176	62782	345.04	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	34.50%		
22) Fluoranthene-d10	8.58	212	146906	466.79	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	46.68%		
25) Terphenyl-d14	8.94	244	120322	418.18	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	41.82%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	116275	375.25	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	72907	376.14	ng/ml	98
5) 1-Methylnaphthalene	5.54	142	66905	358.21	ng/ml	97
6) Biphenyl	5.86	154	89085	354.87	ng/ml	100
7) 2,6-Dimethylnaphthalene	6.00	156	63162	357.18	ng/ml	93
9) Acenaphthylene	6.24	152	110527	339.03	ng/ml	99
10) Acenaphthene	6.38	154	67725	364.16	ng/ml	98
11) Dibenzofuran	6.53	168	105824	352.85	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.70	170	62733	354.22	ng/ml	94
14) Fluorene	6.82	166	81004	337.05	ng/ml	98
16) Dibenzothiophene	7.51	184	135127	385.44	ng/ml	98
17) Phenanthrene	7.62	178	131211	383.34	ng/ml	100
18) Anthracene	7.66	178	124987	380.51	ng/ml	100
19) Carbazole	7.79	167	118731	393.92	ng/ml	99
20) 1-Methylphenanthrene	8.12	192	106933	420.73	ng/ml	99
21) Fluoranthene	8.60	202	170037	434.97	ng/ml	96
24) Pyrene	8.80	202	183372	372.86	ng/ml	99
26) Benz(a)anthracene	10.16	228	170993	365.30	ng/ml	100
27) Chrysene	10.21	228	165907	390.02	ng/ml	100
29) Benzo(b)fluoranthene	12.31	252	187092	388.20	ng/ml	99
30) Benzo(k)fluoranthene	12.39	252	182390	400.23	ng/ml	99
31) Benzo(e)pyrene	13.07	252	179399	396.99	ng/ml	99
32) Benzo(a)pyrene	13.22	252	163737	361.52	ng/ml	98
33) Perylene	13.49	252	163527	380.63	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.54	276	137214	318.54	ng/ml	98
35) Dibenz(a,h)anthracene	15.59	278	145011	361.04	ng/ml	99
36) Benzo(g,h,i)perylene	15.94	276	170337	349.17	ng/ml	98

(#) = qualifier out of range (m) = manual integration

Evaluate Continuing Calibration Report

1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F019.D Vial: 2
Acq On : 22 Mar 2019 3:18 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL | SVM60-69C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 25 06:51:50 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	1.000	1.000	0.0	110	-0.03
2	T	Naphthalene	1.123	1.054	6.1	106	-0.03
3	S	2-Methylnaphthalene-d10	0.564	0.529	6.2	110	-0.02
4	T	2-Methylnaphthalene	0.703	0.661	6.0	110	-0.02
5	T	1-Methylnaphthalene	0.677	0.606	10.5	106	-0.01
6	T	Biphenyl	0.910	0.807	11.3	104	0.00
7	T	2,6-Dimethylnaphthalene	0.641	0.572	10.8	104	0.00
8	I	Acenaphthene-d10	1.000	1.000	0.0	113	0.00
9	T	Acenaphthylene	2.483	2.104	15.3	97	0.00
10	T	Acenaphthene	1.416	1.289	9.0	103	0.00
11	T	Dibenzofuran	2.284	2.015	11.8	102	0.00
12	T	2,3,5-Trimethylnaphthalene	1.349	1.194	11.5	101	0.00
13	S	Fluorene-d10	1.386	1.195	13.8	103	0.00
14	T	Fluorene	1.830	1.542	15.7	99	0.00
15	I	Phenanthrene-d10	1.000	1.000	0.0	105	0.00
16	T	Dibenzothiophene	1.304	1.257	3.6	101	0.00
17	T	Phenanthrene	1.273	1.220	4.2	103	0.00
18	T	Anthracene	1.222	1.163	4.8	100	0.00
19	T	Carbazole	1.121	1.104	1.5	103	-0.01
20	T	1-Methylphenanthrene	0.946	0.995	-5.2	109	0.00
21	T	Fluoranthene	1.454	1.582	-8.8	115	0.00
22	S	Fluoranthene-d10	1.171	1.366	-16.7	121	0.00
23	I	Chrysene-d12	1.000	1.000	0.0	121	-0.01
24	T	Pyrene	1.508	1.406	6.8	117	0.00
25	S	Terphenyl-d14	0.882	0.922	-4.5	135	0.00
26	T	Benz(a)anthracene	1.435	1.311	8.6	114	-0.01
27	T	Chrysene	1.304	1.272	2.5	118	-0.01
28	I	Perylene-d12	1.000	1.000	0.0	122	-0.01
29	T	Benzo(b)fluoranthene	1.334	1.294	3.0	116	-0.01
30	T	Benzo(k)fluoranthene	1.261	1.262	-0.1	118	0.00
31	T	Benzo(e)pyrene	1.250	1.241	0.7	121	0.00
32	T	Benzo(a)pyrene	1.253	1.133	9.6	115	-0.02
33	T	Perylene	1.189	1.131	4.9	115	0.00
34	T	Indeno(1,2,3-cd)pyrene	1.192	0.949	20.4#	96	0.00
35	T	Dibenz(a,h)anthracene	1.111	1.003	9.7	111	0.00
36	T	Benzo(g,h,i)perylene	1.350	1.178	12.7	109	0.00

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

1st 03/25/19
2nd 03/26/19

Validation Report

Data File: J:\MS14\DATA\032219\0322F018.D\
Lab ID: KQ1903805-02
RunType: TUNE
Matrix: Water

Date Acquired: 3/22/19 14:45:00
Batch ID: 629289
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Tune Ion Ratio	X	

Primary Review: _____

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Secondary Review: _____

1st 03/25/19
2nd 03/26/19

Quantitation Report

Data File:	J:\MS14\DATA\032219\0322F018.D\	**Instrument:**	K-MS-14
Acqu Date:	3/22/19 14:45:00	**Vial:**	1
Run Type:	TUNE	**Dilution:**	1
Lab ID:	KQ1903805-02	**Raw Units:**	

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	3/16/19	**Receive Date:**	3/19/19

Analysis Lot:	629289	**Prep Lot:**		**Report Group:**	KQ1903805
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900055
		Report List ID:	18909

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	30.23	53530	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	32.42	57420	Pass
70	69	0	2	0.57	327	Pass
127	198	10	80	40.85	72333	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	48.26	177088	Pass
199	198	5	9	6.55	11598	Pass
275	198	10	60	34.59	61253	Pass
365	442	1	50	2.63	9658	Pass
441	443	0.01	100	74.70	53258	Pass
442	442	30	100	100.00	366933	Pass
443	442	15	24	19.43	71298	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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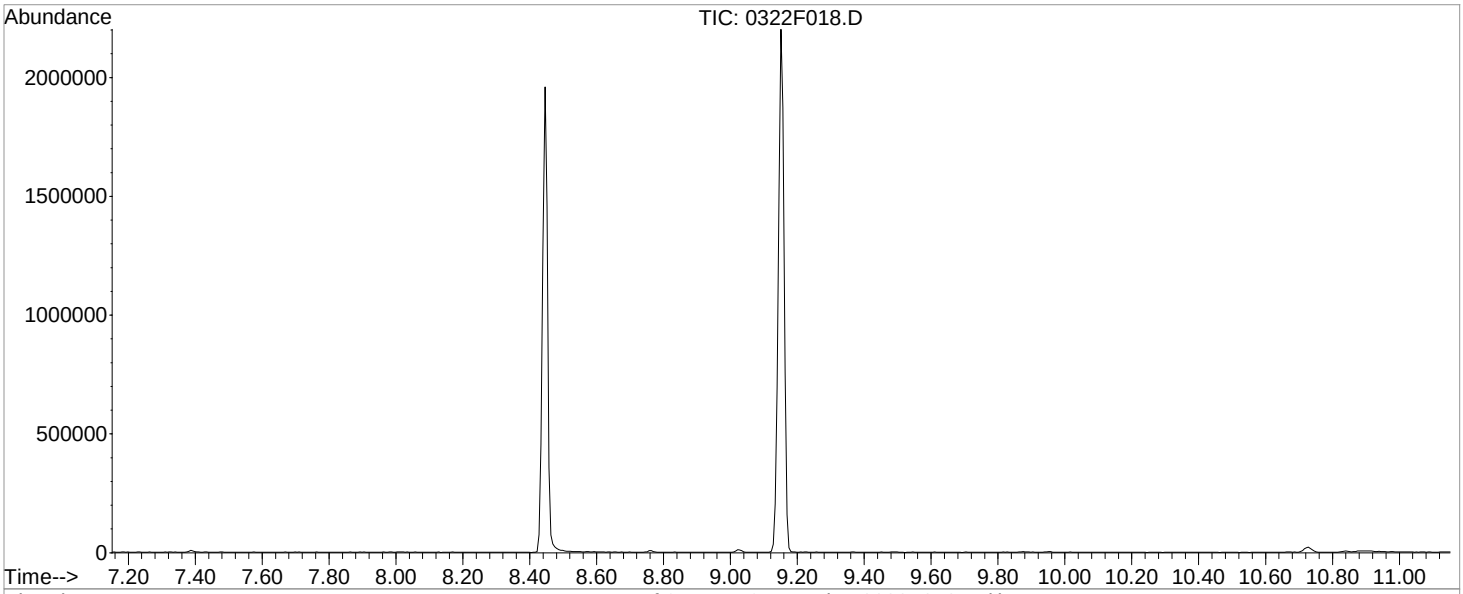
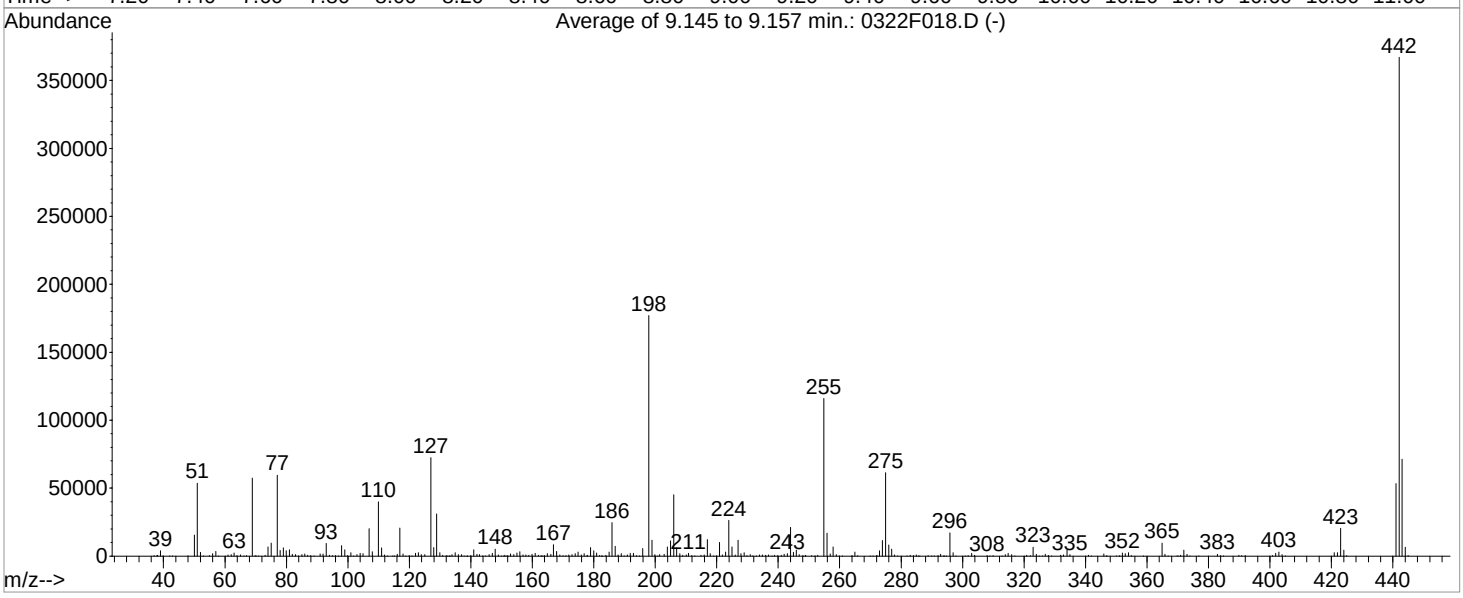
1st 03/25/19
2nd 03/26/19

Data File : J:\MS14\DATA\032219\0322F018.D Vial: 1
Acq On : 22 Mar 2019 2:45 pm Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix





AutoFind: Scans 520, 521, 522; Background Corrected with Scan 513

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	30.2	53530	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	32.4	57420	PASS
70	69	0.00	2	0.6	327	PASS
127	198	10	80	40.8	72333	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	48.3	177088	PASS
199	198	5	9	6.5	11598	PASS
275	198	10	60	34.6	61253	PASS
365	442	1	50	2.6	9658	PASS
441	443	0.01	100	74.7	53258	PASS
442	442	30	100	100.0	366933	PASS
443	442	15	24	19.4	71298	PASS

1st 03/25/19
2nd 03/26/19

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.90	362	53.00	141	67.05	314	79.95	3866
37.90	296	54.95	410	68.90	57420	80.95	4589
38.05	706	55.95	1704	69.85	327	81.95	1265
39.00	3970	57.00	3374	70.10	167	82.95	1069
39.90	249	58.00	58	71.00	43	83.85	199
42.05	159	60.95	745	73.10	564	85.00	961
43.00	117	62.00	999	74.00	6676	85.95	1589
47.95	126	63.00	2243	75.00	9575	86.95	679
50.05	15395	63.95	351	77.00	59426	87.80	57
51.00	53530	65.05	857	78.00	4066	87.95	180
52.00	2684	66.20	77	78.95	5978	89.00	50

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
90.95	1488	101.90	135	115.10	150	126.95	72333
91.95	1450	102.95	1166	116.05	1225	127.95	6189
92.90	9371	103.95	2041	116.90	20528	128.90	30957
93.95	582	104.95	1754	117.90	1430	129.90	2594
95.05	308	106.95	20189	118.90	169	130.90	499
95.95	356	107.95	3276	119.95	294	131.95	271
97.00	54	109.95	39981	120.90	227	132.50	66
97.95	7669	110.95	6063	121.95	2003	133.00	67
98.95	4537	111.95	759	122.95	2400	133.20	53
99.85	441	112.95	244	123.90	1034	133.90	1165
100.95	2542	114.60	81	125.00	1036	134.95	2464

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
135.95	1121	145.95	976	155.00	2166	164.00	337
136.95	1177	146.95	2030	155.95	3234	164.90	1799
137.85	139	147.90	5062	156.95	835	166.00	1327
138.75	187	148.95	921	157.90	854	166.90	8261
139.00	78	149.90	254	158.85	593	167.90	3462
140.05	452	150.70	120	159.90	1309	168.95	807
140.90	4600	151.00	536	160.90	1916	170.00	256
141.95	1395	151.80	275	161.95	586	170.90	462
142.85	975	152.10	119	162.80	59	171.90	759
143.85	189	152.90	1638	163.00	59	172.90	1018
144.85	233	153.95	1049	163.40	55	173.95	1796

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.90	3059	183.95	661	194.90	83	206.95	6015
175.95	952	184.95	2945	195.90	5563	207.95	1883
176.90	1734	185.95	24549	197.90	177088	208.90	648
177.80	229	186.95	7222	198.90	11598	210.05	757
177.95	503	187.95	865	199.85	978	210.85	1969
178.90	6317	188.95	1770	200.80	154	211.80	283
179.95	3969	189.85	195	201.40	972	212.90	83
180.90	2180	190.90	777	202.90	1385	214.85	613
181.85	315	191.90	1985	203.95	6609	215.95	807
182.50	67	192.95	2114	204.95	11100	216.90	12052
182.85	171	193.95	469	206.00	45186	217.90	1813

Average of 9.145 to 9.157 min.: 0322F018.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
219.05	192	229.85	355	240.95	718	250.85	272
220.00	181	230.90	999	241.95	1420	251.90	221
220.90	10030	231.75	203	243.00	1801	252.90	611
221.80	859	232.85	147	244.00	21208	254.90	116042
222.90	2912	233.90	741	244.95	2810	255.90	16962
223.95	26192	234.90	813	245.90	4467	256.95	1464
224.95	6758	235.85	553	246.85	982	257.90	6653
226.00	820	236.85	843	247.90	85	258.90	1144
226.90	11782	237.95	149	248.20	54	259.80	61
227.90	1717	238.85	579	248.80	229	260.85	233
228.90	2397	239.90	362	248.95	578	263.90	51

Average of 9.145 to 9.157 min.: 0322F018.D

1st 03/25/19
2nd 03/26/19

DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
264.10	55	276.90	5199	290.80	51	302.95	2085
264.90	2888	277.90	873	292.00	350	303.90	610
265.85	473	278.90	247	292.85	1341	307.95	290
269.90	136	281.90	212	293.80	97	308.85	172
270.85	250	282.95	482	294.05	160	309.95	257
272.00	277	284.00	380	294.70	127	312.80	207
272.20	194	284.95	729	295.90	17104	313.90	1088
272.95	3920	285.70	90	296.90	2515	314.85	2045
273.95	11339	286.10	104	297.85	156	315.95	1143
274.90	61253	288.80	290	300.90	230	317.00	249
275.95	8139	289.90	50	301.85	368	320.90	598

Average of 9.145 to 9.157 min.: 0322F018.D

DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
321.95	340	334.00	4275	352.95	1666	373.00	1205
322.95	6392	334.95	1138	353.95	2527	373.95	113
323.95	1321	340.90	713	354.90	440	376.90	82
324.90	201	341.90	77	358.85	119	382.90	1279
326.00	134	345.95	1615	364.90	9658	383.95	261
326.90	1265	346.75	172	365.85	1372	384.90	51
327.80	147	347.00	75	366.90	54	389.90	613
327.95	398	350.10	61	369.80	83	390.85	390
329.00	127	351.00	147	370.05	221	391.95	310
331.90	533	351.20	56	370.95	556	400.85	321
332.85	736	351.95	2242	372.00	4433	401.90	1982

Average of 9.145 to 9.157 min.: 0322F018.D

DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
402.90	2951	444.00	6520				
403.90	1060	444.95	391				
405.00	117						
420.95	2419						
421.95	2516						
423.00	20340						
424.00	4269						
425.00	359						
441.00	53258						
442.00	366933						
443.00	71298						

Injection Log

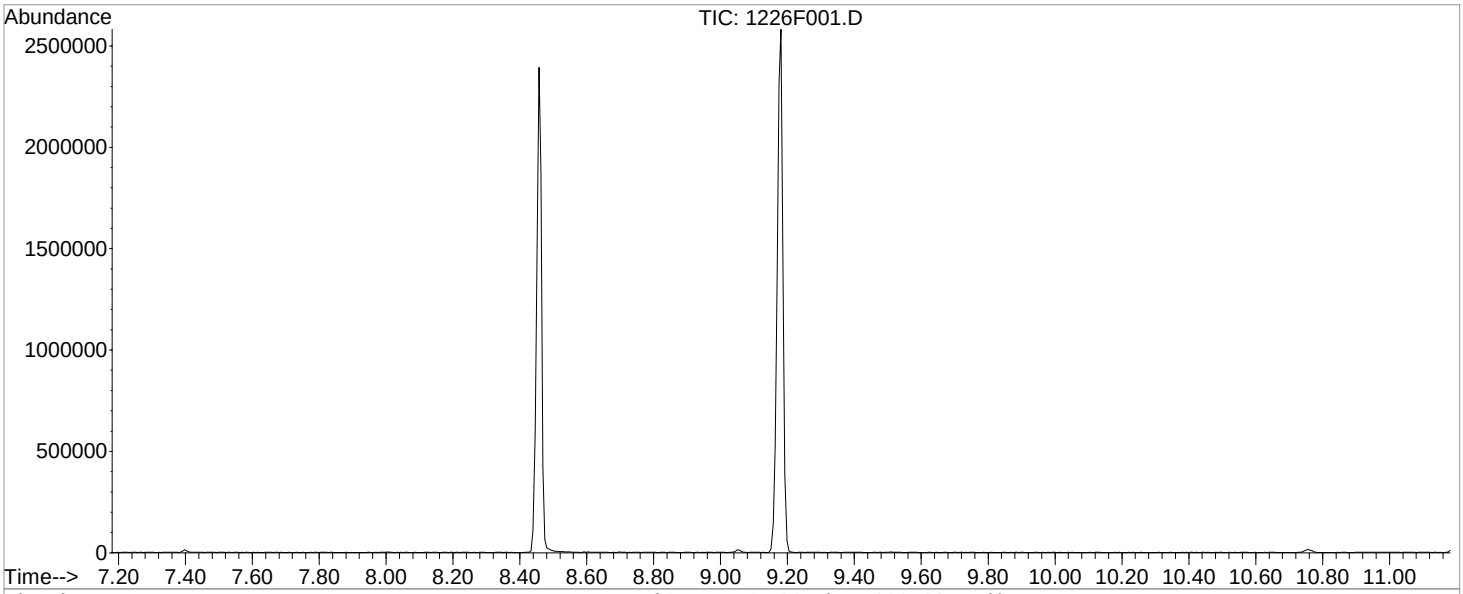
Directory: J:\MS14\DATA\122618a

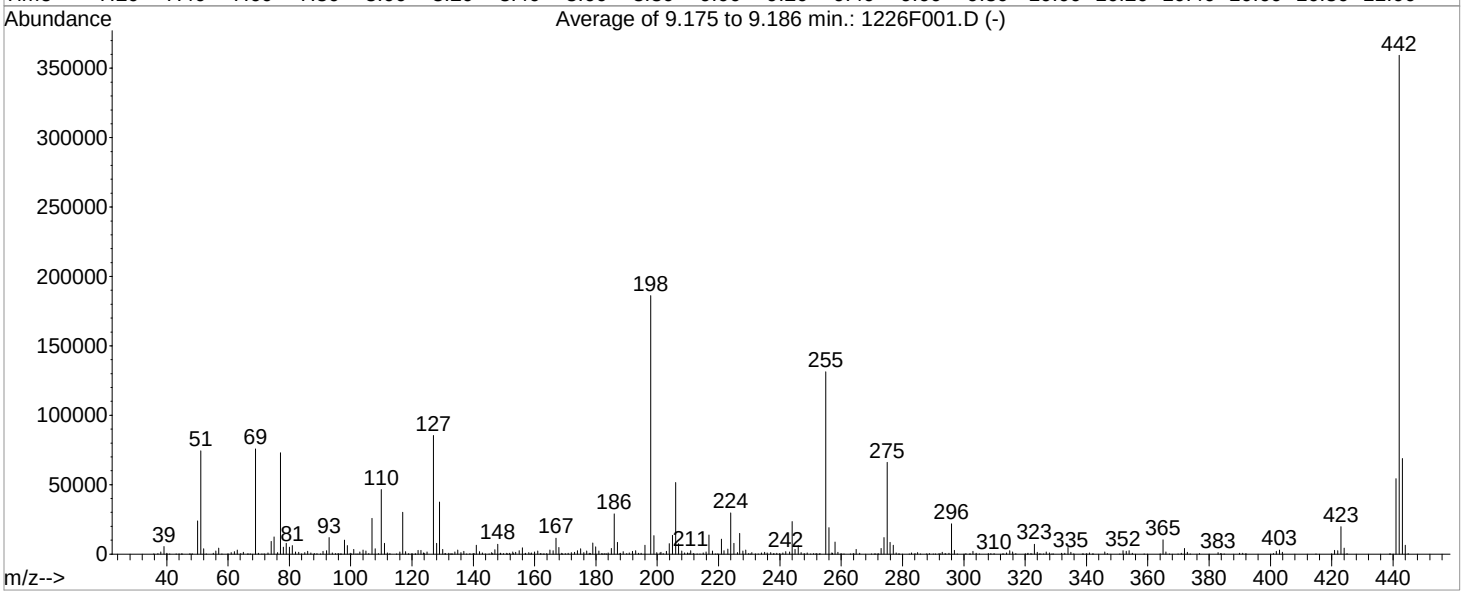
Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1226F001.D	1.	DFTPP @ 10ug/mL | SVM60-10C		26 Dec 2018 06:05
2	20	1226F005.D	1.	IB		26 Dec 2018 07:49
3	5	1226F006.D	1.	SIM-PAH ICAL @.002ug/mL | SVM59-4A		26 Dec 2018 08:15
4	6	1226F007.D	1.	SIM-PAH ICAL @.004ug/mL | SVM59-4B		26 Dec 2018 08:41
5	7	1226F008.D	1.	SIM-PAH ICAL @.008ug/mL | SVM59-4C		26 Dec 2018 09:07
6	8	1226F009.D	1.	SIM-PAH ICAL @0.02ug/mL | SVM59-4D		26 Dec 2018 09:33
7	9	1226F010.D	1.	SIM-PAH ICAL @0.1ug/mL | SVM59-4E		26 Dec 2018 09:59
8	10	1226F011.D	1.	SIM-PAH ICAL @0.2ug/mL | SVM59-4F		26 Dec 2018 10:26
9	11	1226F012.D	1.	SIM-PAH ICAL @0.4ug/mL | SVM59-4G		26 Dec 2018 10:52
10	12	1226F013.D	1.	SIM-PAH ICAL @1.0ug/mL | SVM59-4H		26 Dec 2018 11:18
11	13	1226F014.D	1.	SIM-PAH ICAL @1.6ug/mL | SVM59-4I		26 Dec 2018 11:45
12	14	1226F015.D	1.	SIM-PAH ICAL @2.0ug/mL | SVM59-4J		26 Dec 2018 12:12
13	15	1226F016.D	1.	SIM-PAH ICV @0.4ug/mL | SVM60-14A		26 Dec 2018 12:38

CAL 15930
12/27/18
1/2/19

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F001.D Vial: 1
Acq On : 26 Dec 2018 6:05 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-10C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix





AutoFind: Scans 525, 526, 527; Background Corrected with Scan 518

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	40.0	74400	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	40.7	75770	PASS
70	69	0.00	2	0.8	589	PASS
127	198	10	80	45.9	85370	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	51.8	186133	PASS
199	198	5	9	7.1	13267	PASS
275	198	10	60	35.5	66066	PASS
365	442	1	50	2.9	10321	PASS
441	443	0.01	100	79.1	54346	PASS
442	442	30	100	100.0	359232	PASS
443	442	15	24	19.1	68744	PASS

1st 12/27/18
2nd 01/02/19

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.80	52	47.90	85	61.00	1060	71.80	57
37.10	435	48.35	233	62.10	1747	73.05	712
38.05	1590	50.10	23997	63.05	2883	74.05	9088
39.10	5483	51.10	74400	64.20	313	75.00	12266
40.05	681	52.00	3813	65.00	1318	76.20	1125
41.00	186	52.90	103	66.30	77	77.10	73082
43.10	143	55.15	650	66.80	198	78.05	5050
44.00	51	56.05	2212	67.30	147	79.00	7632
44.90	75	56.95	4247	68.95	75770	80.00	5022
45.10	51	58.05	157	69.85	589	81.00	6215
47.50	70	60.00	50	71.00	63	82.05	1547

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
83.00	1241	94.05	821	101.70	88	111.95	816
84.00	230	95.10	241	102.40	96	112.85	321
85.00	1040	95.85	262	103.00	1458	115.00	66
86.00	1947	96.10	123	104.00	3005	116.00	1396
87.00	742	96.65	211	105.00	2231	117.00	30189
88.15	248	96.90	70	105.90	409	117.95	1791
89.00	301	98.00	10132	107.00	25710	118.80	106
90.20	101	98.95	6219	108.00	3887	119.00	127
91.00	1991	99.85	531	109.00	355	119.85	220
92.10	2328	100.30	218	110.00	46525	120.10	103
93.00	11883	101.00	3289	111.00	7803	121.00	80

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
121.20	126	131.00	425	139.90	399	148.80	521
121.95	2684	132.00	531	140.20	309	148.95	650
122.95	2780	132.60	87	140.95	6348	149.85	302
123.80	902	132.90	171	142.00	1743	150.90	560
124.00	700	133.20	115	142.95	923	151.20	121
124.95	1472	133.95	1407	143.95	207	151.85	686
127.00	85370	134.95	2948	145.20	139	152.90	1481
128.00	7660	135.95	1078	145.95	1080	153.10	283
129.00	37552	136.95	2079	146.30	260	153.85	1268
130.00	3284	137.90	148	147.00	3020	154.95	2414
130.80	267	138.90	315	148.00	6949	156.00	4535

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
156.90	660	163.90	441	174.00	2417	182.60	159
157.10	273	164.95	2918	175.00	3713	182.95	260
158.05	1099	166.00	2436	176.05	1061	183.50	181
158.50	67	166.95	11400	177.00	2284	184.00	881
158.95	792	167.90	4636	177.80	565	185.00	4149
159.95	1599	168.85	511	178.20	326	186.00	28840
161.00	2288	169.10	137	178.95	7955	187.00	8506
161.85	460	170.00	336	179.95	5251	187.80	292
162.10	335	170.90	495	181.00	2194	188.00	574
162.80	222	171.95	1161	181.85	388	188.90	1852
163.10	77	173.00	1242	182.10	187	190.00	472

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
190.90	814	201.95	398	211.75	391	221.75	2502
191.95	2014	203.00	2095	212.00	114	223.00	3688
192.95	2478	203.90	7549	213.00	159	224.00	29669
193.95	521	205.00	13568	213.90	57	225.00	7747
194.70	489	206.00	51632	215.00	755	226.10	1144
195.95	6339	206.95	7510	215.90	1417	226.90	14999
197.90	186133	208.00	2307	216.90	13853	227.95	2280
198.90	13267	208.95	759	218.00	2256	228.90	2974
199.90	1106	209.90	937	219.00	51	229.85	319
200.90	921	210.35	603	219.55	164	230.30	117
201.25	1179	210.90	2426	220.95	10624	230.90	989

Average of 9.175 to 9.186 min.: 1226F001.D

1st 12/27/18
2nd 01/02/19

DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
231.95	126	241.90	1852	251.70	53	260.20	68
232.90	113	243.15	1559	252.00	297	260.95	221
233.95	901	244.00	23329	252.90	156	263.00	121
235.00	1234	244.90	3332	253.05	430	263.90	241
235.90	909	246.00	6049	255.00	131357	264.10	151
237.00	972	246.90	1152	256.00	19096	264.90	3459
237.90	161	247.90	141	256.90	942	266.00	566
238.05	322	248.10	126	257.10	647	269.85	178
238.95	648	248.90	901	257.95	8693	270.85	221
239.90	337	250.10	55	258.90	1256	271.20	104
240.95	748	250.95	271	259.90	118	272.00	232

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
272.20	238	284.05	453	294.10	142	307.95	270
273.00	3956	284.90	1138	295.15	700	308.85	245
273.95	11909	285.90	186	295.95	21709	309.90	349
275.00	66066	287.85	180	296.95	2553	312.70	69
275.95	8495	288.75	241	297.85	145	313.00	90
276.95	6309	290.05	183	300.70	265	313.90	901
277.95	940	290.80	56	301.80	183	314.95	2444
278.80	75	291.95	299	302.10	95	315.90	1575
279.00	81	292.40	74	302.95	2076	316.95	304
282.20	77	293.00	1326	304.00	656	320.05	115
282.95	757	293.90	247	305.05	151	320.80	155

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

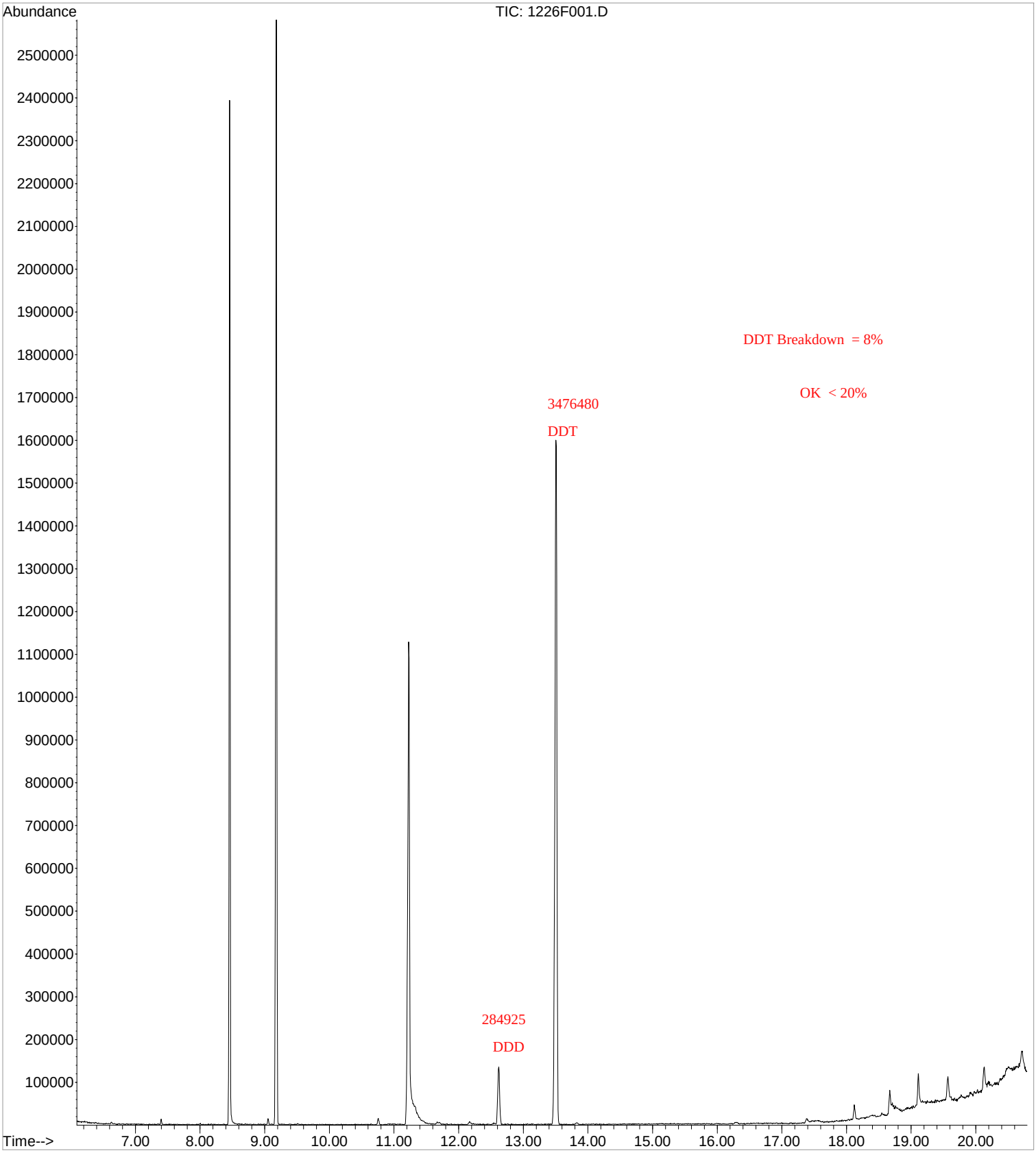
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
320.95	481	329.20	63	342.00	114	364.95	10321
321.90	350	331.85	503	342.20	53	365.95	1603
322.20	105	332.90	586	345.95	1558	367.10	73
323.00	7101	334.00	4806	346.85	271	369.85	168
323.95	1329	334.90	1366	350.90	84	370.95	666
324.70	81	335.90	209	351.90	2362	371.95	4141
325.10	65	338.70	60	353.00	2011	372.90	1252
326.00	133	339.00	77	353.95	2540	373.80	67
326.85	1430	339.90	82	355.00	563	376.85	284
327.95	719	340.10	69	358.85	138	382.95	1115
328.80	71	341.00	808	364.00	140	383.80	290

Average of 9.175 to 9.186 min.: 1226F001.D
DFTPP @ 10ug/mL | SVM60-10C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
384.10	94	419.95	112	444.00	6337		
384.90	97	420.95	2561	444.95	452		
389.95	631	422.00	2465				
390.95	614	423.00	19650				
391.85	210	424.00	4242				
392.10	65	425.00	256				
400.95	408	438.90	125				
401.90	1882	439.20	143				
402.95	2817	441.00	54346				
403.95	1182	442.00	359232				
414.85	117	443.00	68744				

1st 12/27/18
2nd 01/02/19

File : J:\MS14\DATA\122618A\1226F001.D
Operator : LWeiskopf
Acquired : 26 Dec 2018 6:05 am using AcqMethod SIMLOC
Instrument : MS14
Sample Name: DFTPP @ 10ug/mL | SVM60-10C
Misc Info :
Vial Number: 1

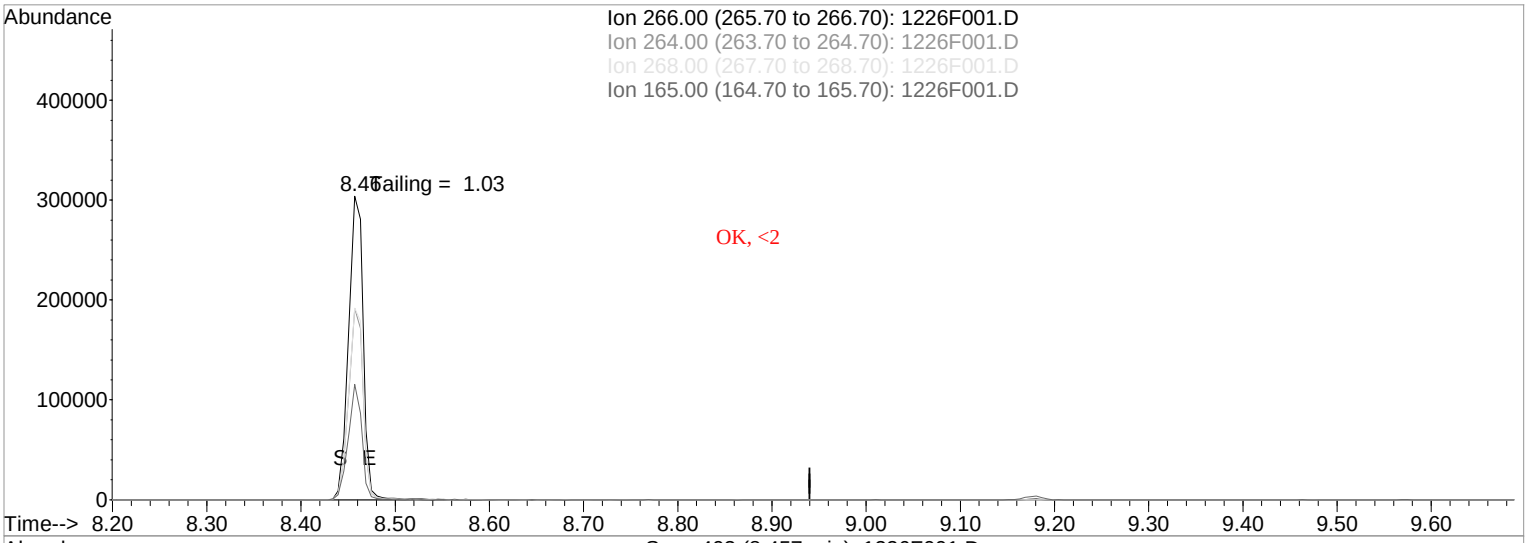


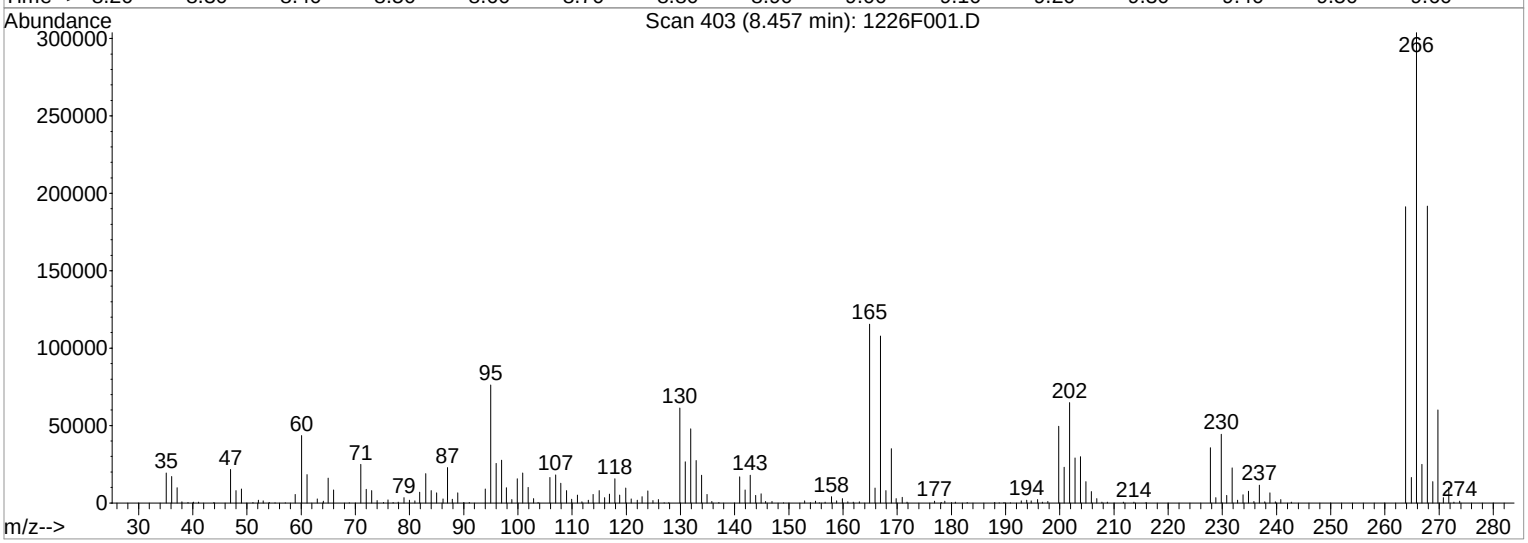
Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F001.D Vial: 1
Acq On : 26 Dec 2018 6:05 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-10C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 26 6:54 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Thu Sep 20 12:42:13 2018
Response via : Single Level Calibration





TIC: 1226F001.D

(1) Pentachlorophenol

8.46min 14.27ng/ml

response 328335

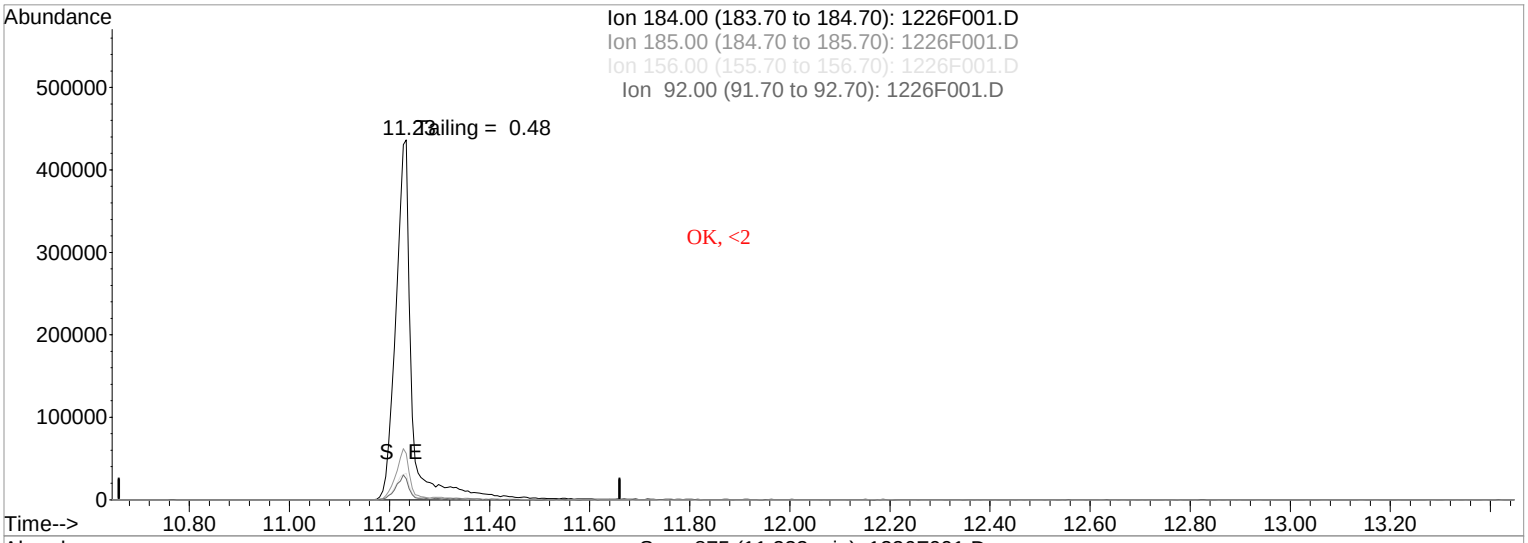
Ion	Exp%	Act%
266.00	100	100
264.00	62.30	62.95
268.00	72.30	63.08
165.00	42.00	37.99

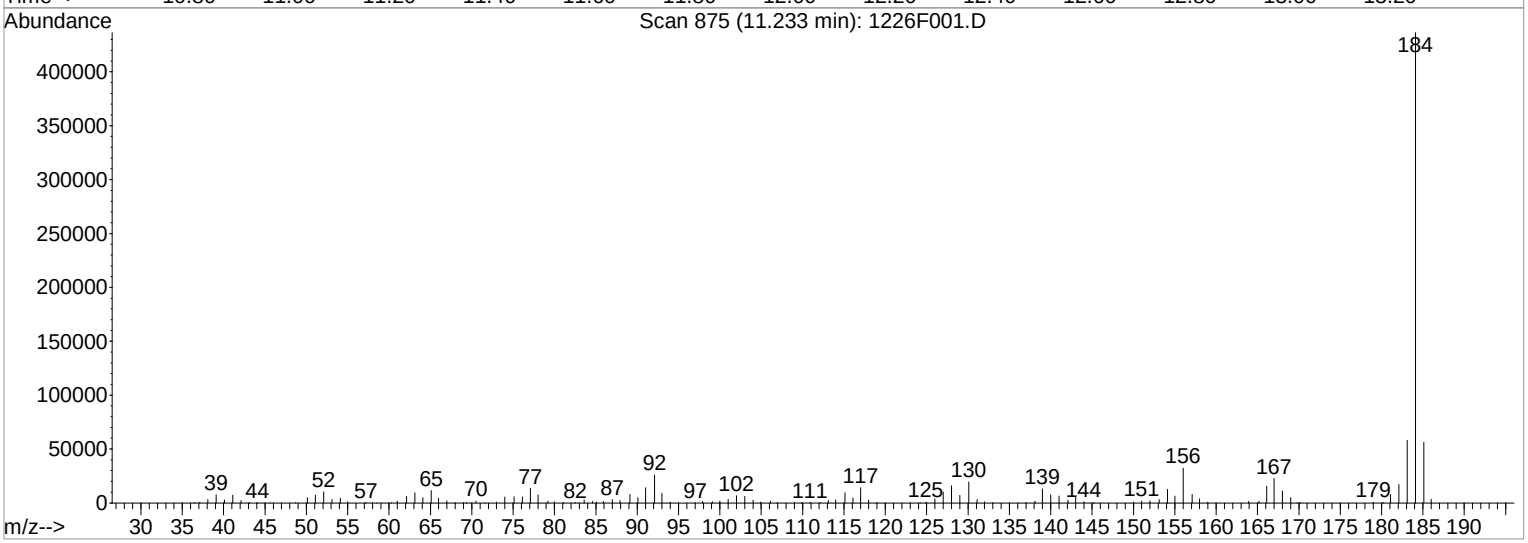
Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F001.D Vial: 1
Acq On : 26 Dec 2018 6:05 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-10C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 26 6:54 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Thu Sep 20 12:42:13 2018
Response via : Single Level Calibration





TIC: 1226F001.D

(3) Benzidine (T)

11.23min 15.43ug/ml

response 889431

Ion	Exp%	Act%
184.00	100	100
185.00	14.70	12.87
156.00	9.50	7.38
92.00	7.60	5.86

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F005.D Vial: 20
Acq On : 26 Dec 2018 7:49 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:47 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

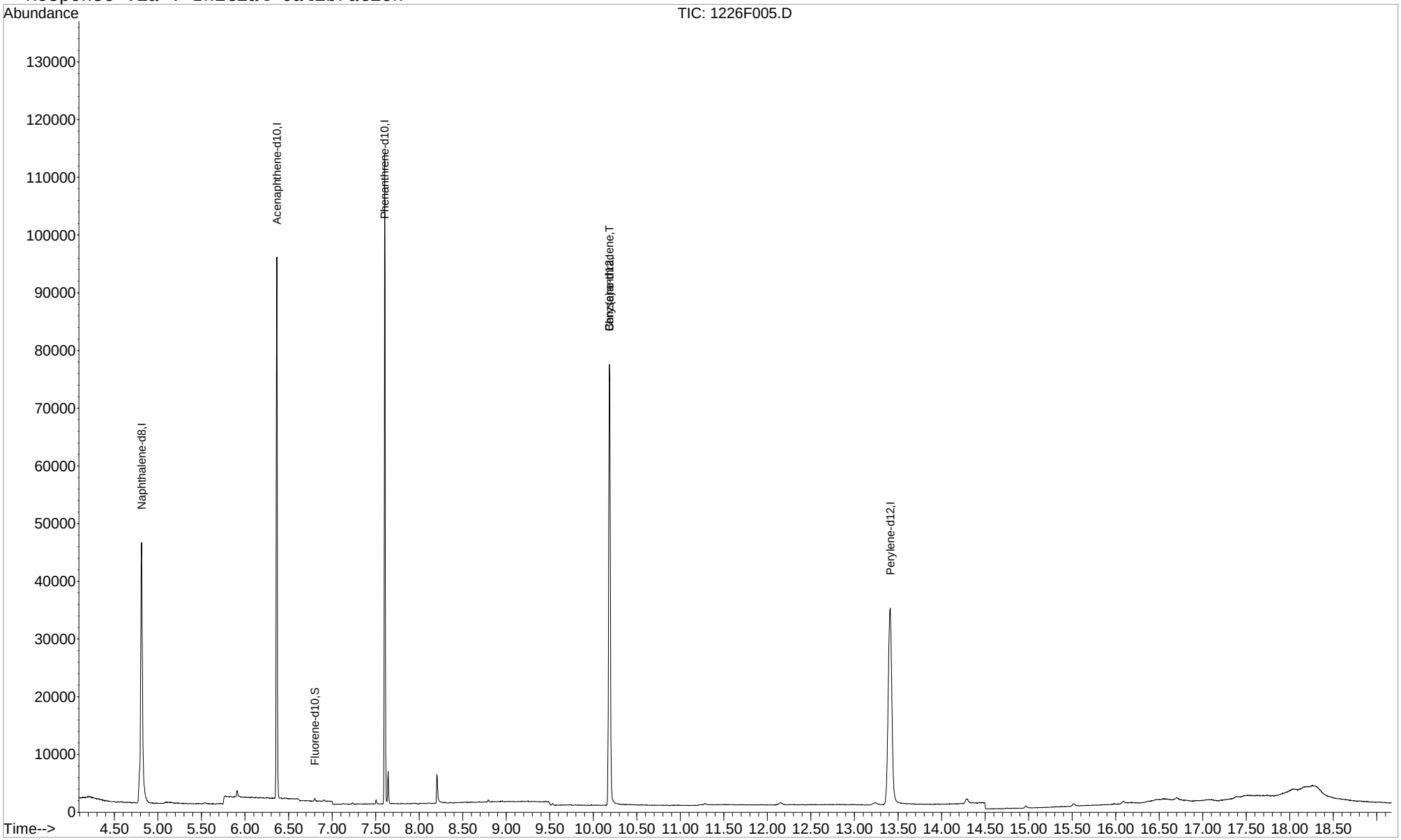
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)	
1) Naphthalene-d8	4.81	136	54203	200.00	ng/ml	0.00	
8) Acenaphthene-d10	6.37	164	26925	200.00	ng/ml	0.00	
15) Phenanthrene-d10	7.60	188	59493	200.00	ng/ml	0.00	
23) Chrysene-d12	10.19	240	60805	200.00	ng/ml	0.00	
28) Perylene-d12	13.41	264	65678	200.00	ng/ml	0.00	
System Monitoring Compounds							
3) 2-Methylnaphthalene-d10	0.00	152	0	0.00	ng/ml		
Spiked Amount 1000.000			Recovery =	0.00%			
13) Fluorene-d10	6.80	176	187	1.06	ng/ml	0.00	
Spiked Amount 1000.000			Recovery =	0.11%			
22) Fluoranthene-d10	0.00	212	0d	0.00	ng/ml		
Spiked Amount 1000.000			Recovery =	0.00%			
25) Terphenyl-d14	0.00	244	0d	0.00	ng/ml		
Spiked Amount 1000.000			Recovery =	0.00%			
Target Compounds						Qvalue	
26) Benz(a)anthracene	10.19	228	168	0.39	ng/ml#	36	< 1/2 MRL

(#) = qualifier out of range (m) = manual integration

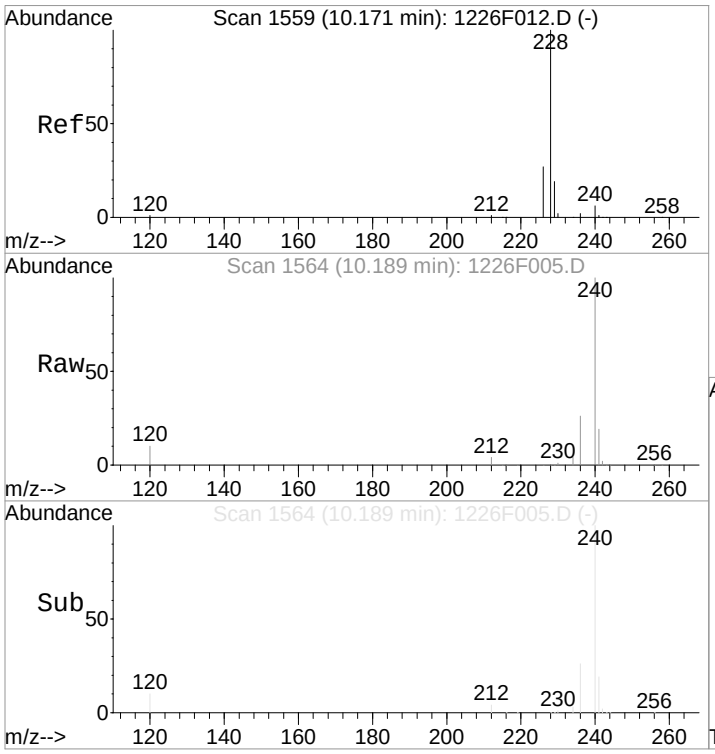
1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F005.D Vial: 20
Acq On : 26 Dec 2018 7:49 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:08 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 27 07:07:12 2018
Response via : Initial Calibration



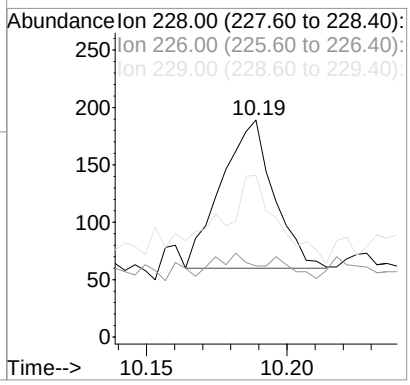
1st 12/27/18
2nd 01/02/19



#26
Benz(a)anthracene
Concen: 0.39 ng/ml
RT: 10.19 min Scan# 1564
Delta R.T. 0.01 min
Lab File: 1226F005.D
Acq: 26 Dec 2018 7:49 am

Tgt Ion:228 Resp: 168

Ion	Ratio	Lower	Upper
228	100		
226	3.1	0.0	56.1
229	59.7	0.0	39.2#



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:48 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

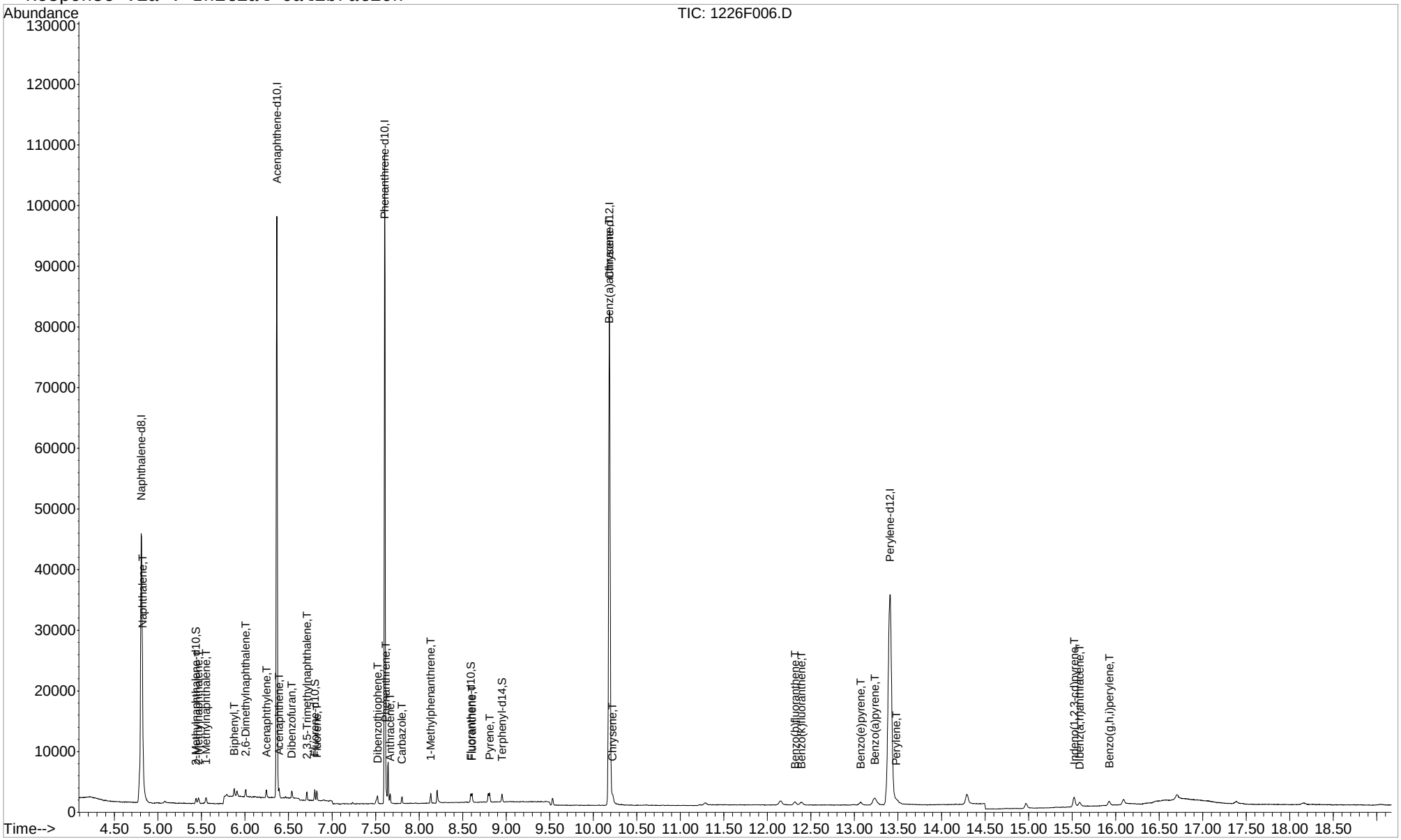
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	54693	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	27097	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	58181	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	59563	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	64363	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	376	2.49	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.25%		
13) Fluorene-d10	6.80	176	583	3.27	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.33%		
22) Fluoranthene-d10	8.59	212	693	1.87	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.19%		
25) Terphenyl-d14	8.95	244	867	3.31	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.33%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	691	2.21	ng/ml	96
4) 2-Methylnaphthalene	5.46	142	405m	2.12	ng/ml	
5) 1-Methylnaphthalene	5.55	142	439m	2.43	ng/ml	
6) Biphenyl	5.88	154	593	2.48	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	409	2.48	ng/ml	93
9) Acenaphthylene	6.24	152	735	2.16	ng/ml	99
10) Acenaphthene	6.39	154	416	2.18	ng/ml	100
11) Dibenzofuran	6.54	168	690	2.26	ng/ml	84
12) 2,3,5-Trimethylnaphthalene	6.71	170	397	2.25	ng/ml	89
14) Fluorene	6.82	166	572	2.46	ng/ml	96
16) Dibenzothiophene	7.52	184	819	2.21	ng/ml	99
17) Phenanthrene	7.62	178	782m	2.11	ng/ml	
18) Anthracene	7.67	178	718	1.98	ng/ml	96
19) Carbazole	7.80	167	699	2.02	ng/ml	96
20) 1-Methylphenanthrene	8.13	192	566	1.92	ng/ml	90
21) Fluoranthene	8.61	202	910	1.97	ng/ml	97
24) Pyrene	8.81	202	946	2.04	ng/ml	98
26) Benz(a)anthracene	10.17	228	1044	2.47	ng/ml	94
27) Chrysene	10.22	228	790	2.01	ng/ml	97
29) Benzo(b)fluoranthene	12.32	252	901	2.14	ng/ml	91
30) Benzo(k)fluoranthene	12.39	252	794	1.95	ng/ml	97
31) Benzo(e)pyrene	13.07	252	850	2.13	ng/ml	91
32) Benzo(a)pyrene	13.23	252	1147	2.86	ng/ml#	1
33) Perylene	13.49	252	814	2.16	ng/ml	96
34) Indeno(1,2,3-cd)pyrene	15.53	276	808	2.40	ng/ml#	52
35) Dibenz(a,h)anthracene	15.58	278	691	2.10	ng/ml	93
36) Benzo(g,h,i)perylene	15.93	276	949	2.36	ng/ml	88

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:58 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration

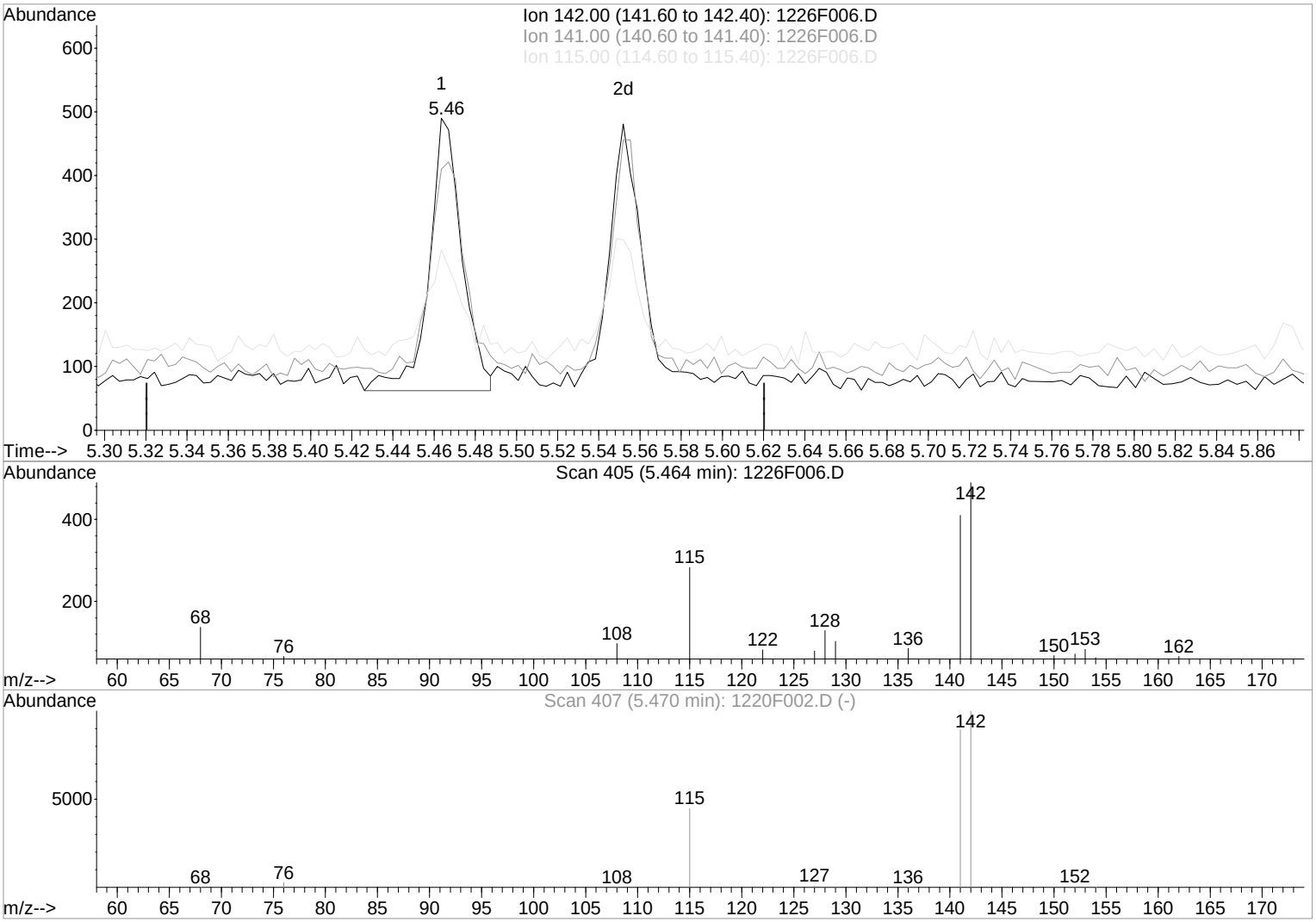


Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(4) 2-Methylnaphthalene (T)

5.46min 2.48ng/ml

response 474

Ion	Exp%	Act%
142.00	100	100
141.00	87.30	73.13
115.00	39.10	36.45
0.00	0.00	0.00

Manual Integration:

Before

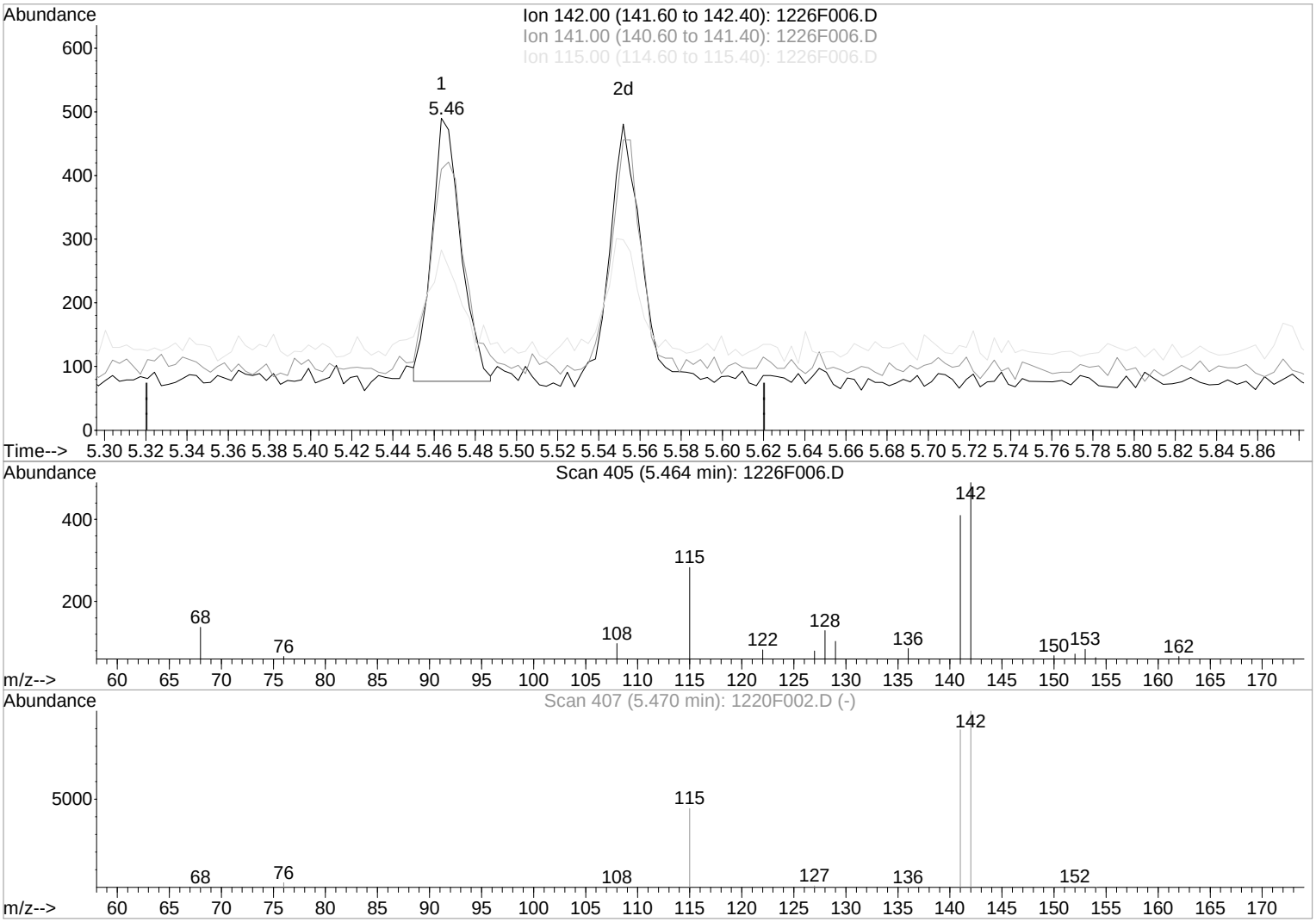
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:57 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(4) 2-Methylnaphthalene (T)

5.46min 2.12ng/ml m

response 405

Ion	Exp%	Act%
142.00	100	100
141.00	87.30	83.67
115.00	39.10	57.76
0.00	0.00	0.00

Manual Integration:

After

BLC

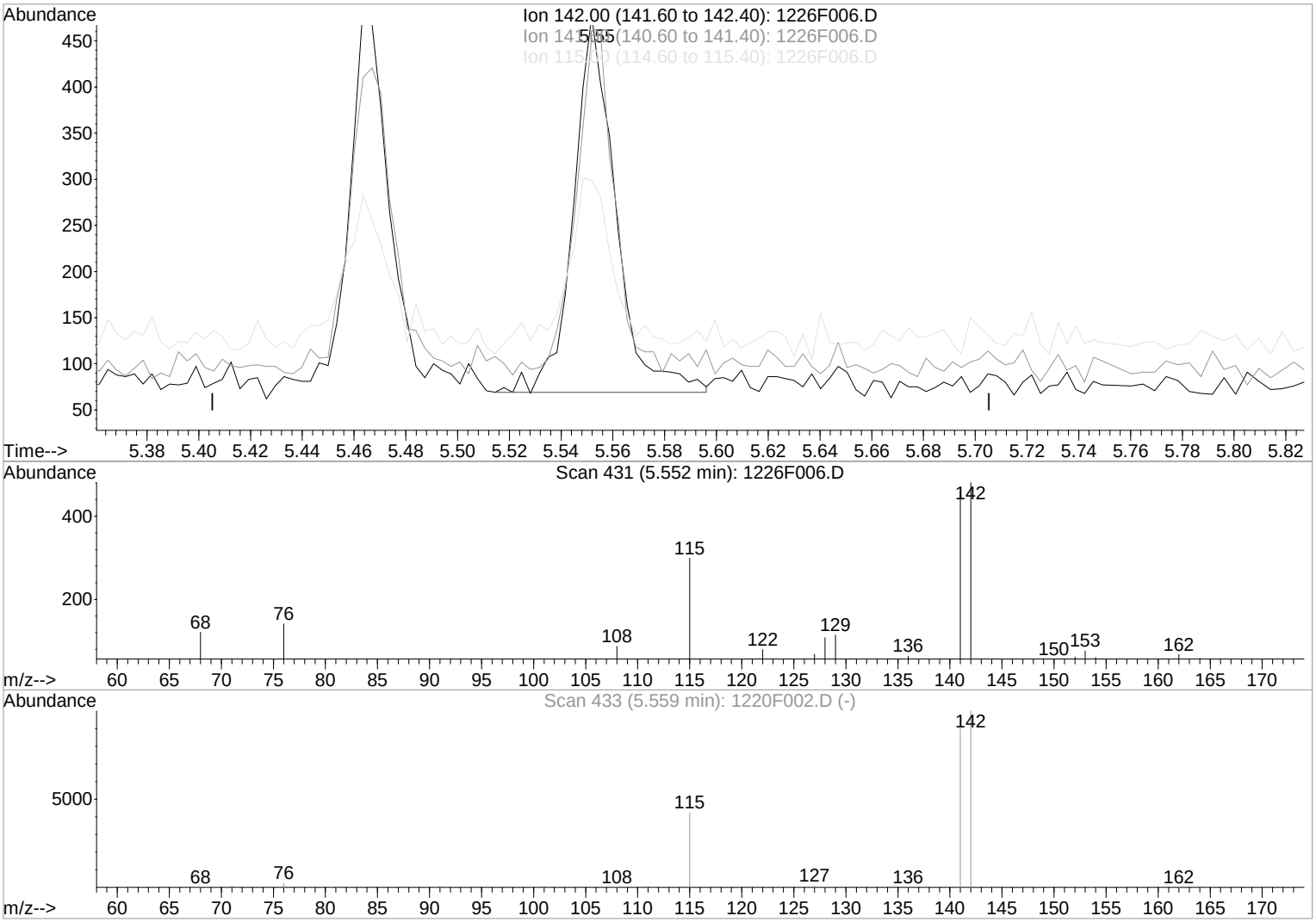
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:57 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(5) 1-Methylnaphthalene (T)

5.55min 2.55ng/ml

response 461

Ion	Exp%	Act%
142.00	100	100
141.00	91.90	84.47
115.00	42.60	45.63
0.00	0.00	0.00

Manual Integration:

Before

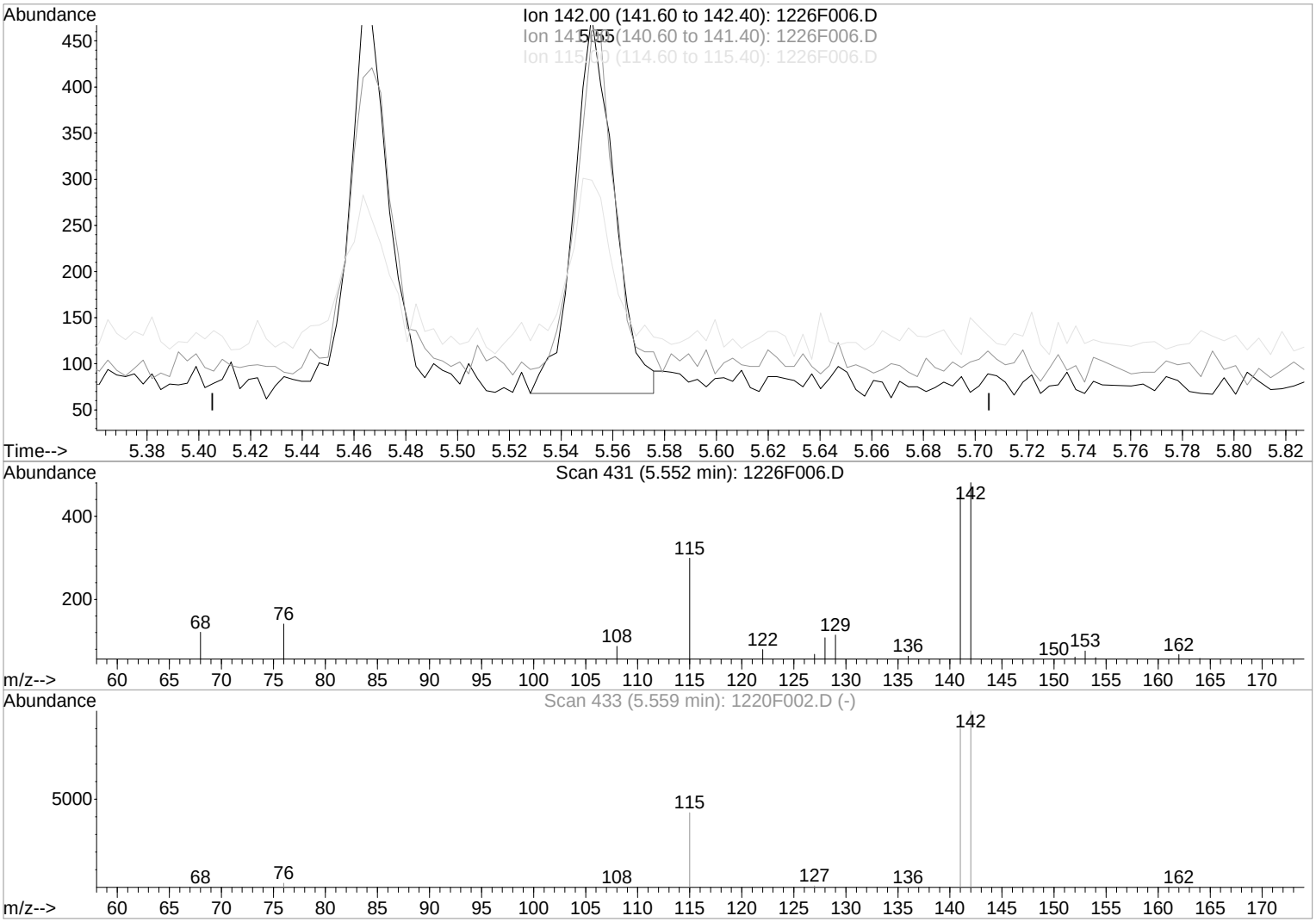
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:58 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(5) 1-Methylnaphthalene (T)

5.55min 2.43ng/ml m

response 439

Ion	Exp%	Act%
142.00	100	100
141.00	91.90	94.80
115.00	42.60	62.16
0.00	0.00	0.00

Manual Integration:

After

BLC

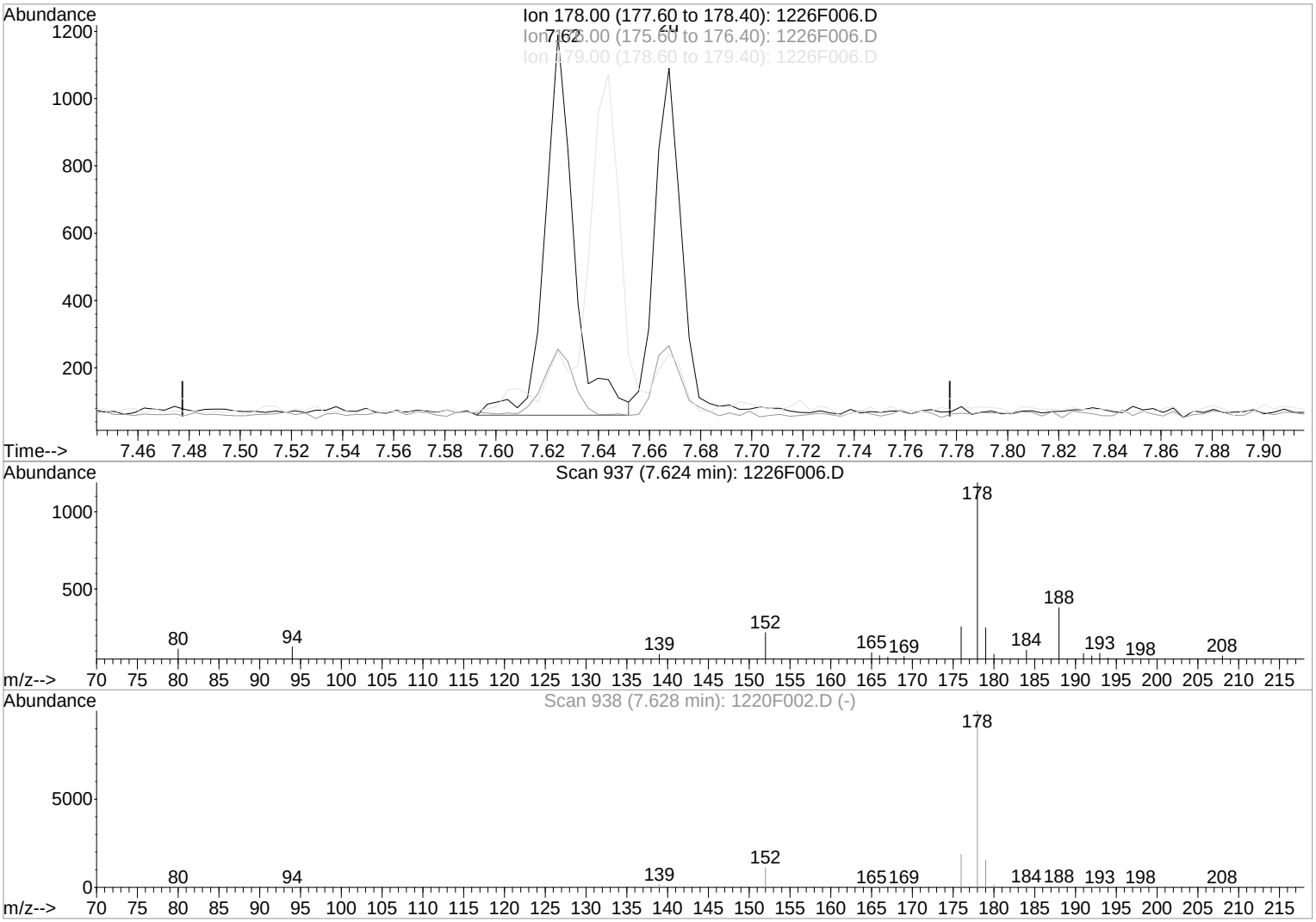
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:58 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(17) Phenanthrene (T)

7.62min 2.41ng/ml

response 890

Ion	Exp%	Act%
178.00	100	100
176.00	18.70	17.45
179.00	15.20	15.68
0.00	0.00	0.00

Manual Integration:

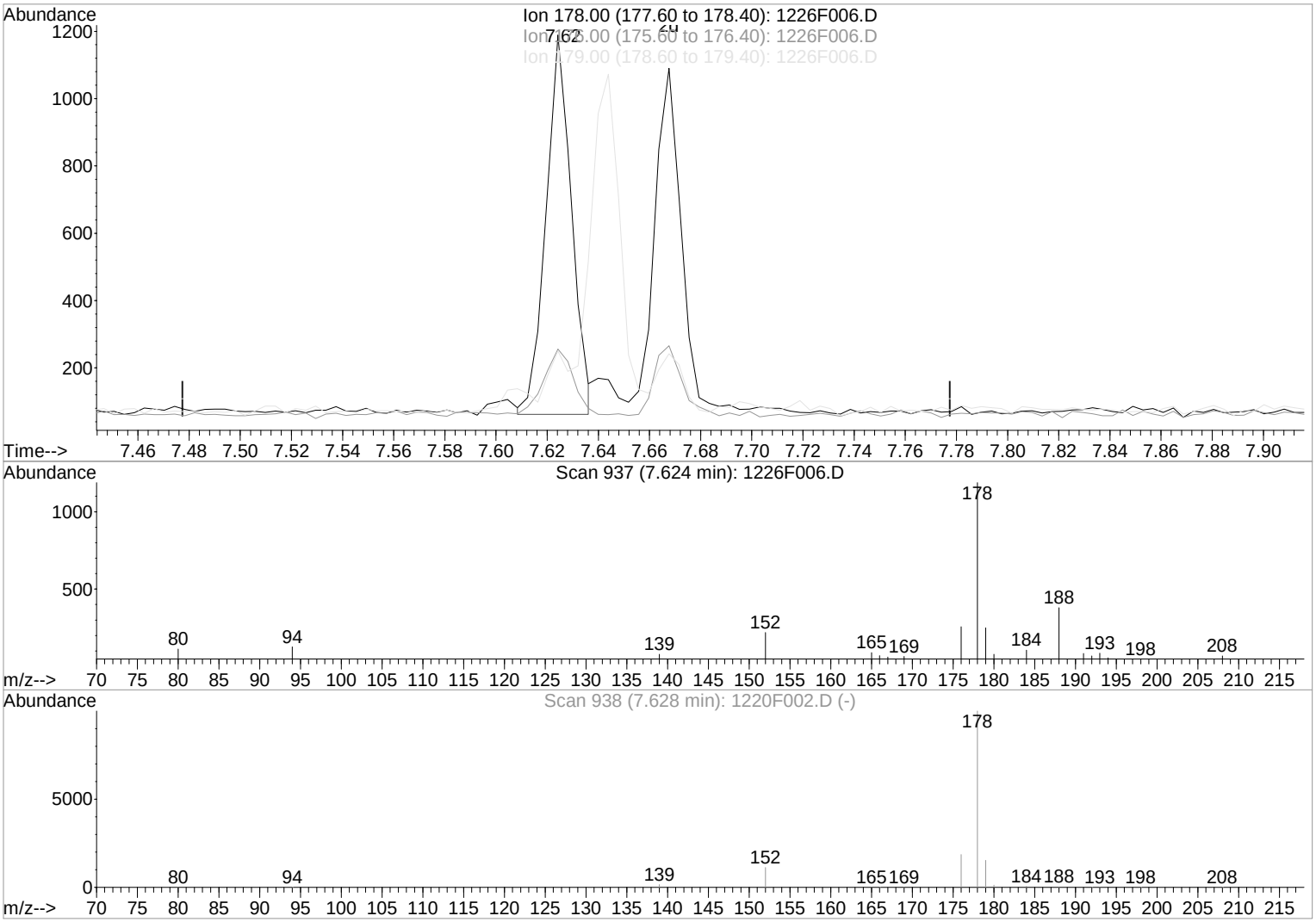
Before

12/27/18

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F006.D Vial: 5
Acq On : 26 Dec 2018 8:15 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:58 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F006.D

(17) Phenanthrene (T)

7.62min 2.11ng/ml m

response 782

Ion	Exp%	Act%
178.00	100	100
176.00	18.70	21.53
179.00	15.20	21.03
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

12/27/18

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:48 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

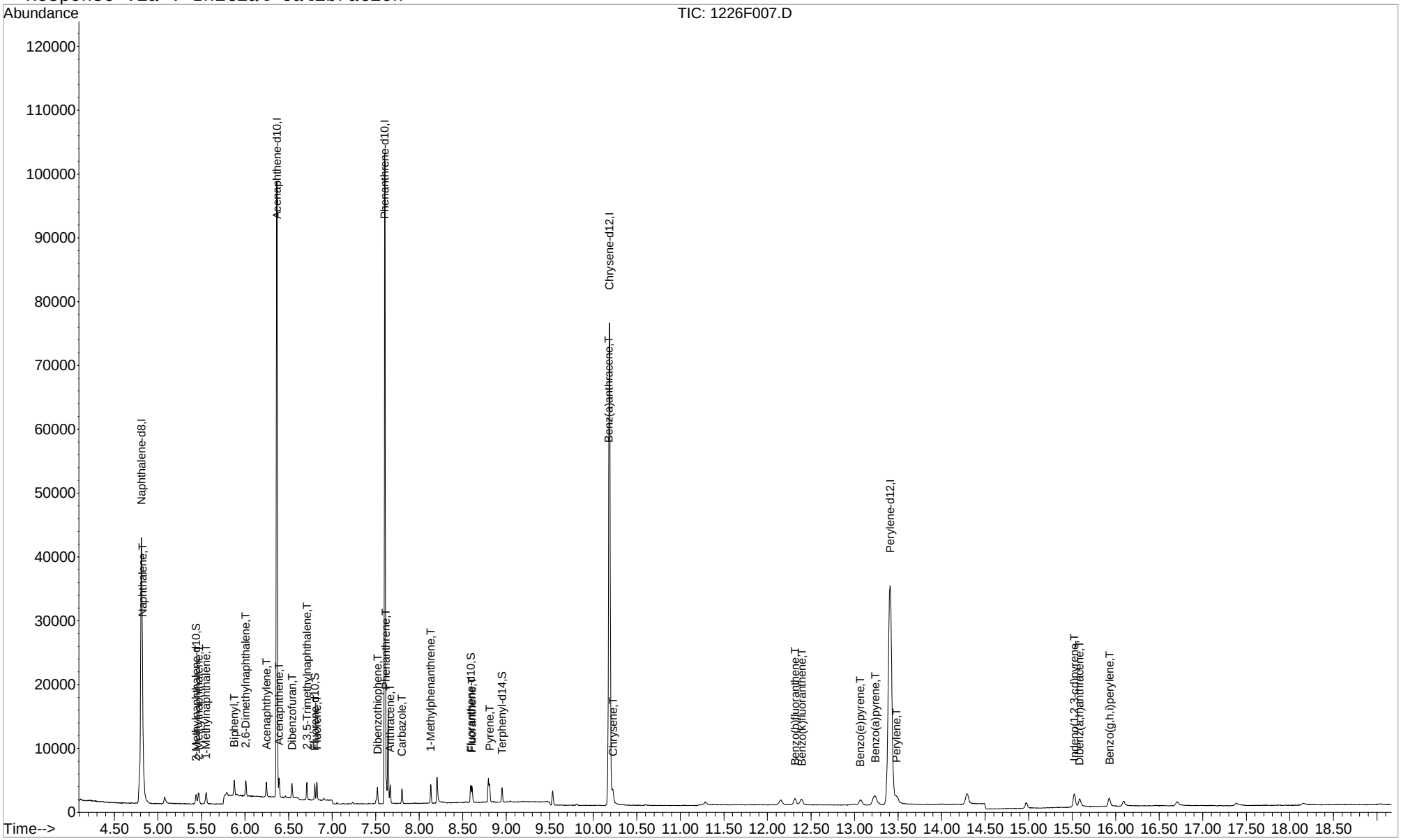
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	52196	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	26431	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.61	188	58714	200.00	ng/ml	0.00
23) Chrysene-d12	10.18	240	59892	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	64816	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	626	4.35	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.43%		
13) Fluorene-d10	6.80	176	872	5.02	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.50%		
22) Fluoranthene-d10	8.59	212	1335	3.57	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.36%		
25) Terphenyl-d14	8.95	244	1338	5.08	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.51%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	1173m	3.94	ng/ml	
4) 2-Methylnaphthalene	5.47	142	842	4.61	ng/ml	97
5) 1-Methylnaphthalene	5.55	142	768	4.45	ng/ml	89
6) Biphenyl	5.88	154	1038	4.54	ng/ml	96
7) 2,6-Dimethylnaphthalene	6.01	156	694	4.41	ng/ml	96
9) Acenaphthylene	6.24	152	1343	4.06	ng/ml	98
10) Acenaphthene	6.39	154	753	4.05	ng/ml	96
11) Dibenzofuran	6.54	168	1192	4.00	ng/ml	94
12) 2,3,5-Trimethylnaphthalene	6.71	170	712	4.14	ng/ml	89
14) Fluorene	6.82	166	985	4.34	ng/ml	96
16) Dibenzothiophene	7.52	184	1507	4.03	ng/ml	96
17) Phenanthrene	7.62	178	1550m	4.15	ng/ml	
18) Anthracene	7.67	178	1427	3.90	ng/ml	97
19) Carbazole	7.80	167	1301	3.73	ng/ml	95
20) 1-Methylphenanthrene	8.14	192	1092	3.67	ng/ml	99
21) Fluoranthene	8.61	202	1687	3.62	ng/ml	94
24) Pyrene	8.81	202	1889	4.05	ng/ml	94
26) Benz(a)anthracene	10.17	228	1762	4.15	ng/ml	98
27) Chrysene	10.22	228	1524	3.85	ng/ml	94
29) Benzo(b)fluoranthene	12.32	252	1679	3.96	ng/ml	99
30) Benzo(k)fluoranthene	12.39	252	1616m	3.94	ng/ml	
31) Benzo(e)pyrene	13.07	252	1644	4.08	ng/ml	94
32) Benzo(a)pyrene	13.23	252	1918	4.75	ng/ml#	12
33) Perylene	13.48	252	1443	3.81	ng/ml	96
34) Indeno(1,2,3-cd)pyrene	15.53	276	1475	4.35	ng/ml#	70
35) Dibenz(a,h)anthracene	15.58	278	1339	4.05	ng/ml	95
36) Benzo(g,h,i)perylene	15.92	276	1762	4.34	ng/ml	97

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration

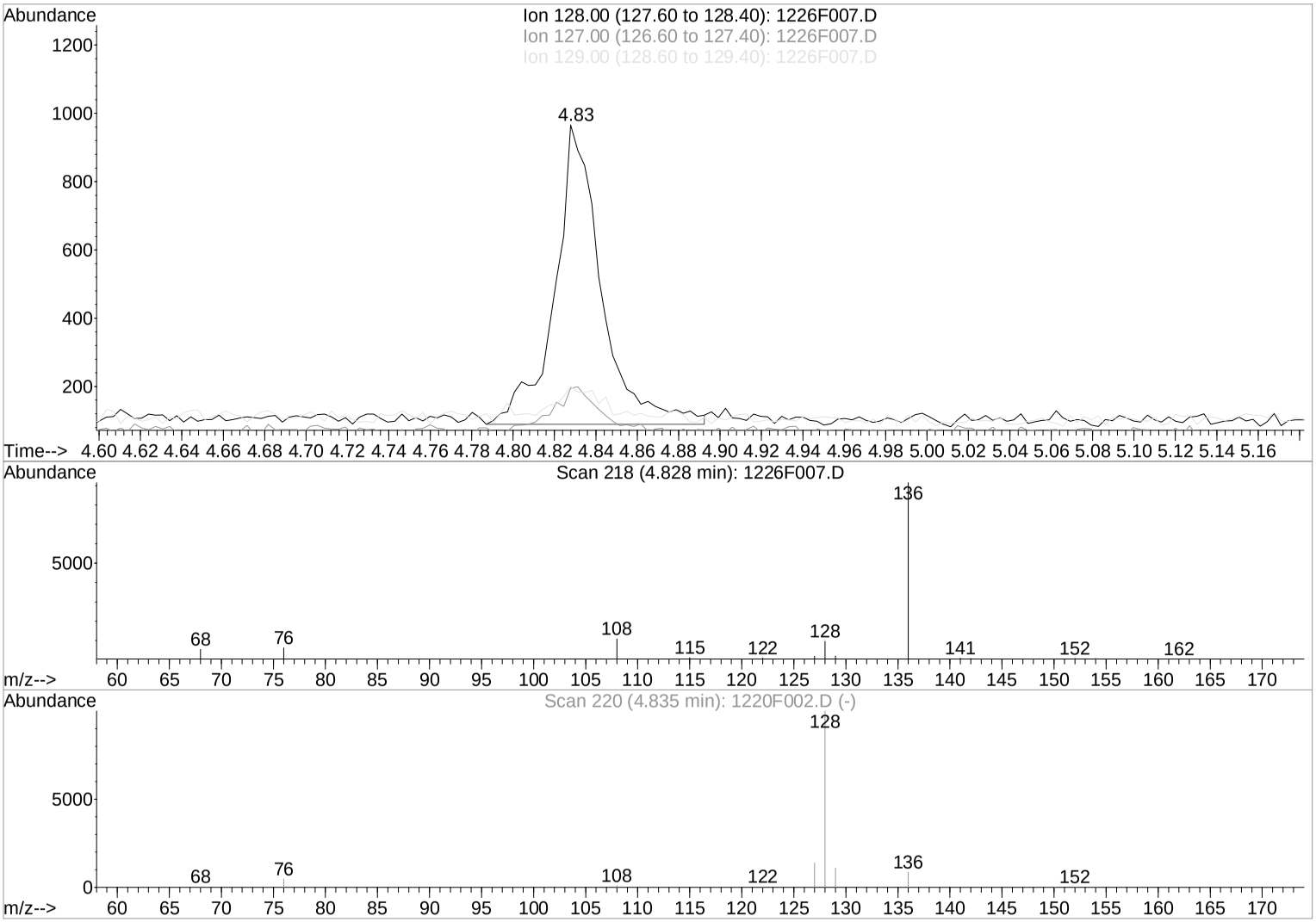


Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(2) Naphthalene (T)

4.83min 4.61ng/ml

response 1374

Ion	Exp%	Act%
128.00	100	100
127.00	13.70	13.91
129.00	10.90	10.38
0.00	0.00	0.00

Manual Integration:

Before

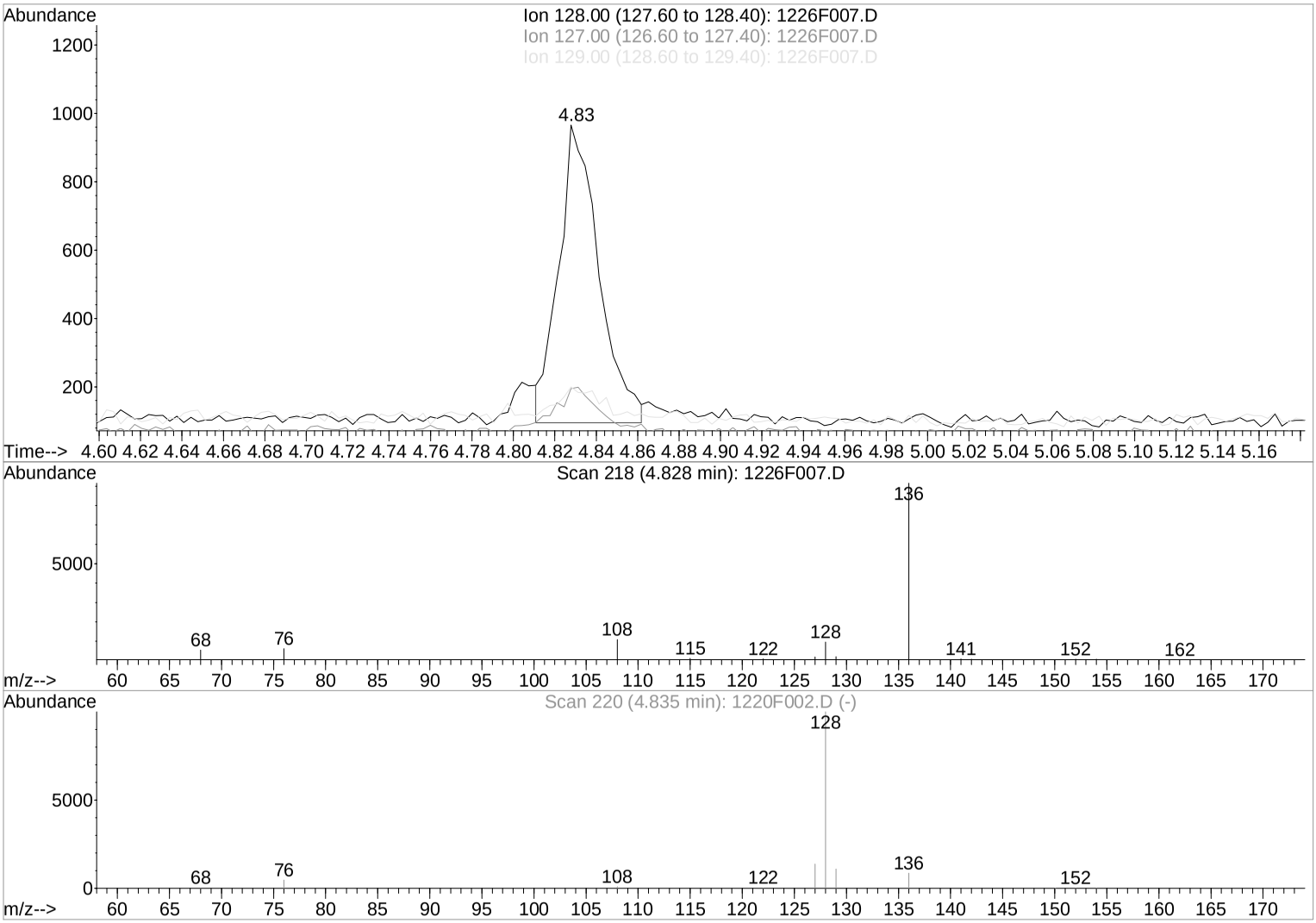
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(2) Naphthalene (T)

4.83min 3.94ng/ml m

response 1173

Ion	Exp%	Act%
128.00	100	100
127.00	13.70	20.19
129.00	10.90	20.70
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

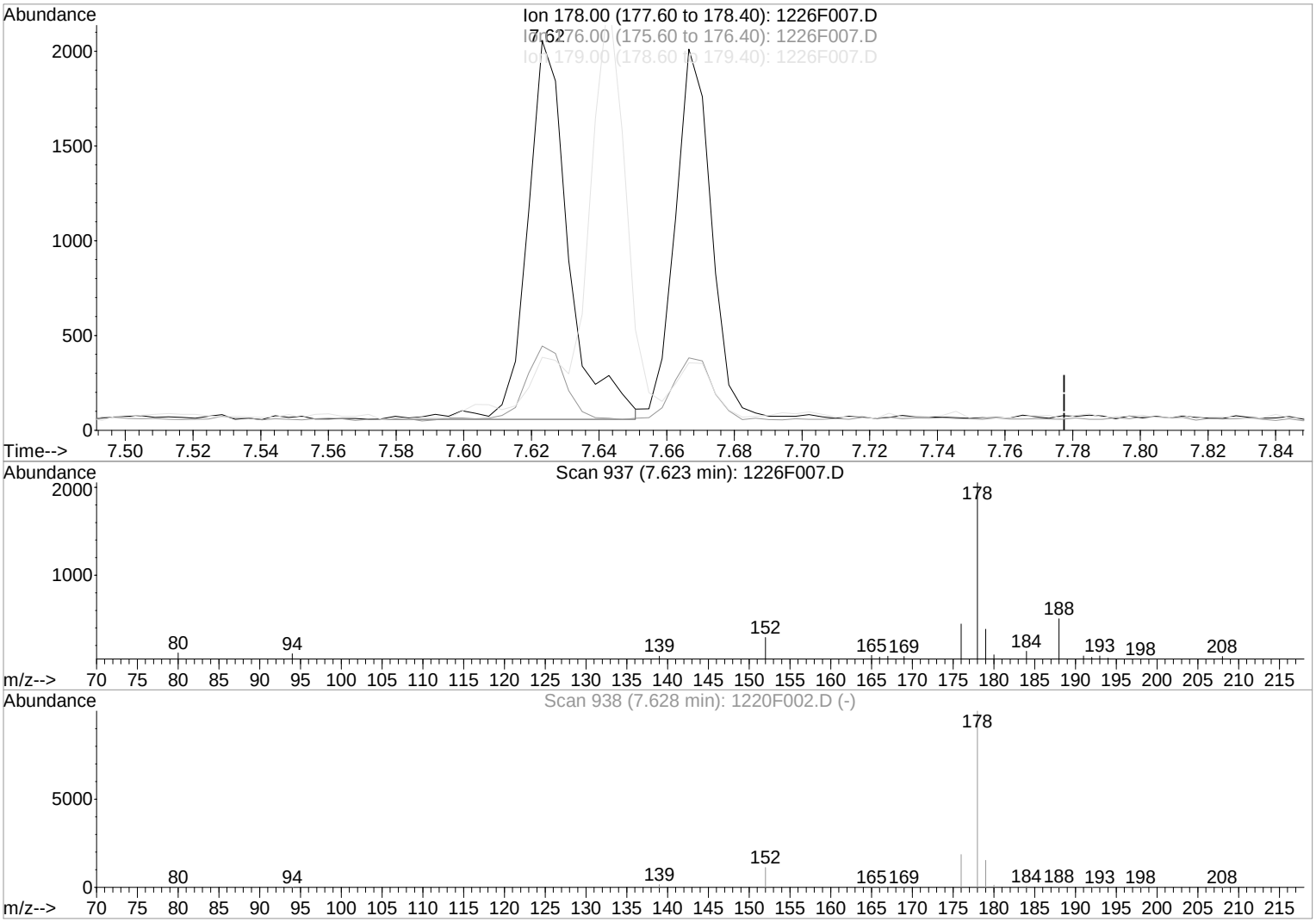
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(17) Phenanthrene (T)

7.62min 4.53ng/ml

response 1692

Ion	Exp%	Act%
178.00	100	100
176.00	18.70	19.33
179.00	15.20	15.07
0.00	0.00	0.00

Manual Integration:

Before

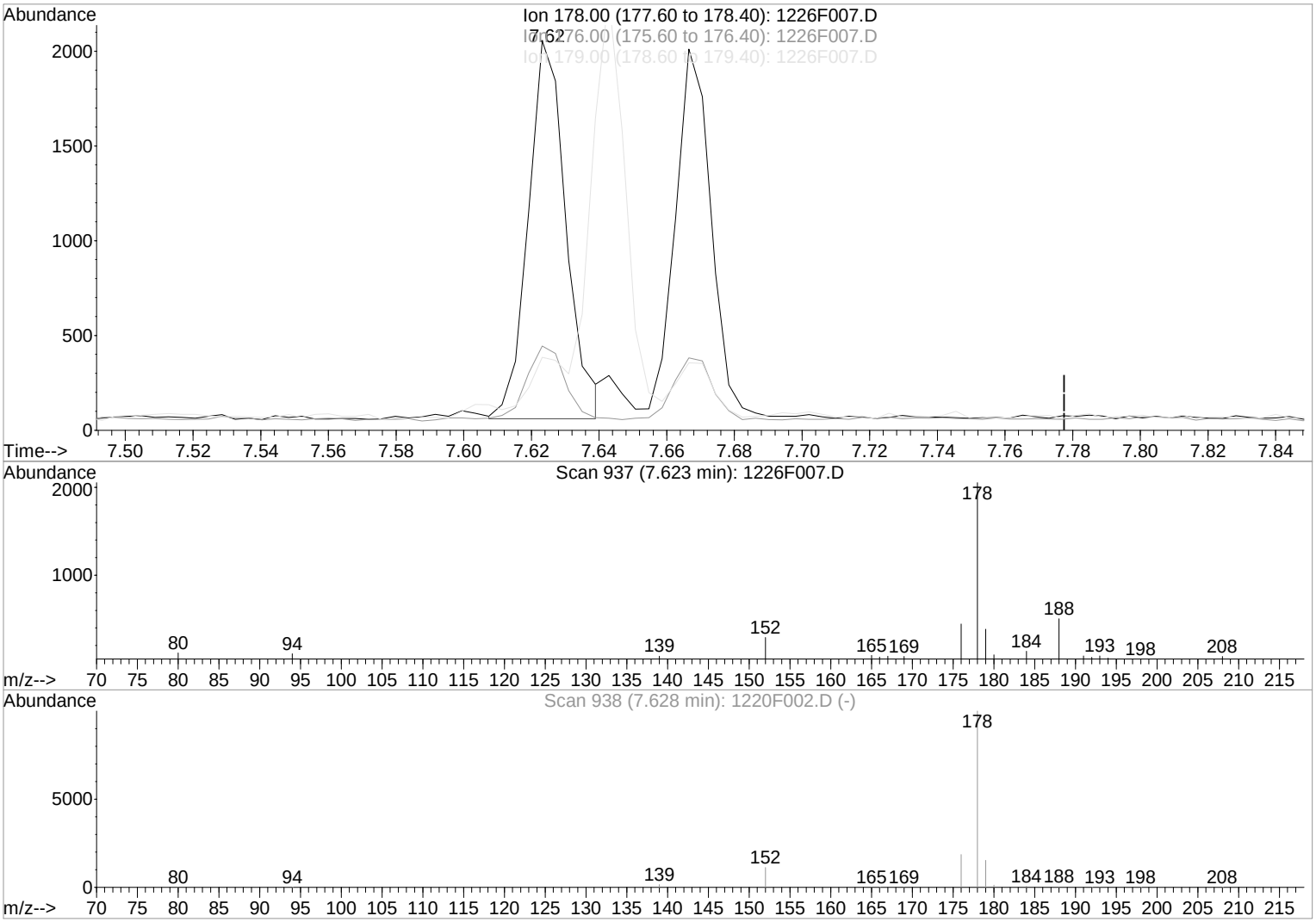
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(17) Phenanthrene (T)

7.62min 4.15ng/ml m

response 1550

Ion	Exp%	Act%
178.00	100	100
176.00	18.70	21.61
179.00	15.20	18.69
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

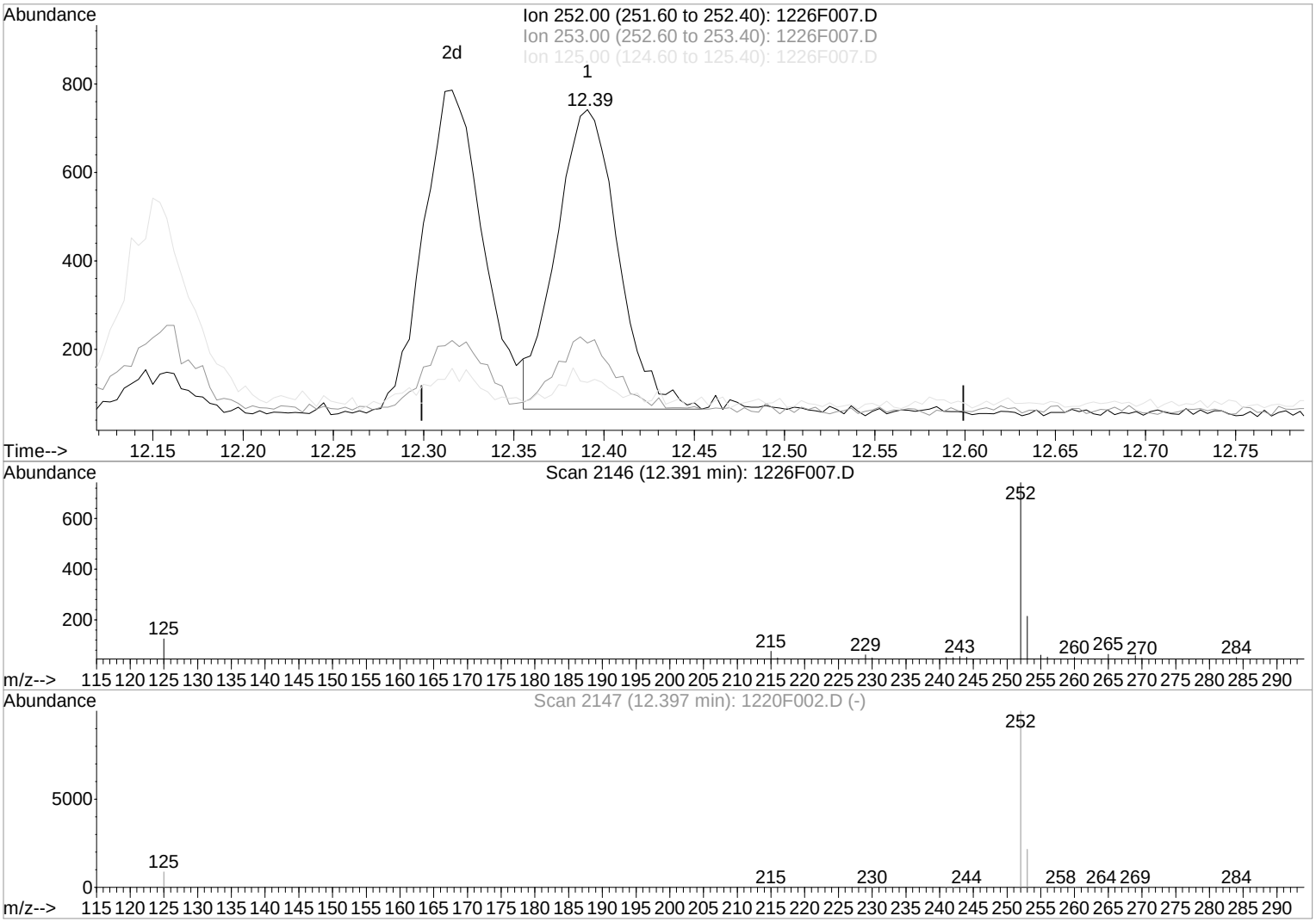
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(30) Benzo(k)fluoranthene (T)

12.39min 3.91ng/ml

response 1607

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.01
125.00	9.00	6.35
0.00	0.00	0.00

Manual Integration:

Before

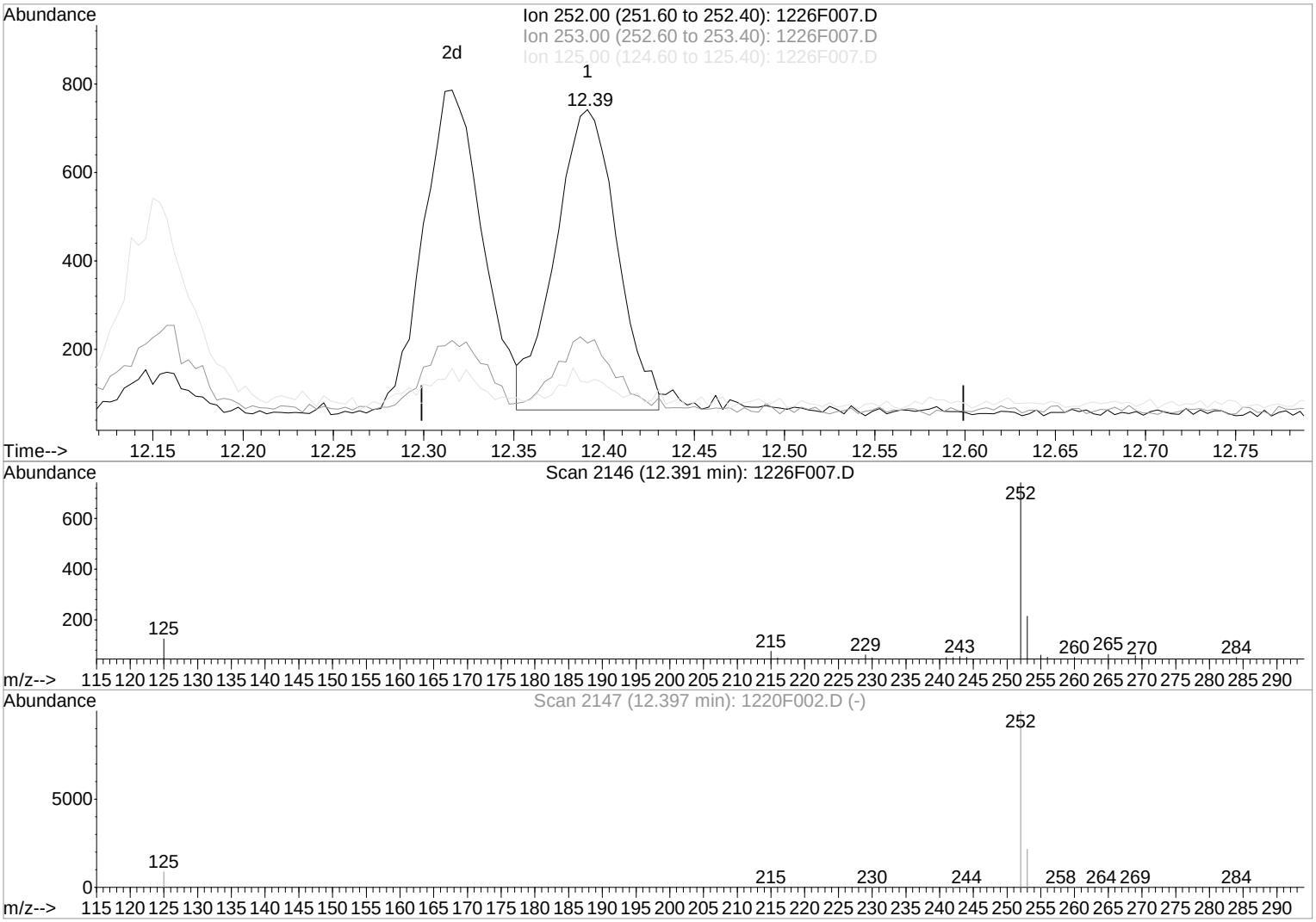
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F007.D Vial: 6
Acq On : 26 Dec 2018 8:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 6:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F007.D

(30) Benzo(k)fluoranthene (T)

12.39min 3.94ng/ml m

response 1616

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	28.84
125.00	9.00	16.85
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

12/27/18

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F008.D Vial: 7
Acq On : 26 Dec 2018 9:07 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008ug/mL | SVM59-4C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:49 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	51817	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	25763	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	57163	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	59253	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	63871	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	1225	8.57	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.86%		
13) Fluorene-d10	6.80	176	1531	9.04	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.90%		
22) Fluoranthene-d10	8.59	212	2584	7.10	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.71%		
25) Terphenyl-d14	8.95	244	2317	8.90	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.89%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	2453	8.30	ng/ml	94
4) 2-Methylnaphthalene	5.47	142	1556	8.58	ng/ml	97
5) 1-Methylnaphthalene	5.55	142	1472	8.58	ng/ml	94
6) Biphenyl	5.88	154	1988	8.76	ng/ml	97
7) 2,6-Dimethylnaphthalene	6.01	156	1398	8.95	ng/ml	90
9) Acenaphthylene	6.24	152	2484	7.70	ng/ml	97
10) Acenaphthene	6.39	154	1435	7.93	ng/ml	96
11) Dibenzofuran	6.54	168	2371	8.16	ng/ml	86
12) 2,3,5-Trimethylnaphthalene	6.71	170	1346	8.03	ng/ml	94
14) Fluorene	6.82	166	1903	8.60	ng/ml	97
16) Dibenzothiophene	7.52	184	2900	7.96	ng/ml	96
17) Phenanthrene	7.62	178	3109	8.55	ng/ml	99
18) Anthracene	7.67	178	2819	7.91	ng/ml	99
19) Carbazole	7.80	167	2427	7.15	ng/ml	97
20) 1-Methylphenanthrene	8.13	192	2099	7.25	ng/ml	96
21) Fluoranthene	8.61	202	3294	7.27	ng/ml	98
24) Pyrene	8.81	202	3700	8.03	ng/ml	97
26) Benz(a)anthracene	10.17	228	3351	7.97	ng/ml	96
27) Chrysene	10.22	228	3010	7.68	ng/ml	99
29) Benzo(b)fluoranthene	12.32	252	3252	7.78	ng/ml	97
30) Benzo(k)fluoranthene	12.39	252	2983	7.37	ng/ml	96
31) Benzo(e)pyrene	13.07	252	3133	7.90	ng/ml	98
32) Benzo(a)pyrene	13.22	252	3364	8.46	ng/ml#	51
33) Perylene	13.49	252	3027	8.11	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.52	276	2907	8.69	ng/ml	83
35) Dibenz(a,h)anthracene	15.59	278	2542	7.80	ng/ml	97
36) Benzo(g,h,i)perylene	15.93	276	3424	8.57	ng/ml	98

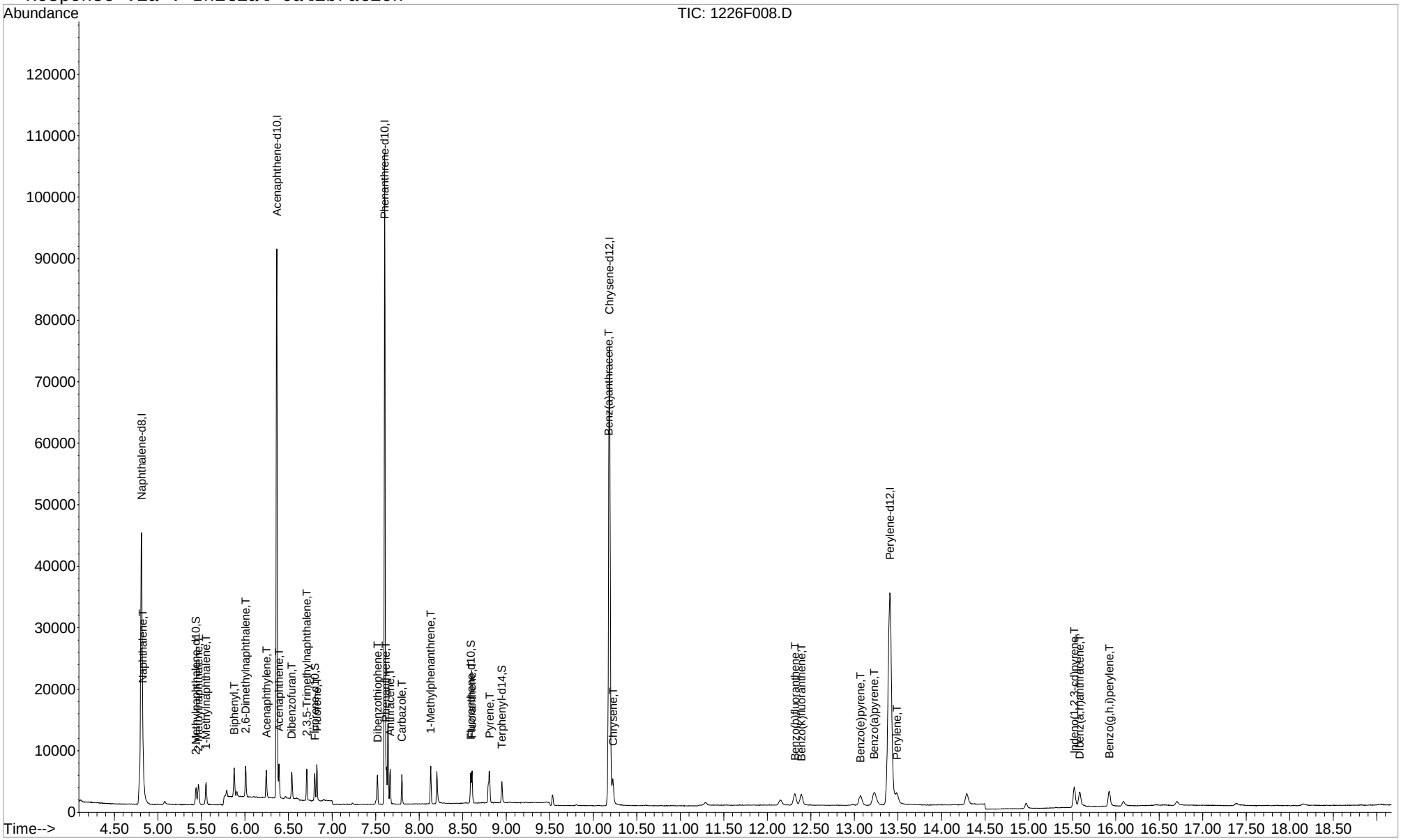
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F008.D Vial: 7
Acq On : 26 Dec 2018 9:07 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008ug/mL | SVM59-4C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration



1st 12/27/18
2nd 01/02/19

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:49 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	51004	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	25448	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	55640	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	57575	200.00	ng/ml	0.00
28) Perylene-d12	13.40	264	61399	200.00	ng/ml	-0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	2904	20.64	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	2.06%		
13) Fluorene-d10	6.80	176	3478	20.80	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	2.08%		
22) Fluoranthene-d10	8.59	212	6256	17.66	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	1.77%		
25) Terphenyl-d14	8.95	244	5039	19.91	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	1.99%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	5944	20.43	ng/ml	98
4) 2-Methylnaphthalene	5.47	142	3784	21.21	ng/ml	97
5) 1-Methylnaphthalene	5.55	142	3614	21.41	ng/ml	96
6) Biphenyl	5.88	154	4702	21.05	ng/ml	95
7) 2,6-Dimethylnaphthalene	6.01	156	3363	21.87	ng/ml	96
9) Acenaphthylene	6.24	152	6146	19.28	ng/ml	97
10) Acenaphthene	6.39	154	3546	19.83	ng/ml	99
11) Dibenzofuran	6.54	168	5644	19.65	ng/ml	89
12) 2,3,5-Trimethylnaphthalene	6.71	170	3325	20.09	ng/ml	97
14) Fluorene	6.82	166	4564	20.88	ng/ml	96
16) Dibenzothiophene	7.52	184	6983	19.70	ng/ml	97
17) Phenanthrene	7.62	178	7015	19.83	ng/ml	99
18) Anthracene	7.67	178	6618	19.09	ng/ml	99
19) Carbazole	7.80	167	5887	17.82	ng/ml	98
20) 1-Methylphenanthrene	8.13	192	5058	17.95	ng/ml	99
21) Fluoranthene	8.61	202	7949	18.02	ng/ml	99
24) Pyrene	8.81	202	8446	18.86	ng/ml	98
26) Benz(a)anthracene	10.17	228	7867	19.26	ng/ml	99
27) Chrysene	10.22	228	7474	19.63	ng/ml	98
29) Benzo(b)fluoranthene	12.32	252	8010	19.94	ng/ml	98
30) Benzo(k)fluoranthene	12.39	252	7737m	19.90	ng/ml	
31) Benzo(e)pyrene	13.07	252	7584	19.89	ng/ml	99
32) Benzo(a)pyrene	13.22	252	7674	20.08	ng/ml	81
33) Perylene	13.49	252	6855	19.11	ng/ml	99
34) Indeno(1,2,3-cd)pyrene	15.53	276	7152	22.25	ng/ml	95
35) Dibenz(a,h)anthracene	15.59	278	6875m	21.93	ng/ml	
36) Benzo(g,h,i)perylene	15.93	276	8516	22.17	ng/ml	97

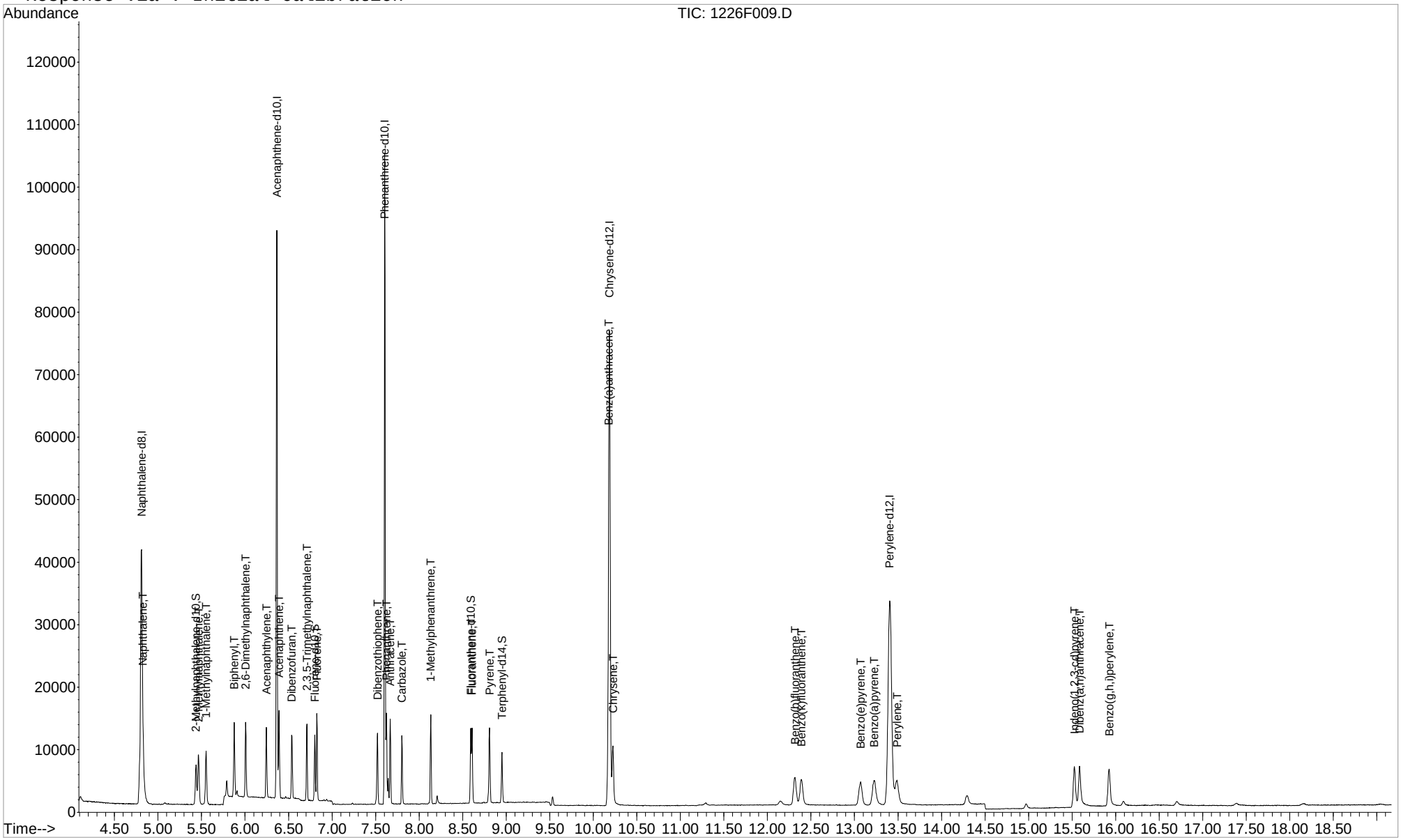
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration

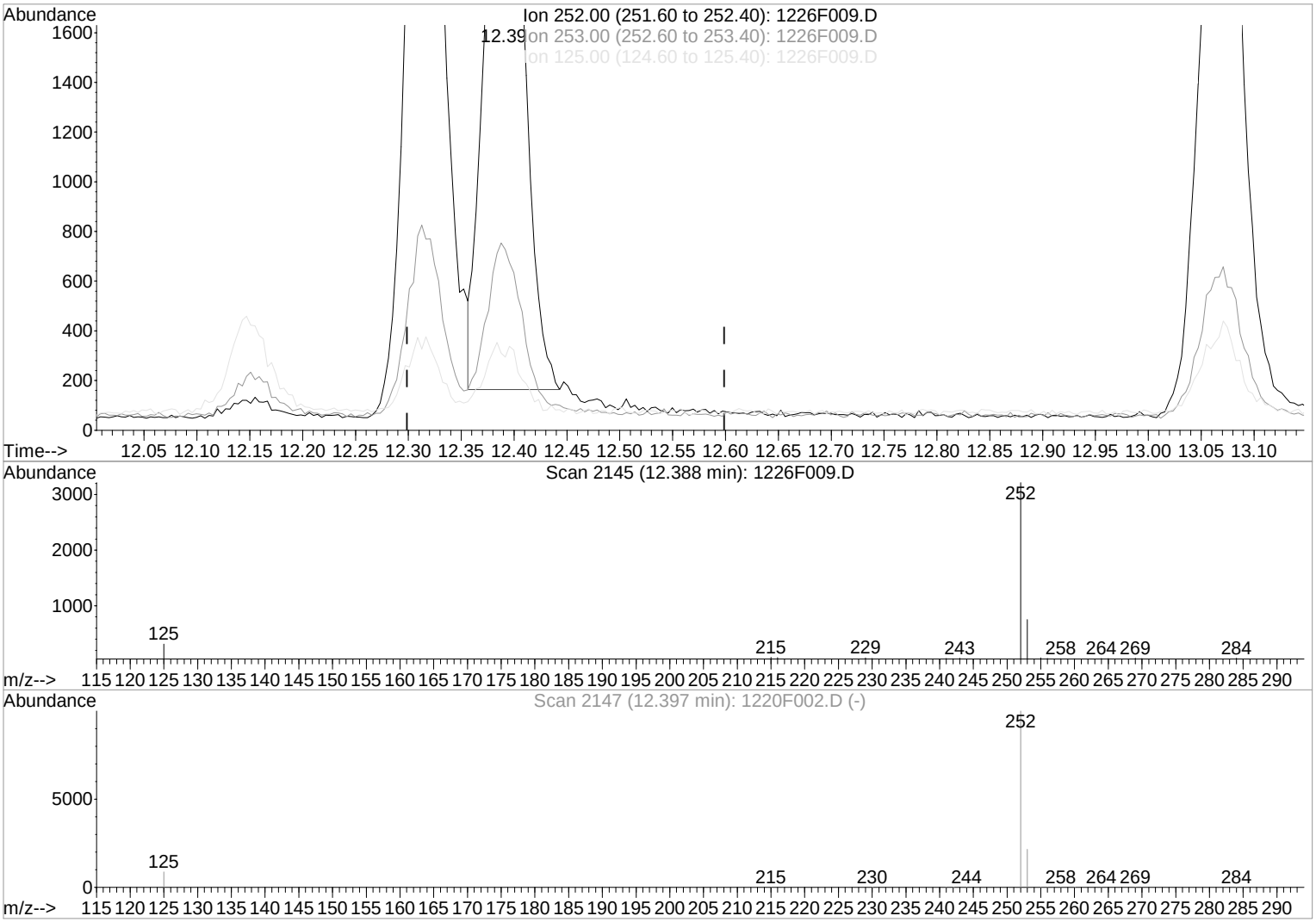


Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F009.D

(30) Benzo(k)fluoranthene (T)

12.39min 18.09ng/ml

response 7036

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	21.44
125.00	9.00	7.44
0.00	0.00	0.00

Manual Integration:

Before

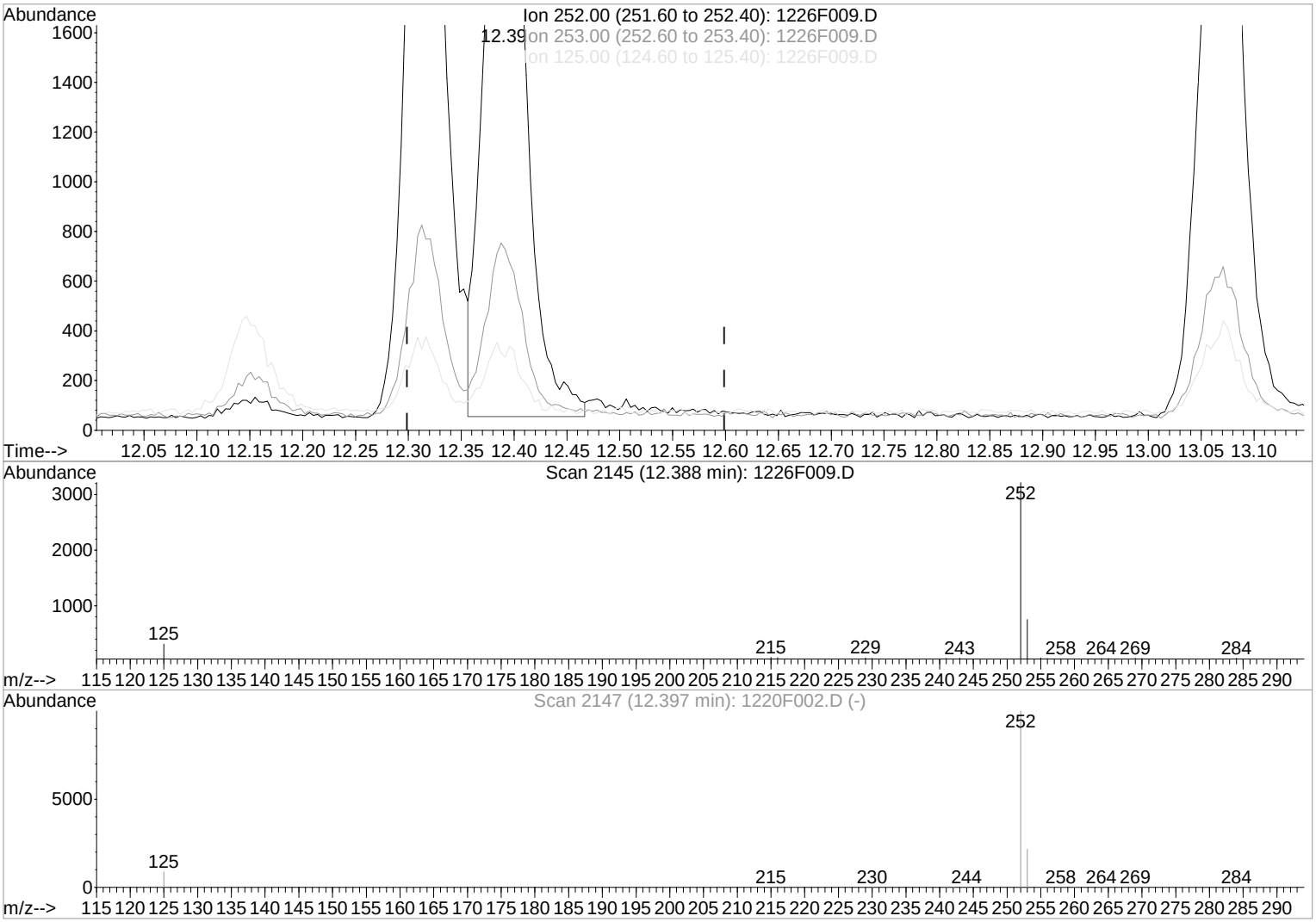
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F009.D

(30) Benzo(k)fluoranthene (T)

12.39min 19.90ng/ml m

response 7737

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	23.45
125.00	9.00	9.64
0.00	0.00	0.00

Manual Integration:

After

BLC

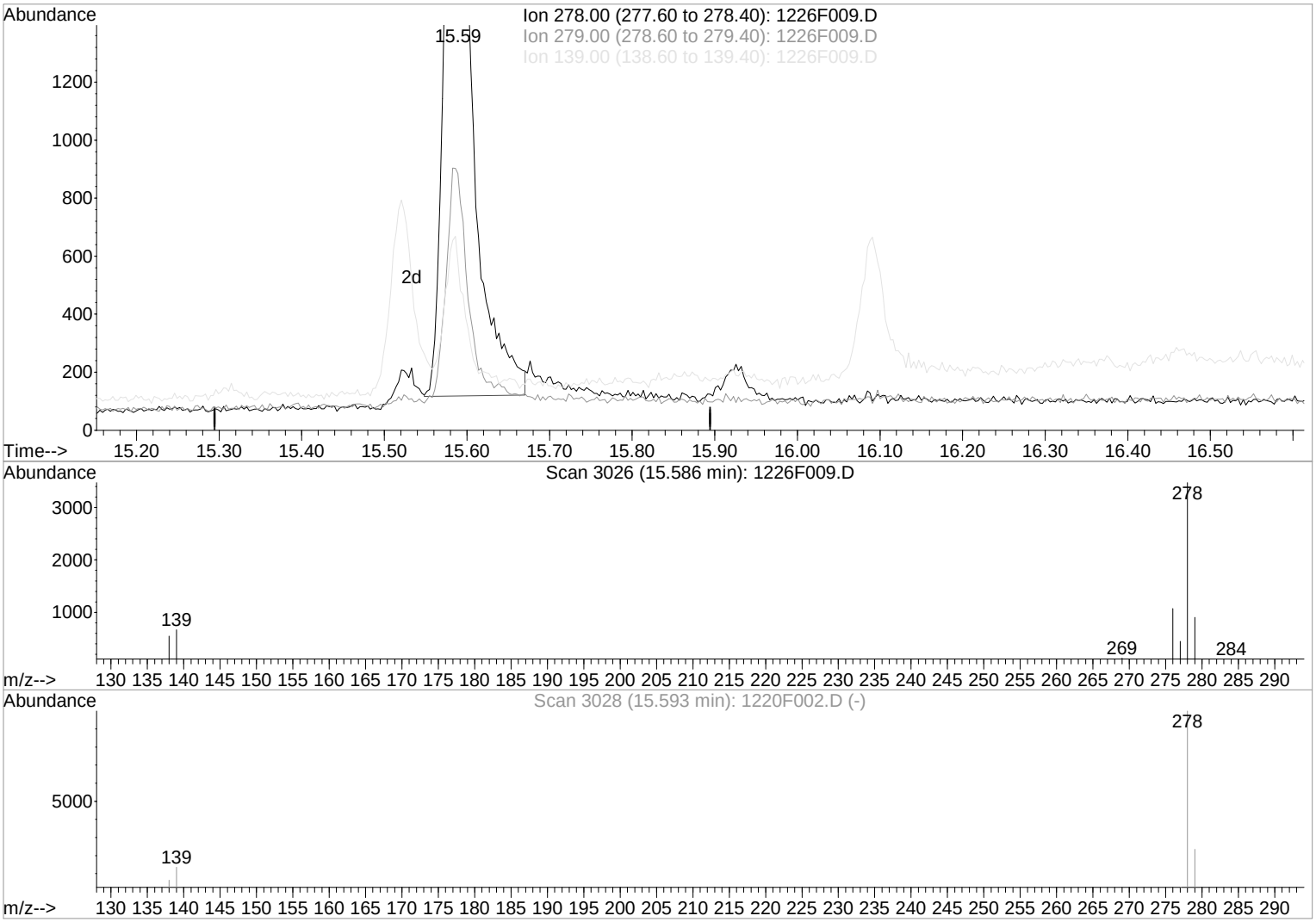
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F009.D

(35) Dibenz(a,h)anthracene (T)

15.59min 20.26ng/ml

response 6351

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	24.12
139.00	14.40	15.21
0.00	0.00	0.00

Manual Integration:

Before

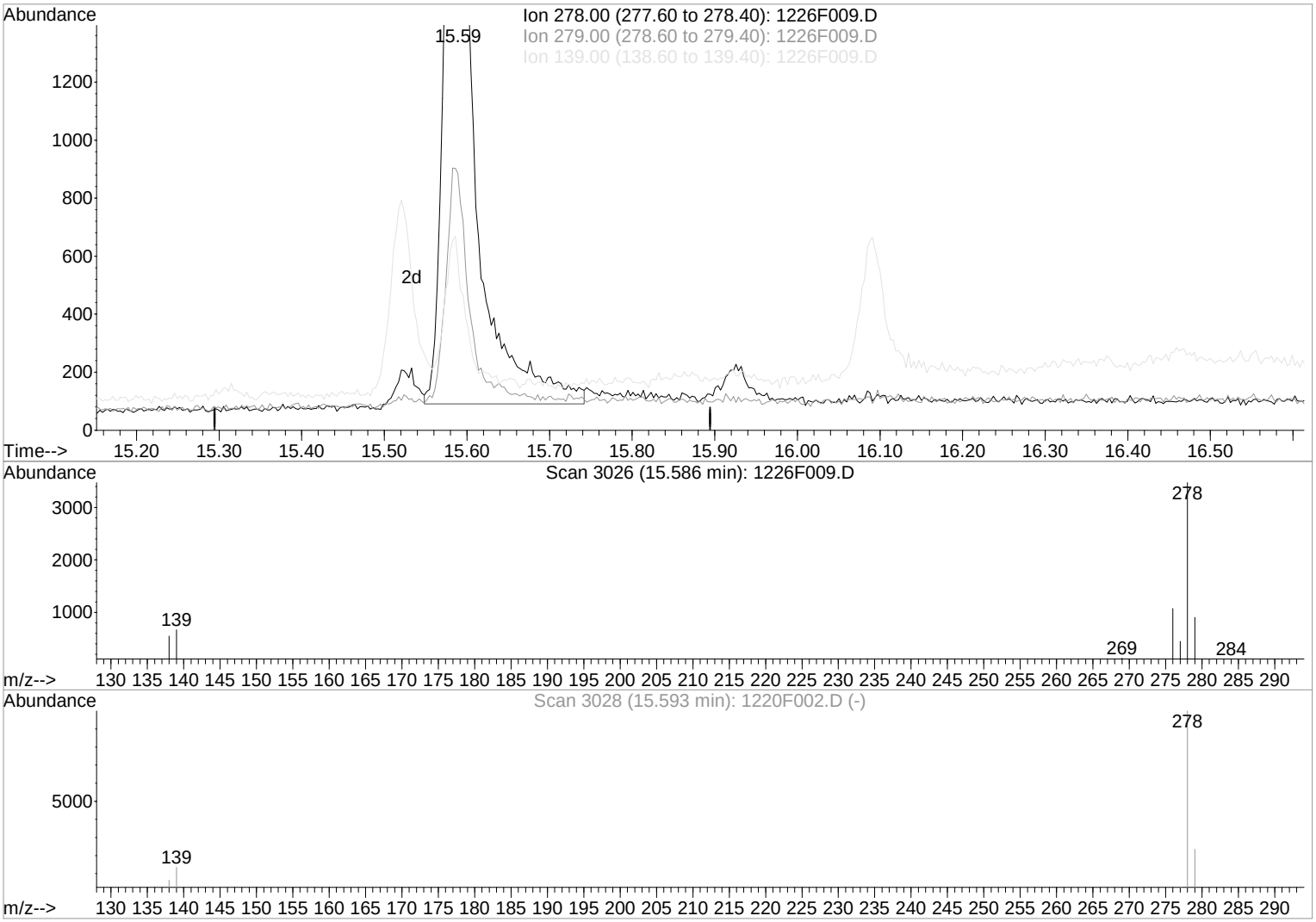
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F009.D Vial: 8
Acq On : 26 Dec 2018 9:33 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F009.D

(35) Dibenz(a,h)anthracene (T)

15.59min 21.93ng/ml m

response 6875

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	25.99
139.00	14.40	19.22
0.00	0.00	0.00

Manual Integration:

After

BLC

12/27/18

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F010.D Vial: 9
Acq On : 26 Dec 2018 9:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:50 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	51839	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	25109	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	55657	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	58564	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	63691	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	14535	101.64	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	10.16%		
13) Fluorene-d10	6.80	176	16914	102.50	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	10.25%		
22) Fluoranthene-d10	8.59	212	32194	90.87	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	9.09%		
25) Terphenyl-d14	8.95	244	24735	96.09	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	9.61%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	29213	98.78	ng/ml	99
4) 2-Methylnaphthalene	5.47	142	18698	103.11	ng/ml	98
5) 1-Methylnaphthalene	5.55	142	17723	103.31	ng/ml	97
6) Biphenyl	5.88	154	23653	104.21	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	16719	107.00	ng/ml	93
9) Acenaphthylene	6.24	152	31050	98.70	ng/ml	99
10) Acenaphthene	6.39	154	17625	99.90	ng/ml	99
11) Dibenzofuran	6.54	168	28706	101.31	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.71	170	16719	102.36	ng/ml	90
14) Fluorene	6.82	166	23134	107.28	ng/ml	99
16) Dibenzothiophene	7.52	184	35874	101.17	ng/ml	98
17) Phenanthrene	7.62	178	35182	99.43	ng/ml	100
18) Anthracene	7.67	178	34718	100.11	ng/ml	100
19) Carbazole	7.80	167	30666	92.79	ng/ml	98
20) 1-Methylphenanthrene	8.13	192	26122	92.67	ng/ml	100
21) Fluoranthene	8.61	202	40741	92.31	ng/ml	99
24) Pyrene	8.81	202	43281	95.01	ng/ml	98
26) Benz(a)anthracene	10.17	228	39526	95.15	ng/ml	99
27) Chrysene	10.22	228	37625	97.13	ng/ml	100
29) Benzo(b)fluoranthene	12.32	252	42420	101.79	ng/ml	99
30) Benzo(k)fluoranthene	12.39	252	41322	102.44	ng/ml	99
31) Benzo(e)pyrene	13.07	252	39446	99.71	ng/ml	98
32) Benzo(a)pyrene	13.22	252	39445	99.48	ng/ml	94
33) Perylene	13.49	252	38191	102.61	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.52	276	38698	116.06	ng/ml	99
35) Dibenz(a,h)anthracene	15.59	278	38770m	119.24	ng/ml	
36) Benzo(g,h,i)perylene	15.92	276	44393	111.39	ng/ml	98

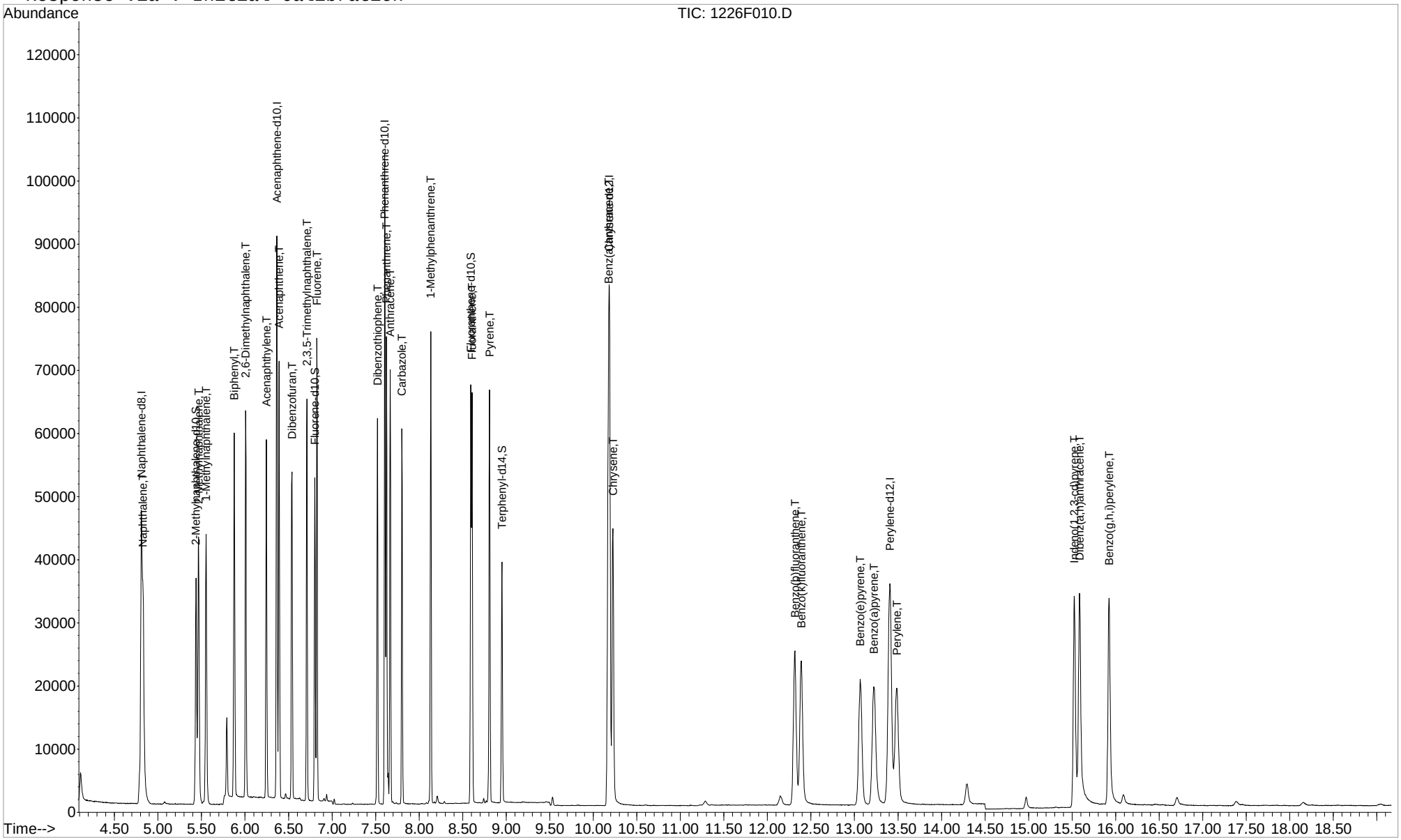
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F010.D Vial: 9
Acq On : 26 Dec 2018 9:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration

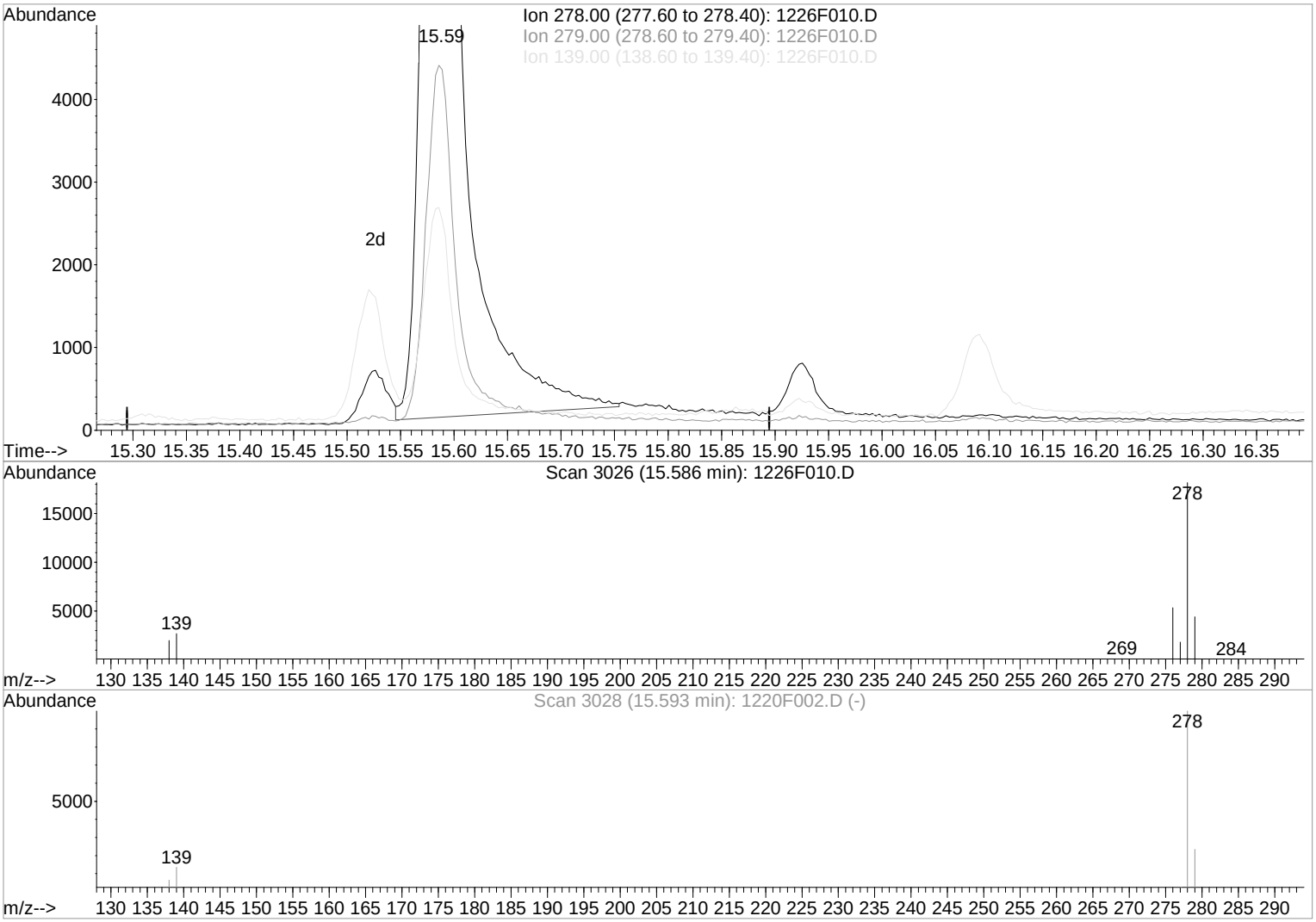


Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F010.D Vial: 9
Acq On : 26 Dec 2018 9:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F010.D

(35) Dibenz(a,h)anthracene (T)

15.59min 111.75ng/ml

response 36335

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	24.02
139.00	14.40	14.00
0.00	0.00	0.00

Manual Integration:

Before

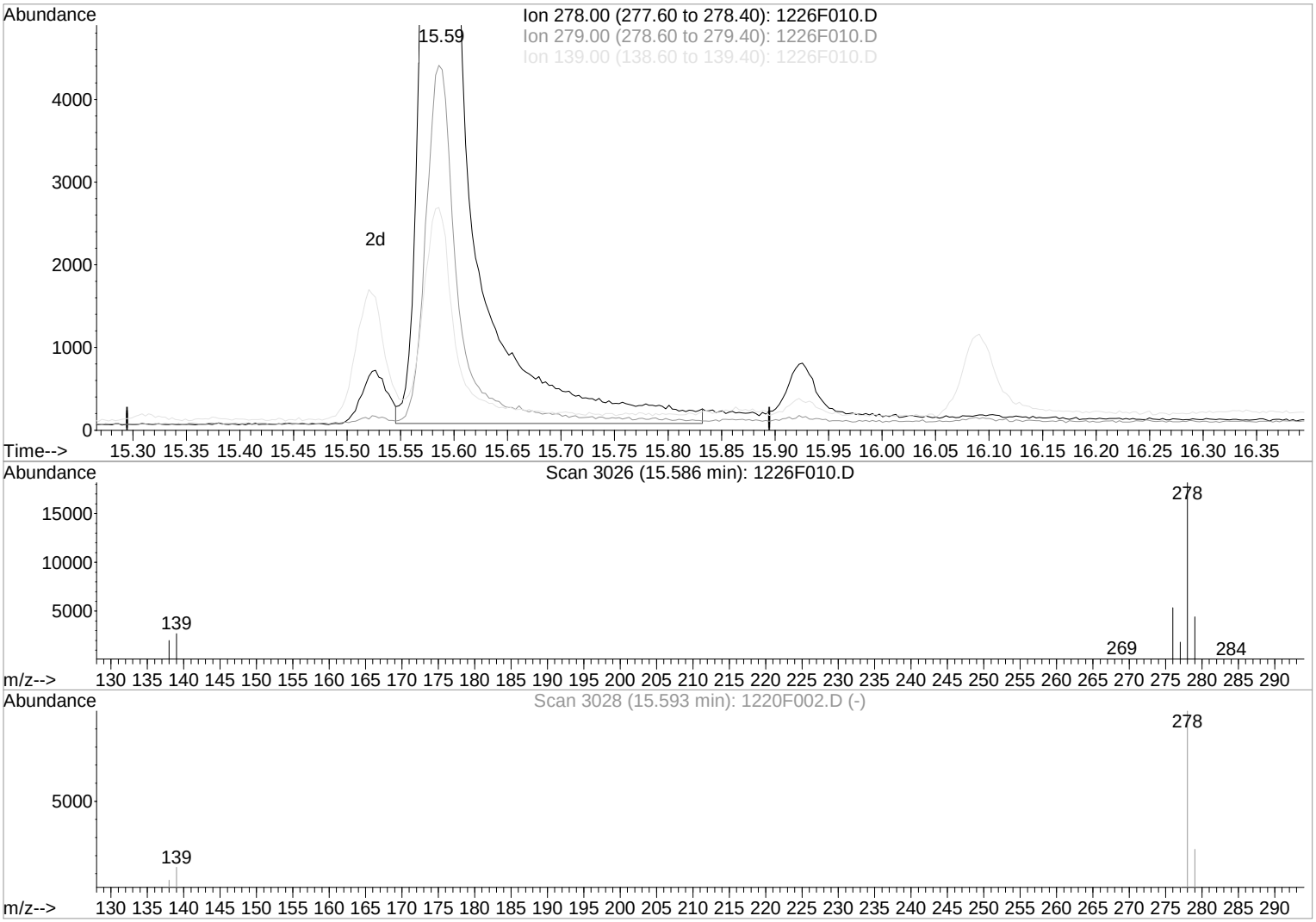
12/27/18

Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F010.D Vial: 9
Acq On : 26 Dec 2018 9:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:01 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F010.D

(35) Dibenz(a,h)anthracene (T)

15.59min 119.24ng/ml m

response 38770

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	24.26
139.00	14.40	14.81
0.00	0.00	0.00

Manual Integration:

After

BLC

12/27/18

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F011.D Vial: 10
Acq On : 26 Dec 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:50 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	51736	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	23610	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	52814	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	55726	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	60878	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	26892	188.43	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	18.84%		
13) Fluorene-d10	6.80	176	31672	204.11	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	20.41%		
22) Fluoranthene-d10	8.59	212	61808	183.85	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	18.38%		
25) Terphenyl-d14	8.95	244	46697	190.64	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	19.06%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	57141	193.59	ng/ml	100
4) 2-Methylnaphthalene	5.47	142	34360	189.85	ng/ml	98
5) 1-Methylnaphthalene	5.55	142	32324	188.79	ng/ml	98
6) Biphenyl	5.88	154	43385	191.52	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	30635	196.45	ng/ml	95
9) Acenaphthylene	6.24	152	57845	195.54	ng/ml	99
10) Acenaphthene	6.39	154	32981	198.81	ng/ml	98
11) Dibenzofuran	6.54	168	53549	200.99	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.71	170	31773	206.88	ng/ml	96
14) Fluorene	6.82	166	42714	210.66	ng/ml	98
16) Dibenzothiophene	7.52	184	68128	202.48	ng/ml	99
17) Phenanthrene	7.62	178	65711	195.70	ng/ml	100
18) Anthracene	7.67	178	65177	198.05	ng/ml	100
19) Carbazole	7.80	167	58950	187.98	ng/ml	99
20) 1-Methylphenanthrene	8.13	192	49881	186.48	ng/ml	98
21) Fluoranthene	8.61	202	77131	184.17	ng/ml	98
24) Pyrene	8.81	202	81524	188.07	ng/ml	96
26) Benz(a)anthracene	10.17	228	75800	191.77	ng/ml	100
27) Chrysene	10.22	228	72536	196.78	ng/ml	100
29) Benzo(b)fluoranthene	12.32	252	80595	202.34	ng/ml	99
30) Benzo(k)fluoranthene	12.39	252	77403	200.75	ng/ml	98
31) Benzo(e)pyrene	13.07	252	74680	197.51	ng/ml	99
32) Benzo(a)pyrene	13.22	252	73346	193.53	ng/ml	98
33) Perylene	13.49	252	72298	203.23	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.53	276	74117	232.56	ng/ml	99
35) Dibenz(a,h)anthracene	15.59	278	72212m	232.36	ng/ml	
36) Benzo(g,h,i)perylene	15.93	276	82328	216.12	ng/ml	98

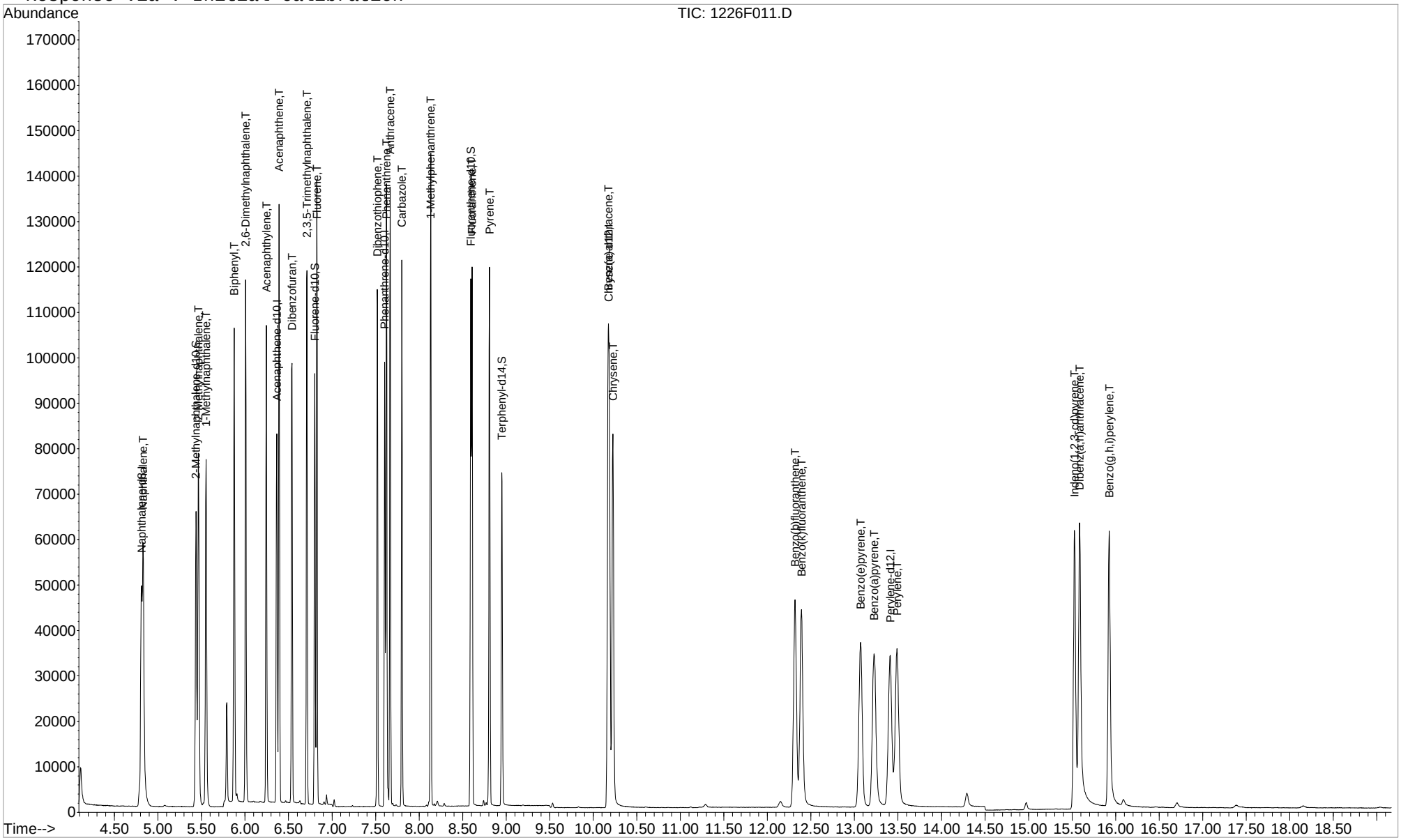
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F011.D Vial: 10
Acq On : 26 Dec 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:02 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration

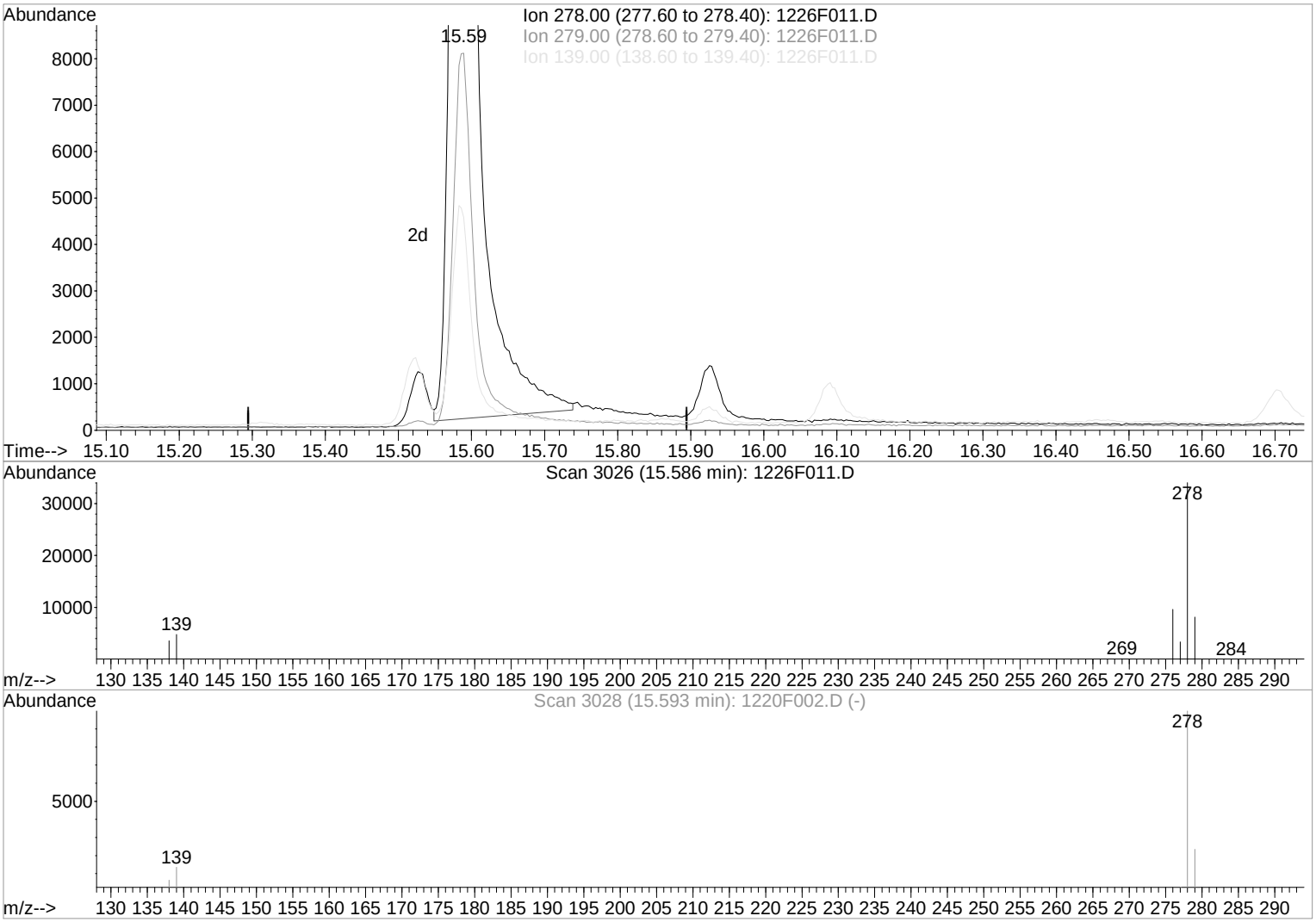


Quantitation Report (Qedit)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F011.D Vial: 10
Acq On : 26 Dec 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F011.D

(35) Dibenz(a,h)anthracene (T)

15.59min 218.83ng/ml

response 68009

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	23.77
139.00	14.40	13.66
0.00	0.00	0.00

Manual Integration:

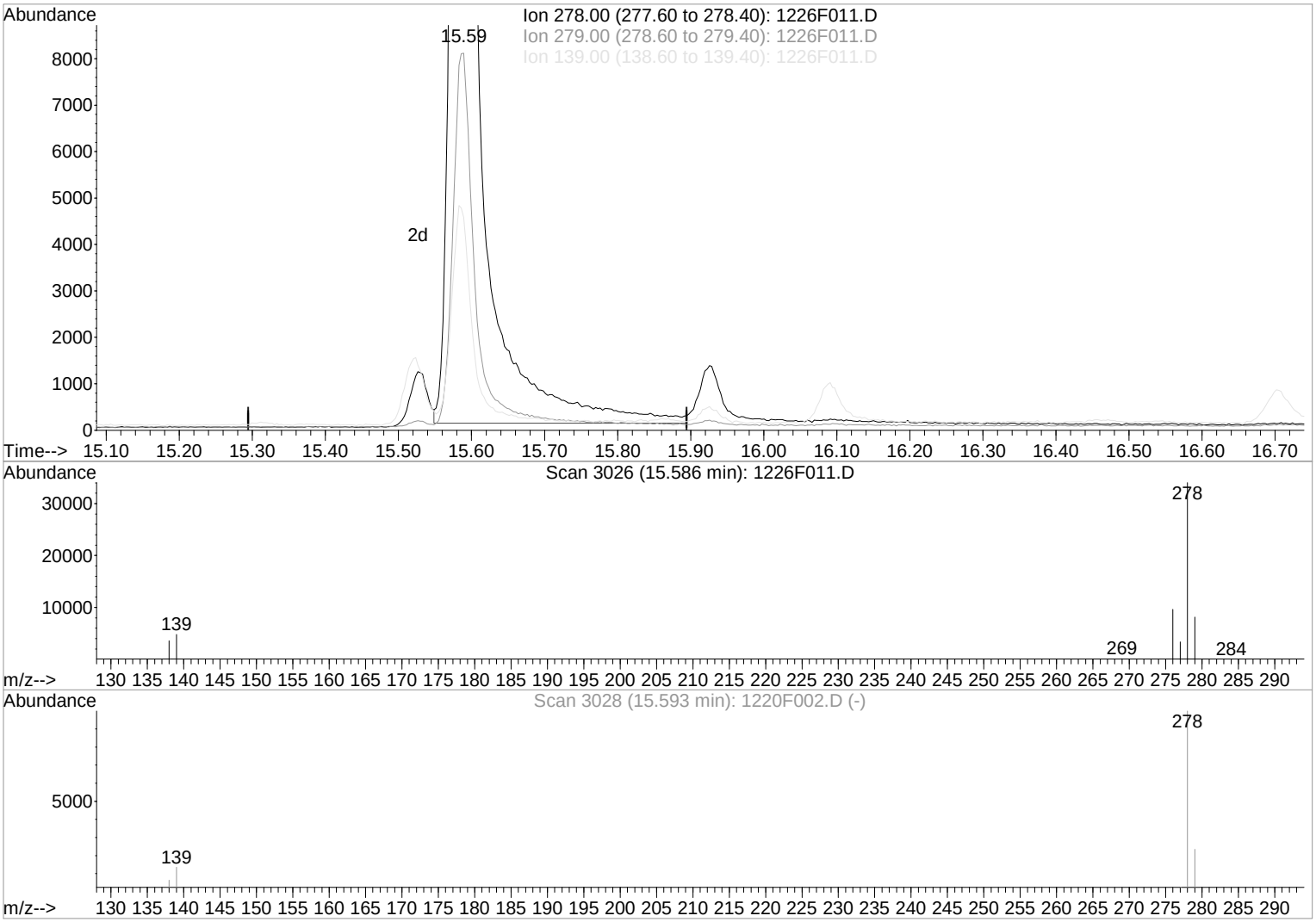
Before

12/27/18

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F011.D Vial: 10
Acq On : 26 Dec 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:02 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Multiple Level Calibration



TIC: 1226F011.D

(35) Dibenz(a,h)anthracene (T)

15.59min 232.36ng/ml m

response 72212

Ion	Exp%	Act%
278.00	100	100
279.00	23.90	23.82
139.00	14.40	14.04
0.00	0.00	0.00

Manual Integration:

After

BLC

12/27/18

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F012.D Vial: 11
Acq On : 26 Dec 2018 10:52 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.4ug/mL | SVM59-4G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:51 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	50298	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	23233	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	51353	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	53837	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	59038	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	52888	381.18	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	38.12%		
13) Fluorene-d10	6.80	176	60873	398.67	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	39.87%		
22) Fluoranthene-d10	8.59	212	121121	370.52	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.05%		
25) Terphenyl-d14	8.95	244	89163	376.78	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.68%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	109374	381.15	ng/ml	99
4) 2-Methylnaphthalene	5.47	142	66559	378.27	ng/ml	99
5) 1-Methylnaphthalene	5.55	142	62999	378.48	ng/ml	98
6) Biphenyl	5.88	154	85579	388.59	ng/ml	100
7) 2,6-Dimethylnaphthalene	6.01	156	60811	401.10	ng/ml	94
9) Acenaphthylene	6.24	152	114293	392.63	ng/ml	99
10) Acenaphthene	6.39	154	65480	401.11	ng/ml	99
11) Dibenzofuran	6.54	168	104158	397.28	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.71	170	62192	411.51	ng/ml	96
14) Fluorene	6.82	166	81916	410.55	ng/ml	100
16) Dibenzothiophene	7.52	184	133739	408.79	ng/ml	98
17) Phenanthrene	7.62	178	127302	389.92	ng/ml	100
18) Anthracene	7.67	178	125540	392.32	ng/ml	100
19) Carbazole	7.80	167	115791	379.74	ng/ml	100
20) 1-Methylphenanthrene	8.13	192	97724	375.74	ng/ml	99
21) Fluoranthene	8.61	202	148438	364.51	ng/ml	99
24) Pyrene	8.81	202	156841	374.51	ng/ml	98
26) Benz(a)anthracene	10.17	228	149815	392.33	ng/ml	99
27) Chrysene	10.23	228	140906	395.68	ng/ml	100
29) Benzo(b)fluoranthene	12.32	252	161471	418.01	ng/ml	99
30) Benzo(k)fluoranthene	12.40	252	154351	412.80	ng/ml	99
31) Benzo(e)pyrene	13.07	252	148292	404.41	ng/ml	98
32) Benzo(a)pyrene	13.23	252	142631	388.07	ng/ml	99
33) Perylene	13.49	252	141758	410.89	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.53	276	142915	462.40	ng/ml	97
35) Dibenz(a,h)anthracene	15.59	278	131224	435.40	ng/ml	98
36) Benzo(g,h,i)perylene	15.93	276	156747	424.31	ng/ml	98

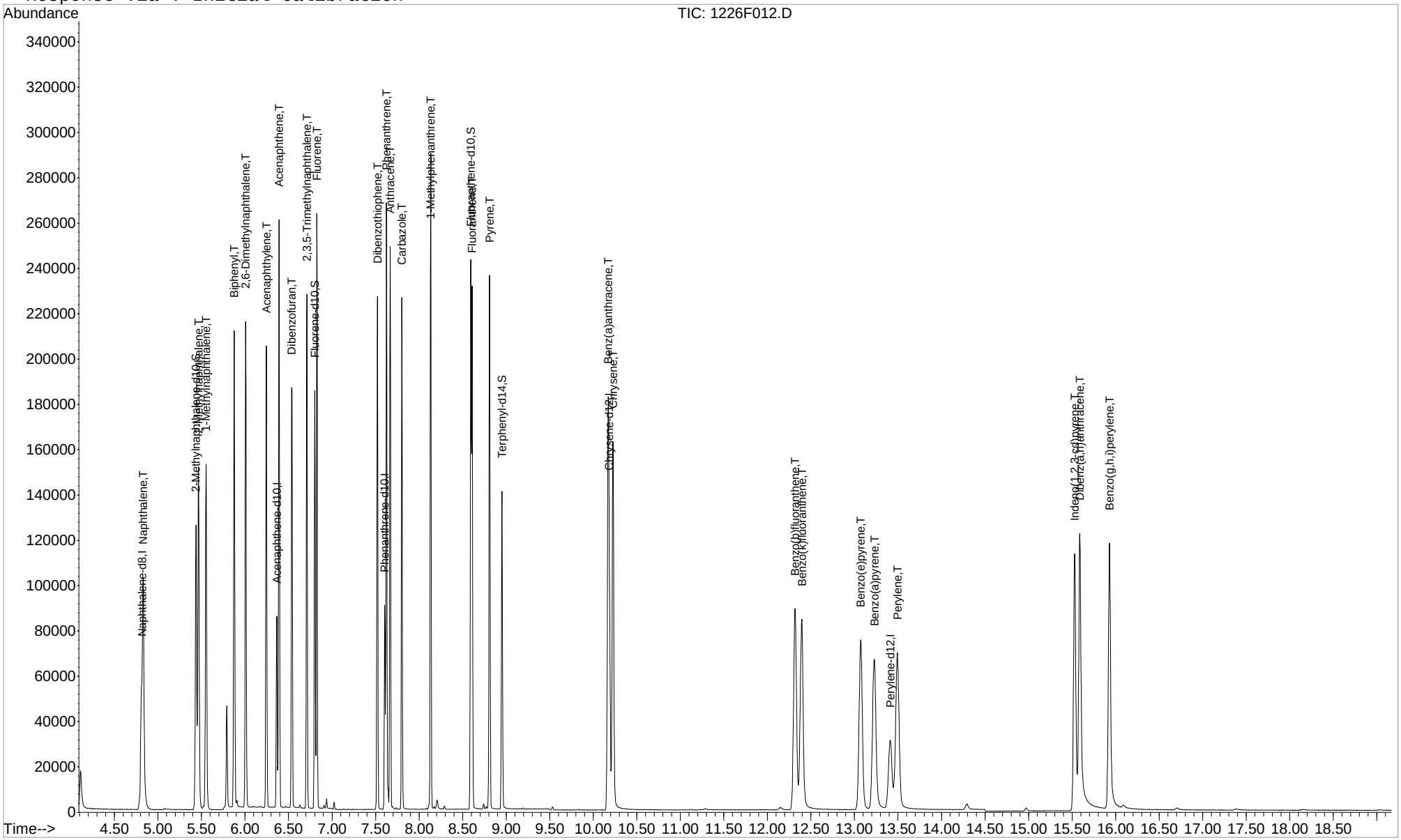
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F012.D Vial: 11
Acq On : 26 Dec 2018 10:52 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.4ug/mL | SVM59-4G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F013.D Vial: 12
Acq On : 26 Dec 2018 11:18 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.0ug/mL | SVM59-4H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:51 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	48061	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.36	164	21900	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.60	188	48218	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	50779	200.00	ng/ml	0.00
28) Perylene-d12	13.42	264	56617	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	127145	959.01	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	95.90%		
13) Fluorene-d10	6.80	176	143873	999.61	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	99.96%		
22) Fluoranthene-d10	8.59	212	292174	951.90	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	95.19%		
25) Terphenyl-d14	8.95	244	208534	934.28	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	93.43%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	256996	937.28	ng/ml	100
4) 2-Methylnaphthalene	5.47	142	156202	929.05	ng/ml	98
5) 1-Methylnaphthalene	5.55	142	149994	943.06	ng/ml	98
6) Biphenyl	5.88	154	201213	956.17	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	143187	988.39	ng/ml	97
9) Acenaphthylene	6.24	152	270667	986.40	ng/ml	99
10) Acenaphthene	6.39	154	153742	999.11	ng/ml	99
11) Dibenzofuran	6.54	168	245681	994.12	ng/ml	91
12) 2,3,5-Trimethylnaphthalene	6.71	170	147248	1033.60	ng/ml	93
14) Fluorene	6.82	166	191435	1017.83	ng/ml	100
16) Dibenzothiophene	7.52	184	320696	1043.99	ng/ml	96
17) Phenanthrene	7.62	178	300375	979.86	ng/ml	99
18) Anthracene	7.67	178	295966	985.04	ng/ml	99
19) Carbazole	7.80	167	278541	972.89	ng/ml	97
20) 1-Methylphenanthrene	8.13	192	233518	956.23	ng/ml	100
21) Fluoranthene	8.61	202	349699	914.57	ng/ml	96
24) Pyrene	8.81	202	375224	949.94	ng/ml	99
26) Benz(a)anthracene	10.17	228	359290	997.56	ng/ml	99
27) Chrysene	10.23	228	333982	994.33	ng/ml	99
29) Benzo(b)fluoranthene	12.33	252	389805	1052.27	ng/ml	99
30) Benzo(k)fluoranthene	12.40	252	366215	1021.30	ng/ml	99
31) Benzo(e)pyrene	13.08	252	358764	1020.23	ng/ml	99
32) Benzo(a)pyrene	13.24	252	342350	971.30	ng/ml	98
33) Perylene	13.51	252	345613	1044.62	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.54	276	340025	1147.18	ng/ml	97
35) Dibenz(a,h)anthracene	15.60	278	313374	1084.24	ng/ml	99
36) Benzo(g,h,i)perylene	15.94	276	370765	1046.57	ng/ml	98

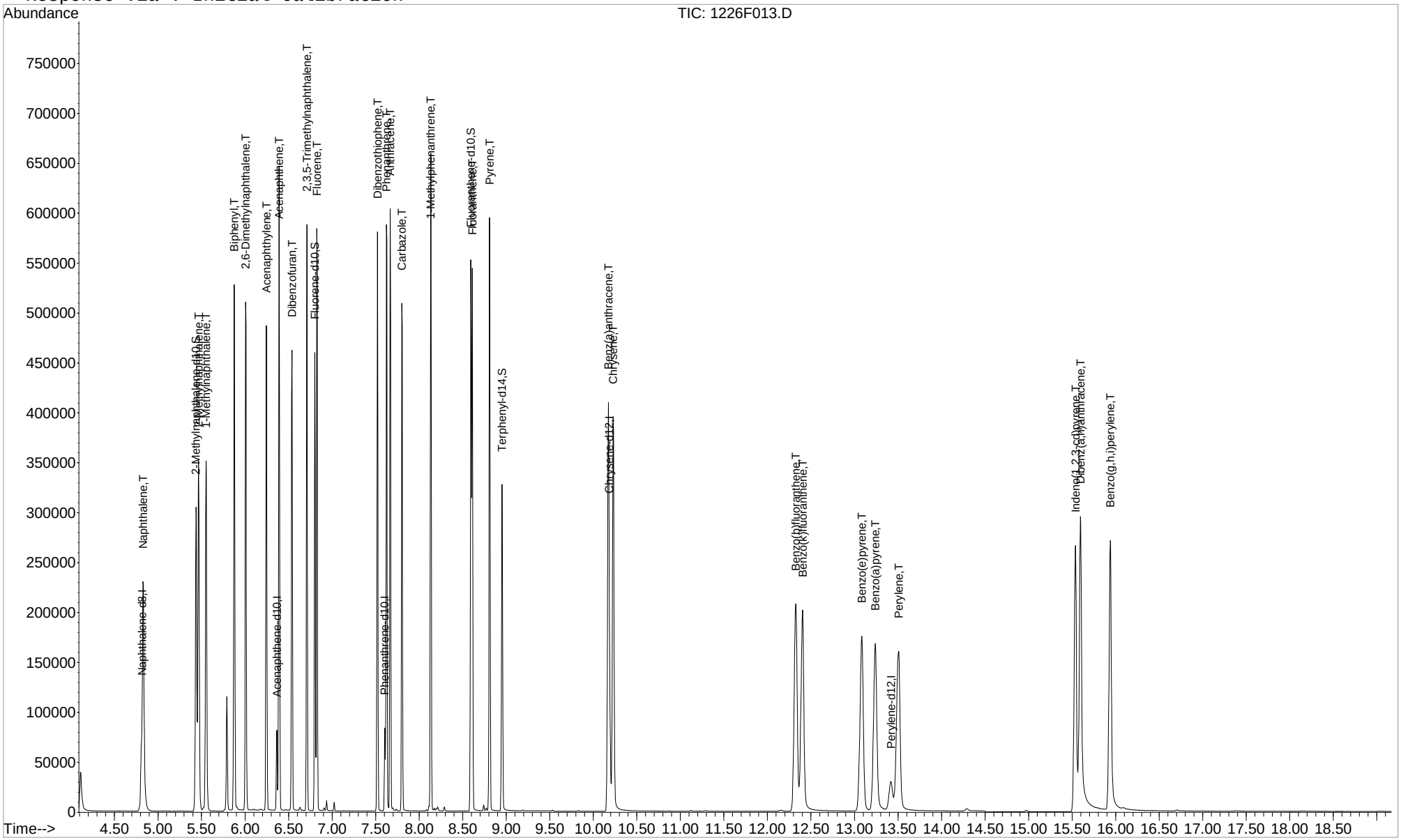
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F013.D Vial: 12
Acq On : 26 Dec 2018 11:18 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.0ug/mL | SVM59-4H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F014.D Vial: 13
Acq On : 26 Dec 2018 11:45 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.6ug/mL | SVM59-4I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:52 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	45755	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	21412	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.61	188	47325	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	48800	200.00	ng/ml	0.00
28) Perylene-d12	13.42	264	56541	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	196010	1552.95	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 155.30%			
13) Fluorene-d10	6.80	176	230058	1634.84	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 163.48%			
22) Fluoranthene-d10	8.60	212	461126	1530.69	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 153.07%			
25) Terphenyl-d14	8.95	244	325396	1516.98	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 151.70%			
Target Compounds						Qvalue
2) Naphthalene	4.83	128	393657	1508.05	ng/ml	100
4) 2-Methylnaphthalene	5.47	142	239873	1498.60	ng/ml	97
5) 1-Methylnaphthalene	5.55	142	232713	1536.88	ng/ml	97
6) Biphenyl	5.88	154	314968	1572.17	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	225875	1637.74	ng/ml	98
9) Acenaphthylene	6.24	152	424501	1582.29	ng/ml	99
10) Acenaphthene	6.39	154	242452	1611.51	ng/ml	99
11) Dibenzofuran	6.54	168	387050	1601.84	ng/ml	96
12) 2,3,5-Trimethylnaphthalene	6.71	170	234098	1680.70	ng/ml	90
14) Fluorene	6.83	166	304453	1655.62	ng/ml	99
16) Dibenzothiophene	7.52	184	504811	1674.37	ng/ml	92
17) Phenanthrene	7.63	178	471272	1566.36	ng/ml	99
18) Anthracene	7.67	178	463250	1570.89	ng/ml	99
19) Carbazole	7.81	167	436555	1553.57	ng/ml	100
20) 1-Methylphenanthrene	8.14	192	370089	1544.07	ng/ml	98
21) Fluoranthene	8.61	202	547946	1460.09	ng/ml	99
24) Pyrene	8.81	202	593813	1564.29	ng/ml	96
26) Benz(a)anthracene	10.17	228	560151	1618.31	ng/ml	99
27) Chrysene	10.24	228	527325	1633.62	ng/ml	100
29) Benzo(b)fluoranthene	12.33	252	611068	1651.79	ng/ml	98
30) Benzo(k)fluoranthene	12.41	252	580914	1622.23	ng/ml	98
31) Benzo(e)pyrene	13.09	252	567014	1614.60	ng/ml	98
32) Benzo(a)pyrene	13.25	252	544462	1546.80	ng/ml	98
33) Perylene	13.52	252	551208	1668.27	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.55	276	545483	1842.83	ng/ml	98
35) Dibenz(a,h)anthracene	15.60	278	521906	1808.16	ng/ml	99
36) Benzo(g,h,i)perylene	15.95	276	588805	1664.27	ng/ml	98

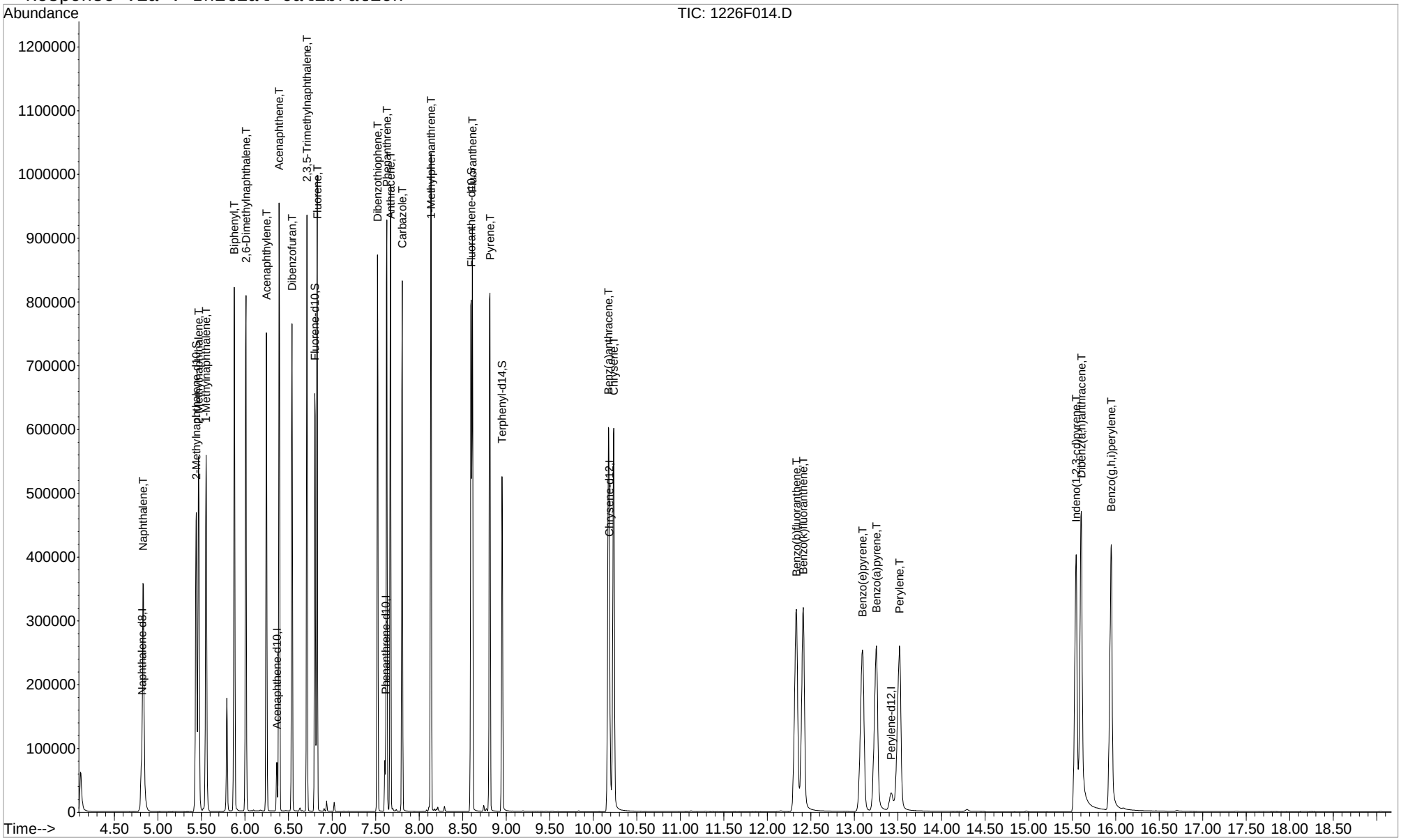
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F014.D Vial: 13
Acq On : 26 Dec 2018 11:45 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.6ug/mL | SVM59-4I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F015.D Vial: 14
Acq On : 26 Dec 2018 12:12 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @2.0ug/mL | SVM59-4J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 05:48:52 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

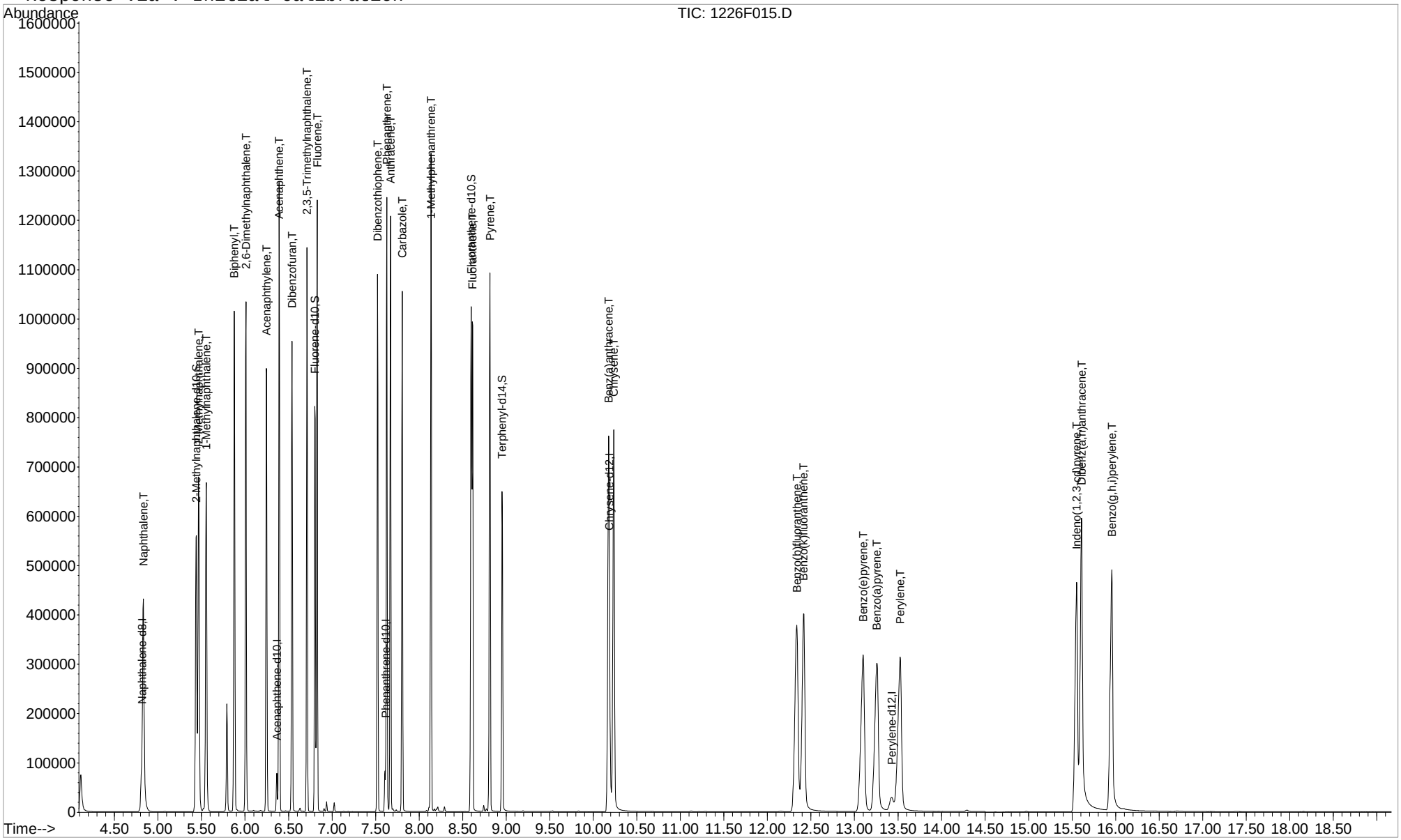
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	46539	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	21976	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.61	188	48765	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	50367	200.00	ng/ml	0.00
28) Perylene-d12	13.43	264	57984	200.00	ng/ml	0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	242539	1889.22	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 188.92%			
13) Fluorene-d10	6.81	176	288571	1998.01	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 199.80%			
22) Fluoranthene-d10	8.60	212	580582	1870.31	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 187.03%			
25) Terphenyl-d14	8.95	244	405199	1830.24	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 183.02%			
Target Compounds						Qvalue
2) Naphthalene	4.83	128	481353	1812.94	ng/ml	99
4) 2-Methylnaphthalene	5.47	142	295515	1815.12	ng/ml	97
5) 1-Methylnaphthalene	5.56	142	288346	1872.21	ng/ml	98
6) Biphenyl	5.88	154	391885	1923.15	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	283955	2024.18	ng/ml	98
9) Acenaphthylene	6.25	152	530763	1927.59	ng/ml	99
10) Acenaphthene	6.39	154	304898	1974.56	ng/ml	99
11) Dibenzofuran	6.54	168	487867	1967.27	ng/ml	99
12) 2,3,5-Trimethylnaphthalene	6.71	170	293341	2051.98	ng/ml	86
14) Fluorene	6.83	166	383996	2034.58	ng/ml	98
16) Dibenzothiophene	7.52	184	626389	2016.27	ng/ml	91
17) Phenanthrene	7.63	178	590908	1906.00	ng/ml	99
18) Anthracene	7.67	178	582356	1916.47	ng/ml	99
19) Carbazole	7.81	167	551652	1905.19	ng/ml	99
20) 1-Methylphenanthrene	8.14	192	461166	1867.24	ng/ml	99
21) Fluoranthene	8.62	202	686084	1774.20	ng/ml	95
24) Pyrene	8.81	202	750182	1914.73	ng/ml	98
26) Benz(a)anthracene	10.18	228	703557	1969.38	ng/ml	99
27) Chrysene	10.24	228	662200	1987.63	ng/ml	99
29) Benzo(b)fluoranthene	12.34	252	760244	2003.88	ng/ml	98
30) Benzo(k)fluoranthene	12.42	252	723170	1969.23	ng/ml	99
31) Benzo(e)pyrene	13.10	252	702317	1950.12	ng/ml	98
32) Benzo(a)pyrene	13.26	252	677296	1876.30	ng/ml	98
33) Perylene	13.52	252	684988	2021.57	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.55	276	680156	2240.62	ng/ml	97
35) Dibenz(a,h)anthracene	15.61	278	647356	2186.97	ng/ml	99
36) Benzo(g,h,i)perylene	15.96	276	725843	2000.56	ng/ml	98

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F015.D Vial: 14
Acq On : 26 Dec 2018 12:12 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @2.0ug/mL | SVM59-4J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 5:48 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 20 12:13:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F016.D Vial: 15
Acq On : 26 Dec 2018 12:38 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @0.4ug/mL | SVM60-14A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 07:07:26 2018 Quant Results File: 122618PAH.RES

Quant Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 27 07:07:12 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

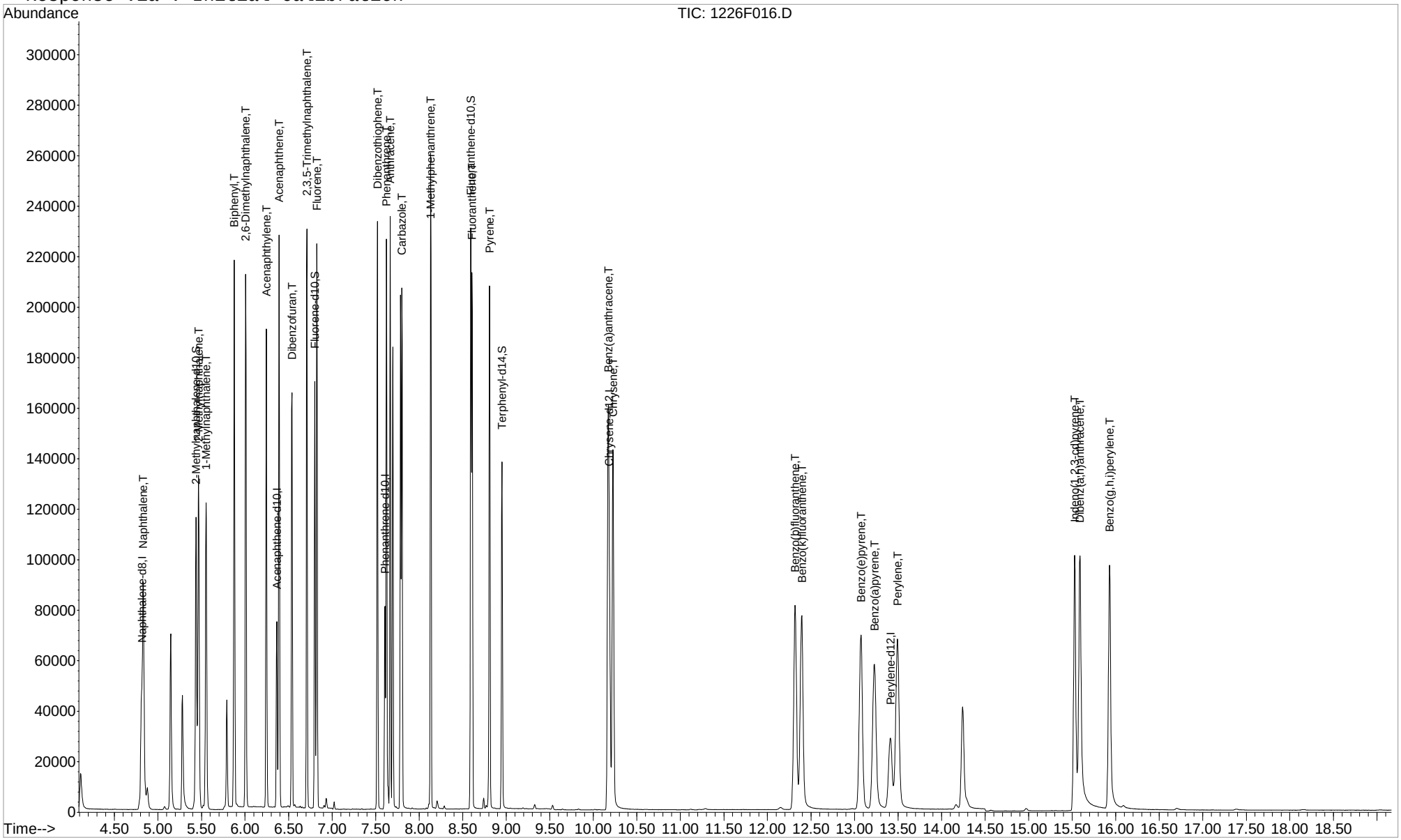
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.81	136	43952	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.37	164	20745	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.61	188	47024	200.00	ng/ml	0.00
23) Chrysene-d12	10.19	240	50551	200.00	ng/ml	0.00
28) Perylene-d12	13.41	264	54138	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.44	152	46844	377.97	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.80%		
13) Fluorene-d10	6.80	176	55889	388.86	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	38.89%		
22) Fluoranthene-d10	8.59	212	112768	409.60	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	40.96%		
25) Terphenyl-d14	8.95	244	84597	379.39	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.94%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	93932	380.48	ng/ml	99
4) 2-Methylnaphthalene	5.47	142	58529	379.00	ng/ml	99
5) 1-Methylnaphthalene	5.55	142	52283	351.34	ng/ml	98
6) Biphenyl	5.88	154	80597	402.96	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.01	156	57435	407.65	ng/ml	99
9) Acenaphthylene	6.24	152	99147	385.01	ng/ml	100
10) Acenaphthene	6.39	154	55759	379.57	ng/ml	97
11) Dibenzofuran	6.54	168	87667	370.06	ng/ml	99
12) 2,3,5-Trimethylnaphthalene	6.71	170	57274	409.42	ng/ml	99
14) Fluorene	6.82	166	72335	381.03	ng/ml	100
16) Dibenzothiophene	7.52	184	129909	423.60	ng/ml	99
17) Phenanthrene	7.62	178	112392	375.36	ng/ml	99
18) Anthracene	7.67	178	112301	390.83	ng/ml	99
19) Carbazole	7.80	167	108673	412.16	ng/ml	99
20) 1-Methylphenanthrene	8.13	192	93505	420.56	ng/ml	99
21) Fluoranthene	8.61	202	138746	405.73	ng/ml	99
24) Pyrene	8.81	202	141281	370.68	ng/ml	100
26) Benz(a)anthracene	10.17	228	133026	366.71	ng/ml	99
27) Chrysene	10.22	228	125667	381.20	ng/ml	100
29) Benzo(b)fluoranthene	12.32	252	144374	399.97	ng/ml	100
30) Benzo(k)fluoranthene	12.39	252	138990	407.21	ng/ml	99
31) Benzo(e)pyrene	13.07	252	134682	397.92	ng/ml	99
32) Benzo(a)pyrene	13.23	252	126431	372.71	ng/ml	99
33) Perylene	13.49	252	138037	428.98	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.53	276	123006	381.25	ng/ml	100
35) Dibenz(a,h)anthracene	15.59	278	113266	376.51	ng/ml	99
36) Benzo(g,h,i)perylene	15.93	276	131584	360.13	ng/ml	100

(#) = qualifier out of range (m) = manual integration

1st 12/27/18
2nd 01/02/19

Data File : J:\MS14\DATA\122618A\1226F016.D Vial: 15
Acq On : 26 Dec 2018 12:38 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @0.4ug/mL | SVM60-14A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 7:07 2018 Quant Results File: 122618PAH.RES

Method : J:\MS14\METHODS\SIM\122618PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Dec 27 07:07:12 2018
Response via : Initial Calibration



Injection Log

Directory: J:\MS14\DATA\032219

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
~~1~~	~~1~~	~~0322F001.D~~	~~1.~~	~~DFTPP @ 10ug/mL | SVM60-55B~~		~~22 Mar 2019 05:41~~
~~2~~	~~2~~	~~0322F002.D~~	~~1.~~	~~SIM-PAH CCV @ 0.4ug/mL | SVM60-69C~~		~~22 Mar 2019 06:14~~
~~3~~	~~3~~	~~0322F003.D~~	~~1.~~	~~KWG1901112-3 MB~~		~~22 Mar 2019 06:46~~
~~4~~	~~8~~	~~0322F008.D~~	~~1.~~	~~KWG1901112-1 LCS~~		~~22 Mar 2019 09:26~~
~~5~~	~~9~~	~~0322F009.D~~	~~1.~~	~~KWG1901112-2 DLCS~~		~~22 Mar 2019 09:58~~
~~6~~	~~10~~	~~0322F010.D~~	~~1.~~	~~K1901507-007~~		~~22 Mar 2019 10:29~~
~~7~~	~~11~~	~~0322F011.D~~	~~1.~~	~~K1901605-001~~		~~22 Mar 2019 11:01~~
~~8~~	~~12~~	~~0322F012.D~~	~~1.~~	~~K1901605-002~~		~~22 Mar 2019 11:33~~
~~9~~	~~13~~	~~0322F013.D~~	~~1.~~	~~K1901605-003~~		~~22 Mar 2019 12:05~~
~~10~~	~~14~~	~~0322F014.D~~	~~1.~~	~~K1901782-001~~		~~22 Mar 2019 12:37~~
~~11~~	~~15~~	~~0322F015.D~~	~~1.~~	~~K1901782-002~~		~~22 Mar 2019 13:09~~
~~12~~	~~16~~	~~0322F016.D~~	~~1.~~	~~K1901782-003~~		~~22 Mar 2019 13:41~~
~~13~~	~~100~~	~~0322F017.D~~	~~1~~	~~DCM~~		~~22 Mar 2019 14:13~~
14	1	0322F018.D	1.	DFTPP @ 10ug/mL | SVM60-55B		22 Mar 2019 14:45
15	2	0322F019.D	1.	SIM-PAH CCV @ 0.4ug/mL | SVM60-69C		22 Mar 2019 15:18
16	17	0322F020.D	1.	KQ1903571-3 MB		22 Mar 2019 15:50
17	18	0322F021.D	1.	KQ1903571-1 LCS		22 Mar 2019 16:22
18	19	0322F022.D	1.	KQ1903571-2 DLCS		22 Mar 2019 16:54
19	20	0322F023.D	1.	K1902351-019DIL 10X (NR) report 1X		22 Mar 2019 17:26
20	21	0322F024.D	1.	K1902361-002		22 Mar 2019 17:58
21	22	0322F025.D	1.	K1902361-001		22 Mar 2019 18:30
22	23	0322F026.D	1.	K1902351-002		22 Mar 2019 19:02
23	24	0322F027.D	1.	K1902351-003		22 Mar 2019 19:34
24	25	0322F028.D	1.	K1902351-004		22 Mar 2019 20:07
25	26	0322F029.D	1.	K1902351-014		22 Mar 2019 20:39
26	27	0322F030.D	1.	K1902351-020		22 Mar 2019 21:11
27	28	0322F031.D	1.	K1902351-021		22 Mar 2019 21:43
28	29	0322F032.D	1.	K1902351-027		22 Mar 2019 22:15
29	30	0322F033.D	1.	K1902351-028		22 Mar 2019 22:48
30	31	0322F034.D	1.	K1902351-029		22 Mar 2019 23:20
31	32	0322F035.D	1.	K1902351-030		22 Mar 2019 23:52

Arlims # 629289
KC1900055
3/25/19

3/26/19

DILUTION LOG MS 14

Date: 3/22/19 Prepared by: LWeiskopf Solvent Lot #: DT383

LAB ID.	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	COMMENTS
K1902351-19	50ul	0.5mL	10x	Brown extract

3/25/19

Injection Log

Directory: J:\ms14\data\032519

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0325F001.D	1.	DFTPP @ 10ug/mL | SVM60-55B		25 Mar 2019 05:33
2	2	0325F002.D	1.	SIM-PAH CCV @ 0.4ug/mL | SVM60-69C		25 Mar 2019 06:05
3	3	0325F003.D	1.	KWG1901112-3 MB/~~IB~~		25 Mar 2019 07:08
4	4	0325F004.D	1.	K1902351-019		25 Mar 2019 07:44

*Lims # 6294484
KC1900055
3/26/19

ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T : +1 360 577 7222
F : +1 360 636 1068
www.alsglobal.com

June 19, 2019

Analytical Report for Service Request No: K1905141

Randy Pratt
JH Baxter & Company
85 N Baxter Rd
Eugene, OR 97402

RE: Arlington Landfill Wells / Landfill Program

Dear Randy,

Enclosed are the results of the sample(s) submitted to our laboratory June 04, 2019
For your reference, these analyses have been assigned our service request number **K1905141.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3350. You may also contact me via email at Kelley.Lovejoy@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

for Kelley Lovejoy
Project Manager

ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
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Raw Data
    Chlorinated Phenolics
    Polycyclic Aromatic Hydrocarbons byGC/MS SIM

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: JH Baxter & Company
Project: Arlington Landfill Wells
Sample Matrix: Water

Service Request: K1905141
Date Received: 06/04/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Twenty nine water samples were received for analysis at ALS Environmental on 06/04/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

No significant anomalies were noted with this analysis.

Semivoa GC:

No significant anomalies were noted with this analysis.

Approved by _____ Date 06/19/2019

Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS

1317 South 13th, Kelso, WA 98626 (360) 577-7222 FAX (360) 636-1068

SR# K1905141

PAGE ____ OF ____

0H	7D	28D	180D	7D

Project Name: JH Baxter - Arlington Project Number: ____

Project Manager: ____ Company: JH Baxter

Company/Address: 85 N Baxter Rd Phone: 541-689-3801

City, State, Zip: Eugene, OR 97402 FAX: 541-689-0769

Sampler's Signature: ____

Analysis Requested

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	SM 4500-H+ B / Ph	8270 D / PAH SIM	120.1 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	6020A / AS D	8151 A Modified / PCP only	REMARKS
HCMW-7	6/1/19	0811	1	water	1													X	PMP program
MW-15		1136	2	water	3		X											X	SI Program
MW-16		0858	3	water	3		X											X	SI Program
MW-17		1249	4	water	3		X											X	SI Program
MW-18		0745	5	water	3		X											X	SI Program
MW-2	6/1/19	1003	6	water	3		X											X	SI Program
MW-22	6/2/19	0826	7	water	1													X	PMP program
MW-23		0945	8	water	1													X	PMP program
MW-24		0756	9	water	1													X	PMP program
MW-25		0916	10	water	1													X	PMP program
MW-26	6/2/19	1013	11	water	1													X	PMP program

TURNAROUND REQUIREMENTS

____ 24 hr ____ 48 hr ____ 5 day

X Standard (21 days)

____ Provide FAX Preliminary Results

Requested Report Date: ____

Invoice Information

P.O. # ____

Bill to: JH Baxter & Co
San Mateo CA,94402

REPORT REQUIREMENTS

____ I. Routine Report: Results, Method Blank, Surrogate, as required

____ II. Report Dup., MS, MSD as required

____ III. Data Validation Report (includes raw data)

X IV. CLP Deliverable Report

____ V. EDD

Comments/Special Instructions:

PAH samples have 2 - 500ml amber bottles

Questions? - Please Call Randy Pratt @ GSI Water Solutions 971-200-8512

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: [signature]	Signature: [signature]	Signature:	Signature:
Printed Name: Matt Houser	Printed Name: Naomi Pedersen	Printed Name:	Printed Name:
Firm: JH Baxter	Firm: ALS	Firm:	Firm:
Date/Time: 6/3/19 1300	Date/Time: 6.4.19 9:30	Date/Time:	Date/Time:

ALS

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SR# K1905141

PAGE _____ OF _____

0H	7D	28D	1800	7D

Project Name: JH Baxter - Arlington **Project Number:** _____

Project Manager: _____ **Company:** JH Baxter

Company/Address: 85 N Baxter Rd **Phone:** 541-689-3801

City, State, Zip: Eugene, OR 97402 **FAX:** 541-689-0769

Sampler's Signature: _____

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	Analysis Requested: SM 4500-H+ B / Ph	8270 D / PAH SIM	120.1 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	6020A / AS D	8151 A Modified / PCP only	REMARKS
MW - 27	6/2/19	1030	12	water	1													X	PMP program
MW - 28	6/2/19	0946	13	water	1													X	PMP program
MW - 29	6/1/19	1530	14	water	1													X	PMP program
MW - 30	1	1456	15	water	3		X											X	SI program
MW - 31	6/1/19	1353	16	water	1													X	PMP program
MW - 32	6/2/19	0852	17	water	1													X	PMP program
MW - 33	6/2/19	0728	18	water	1													X	PMP program
MW - 34	6/1/19	1503	19	water	1													X	PMP program
~~MW - 35~~	—	—		water	3		X											X	PMP program
MW - 36	6/1/19	1322	20	water	3		X											X	SI program
MW - 37	6/1/19	1050	21	water	3		X											X	SI program

TURNAROUND REQUIREMENTS

_____ 24 hr _____ 48 hr _____ 5 day

__X__ Standard (21 days)

_____ Provide FAX Preliminary Results

Requested Report Date: _____

REPORT REQUIREMENTS

_____ I. Routine Report: Results, Method Blank, Surrogate, as required

_____ II. Report Dup., MS, MSD as required

_____ III. Data Validation Report (includes raw data)

__X__ IV. CLP Deliverable Report

_____ V. EDD

Comments/Special Instructions:

PAH samples have 2 - 500ml amber bottles

Questions? - Please Call Randy Pratt @ GSI Water Solutions 971-200-8512

Invoice Information

P.O. # _____

Bill to: JH Baxter & Co
San Mateo CA,94402

RELINQUISHED BY:

Signature: Matt Hunter

Printed Name: Matt Hunter

Firm: JH Baxter

Date/Time: 6/3/19 1300

RECEIVED BY:

Signature: _____

Printed Name: Naomi Pedersen

Firm: ALS

Date/Time: 6.4.19 9:30

RELINQUISHED BY:

Signature: _____

Printed Name: _____

Firm: _____

Date/Time: _____

RECEIVED BY:

Signature: _____

Printed Name: _____

Firm: _____

Date/Time: _____

ALS

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SR# K1905141

PAGE _____ OF _____

0H	7D	28D		180D	7D

Project Name: JH Baxter - Arlington Project Number: _____

Project Manager: _____ Company: JH Baxter

Company/Address: 85 N Baxter Rd Phone: 541-689-3801

City, State, Zip: Eugene, OR 97402 FAX: 541-689-0769

Sampler's Signature: _____

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	Analysis Requested: SM 4500-H+ B / Ph	8270 D / PAH SIM	120.1 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	6020A / AS D	8151 A Modified / PCP only	REMARKS
MW - 38	6/1/19	1436	22	water	1													X	SI program
MW - 39		0935	23	water	1													X	SI program
MW - 40		1115	24	water	1													X	SI program
MW - 41		1031	25	water	1													X	SI program
MW - 42		0720	26	water	1													X	SI program
MW - 43		0836	27	water	1													X	SI program
MW - 44 DUP.	6/1/19	1445	28	water	3		X											X	SI program
FIELD BLANK RINSATE				water	3		X											X	PMP program
MW - 3	6/2/19	0708	29	water	3		X											X	SI program

TURNAROUND REQUIREMENTS

_____ 24 hr _____ 48 hr _____ 5 day

__X__ Standard (21 days)

_____ Provide FAX Preliminary Results

Requested Report Date: _____

REPORT REQUIREMENTS

_____ I. Routine Report: Results, Method Blank, Surrogate, as required

_____ II. Report Dup., MS, MSD as required

_____ III. Data Validation Report (includes raw data)

__X__ IV. CLP Deliverable Report

_____ V. EDD

Comments/Special Instructions:

MW-44 any penta only sampled well

PAH samples have 2 - 500ml amber bottles

Lab note: No pH or conductivity on field blank.

Questions? - Please Call Randy Pratt @ GSI Water Solutions 971-200-8512

Invoice Information

P.O. # _____

Bill to: JH Baxter & Co
San Mateo CA,94402

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Matt Hansen	Signature:	Signature:	Signature:
Printed Name: Matt Hansen	Printed Name: Naomi Pedersen	Printed Name:	Printed Name:
Firm: JH Baxter	Firm: ALS	Firm:	Firm:
Date/Time: 6/3/19 1300	Date/Time: 6.4.19 9.30	Date/Time:	Date/Time:

PC KL

Cooler Receipt and Preservation Form

Client JH Baxter Service Request K19 05141

Received: 6.4.19 Opened: 6.4.19 By: NP Unloaded: 6.4.19 By: NP

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	File
1.2	1.2	7.4	7.6	0.2	397		4808 3230 7658	
-0.3	-0.5	2.4	2.2	-0.2	386		4808 3230 2647	

4. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA Y N
   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:
MW-44	MW-44 DUP	elim

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: Temp blank not indicative of sample temp, it was between the insert & bubble wrap away from ice. Missing 2 ~~SGW~~ bottles from Sample MW-2, MW-15, MW-17 (PAH bottles)

Chlorinated Phenolics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 08:11
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	HCMW-7	**Units:**	ug/L
Lab Code:	K1905141-001	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 11:08	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	96	55 - 130	06/13/19 11:08	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 11:36
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-15	**Units:**	ug/L
Lab Code:	K1905141-002	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 11:26	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	82	55 - 130	06/13/19 11:26	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 08:58
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-16	**Units:**	ug/L
Lab Code:	K1905141-003	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 11:43	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	91	55 - 130	06/13/19 11:43	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 12:49
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-17	**Units:**	ug/L
Lab Code:	K1905141-004	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 12:01	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	92	55 - 130	06/13/19 12:01	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 07:45
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-18	**Units:**	ug/L
Lab Code:	K1905141-005	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 12:18	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	92	55 - 130	06/13/19 12:18	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 10:03
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-2	**Units:**	ug/L
Lab Code:	K1905141-006	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 12:36	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	88	55 - 130	06/13/19 12:36	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19 08:26
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-22	**Units:**	ug/L
Lab Code:	K1905141-007	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**65**	0.50	0.071	1	06/13/19 12:54	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	91	55 - 130	06/13/19 12:54	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19 09:45
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-23	**Units:**	ug/L
Lab Code:	K1905141-008	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**73**	0.50	0.071	1	06/13/19 13:11	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	92	55 - 130	06/13/19 13:11	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19 07:56
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-24	**Units:**	ug/L
Lab Code:	K1905141-009	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**76**	0.50	0.071	1	06/13/19 13:29	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	91	55 - 130	06/13/19 13:29	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19 09:16
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-25	**Units:**	ug/L
Lab Code:	K1905141-010	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**100**	2.5	0.36	5	06/13/19 13:46	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	78	55 - 130	06/13/19 13:46	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19 10:13
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-26	**Units:**	ug/L
Lab Code:	K1905141-011	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**0.19 J**	0.50	0.071	1	06/13/19 14:39	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	90	55 - 130	06/13/19 14:39	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19 10:36
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-27	**Units:**	ug/L
Lab Code:	K1905141-012	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**1.9**	0.50	0.071	1	06/13/19 14:57	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	85	55 - 130	06/13/19 14:57	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19 06:46
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-28	**Units:**	ug/L
Lab Code:	K1905141-013	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**0.76**	0.50	0.071	1	06/13/19 15:14	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	89	55 - 130	06/13/19 15:14	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 15:30
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-29	**Units:**	ug/L
Lab Code:	K1905141-014	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 15:32	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	93	55 - 130	06/13/19 15:32	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 14:06
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-30	**Units:**	ug/L
Lab Code:	K1905141-015	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 15:49	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	93	55 - 130	06/13/19 15:49	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 13:53
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-31	**Units:**	ug/L
Lab Code:	K1905141-016	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**1.4**	0.50	0.071	1	06/13/19 16:07	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	94	55 - 130	06/13/19 16:07	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19 08:52
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-32	**Units:**	ug/L
Lab Code:	K1905141-017	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**160**	25	3.6	50	06/13/19 16:25	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	58	55 - 130	06/13/19 16:25	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19 07:28
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-33	**Units:**	ug/L
Lab Code:	K1905141-018	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**100**	2.5	0.36	5	06/13/19 16:42	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	87	55 - 130	06/13/19 16:42	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 15:03
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-34	**Units:**	ug/L
Lab Code:	K1905141-019	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 17:00	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	91	55 - 130	06/13/19 17:00	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 13:22
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-36	**Units:**	ug/L
Lab Code:	K1905141-020	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**7.8**	0.50	0.071	1	06/13/19 17:17	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	98	55 - 130	06/13/19 17:17	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 10:50
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-37	**Units:**	ug/L
Lab Code:	K1905141-021	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**14**	0.50	0.071	1	06/13/19 19:20	6/6/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	79	55 - 130	06/13/19 19:20	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 14:36
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-38	**Units:**	ug/L
Lab Code:	K1905141-022	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 19:38	6/6/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	74	55 - 130	06/13/19 19:38	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 10:31
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-41	**Units:**	ug/L
Lab Code:	K1905141-025	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 20:30	6/6/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	82	55 - 130	06/13/19 20:30	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 07:20
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-42	**Units:**	ug/L
Lab Code:	K1905141-026	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 20:48	6/6/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	78	55 - 130	06/13/19 20:48	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 08:36
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-43	**Units:**	ug/L
Lab Code:	K1905141-027	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 21:05	6/6/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	75	55 - 130	06/13/19 21:05	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 14:45
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-44 DUP.	**Units:**	ug/L
Lab Code:	K1905141-028	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 21:23	6/6/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	78	55 - 130	06/13/19 21:23	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19 07:08
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-3	**Units:**	ug/L
Lab Code:	K1905141-029	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 22:16	6/6/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	82	55 - 130	06/13/19 22:16	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KQ1907722-04	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 10:34	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	73	55 - 130	06/13/19 10:34	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KQ1907796-04	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/13/19 18:45	6/6/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	76	55 - 130	06/13/19 18:45	

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/02/19 08:26
Date Received: 6/4/19

Sample Name: MW-22
Lab Code: K1905141-007

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	65	77	17		1	06/13/19 12:54

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Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/02/19 09:45
Date Received: 6/4/19

Sample Name: MW-23
Lab Code: K1905141-008

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	73	85	15		1	06/13/19 13:11

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/02/19 07:56
Date Received: 6/4/19

Sample Name: MW-24
Lab Code: K1905141-009

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	76	90	17		1	06/13/19 13:29

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Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/02/19 09:16
Date Received: 6/4/19

Sample Name: MW-25
Lab Code: K1905141-010

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.36	100	130	26		5	06/13/19 13:46

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/02/19 10:13
Date Received: 6/4/19

Sample Name: MW-26
Lab Code: K1905141-011

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	0.19	0.25	27	J	1	06/13/19 14:39

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/02/19 10:36
Date Received: 6/4/19

Sample Name: MW-27
Lab Code: K1905141-012

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	1.9	2.2	15		1	06/13/19 14:57

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Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/02/19 06:46
Date Received: 6/4/19

Sample Name: MW-28
Lab Code: K1905141-013

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	0.76	0.78	3		1	06/13/19 15:14

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/01/19 13:53
Date Received: 6/4/19

Sample Name: MW-31
Lab Code: K1905141-016

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	1.4	1.4	<1		1	06/13/19 16:07

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/02/19 08:52
Date Received: 6/4/19

Sample Name: MW-32
Lab Code: K1905141-017

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	3.6	160	200	22		50	06/13/19 16:25

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Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/02/19 07:28
Date Received: 6/4/19

Sample Name: MW-33
Lab Code: K1905141-018

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.36	100	130	26		5	06/13/19 16:42

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/01/19 13:22
Date Received: 6/4/19

Sample Name: MW-36
Lab Code: K1905141-020

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	7.8	9.4	19		1	06/13/19 17:17

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/01/19 10:50
Date Received: 6/4/19

Sample Name: MW-37
Lab Code: K1905141-021

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	14	17	19		1	06/13/19 19:20

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Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/01/19 13:22
Date Received: 6/4/19

Sample Name: MW-36
Lab Code: KQ1907722-01

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	14.5	17.8	20		1	06/13/19 18:10

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/01/19 13:22
Date Received: 6/4/19

Sample Name: MW-36
Lab Code: KQ1907722-02

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	14.0	17.1	20		1	06/13/19 18:28

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: KQ1907722-03

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	6.64	8.10	20		1	06/13/19 10:51

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/02/19 07:08
Date Received: 6/4/19

Sample Name: MW-3
Lab Code: KQ1907796-01

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	7.08	8.73	21		1	06/13/19 22:34

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Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: 06/02/19 07:08
Date Received: 6/4/19

Sample Name: MW-3
Lab Code: KQ1907796-02

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	7.03	8.57	20		1	06/13/19 22:52

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Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905141
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: KQ1907796-03

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	6.24	7.76	22		1	06/13/19 19:03

Client: JH Baxter & Company **Service Request:** K1905141

Project: Arlington Landfill Wells/Landfill Program

Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Chlorinated Phenolics

Analysis Method: 8151A Modified

Extraction Method: Method

Sample Name	Lab Code	4-Bromo-2,6-dichlorophenol 55-130
HCMW-7	K1905141-001	96
MW-15	K1905141-002	82
MW-16	K1905141-003	91
MW-17	K1905141-004	92
MW-18	K1905141-005	92
MW-2	K1905141-006	88
MW-22	K1905141-007	91
MW-23	K1905141-008	92
MW-24	K1905141-009	91
MW-25	K1905141-010	78
MW-26	K1905141-011	90
MW-27	K1905141-012	85
MW-28	K1905141-013	89
MW-29	K1905141-014	93
MW-30	K1905141-015	93
MW-31	K1905141-016	94
MW-32	K1905141-017	58
MW-33	K1905141-018	87
MW-34	K1905141-019	91
MW-36	K1905141-020	98
MW-37	K1905141-021	79
MW-38	K1905141-022	74
MW-41	K1905141-025	82
MW-42	K1905141-026	78
MW-43	K1905141-027	75
MW-44 DUP.	K1905141-028	78
MW-3	K1905141-029	82
Method Blank	KQ1907722-04	73
Method Blank	KQ1907796-04	76
Lab Control Sample	KQ1907722-03	77
Lab Control Sample	KQ1907796-03	79
MW-36	KQ1907722-01	90
MW-36	KQ1907722-02	86
MW-3	KQ1907796-01	85
MW-3	KQ1907796-02	83

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19
Sample Matrix:	Water	**Date Received:**	06/04/19
		Date Analyzed:	06/13/19
		Date Extracted:	06/5/19

Duplicate Matrix Spike Summary
Chlorinated Phenolics

Sample Name:	MW-36	**Units:**	ug/L
Lab Code:	K1905141-020	**Basis:**	NA
Analysis Method:	8151A Modified		
Prep Method:	Method		

		Matrix Spike KQ1907722-01			Duplicate Matrix Spike KQ1907722-02					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Pentachlorophenol (PCP)	7.8	14.5	10.0	67	14.0	10.0	62	22-136	4	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19
Sample Matrix:	Water	**Date Received:**	06/04/19
		Date Analyzed:	06/13/19
		Date Extracted:	06/6/19

Duplicate Matrix Spike Summary
Chlorinated Phenolics

Sample Name:	MW-3	**Units:**	ug/L
Lab Code:	K1905141-029	**Basis:**	NA
Analysis Method:	8151A Modified		
Prep Method:	Method		

		Matrix Spike KQ1907796-01			Duplicate Matrix Spike KQ1907796-02					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Pentachlorophenol (PCP)	ND U	7.08	10.0	71	7.03	10.0	70	22-136	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19
Sample Matrix:	Water	**Date Extracted:**	06/05/19

Lab Control Sample Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Units:**	ug/L
Prep Method:	Method	**Basis:**	NA
		Analysis Lot:	639197

Lab Control Sample
KQ1907722-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Pentachlorophenol (PCP)	6.64	10.0	66	42-110

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19
Sample Matrix:	Water	**Date Extracted:**	06/06/19

Lab Control Sample Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Units:**	ug/L
Prep Method:	Method	**Basis:**	NA
		Analysis Lot:	639197

Lab Control Sample
KQ1907796-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Pentachlorophenol (PCP)	6.24	10.0	62	42-110

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 10:34
Sample Matrix:	Water	**Date Extracted:**	06/05/19

Method Blank Summary
Chlorinated Phenolics

Sample Name:	Method Blank	**Instrument ID:**	K-GC-28
Lab Code:	KQ1907722-04	**File ID:**	J:\GC28\Data\061319\0613F005.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	639197
Prep Method:	Method	**Extraction Lot:**	338052

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1907722-03	J:\GC28\Data\061319\0613F006.D\	06/13/19 10:51
HCMW-7	K1905141-001	J:\GC28\Data\061319\0613F007.D\	06/13/19 11:08
MW-15	K1905141-002	J:\GC28\Data\061319\0613F008.D\	06/13/19 11:26
MW-16	K1905141-003	J:\GC28\Data\061319\0613F009.D\	06/13/19 11:43
MW-17	K1905141-004	J:\GC28\Data\061319\0613F010.D\	06/13/19 12:01
MW-18	K1905141-005	J:\GC28\Data\061319\0613F011.D\	06/13/19 12:18
MW-2	K1905141-006	J:\GC28\Data\061319\0613F012.D\	06/13/19 12:36
MW-22	K1905141-007	J:\GC28\Data\061319\0613F013.D\	06/13/19 12:54
MW-23	K1905141-008	J:\GC28\Data\061319\0613F014.D\	06/13/19 13:11
MW-24	K1905141-009	J:\GC28\Data\061319\0613F015.D\	06/13/19 13:29
MW-25	K1905141-010	J:\GC28\Data\061319\0613F016.D\	06/13/19 13:46
MW-26	K1905141-011	J:\GC28\Data\061319\0613F019.D\	06/13/19 14:39
MW-27	K1905141-012	J:\GC28\Data\061319\0613F020.D\	06/13/19 14:57
MW-28	K1905141-013	J:\GC28\Data\061319\0613F021.D\	06/13/19 15:14
MW-29	K1905141-014	J:\GC28\Data\061319\0613F022.D\	06/13/19 15:32
MW-30	K1905141-015	J:\GC28\Data\061319\0613F023.D\	06/13/19 15:49
MW-31	K1905141-016	J:\GC28\Data\061319\0613F024.D\	06/13/19 16:07
MW-32	K1905141-017	J:\GC28\Data\061319\0613F025.D\	06/13/19 16:25
MW-33	K1905141-018	J:\GC28\Data\061319\0613F026.D\	06/13/19 16:42
MW-34	K1905141-019	J:\GC28\Data\061319\0613F027.D\	06/13/19 17:00
MW-36	K1905141-020	J:\GC28\Data\061319\0613F028.D\	06/13/19 17:17
MW-36MS	KQ1907722-01	J:\GC28\Data\061319\0613F031.D\	06/13/19 18:10
MW-36DMS	KQ1907722-02	J:\GC28\Data\061319\0613F032.D\	06/13/19 18:28

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 18:45
Sample Matrix:	Water	**Date Extracted:**	06/06/19

Method Blank Summary
Chlorinated Phenolics

Sample Name:	Method Blank	**Instrument ID:**	K-GC-28
Lab Code:	KQ1907796-04	**File ID:**	J:\GC28\Data\061319\0613F033.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	639197
Prep Method:	Method	**Extraction Lot:**	338123

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1907796-03	J:\GC28\Data\061319\0613F034.D\	06/13/19 19:03
MW-37	K1905141-021	J:\GC28\Data\061319\0613F035.D\	06/13/19 19:20
MW-38	K1905141-022	J:\GC28\Data\061319\0613F036.D\	06/13/19 19:38
MW-41	K1905141-025	J:\GC28\Data\061319\0613F039.D\	06/13/19 20:30
MW-42	K1905141-026	J:\GC28\Data\061319\0613F040.D\	06/13/19 20:48
MW-43	K1905141-027	J:\GC28\Data\061319\0613F041.D\	06/13/19 21:05
MW-44 DUP.	K1905141-028	J:\GC28\Data\061319\0613F042.D\	06/13/19 21:23
MW-3	K1905141-029	J:\GC28\Data\061319\0613F045.D\	06/13/19 22:16
MW-3MS	KQ1907796-01	J:\GC28\Data\061319\0613F046.D\	06/13/19 22:34
MW-3DMS	KQ1907796-02	J:\GC28\Data\061319\0613F047.D\	06/13/19 22:52

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 10:34
Sample Matrix:	Water	**Date Extracted:**	06/05/19

Method Blank Summary
Chlorinated Phenolics

Sample Name:	Method Blank	**Instrument ID:**	K-GC-28
Lab Code:	KQ1907722-04	**File ID:**	J:\GC28\Data\061319\0613F005.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	639197
Prep Method:	Method	**Extraction Lot:**	338052

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1907722-03	J:\GC28\Data\061319\0613F006.D\	06/13/19 10:51
HCMW-7	K1905141-001	J:\GC28\Data\061319\0613F007.D\	06/13/19 11:08
MW-15	K1905141-002	J:\GC28\Data\061319\0613F008.D\	06/13/19 11:26
MW-16	K1905141-003	J:\GC28\Data\061319\0613F009.D\	06/13/19 11:43
MW-17	K1905141-004	J:\GC28\Data\061319\0613F010.D\	06/13/19 12:01
MW-18	K1905141-005	J:\GC28\Data\061319\0613F011.D\	06/13/19 12:18
MW-2	K1905141-006	J:\GC28\Data\061319\0613F012.D\	06/13/19 12:36
MW-22	K1905141-007	J:\GC28\Data\061319\0613F013.D\	06/13/19 12:54
MW-23	K1905141-008	J:\GC28\Data\061319\0613F014.D\	06/13/19 13:11
MW-24	K1905141-009	J:\GC28\Data\061319\0613F015.D\	06/13/19 13:29
MW-25	K1905141-010	J:\GC28\Data\061319\0613F016.D\	06/13/19 13:46
MW-26	K1905141-011	J:\GC28\Data\061319\0613F019.D\	06/13/19 14:39
MW-27	K1905141-012	J:\GC28\Data\061319\0613F020.D\	06/13/19 14:57
MW-28	K1905141-013	J:\GC28\Data\061319\0613F021.D\	06/13/19 15:14
MW-29	K1905141-014	J:\GC28\Data\061319\0613F022.D\	06/13/19 15:32
MW-30	K1905141-015	J:\GC28\Data\061319\0613F023.D\	06/13/19 15:49
MW-31	K1905141-016	J:\GC28\Data\061319\0613F024.D\	06/13/19 16:07
MW-32	K1905141-017	J:\GC28\Data\061319\0613F025.D\	06/13/19 16:25
MW-33	K1905141-018	J:\GC28\Data\061319\0613F026.D\	06/13/19 16:42
MW-34	K1905141-019	J:\GC28\Data\061319\0613F027.D\	06/13/19 17:00
MW-36	K1905141-020	J:\GC28\Data\061319\0613F028.D\	06/13/19 17:17
MW-36MS	KQ1907722-01	J:\GC28\Data\061319\0613F031.D\	06/13/19 18:10
MW-36DMS	KQ1907722-02	J:\GC28\Data\061319\0613F032.D\	06/13/19 18:28

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 18:45
Sample Matrix:	Water	**Date Extracted:**	06/06/19

Method Blank Summary
Chlorinated Phenolics

Sample Name:	Method Blank	**Instrument ID:**	K-GC-28
Lab Code:	KQ1907796-04	**File ID:**	J:\GC28\Data\061319\0613F033.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	639197
Prep Method:	Method	**Extraction Lot:**	338123

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1907796-03	J:\GC28\Data\061319\0613F034.D\	06/13/19 19:03
MW-37	K1905141-021	J:\GC28\Data\061319\0613F035.D\	06/13/19 19:20
MW-38	K1905141-022	J:\GC28\Data\061319\0613F036.D\	06/13/19 19:38
MW-41	K1905141-025	J:\GC28\Data\061319\0613F039.D\	06/13/19 20:30
MW-42	K1905141-026	J:\GC28\Data\061319\0613F040.D\	06/13/19 20:48
MW-43	K1905141-027	J:\GC28\Data\061319\0613F041.D\	06/13/19 21:05
MW-44 DUP.	K1905141-028	J:\GC28\Data\061319\0613F042.D\	06/13/19 21:23
MW-3	K1905141-029	J:\GC28\Data\061319\0613F045.D\	06/13/19 22:16
MW-3MS	KQ1907796-01	J:\GC28\Data\061319\0613F046.D\	06/13/19 22:34
MW-3DMS	KQ1907796-02	J:\GC28\Data\061319\0613F047.D\	06/13/19 22:52

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 10:51
Sample Matrix:	Water	**Date Extracted:**	06/05/19

Lab Control Sample Summary
Chlorinated Phenolics

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-28
Lab Code:	KQ1907722-03	**File ID:**	J:\GC28\Data\061319\0613F006.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	639197
Prep Method:	Method	**Extraction Lot:**	338052

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1907722-04	J:\GC28\Data\061319\0613F005.D\	06/13/19 10:34
HCMW-7	K1905141-001	J:\GC28\Data\061319\0613F007.D\	06/13/19 11:08
MW-15	K1905141-002	J:\GC28\Data\061319\0613F008.D\	06/13/19 11:26
MW-16	K1905141-003	J:\GC28\Data\061319\0613F009.D\	06/13/19 11:43
MW-17	K1905141-004	J:\GC28\Data\061319\0613F010.D\	06/13/19 12:01
MW-18	K1905141-005	J:\GC28\Data\061319\0613F011.D\	06/13/19 12:18
MW-2	K1905141-006	J:\GC28\Data\061319\0613F012.D\	06/13/19 12:36
MW-22	K1905141-007	J:\GC28\Data\061319\0613F013.D\	06/13/19 12:54
MW-23	K1905141-008	J:\GC28\Data\061319\0613F014.D\	06/13/19 13:11
MW-24	K1905141-009	J:\GC28\Data\061319\0613F015.D\	06/13/19 13:29
MW-25	K1905141-010	J:\GC28\Data\061319\0613F016.D\	06/13/19 13:46
MW-26	K1905141-011	J:\GC28\Data\061319\0613F019.D\	06/13/19 14:39
MW-27	K1905141-012	J:\GC28\Data\061319\0613F020.D\	06/13/19 14:57
MW-28	K1905141-013	J:\GC28\Data\061319\0613F021.D\	06/13/19 15:14
MW-29	K1905141-014	J:\GC28\Data\061319\0613F022.D\	06/13/19 15:32
MW-30	K1905141-015	J:\GC28\Data\061319\0613F023.D\	06/13/19 15:49
MW-31	K1905141-016	J:\GC28\Data\061319\0613F024.D\	06/13/19 16:07
MW-32	K1905141-017	J:\GC28\Data\061319\0613F025.D\	06/13/19 16:25
MW-33	K1905141-018	J:\GC28\Data\061319\0613F026.D\	06/13/19 16:42
MW-34	K1905141-019	J:\GC28\Data\061319\0613F027.D\	06/13/19 17:00
MW-36	K1905141-020	J:\GC28\Data\061319\0613F028.D\	06/13/19 17:17
MW-36MS	KQ1907722-01	J:\GC28\Data\061319\0613F031.D\	06/13/19 18:10
MW-36DMS	KQ1907722-02	J:\GC28\Data\061319\0613F032.D\	06/13/19 18:28

ALS Group USA, Corp.
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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 19:03
Sample Matrix:	Water	**Date Extracted:**	06/06/19

Lab Control Sample Summary
Chlorinated Phenolics

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-28
Lab Code:	KQ1907796-03	**File ID:**	J:\GC28\Data\061319\0613F034.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	639197
Prep Method:	Method	**Extraction Lot:**	338123

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1907796-04	J:\GC28\Data\061319\0613F033.D\	06/13/19 18:45
MW-37	K1905141-021	J:\GC28\Data\061319\0613F035.D\	06/13/19 19:20
MW-38	K1905141-022	J:\GC28\Data\061319\0613F036.D\	06/13/19 19:38
MW-41	K1905141-025	J:\GC28\Data\061319\0613F039.D\	06/13/19 20:30
MW-42	K1905141-026	J:\GC28\Data\061319\0613F040.D\	06/13/19 20:48
MW-43	K1905141-027	J:\GC28\Data\061319\0613F041.D\	06/13/19 21:05
MW-44 DUP.	K1905141-028	J:\GC28\Data\061319\0613F042.D\	06/13/19 21:23
MW-3	K1905141-029	J:\GC28\Data\061319\0613F045.D\	06/13/19 22:16
MW-3MS	KQ1907796-01	J:\GC28\Data\061319\0613F046.D\	06/13/19 22:34
MW-3DMS	KQ1907796-02	J:\GC28\Data\061319\0613F047.D\	06/13/19 22:52

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 10:51
Sample Matrix:	Water	**Date Extracted:**	06/05/19

Lab Control Sample Summary
Chlorinated Phenolics

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-28
Lab Code:	KQ1907722-03	**File ID:**	J:\GC28\Data\061319\0613F006.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	639197
Prep Method:	Method	**Extraction Lot:**	338052

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1907722-04	J:\GC28\Data\061319\0613F005.D\	06/13/19 10:34
HCMW-7	K1905141-001	J:\GC28\Data\061319\0613F007.D\	06/13/19 11:08
MW-15	K1905141-002	J:\GC28\Data\061319\0613F008.D\	06/13/19 11:26
MW-16	K1905141-003	J:\GC28\Data\061319\0613F009.D\	06/13/19 11:43
MW-17	K1905141-004	J:\GC28\Data\061319\0613F010.D\	06/13/19 12:01
MW-18	K1905141-005	J:\GC28\Data\061319\0613F011.D\	06/13/19 12:18
MW-2	K1905141-006	J:\GC28\Data\061319\0613F012.D\	06/13/19 12:36
MW-22	K1905141-007	J:\GC28\Data\061319\0613F013.D\	06/13/19 12:54
MW-23	K1905141-008	J:\GC28\Data\061319\0613F014.D\	06/13/19 13:11
MW-24	K1905141-009	J:\GC28\Data\061319\0613F015.D\	06/13/19 13:29
MW-25	K1905141-010	J:\GC28\Data\061319\0613F016.D\	06/13/19 13:46
MW-26	K1905141-011	J:\GC28\Data\061319\0613F019.D\	06/13/19 14:39
MW-27	K1905141-012	J:\GC28\Data\061319\0613F020.D\	06/13/19 14:57
MW-28	K1905141-013	J:\GC28\Data\061319\0613F021.D\	06/13/19 15:14
MW-29	K1905141-014	J:\GC28\Data\061319\0613F022.D\	06/13/19 15:32
MW-30	K1905141-015	J:\GC28\Data\061319\0613F023.D\	06/13/19 15:49
MW-31	K1905141-016	J:\GC28\Data\061319\0613F024.D\	06/13/19 16:07
MW-32	K1905141-017	J:\GC28\Data\061319\0613F025.D\	06/13/19 16:25
MW-33	K1905141-018	J:\GC28\Data\061319\0613F026.D\	06/13/19 16:42
MW-34	K1905141-019	J:\GC28\Data\061319\0613F027.D\	06/13/19 17:00
MW-36	K1905141-020	J:\GC28\Data\061319\0613F028.D\	06/13/19 17:17
MW-36MS	KQ1907722-01	J:\GC28\Data\061319\0613F031.D\	06/13/19 18:10
MW-36DMS	KQ1907722-02	J:\GC28\Data\061319\0613F032.D\	06/13/19 18:28

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 19:03
Sample Matrix:	Water	**Date Extracted:**	06/06/19

Lab Control Sample Summary
Chlorinated Phenolics

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-28
Lab Code:	KQ1907796-03	**File ID:**	J:\GC28\Data\061319\0613F034.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	639197
Prep Method:	Method	**Extraction Lot:**	338123

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1907796-04	J:\GC28\Data\061319\0613F033.D\	06/13/19 18:45
MW-37	K1905141-021	J:\GC28\Data\061319\0613F035.D\	06/13/19 19:20
MW-38	K1905141-022	J:\GC28\Data\061319\0613F036.D\	06/13/19 19:38
MW-41	K1905141-025	J:\GC28\Data\061319\0613F039.D\	06/13/19 20:30
MW-42	K1905141-026	J:\GC28\Data\061319\0613F040.D\	06/13/19 20:48
MW-43	K1905141-027	J:\GC28\Data\061319\0613F041.D\	06/13/19 21:05
MW-44 DUP.	K1905141-028	J:\GC28\Data\061319\0613F042.D\	06/13/19 21:23
MW-3	K1905141-029	J:\GC28\Data\061319\0613F045.D\	06/13/19 22:16
MW-3MS	KQ1907796-01	J:\GC28\Data\061319\0613F046.D\	06/13/19 22:34
MW-3DMS	KQ1907796-02	J:\GC28\Data\061319\0613F047.D\	06/13/19 22:52

Client: JH Baxter & Company **Service Request:** K1905141
Project: Arlington Landfill Wells **Calibration Date:** 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-1701
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Analyte

4-Bromo-2,6-dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	10	2.500	4.672E5	02	5.000	4.356E5	03	10.000	4.141E5
04	25.000	3.754E5	05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5
08	500.000	2.979E5	09	1000.000	2.755E5						

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	10	2.375	6.451E5	02	4.750	5.978E5	03	9.501	5.654E5
04	23.752	5.208E5	05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5
08	475.030	3.936E5	09	950.060	3.695E5						

Client: JH Baxter & Company
Project: Arlington Landfill Wells

Service Request: K1905141
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-1701

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
4-Bromo-2,6-dichlorophenol	SURR	Quadratic	COD	0.9994	≥0.99	3.824E5	
Pentachlorophenol (PCP)	TRG	Quadratic	COD	0.9990	≥0.99	5.2E5	

Client: JH Baxter & Company **Service Request:** K1905141
Project: Arlington Landfill Wells **Calibration Date:** 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-35
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Analyte

4-Bromo-2,6-dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	10	2.500	3.934E5	02	5.000	3.777E5	03	10.000	4.048E5
04	25.000	4.138E5	05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5
08	500.000	4.395E5	09	1000.000	4.542E5						

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	10	2.375	7.52E5	02	4.750	6.912E5	03	9.501	6.875E5
04	23.752	6.474E5	05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5
08	475.030	6.37E5	09	950.060	6.573E5						

Client: JH Baxter & Company
Project: Arlington Landfill Wells

Service Request: K1905141
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-35

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
4-Bromo-2,6-dichlorophenol	SURR	Average RF	% RSD	6.0	≤20	4.216E5	
Pentachlorophenol (PCP)	TRG	Average RF	% RSD	9.6	≤20	6.805E5	

Client: JH Baxter & Company **Service Request:** K1905141
Project: Arlington Landfill Wells **Calibration Date:** 2/28/2019

Initial Calibration Verification Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-1701
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900082-11	PENTA01-95D ICV	J:\GC28\Data\022819CAL\0228F016.D	02/28/2019 12:00

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	55.3	5.2E5	5.35E5	16.43	±20	Quadratic

Client: JH Baxter & Company **Service Request:** K1905141
Project: Arlington Landfill Wells **Calibration Date:** 2/28/2019

Initial Calibration Verification Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-35
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900082-11	PENTA01-95D ICV	J:\GC28\Data\022819CAL\0228F016.D	02/28/2019 12:00

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	48.8	6.805E5	6.996E5	2.80	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 09:59

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061319\0613F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	639197
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	43.7	6.805E5	6.266E5	-7.9	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	44.7	4.216E5	3.772E5	-10.5	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 09:59

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061319\0613F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	639197
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	50.9	5.2E5	4.937E5	NA	7.2	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	51.4	3.824E5	3.55E5	NA	2.8	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 14:04

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061319\0613F017.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	639197
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	40.6	6.805E5	5.821E5	-14.5	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	41.2	4.216E5	3.475E5	-17.6	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 14:04

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061319\0613F017.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	639197
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	52.4	5.2E5	5.074E5	NA	10.3	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	52.3	3.824E5	3.61E5	NA	4.6	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 17:35

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061319\0613F029.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	639197
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	42.2	6.805E5	6.052E5	-11.1	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	43.6	4.216E5	3.675E5	-12.8	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 17:35

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061319\0613F029.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	639197
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	53.6	5.2E5	5.194E5	NA	12.9	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	54.0	3.824E5	3.724E5	NA	8.0	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 21:41

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061319\0613F043.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	639197
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	42.0	6.805E5	6.017E5	-11.6	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	42.8	4.216E5	3.61E5	-14.4	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 21:41

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061319\0613F043.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	639197
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	53.7	5.2E5	5.2E5	NA	13.1	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	53.5	3.824E5	3.692E5	NA	7.1	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 23:10

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061319\0613F048.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	639197
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	42.9	6.805E5	6.143E5	-9.7	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	43.9	4.216E5	3.703E5	-12.2	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/13/19 23:10

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061319\0613F048.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	639197
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	52.9	5.2E5	5.127E5	NA	11.4	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	53.1	3.824E5	3.659E5	NA	6.1	±20	Quadratic

Client: JH Baxter & Company **Service Request:**K1905141
Project: Arlington Landfill Wells/Landfill Program

Analysis Run Log
Chlorinated Phenolics

Analysis Method: 8151A Modified **Analysis Lot:**639197
Instrument ID:K-GC-28

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\GC28\Data\061319\0613F003.D\	Continuing Calibration Verification	KQ1908305-01	6/13/2019	09:59:00	
J:\GC28\Data\061319\0613F004.D\	Continuing Calibration Blank	KQ1908305-06	6/13/2019	10:16:00	
J:\GC28\Data\061319\0613F005.D\	Method Blank	KQ1907722-04	6/13/2019	10:34:00	
J:\GC28\Data\061319\0613F006.D\	Lab Control Sample	KQ1907722-03	6/13/2019	10:51:00	
J:\GC28\Data\061319\0613F007.D\	HCMW-7	K1905141-001	6/13/2019	11:08:00	
J:\GC28\Data\061319\0613F008.D\	MW-15	K1905141-002	6/13/2019	11:26:00	
J:\GC28\Data\061319\0613F009.D\	MW-16	K1905141-003	6/13/2019	11:43:00	
J:\GC28\Data\061319\0613F010.D\	MW-17	K1905141-004	6/13/2019	12:01:00	
J:\GC28\Data\061319\0613F011.D\	MW-18	K1905141-005	6/13/2019	12:18:00	
J:\GC28\Data\061319\0613F012.D\	MW-2	K1905141-006	6/13/2019	12:36:00	
J:\GC28\Data\061319\0613F013.D\	MW-22	K1905141-007	6/13/2019	12:54:00	
J:\GC28\Data\061319\0613F014.D\	MW-23	K1905141-008	6/13/2019	13:11:00	
J:\GC28\Data\061319\0613F015.D\	MW-24	K1905141-009	6/13/2019	13:29:00	
J:\GC28\Data\061319\0613F016.D\	MW-25	K1905141-010	6/13/2019	13:46:00	
J:\GC28\Data\061319\0613F017.D\	Continuing Calibration Verification	KQ1908305-02	6/13/2019	14:04:00	
J:\GC28\Data\061319\0613F018.D\	Continuing Calibration Blank	KQ1908305-07	6/13/2019	14:22:00	
J:\GC28\Data\061319\0613F019.D\	MW-26	K1905141-011	6/13/2019	14:39:00	
J:\GC28\Data\061319\0613F020.D\	MW-27	K1905141-012	6/13/2019	14:57:00	
J:\GC28\Data\061319\0613F021.D\	MW-28	K1905141-013	6/13/2019	15:14:00	
J:\GC28\Data\061319\0613F022.D\	MW-29	K1905141-014	6/13/2019	15:32:00	
J:\GC28\Data\061319\0613F023.D\	MW-30	K1905141-015	6/13/2019	15:49:00	
J:\GC28\Data\061319\0613F024.D\	MW-31	K1905141-016	6/13/2019	16:07:00	
J:\GC28\Data\061319\0613F025.D\	MW-32	K1905141-017	6/13/2019	16:25:00	
J:\GC28\Data\061319\0613F026.D\	MW-33	K1905141-018	6/13/2019	16:42:00	
J:\GC28\Data\061319\0613F027.D\	MW-34	K1905141-019	6/13/2019	17:00:00	
J:\GC28\Data\061319\0613F028.D\	MW-36	K1905141-020	6/13/2019	17:17:00	
J:\GC28\Data\061319\0613F029.D\	Continuing Calibration Verification	KQ1908305-03	6/13/2019	17:35:00	
J:\GC28\Data\061319\0613F030.D\	Continuing Calibration Blank	KQ1908305-08	6/13/2019	17:52:00	
J:\GC28\Data\061319\0613F031.D\	MW-36 MS	KQ1907722-01	6/13/2019	18:10:00	
J:\GC28\Data\061319\0613F032.D\	MW-36 DMS	KQ1907722-02	6/13/2019	18:28:00	
J:\GC28\Data\061319\0613F033.D\	Method Blank	KQ1907796-04	6/13/2019	18:45:00	
J:\GC28\Data\061319\0613F034.D\	Lab Control Sample	KQ1907796-03	6/13/2019	19:03:00	
J:\GC28\Data\061319\0613F035.D\	MW-37	K1905141-021	6/13/2019	19:20:00	
J:\GC28\Data\061319\0613F036.D\	MW-38	K1905141-022	6/13/2019	19:38:00	
J:\GC28\Data\061319\0613F039.D\	MW-41	K1905141-025	6/13/2019	20:30:00	
J:\GC28\Data\061319\0613F040.D\	MW-42	K1905141-026	6/13/2019	20:48:00	
J:\GC28\Data\061319\0613F041.D\	MW-43	K1905141-027	6/13/2019	21:05:00	
J:\GC28\Data\061319\0613F042.D\	MW-44 DUP.	K1905141-028	6/13/2019	21:23:00	
J:\GC28\Data\061319\0613F043.D\	Continuing Calibration Verification	KQ1908305-04	6/13/2019	21:41:00	
J:\GC28\Data\061319\0613F044.D\	Continuing Calibration Blank	KQ1908305-09	6/13/2019	21:58:00	
J:\GC28\Data\061319\0613F045.D\	MW-3	K1905141-029	6/13/2019	22:16:00	
J:\GC28\Data\061319\0613F046.D\	MW-3 MS	KQ1907796-01	6/13/2019	22:34:00	
J:\GC28\Data\061319\0613F047.D\	MW-3 DMS	KQ1907796-02	6/13/2019	22:52:00	
J:\GC28\Data\061319\0613F048.D\	Continuing Calibration Verification	KQ1908305-05	6/13/2019	23:10:00	
J:\GC28\Data\061319\0613F049.D\	Continuing Calibration Blank	KQ1908305-10	6/13/2019	23:28:00	

Prep Summary Report

Client: JH Baxter & Company **Service Request:**K1905141
Project: Arlington Landfill Wells/Landfill Program
Sample Matrix: Water

Chlorinated Phenolics

Prep Method: Method **Extraction Lot:** 338052
Analytical Method: 8151A Modified **Extraction Date:** 06/05/19 13:27

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
HCMW-7	K1905141-001	6/1/19	6/4/19	5 mL	1 mL	
MW-15	K1905141-002	6/1/19	6/4/19	5 mL	1 mL	
MW-16	K1905141-003	6/1/19	6/4/19	5 mL	1 mL	
MW-17	K1905141-004	6/1/19	6/4/19	5 mL	1 mL	
MW-18	K1905141-005	6/1/19	6/4/19	5 mL	1 mL	
MW-2	K1905141-006	6/1/19	6/4/19	5 mL	1 mL	
MW-22	K1905141-007	6/2/19	6/4/19	5 mL	1 mL	
MW-23	K1905141-008	6/2/19	6/4/19	5 mL	1 mL	
MW-24	K1905141-009	6/2/19	6/4/19	5 mL	1 mL	
MW-25	K1905141-010	6/2/19	6/4/19	5 mL	1 mL	
MW-26	K1905141-011	6/2/19	6/4/19	5 mL	1 mL	
MW-27	K1905141-012	6/2/19	6/4/19	5 mL	1 mL	
MW-28	K1905141-013	6/2/19	6/4/19	5 mL	1 mL	
MW-29	K1905141-014	6/1/19	6/4/19	5 mL	1 mL	
MW-30	K1905141-015	6/1/19	6/4/19	5 mL	1 mL	
MW-31	K1905141-016	6/1/19	6/4/19	5 mL	1 mL	
MW-32	K1905141-017	6/2/19	6/4/19	5 mL	1 mL	
MW-33	K1905141-018	6/2/19	6/4/19	5 mL	1 mL	
MW-34	K1905141-019	6/1/19	6/4/19	5 mL	1 mL	
MW-36	K1905141-020	6/1/19	6/4/19	5 mL	1 mL	
Matrix Spike	KQ1907722-01MS	6/1/19	6/4/19	5 mL	1 mL	
Duplicate Matrix Spike	KQ1907722-02DMS	6/1/19	6/4/19	5 mL	1 mL	
Lab Control Sample	KQ1907722-03LCS	NA	NA	5 mL	1 mL	
Method Blank	KQ1907722-04MB	NA	NA	5 mL	1 mL	

Prep Summary Report

Client: JH Baxter & Company **Service Request:**K1905141
Project: Arlington Landfill Wells/Landfill Program
Sample Matrix: Water

Chlorinated Phenolics

Prep Method: Method **Extraction Lot:** 338123
Analytical Method: 8151A Modified **Extraction Date:** 06/06/19 08:48

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
MW-37	K1905141-021	6/1/19	6/4/19	5 mL	1 mL	
MW-38	K1905141-022	6/1/19	6/4/19	5 mL	1 mL	
MW-41	K1905141-025	6/1/19	6/4/19	5 mL	1 mL	
MW-42	K1905141-026	6/1/19	6/4/19	5 mL	1 mL	
MW-43	K1905141-027	6/1/19	6/4/19	5 mL	1 mL	
MW-44 DUP.	K1905141-028	6/1/19	6/4/19	5 mL	1 mL	
MW-3	K1905141-029	6/2/19	6/4/19	5 mL	1 mL	
Matrix Spike	KQ1907796-01MS	6/2/19	6/4/19	5 mL	1 mL	
Duplicate Matrix Spike	KQ1907796-02DMS	6/2/19	6/4/19	5 mL	1 mL	
Lab Control Sample	KQ1907796-03LCS	NA	NA	5 mL	1 mL	
Method Blank	KQ1907796-04MB	NA	NA	5 mL	1 mL	

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 08:58
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-16	**Units:**	ug/L
Lab Code:	K1905141-003	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0034 J**	0.020	0.0013	1	06/08/19 01:18	6/5/19	
Acenaphthene	**0.0070 J**	0.020	0.0012	1	06/08/19 01:18	6/5/19	
Acenaphthylene	ND U	0.020	0.0011	1	06/08/19 01:18	6/5/19	
Anthracene	ND U	0.020	0.00082	1	06/08/19 01:18	6/5/19	
Benz(a)anthracene	**0.0019 J**	0.020	0.00097	1	06/08/19 01:18	6/5/19	
Benzo(a)pyrene	ND U	0.020	0.0011	1	06/08/19 01:18	6/5/19	
Benzo(b)fluoranthene	ND U	0.020	0.00083	1	06/08/19 01:18	6/5/19	
Benzo(g,h,i)perylene	ND U	0.020	0.00086	1	06/08/19 01:18	6/5/19	
Benzo(k)fluoranthene	ND U	0.020	0.00094	1	06/08/19 01:18	6/5/19	
Chrysene	ND U	0.020	0.00076	1	06/08/19 01:18	6/5/19	
Dibenz(a,h)anthracene	ND U	0.020	0.0013	1	06/08/19 01:18	6/5/19	
Dibenzofuran	**0.0034 J**	0.020	0.00096	1	06/08/19 01:18	6/5/19	
Fluoranthene	**0.0016 J**	0.020	0.00082	1	06/08/19 01:18	6/5/19	
Fluorene	**0.0023 J**	0.020	0.0011	1	06/08/19 01:18	6/5/19	
Indeno(1,2,3-cd)pyrene	ND U	0.020	0.00089	1	06/08/19 01:18	6/5/19	
Naphthalene	**0.0033 J**	0.020	0.0014	1	06/08/19 01:18	6/5/19	
Phenanthrene	**0.0078 J**	0.020	0.0011	1	06/08/19 01:18	6/5/19	
Pyrene	**0.0012 J**	0.020	0.0010	1	06/08/19 01:18	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	98	42 - 133	06/08/19 01:18	
Fluorene-d10	98	42 - 131	06/08/19 01:18	
Terphenyl-d14	73	32 - 129	06/08/19 01:18	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 07:45
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-18	**Units:**	ug/L
Lab Code:	K1905141-005	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.024**		0.020	0.0013	1	06/08/19 01:45	6/5/19	
Acenaphthene	**0.0030**	**J**	0.020	0.0012	1	06/08/19 01:45	6/5/19	
Acenaphthylene	ND	U	0.020	0.0011	1	06/08/19 01:45	6/5/19	
Anthracene	ND	U	0.020	0.00082	1	06/08/19 01:45	6/5/19	
Benz(a)anthracene	**0.0019**	**J**	0.020	0.00097	1	06/08/19 01:45	6/5/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	06/08/19 01:45	6/5/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	06/08/19 01:45	6/5/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	06/08/19 01:45	6/5/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	06/08/19 01:45	6/5/19	
Chrysene	ND	U	0.020	0.00076	1	06/08/19 01:45	6/5/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	06/08/19 01:45	6/5/19	
Dibenzofuran	**0.0050**	**J**	0.020	0.00096	1	06/08/19 01:45	6/5/19	
Fluoranthene	**0.0015**	**J**	0.020	0.00082	1	06/08/19 01:45	6/5/19	
Fluorene	**0.0048**	**J**	0.020	0.0011	1	06/08/19 01:45	6/5/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	06/08/19 01:45	6/5/19	
Naphthalene	**0.035**		0.020	0.0014	1	06/08/19 01:45	6/5/19	
Phenanthrene	**0.010**	**J**	0.020	0.0011	1	06/08/19 01:45	6/5/19	
Pyrene	ND	U	0.020	0.0010	1	06/08/19 01:45	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	96	42 - 133	06/08/19 01:45	
Fluorene-d10	99	42 - 131	06/08/19 01:45	
Terphenyl-d14	68	32 - 129	06/08/19 01:45	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 14:06
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-30	**Units:**	ug/L
Lab Code:	K1905141-015	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0091 J**	0.040	0.0026	1	06/08/19 02:13	6/5/19	
Acenaphthene	**0.0050 J**	0.040	0.0024	1	06/08/19 02:13	6/5/19	
Acenaphthylene	ND U	0.040	0.0022	1	06/08/19 02:13	6/5/19	
Anthracene	ND U	0.040	0.0017	1	06/08/19 02:13	6/5/19	
Benz(a)anthracene	**0.0041 J**	0.040	0.0020	1	06/08/19 02:13	6/5/19	
Benzo(a)pyrene	ND U	0.040	0.0022	1	06/08/19 02:13	6/5/19	
Benzo(b)fluoranthene	ND U	0.040	0.0017	1	06/08/19 02:13	6/5/19	
Benzo(g,h,i)perylene	ND U	0.040	0.0018	1	06/08/19 02:13	6/5/19	
Benzo(k)fluoranthene	ND U	0.040	0.0019	1	06/08/19 02:13	6/5/19	
Chrysene	ND U	0.040	0.0016	1	06/08/19 02:13	6/5/19	
Dibenz(a,h)anthracene	ND U	0.040	0.0026	1	06/08/19 02:13	6/5/19	
Dibenzofuran	**0.0072 J**	0.040	0.0020	1	06/08/19 02:13	6/5/19	
Fluoranthene	**0.0045 J**	0.040	0.0017	1	06/08/19 02:13	6/5/19	
Fluorene	**0.0066 J**	0.040	0.0022	1	06/08/19 02:13	6/5/19	
Indeno(1,2,3-cd)pyrene	ND U	0.040	0.0018	1	06/08/19 02:13	6/5/19	
Naphthalene	**0.0072 J**	0.040	0.0028	1	06/08/19 02:13	6/5/19	
Phenanthrene	**0.019 J**	0.040	0.0022	1	06/08/19 02:13	6/5/19	
Pyrene	**0.0023 J**	0.040	0.0020	1	06/08/19 02:13	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	99	42 - 133	06/08/19 02:13	
Fluorene-d10	103	42 - 131	06/08/19 02:13	
Terphenyl-d14	46	32 - 129	06/08/19 02:13	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 13:22
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-36	**Units:**	ug/L
Lab Code:	K1905141-020	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0040**	**J**	0.020	0.0013	1	06/08/19 02:40	6/5/19	
Acenaphthene	**0.0026**	**J**	0.020	0.0012	1	06/08/19 02:40	6/5/19	
Acenaphthylene	ND	U	0.020	0.0011	1	06/08/19 02:40	6/5/19	
Anthracene	ND	U	0.020	0.00082	1	06/08/19 02:40	6/5/19	
Benz(a)anthracene	**0.0020**	**J**	0.020	0.00097	1	06/08/19 02:40	6/5/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	06/08/19 02:40	6/5/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	06/08/19 02:40	6/5/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	06/08/19 02:40	6/5/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	06/08/19 02:40	6/5/19	
Chrysene	ND	U	0.020	0.00076	1	06/08/19 02:40	6/5/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	06/08/19 02:40	6/5/19	
Dibenzofuran	**0.0038**	**J**	0.020	0.00096	1	06/08/19 02:40	6/5/19	
Fluoranthene	**0.0019**	**J**	0.020	0.00082	1	06/08/19 02:40	6/5/19	
Fluorene	**0.0030**	**J**	0.020	0.0011	1	06/08/19 02:40	6/5/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	06/08/19 02:40	6/5/19	
Naphthalene	**0.0042**	**J**	0.020	0.0014	1	06/08/19 02:40	6/5/19	
Phenanthrene	**0.0088**	**J**	0.020	0.0011	1	06/08/19 02:40	6/5/19	
Pyrene	ND	U	0.020	0.0010	1	06/08/19 02:40	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	91	42 - 133	06/08/19 02:40	
Fluorene-d10	94	42 - 131	06/08/19 02:40	
Terphenyl-d14	80	32 - 129	06/08/19 02:40	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 10:50
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-37	**Units:**	ug/L
Lab Code:	K1905141-021	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0034**	**J**	0.020	0.0013	1	06/08/19 03:06	6/5/19	
Acenaphthene	**0.0020**	**J**	0.020	0.0012	1	06/08/19 03:06	6/5/19	
Acenaphthylene	ND	U	0.020	0.0011	1	06/08/19 03:06	6/5/19	
Anthracene	ND	U	0.020	0.00082	1	06/08/19 03:06	6/5/19	
Benz(a)anthracene	**0.0018**	**J**	0.020	0.00097	1	06/08/19 03:06	6/5/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	06/08/19 03:06	6/5/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	06/08/19 03:06	6/5/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	06/08/19 03:06	6/5/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	06/08/19 03:06	6/5/19	
Chrysene	ND	U	0.020	0.00076	1	06/08/19 03:06	6/5/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	06/08/19 03:06	6/5/19	
Dibenzofuran	**0.0032**	**J**	0.020	0.00096	1	06/08/19 03:06	6/5/19	
Fluoranthene	**0.0028**	**J**	0.020	0.00082	1	06/08/19 03:06	6/5/19	
Fluorene	**0.0029**	**J**	0.020	0.0011	1	06/08/19 03:06	6/5/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	06/08/19 03:06	6/5/19	
Naphthalene	**0.0034**	**J**	0.020	0.0014	1	06/08/19 03:06	6/5/19	
Phenanthrene	**0.0084**	**J**	0.020	0.0011	1	06/08/19 03:06	6/5/19	
Pyrene	**0.0022**	**J**	0.020	0.0010	1	06/08/19 03:06	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	90	42 - 133	06/08/19 03:06	
Fluorene-d10	92	42 - 131	06/08/19 03:06	
Terphenyl-d14	67	32 - 129	06/08/19 03:06	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/01/19 14:45
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-44 DUP.	**Units:**	ug/L
Lab Code:	K1905141-028	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0090**	**J**	0.040	0.0026	1	06/08/19 03:34	6/5/19	
Acenaphthene	**0.0049**	**J**	0.040	0.0024	1	06/08/19 03:34	6/5/19	
Acenaphthylene	ND	U	0.040	0.0022	1	06/08/19 03:34	6/5/19	
Anthracene	ND	U	0.040	0.0017	1	06/08/19 03:34	6/5/19	
Benz(a)anthracene	**0.0039**	**J**	0.040	0.0020	1	06/08/19 03:34	6/5/19	
Benzo(a)pyrene	ND	U	0.040	0.0022	1	06/08/19 03:34	6/5/19	
Benzo(b)fluoranthene	ND	U	0.040	0.0017	1	06/08/19 03:34	6/5/19	
Benzo(g,h,i)perylene	ND	U	0.040	0.0018	1	06/08/19 03:34	6/5/19	
Benzo(k)fluoranthene	ND	U	0.040	0.0019	1	06/08/19 03:34	6/5/19	
Chrysene	ND	U	0.040	0.0016	1	06/08/19 03:34	6/5/19	
Dibenz(a,h)anthracene	ND	U	0.040	0.0026	1	06/08/19 03:34	6/5/19	
Dibenzofuran	**0.0068**	**J**	0.040	0.0020	1	06/08/19 03:34	6/5/19	
Fluoranthene	**0.0042**	**J**	0.040	0.0017	1	06/08/19 03:34	6/5/19	
Fluorene	**0.0058**	**J**	0.040	0.0022	1	06/08/19 03:34	6/5/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.040	0.0018	1	06/08/19 03:34	6/5/19	
Naphthalene	**0.0075**	**J**	0.040	0.0028	1	06/08/19 03:34	6/5/19	
Phenanthrene	**0.019**	**J**	0.040	0.0022	1	06/08/19 03:34	6/5/19	
Pyrene	**0.0024**	**J**	0.040	0.0020	1	06/08/19 03:34	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	95	42 - 133	06/08/19 03:34	
Fluorene-d10	102	42 - 131	06/08/19 03:34	
Terphenyl-d14	48	32 - 129	06/08/19 03:34	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19 07:08
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	MW-3	**Units:**	ug/L
Lab Code:	K1905141-029	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0037 J**	0.020	0.0013	1	06/08/19 04:01	6/5/19	
Acenaphthene	**0.0024 J**	0.020	0.0012	1	06/08/19 04:01	6/5/19	
Acenaphthylene	ND U	0.020	0.0011	1	06/08/19 04:01	6/5/19	
Anthracene	ND U	0.020	0.00082	1	06/08/19 04:01	6/5/19	
Benz(a)anthracene	**0.0020 J**	0.020	0.00097	1	06/08/19 04:01	6/5/19	
Benzo(a)pyrene	ND U	0.020	0.0011	1	06/08/19 04:01	6/5/19	
Benzo(b)fluoranthene	ND U	0.020	0.00083	1	06/08/19 04:01	6/5/19	
Benzo(g,h,i)perylene	ND U	0.020	0.00086	1	06/08/19 04:01	6/5/19	
Benzo(k)fluoranthene	ND U	0.020	0.00094	1	06/08/19 04:01	6/5/19	
Chrysene	ND U	0.020	0.00076	1	06/08/19 04:01	6/5/19	
Dibenz(a,h)anthracene	ND U	0.020	0.0013	1	06/08/19 04:01	6/5/19	
Dibenzofuran	**0.0034 J**	0.020	0.00096	1	06/08/19 04:01	6/5/19	
Fluoranthene	**0.0015 J**	0.020	0.00082	1	06/08/19 04:01	6/5/19	
Fluorene	**0.0026 J**	0.020	0.0011	1	06/08/19 04:01	6/5/19	
Indeno(1,2,3-cd)pyrene	ND U	0.020	0.00089	1	06/08/19 04:01	6/5/19	
Naphthalene	**0.0043 J**	0.020	0.0014	1	06/08/19 04:01	6/5/19	
Phenanthrene	**0.0082 J**	0.020	0.0011	1	06/08/19 04:01	6/5/19	
Pyrene	**0.0013 J**	0.020	0.0010	1	06/08/19 04:01	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	91	42 - 133	06/08/19 04:01	
Fluorene-d10	95	42 - 131	06/08/19 04:01	
Terphenyl-d14	68	32 - 129	06/08/19 04:01	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KQ1907688-03	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0034**	**J**	0.020	0.0013	1	06/07/19 23:57	6/5/19	
Acenaphthene	**0.0023**	**J**	0.020	0.0012	1	06/07/19 23:57	6/5/19	
Acenaphthylene	ND	U	0.020	0.0011	1	06/07/19 23:57	6/5/19	
Anthracene	ND	U	0.020	0.00082	1	06/07/19 23:57	6/5/19	
Benz(a)anthracene	**0.0020**	**J**	0.020	0.00097	1	06/07/19 23:57	6/5/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	06/07/19 23:57	6/5/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	06/07/19 23:57	6/5/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	06/07/19 23:57	6/5/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	06/07/19 23:57	6/5/19	
Chrysene	ND	U	0.020	0.00076	1	06/07/19 23:57	6/5/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	06/07/19 23:57	6/5/19	
Dibenzofuran	**0.0032**	**J**	0.020	0.00096	1	06/07/19 23:57	6/5/19	
Fluoranthene	**0.0017**	**J**	0.020	0.00082	1	06/07/19 23:57	6/5/19	
Fluorene	**0.0030**	**J**	0.020	0.0011	1	06/07/19 23:57	6/5/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	06/07/19 23:57	6/5/19	
Naphthalene	**0.0032**	**J**	0.020	0.0014	1	06/07/19 23:57	6/5/19	
Phenanthrene	**0.0086**	**J**	0.020	0.0011	1	06/07/19 23:57	6/5/19	
Pyrene	**0.0012**	**J**	0.020	0.0010	1	06/07/19 23:57	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	95	42 - 133	06/07/19 23:57	
Fluorene-d10	96	42 - 131	06/07/19 23:57	
Terphenyl-d14	65	32 - 129	06/07/19 23:57	

Client: JH Baxter & Company **Service Request:** K1905141

Project: Arlington Landfill Wells/Landfill Program

Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D

Extraction Method: EPA 3511

Sample Name	Lab Code	Fluoranthene-d10 42-133	Fluorene-d10 42-131	Terphenyl-d14 32-129
MW-16	K1905141-003	98	98	73
MW-18	K1905141-005	96	99	68
MW-30	K1905141-015	99	103	46
MW-36	K1905141-020	91	94	80
MW-37	K1905141-021	90	92	67
MW-44 DUP.	K1905141-028	95	102	48
MW-3	K1905141-029	91	95	68
Method Blank	KQ1907688-03	95	96	65
Lab Control Sample	KQ1907688-01	100	96	64
Duplicate Lab Control Sample	KQ1907688-02	101	97	73

Client: JH Baxter & Company **Service Request:**K1905141
Project: Arlington Landfill Wells/Landfill Program **Date Analyzed:**06/07/19 21:38

Internal Standard Area and RT SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\060719\0607F028.D\ **Lab Code:**KQ1907979-01
Instrument ID: K-MS-14 **Analysis Lot:**638644
Analysis Method: 8270D **Signal ID:**1

		Acenaphthene-d10		Chrysene-d12		Naphthalene-d8	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Result ==>	28,174	6.29	64,987	10.04	58,051	4.74
	Upper Limit ==>	56,348	6.79	129,974	10.54	116,102	5.24
	Lower Limit ==>	14,087	5.79	32,494	9.54	29,026	4.24
Associated Analyses							
Method Blank	KQ1907688-03	37449	6.29	74280	10.04	74479	4.75
Lab Control Sample	KQ1907688-01	34903	6.29	70308	10.04	72667	4.75
Duplicate Lab Control Sample	KQ1907688-02	34047	6.29	69509	10.03	70913	4.75
MW-16	K1905141-003	36600	6.29	73110	10.03	72815	4.75
MW-18	K1905141-005	36549	6.29	74522	10.03	72970	4.75
MW-30	K1905141-015	35073	6.29	69703	10.03	69158	4.75
MW-36	K1905141-020	36215	6.29	74451	10.03	73394	4.75
MW-37	K1905141-021	37805	6.29	76075	10.03	75819	4.75
MW-44 DUP.	K1905141-028	34389	6.29	69756	10.03	67277	4.75
MW-3	K1905141-029	36613	6.29	72770	10.03	73149	4.75

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QA/QC Report

Client: JH Baxter & Company **Service Request:**K1905141
Project: Arlington Landfill Wells/Landfill Program **Date Analyzed:**06/07/19 21:38

Internal Standard Area and RT SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\060719\0607F028.D\ **Lab Code:**KQ1907979-01
Instrument ID: K-MS-14 **Analysis Lot:**638644
Analysis Method: 8270D **Signal ID:**1

		Perylene-d12		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**
	Result ==>	73,107	13.08	49,385	7.53
	Upper Limit ==>	146,214	13.58	98,770	8.03
	Lower Limit ==>	36,554	12.58	24,693	7.03
Associated Analyses					
Method Blank	KQ1907688-03	84508	13.07	69657	7.53
Lab Control Sample	KQ1907688-01	80034	13.07	63962	7.52
Duplicate Lab Control Sample	KQ1907688-02	79306	13.07	63158	7.52
MW-16	K1905141-003	82502	13.07	67508	7.53
MW-18	K1905141-005	84524	13.07	68353	7.53
MW-30	K1905141-015	79474	13.07	65456	7.53
MW-36	K1905141-020	85653	13.07	68644	7.52
MW-37	K1905141-021	88295	13.07	70659	7.52
MW-44 DUP.	K1905141-028	79559	13.07	65618	7.53
MW-3	K1905141-029	83694	13.07	68570	7.53

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/08/19
Sample Matrix:	Water	**Date Extracted:**	06/05/19

Duplicate Lab Control Sample Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method:	8270D	**Units:**	ug/L
Prep Method:	EPA 3511	**Basis:**	NA
		Analysis Lot:	638644

	Lab Control Sample KQ1907688-01			Duplicate Lab Control Sample KQ1907688-02					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
2-Methylnaphthalene	2.39	2.78	86	2.42	2.78	87	48-120	2	30
Acenaphthene	2.72	2.78	98	2.77	2.78	100	63-121	2	30
Acenaphthylene	2.75	2.78	99	2.79	2.78	100	58-124	1	30
Anthracene	2.97	2.78	107	3.01	2.78	108	68-127	2	30
Benz(a)anthracene	2.76	2.78	99	2.82	2.78	102	74-124	2	30
Benzo(a)pyrene	3.01	2.78	108	3.09	2.78	111	75-131	3	30
Benzo(b)fluoranthene	2.75	2.78	99	2.83	2.78	102	73-136	3	30
Benzo(g,h,i)perylene	2.23	2.78	80	2.27	2.78	82	63-127	2	30
Benzo(k)fluoranthene	2.74	2.78	99	2.82	2.78	101	74-134	3	30
Chrysene	2.64	2.78	95	2.72	2.78	98	74-132	3	30
Dibenz(a,h)anthracene	2.61	2.78	94	2.68	2.78	97	59-135	3	30
Dibenzofuran	2.63	2.78	95	2.68	2.78	97	56-132	2	30
Fluoranthene	2.58	2.78	93	2.64	2.78	95	70-127	2	30
Fluorene	2.57	2.78	92	2.62	2.78	94	68-121	2	30
Indeno(1,2,3-cd)pyrene	2.70	2.78	97	2.73	2.78	98	63-136	<1	30
Naphthalene	2.56	2.78	92	2.59	2.78	93	52-115	1	30
Phenanthrene	2.64	2.78	95	2.68	2.78	96	64-126	1	30
Pyrene	2.29	2.78	82	2.35	2.78	85	72-127	3	30

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/07/19 23:57
Sample Matrix:	Water	**Date Extracted:**	06/05/19

Method Blank Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Sample Name:	Method Blank	**Instrument ID:**	K-MS-14
Lab Code:	KQ1907688-03	**File ID:**	J:\MS14\DATA\060719\0607F033.D\
Analysis Method:	8270D	**Analysis Lot:**	638644
Prep Method:	EPA 3511	**Extraction Lot:**	338019

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1907688-01	J:\MS14\DATA\060719\0607F034.D\	06/08/19 00:24
Duplicate Lab Control Sample	KQ1907688-02	J:\MS14\DATA\060719\0607F035.D\	06/08/19 00:51
MW-16	K1905141-003	J:\MS14\DATA\060719\0607F036.D\	06/08/19 01:18
MW-18	K1905141-005	J:\MS14\DATA\060719\0607F037.D\	06/08/19 01:45
MW-30	K1905141-015	J:\MS14\DATA\060719\0607F038.D\	06/08/19 02:13
MW-36	K1905141-020	J:\MS14\DATA\060719\0607F039.D\	06/08/19 02:40
MW-37	K1905141-021	J:\MS14\DATA\060719\0607F040.D\	06/08/19 03:06
MW-44 DUP.	K1905141-028	J:\MS14\DATA\060719\0607F041.D\	06/08/19 03:34
MW-3	K1905141-029	J:\MS14\DATA\060719\0607F042.D\	06/08/19 04:01

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QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/08/19 00:24
Sample Matrix:	Water	**Date Extracted:**	06/05/19

Lab Control Sample Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Sample Name:	Lab Control Sample	**Instrument ID:**	K-MS-14
Lab Code:	KQ1907688-01	**File ID:**	J:\MS14\DATA\060719\0607F034.D\
Analysis Method:	8270D	**Analysis Lot:**	638644
Prep Method:	EPA 3511	**Extraction Lot:**	338019

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1907688-03	J:\MS14\DATA\060719\0607F033.D\	06/07/19 23:57
Duplicate Lab Control Sample	KQ1907688-02	J:\MS14\DATA\060719\0607F035.D\	06/08/19 00:51
MW-16	K1905141-003	J:\MS14\DATA\060719\0607F036.D\	06/08/19 01:18
MW-18	K1905141-005	J:\MS14\DATA\060719\0607F037.D\	06/08/19 01:45
MW-30	K1905141-015	J:\MS14\DATA\060719\0607F038.D\	06/08/19 02:13
MW-36	K1905141-020	J:\MS14\DATA\060719\0607F039.D\	06/08/19 02:40
MW-37	K1905141-021	J:\MS14\DATA\060719\0607F040.D\	06/08/19 03:06
MW-44 DUP.	K1905141-028	J:\MS14\DATA\060719\0607F041.D\	06/08/19 03:34
MW-3	K1905141-029	J:\MS14\DATA\060719\0607F042.D\	06/08/19 04:01

ALS Group USA, Corp.
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QC/QC Report

Client: JH Baxter & Company **Service Request:**K1905141
Project: Arlington Landfill Wells/Landfill Program **Date Analyzed:**06/07/19 21:11

Tune Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\060719\0607F027.D\ **Analytical Method:** 8270D
Instrument ID: K-MS-14 **Analysis Lot:** 638644

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	23.25	104640	Pass
68	69	0	2	1.79	2181	Pass
69	198	0	100	27.03	121640	Pass
70	69	0	2	0.52	631	Pass
127	198	10	80	41.99	188978	Pass
197	198	0	2	0.28	1252	Pass
198	442	30	100	35.57	450090	Pass
199	198	5	9	6.67	30033	Pass
275	198	10	60	36.03	162184	Pass
365	442	1	50	2.13	26896	Pass
441	443	0.01	100	73.34	181120	Pass
442	442	30	100	100.00	1265258	Pass
443	442	15	24	19.52	246976	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	KQ1907979-01	J:\MS14\DATA\060719\0607F028.D\	06/07/19 21:38	
Method Blank	KQ1907688-03	J:\MS14\DATA\060719\0607F033.D\	06/07/19 23:57	
Lab Control Sample	KQ1907688-01	J:\MS14\DATA\060719\0607F034.D\	06/08/19 00:24	
Duplicate Lab Control Sample	KQ1907688-02	J:\MS14\DATA\060719\0607F035.D\	06/08/19 00:51	
MW-16	K1905141-003	J:\MS14\DATA\060719\0607F036.D\	06/08/19 01:18	
MW-18	K1905141-005	J:\MS14\DATA\060719\0607F037.D\	06/08/19 01:45	
MW-30	K1905141-015	J:\MS14\DATA\060719\0607F038.D\	06/08/19 02:13	
MW-36	K1905141-020	J:\MS14\DATA\060719\0607F039.D\	06/08/19 02:40	
MW-37	K1905141-021	J:\MS14\DATA\060719\0607F040.D\	06/08/19 03:06	
MW-44 DUP.	K1905141-028	J:\MS14\DATA\060719\0607F041.D\	06/08/19 03:34	
MW-3	K1905141-029	J:\MS14\DATA\060719\0607F042.D\	06/08/19 04:01	

Client: JH Baxter & Company **Service Request:** K1905141
Project: Arlington Landfill Wells **Calibration Date:** 4/25/2019

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900163 **Signal ID:** 1
Instrument ID: K-MS-14

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900163-01	SIM-PAH ICAL @.002 | SVM61-6A	J:\MS14\DATA\042519\0425F004.D	04/25/2019 07:41
02	KC1900163-02	SIM-PAH ICAL @.004 | SVM61-6B	J:\MS14\DATA\042519\0425F005.D	04/25/2019 08:08
03	KC1900163-03	SIM-PAH ICAL @.008 | SVM61-6C	J:\MS14\DATA\042519\0425F006.D	04/25/2019 08:35
04	KC1900163-04	SIM-PAH ICAL @0.02 | SVM61-6D	J:\MS14\DATA\042519\0425F007.D	04/25/2019 09:02
05	KC1900163-05	SIM-PAH @ 0.1 ppm | SVM61-6E	J:\MS14\DATA\042519\0425F008.D	04/25/2019 09:29
06	KC1900163-06	SIM-PAH @ 0.2 ppm | SVM61-6F	J:\MS14\DATA\042519\0425F009.D	04/25/2019 09:56
07	KC1900163-07	SIM-PAH @ 0.4 ppm | SVM61-6G	J:\MS14\DATA\042519\0425F010.D	04/25/2019 10:23
08	KC1900163-08	SIM-PAH @ 1.0 ppm | SVM61-6H	J:\MS14\DATA\042519\0425F011.D	04/25/2019 10:50
09	KC1900163-09	SIM-PAH @ 1.6 ppm | SVM61-6I	J:\MS14\DATA\042519\0425F012.D	04/25/2019 11:18
10	KC1900163-10	SIM-PAH @ 2.0 ppm | SVM61-6J	J:\MS14\DATA\042519\0425F013.D	04/25/2019 11:45

Analyte

2-Methylnaphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	0.8034	02	4.000	0.7982	03	8.000	0.788	04	20.000	0.7807
05	100.000	0.7679	06	200.000	0.7362	07	400.000	0.7221	08	1000.000	0.6556
09	1600.000	0.639	10	2000.000	0.6208						

Acenaphthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.312	02	4.000	1.313	03	8.000	1.267	04	20.000	1.28
05	100.000	1.267	06	200.000	1.232	07	400.000	1.234	08	1000.000	1.16
09	1600.000	1.115	10	2000.000	1.072						

Acenaphthylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	2.353	02	4.000	2.222	03	8.000	2.079	04	20.000	2.009
05	100.000	1.995	06	200.000	1.973	07	400.000	1.993	08	1000.000	1.911
09	1600.000	1.858	10	2000.000	1.791						

Anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.144	02	4.000	1.14	03	8.000	1.113	04	20.000	1.127
05	100.000	1.159	06	200.000	1.147	07	400.000	1.132	08	1000.000	1.036
09	1600.000	0.9918	10	2000.000	0.9455						

Benz(a)anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.477	02	4.000	1.31	03	8.000	1.223	04	20.000	1.191
05	100.000	1.219	06	200.000	1.244	07	400.000	1.316	08	1000.000	1.306
09	1600.000	1.321	10	2000.000	1.285						

Benzo(a)pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	0.9893	02	4.000	0.9363	03	8.000	0.9273	04	20.000	0.9713
05	100.000	1.027	06	200.000	1.027	07	400.000	1.089	08	1000.000	1.075

Client: JH Baxter & Company **Service Request:** K1905141
Project: Arlington Landfill Wells **Calibration Date:** 4/25/2019

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900163 **Signal ID:** 1
Instrument ID: K-MS-14

Analyte

Benzo(a)pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	1600.000	1.094	10	2000.000	1.046						

Benzo(b)fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.344	02	4.000	1.265	03	8.000	1.22	04	20.000	1.226
05	100.000	1.295	06	200.000	1.269	07	400.000	1.331	08	1000.000	1.271
09	1600.000	1.275	10	2000.000	1.217						

Benzo(g,h,i)perylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.57	02	4.000	1.523	03	8.000	1.501	04	20.000	1.542
05	100.000	1.449	06	200.000	1.359	07	400.000	1.267	08	1000.000	1.165
09	1600.000	1.126	10	2000.000	1.094						

Benzo(k)fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.146	02	4.000	1.134	03	8.000	1.155	04	20.000	1.178
05	100.000	1.285	06	200.000	1.236	07	400.000	1.289	08	1000.000	1.205
09	1600.000	1.202	10	2000.000	1.152						

Chrysene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.269	02	4.000	1.285	03	8.000	1.251	04	20.000	1.29
05	100.000	1.284	06	200.000	1.254	07	400.000	1.266	08	1000.000	1.224
09	1600.000	1.218	10	2000.000	1.183						

Dibenz(a,h)anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.112	02	4.000	0.9835	03	8.000	0.9798	04	20.000	1.028
05	100.000	1.134	06	200.000	1.108	07	400.000	1.129	08	1000.000	1.103
09	1600.000	1.105	10	2000.000	1.077						

Dibenzofuran

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	2.179	02	4.000	2.081	03	8.000	2.016	04	20.000	2.031
05	100.000	1.968	06	200.000	1.898	07	400.000	1.893	08	1000.000	1.779
09	1600.000	1.714	10	2000.000	1.664						

Fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.477	02	4.000	1.418	03	8.000	1.399	04	20.000	1.446
05	100.000	1.529	06	200.000	1.523	07	400.000	1.504	08	1000.000	1.36
09	1600.000	1.28	10	2000.000	1.218						

Fluoranthene-d10

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.195	02	4.000	1.146	03	8.000	1.116	04	20.000	1.155

Client: JH Baxter & Company **Service Request:** K1905141
Project: Arlington Landfill Wells **Calibration Date:** 4/25/2019

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900163 **Signal ID:** 1
Instrument ID: K-MS-14

Analyte

Fluoranthene-d10

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	100.000	1.224	06	200.000	1.233	07	400.000	1.244	08	1000.000	1.181
09	1600.000	1.137	10	2000.000	1.089						

Fluorene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.827	02	4.000	1.666	03	8.000	1.571	04	20.000	1.579
05	100.000	1.539	06	200.000	1.491	07	400.000	1.466	08	1000.000	1.348
09	1600.000	1.29	10	2000.000	1.23						

Fluorene-d10

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	1.3	03	8.000	1.23	04	20.000	1.21	05	100.000	1.171
06	200.000	1.131	07	400.000	1.132	08	1000.000	1.054	09	1600.000	1.02
10	2000.000	0.9846									

Indeno(1,2,3-cd)pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.013	02	4.000	0.9951	03	8.000	0.9466	04	20.000	0.9946
05	100.000	1.071	06	200.000	1.023	07	400.000	1.04	08	1000.000	1.022
09	1600.000	1.028	10	2000.000	1.003						

Naphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.065	02	4.000	1.14	03	8.000	1.106	04	20.000	1.108
05	100.000	1.089	06	200.000	1.057	07	400.000	1.071	08	1000.000	1.032
09	1600.000	1.032	10	2000.000	1.012						

Phenanthrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.415	02	4.000	1.347	03	8.000	1.255	04	20.000	1.258
05	100.000	1.243	06	200.000	1.205	07	400.000	1.185	08	1000.000	1.087
09	1600.000	1.034	10	2000.000	0.9887						

Pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.751	02	4.000	1.672	03	8.000	1.678	04	20.000	1.712
05	100.000	1.653	06	200.000	1.576	07	400.000	1.568	08	1000.000	1.437
09	1600.000	1.398	10	2000.000	1.328						

Terphenyl-d14

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	1.012	03	8.000	1.002	04	20.000	1.003	05	100.000	0.9763
06	200.000	0.9466	07	400.000	0.9457	08	1000.000	0.8435	09	1600.000	0.818
10	2000.000	0.7764									

Client: JH Baxter & Company
Project: Arlington Landfill Wells

Service Request: K1905141
Calibration Date: 4/25/2019

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900163
Instrument ID: K-MS-14

Signal ID: 1

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
2-Methylnaphthalene	TRG	Average RF	% RSD	9.5	≤20	0.7312	0.40
Acenaphthene	TRG	Average RF	% RSD	6.8	≤20	1.225	0.90
Acenaphthylene	TRG	Average RF	% RSD	8.2	≤20	2.018	0.90
Anthracene	TRG	Average RF	% RSD	6.8	≤20	1.094	0.70
Benz(a)anthracene	TRG	Average RF	% RSD	6.3	≤20	1.289	0.80
Benzo(a)pyrene	TRG	Average RF	% RSD	5.9	≤20	1.018	0.70
Benzo(b)fluoranthene	TRG	Average RF	% RSD	3.4	≤20	1.271	0.70
Benzo(g,h,i)perylene	TRG	Average RF	% RSD	13.5	≤20	1.36	0.50
Benzo(k)fluoranthene	TRG	Average RF	% RSD	4.7	≤20	1.198	0.70
Chrysene	TRG	Average RF	% RSD	2.8	≤20	1.252	0.70
Dibenz(a,h)anthracene	TRG	Average RF	% RSD	5.4	≤20	1.076	0.40
Dibenzofuran	TRG	Average RF	% RSD	8.6	≤20	1.922	0.80
Fluoranthene	TRG	Average RF	% RSD	7.4	≤20	1.416	0.60
Fluoranthene-d10	SURR	Average RF	% RSD	4.5	≤20	1.172	0.01
Fluorene	TRG	Average RF	% RSD	11.9	≤20	1.501	0.90
Fluorene-d10	SURR	Average RF	% RSD	9.1	≤20	1.137	0.01
Indeno(1,2,3-cd)pyrene	TRG	Average RF	% RSD	3.2	≤20	1.014	0.50
Naphthalene	TRG	Average RF	% RSD	3.7	≤20	1.071	0.70
Phenanthrene	TRG	Average RF	% RSD	11.1	≤20	1.202	0.70
Pyrene	TRG	Average RF	% RSD	9.1	≤20	1.577	0.60
Terphenyl-d14	SURR	Average RF	% RSD	9.6	≤20	0.9249	0.01

Client: JH Baxter & Company **Service Request:** K1905141
Project: Arlington Landfill Wells **Calibration Date:** 4/25/2019

Initial Calibration Verification Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900163 **Signal ID:** 1
Instrument ID: K-MS-14

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900163-11	SIM-PAH ICV @ 0.4 ppm | SVM61-6K	J:\MS14\DATA\042519\0425F014.D	04/25/2019 12:12

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
2-Methylnaphthalene	400	360	7.312E-1	6.578E-1	-10.038	±30	Average RF
Acenaphthene	400	362	1.225E0	1.11E0	-9.427	±30	Average RF
Acenaphthylene	400	385	2.018E0	1.943E0	-3.713	±30	Average RF
Anthracene	400	405	1.094E0	1.107E0	1.26	±30	Average RF
Benz(a)anthracene	400	378	1.289E0	1.218E0	-5.506	±30	Average RF
Benzo(a)pyrene	400	413	1.018E0	1.051E0	3.23	±30	Average RF
Benzo(b)fluoranthene	400	387	1.271E0	1.231E0	-3.192	±30	Average RF
Benzo(g,h,i)perylene	400	332	1.36E0	1.127E0	-17.089	±30	Average RF
Benzo(k)fluoranthene	400	408	1.198E0	1.222E0	2.01	±30	Average RF
Chrysene	400	365	1.252E0	1.142E0	-8.799	±30	Average RF
Dibenz(a,h)anthracene	400	385	1.076E0	1.037E0	-3.657	±30	Average RF
Dibenzofuran	400	327	1.922E0	1.569E0	-18.359	±30	Average RF
Fluoranthene	400	412	1.416E0	1.459E0	3.08	±30	Average RF
Fluorene	400	366	1.501E0	1.373E0	-8.498	±30	Average RF
Indeno(1,2,3-cd)pyrene	400	405	1.014E0	1.027E0	1.36	±30	Average RF
Naphthalene	400	375	1.071E0	1.003E0	-6.336	±30	Average RF
Phenanthrene	400	361	1.202E0	1.086E0	-9.649	±30	Average RF
Pyrene	400	354	1.577E0	1.396E0	-11.461	±30	Average RF

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Fluoranthene-d10	400	435	1.172E0	1.275E0	8.84	±30	Average RF
Fluorene-d10	400	405	1.137E0	1.15E0	1.17	±30	Average RF
Terphenyl-d14	400	407	9.249E-1	9.406E-1	1.70	±30	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905141
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/07/19 21:38

Continuing Calibration Verification (CCV) Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method:	8270D	**Calibration Date:**	4/25/2019
File ID:	J:\MS14\DATA\060719\0607F028.D\	**Calibration ID:**	KC1900163
Signal ID:	1	**Analysis Lot:**	638644
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2-Methylnaphthalene	400	394	0.7312	0.7211	-1.4	NA	±20	Average RF
Acenaphthene	400	423	1.2252	1.2956	5.7	NA	±20	Average RF
Acenaphthylene	400	422	2.0183	2.131	5.6	NA	±20	Average RF
Anthracene	400	442	1.0936	1.2072	10.4	NA	±20	Average RF
Benz(a)anthracene	400	427	1.2892	1.3759	6.7	NA	±20	Average RF
Benzo(a)pyrene	400	471	1.0182	1.2	17.9	NA	±20	Average RF
Benzo(b)fluoranthene	400	433	1.2714	1.3775	8.3	NA	±20	Average RF
Benzo(g,h,i)perylene	400	370	1.3597	1.2566	-7.6	NA	±20	Average RF
Benzo(k)fluoranthene	400	440	1.1983	1.3189	10.1	NA	±20	Average RF
Chrysene	400	420	1.2525	1.3151	5.0	NA	±20	Average RF
Dibenz(a,h)anthracene	400	433	1.0759	1.1635	8.1	NA	±20	Average RF
Dibenzofuran	400	399	1.9223	1.9186	-0.2	NA	±20	Average RF
Fluoranthene	400	481	1.4155	1.7037	20.4	NA	±20	Average RF
Fluorene	400	394	1.5007	1.4782	-1.5	NA	±20	Average RF
Indeno(1,2,3-cd)pyrene	400	452	1.0136	1.1449	13.0	NA	±20	Average RF
Naphthalene	400	410	1.0714	1.0985	2.5	NA	±20	Average RF
Phenanthrene	400	407	1.2019	1.2221	1.7	NA	±20	Average RF
Pyrene	400	355	1.5772	1.3986	-11.3	NA	±20	Average RF

Client: JH Baxter & Company **Service Request:**K1905141
Project: Arlington Landfill Wells/Landfill Program

Analysis Run Log
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: **Analysis Lot:**638644
Instrument ID:K-MS-14

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\MS14\DATA\060719\0607F027.D\	ZZZZZZZ	ZZZZZZZ	6/7/2019	21:11:00	
J:\MS14\DATA\060719\0607F027.D\	ZZZZZZZ	ZZZZZZZ	6/7/2019	21:11:00	
J:\MS14\DATA\060719\0607F028.D\	ZZZZZZZ	ZZZZZZZ	6/7/2019	21:38:00	
J:\MS14\DATA\060719\0607F028.D\	Continuing Calibration Verification	KQ1907979-01	6/7/2019	21:38:00	
J:\MS14\DATA\060719\0607F029.D\	ZZZZZZZ	ZZZZZZZ	6/7/2019	22:06:00	
J:\MS14\DATA\060719\0607F030.D\	ZZZZZZZ	ZZZZZZZ	6/7/2019	22:35:00	
J:\MS14\DATA\060719\0607F031.D\	ZZZZZZZ	ZZZZZZZ	6/7/2019	23:02:00	
J:\MS14\DATA\060719\0607F032.D\	ZZZZZZZ	ZZZZZZZ	6/7/2019	23:29:00	
J:\MS14\DATA\060719\0607F033.D\	Method Blank	KQ1907688-03	6/7/2019	23:57:00	
J:\MS14\DATA\060719\0607F034.D\	Lab Control Sample	KQ1907688-01	6/8/2019	00:24:00	
J:\MS14\DATA\060719\0607F035.D\	Duplicate Lab Control Sample	KQ1907688-02	6/8/2019	00:51:00	
J:\MS14\DATA\060719\0607F036.D\	MW-16	K1905141-003	6/8/2019	01:18:00	
J:\MS14\DATA\060719\0607F037.D\	MW-18	K1905141-005	6/8/2019	01:45:00	
J:\MS14\DATA\060719\0607F038.D\	MW-30	K1905141-015	6/8/2019	02:13:00	
J:\MS14\DATA\060719\0607F039.D\	MW-36	K1905141-020	6/8/2019	02:40:00	
J:\MS14\DATA\060719\0607F040.D\	MW-37	K1905141-021	6/8/2019	03:06:00	
J:\MS14\DATA\060719\0607F041.D\	MW-44 DUP.	K1905141-028	6/8/2019	03:34:00	
J:\MS14\DATA\060719\0607F042.D\	MW-3	K1905141-029	6/8/2019	04:01:00	
J:\MS14\DATA\060719\0607F043.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	04:29:00	
J:\MS14\DATA\060719\0607F044.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	04:56:00	
J:\MS14\DATA\060719\0607F045.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	05:24:00	
J:\MS14\DATA\060719\0607F046.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	05:52:00	
J:\MS14\DATA\060719\0607F047.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	06:20:00	
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J:\MS14\DATA\060719\0607F049.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	07:16:00	
J:\MS14\DATA\060719\0607F050.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	07:43:00	

Prep Summary Report

Client: JH Baxter & Company **Service Request:**K1905141
Project: Arlington Landfill Wells/Landfill Program
Sample Matrix: Water

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Prep Method: EPA 3511 **Extraction Lot:** 338019
Analytical Method: 8270D **Extraction Date:** 06/05/19 10:03

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
MW-16	K1905141-003	6/1/19	6/4/19	450 mL	2 mL	
MW-18	K1905141-005	6/1/19	6/4/19	450 mL	2 mL	
MW-30	K1905141-015	6/1/19	6/4/19	450 mL	4 mL	
MW-36	K1905141-020	6/1/19	6/4/19	450 mL	2 mL	
MW-37	K1905141-021	6/1/19	6/4/19	450 mL	2 mL	
MW-44 DUP.	K1905141-028	6/1/19	6/4/19	450 mL	4 mL	
MW-3	K1905141-029	6/2/19	6/4/19	450 mL	2 mL	
Lab Control Sample	KQ1907688-01LCS	NA	NA	450 mL	2 mL	
Duplicate Lab Control Sample	KQ1907688-02DLCS	NA	NA	450 mL	2 mL	
Method Blank	KQ1907688-03MB	NA	NA	450 mL	2 mL	

Raw Data

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Chlorinated Phenolics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 338052
Team: Semivoa GC/WVANDERHOFF
Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method
Status: Prepped
Prep Date/Time: 6/5/19 13:27

Number of Copies to make: 1

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1905141-001	HCMW-7	.03	8151A Modified/PCP		Water	5mL	1.00mL	
2	K1905141-002	MW-15	.03	8151A Modified/PCP		Water	5mL	1.00mL	
3	K1905141-003	MW-16	.03	8151A Modified/PCP		Water	5mL	1.00mL	
4	K1905141-004	MW-17	.03	8151A Modified/PCP		Water	5mL	1.00mL	
5	K1905141-005	MW-18	.03	8151A Modified/PCP		Water	5mL	1.00mL	
6	K1905141-006	MW-2	.03	8151A Modified/PCP		Water	5mL	1.00mL	
7	K1905141-007	MW-22	.03	8151A Modified/PCP		Water	5mL	1.00mL	
8	K1905141-008	MW-23	.03	8151A Modified/PCP		Water	5mL	1.00mL	
9	K1905141-009	MW-24	.03	8151A Modified/PCP		Water	5mL	1.00mL	
10	K1905141-010	MW-25	.03	8151A Modified/PCP		Water	5mL	1.00mL	
11	K1905141-011	MW-26	.03	8151A Modified/PCP		Water	5mL	1.00mL	
12	K1905141-012	MW-27	.03	8151A Modified/PCP		Water	5mL	1.00mL	
13	K1905141-015	MW-30	.03	8151A Modified/PCP		Water	5mL	1.00mL	
14	K1905141-013	MW-28	.03	8151A Modified/PCP		Water	5mL	1.00mL	
15	K1905141-014	MW-29	.03	8151A Modified/PCP		Water	5mL	1.00mL	
16	K1905141-016	MW-31	.03	8151A Modified/PCP		Water	5mL	1.00mL	
17	K1905141-017	MW-32	.03	8151A Modified/PCP		Water	5mL	1.00mL	
18	K1905141-018	MW-33	.03	8151A Modified/PCP		Water	5mL	1.00mL	
19	K1905141-019	MW-34	.03	8151A Modified/PCP		Water	5mL	1.00mL	
20	K1905141-020	MW-36	.03	8151A Modified/PCP		Water	5mL	1.00mL	
21	KQ1907722-01	K1905141-020 MS	.03	8151A Modified/PCP		Liquid	5mL	1.00mL	
22	KQ1907722-02	K1905141-020 DMS	.03	8151A Modified/PCP		Liquid	5mL	1.00mL	
23	KQ1907722-03	LCS		8151A Modified/PCP		Liquid	5mL	1.00mL	
24	KQ1907722-04	MB		8151A Modified/PCP		Liquid	5mL	1.00mL	

Spiking Solutions

Name: 8151M Penta Matrix Spike Inventory ID 197895 Logbook Ref: Penta01-95L Expires On: 09/20/2019

KQ1907722-01 100.00µL KQ1907722-02 100.00µL KQ1907722-03 100.00µL

Name: 8151M Penta Surrogate Inventory ID 199349 Logbook Ref: Penta01-97J Expires On: 11/13/2019

K1905141-001	100.00µL	K1905141-002	100.00µL	K1905141-003	100.00µL	K1905141-004	100.00µL	K1905141-005	100.00µL	K1905141-006	100.00µL
K1905141-007	100.00µL	K1905141-008	100.00µL	K1905141-009	100.00µL	K1905141-010	100.00µL	K1905141-011	100.00µL	K1905141-012	100.00µL
K1905141-013	100.00µL	K1905141-014	100.00µL	K1905141-015	100.00µL	K1905141-016	100.00µL	K1905141-017	100.00µL	K1905141-018	100.00µL

Preparation Information Benchsheet

Prep Run#: 338052 **Prep WorkFlow:** OrgExtPcpAq7 **Status:** Prepped
Team: Semivoa GC/WVANDERHOFF **Prep Method:** Method **Prep Date/Time:** 6/5/19 13:27

K1905141-019	100.00µL	K1905141-020	100.00µL	KQ1907722-01	100.00µL	KQ1907722-02	100.00µL	KQ1907722-03	100.00µL	KQ1907722-04	100.00µL

Preparation Steps

Step:	Extraction	Step:	Derivitization	Step:	Final Volume
Started:	6/5/19 13:27	Started:	6/12/19 11:26	Started:	6/12/19 11:54
Finished:	6/5/19 14:04	Finished:	6/12/19 11:54	Finished:	6/12/19 13:35
By:	WVANDERHOFF	By:	WVANDERHOFF	By:	WVANDERHOFF
Comments		Comments		Comments	

Comments: _____

Reviewed By: _____ Date: 6/14/19

Chain of Custody

Relinquished By: _____ Date: 6-12-19

Received By: _____ Date: 6/13/19

Extracts Examined: Yes / No

Preparation Information Benchsheet

Prep Run#: 338052 **Prep WorkFlow:** OrgExtPcpAq7 **Status:** Draft
Team: Semivoa GC/WVANDERHOFF **Prep Method:** Method **Prep Date/Time:** 6/5/19 11:53 AM
Number of Copies to make: 1

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. mL.	pH	Int. Vol mL.	Final Vol mL.	Surr Amt	Spike Amt
1	**K1905141-001**	HCMW-7	.03	✓	8151A Modified / PCP	Water	5	<2		1	100	-
2	**K1905141-002**	MW-15	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
3	**K1905141-003**	MW-16	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
4	**K1905141-004**	MW-17	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
5	**K1905141-005**	MW-18	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
6	**K1905141-006**	MW-2	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
7	**K1905141-007**	MW-22	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
8	**K1905141-008**	MW-23	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
9	**K1905141-009**	MW-24	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
10	**K1905141-010**	MW-25	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
11	**K1905141-011**	MW-26	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
12	**K1905141-012**	MW-27	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
13	**K1905141-015**	MW-30	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
14	**K1905141-013**	MW-28	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
15	**K1905141-014**	MW-29	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
16	**K1905141-016**	MW-31	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
17	**K1905141-017**	MW-32	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
18	**K1905141-018**	MW-33	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
19	**K1905141-019**	MW-34	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
20	**K1905141-020**	MW-36	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
21	**KQ1907722-01**	K1905141-020 MS	.03	✓	8151A Modified / PCP	Liquid	5	<2		1		100
22	**KQ1907722-02**	K1905141-020 DMS	.03	✓	8151A Modified / PCP	Liquid	5	<2		1		
23	**KQ1907722-03**	LCS	—	—	8151A Modified / PCP	Liquid	5	<2		1		
24	**KQ1907722-04**	MB	—	—	8151A Modified / PCP	Liquid	5	<2		1		-

Comments:

Surrogate ID: 199,349-Penta01-97J 199,349-Penta01-97J 199,349-Penta01-97J 199,349-Penta01-97J 199,34 500 ppb 100 µL xp 11/13/19 Epp #28

Spike ID: 197,895-Penta01-95L 199,349-Penta01-97J 197,895-Penta01-95L 199,349-Penta01-97J 197,895 500 ppb 100 µL xp 9/20/19 Epp #2

Witnessed By: 6/5/19

Analyst: WSV

Assisted By:

Additional Prep Information for Method 8151M
Chlorinated Phenols "PCPs" in Water

Service Request # K1905141 **Work Group #** KQ1901722

1:1 Sulfuric Acid Lot # 7121159 Ethyl Ether Lot # DN176·45

Extraction Start (time/date/initial): 13:27 6/8/19 SD WS

Extraction Stop (time/date/initial): 14:04 6/5/19 ~~SD~~ WS

Storage Location (overnight): 25R Acidified Sulfate Lot # DZ03·87B

N-Evap (time/date/initial): 09:09 6·12·19 WS N-Evap Thermometer ID: DWB·012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Derivatization Start (time/date/initial): ~~13:27 6·5·19 SD~~ 11:26 6·12·19 WS 6/5/19 SD

Derivatization Stop (time/date/initial): 11:54 6·12·19 WS

Diazomethane Lot # DZ03·41C Methanol Lot # DN615

Solvent Exchange to Iso-Octane (time/date/initial): 11:54 6·12·19 WS

Iso-Octane Lot # DM 121 N-Evap Thermometer ID: DWB·012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Pipette (1 mL) Lot # 28517645

Vial: red Vial Storage: penta

Additional Comments:

Bench Sheet Review Check List
☐ Hold times met (if no, reason:)
☐ Prep date, time, method, department, product code correct in stealth
☐ Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☐ Weights/Volumes and units correct on raw and final bench sheets
☐ Sample IDs have been checked - bottle numbers appended if required
☐ Names present for: started by, completed by, relinquished by, and witnessed by. Training circled.
☐ Extract storage recorded
☐ Additional prep sheet completely filled out (NA or line out blanks)
☐ All clean-ups have been noted on additional prep sheet
☐ Signed service request with Form V, if applicable, has been attached

Preparation Information Benchsheet

Prep Run#: 338123
Team: Semivoa GC/WVANDERHOFF
Number of Copies to make: 1

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method

Status: Prepped
Prep Date/Time: 6/6/19 08:48

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1905141-021	MW-37	.03	8151A Modified/PCP		Water	5mL	1.00mL	
2	K1905141-022	MW-38	.03	8151A Modified/PCP		Water	5mL	1.00mL	
3	K1905141-023	MW-39	.03	8151A Modified/PCP		Water	5mL	1.00mL	
4	K1905141-024	MW-40	.03	8151A Modified/PCP		Water	5mL	1.00mL	
5	K1905141-025	MW-41	.03	8151A Modified/PCP		Water	5mL	1.00mL	
6	K1905141-026	MW-42	.03	8151A Modified/PCP		Water	5mL	1.00mL	
7	K1905141-027	MW-43	.03	8151A Modified/PCP		Water	5mL	1.00mL	
8	K1905141-028	MW-44 DUP.	.03	8151A Modified/PCP		Water	5mL	1.00mL	
9	K1905141-029	MW-3	.03	8151A Modified/PCP		Water	5mL	1.00mL	
10	KQ1907796-01	K1905141-029 MS	.03	8151A Modified/PCP		Liquid	5mL	1.00mL	
11	KQ1907796-02	K1905141-029 DMS	.03	8151A Modified/PCP		Liquid	5mL	1.00mL	
12	KQ1907796-03	LCS		8151A Modified/PCP		Liquid	5mL	1.00mL	
13	KQ1907796-04	MB		8151A Modified/PCP		Liquid	5mL	1.00mL	

Spiking Solutions

Name: 8151M Penta Matrix Spike Inventory ID 197895 Logbook Ref: Penta01-95L Expires On: 09/20/2019

KQ1907796-01 100.00µL KQ1907796-02 100.00µL KQ1907796-03 100.00µL

Name: 8151M Penta Surrogate Inventory ID 199349 Logbook Ref: Penta01-97J Expires On: 11/13/2019

K1905141-021 100.00µL K1905141-022 100.00µL K1905141-023 100.00µL K1905141-024 100.00µL K1905141-025 100.00µL K1905141-026 100.00µL
K1905141-027 100.00µL K1905141-028 100.00µL K1905141-029 100.00µL KQ1907796-01 100.00µL KQ1907796-02 100.00µL KQ1907796-03 100.00µL
KQ1907796-04 100.00µL

Preparation Steps

Step: Extraction
Started: 6/6/19 08:48
Finished: 6/11/19 15:04
By: ~~KVAN~~
Comments: VEV

Step: Final Volume
Started: 6/12/19 11:54
Finished: 6/12/19 13:31
By: WVANDERHOFF
Comments

Comments:

Reviewed By: MC Date: 6/14/19

Preparation Information Benchsheet

Prep Run#: 338123
Team: Semivoa GC/WVANDERHOFF

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method

Status: Prepped
Prep Date/Time: 6/6/19 08:48

Chain of Custody

Relinquished By: [signature] Date: 6-12-19

Received By: [signature] Date: 6/13/19

Extracts Examined
Yes No

Preparation Information Benchsheet

Prep Run#: 338123 **Prep WorkFlow:** OrgExtPcpAq7 **Status:** Draft
Team: Semivoa GC/WVANDERHOFF **Prep Method:** Method **Prep Date/Time:** 6/6/19 08:48 AM
Number of Copies to make: 1

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. ml.	pH	Int. Vol ml.	Final Vol ml.	Surr Amt µl	Spike Amt µl
1	**K1905141-021**	MW-37	.03	✓	8151A Modified / PCP	Water	5	<2	1	1	100	–
2	**K1905141-022**	MW-38	.03	✓	8151A Modified / PCP	Water	5	<2	1	1		–
3	**K1905141-023**	MW-39	.03	✓	8151A Modified / PCP	Water	5	<2	1	1		–
4	**K1905141-024**	MW-40	.03	✓	8151A Modified / PCP	Water	5	<2	1	1		–
5	**K1905141-025**	MW-41	.03	✓	8151A Modified / PCP	Water	5	<2	1	1		–
6	**K1905141-026**	MW-42	.03	✓	8151A Modified / PCP	Water	5	<2	1	1		–
7	**K1905141-027**	MW-43	.03	✓	8151A Modified / PCP	Water	5	<2	1	1		–
8	**K1905141-028**	MW-44 DUP.	.03	✓	8151A Modified / PCP	Water	5	<2	1	1		–
9	**K1905141-029**	MW-3	.03	✓	8151A Modified / PCP	Water	5	<2	1	1		–
10	**KQ1907796-01**	K1905141-029 MS	.03	✓	8151A Modified / PCP	Liquid	5	<2	1	1		100
11	**KQ1907796-02**	K1905141-029 DMS	.03	✓	8151A Modified / PCP	Liquid	5	<2	1	1		
12	**KQ1907796-03**	LCS	—	—	8151A Modified / PCP	Liquid	5	<2	1	1		–
13	**KQ1907796-04**	MB	—	—	8151A Modified / PCP	Liquid	5	<2	1	1		–

Comments:

Surrogate ID: 199,349-Penta01-97J 199,349-Penta01-97J 199,349-Penta01-97J 199,349-Penta01-97J 199,34
500 ppb 100 µl xp. 11-13-19 Epp. #2B

Spike ID: 197,895-Penta01-95L 199,349-Penta01-97J 197,895-Penta01-95L 199,349-Penta01-97J 197,89
500ppb 100 µl xp. 9-20-19 Epp. #2B

Witnessed By: [signature] 6/6/19

Analyst: HEV

Assisted By:

Additional Prep Information

Chlorinated Phenols "PCPs" in Water

Service Request # K1905141 **Work Group #** KQ1907796

1:1 Sulfuric Acid Lot # 3121159 Ethyl Ether Lot # DW136-02

Extraction Start (time/date/initial): 13:30 6-6-19 WS

Extraction Stop (time/date/initial): 14:30 6-6-19 WS

Storage Location (overnight): 25R Acidified Sulfate Lot # DZ03-87B

N-Evap (time/date/initial): 09:21 6-12-19 WS N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Derivatization Start (time/date/initial): 11:26 6-12-19 WS

Derivatization Stop (time/date/initial): 11:54 6-12-19 WS

Diazomethane Lot # DZ03-41C Methanol Lot # DN615

Solvent Exchange to Iso-Octane (time/date/initial): 11:54 6-12-19 WS

Iso-Octane Lot # DM121 N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Pipette (1 mL) Lot # 28517645

Vial: red Vial Storage: genie

Additional Comments:

Bench Sheet Review Check List

- ☐ Hold times met (if no, reason:)
- ☐ Prep date, time, method, department, product code correct in stealth
- ☐ Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
- ☐ Weights/Volumes and units correct on raw and final bench sheets
- ☐ Sample IDs have been checked - bottle numbers appended if required
- ☐ Names present for: started by, completed by, relinquished by, and witnessed by. Training circled.
- ☐ Extract storage recorded
- ☐ Additional prep sheet completely filled out (NA or line out blanks)
- ☐ All clean-ups have been noted on additional prep sheet
- ☐ Signed service request with Form V, if applicable, has been attached

Validation Report

1st MC 06/14/19
2nd TP 06/17/19

Data File: J:\GC28\Data\061319\0613F007.D\
Lab ID: K1905141-001
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 11:08:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F007.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 11:08:00	**Vial:**	11
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-001	**Raw Units:**	ug/L

Bottle ID:	K1905141-001.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	19407100	20241196	56.364	48.013	113	96	96	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14	5.60 +0.01	746372	179254	0.687	0.263	0.14J	0.053U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:08 am Operator: MC
Sample : K1905141-001 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:55:55 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.019	4.645	19407100	20241196	56.364m	48.013
		Target Compounds						
1)		3,4-Dichl...	0.000	3.745	0	72203	N.D. d	3.328
2)		3,5-Dichl...	3.366	3.988	60188	20568	4.746	0.768 #
3)		2,4,6-Tri...	0.000	4.202	0	157530	N.D. d	0.386
5)		2,4,5-Tri...	4.169	0.000	1189861	0	7.690	N.D. d#
6)		3,4,5-Tri...	4.232	0.000	159354	0	0.480	N.D. d#
7)	M	2,3,5,6-T...	0.000	5.008	0	425580	N.D. d	0.705
8)	M	2,3,4,5-T...	0.000	5.402	0	31844	N.D. d	0.077
9)	M	Pentachlo...	5.142	5.598	746372	179254	0.687	0.263 #
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

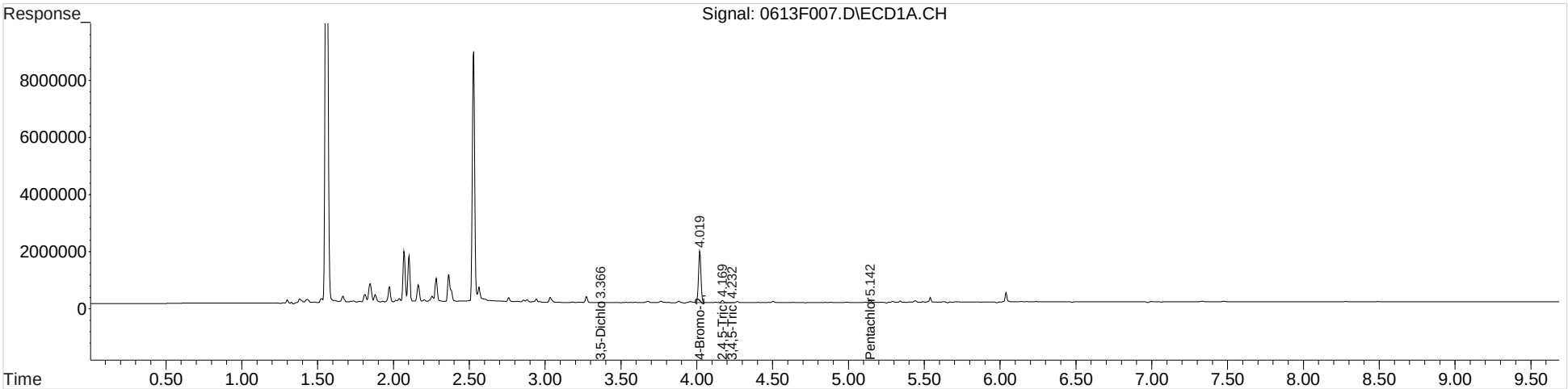
1st MC 06/14/19
2nd TP 06/17/19

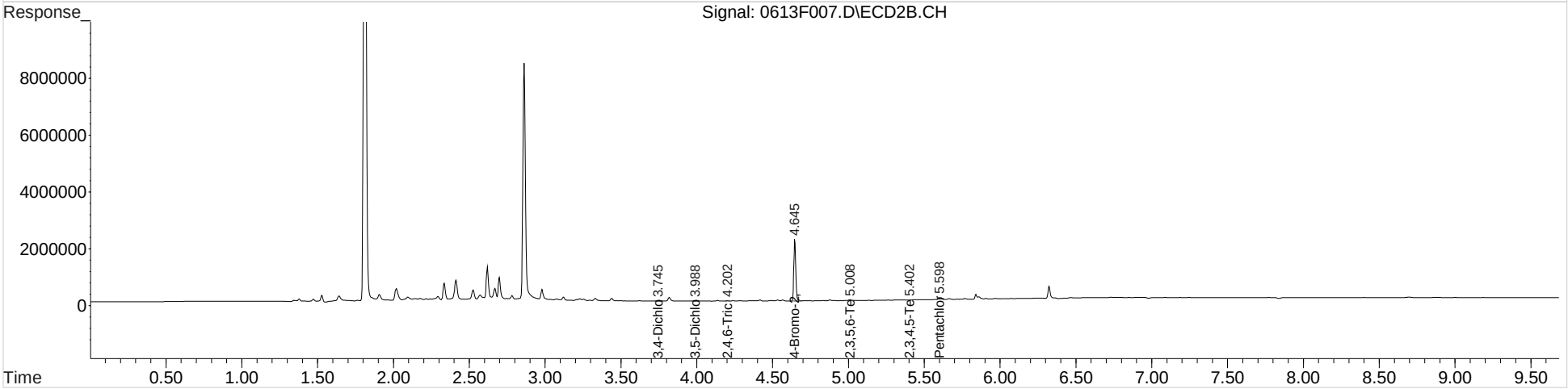
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:08 am Operator: MC
Sample : K1905141-001 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:55:55 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



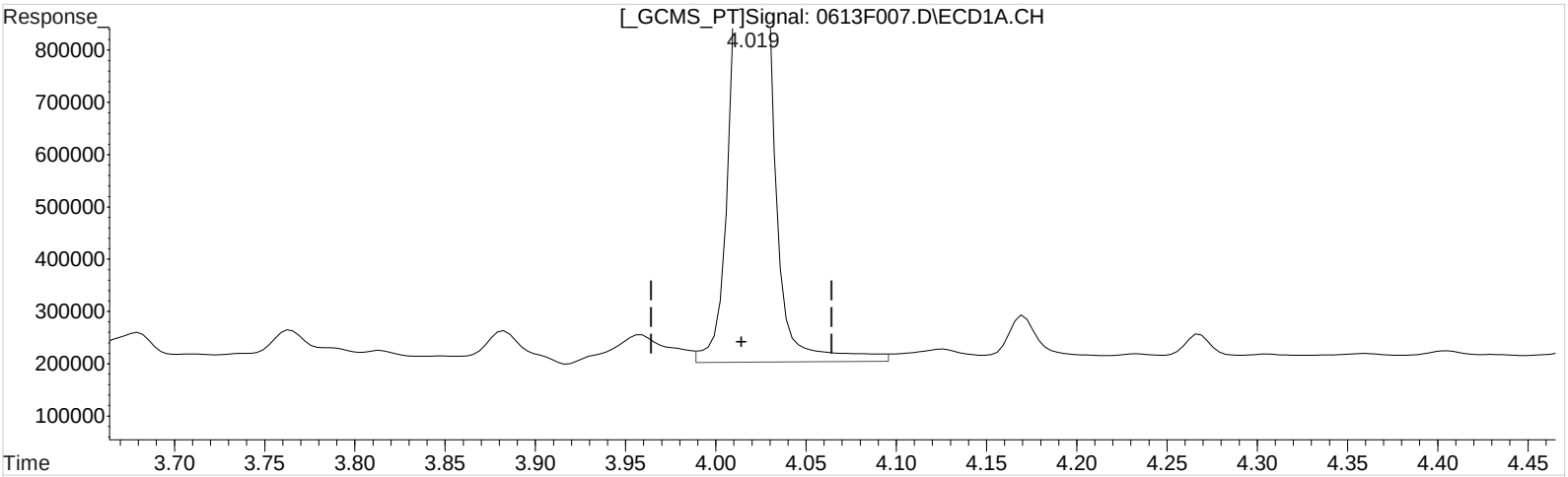


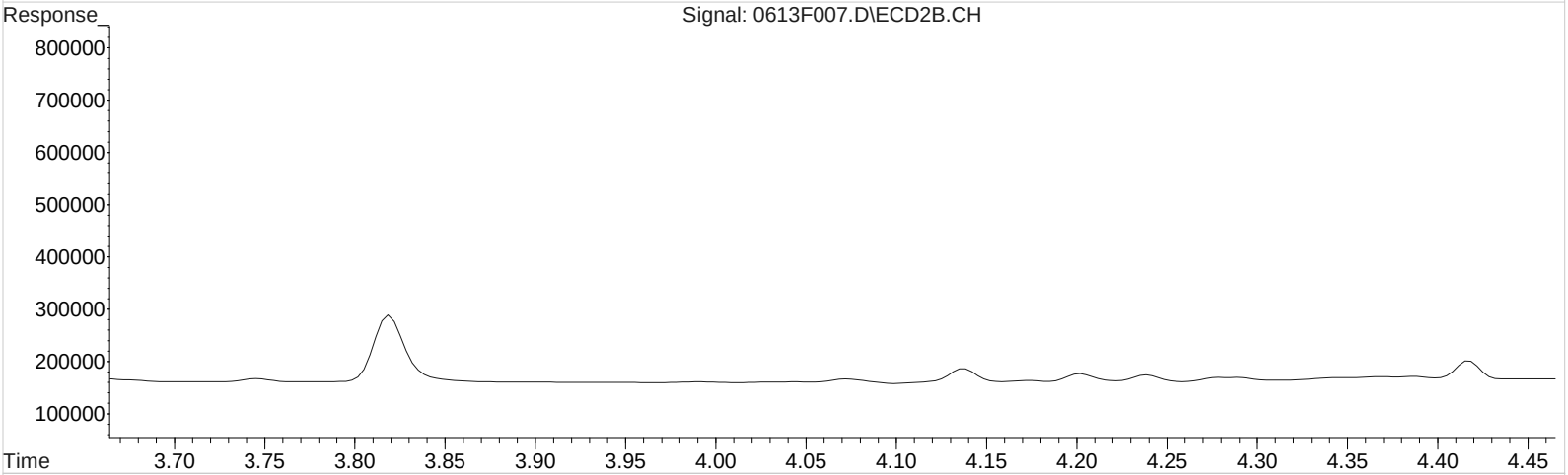
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:08 am Operator: MC
Sample : K1905141-001 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:54:00 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.019min 59.947 ug/L

response 20606780

Manual Integration:

Before

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.645min 48.013 ug/L

response 20241196

(+) = Expected Retention Time

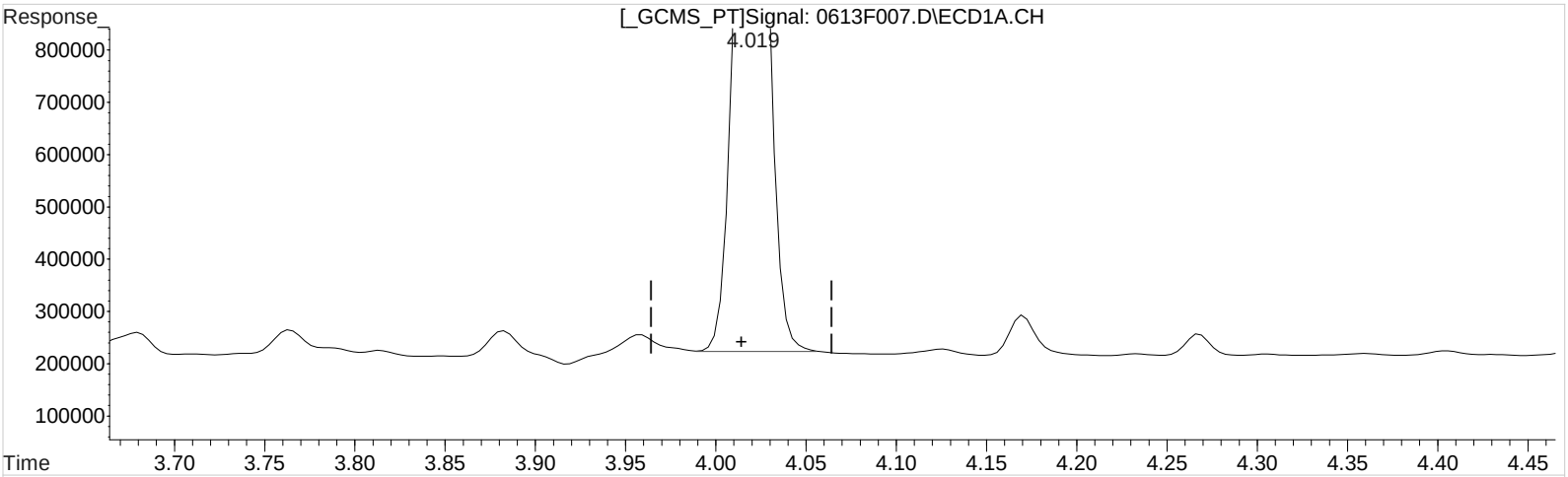
Quantitation Report (Qedit)

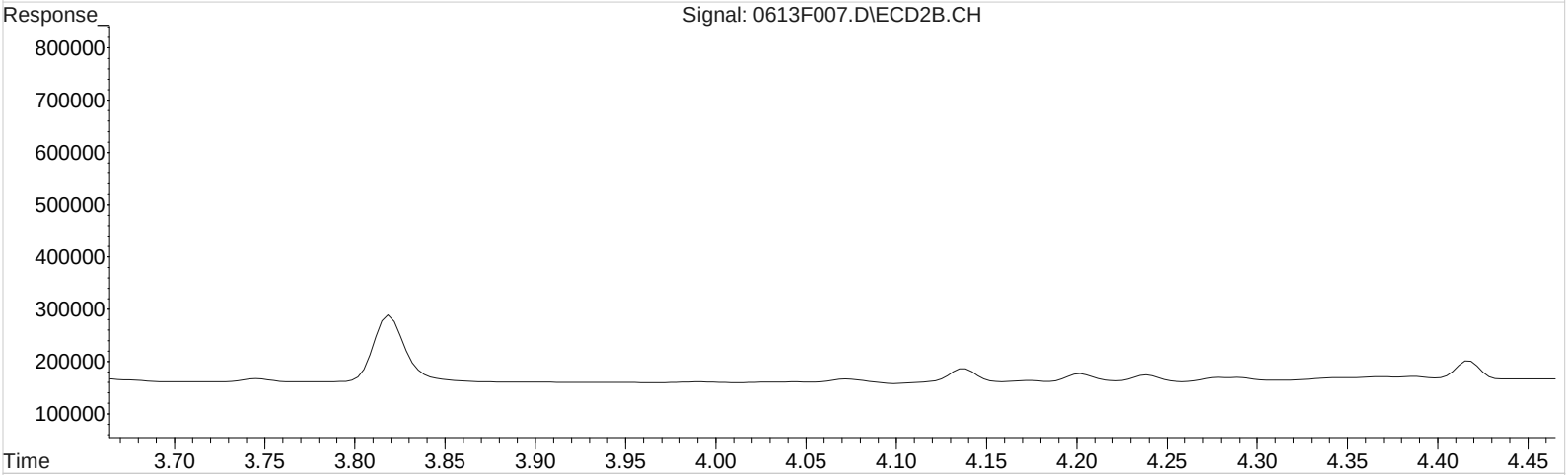
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:08 am Operator: MC
Sample : K1905141-001 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:54:00 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.019min 56.364 ug/L m

response 19407100

Manual Integration:

After

Baseline/Shoulder

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.645min 48.013 ug/L

response 20241196

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F008.D\
Lab ID: K1905141-002
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 11:26:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F008.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 11:26:00	**Vial:**	12
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-002	**Raw Units:**	ug/L

Bottle ID:	K1905141-002.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.64	16865058	17263570	48.789	40.950	98	82	82	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.02	0	621462	0.000	0.913	0U	0.18J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:26 am Operator: MC
Sample : K1905141-002 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:56:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.019	4.645	16865058	17263570	48.789m	40.950
		Target Compounds						
1)		3,4-Dichl...	3.132	3.745	26374	64652	1.108	2.980 #
2)		3,5-Dichl...	0.000	3.992	0	21605	N.D. d	0.834
3)		2,4,6-Tri...	0.000	4.202	0	126056	N.D. d	0.309
5)		2,4,5-Tri...	4.169	0.000	1075842	0	6.862	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.008	0	264250	N.D. d	0.438
8)	M	2,3,4,5-T...	0.000	5.402	0	14204	N.D. d	0.034
9)	M	Pentachlo...	0.000	5.612	0	621462	N.D. d	0.913
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

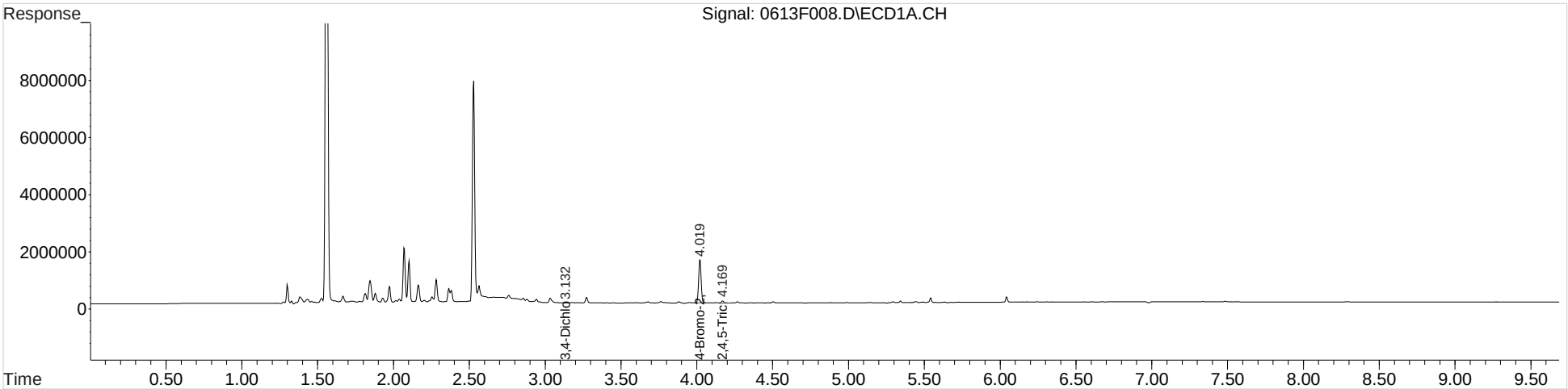
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:26 am Operator: MC
Sample : K1905141-002 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:56:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



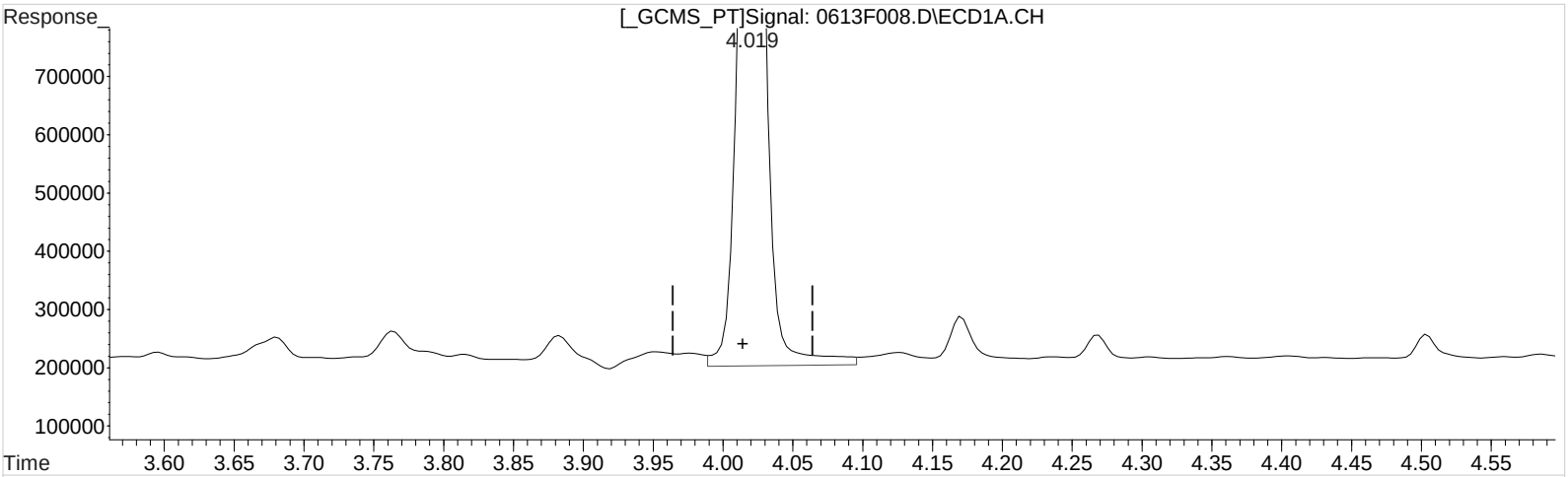
Quantitation Report (Qedit)

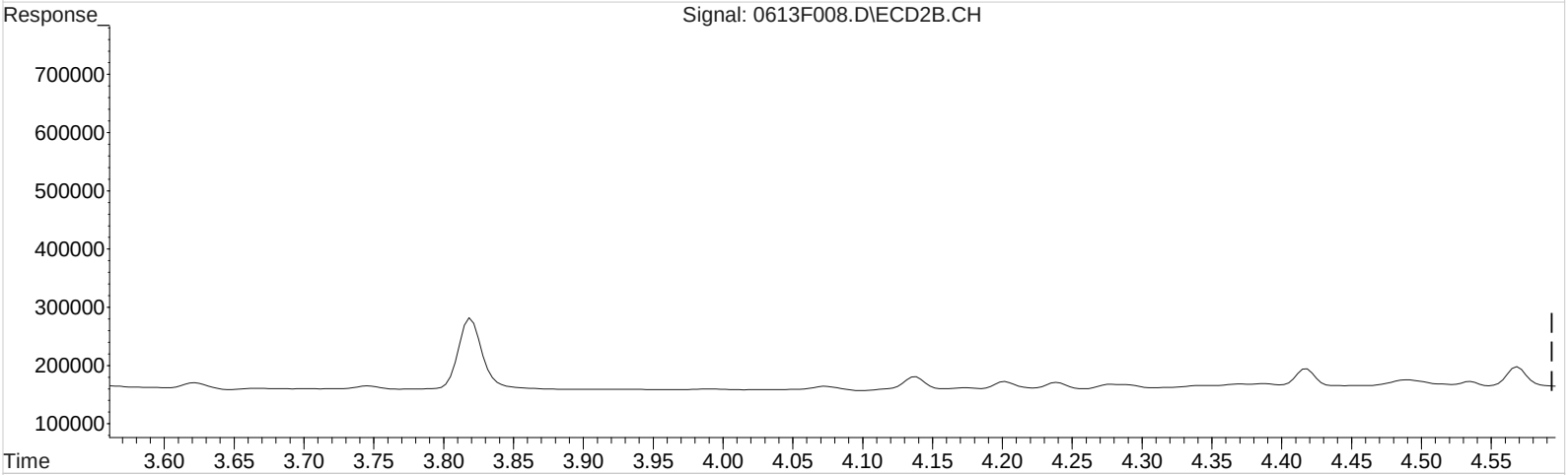
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:26 am Operator: MC
Sample : K1905141-002 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:54:03 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.019min 51.940 ug/L

response 17923412

Manual Integration:

Before

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.645min 40.950 ug/L

response 17263570

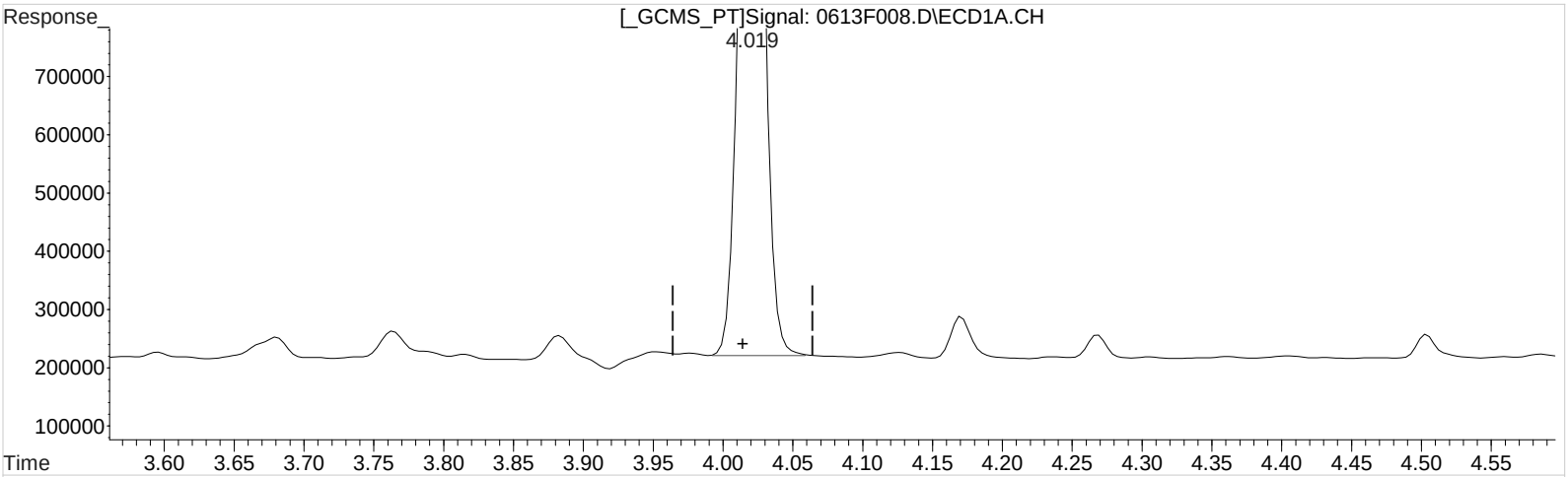
(+) = Expected Retention Time

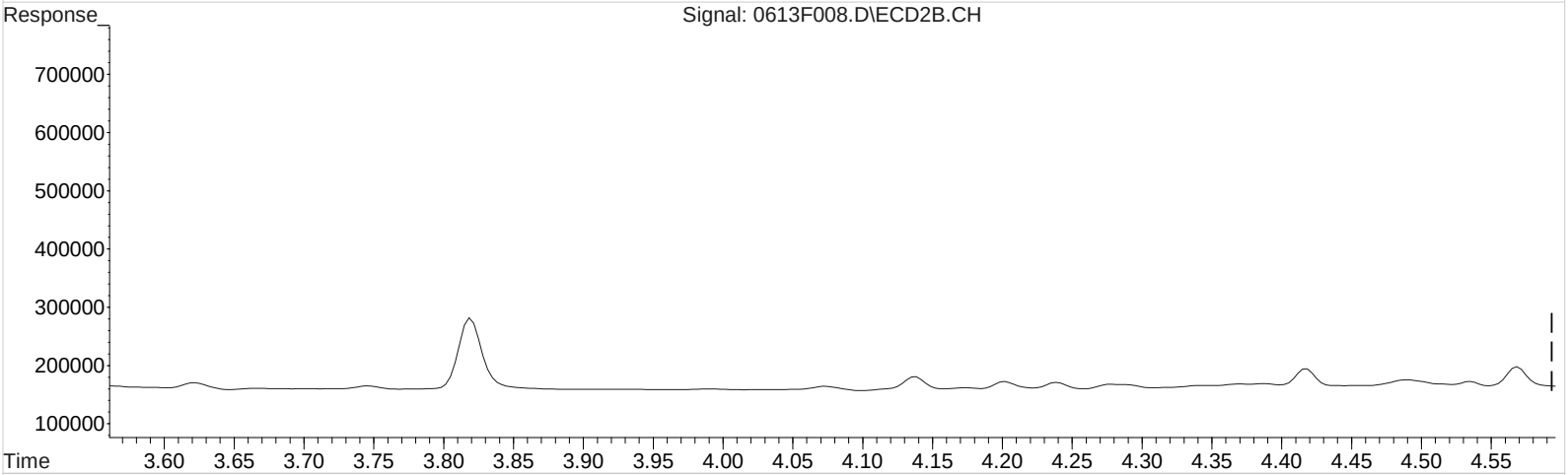
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:26 am Operator: MC
Sample : K1905141-002 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:54:03 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.019min 48.789 ug/L m

response 16865058

Manual Integration:

After

Baseline/Shoulder

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.645min 40.950 ug/L

response 17263570

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F009.D\
Lab ID: K1905141-003
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 11:43:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F009.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 11:43:00	**Vial:**	13
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-003	**Raw Units:**	ug/L

Bottle ID:	K1905141-003.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	19036154	19197648	55.257	45.537	111	91	91	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.58 -0.01	0	14585	0.000	0.021	0U	0.0042U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:43 am Operator: MC
Sample : K1905141-003 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:57:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.020	4.649	19036154	19197648	55.257m	45.537
	Target Compounds						
1)	3,4-Dichl...	3.133	3.746	42900	69205	2.149	3.190 #
2)	3,5-Dichl...	3.340f	3.989	25308	23216	1.599	0.936 #
3)	2,4,6-Tri...	0.000	4.202	0	124096	N.D. d	0.304
5)	2,4,5-Tri...	4.170	0.000	717677	0	4.270	N.D. d#
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	0.000	5.009	0	289580	N.D. d	0.480
8) M	2,3,4,5-T...	0.000	5.406	0	13978	N.D. d	0.034
9) M	Pentachlo...	0.000	5.579	0	14585	N.D. d	0.021
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

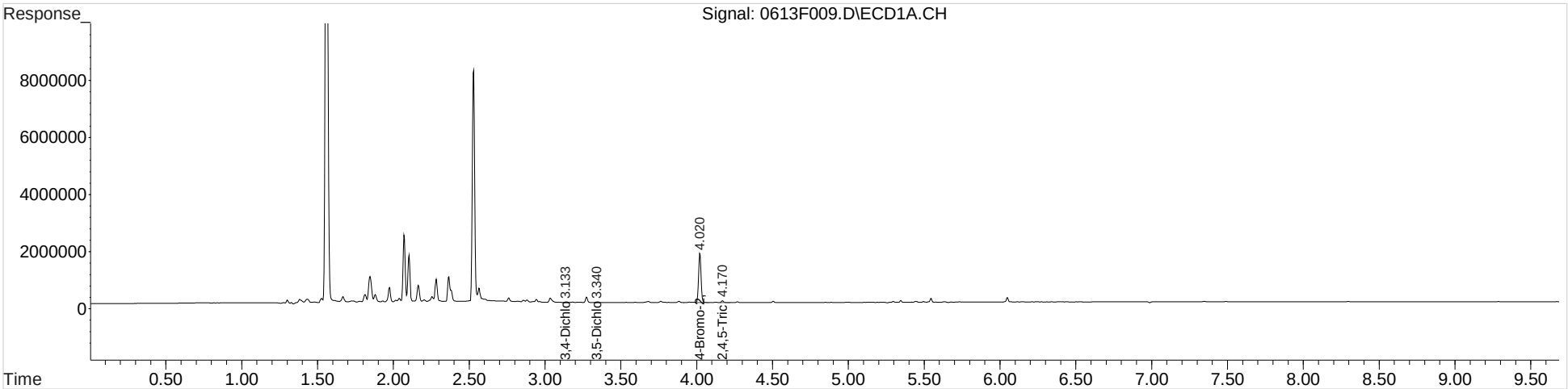
1st MC 06/14/19
2nd TP 06/17/19

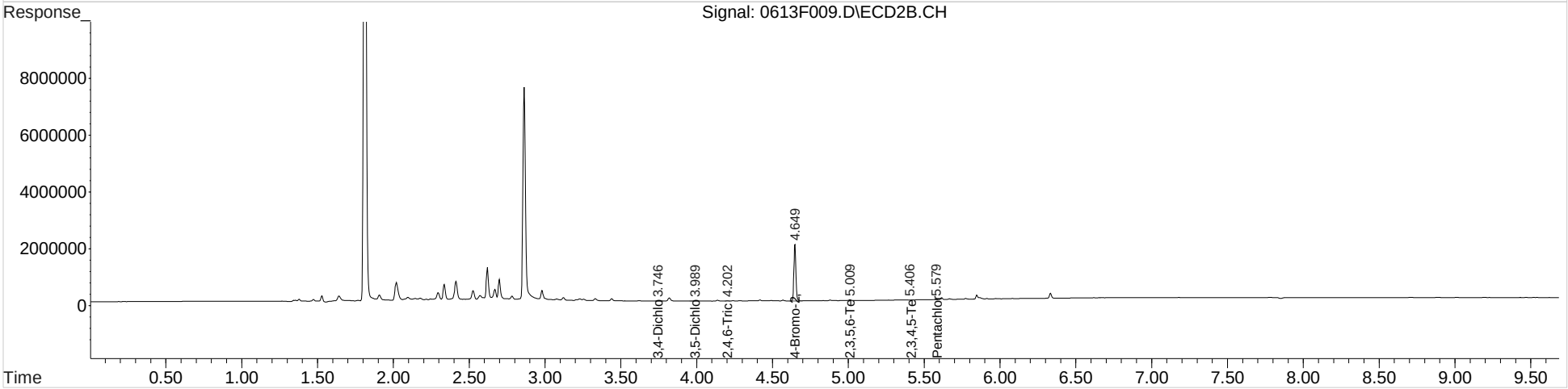
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:43 am Operator: MC
Sample : K1905141-003 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:57:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





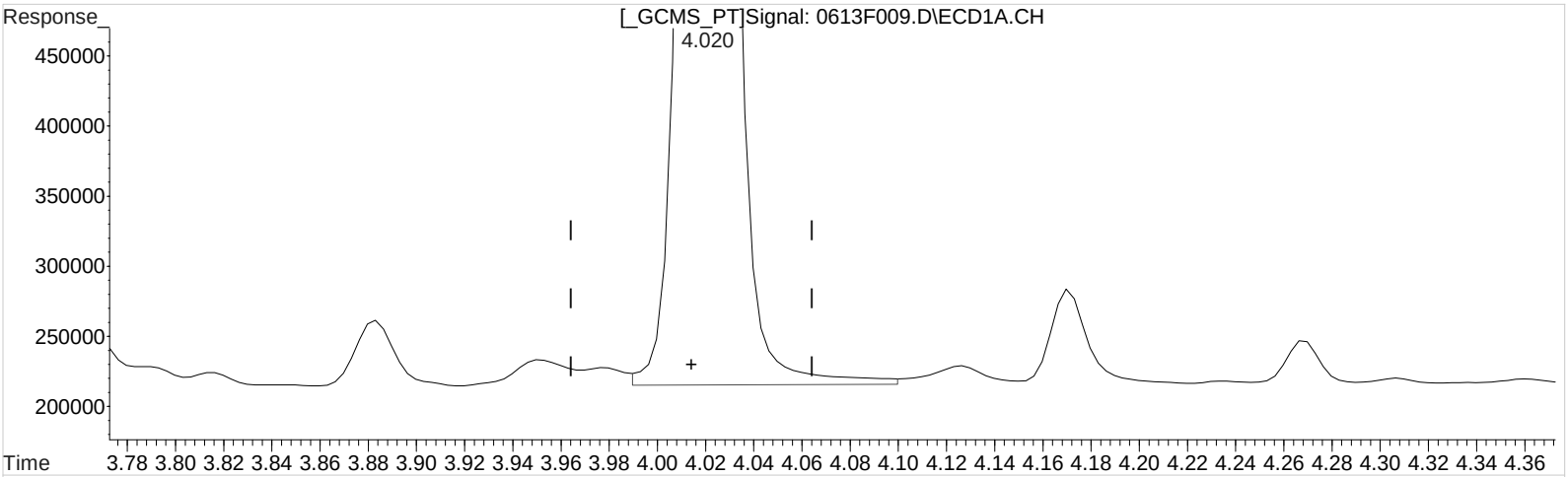
Quantitation Report (Qedit)

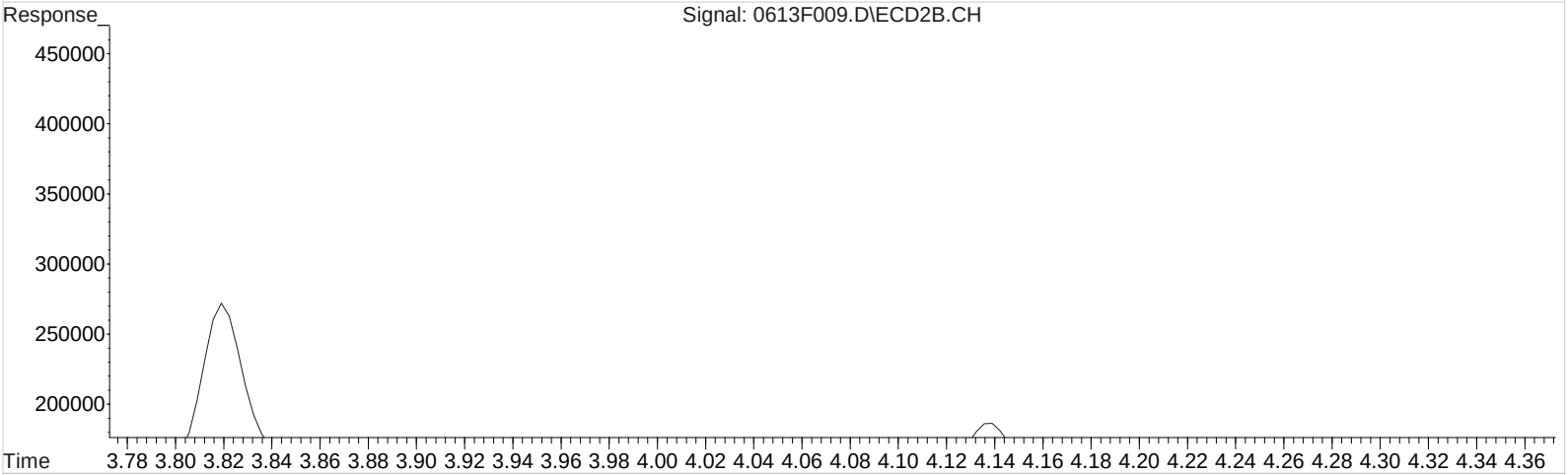
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:43 am Operator: MC
Sample : K1905141-003 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:54:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.020min 56.168 ug/L

response 19341252

Manual Integration:

Before

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.649min 45.537 ug/L

response 19197648

(+) = Expected Retention Time

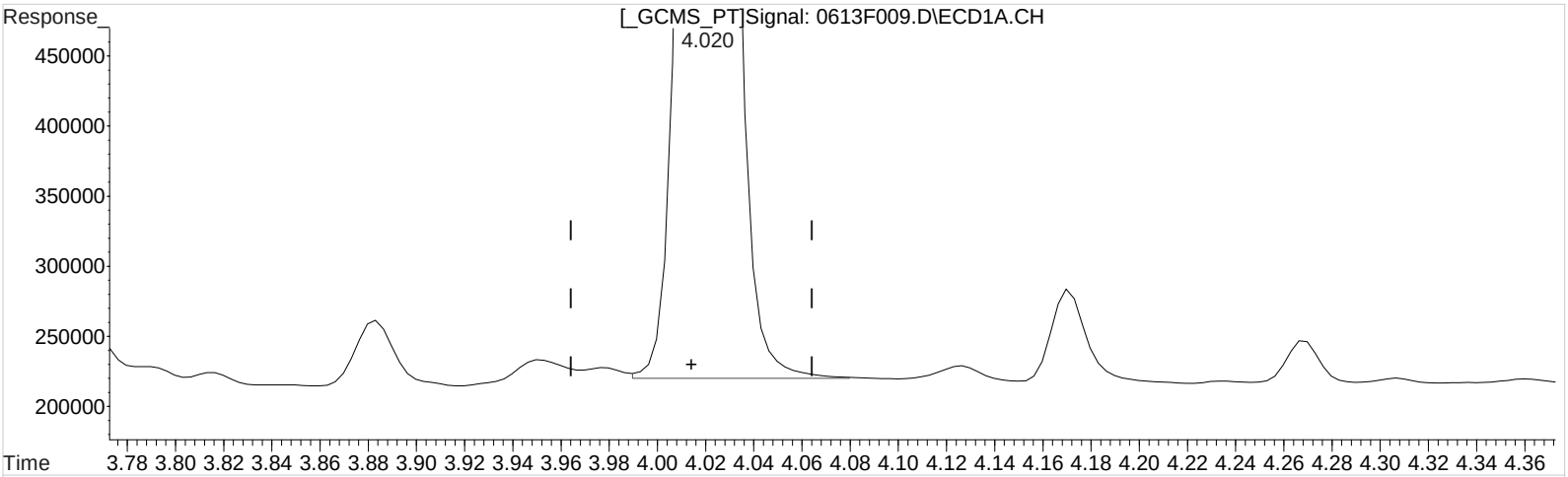
Quantitation Report (Qedit)

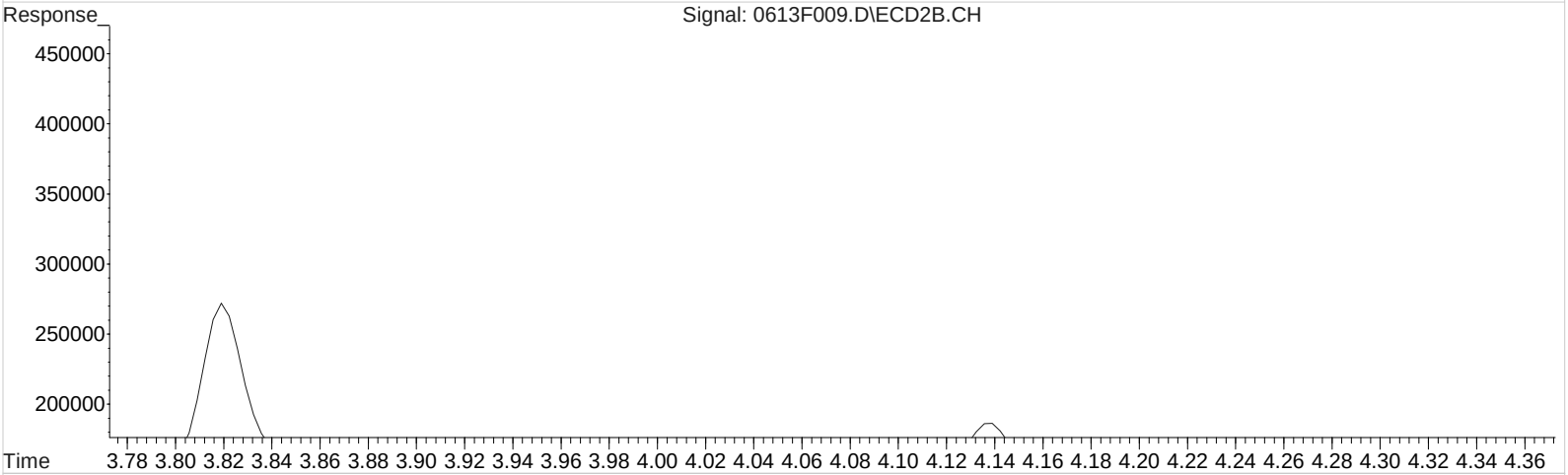
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:43 am Operator: MC
Sample : K1905141-003 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:54:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.020min 55.257 ug/L m

response 19036154

Manual Integration:

After

Baseline/Shoulder

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.649min 45.537 ug/L

response 19197648

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F010.D\
Lab ID: K1905141-004
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 12:01:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F010.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 12:01:00	**Vial:**	14
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-004	**Raw Units:**	ug/L

Bottle ID:	K1905141-004.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	19228719	19438685	55.832	46.109	112	92	92	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.58 -0.01	0	17435	0.000	0.026	0U	0.0052U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 12:01 pm Operator: MC
Sample : K1905141-004 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 12:31:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	19228719	19438685	55.832	46.109
		Target Compounds						
1)		3,4-Dichl...	3.132	3.748	33934	81168	1.584	3.742 #
2)		3,5-Dichl...	3.369	3.991	141529	20988	12.187	0.795 #
3)		2,4,6-Tri...	0.000	4.201	0	130358	N.D. d	0.319
5)		2,4,5-Tri...	4.172	0.000	766870	0	4.625	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.008	0	290899	N.D. d	0.482
8)	M	2,3,4,5-T...	0.000	5.405	0	14918	N.D. d	0.036
9)	M	Pentachlo...	0.000	5.581	0	17435	N.D. d	0.026
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

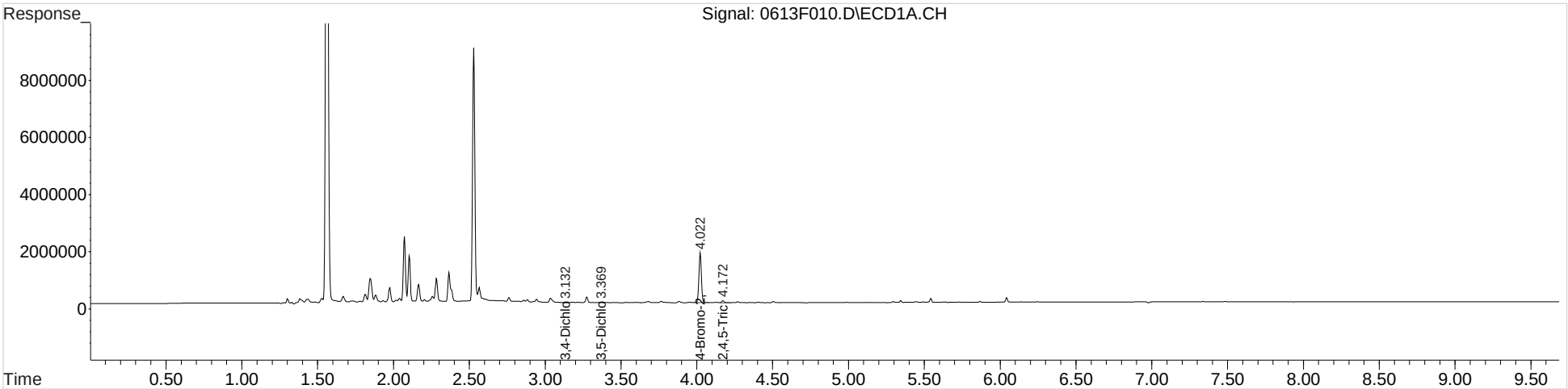
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 12:01 pm Operator: MC
Sample : K1905141-004 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 12:31:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F011.D\
Lab ID: K1905141-005
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 12:18:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F011.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 12:18:00	**Vial:**	15
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-005	**Raw Units:**	ug/L

Bottle ID:	K1905141-005.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	19967779	19368560	58.038	45.943	116	92	92	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.58 -0.01	0	146966	0.000	0.216	0U	0.043U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 12:18 pm Operator: MC
Sample : K1905141-005 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 12:31:44 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	19967779	19368560	58.038	45.943
		Target Compounds						
1)		3,4-Dichl...	3.135	3.748	24090	73314	0.964	3.380 #
2)		3,5-Dichl...	3.369	3.991	424817	17446	39.363	0.570 #
3)		2,4,6-Tri...	0.000	4.201	0	112632	N.D. d	0.276
5)		2,4,5-Tri...	4.172	0.000	872573	0	5.389	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.008	0	288676	N.D. d	0.478
8)	M	2,3,4,5-T...	0.000	5.405	0	26194	N.D. d	0.063
9)	M	Pentachlo...	0.000	5.581	0	146966	N.D. d	0.216
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

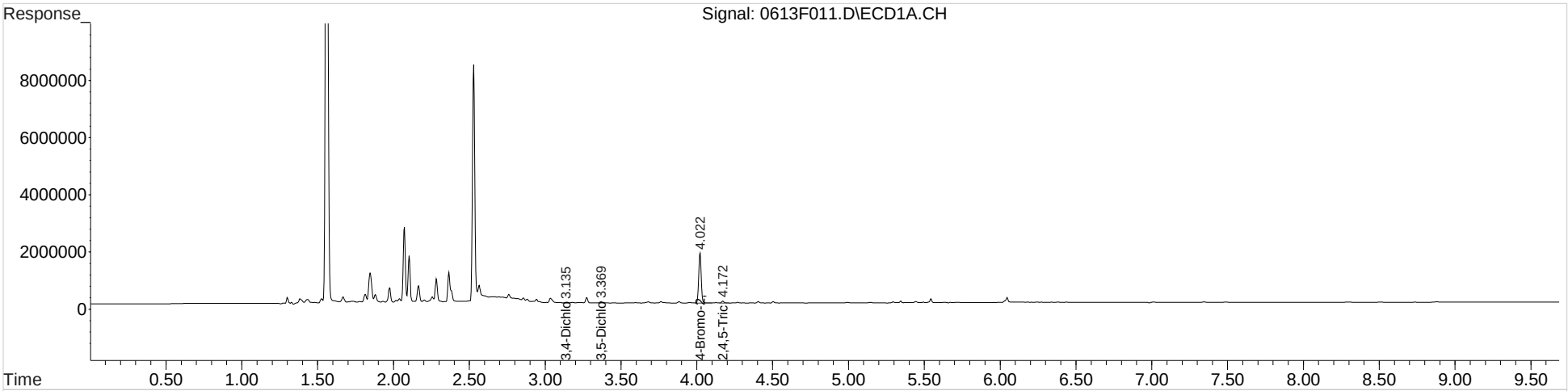
1st MC 06/14/19
2nd TP 06/17/19

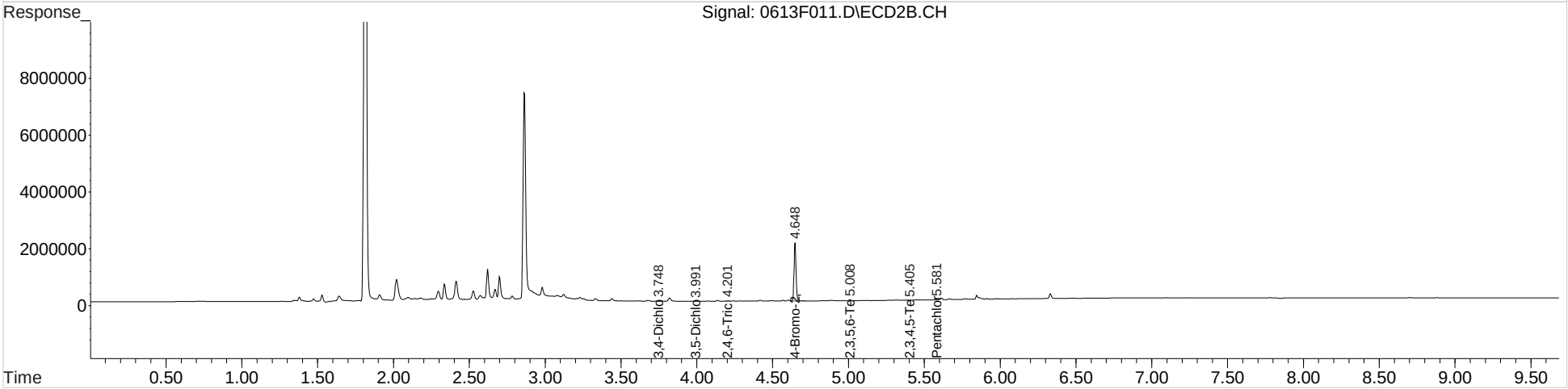
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 12:18 pm Operator: MC
Sample : K1905141-005 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 12:31:44 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F012.D\
Lab ID: K1905141-006
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 12:36:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F012.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 12:36:00	**Vial:**	16
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-006	**Raw Units:**	ug/L

Bottle ID:	K1905141-006.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	18954244	18449340	55.013	43.762	110	88	88	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.58 -0.01	0	48510	0.000	0.071	0U	0.014U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 12:36 pm Operator: MC
Sample : K1905141-006 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 12:47:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	18954244	18449340	55.013	43.762
		Target Compounds						
1)		3,4-Dichl...	3.136	3.748	20502	53114	0.738	2.449 #
2)		3,5-Dichl...	3.339f	3.992	27210	17626	1.770	0.581 #
3)		2,4,6-Tri...	0.000	4.205	0	116822	N.D. d	0.286
5)		2,4,5-Tri...	4.172	0.000	1069362	0	6.815	N.D. d#
6)		3,4,5-Tri...	4.236	0.000	153079	0	0.438	N.D. d#
7)	M	2,3,5,6-T...	0.000	5.012	0	284769	N.D. d	0.472
8)	M	2,3,4,5-T...	0.000	5.408	0	14386	N.D. d	0.035
9)	M	Pentachlo...	0.000	5.575	0	48510	N.D. d	0.071
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

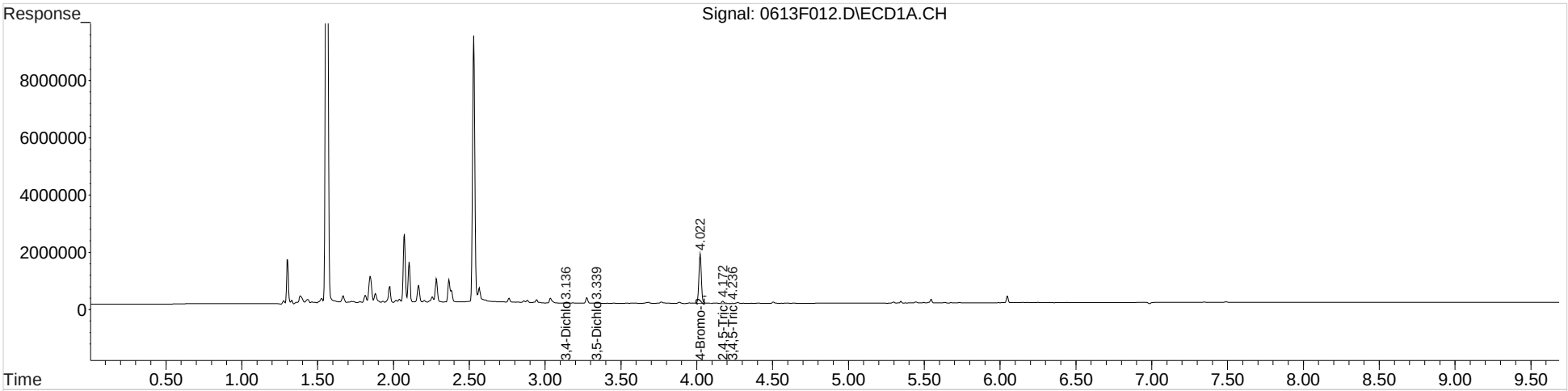
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 12:36 pm Operator: MC
Sample : K1905141-006 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 12:47:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Validation Report

1st MC 06/14/19
2nd TP 06/17/19

Data File: J:\GC28\Data\061319\0613F013.D\
Lab ID: K1905141-007
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 12:54:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F013.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 12:54:00	**Vial:**	17
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-007	**Raw Units:**	ug/L

Bottle ID:	K1905141-007.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	19776974	19135300	57.468	45.389	115	91	91	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15 +0.01	5.60 +0.01	161445226	221654816	383.613	325.717	77	65	**65**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 12:54 pm Operator: MC
Sample : K1905141-007 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 13:18:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.023	4.649	19776974	19135300	57.468m	45.389
	Target Compounds						
1)	3,4-Dichl...	3.136	3.749	32494	67915	1.493	3.131 #
2)	3,5-Dichl...	3.366	3.996	89791	21264	7.437	0.812 #
3)	2,4,6-Tri...	0.000	4.206	0	150146	N.D. d	0.368
5)	2,4,5-Tri...	4.173	0.000	1120034	0	7.183	N.D. d#
6)	3,4,5-Tri...	4.236	0.000	142552	0	0.367	N.D. d#
7) M	2,3,5,6-T...	4.476	5.022	8580171	8810455	19.231	14.593
8) M	2,3,4,5-T...	0.000	5.422	0	142438	N.D. d	0.342
9) M	Pentachlo...	5.146	5.602	161.4E6	221.7E6	383.613m	325.717
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

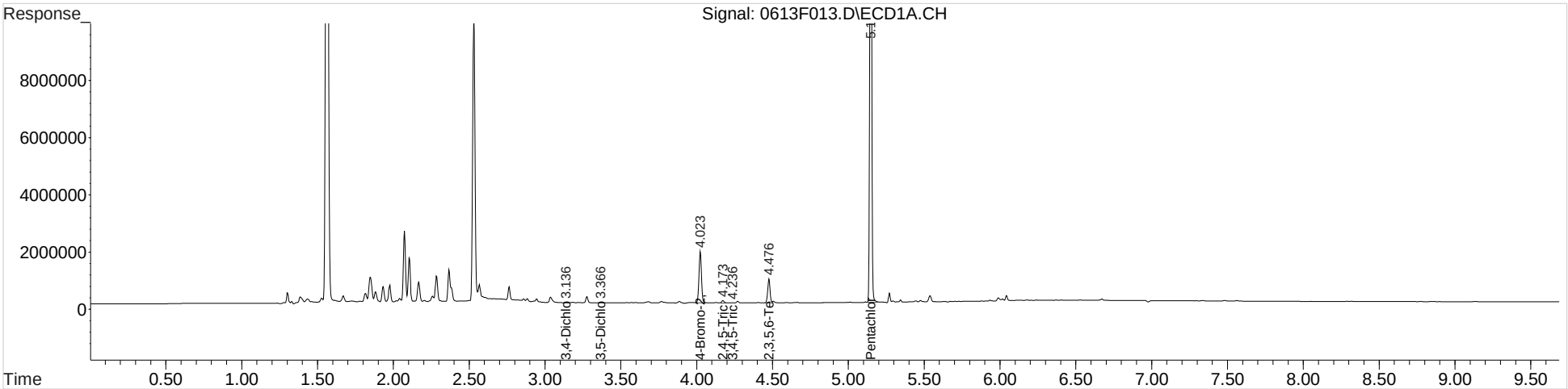
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 12:54 pm Operator: MC
Sample : K1905141-007 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 13:18:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



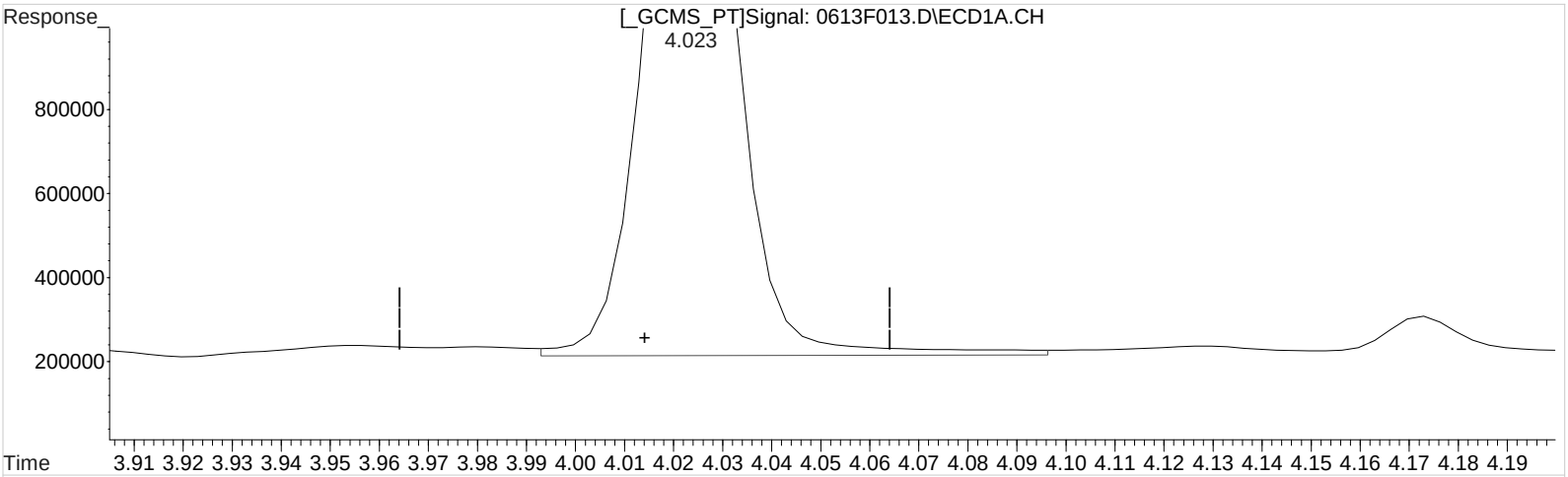
Quantitation Report (Qedit)

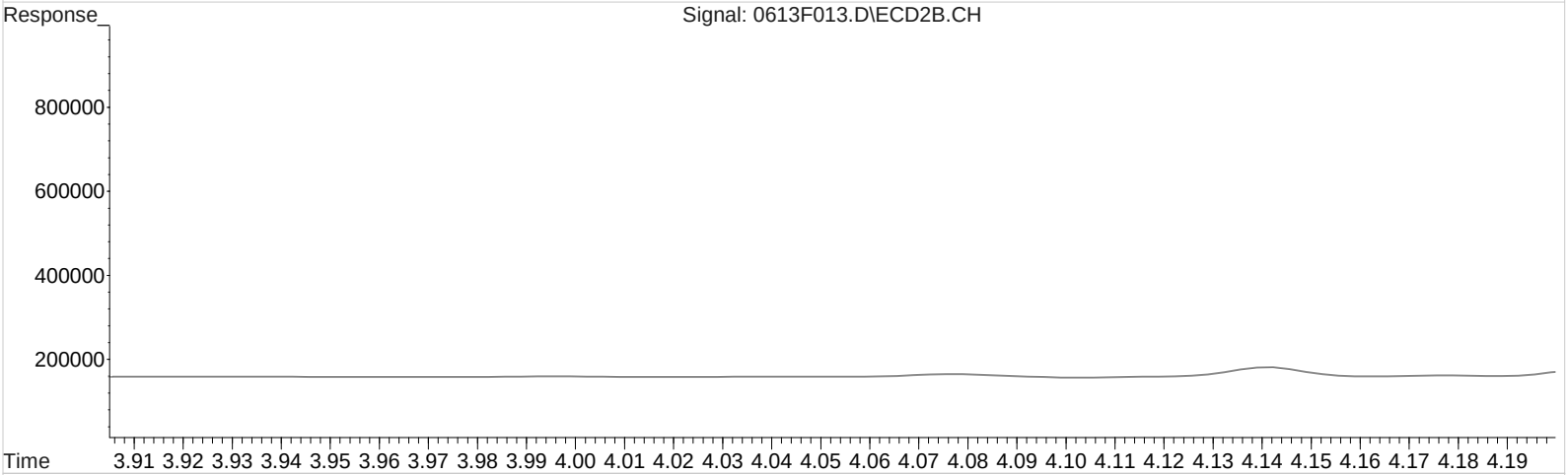
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 12:54 pm Operator: MC
Sample : K1905141-007 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 13:17:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.023min 60.087 ug/L

response 20653331

Manual Integration:

Before

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.649min 45.389 ug/L

response 19135300

(+) = Expected Retention Time

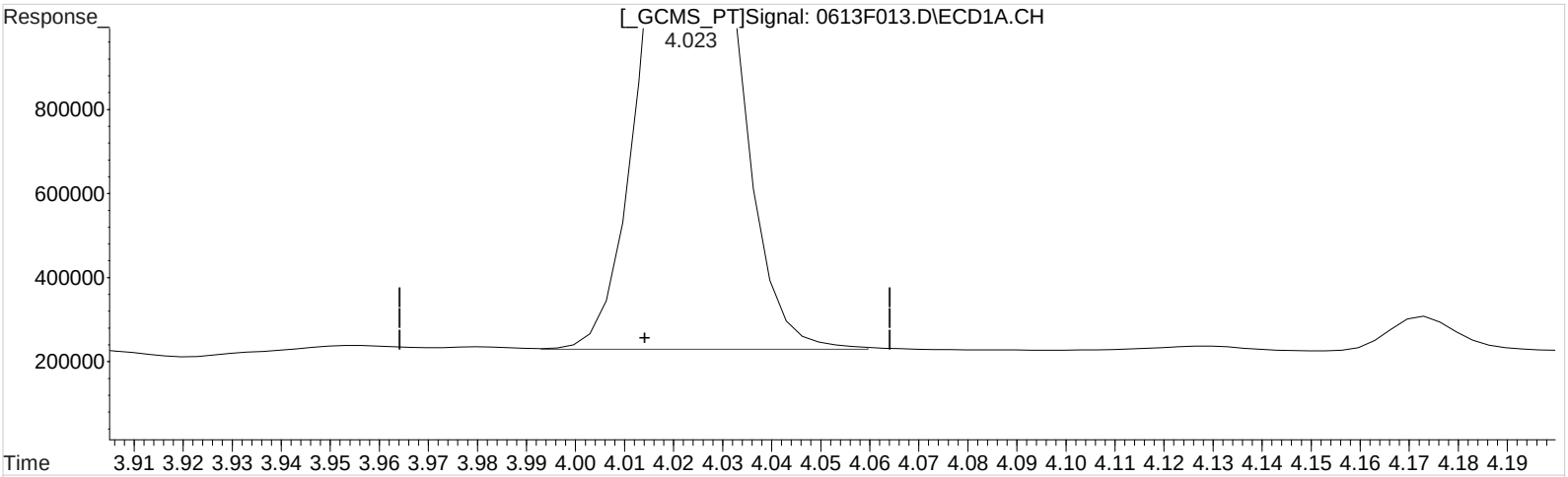
Quantitation Report (Qedit)

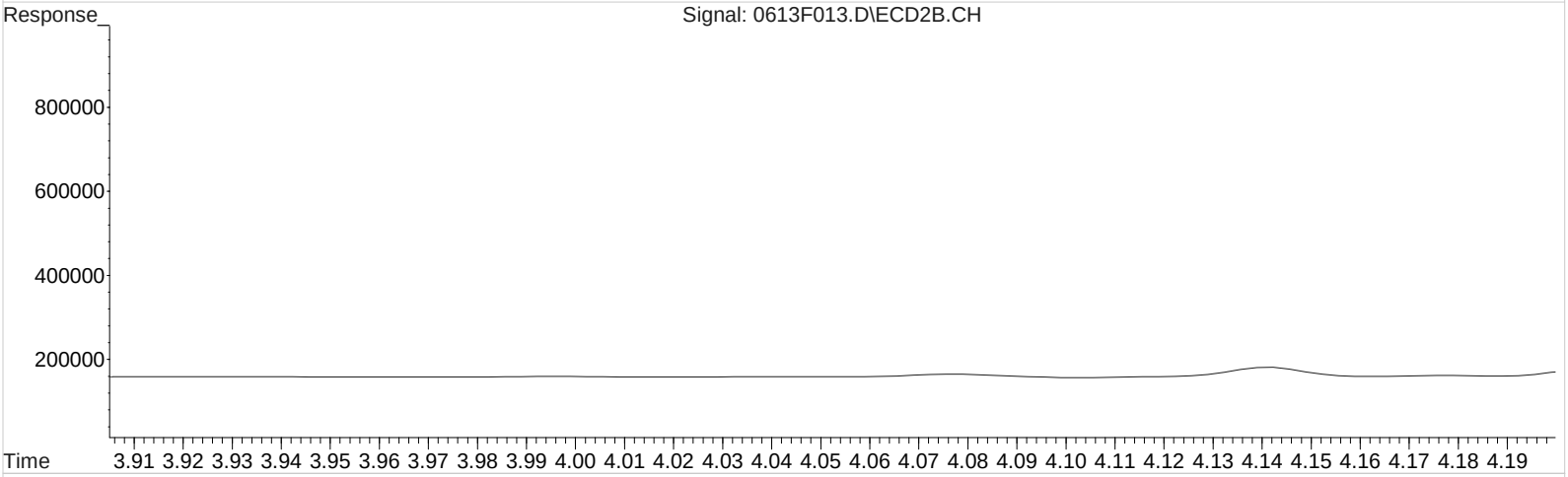
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 12:54 pm Operator: MC
Sample : K1905141-007 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 13:17:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.023min 57.468 ug/L m

response 19776974

Manual Integration:

After

Baseline/Shoulder

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.649min 45.389 ug/L

response 19135300

(+) = Expected Retention Time

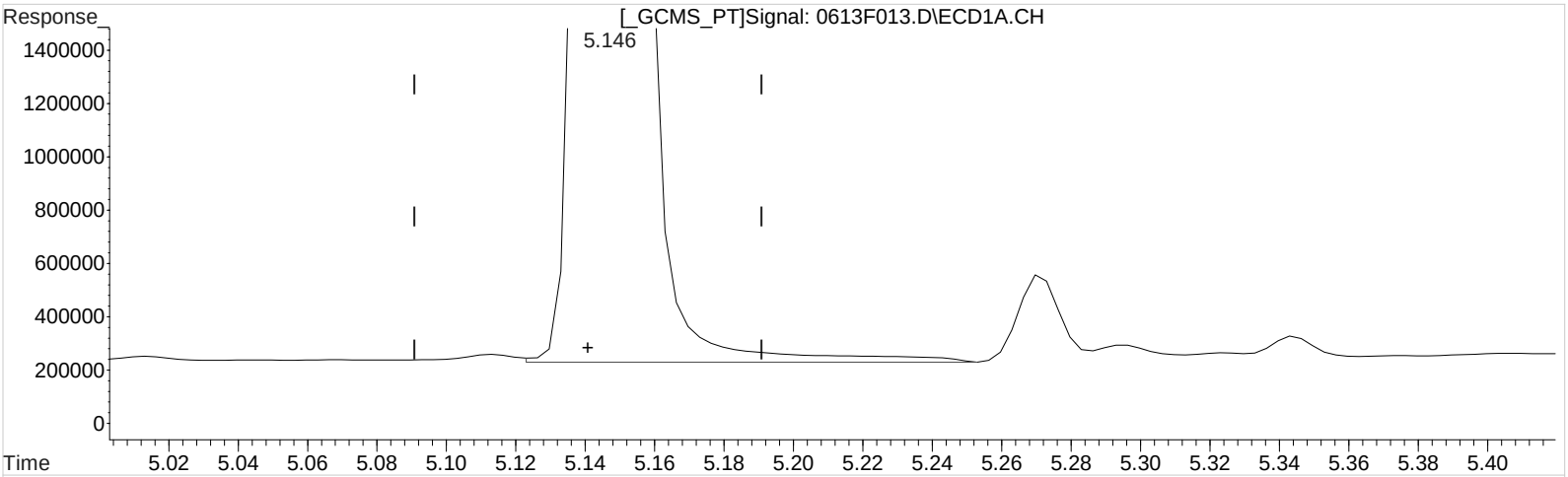
Quantitation Report (Qedit)

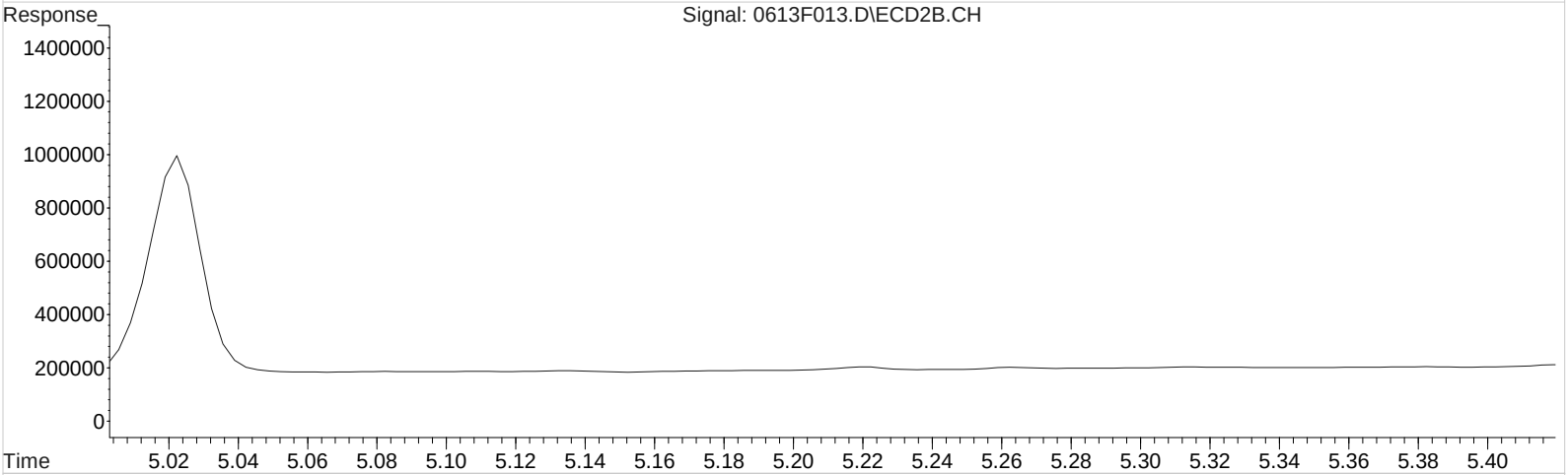
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 12:54 pm Operator: MC
Sample : K1905141-007 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 13:17:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.146min 387.166 ug/L

response 162802824

Manual Integration:

Before

06/13/19

(9) Pentachlorophenol #2 (M)

5.602min 325.717 ug/L

response 221654816

(+) = Expected Retention Time

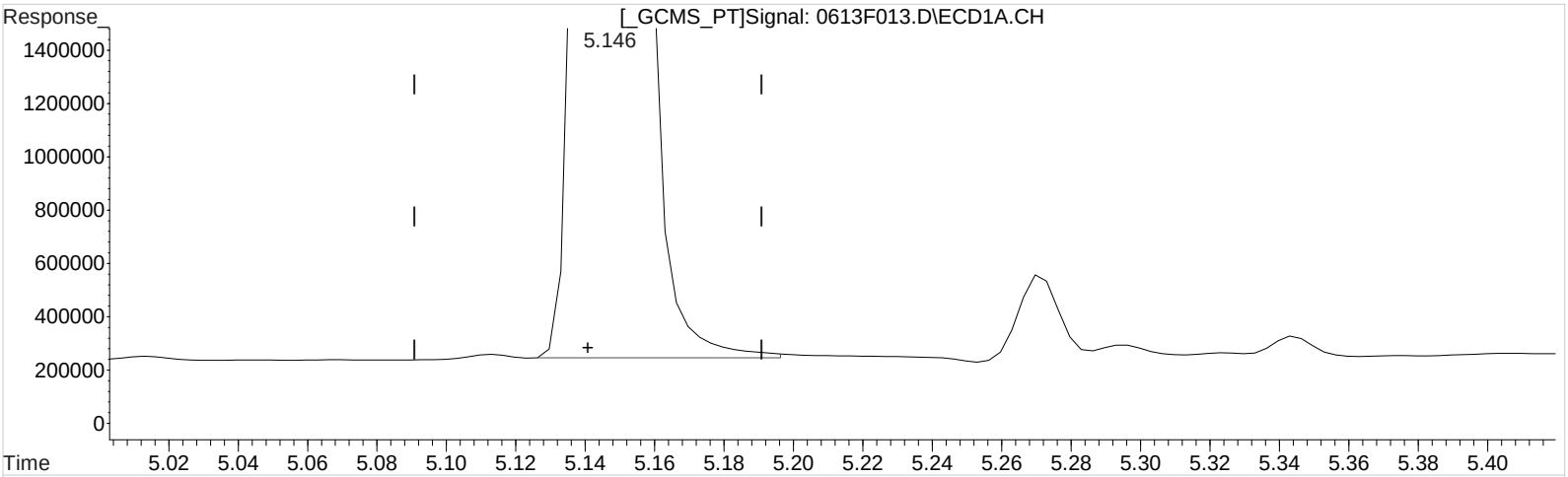
Quantitation Report (Qedit)

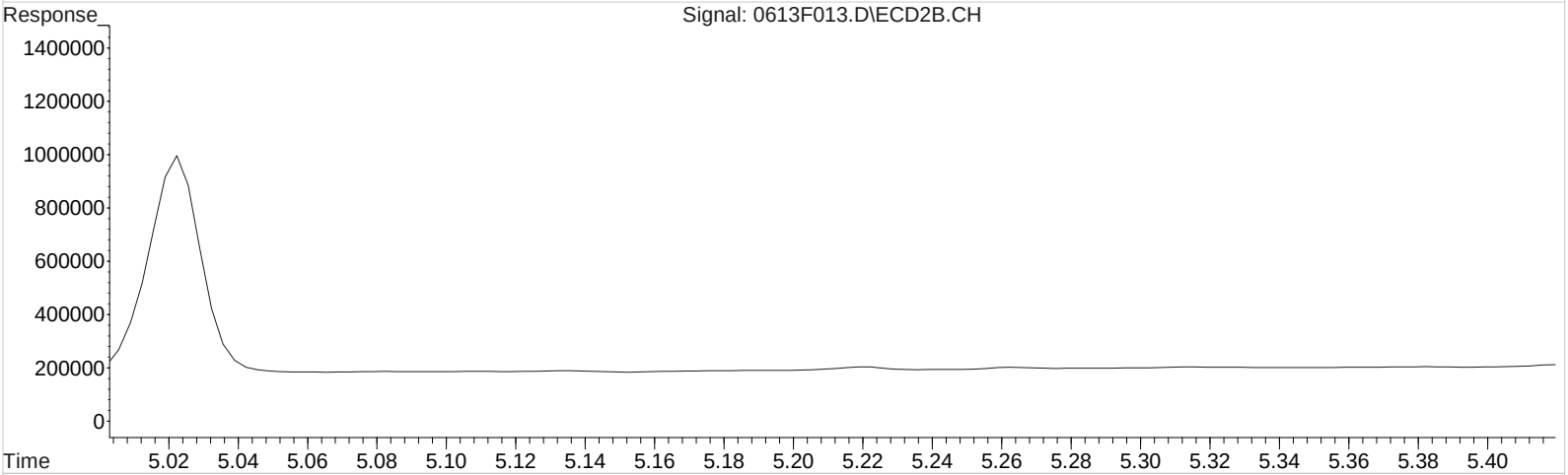
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 12:54 pm Operator: MC
Sample : K1905141-007 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 13:17:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.146min 383.613 ug/L m

response 161445226

Manual Integration:

After

Baseline/Shoulder

06/13/19

(9) Pentachlorophenol #2 (M)

5.602min 325.717 ug/L

response 221654816

(+) = Expected Retention Time

Validation Report

1st MC 06/14/19
2nd TP 06/17/19

Data File: J:\GC28\Data\061319\0613F014.D\
Lab ID: K1905141-008
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 13:11:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Printed: 6/14/19 10:24
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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F014.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 13:11:00	**Vial:**	18
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-008	**Raw Units:**	ug/L

Bottle ID:	K1905141-008.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	20178410	19384178	58.667	45.980	117	92	92	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15 +0.01	5.60 +0.01	177612162	247532124	426.355	363.744	85	73	**73**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F014.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 1:11 pm Operator: MC
Sample : K1905141-008 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 13:25:03 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.024	4.650	20178410	19384178	58.667	45.980	
		Target Compounds							
1)		3,4-Dichl...	3.137	3.750	78392	68962	4.392	3.179	#
2)		3,5-Dichl...	3.364	3.996	32871	22522	2.279	0.892	#
3)		2,4,6-Tri...	3.470	4.206	448028	403738	0.785	0.989	#
5)		2,4,5-Tri...	4.170	4.730	866610	135038	5.346	0.165	#
6)		3,4,5-Tri...	4.214	4.780	223556	100596	0.915	0.062	#
7)	M	2,3,5,6-T...	4.477	5.023	11347852	11852934	25.745	19.633	
8)	M	2,3,4,5-T...	5.010	5.416	364082	397688	0.004	0.956	#
9)	M	Pentachlo...	5.147	5.603	177.6E6	247.5E6	426.355m	363.744	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

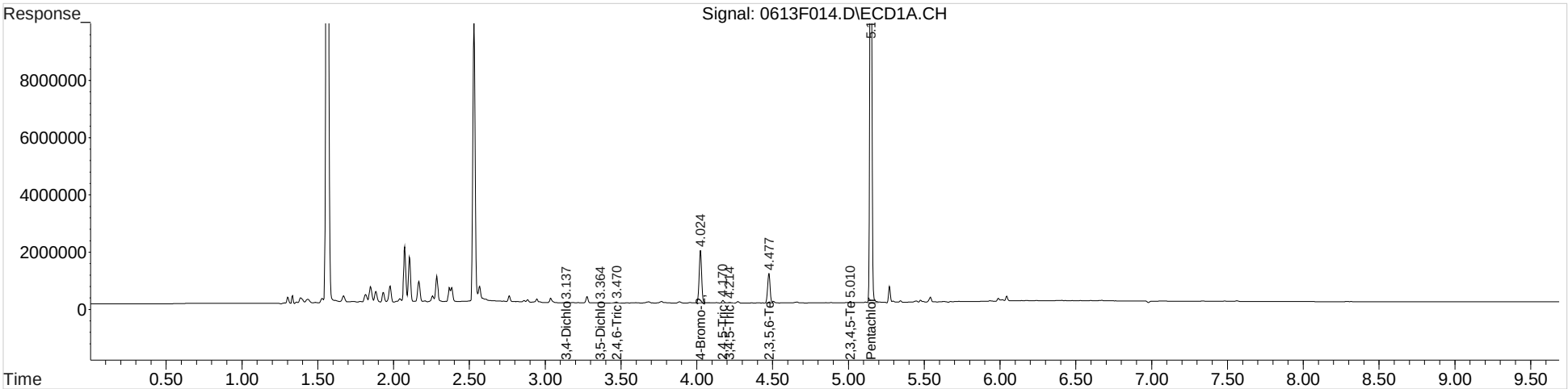
1st MC 06/14/19
2nd TP 06/17/19

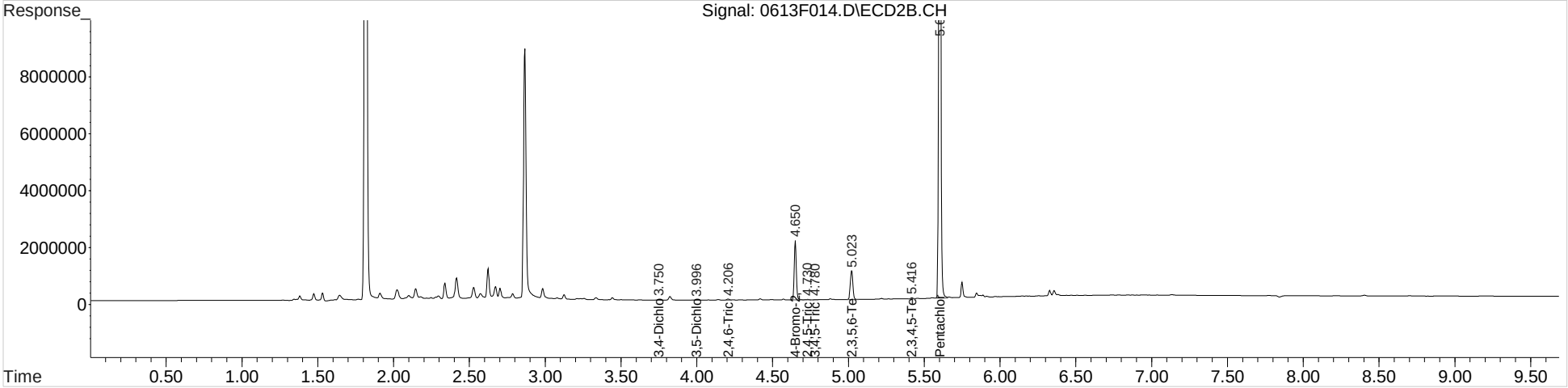
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F014.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 1:11 pm Operator: MC
Sample : K1905141-008 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 13:25:03 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





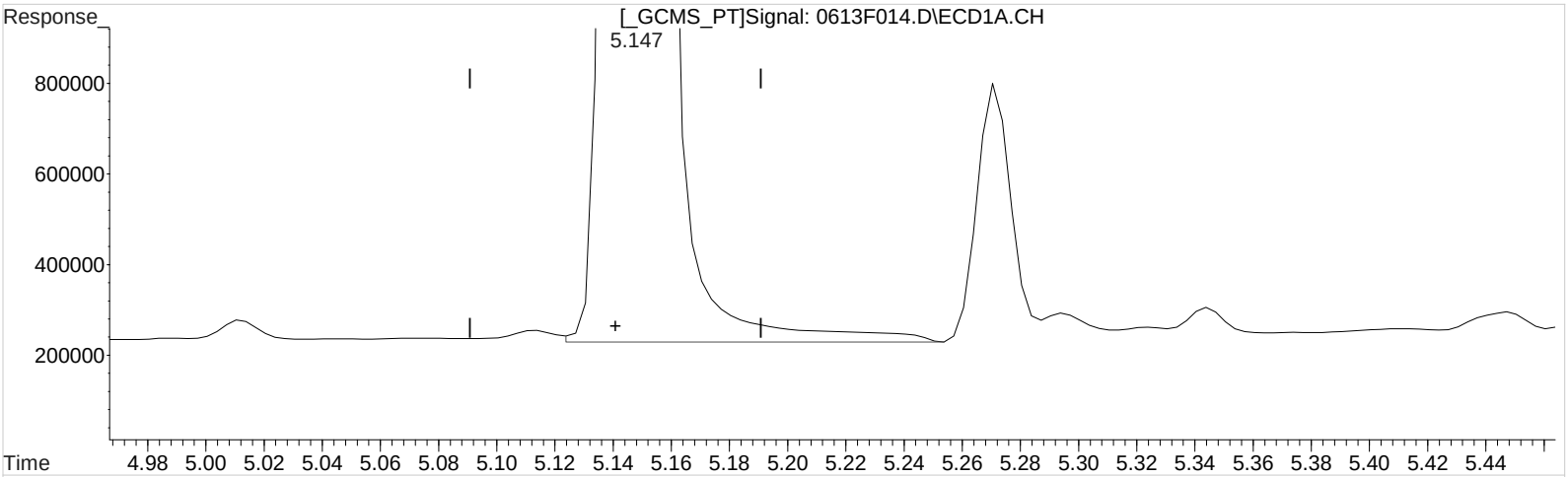
Quantitation Report (Qedit)

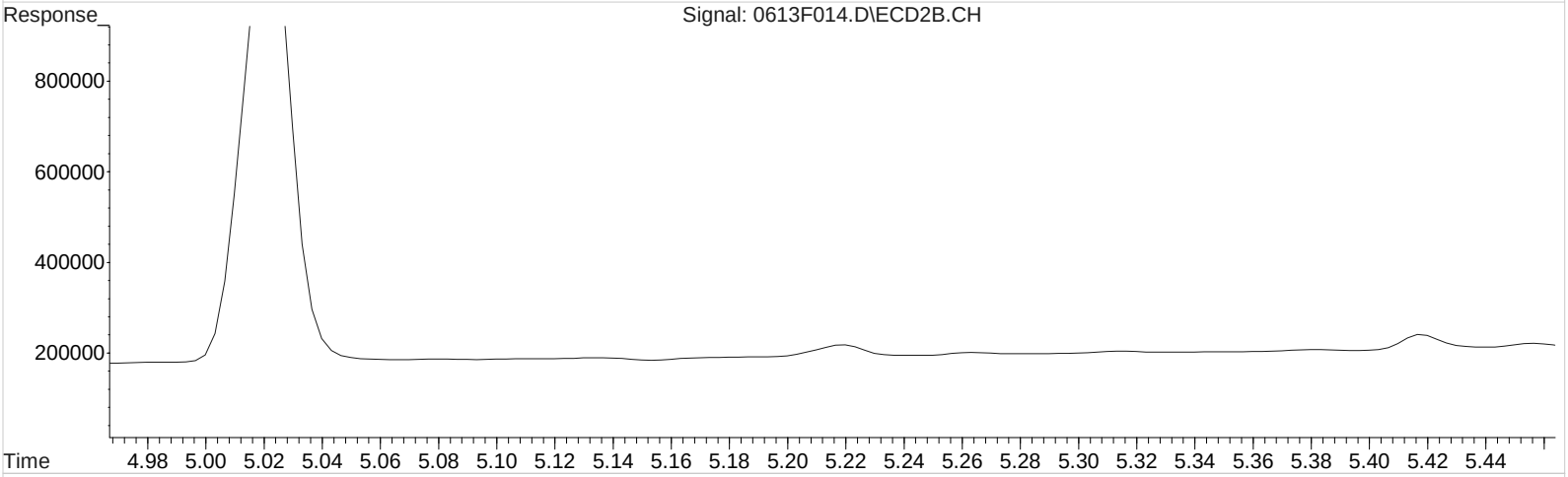
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F014.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 1:11 pm Operator: MC
Sample : K1905141-008 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 13:24:11 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.147min 429.502 ug/L

response 178788690

Manual Integration:

Before

06/13/19

(9) Pentachlorophenol #2 (M)

5.603min 363.744 ug/L

response 247532124

(+) = Expected Retention Time

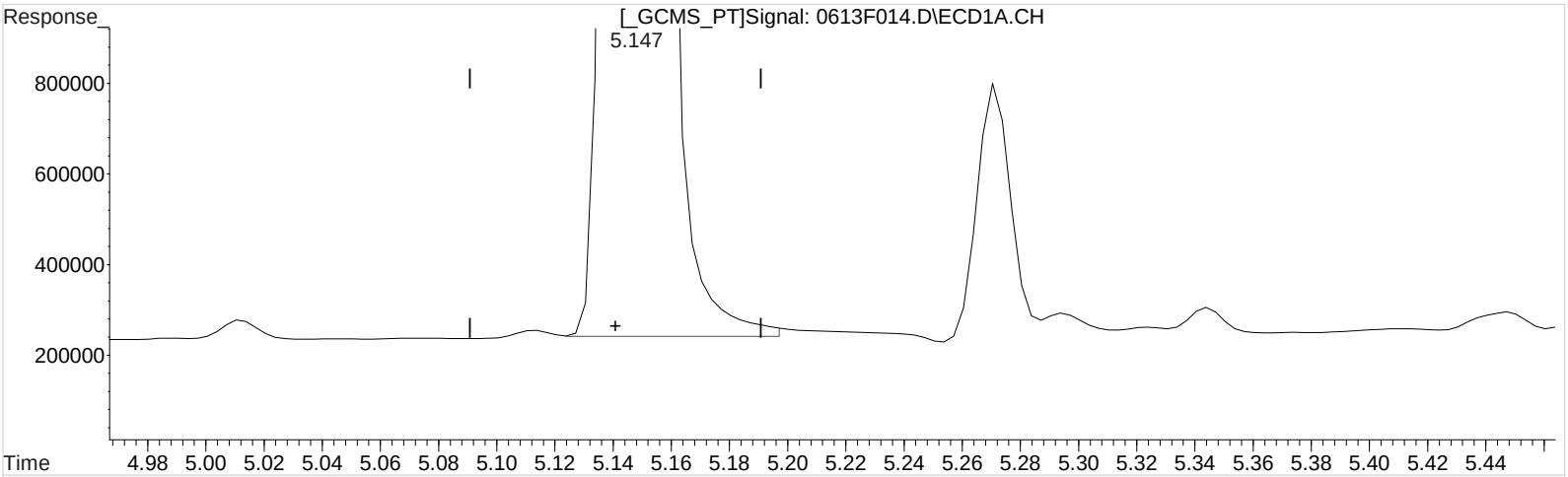
Quantitation Report (Qedit)

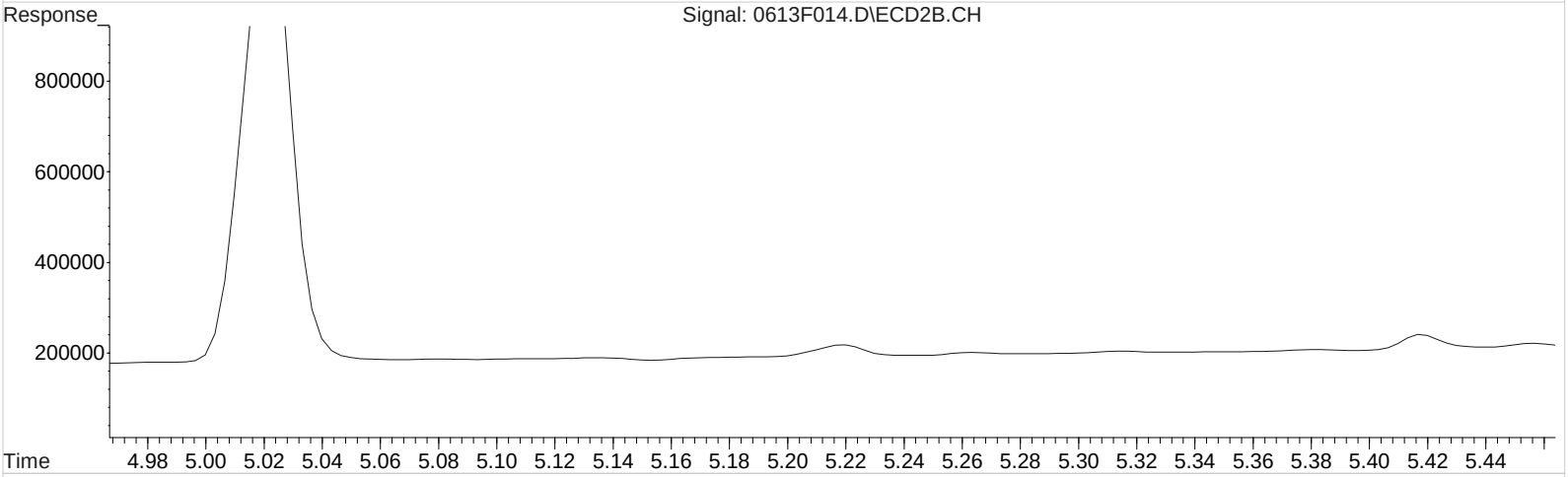
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F014.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 1:11 pm Operator: MC
Sample : K1905141-008 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 13:24:11 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.147min 426.355 ug/L m

response 177612162

Manual Integration:

After

Baseline/Shoulder

06/13/19

(9) Pentachlorophenol #2 (M)

5.603min 363.744 ug/L

response 247532124

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F015.D\
Lab ID: K1905141-009
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 13:29:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F015.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 13:29:00	**Vial:**	19
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-009	**Raw Units:**	ug/L

Bottle ID:	K1905141-009.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	19687345	19135286	57.201	45.389	114	91	91	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15 +0.01	5.60 +0.01	185799564	259655706	448.367	381.559	90	76	**76**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F015.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 1:29 pm Operator: MC
Sample : K1905141-009 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:07:40 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.024	4.650	19687345	19135286	57.201	45.389
		Target Compounds						
1)		3,4-Dichl...	0.000	3.750	0	63473	N.D. d	2.926
2)		3,5-Dichl...	0.000	3.994	0	16790	N.D. d	0.528
3)		2,4,6-Tri...	0.000	4.204	0	146072	N.D. d	0.358
5)		2,4,5-Tri...	4.171	0.000	824757	0	5.044	N.D. d#
6)		3,4,5-Tri...	4.224	4.780	116788	99367	0.192	0.055 #
7)	M	2,3,5,6-T...	4.474	5.020	5478412	5630997	12.005	9.327
8)	M	2,3,4,5-T...	0.000	5.417	0	247027	N.D. d	0.594
9)	M	Pentachlo...	5.148	5.600	185.8E6	259.7E6	448.367m	381.559
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

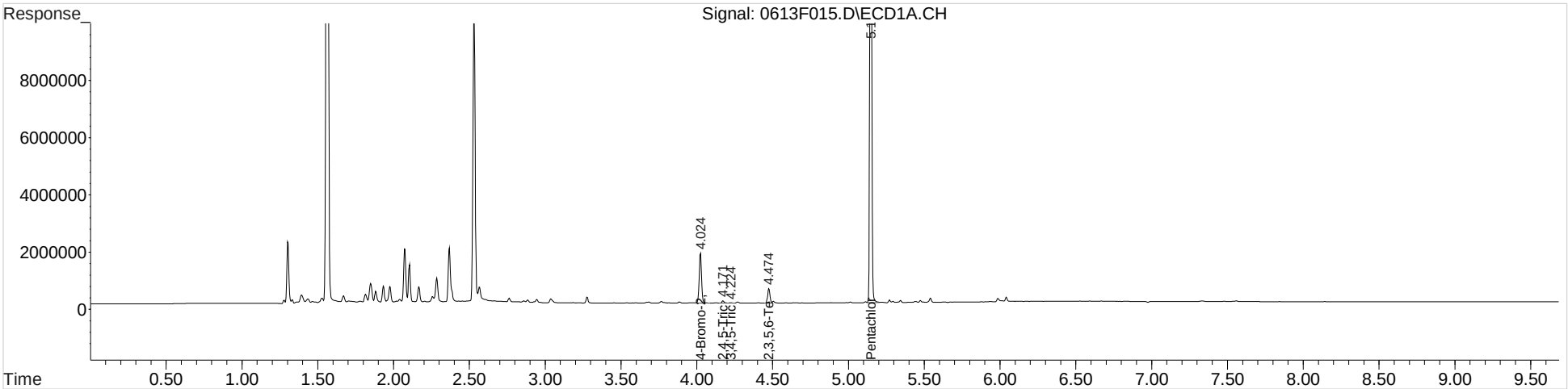
1st MC 06/14/19
2nd TP 06/17/19

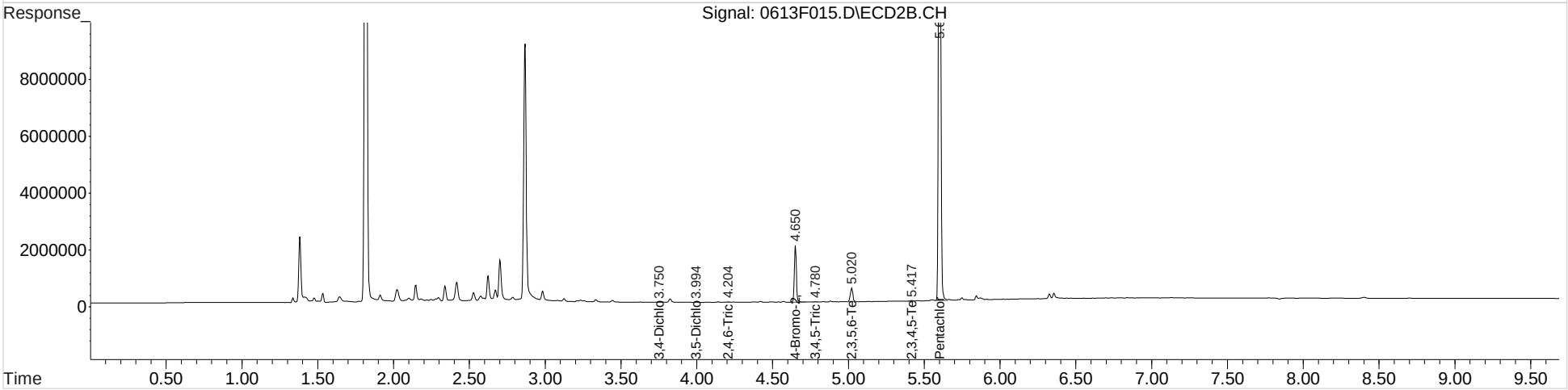
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F015.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 1:29 pm Operator: MC
Sample : K1905141-009 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:07:40 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





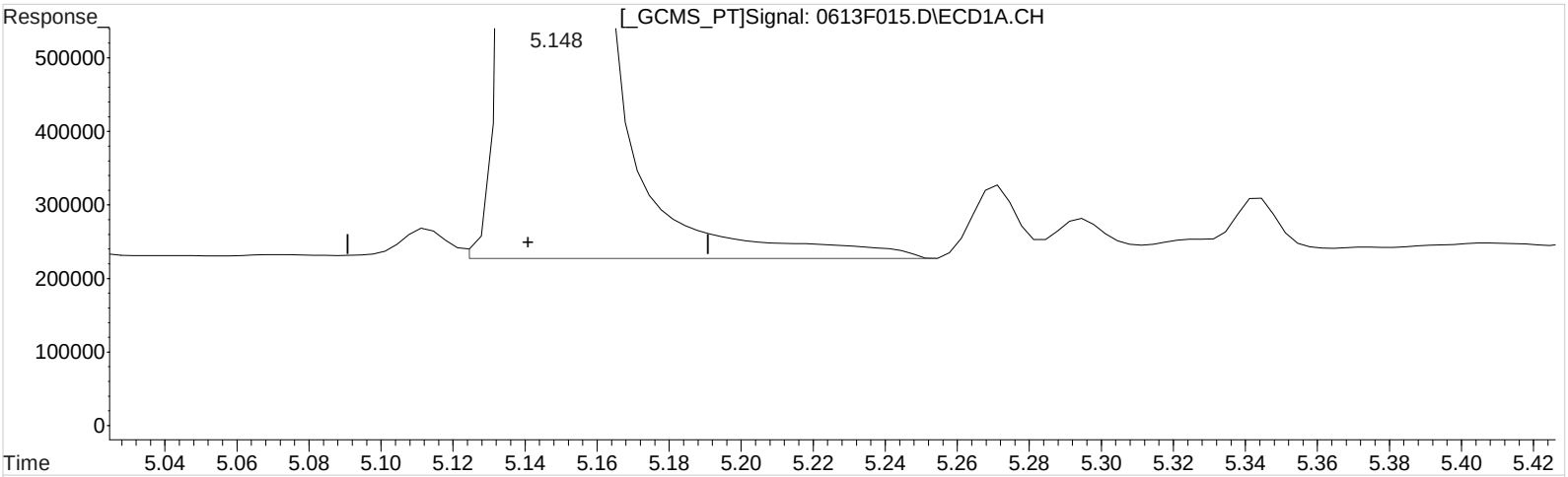
Quantitation Report (Qedit)

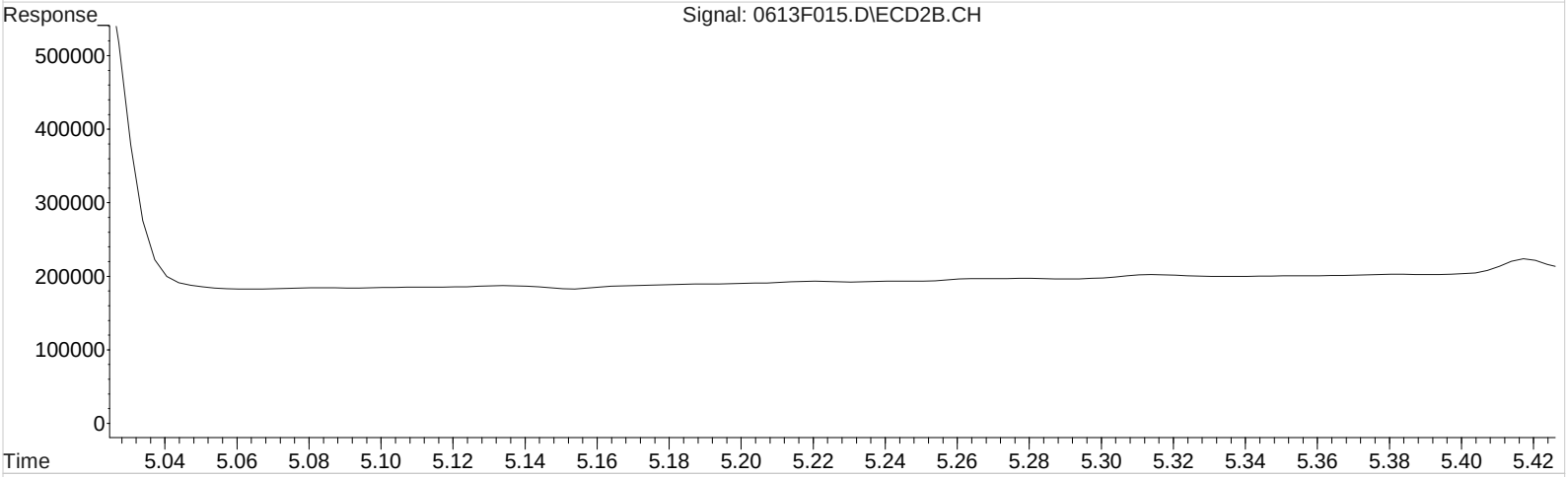
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F015.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 1:29 pm Operator: MC
Sample : K1905141-009 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 13:57:17 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.148min 451.047 ug/L

response 186789752

Manual Integration:

Before

06/13/19

(9) Pentachlorophenol #2 (M)

5.600min 381.559 ug/L

response 259655706

(+) = Expected Retention Time

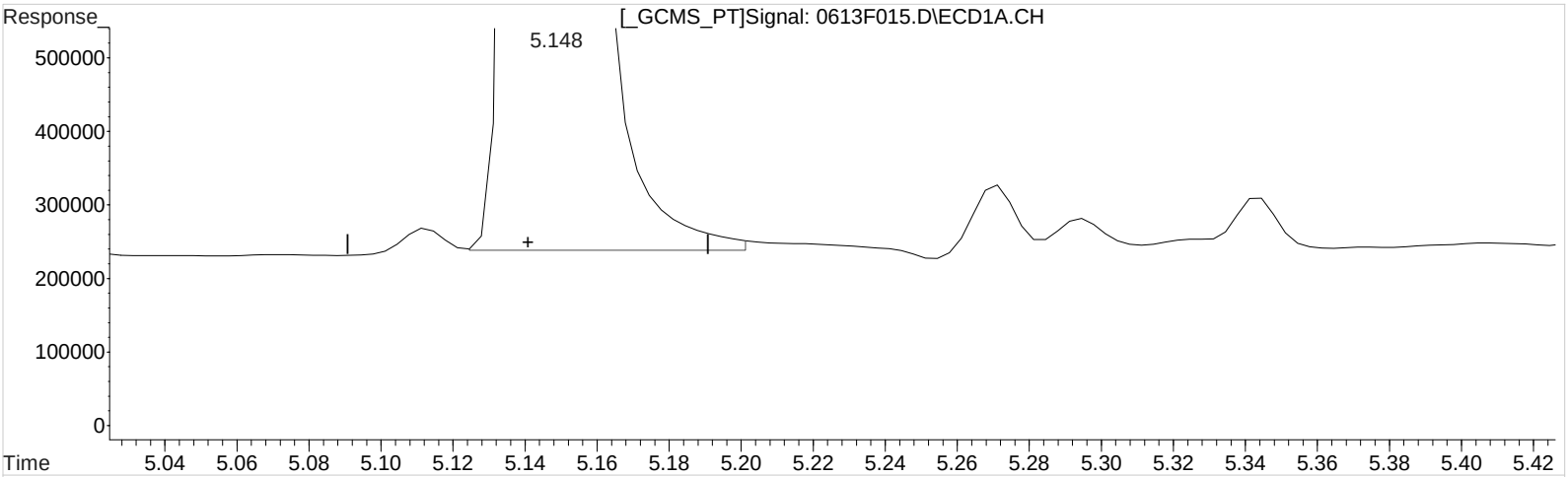
Quantitation Report (Qedit)

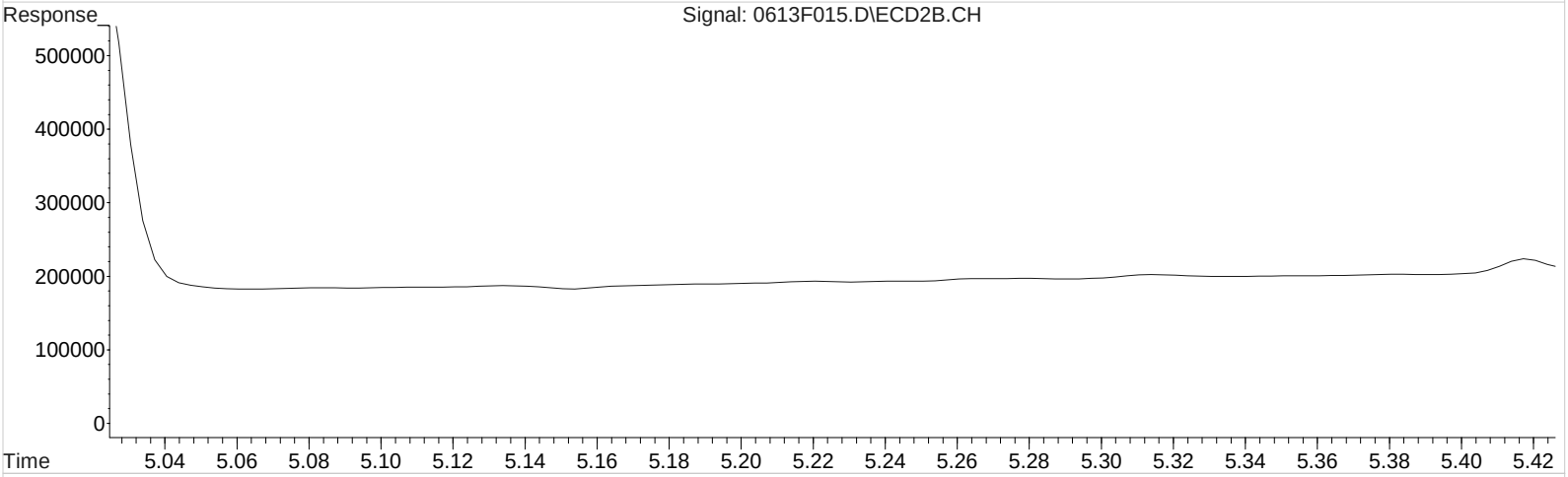
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F015.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 1:29 pm Operator: MC
Sample : K1905141-009 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 13:57:17 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.148min 448.367 ug/L m

response 185799564

Manual Integration:

After

Baseline/Shoulder

06/13/19

(9) Pentachlorophenol #2 (M)

5.600min 381.559 ug/L

response 259655706

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F016.D\
Lab ID: K1905141-010
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 13:46:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F016.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 13:46:00	**Vial:**	20
Run Type:	N/A	**Dilution:**	5
Lab ID:	K1905141-010	**Raw Units:**	ug/L

Bottle ID:	K1905141-010.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	4264513	3289540	11.591	7.803	116	78	78	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15 +0.01	5.60 +0.01	57310314	69885983	127.930	102.696	130	100	**100**	Y

Prep Amount:	5 mL	**Dilution:**	5
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F016.D Vial: 14
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 1:46 pm Operator: MC
Sample : K1905141-010 @5X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:08:11 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	4264513	3289540	11.591	7.803 #
		Target Compounds						
1)		3,4-Dichl...	3.134	3.747	10634	6928	0.118	0.319 #
2)		3,5-Dichl...	3.411f	0.000	7880	0	0.037	N.D. d#
3)		2,4,6-Tri...	0.000	4.207	0	41917	N.D. d	0.103
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	4.224	4.780	157110	163093	0.465	0.430
7)	M	2,3,5,6-T...	4.474	5.020	2277710	2177574	4.628	3.607
8)	M	2,3,4,5-T...	5.011	5.417	367538	490224	0.016	1.179 #
9)	M	Pentachlo...	5.148	5.600	57310314	69885983	127.930m	102.696
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

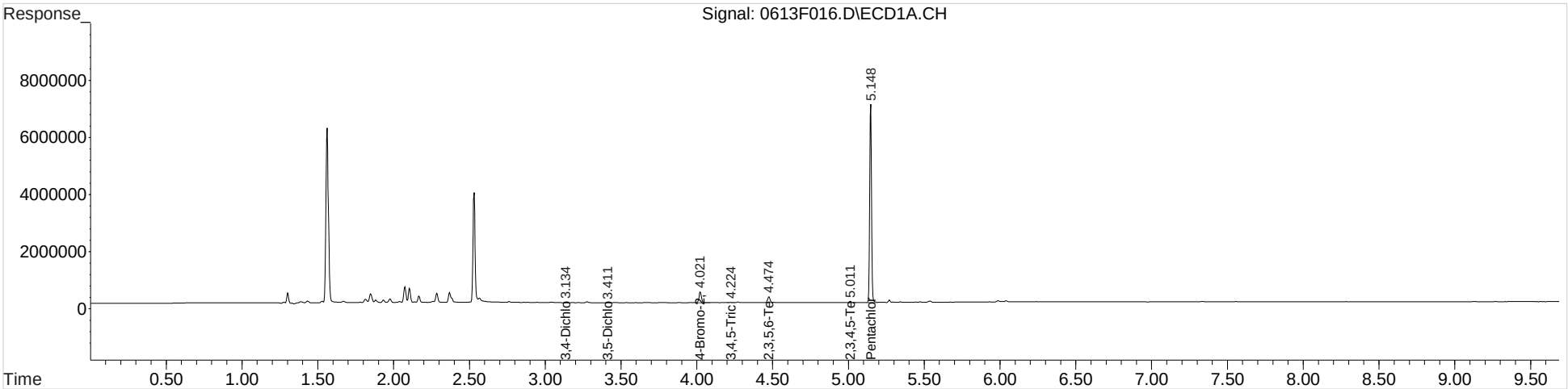
1st MC 06/14/19
2nd TP 06/17/19

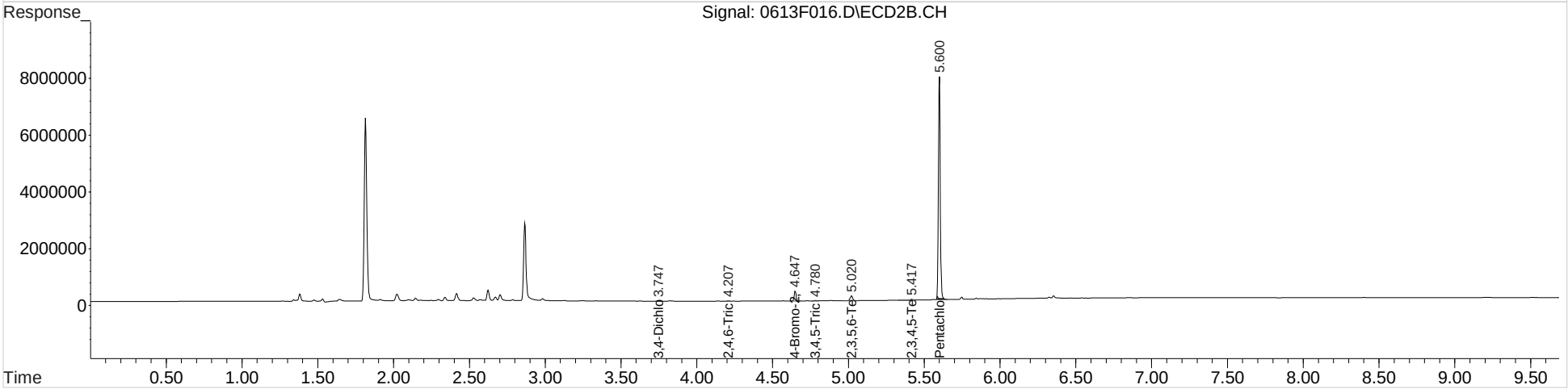
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F016.D Vial: 14
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 1:46 pm Operator: MC
Sample : K1905141-010 @5X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:08:11 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





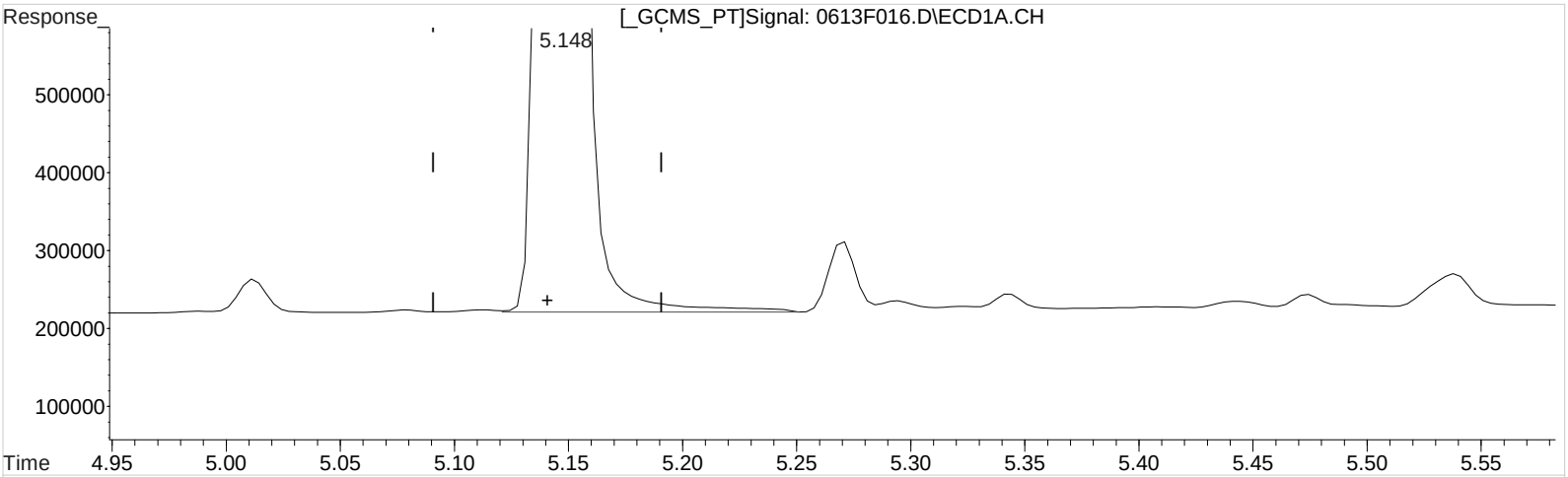
Quantitation Report (Qedit)

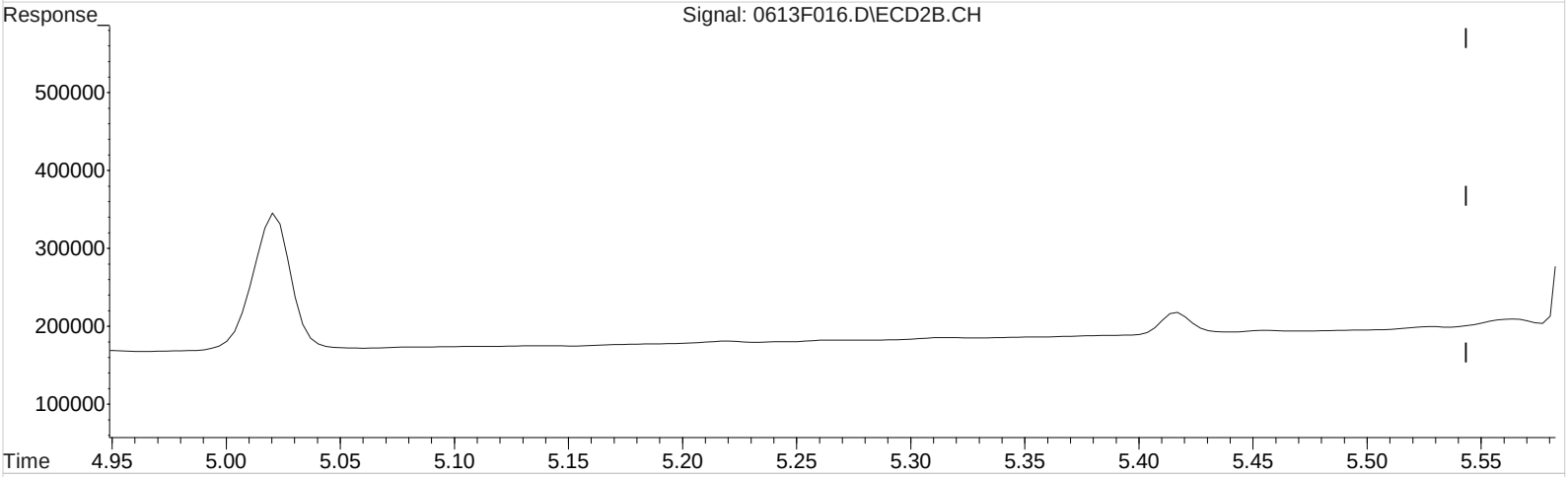
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F016.D Vial: 14
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 1:46 pm Operator: MC
Sample : K1905141-010 @5X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 13:57:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.148min 128.449 ug/L

response 57534732

Manual Integration:

Before

06/13/19

(9) Pentachlorophenol #2 (M)

5.600min 102.696 ug/L

response 69885983

(+) = Expected Retention Time

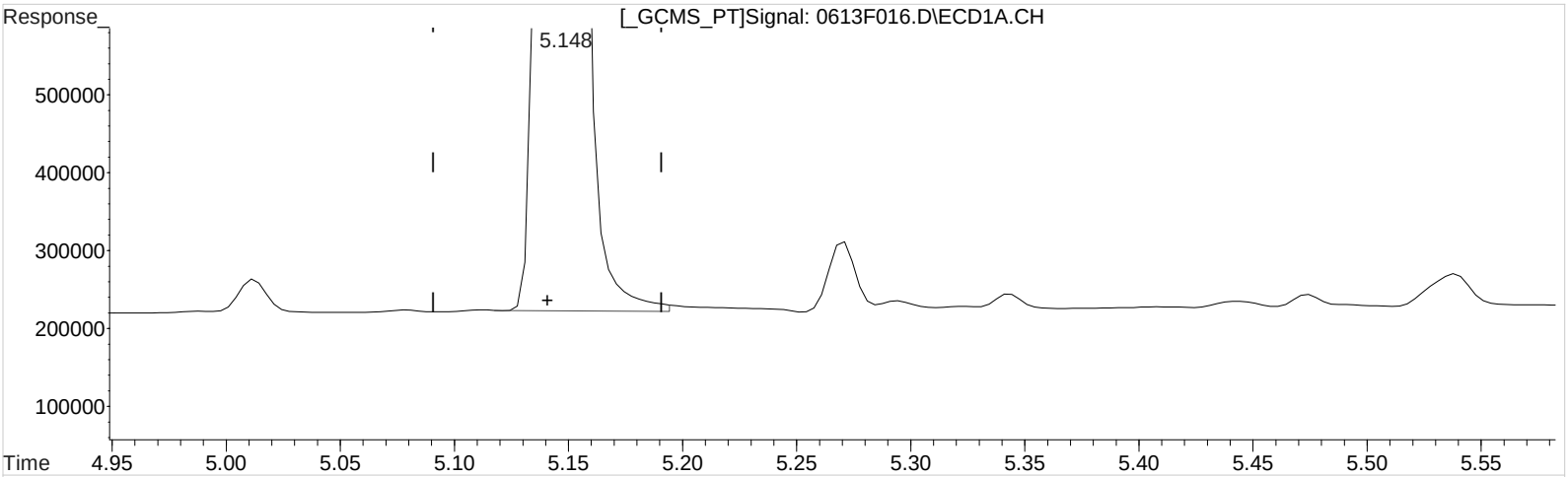
Quantitation Report (Qedit)

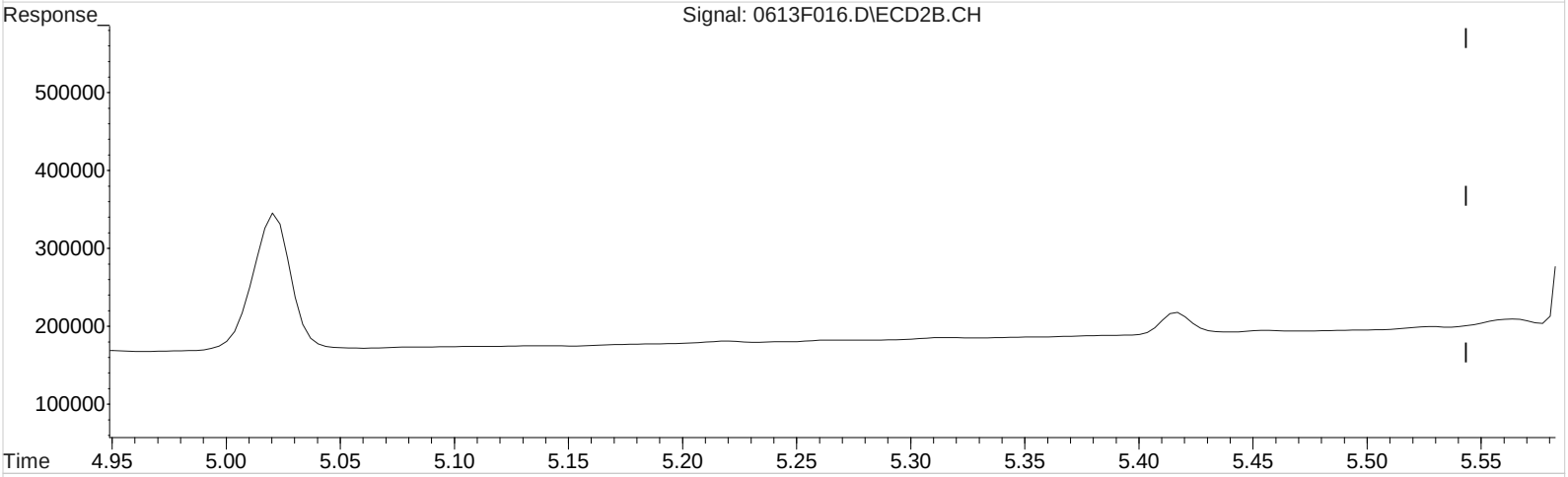
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F016.D Vial: 14
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 1:46 pm Operator: MC
Sample : K1905141-010 @5X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 13:57:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.148min 127.930 ug/L m

response 57310314

Manual Integration:

After

Baseline/Shoulder

06/13/19

(9) Pentachlorophenol #2 (M)

5.600min 102.696 ug/L

response 69885983

(+) = Expected Retention Time

Validation Report

1st MC 06/14/19
2nd TP 06/17/19

Data File: J:\GC28\Data\061319\0613F019.D\
Lab ID: K1905141-011
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 14:39:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F019.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 14:39:00	**Vial:**	21
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-011	**Raw Units:**	ug/L

Bottle ID:	K1905141-011.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	19641416	19043404	57.064	45.172	114	90	90	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15	5.60	867518	834624	0.952	1.226	0.19J	0.25J	**0.19** J	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F019.D Vial: 15
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 2:39 pm Operator: MC
Sample : K1905141-011 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:09:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.023	4.649	19641416	19043404	57.064	45.172
	Target Compounds						
1)	3,4-Dichl...	0.000	3.749	0	46506	N.D. d	2.144
2)	3,5-Dichl...	3.339f	3.995	24968	18046	1.569	0.608 #
3)	2,4,6-Tri...	0.000	4.205	0	127170	N.D. d	0.312
5)	2,4,5-Tri...	4.173	0.000	783173	0	4.743	N.D. d#
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	0.000	5.009	0	367002	N.D. d	0.608
8) M	2,3,4,5-T...	0.000	5.402	0	24696	N.D. d	0.059
9) M	Pentachlo...	5.146	5.599	867518	834624	0.952	1.226m#
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

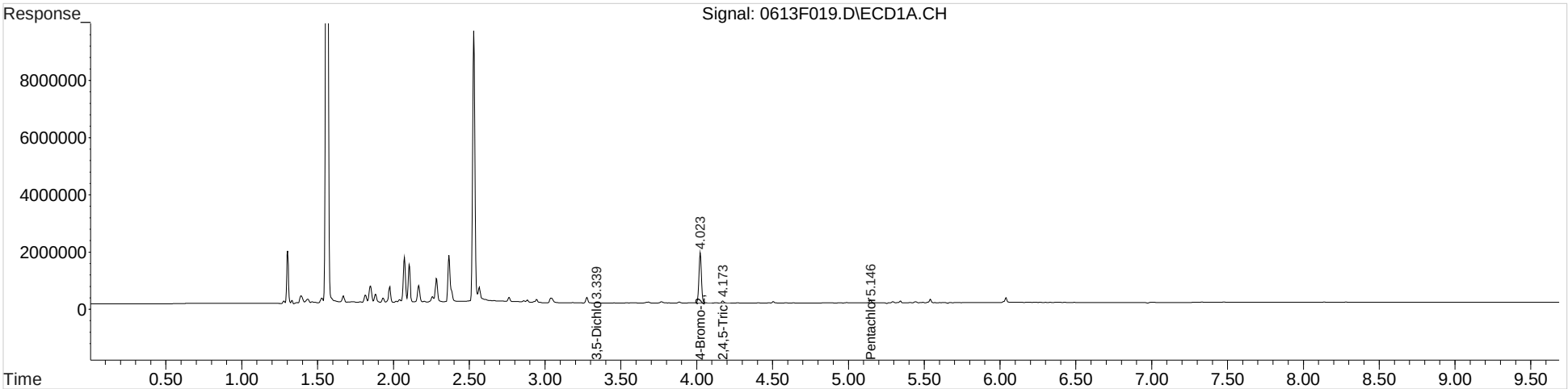
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F019.D Vial: 15
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 2:39 pm Operator: MC
Sample : K1905141-011 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:09:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



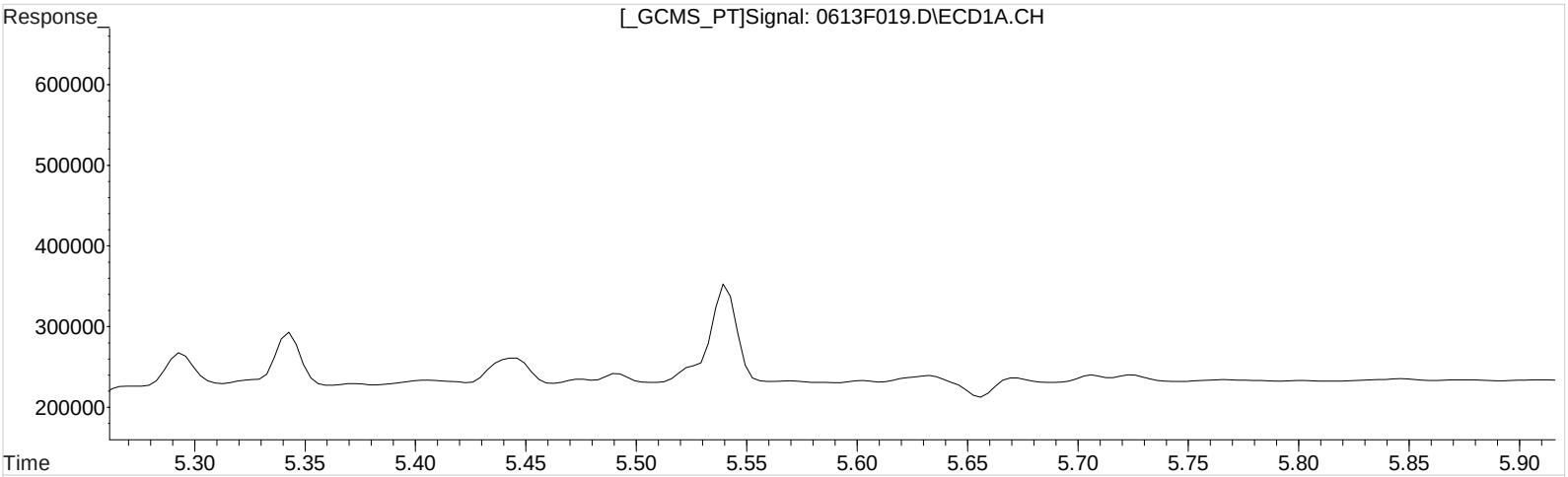
Quantitation Report (Qedit)

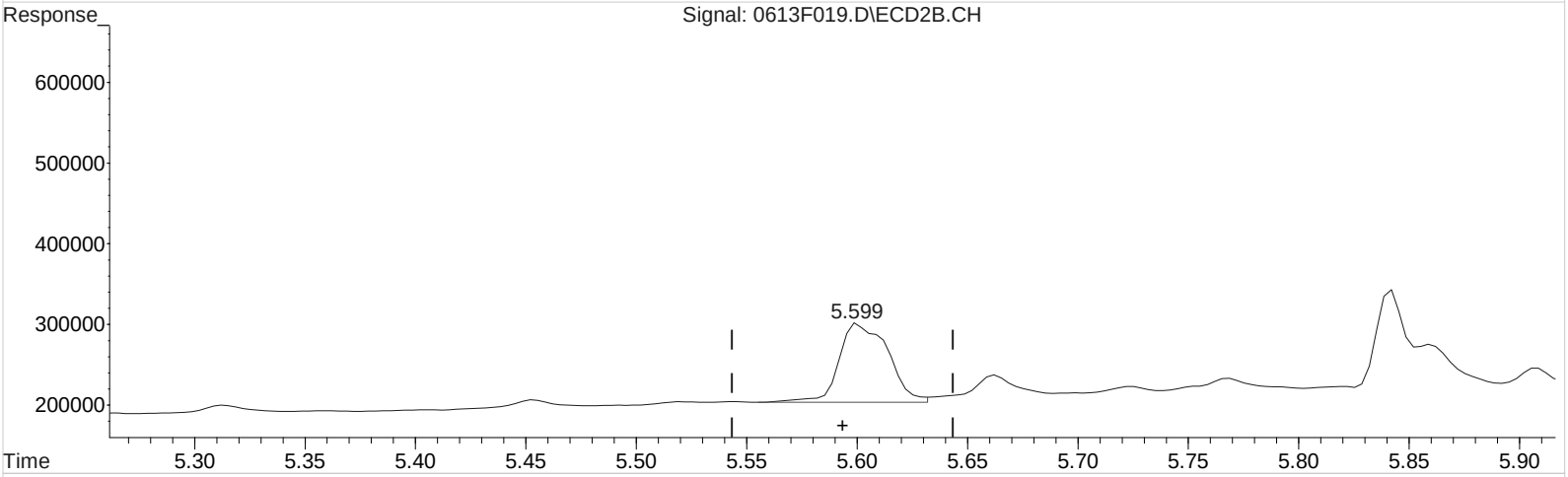
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F019.D Vial: 15
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 2:39 pm Operator: MC
Sample : K1905141-011 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:02:41 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.146min 0.952 ug/L

response 867518

(9) Pentachlorophenol #2 (M)

5.599min 2.234 ug/L

response 1520473

Manual Integration:

Before

06/13/19

(+) = Expected Retention Time

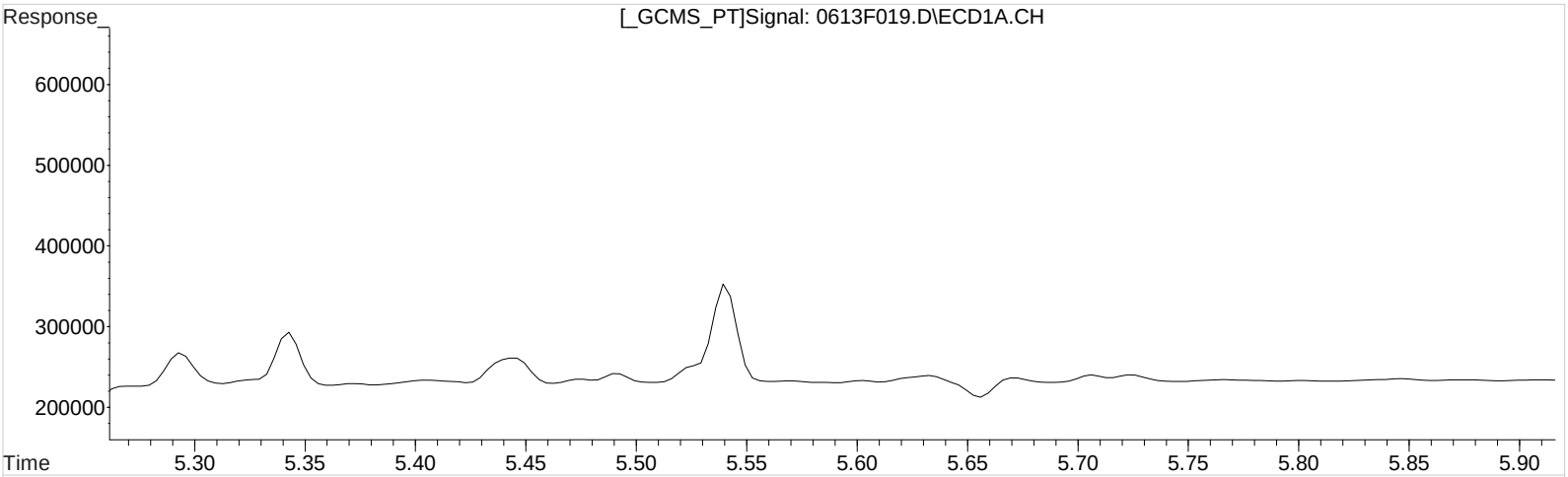
Quantitation Report (Qedit)

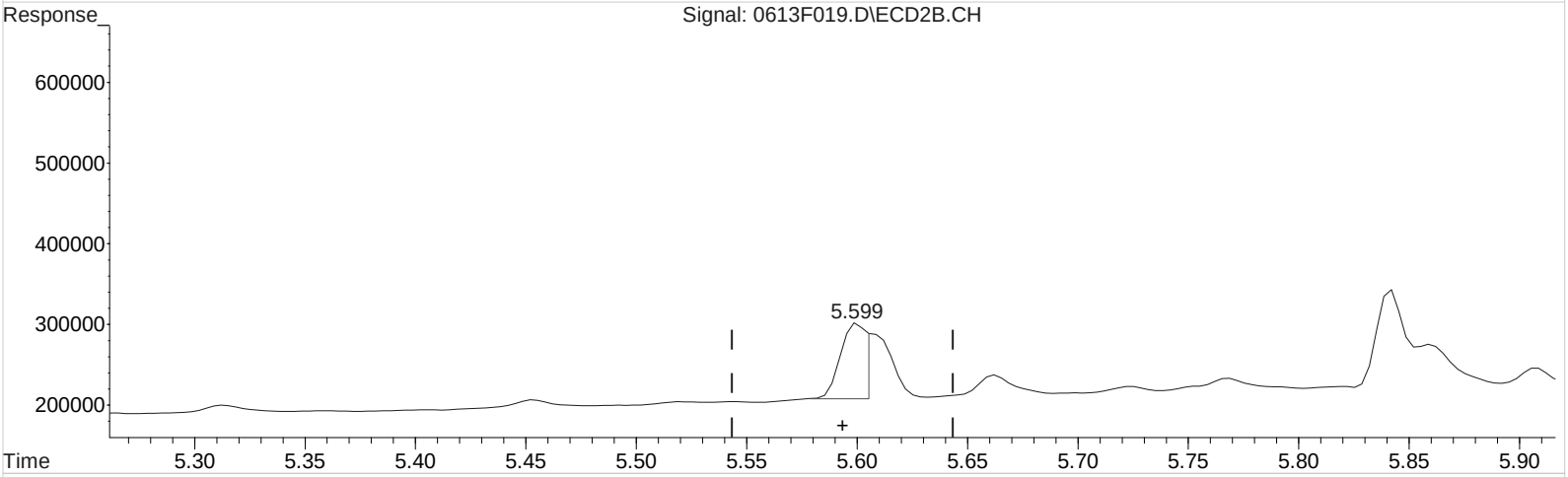
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F019.D Vial: 15
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 2:39 pm Operator: MC
Sample : K1905141-011 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:02:41 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.146min 0.952 ug/L

response 867518

Manual Integration:

After

Baseline/Shoulder

06/13/19

(9) Pentachlorophenol #2 (M)

5.599min 1.226 ug/L m

response 834624

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F020.D\
Lab ID: K1905141-012
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 14:57:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st mc 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F020.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 14:57:00	**Vial:**	22
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-012	**Raw Units:**	ug/L

Bottle ID:	K1905141-012.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18428190	18019714	53.444	42.743	107	85	85	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15	5.60	5450859	6582250	11.006	9.672	2.2	1.9	**1.9**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F020.D Vial: 16
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 2:57 pm Operator: MC
Sample : K1905141-012 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:09:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.022	4.648	18428190	18019714	53.444	42.743
	Target Compounds						
1)	3,4-Dichl...	0.000	3.748	0	44693	N.D. d	2.060
2)	3,5-Dichl...	3.365	3.995	37710	15152	2.715	0.424 #
3)	2,4,6-Tri...	0.000	4.205	0	142940	N.D. d	0.350
5)	2,4,5-Tri...	4.172	0.000	812716	0	4.957	N.D. d#
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	4.475	5.018	612463	839632	0.821	1.391 #
8) M	2,3,4,5-T...	0.000	5.415	0	135837	N.D. d	0.327
9) M	Pentachlo...	5.145	5.598	5450859	6582250	11.006	9.672
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

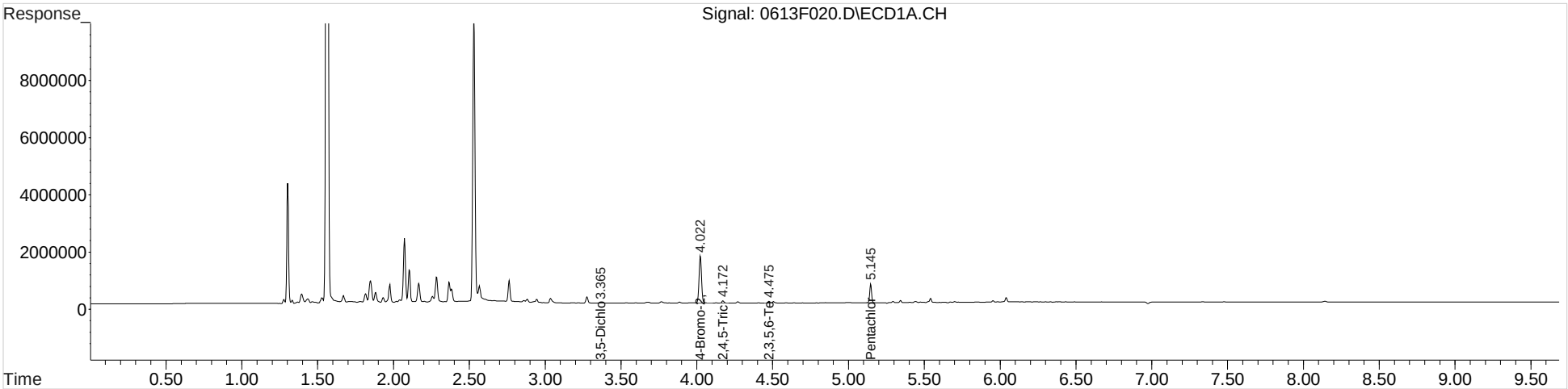
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F020.D Vial: 16
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 2:57 pm Operator: MC
Sample : K1905141-012 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:09:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Validation Report

1st MC 06/14/19
2nd TP 06/17/19

Data File: J:\GC28\Data\061319\0613F021.D\
Lab ID: K1905141-013
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 15:14:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F021.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 15:14:00	**Vial:**	24
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-013	**Raw Units:**	ug/L

Bottle ID:	K1905141-013.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.03 +0.01	4.65	19094672	18854112	55.432	44.723	111	89	89	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15	5.60	2171878	2643414	3.809	3.884	0.76	0.78	**0.76**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F021.D Vial: 17
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 3:14 pm Operator: MC
Sample : K1905141-013 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:10:14 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.025	4.648	19094672	18854112	55.432m	44.723
		Target Compounds						
1)		3,4-Dichl...	3.135	3.751	64637	62388	3.522	2.876
2)		3,5-Dichl...	3.365	3.994	18527	20817	0.990	0.784
3)		2,4,6-Tri...	0.000	4.204	0	159798	N.D. d	0.391
5)		2,4,5-Tri...	4.172	0.000	951811	0	5.963	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.011	0	425975	N.D. d	0.706
8)	M	2,3,4,5-T...	0.000	5.404	0	3949	N.D. d	0.009
9)	M	Pentachlo...	5.145	5.598	2171878	2643414	3.809	3.884
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

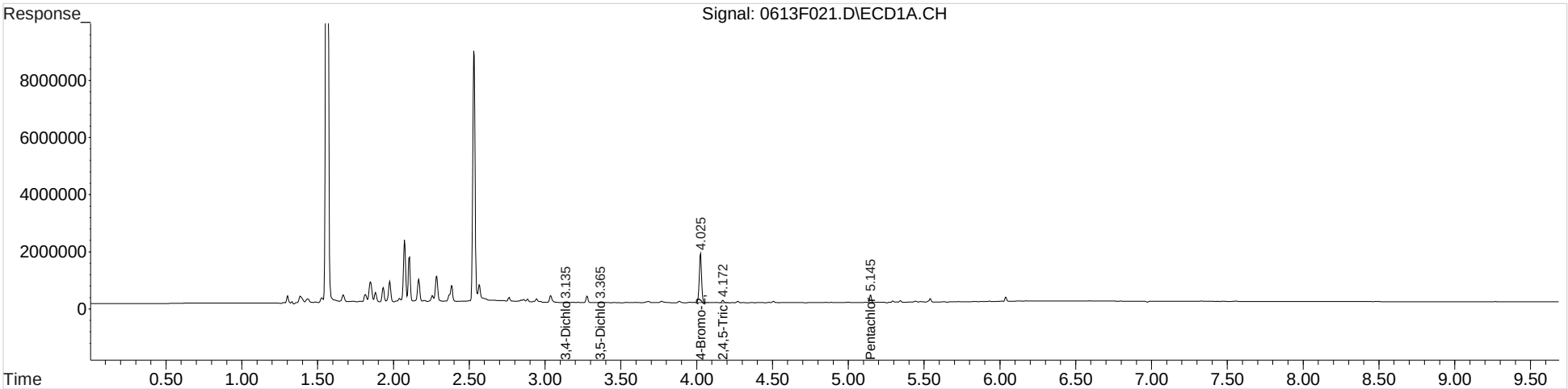
1st MC 06/14/19
2nd TP 06/17/19

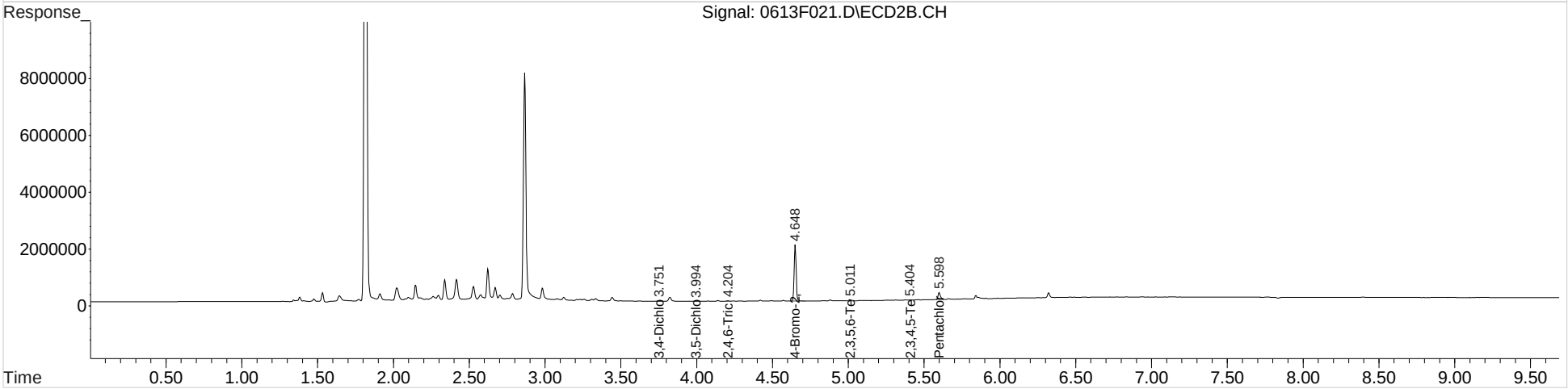
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F021.D Vial: 17
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 3:14 pm Operator: MC
Sample : K1905141-013 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:10:14 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





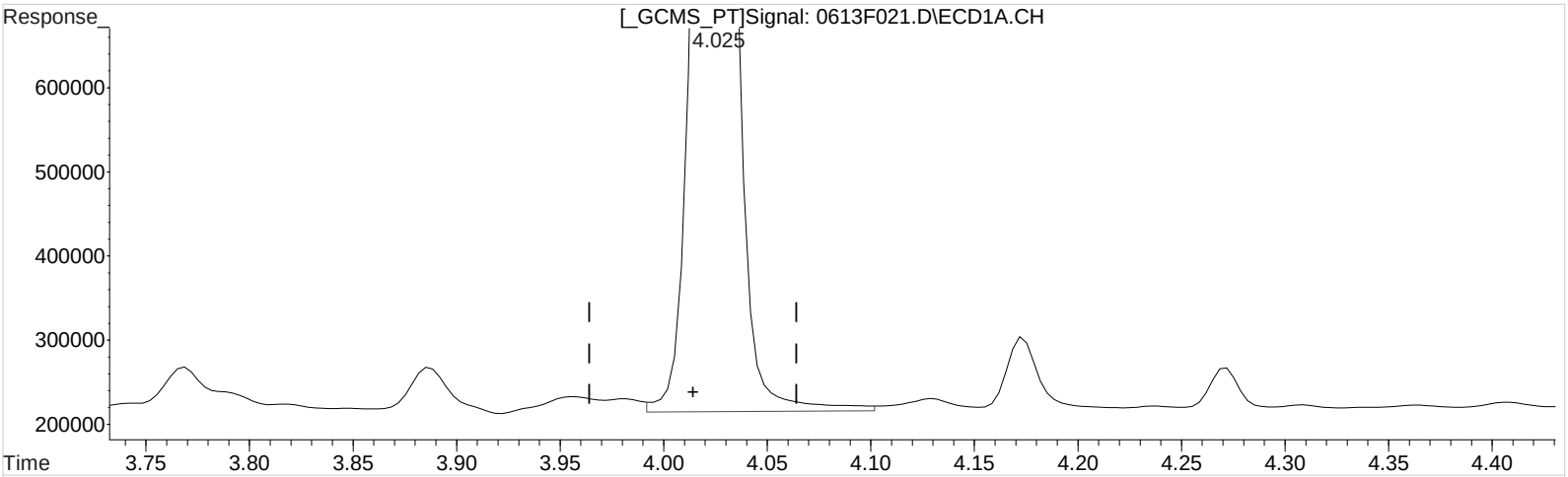
Quantitation Report (Qedit)

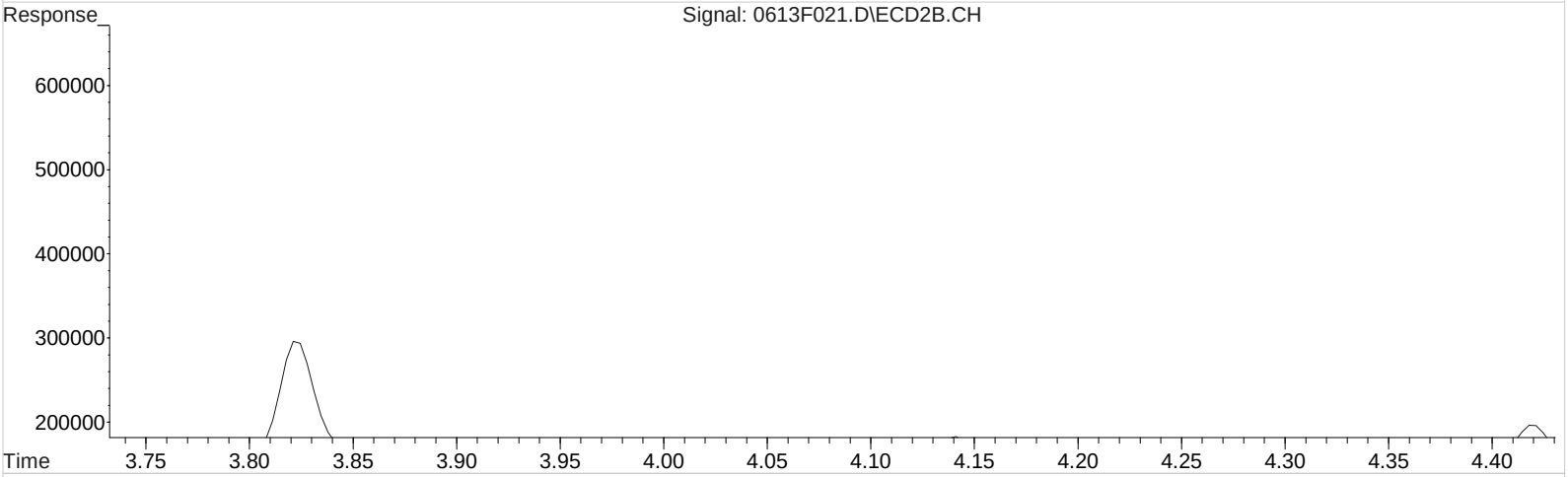
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F021.D Vial: 17
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 3:14 pm Operator: MC
Sample : K1905141-013 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:02:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.025min 56.763 ug/L

response 19540823

Manual Integration:

Before

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.648min 44.723 ug/L

response 18854112

(+) = Expected Retention Time

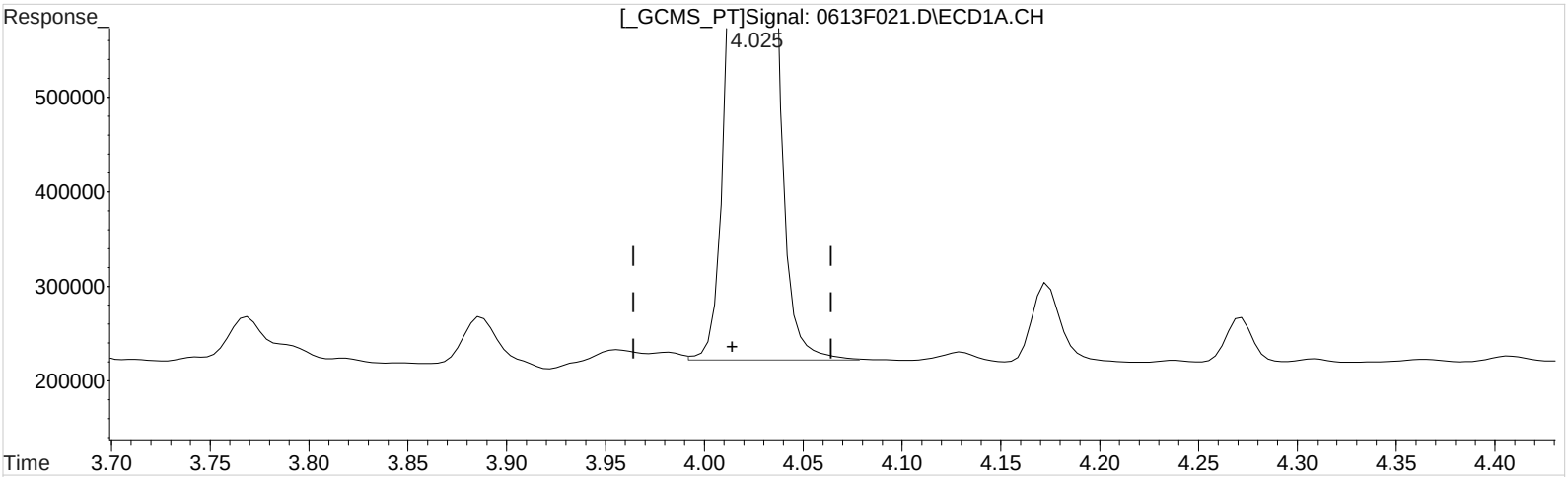
Quantitation Report (Qedit)

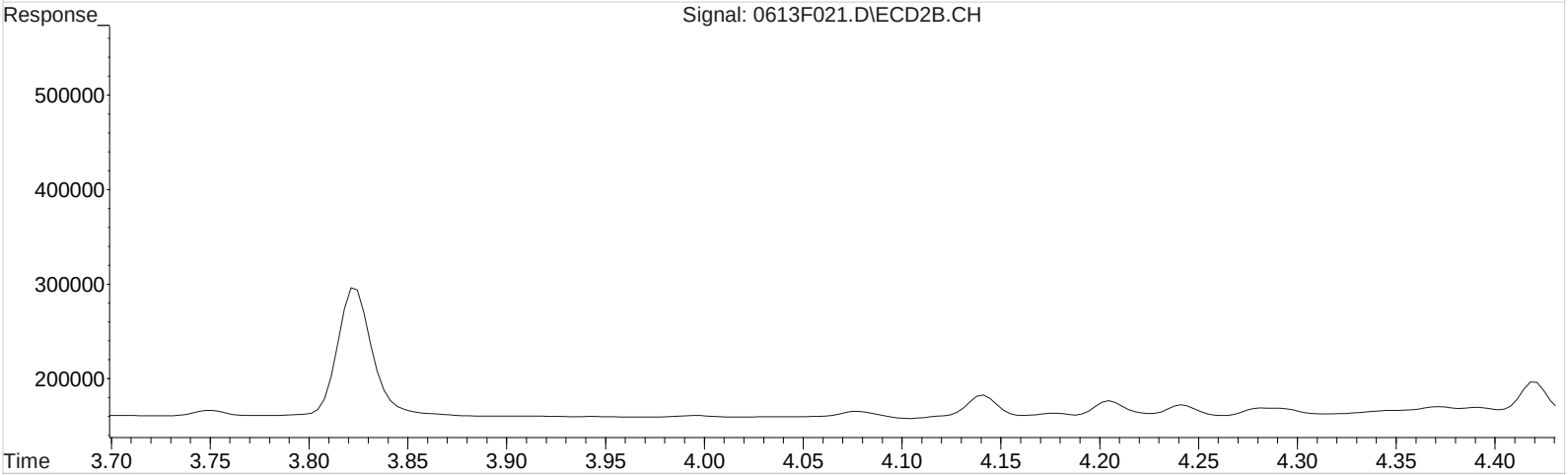
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F021.D Vial: 17
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 3:14 pm Operator: MC
Sample : K1905141-013 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:02:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.025min 55.432 ug/L m

response 19094672

Manual Integration:

After

Baseline/Shoulder

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.648min 44.723 ug/L

response 18854112

(+) = Expected Retention Time

Validation Report

1st MC 06/14/19
2nd TP 06/17/19

Data File: J:\GC28\Data\061319\0613F022.D\
Lab ID: K1905141-014
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 15:32:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F022.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 15:32:00	**Vial:**	25
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-014	**Raw Units:**	ug/L

Bottle ID:	K1905141-014.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	19503026	19537916	56.651	46.345	113	93	93	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	676378	0.000	0.994	0U	0.20J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 3:32 pm Operator: MC
Sample : K1905141-014 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:10:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.023	4.649	19503026	19537916	56.651m	46.345
		Target Compounds						
1)		3,4-Dichl...	3.136	3.749	26573	59210	1.120	2.730 #
2)		3,5-Dichl...	0.000	3.992	0	42388	N.D. d	2.155
3)		2,4,6-Tri...	0.000	4.206	0	165620	N.D. d	0.406
5)		2,4,5-Tri...	4.170	4.696	544626	275550	3.023	0.956 #
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.009	0	308275	N.D. d	0.511
8)	M	2,3,4,5-T...	0.000	5.382f	0	5570	N.D. d	0.013
9)	M	Pentachlo...	0.000	5.606	0	676378	N.D. d	0.994
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

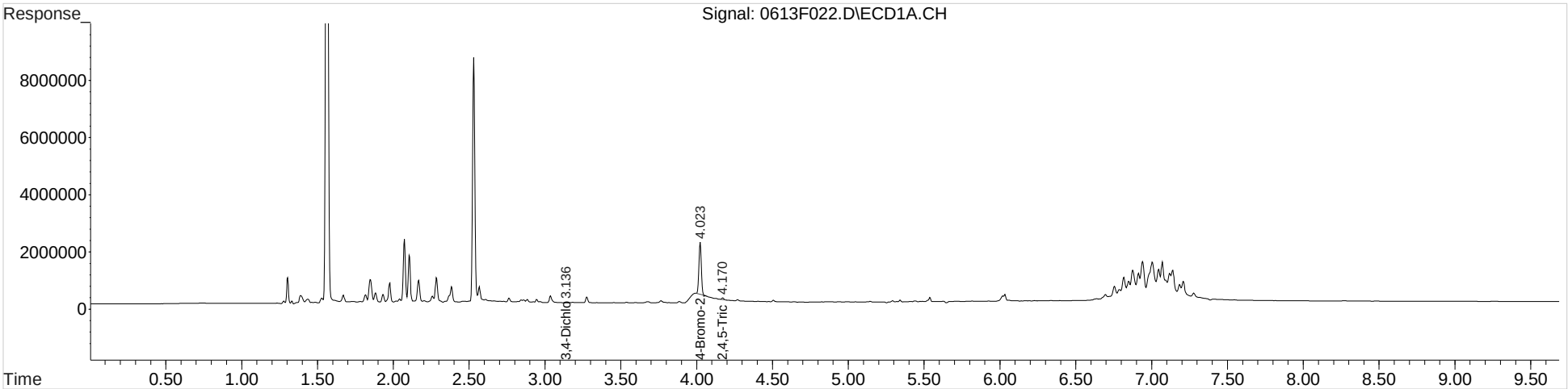
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 3:32 pm Operator: MC
Sample : K1905141-014 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:10:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



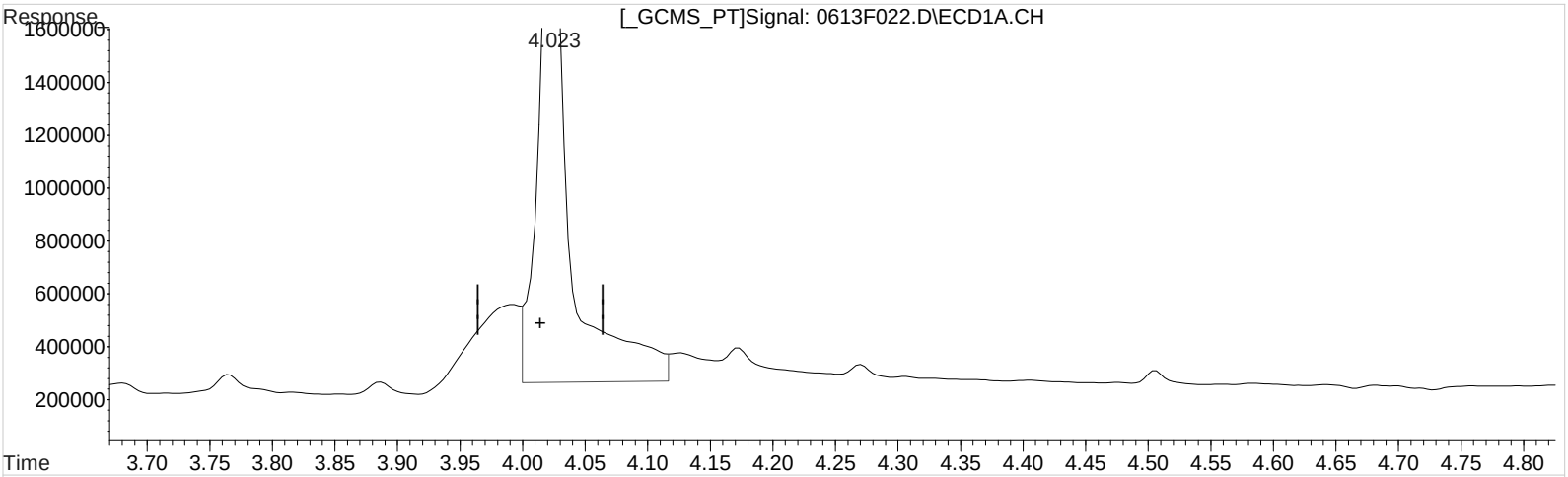
Quantitation Report (Qedit)

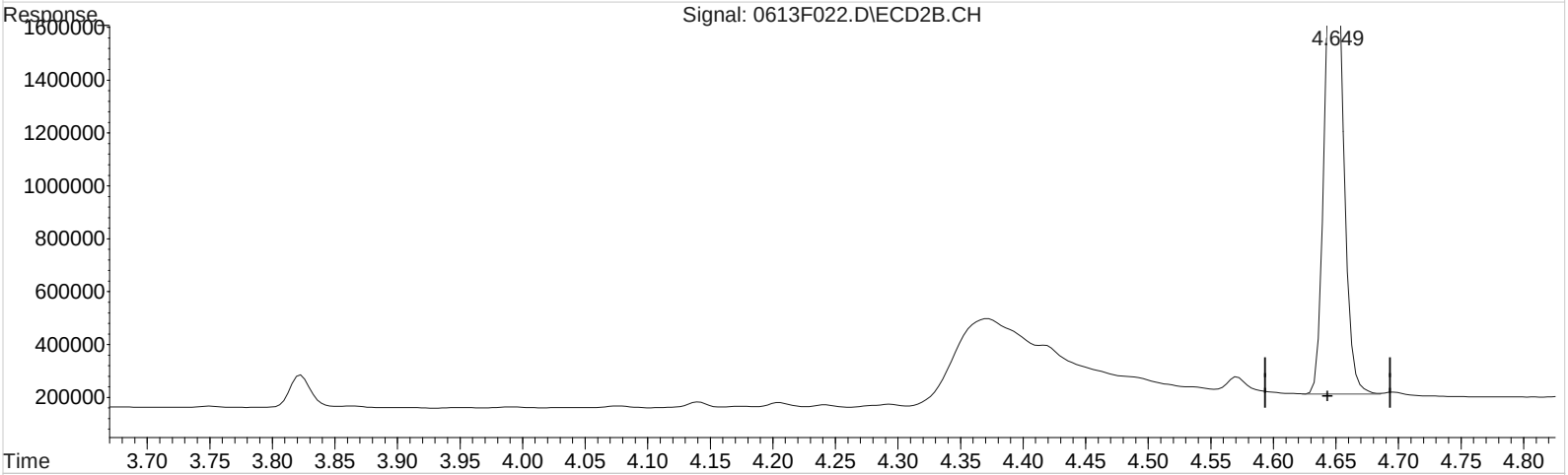
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 3:32 pm Operator: MC
Sample : K1905141-014 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:02:50 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.023min 97.850 ug/L

response 33186499

Manual Integration:

Before

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.649min 46.345 ug/L

response 19537916

(+) = Expected Retention Time

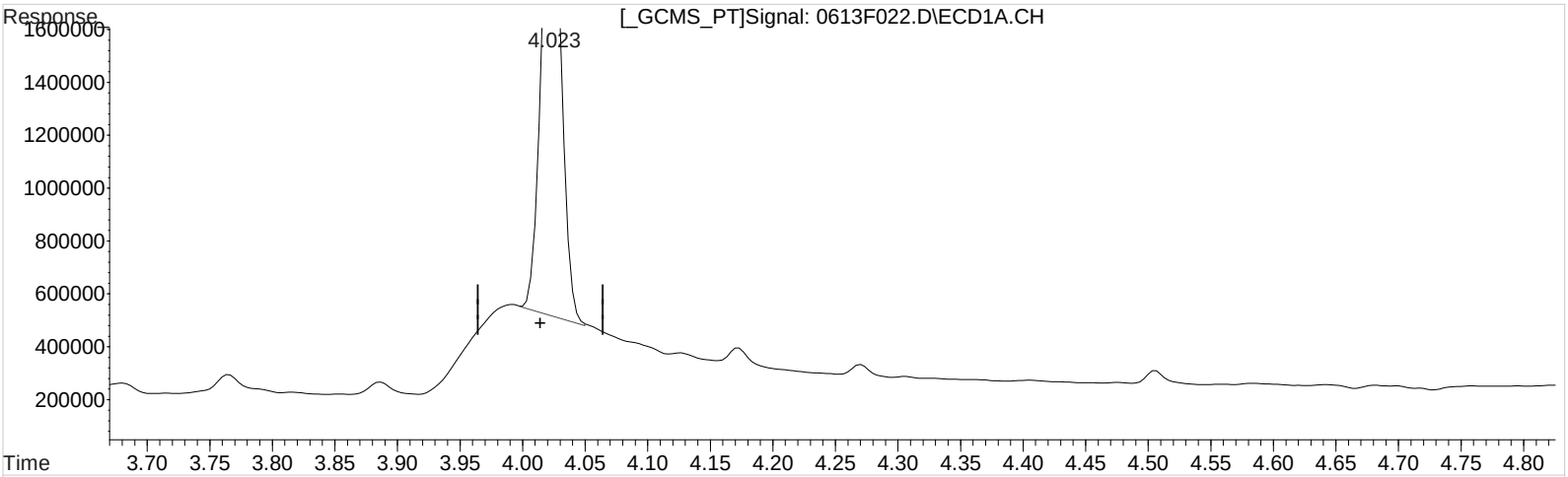
Quantitation Report (Qedit)

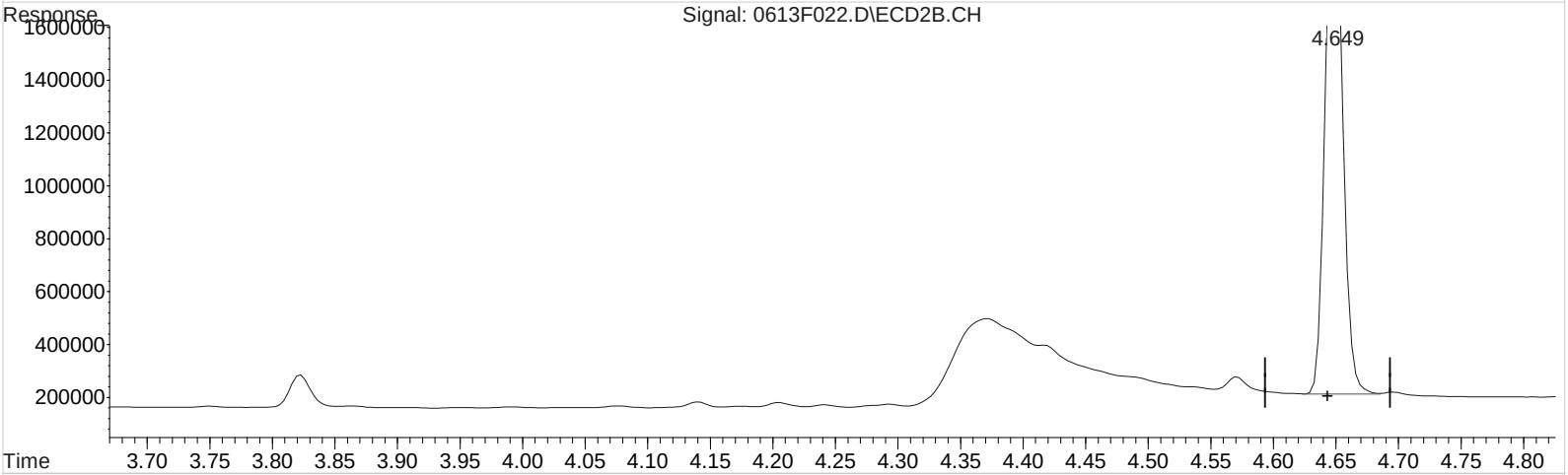
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F022.D Vial: 18
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 3:32 pm Operator: MC
Sample : K1905141-014 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:02:50 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.023min 56.651 ug/L m

response 19503026

Manual Integration:

After

Baseline/Shoulder

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.649min 46.345 ug/L

response 19537916

(+) = Expected Retention Time

Validation Report

1st MC 06/14/19
2nd TP 06/17/19

Data File: J:\GC28\Data\061319\0613F023.D\
Lab ID: K1905141-015
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 15:49:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F023.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 15:49:00	**Vial:**	23
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-015	**Raw Units:**	ug/L

Bottle ID:	K1905141-015.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	19374648	19565740	56.267	46.411	113	93	93	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.58 -0.02	0	131522	0.000	0.193	0U	0.039U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 3:49 pm Operator: MC
Sample : K1905141-015 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:11:18 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.022	4.648	19374648	19565740	56.267m	46.411
	Target Compounds						
1)	3,4-Dichl...	3.156f	3.748	21142	55301	0.778	2.549 #
2)	3,5-Dichl...	3.366	3.995	8861	20422	0.124	0.759 #
3)	2,4,6-Tri...	0.000	4.205	0	188722	N.D. d	0.462
5)	2,4,5-Tri...	4.172	0.000	1026072	0	6.501	N.D. d#
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	0.000	5.012	0	307628	N.D. d	0.510
8) M	2,3,4,5-T...	0.000	5.405	0	25966	N.D. d	0.062
9) M	Pentachlo...	0.000	5.582	0	131522	N.D. d	0.193
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

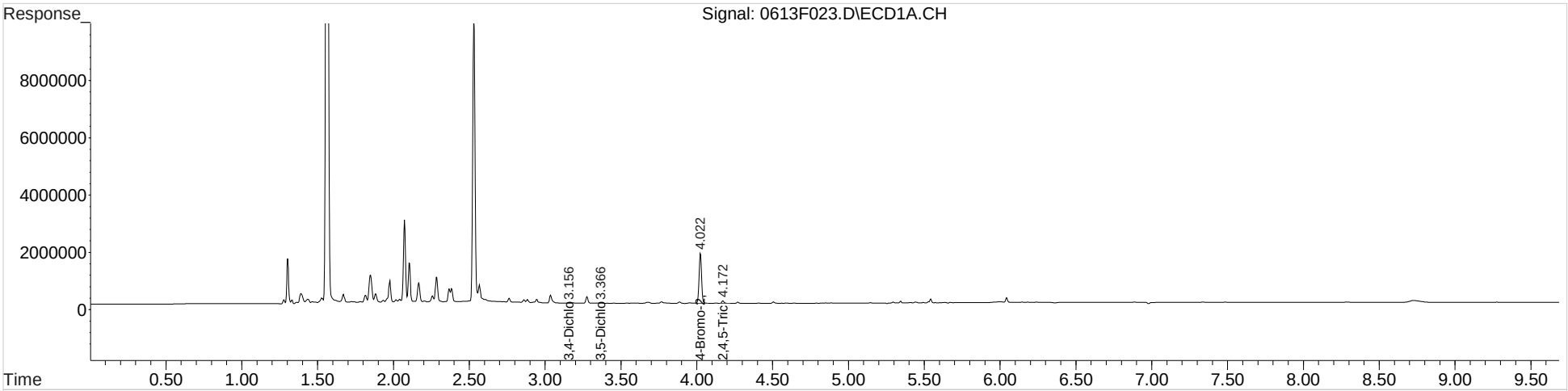
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 3:49 pm Operator: MC
Sample : K1905141-015 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:11:18 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



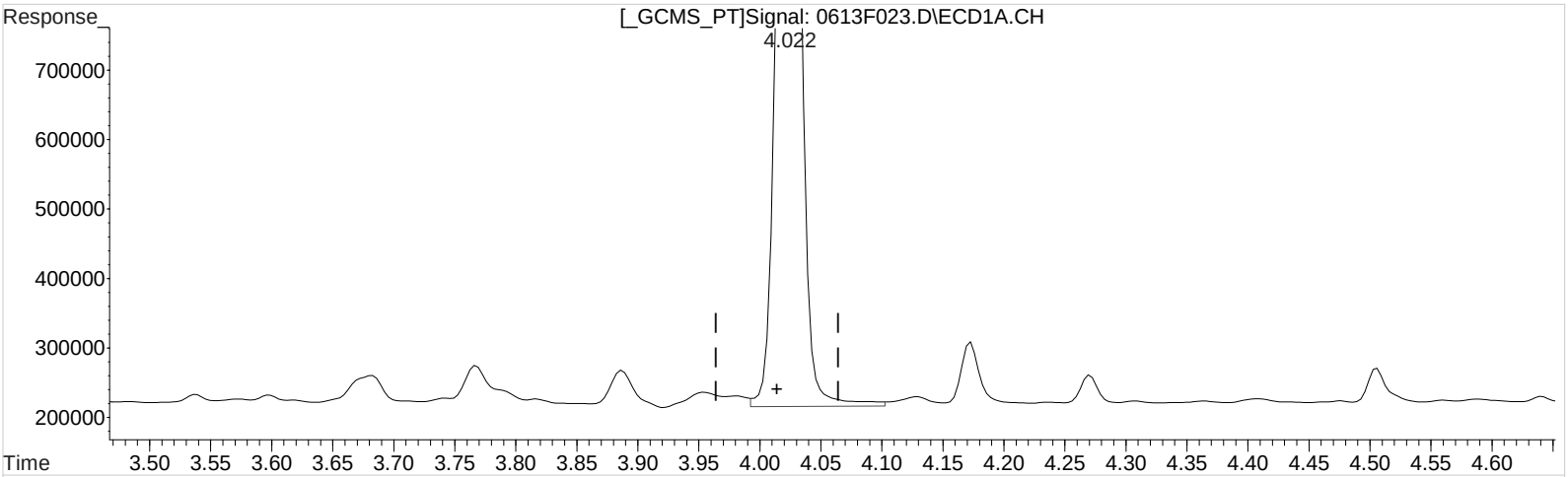
Quantitation Report (Qedit)

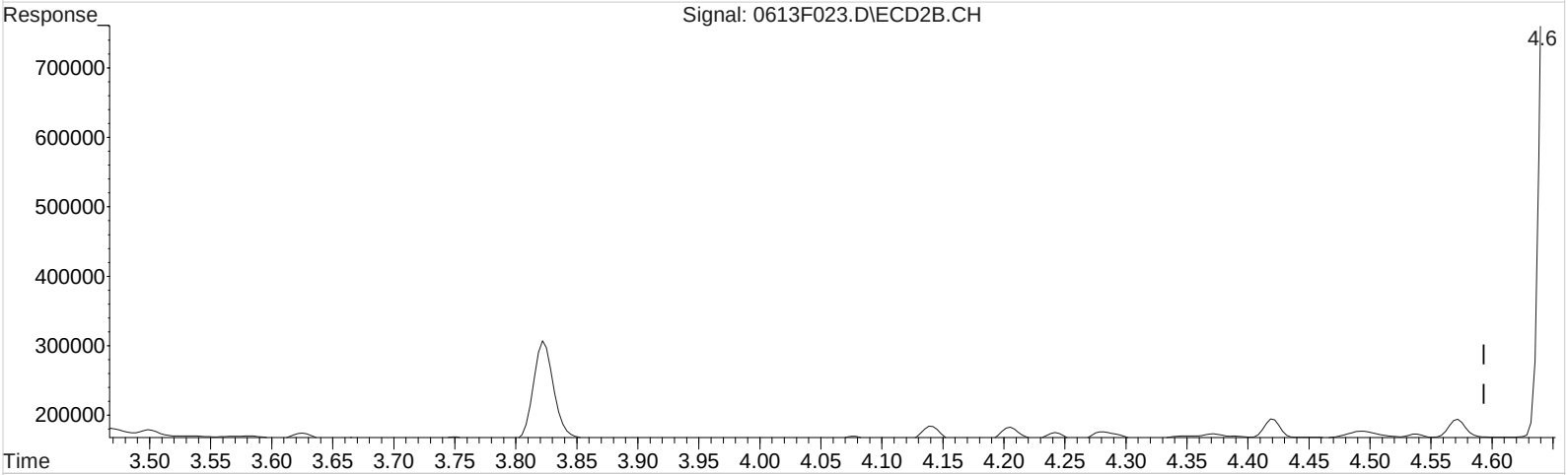
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 3:49 pm Operator: MC
Sample : K1905141-015 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:02:53 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.022min 57.513 ug/L

response 19791863

Manual Integration:

Before

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.648min 46.411 ug/L

response 19565740

(+) = Expected Retention Time

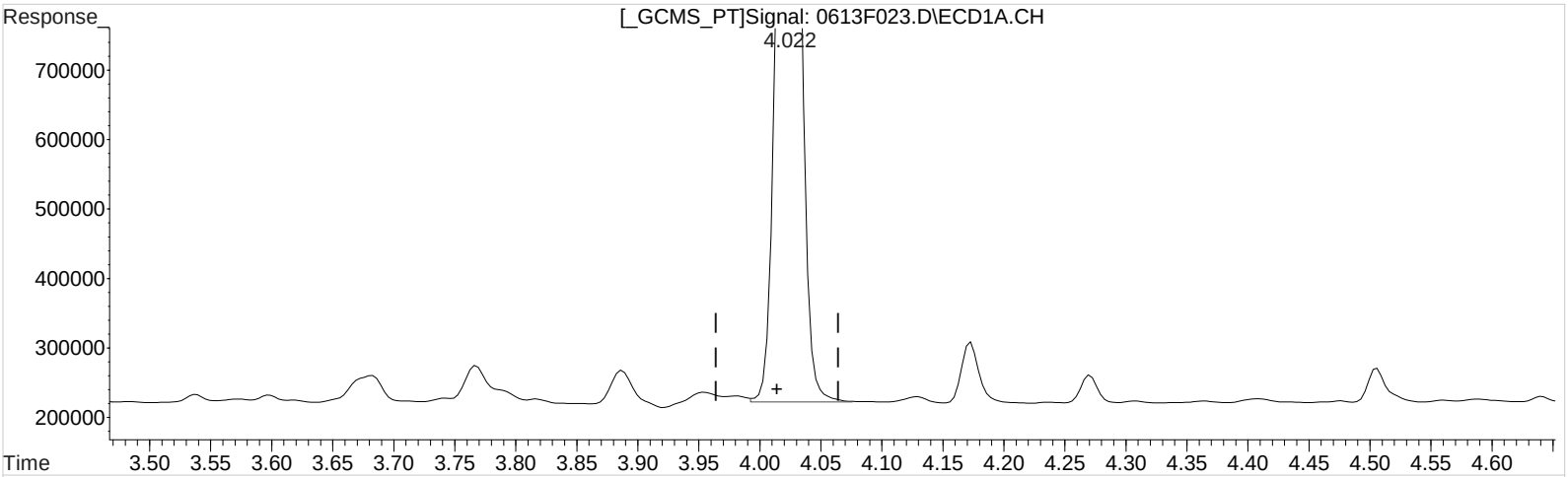
Quantitation Report (Qedit)

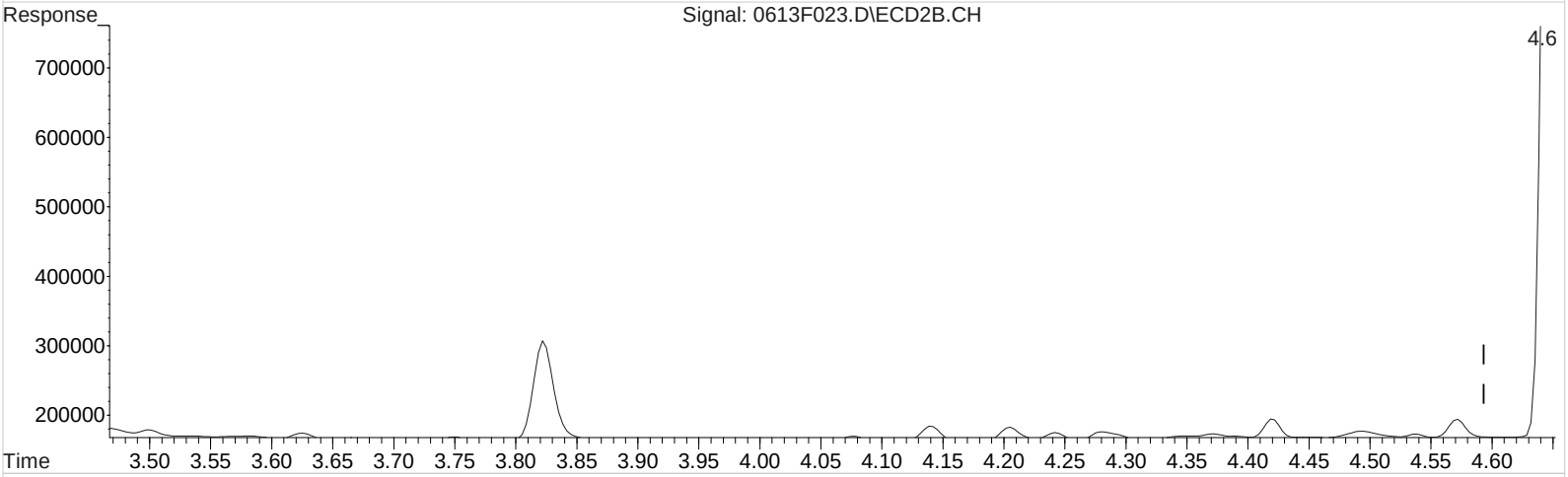
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F023.D Vial: 19
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 3:49 pm Operator: MC
Sample : K1905141-015 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:02:53 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.022min 56.267 ug/L m

response 19374648

Manual Integration:

After

Baseline/Shoulder

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.648min 46.411 ug/L

response 19565740

(+) = Expected Retention Time

Validation Report

1st MC 06/14/19
2nd TP 06/17/19

Data File: J:\GC28\Data\061319\0613F024.D\
Lab ID: K1905141-016
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 16:07:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F024.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 16:07:00	**Vial:**	26
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-016	**Raw Units:**	ug/L

Bottle ID:	K1905141-016.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	19594534	19829890	56.924	47.037	114	94	94	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15	5.60	3699767	4823846	7.160	7.089	1.4	1.4	**1.4**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F024.D Vial: 20
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 4:07 pm Operator: MC
Sample : K1905141-016 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:11:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	19594534	19829890	56.924m	47.037
		Target Compounds						
1)		3,4-Dichl...	3.135	3.748	9128	53760	0.023	2.478 #
2)		3,5-Dichl...	3.365	3.991	10089	22276	0.234	0.876 #
3)		2,4,6-Tri...	0.000	4.205	0	181752	N.D. d	0.445
5)		2,4,5-Tri...	4.172	0.000	949937	0	5.949	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.011	0	418650	N.D. d	0.693
8)	M	2,3,4,5-T...	0.000	5.368f	0	21332	N.D. d	0.051
9)	M	Pentachlo...	5.145	5.598	3699767	4823846	7.160	7.089
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

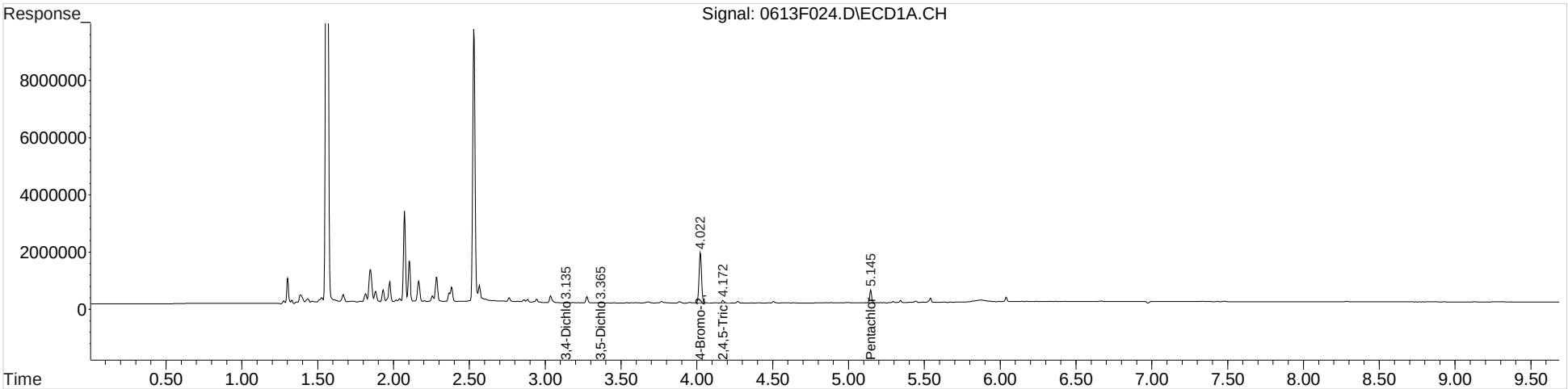
1st MC 06/14/19
2nd TP 06/17/19

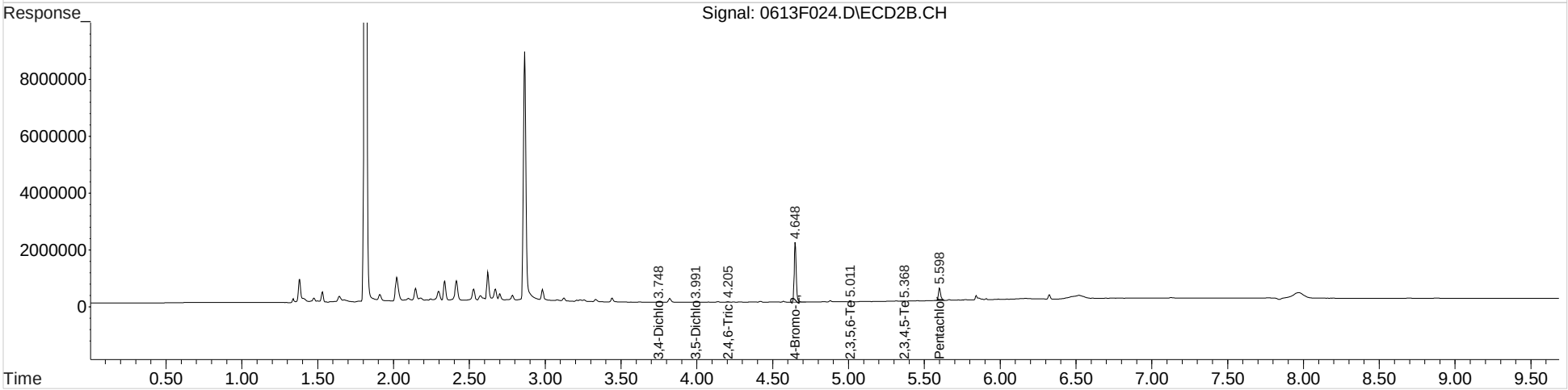
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F024.D Vial: 20
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 4:07 pm Operator: MC
Sample : K1905141-016 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:11:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





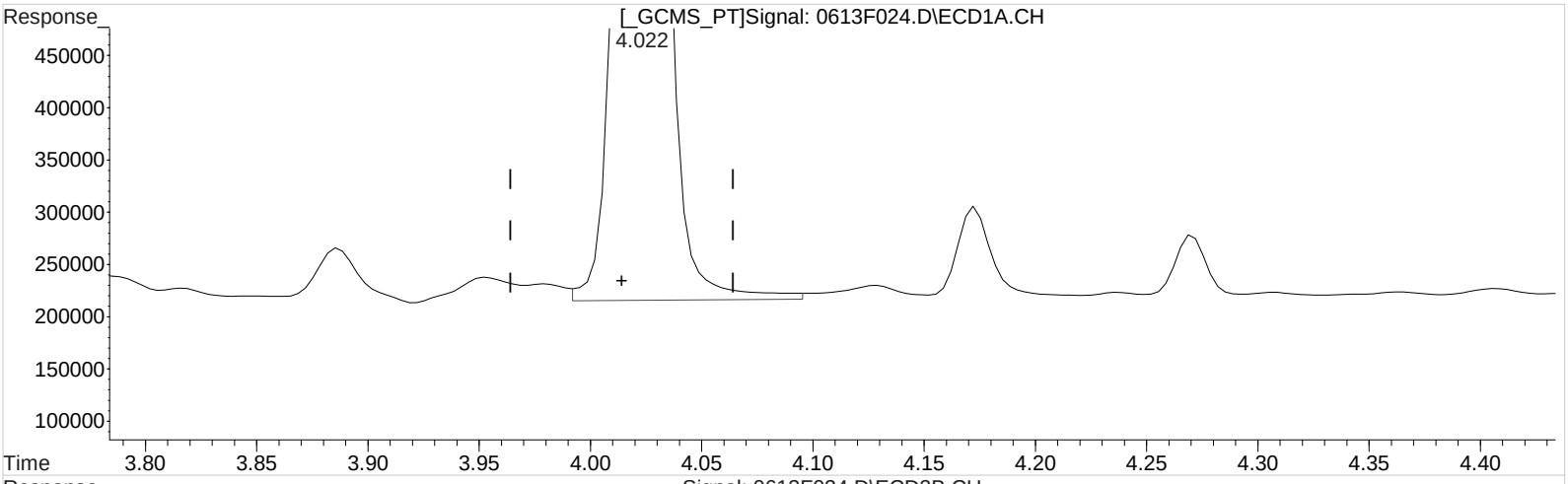
Quantitation Report (Qedit)

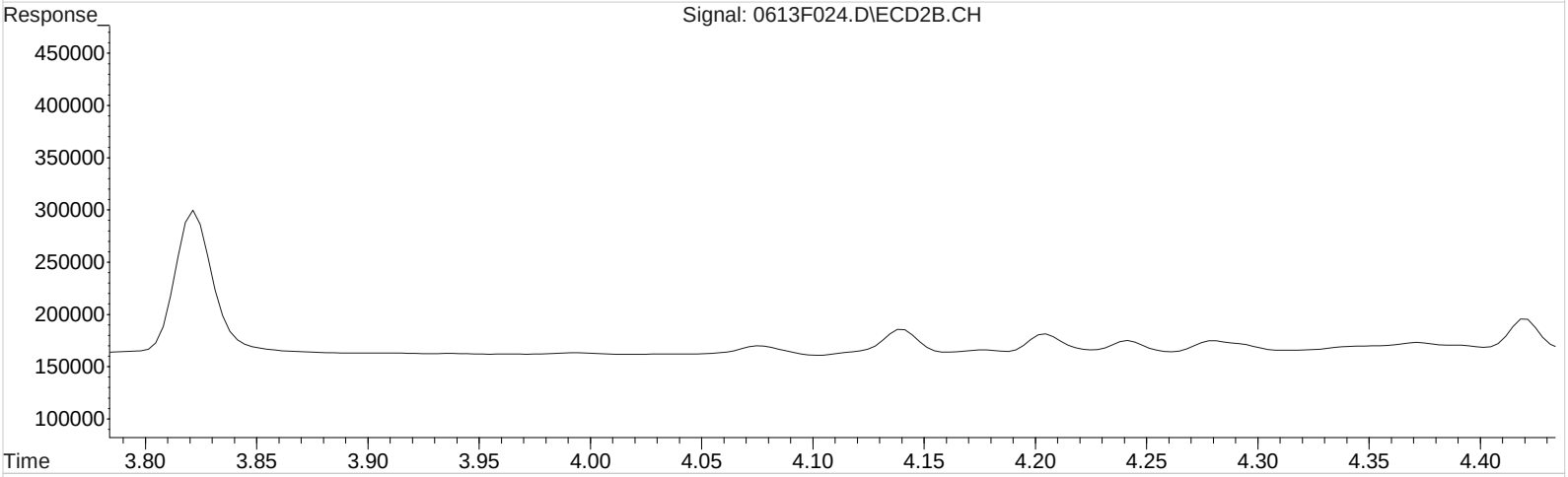
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F024.D Vial: 20
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 4:07 pm Operator: MC
Sample : K1905141-016 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:02:56 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.022min 58.091 ug/L

response 19985618

Manual Integration:

Before

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.648min 47.037 ug/L

response 19829890

(+) = Expected Retention Time

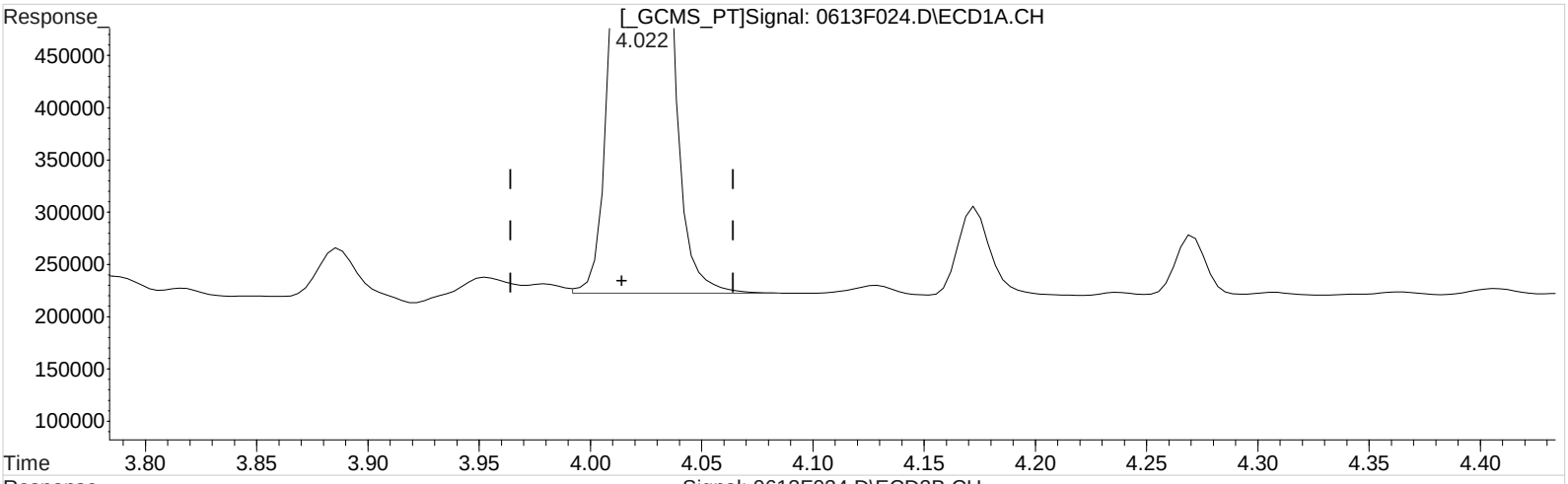
Quantitation Report (Qedit)

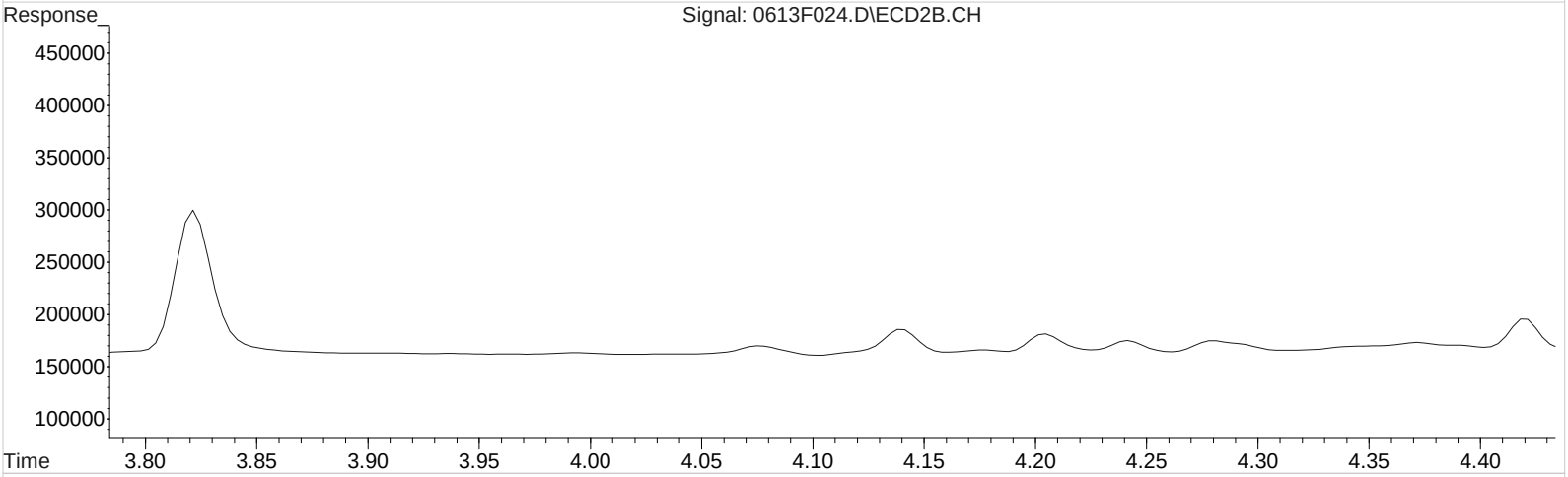
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F024.D Vial: 20
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 4:07 pm Operator: MC
Sample : K1905141-016 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:02:56 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.022min 56.924 ug/L m

response 19594534

Manual Integration:

After

Baseline/Shoulder

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.648min 47.037 ug/L

response 19829890

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F025.D\
Lab ID: K1905141-017
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 16:25:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Printed: 6/14/19 10:24
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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F025.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 16:25:00	**Vial:**	27
Run Type:	N/A	**Dilution:**	50
Lab ID:	K1905141-017	**Raw Units:**	ug/L

Bottle ID:	K1905141-017.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	497722	319742	0.581	0.758	58	76	58	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15	5.60	9656346	10785788	20.269	15.850	200	160	**160**	Y

Prep Amount:	5 mL	**Dilution:**	50
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F025.D Vial: 21
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 4:25 pm Operator: MC
Sample : K1905141-017 @50X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:12:22 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.023	4.649	497722	319742	0.581	0.758 #
	Target Compounds						
1)	3,4-Dichl...	0.000	0.000	0	0	N.D.	N.D.
2)	3,5-Dichl...	3.370	0.000	7531	0	0.005	N.D. d#
3)	2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D.
5)	2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D.
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D.
7) M	2,3,5,6-T...	4.476	5.022	484832	472583	0.530	0.783 #
8) M	2,3,4,5-T...	0.000	5.419	0	25503	N.D. d	0.061
9) M	Pentachlo...	5.146	5.599	9656346	10785788	20.269	15.850
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

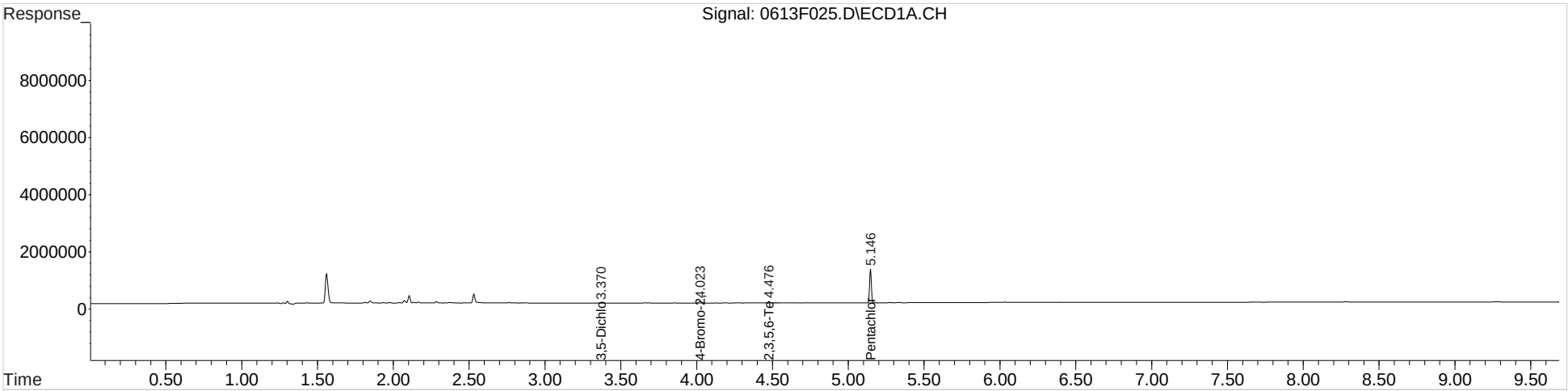
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F025.D Vial: 21
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 4:25 pm Operator: MC
Sample : K1905141-017 @50X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:12:22 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F026.D\
Lab ID: K1905141-018
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 16:42:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.17			NR
	3,4,5-Trichlorophenol	4.17			NR

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F026.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 16:42:00	**Vial:**	28
Run Type:	N/A	**Dilution:**	5
Lab ID:	K1905141-018	**Raw Units:**	ug/L

Bottle ID:	K1905141-018.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	4447564	3655838	12.127	8.672	121	87	87	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14 -0.01	5.60	56219789	70901258	125.408	104.188	130	100	**100**	Y

Prep Amount:	5 mL	**Dilution:**	5
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F026.D Vial: 22
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 4:42 pm Operator: MC
Sample : K1905141-018 @5X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:12:45 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.022	4.648	4447564	3655838	12.127	8.672 #
	Target Compounds						
1)	3,4-Dichl...	3.135	3.748	9749	13910	0.062	0.641 #
2)	3,5-Dichl...	3.368	0.000	13002	0	0.495	N.D. d#
3)	2,4,6-Tri...	0.000	4.204	0	13380	N.D. d	0.033
5)	2,4,5-Tri...	4.172	0.000	236289	0	0.808	N.D. #
6)	3,4,5-Tri...	4.172f	0.000	236289	0	1.001	N.D. d#
7) M	2,3,5,6-T...	4.475	5.021	2237234	2181295	4.535	3.613
8) M	2,3,4,5-T...	0.000	5.418	0	231436	N.D. d	0.556
9) M	Pentachlo...	5.145	5.598	56219789	70901258	125.408	104.188
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

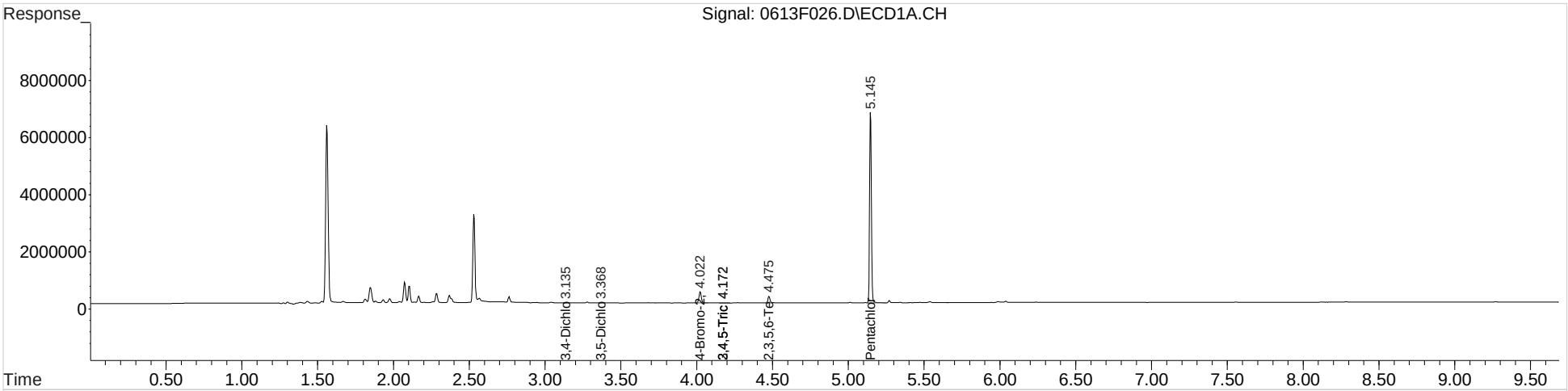
1st MC 06/14/19
2nd TP 06/17/19

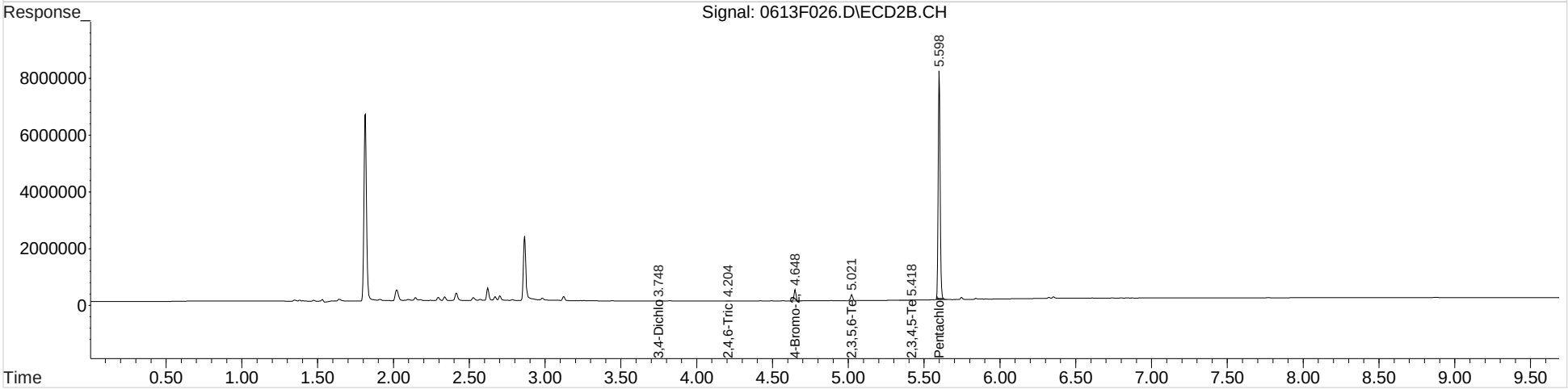
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F026.D Vial: 22
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 4:42 pm Operator: MC
Sample : K1905141-018 @5X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:12:45 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





Validation Report

1st MC 06/14/19
2nd TP 06/17/19

Data File: J:\GC28\Data\061319\0613F027.D\
Lab ID: K1905141-019
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 17:00:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F027.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 17:00:00	**Vial:**	29
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-019	**Raw Units:**	ug/L

Bottle ID:	K1905141-019.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	19050942	19218614	55.301	45.587	111	91	91	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	624642	0.000	0.918	0U	0.18J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F027.D Vial: 23
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 5:00 pm Operator: MC
Sample : K1905141-019 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:13:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.024	4.650	19050942	19218614	55.301	45.587
	Target Compounds						
1)	3,4-Dichl...	3.134	3.750	62200	69020	3.368	3.182
2)	3,5-Dichl...	3.364	3.993	20249	19096	1.145	0.674 #
3)	2,4,6-Tri...	0.000	4.203	0	148159	N.D. d	0.363
5)	2,4,5-Tri...	4.171	0.000	771678	0	4.660	N.D. d#
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	0.000	5.010	0	298590	N.D. d	0.495
8) M	2,3,4,5-T...	0.000	5.400	0	11644	N.D. d	0.028
9) M	Pentachlo...	0.000	5.610	0	624642	N.D. d	0.918
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

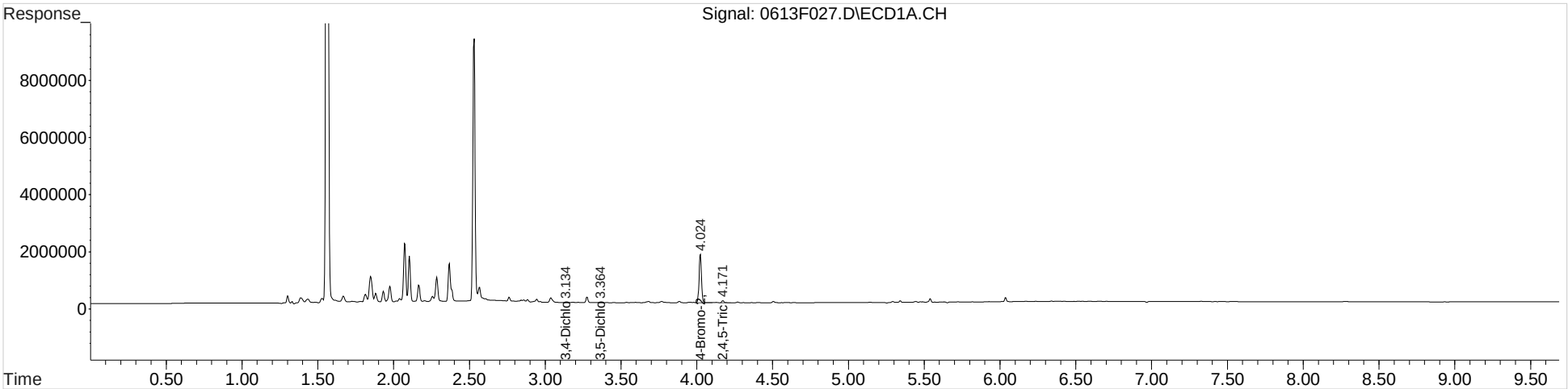
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F027.D Vial: 23
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 5:00 pm Operator: MC
Sample : K1905141-019 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:13:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Validation Report

1st MC 06/14/19
2nd TP 06/17/19

Data File: J:\GC28\Data\061319\0613F028.D\
Lab ID: K1905141-020
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 17:17:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F028.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 17:17:00	**Vial:**	30
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-020	**Raw Units:**	ug/L

Bottle ID:	K1905141-020.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	20125936	20553699	58.511	48.754	117	98	98	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14 -0.01	5.60	21809734	26451210	47.248	38.870	9.4	7.8	**7.8**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F028.D Vial: 24
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 5:17 pm Operator: MC
Sample : K1905141-020 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:13:36 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	20125936	20553699	58.511m	48.754
		Target Compounds						
1)		3,4-Dichl...	3.135	3.747	26570	75842	1.120	3.496 #
2)		3,5-Dichl...	3.365	3.994	22922	24874	1.385	1.041
3)		2,4,6-Tri...	0.000	4.204	0	166212	N.D. d	0.407
5)		2,4,5-Tri...	4.171	0.000	899925	0	5.587	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	4.475	5.021	1062810	1255971	1.848	2.080
8)	M	2,3,4,5-T...	0.000	5.394	0	31022	N.D. d	0.075
9)	M	Pentachlo...	5.145	5.597	21809734	26451210	47.248	38.870
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

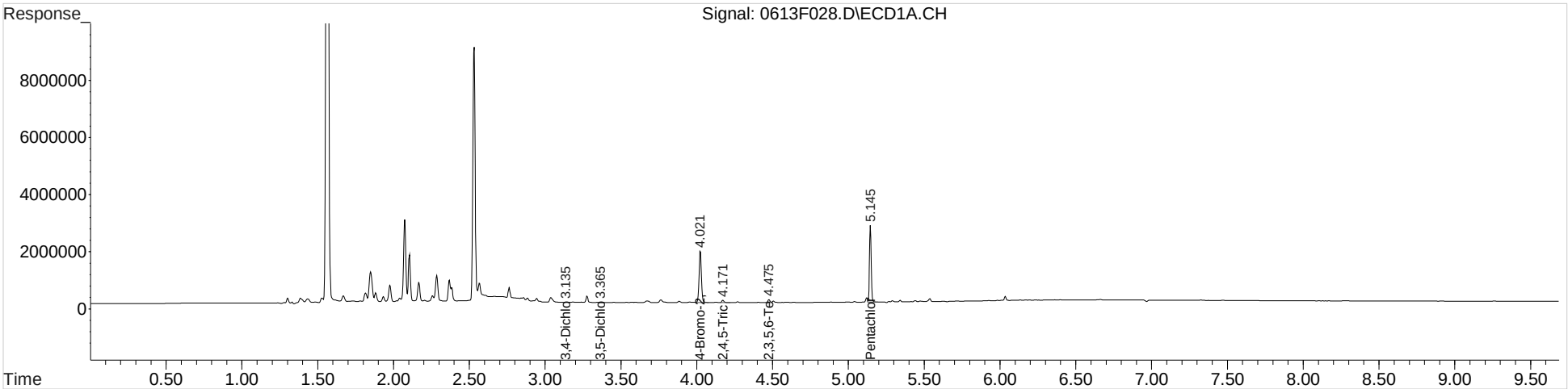
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F028.D Vial: 24
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 5:17 pm Operator: MC
Sample : K1905141-020 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:13:36 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



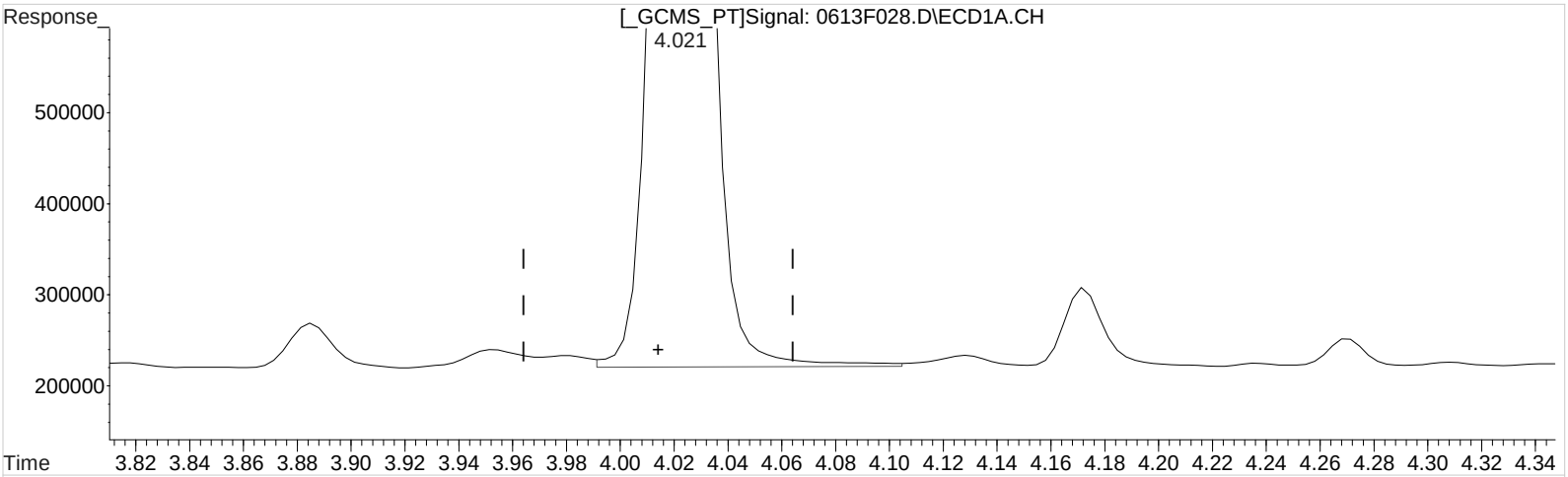
Quantitation Report (Qedit)

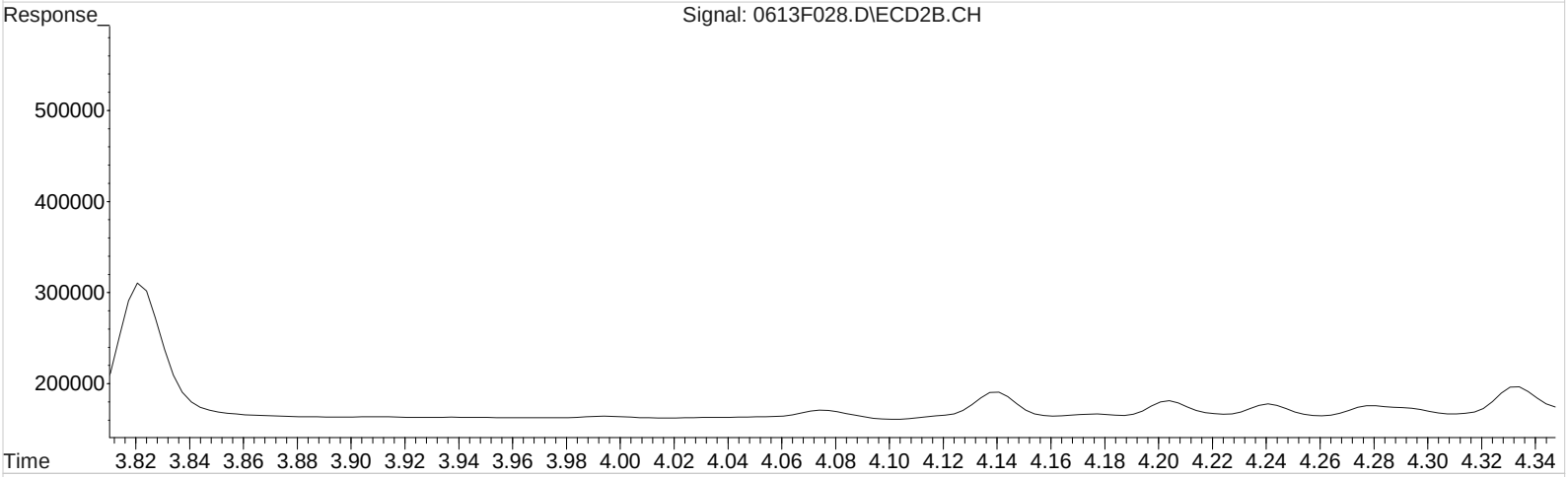
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F028.D Vial: 24
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 5:17 pm Operator: MC
Sample : K1905141-020 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:03:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.021min 59.226 ug/L

response 20365488

Manual Integration:

Before

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.647min 48.754 ug/L

response 20553699

(+) = Expected Retention Time

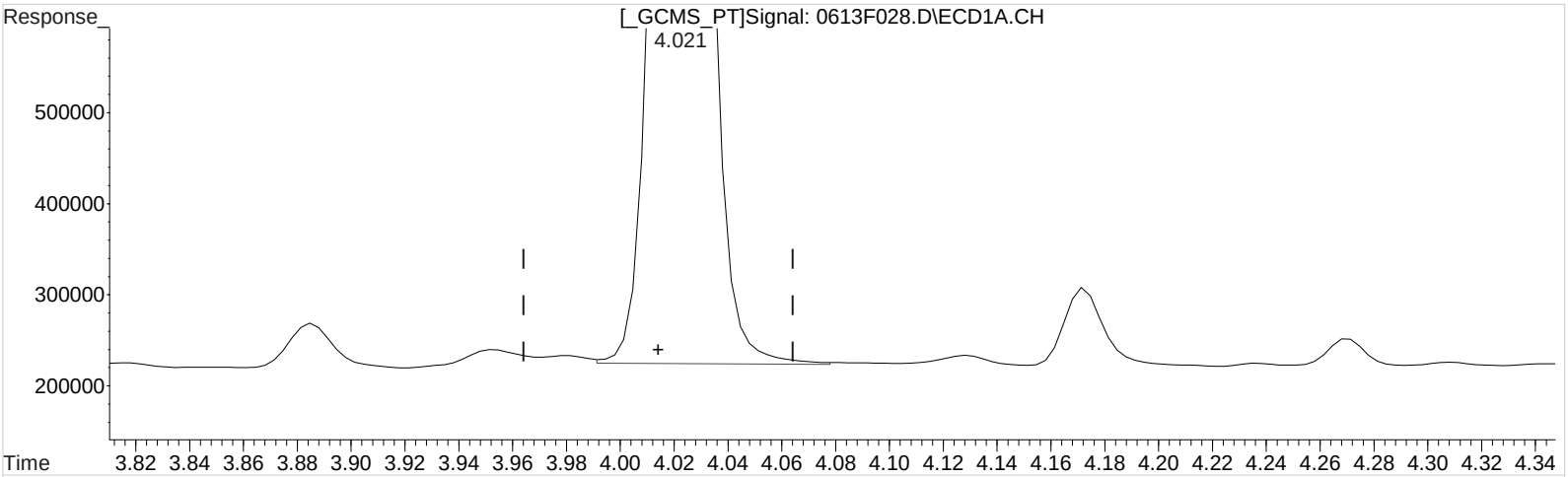
Quantitation Report (Qedit)

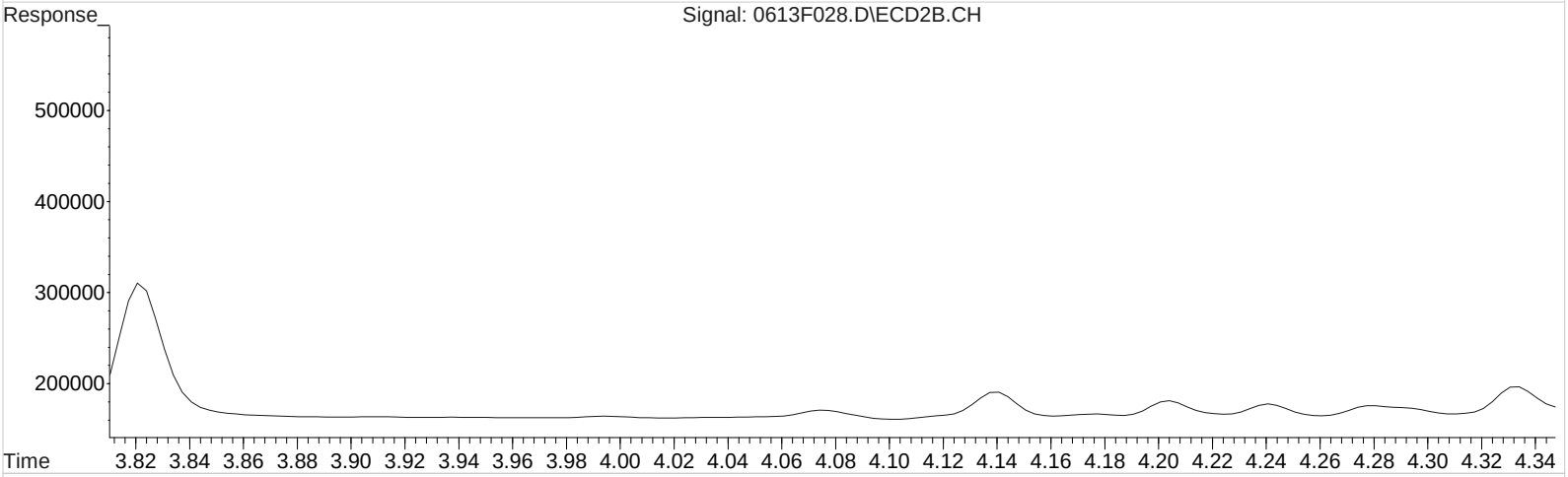
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F028.D Vial: 24
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 5:17 pm Operator: MC
Sample : K1905141-020 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:03:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.021min 58.511 ug/L m

response 20125936

Manual Integration:

After

Baseline/Shoulder

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.647min 48.754 ug/L

response 20553699

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F035.D\
Lab ID: K1905141-021
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 19:20:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F035.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 19:20:00	**Vial:**	35
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-021	**Raw Units:**	ug/L

Bottle ID:	K1905141-021.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338123	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	16532193	16589986	47.799	39.352	96	79	79	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14 -0.01	5.59 -0.01	37607416	46724498	82.796	68.661	17	14	**14**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F035.D Vial: 29
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 7:20 pm Operator: MC
Sample : K1905141-021 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:57:22 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	16532193	16589986	47.799	39.352
		Target Compounds						
1)		3,4-Dichl...	3.132	3.748	27463	51764	1.176	2.386 #
2)		3,5-Dichl...	3.362	3.991	15955	24340	0.760	1.007 #
3)		2,4,6-Tri...	0.000	4.201	0	135554	N.D. d	0.332
5)		2,4,5-Tri...	4.172	0.000	702240	0	4.159	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	4.475	5.018	1933110	2018106	3.838	3.343
8)	M	2,3,4,5-T...	0.000	5.421	0	108624	N.D. d	0.261
9)	M	Pentachlo...	5.142	5.591	37607416	46724498	82.796	68.661
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

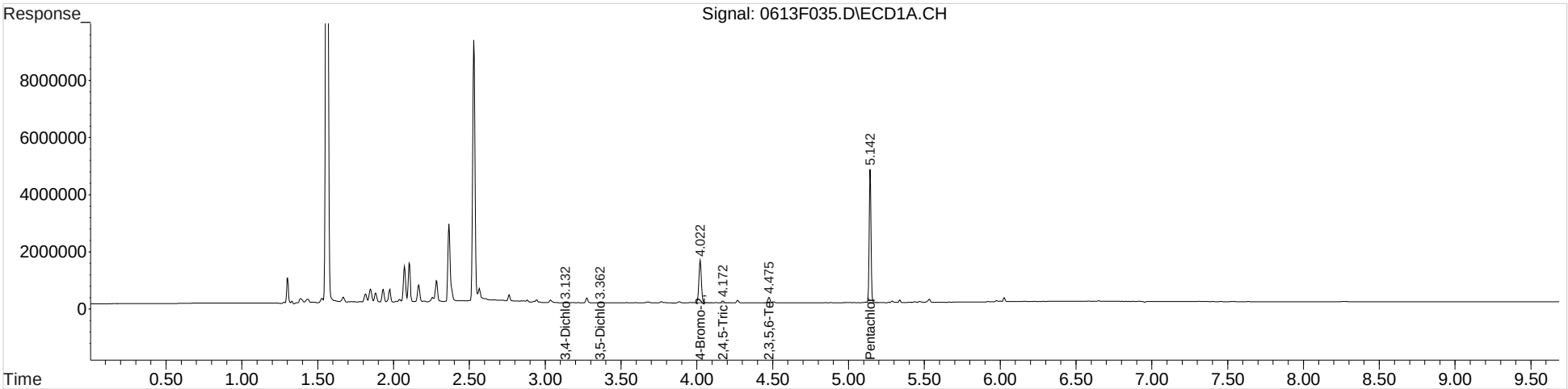
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F035.D Vial: 29
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 7:20 pm Operator: MC
Sample : K1905141-021 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:57:22 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Validation Report

1st MC 06/14/19
2nd TP 06/17/19

Data File: J:\GC28\Data\061319\0613F036.D\
Lab ID: K1905141-022
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 19:38:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F036.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 19:38:00	**Vial:**	36
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-022	**Raw Units:**	ug/L

Bottle ID:	K1905141-022.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338123	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	15488106	15606482	44.696	37.019	89	74	74	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.60	0	810537	0.000	1.191	0U	0.24J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F036.D Vial: 30
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 7:38 pm Operator: MC
Sample : K1905141-022 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:57:53 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.645	15488106	15606482	44.696m	37.019
		Target Compounds						
1)		3,4-Dichl...	3.136	3.748	14328	64228	0.350	2.961 #
2)		3,5-Dichl...	3.362	3.992	11748	21649	0.383	0.836 #
3)		2,4,6-Tri...	0.000	4.202	0	104930	N.D. d	0.257
5)		2,4,5-Tri...	4.172	0.000	862195	0	5.314	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.005	0	244848	N.D. d	0.406
8)	M	2,3,4,5-T...	0.000	5.395	0	8324	N.D. d	0.020
9)	M	Pentachlo...	0.000	5.602	0	810537	N.D. d	1.191
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

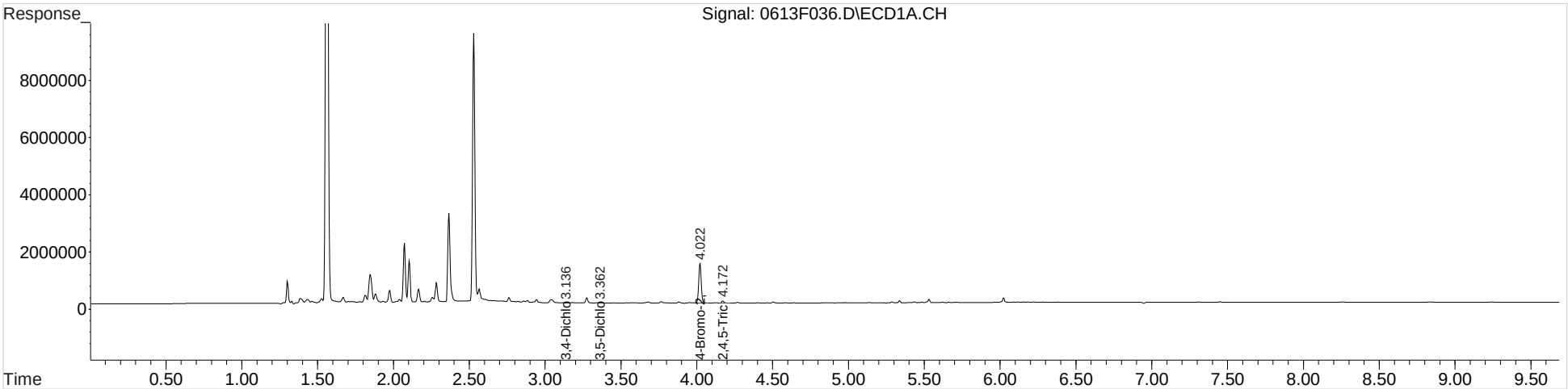
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F036.D Vial: 30
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 7:38 pm Operator: MC
Sample : K1905141-022 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:57:53 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



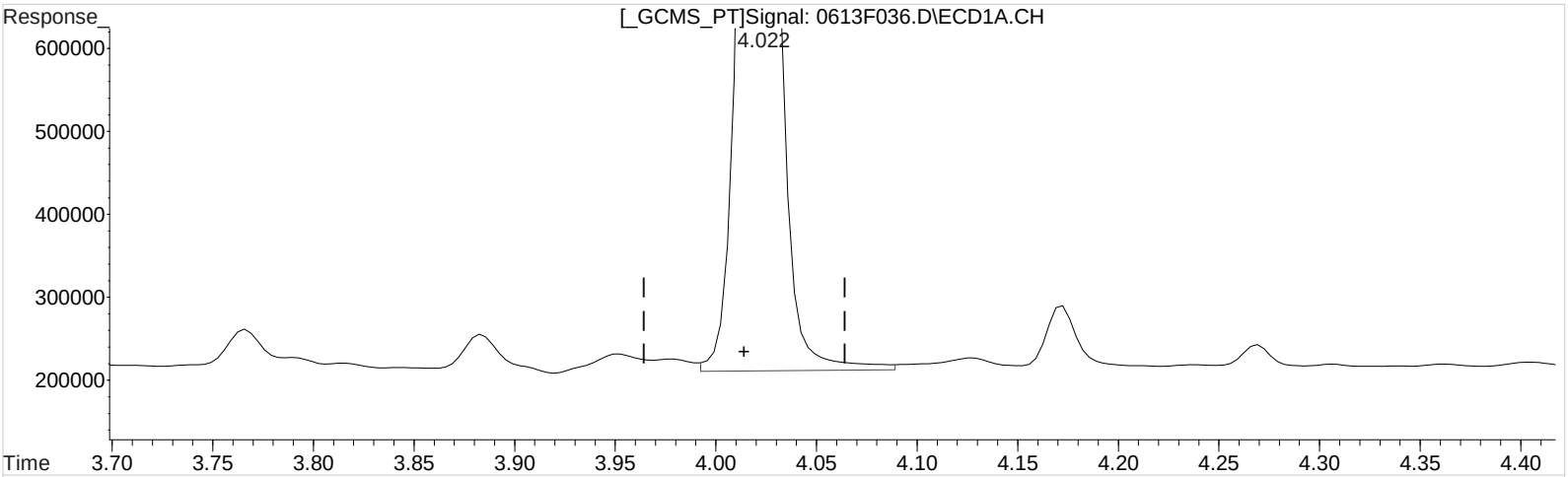
Quantitation Report (Qedit)

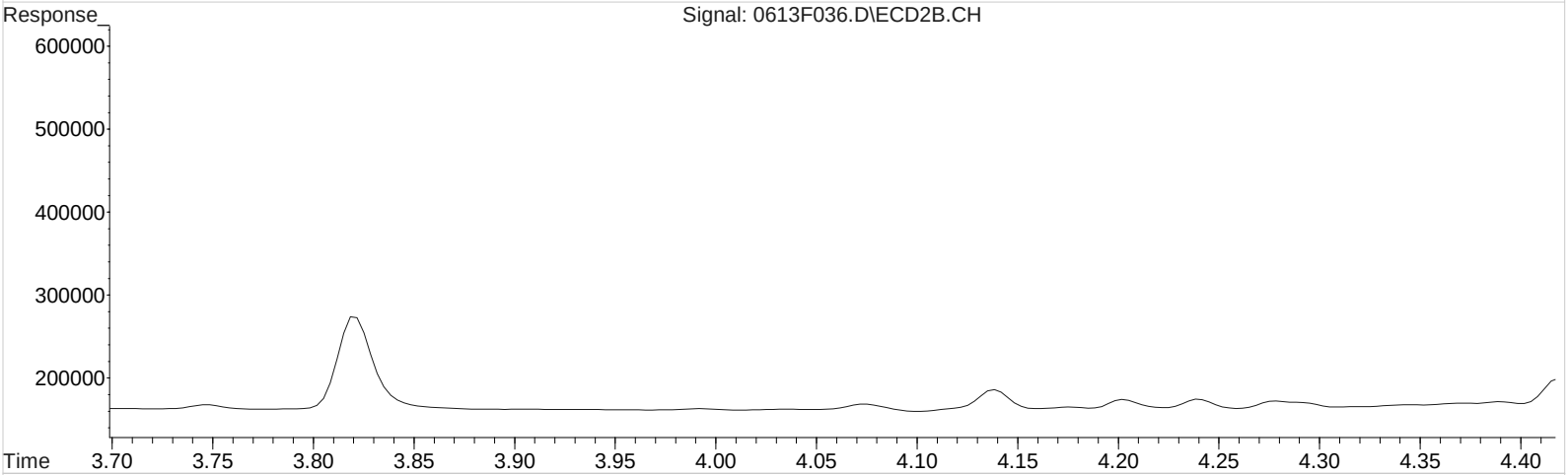
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F036.D Vial: 30
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 7:38 pm Operator: MC
Sample : K1905141-022 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:54:45 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.022min 46.010 ug/L

response 15930137

Manual Integration:

Before

06/14/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.645min 37.019 ug/L

response 15606482

(+) = Expected Retention Time

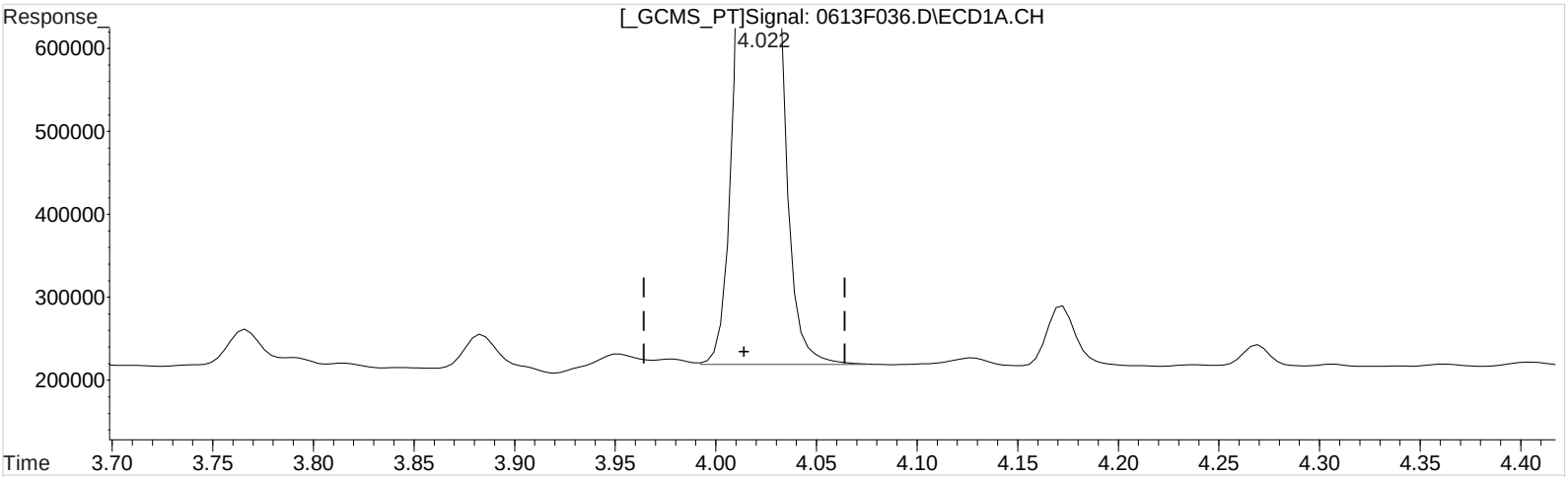
Quantitation Report (Qedit)

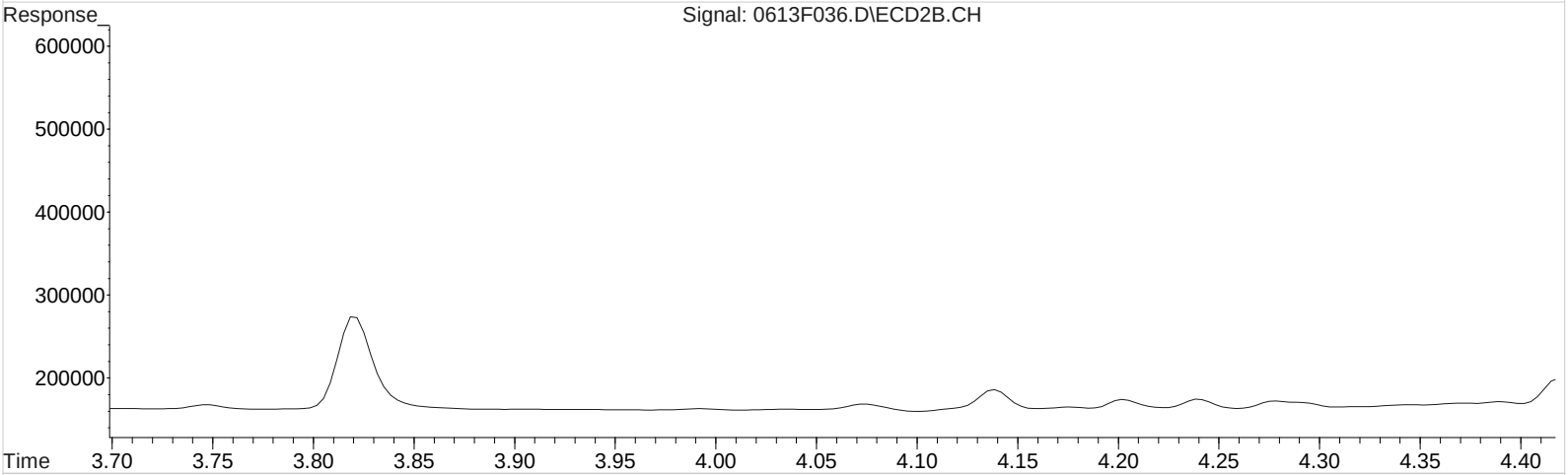
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F036.D Vial: 30
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 7:38 pm Operator: MC
Sample : K1905141-022 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:54:45 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.022min 44.696 ug/L m

response 15488106

Manual Integration:

After

Baseline/Shoulder

06/14/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.645min 37.019 ug/L

response 15606482

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F039.D\
Lab ID: K1905141-025
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 20:30:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F039.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 20:30:00	**Vial:**	39
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-025	**Raw Units:**	ug/L

Bottle ID:	K1905141-025.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338123	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.64 -0.01	16758076	17181355	48.471	40.755	97	82	82	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.60	0	903195	0.000	1.327	0U	0.27J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F039.D Vial: 33
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 8:30 pm Operator: MC
Sample : K1905141-025 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:59:17 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.022	4.645	16758076	17181355	48.471	40.755
	Target Compounds						
1)	3,4-Dichl...	3.132	3.745	60622	55352	3.268	2.552
2)	3,5-Dichl...	3.362	3.991	46176	24456	3.479	1.015 #
3)	2,4,6-Tri...	0.000	4.201	0	131698	N.D. d	0.323
5)	2,4,5-Tri...	4.169	0.000	821620	0	5.021	N.D. d#
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	0.000	5.005	0	265637	N.D. d	0.440
8) M	2,3,4,5-T...	0.000	5.401	0	5019	N.D. d	0.012
9) M	Pentachlo...	0.000	5.605	0	903195	N.D. d	1.327
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

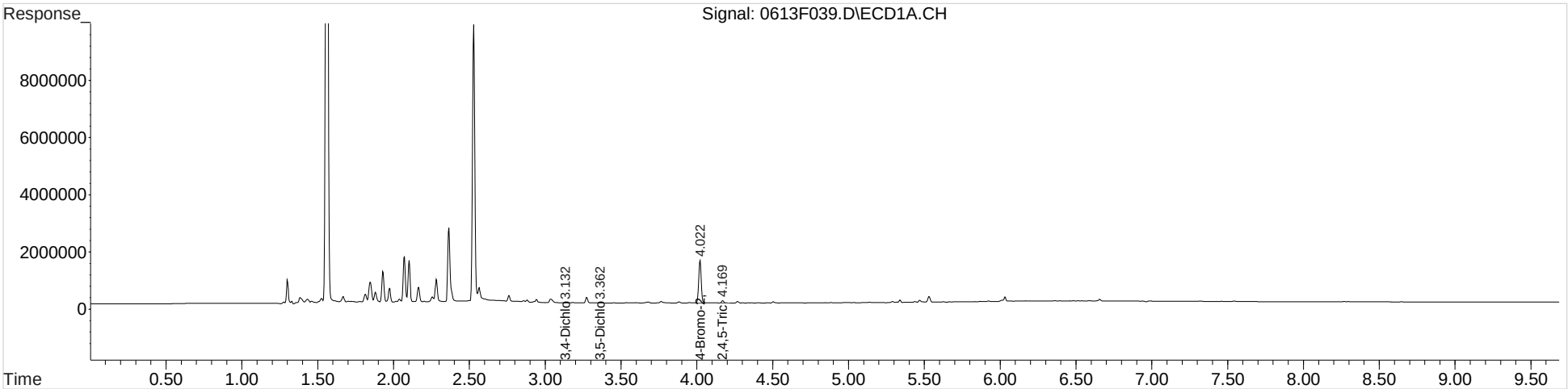
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F039.D Vial: 33
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 8:30 pm Operator: MC
Sample : K1905141-025 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:59:17 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F040.D\
Lab ID: K1905141-026
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 20:48:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F040.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 20:48:00	**Vial:**	40
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-026	**Raw Units:**	ug/L

Bottle ID:	K1905141-026.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338123	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	16175864	16514186	46.740	39.172	93	78	78	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	854605	0.000	1.256	0U	0.25J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F040.D Vial: 34
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 8:48 pm Operator: MC
Sample : K1905141-026 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:59:35 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.020	4.646	16175864	16514186	46.740	39.172
		Target Compounds						
1)		3,4-Dichl...	3.130	3.746	10273	36898	0.095	1.701 #
2)		3,5-Dichl...	3.364	3.986	14806	21748	0.657	0.843 #
3)		2,4,6-Tri...	0.000	4.203	0	99892	N.D. d	0.245
5)		2,4,5-Tri...	4.170	0.000	776802	0	4.697	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.006	0	368749	N.D. d	0.611
8)	M	2,3,4,5-T...	0.000	5.400	0	17280	N.D. d	0.042
9)	M	Pentachlo...	0.000	5.606	0	854605	N.D. d	1.256
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

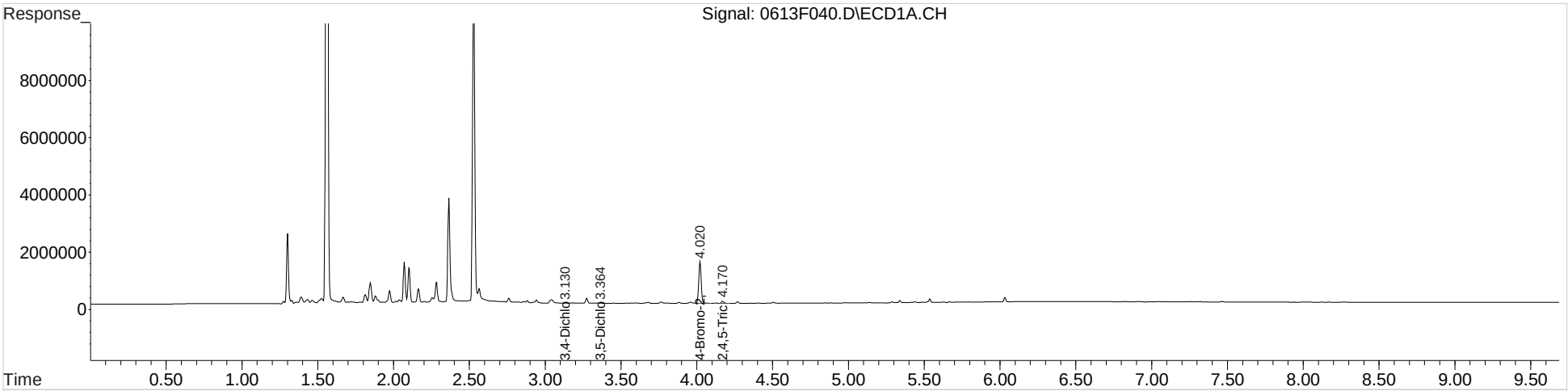
1st MC 06/14/19
2nd TP 06/17/19

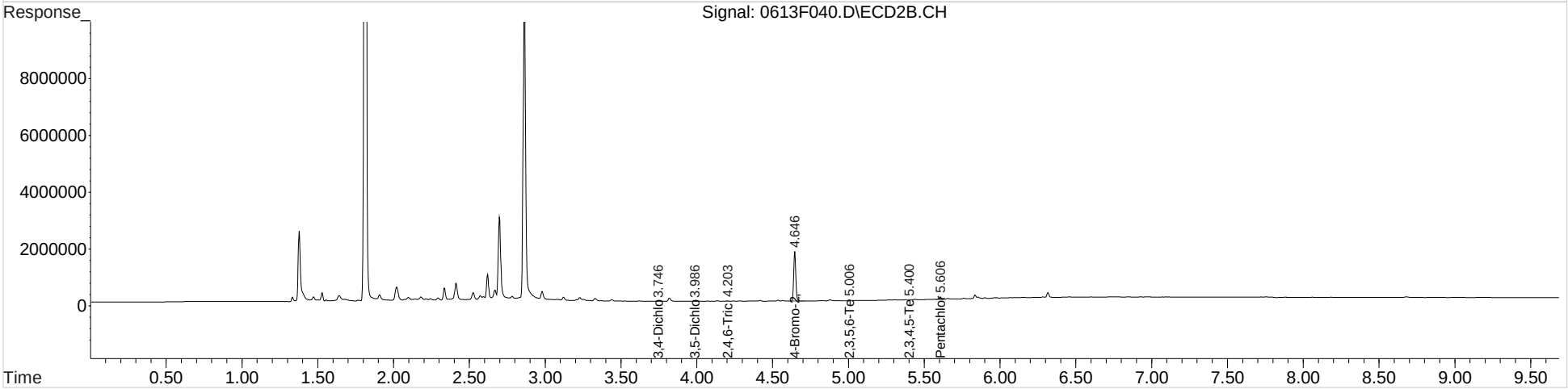
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F040.D Vial: 34
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 8:48 pm Operator: MC
Sample : K1905141-026 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:59:35 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F041.D\
Lab ID: K1905141-027
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 21:05:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F041.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 21:05:00	**Vial:**	41
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-027	**Raw Units:**	ug/L

Bottle ID:	K1905141-027.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338123	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	15526277	15744366	44.810	37.346	90	75	75	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	1014440	0.000	1.491	0U	0.30J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F041.D Vial: 35
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:05 pm Operator: MC
Sample : K1905141-027 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:00:22 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.020	4.646	15526277	15744366	44.810	37.346
		Target Compounds						
1)		3,4-Dichl...	0.000	3.746	0	48384	N.D.	2.230 #
2)		3,5-Dichl...	3.367	3.989	39092	13477	2.840	0.318 #
3)		2,4,6-Tri...	0.000	4.203	0	114278	N.D. d	0.280
5)		2,4,5-Tri...	4.170	0.000	735710	0	4.400	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.006	0	303866	N.D. d	0.503
8)	M	2,3,4,5-T...	0.000	5.423	0	229711	N.D. d	0.552
9)	M	Pentachlo...	0.000	5.606	0	1014440	N.D. d	1.491
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

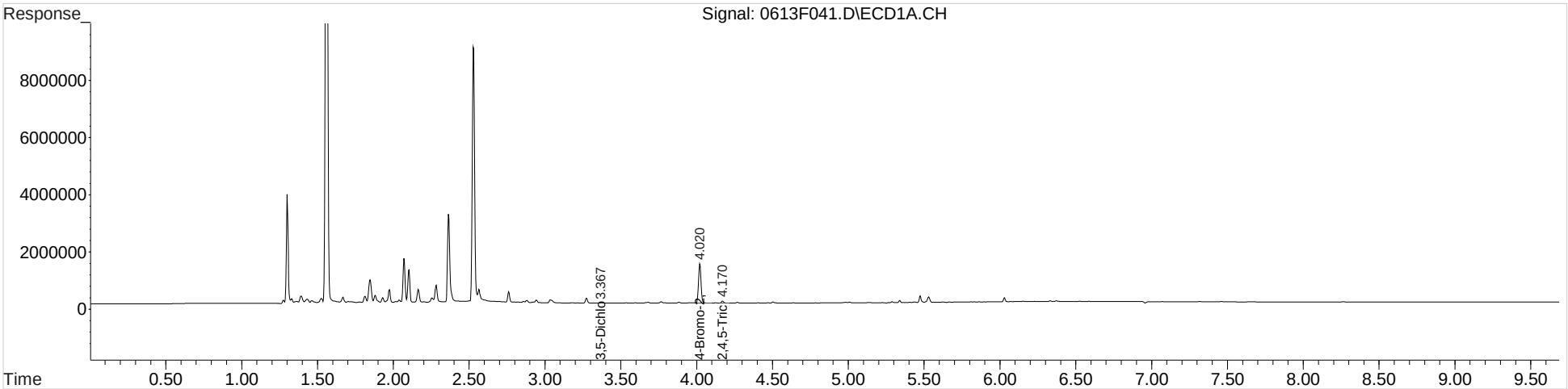
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F041.D Vial: 35
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:05 pm Operator: MC
Sample : K1905141-027 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:00:22 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F042.D\
Lab ID: K1905141-028
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 21:23:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Coelutions - Rtx-1701	2,4,5-Trichlorophenol	4.17			NR
	3,4,5-Trichlorophenol	4.17			NR

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F042.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 21:23:00	**Vial:**	42
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-028	**Raw Units:**	ug/L

Bottle ID:	K1905141-028.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338123	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	16665355	16492241	48.195	39.120	96	78	78	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	745952	0.000	1.096	0U	0.22J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F042.D Vial: 36
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:23 pm Operator: MC
Sample : K1905141-028 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:01:44 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	16665355	16492241	48.195	39.120
		Target Compounds						
1)		3,4-Dichl...	0.000	3.747	0	57272	N.D. d	2.640
2)		3,5-Dichl...	3.361	3.990	9811	26354	0.210	1.135 #
3)		2,4,6-Tri...	0.000	4.204	0	104977	N.D. d	0.257
5)		2,4,5-Tri...	4.171	0.000	783660	0	4.747	N.D. d#
6)		3,4,5-Tri...	4.171f	0.000	783660	0	4.727	N.D. d#
7)	M	2,3,5,6-T...	0.000	5.007	0	261814	N.D. d	0.434
8)	M	2,3,4,5-T...	0.000	5.404	0	13201	N.D. d	0.032
9)	M	Pentachlo...	0.000	5.607	0	745952	N.D. d	1.096
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

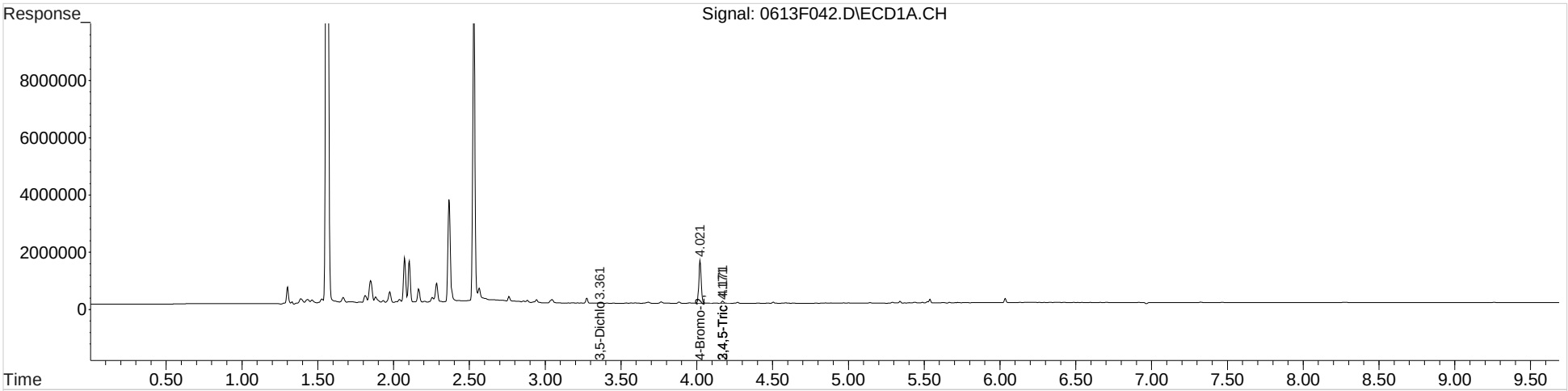
1st MC 06/14/19
2nd TP 06/17/19

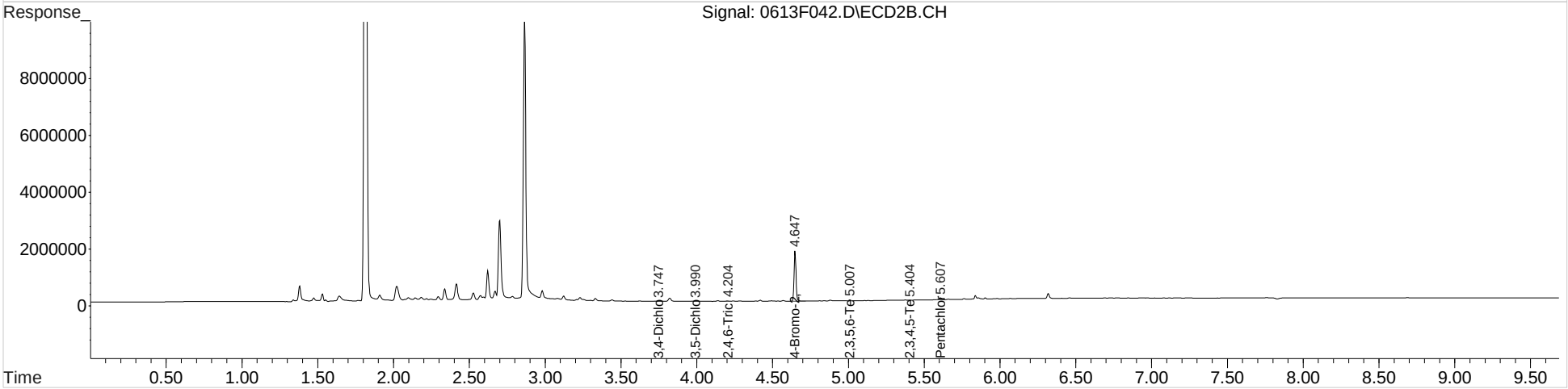
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F042.D Vial: 36
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:23 pm Operator: MC
Sample : K1905141-028 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:01:44 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





Validation Report

1st MC 06/14/19
2nd TP 06/17/19

Data File: J:\GC28\Data\061319\0613F045.D\
Lab ID: K1905141-029
RunType: N/A
Matrix: Water

Date Acquired: 6/13/19 22:16:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F045.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 22:16:00	**Vial:**	43
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-029	**Raw Units:**	ug/L

Bottle ID:	K1905141-029.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338123	**Report Group:**	K1905141
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	17685166	17379188	51.231	41.224	102	82	82	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.60 +0.01	0	880012	0.000	1.293	0U	0.26J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F045.D Vial: 37
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:16 pm Operator: MC
Sample : K1905141-029 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:03:04 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.023	4.646	17685166	17379188	51.231	41.224
		Target Compounds						
1)		3,4-Dichl...	3.133	3.749	29762	47946	1.321	2.210 #
2)		3,5-Dichl...	3.367	3.993	19687	25842	1.095	1.103
3)		2,4,6-Tri...	0.000	4.203	0	96932	N.D. d	0.237
5)		2,4,5-Tri...	4.170	0.000	745948	0	4.474	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.006	0	261980	N.D. d	0.434
8)	M	2,3,4,5-T...	0.000	5.399	0	8958	N.D. d	0.022
9)	M	Pentachlo...	0.000	5.603	0	880012	N.D. d	1.293
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

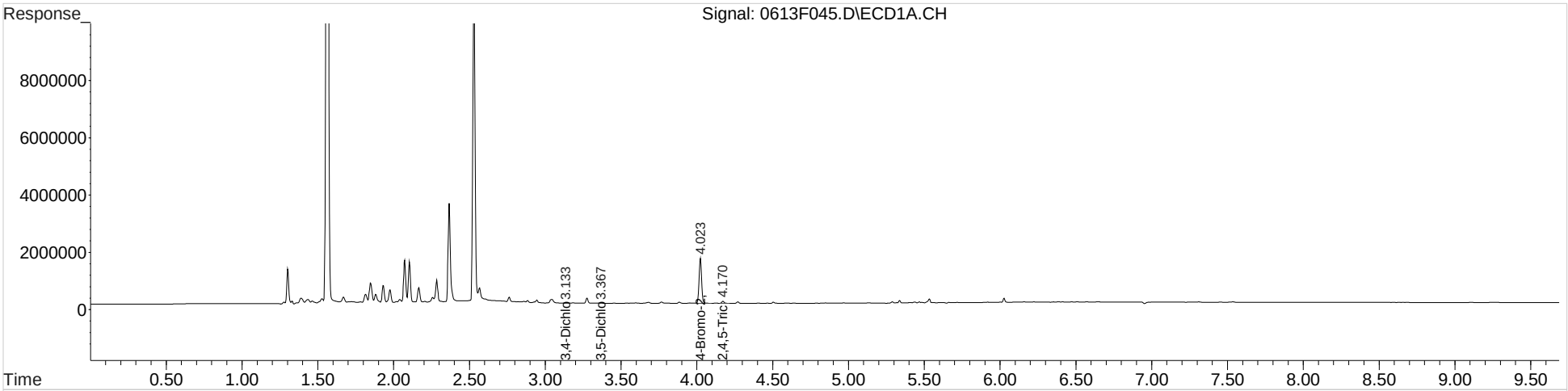
1st MC 06/14/19
2nd TP 06/17/19

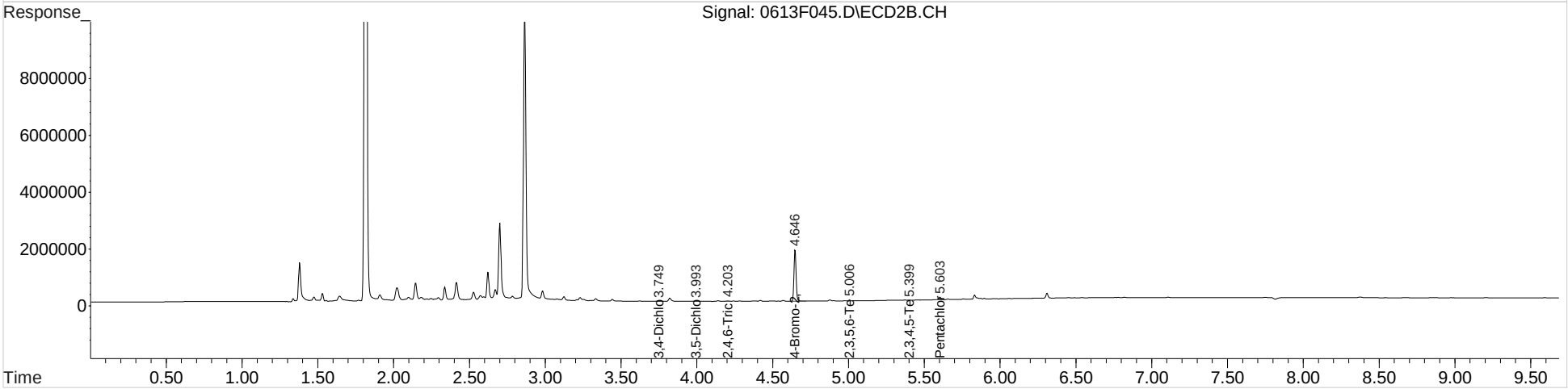
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F045.D Vial: 37
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:16 pm Operator: MC
Sample : K1905141-029 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:03:04 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





Validation Report

1st MC 06/14/19
2nd TP 06/17/19

Data File: J:\GC28\Data\061319\0613F005.D\
Lab ID: KQ1907722-04
RunType: MB
Matrix: Water

Date Acquired: 6/13/19 10:34:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F005.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 10:34:00	**Vial:**	34
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1907722-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	KQ1907722
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	15197909	15368820	43.835	36.455	88	73	73	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.02	0	490184	0.000	0.720	0U	0.14J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:34 am Operator: MC
Sample : KQ1907722-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:54:54 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.016	4.646	15197909	15368820	43.835	36.455
		Target Compounds						
1)		3,4-Dichl...	0.000	3.742	0	49015	N.D.	2.260 #
2)		3,5-Dichl...	3.336f	3.986	41274	15925	3.036	0.473 #
3)		2,4,6-Tri...	0.000	4.199	0	111218	N.D. d	0.272
5)		2,4,5-Tri...	4.166	0.000	653975	0	3.811	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.006	0	236550	N.D. d	0.392
8)	M	2,3,4,5-T...	0.000	5.452f	0	20469	N.D. d	0.049
9)	M	Pentachlo...	0.000	5.609	0	490184	N.D. d	0.720
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

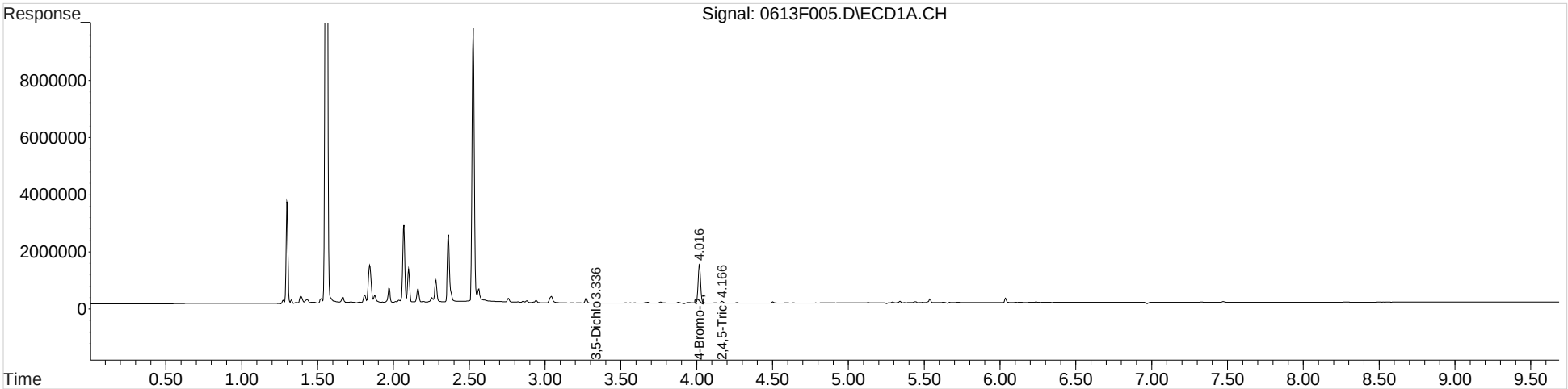
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:34 am Operator: MC
Sample : KQ1907722-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:54:54 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F033.D\
Lab ID: KQ1907796-04
RunType: MB
Matrix: Water

Date Acquired: 6/13/19 18:45:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F033.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 18:45:00	**Vial:**	47
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1907796-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338123	**Report Group:**	KQ1907796
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	16062496	16020672	46.403	38.002	93	76	76	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.60	0	714502	0.000	1.050	0U	0.21J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F033.D Vial: 27
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 6:45 pm Operator: MC
Sample : KQ1907796-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:15:07 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.021	4.647	16062496	16020672	46.403	38.002
		Target Compounds						
1)		3,4-Dichl...	3.135	3.747	23174	61989	0.906	2.858 #
2)		3,5-Dichl...	3.365	3.990	9935	30839	0.221	1.420 #
3)		2,4,6-Tri...	0.000	4.204	0	132151	N.D. d	0.324
5)		2,4,5-Tri...	4.171	0.000	793164	0	4.815	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.007	0	240192	N.D. d	0.398
8)	M	2,3,4,5-T...	0.000	5.401	0	50548	N.D. d	0.122
9)	M	Pentachlo...	0.000	5.604	0	714502	N.D. d	1.050
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

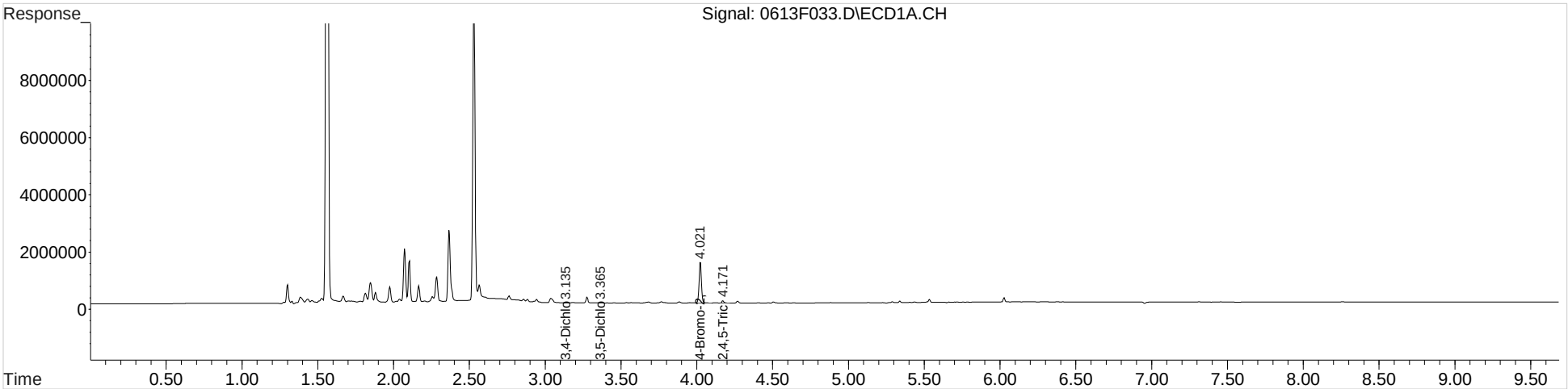
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F033.D Vial: 27
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 6:45 pm Operator: MC
Sample : KQ1907796-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:15:07 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F006.D\
Lab ID: KQ1907722-03
RunType: LCS
Matrix: Water

Date Acquired: 6/13/19 10:51:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F006.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 10:51:00	**Vial:**	33
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1907722-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	KQ1907722
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	16370415	16178068	47.318	38.375	95	77	77	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14	5.60 +0.01	18775229	22604103	40.482	33.216	8.10	6.64	**6.64**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:51 am Operator: MC
Sample : KQ1907722-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:55:13 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.018	4.647	16370415	16178068	47.318	38.375	
		Target Compounds							
1)		3,4-Dichl...	3.128	3.734	343849	465503	21.496	21.459	
2)		3,5-Dichl...	3.368	3.984	28588	154276	1.894	9.324	#
3)		2,4,6-Tri...	3.465	4.204	10573152	12018977	33.970	29.445	
5)		2,4,5-Tri...	4.191	4.714	5032330	4616372	36.507	25.651	#
6)		3,4,5-Tri...	4.221	4.777	3979238	3992066	27.140	23.150	
7)	M	2,3,5,6-T...	4.468	5.011	16072544	20374577	37.014	33.748	
8)	M	2,3,4,5-T...	5.008	5.411	10764104	12420963	34.861	29.865	
9)	M	Pentachlo...	5.145	5.597	18775229	22604103	40.482	33.216	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

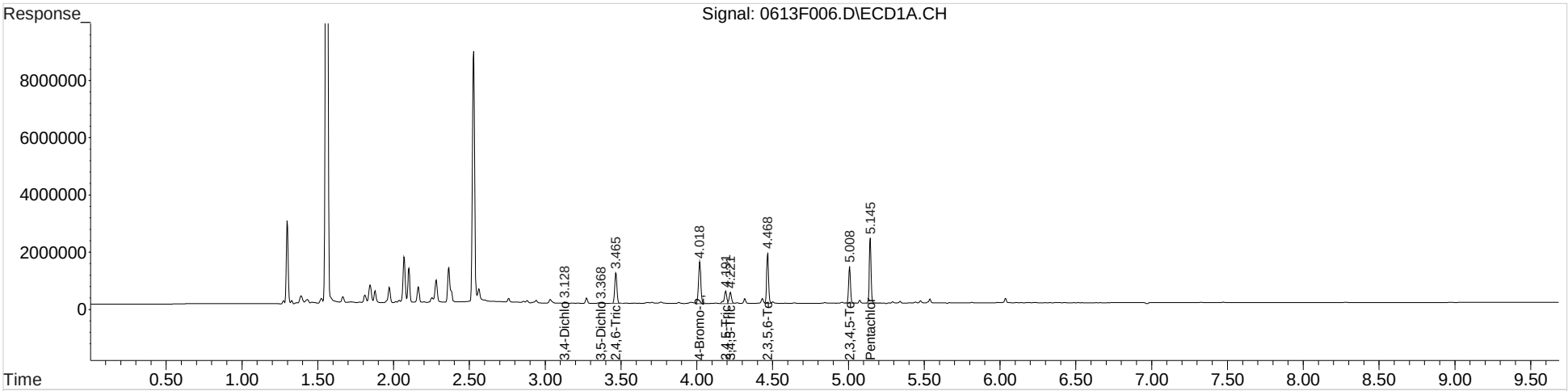
1st MC 06/14/19
2nd TP 06/17/19

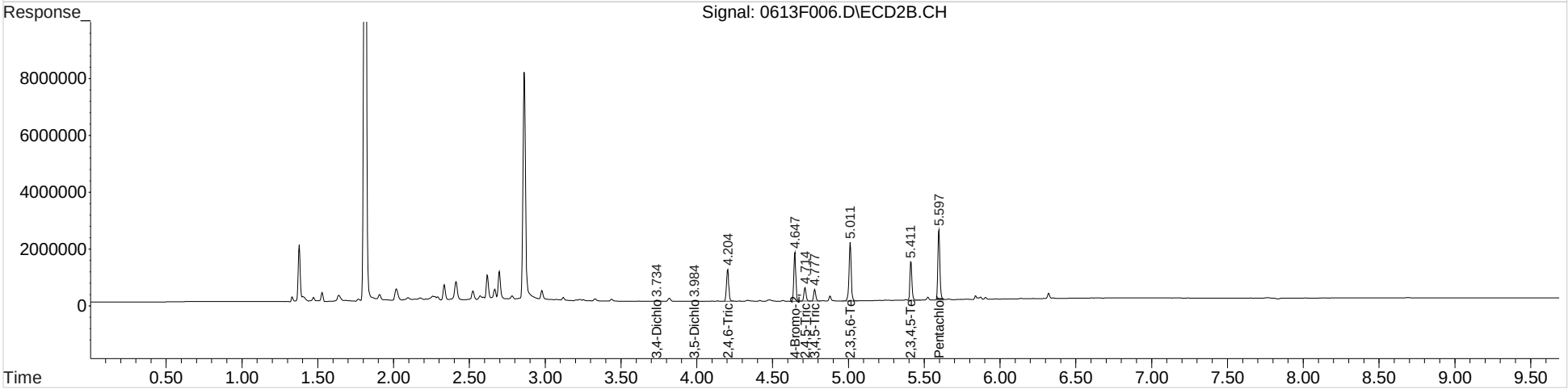
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:51 am Operator: MC
Sample : KQ1907722-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:55:13 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F034.D\
Lab ID: KQ1907796-03
RunType: LCS
Matrix: Water

Date Acquired: 6/13/19 19:03:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F034.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 19:03:00	**Vial:**	46
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1907796-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338123	**Report Group:**	KQ1907796
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	16721420	16609325	48.362	39.398	97	79	79	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14 -0.01	5.59 -0.01	18024100	21230432	38.810	31.198	7.76	6.24	**6.24**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F034.D Vial: 28
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 7:03 pm Operator: MC
Sample : KQ1907796-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:16:10 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.021	4.647	16721420	16609325	48.362m	39.398	
		Target Compounds							
1)		3,4-Dichl...	3.131	3.737	352909	499551	22.090	23.029	
2)		3,5-Dichl...	3.354	3.990	43762	166826	3.261	10.134	#
3)		2,4,6-Tri...	3.468	4.207	10800243	11867865	34.736	29.075	
5)		2,4,5-Tri...	4.194	4.714	4907059	4388196	35.538	24.340	#
6)		3,4,5-Tri...	4.224	4.777	4017125	3975606	27.413	23.051	
7)	M	2,3,5,6-T...	4.468	5.010	16081140	19907850	37.034	32.974	
8)	M	2,3,4,5-T...	5.008	5.410	9982622	11421598	32.164	27.462	
9)	M	Pentachlo...	5.144	5.594	18024100	21230432	38.810	31.198	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

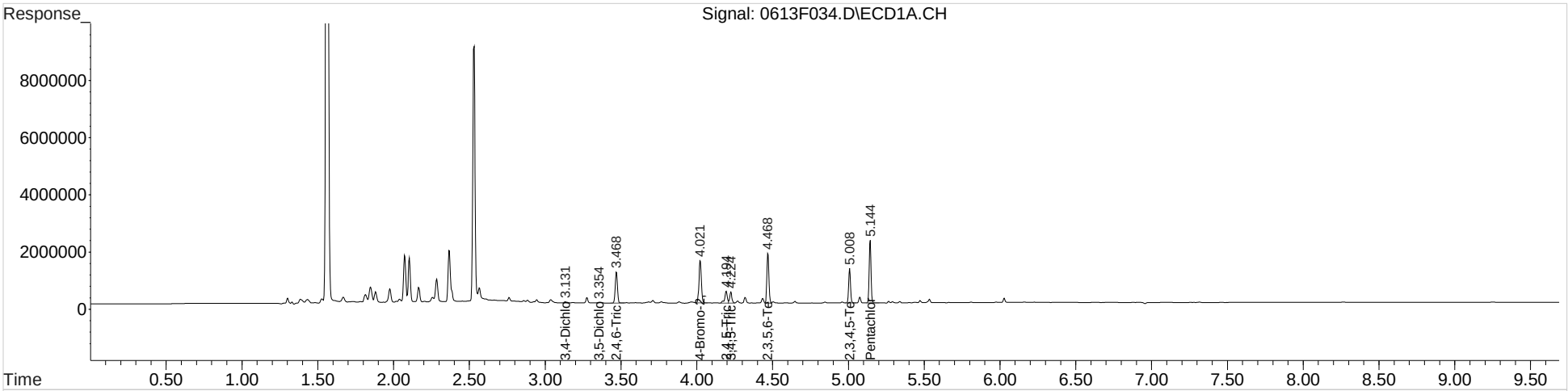
1st MC 06/14/19
2nd TP 06/17/19

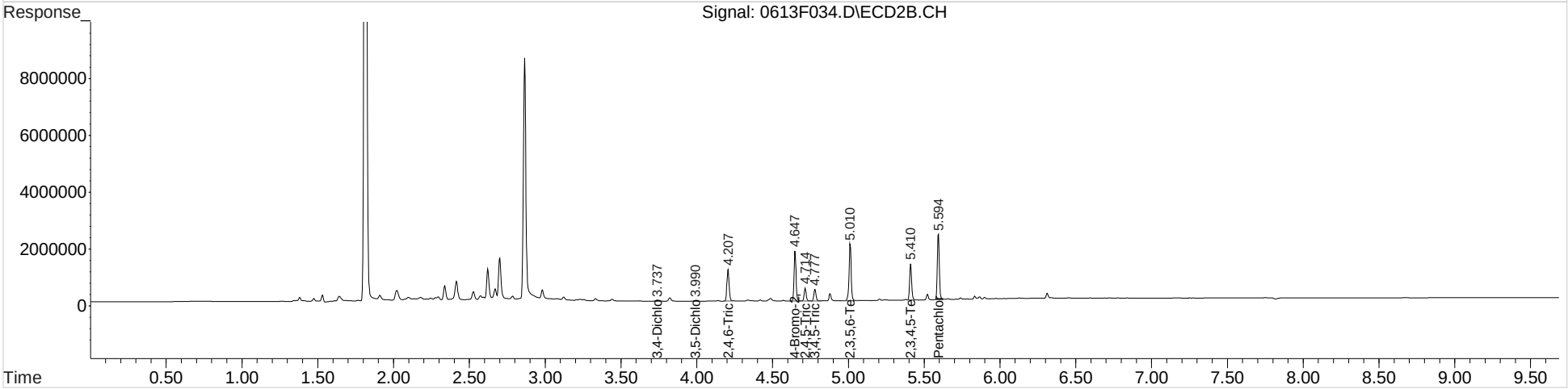
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F034.D Vial: 28
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 7:03 pm Operator: MC
Sample : KQ1907796-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:16:10 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





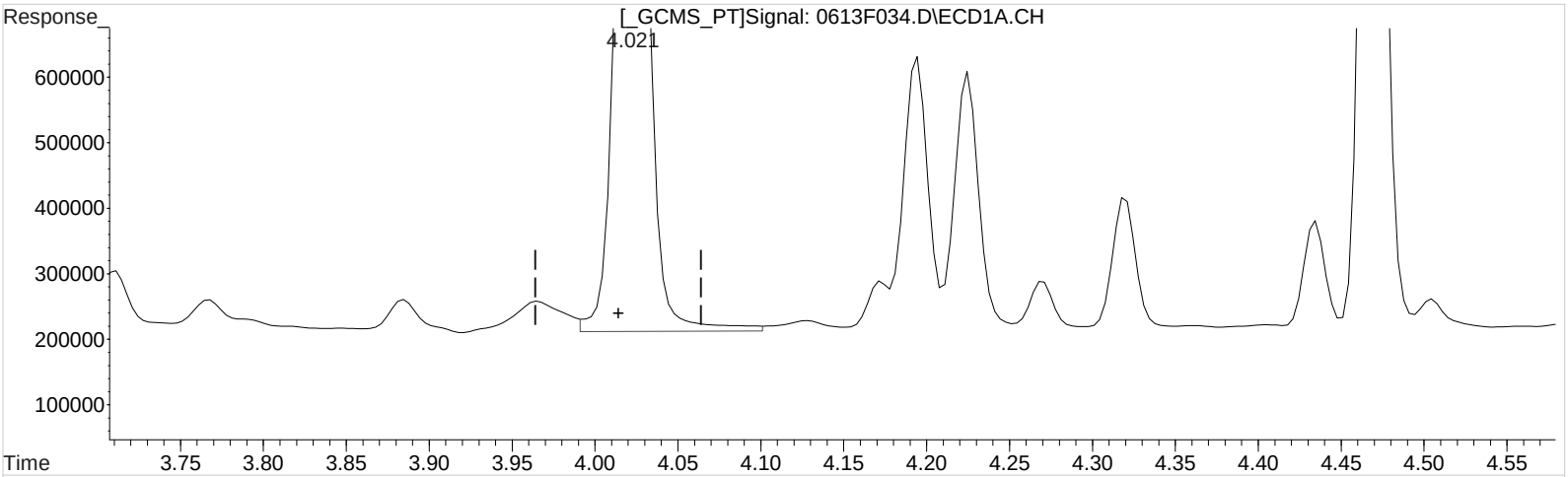
Quantitation Report (Qedit)

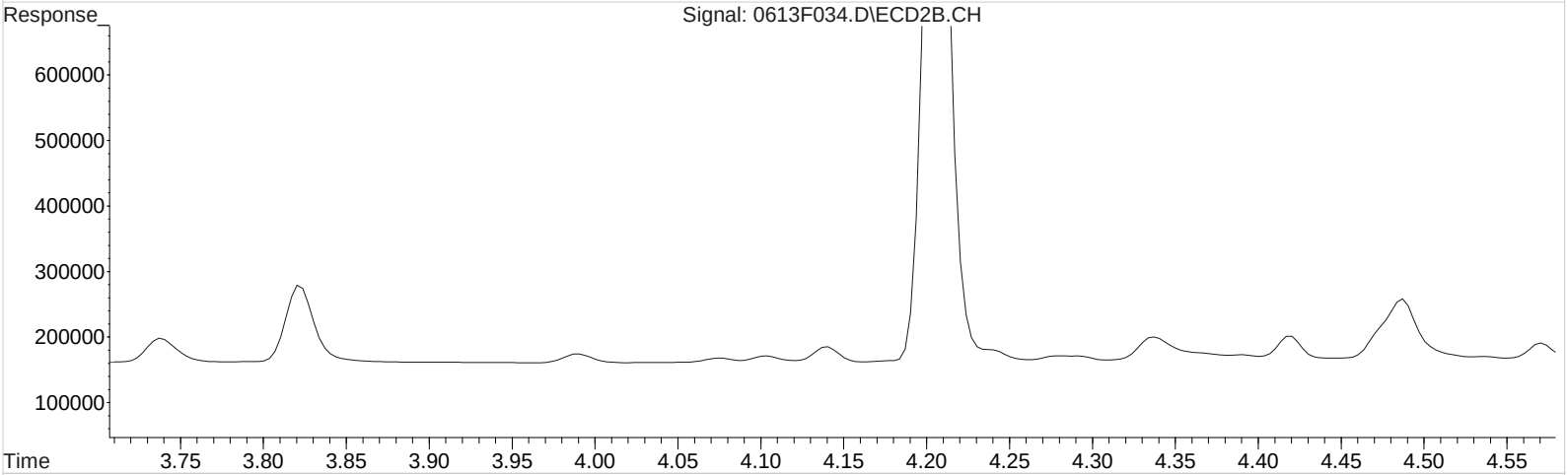
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F034.D Vial: 28
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 7:03 pm Operator: MC
Sample : KQ1907796-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:15:21 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.021min 50.087 ug/L

response 17301133

Manual Integration:

Before

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.647min 39.398 ug/L

response 16609325

(+) = Expected Retention Time

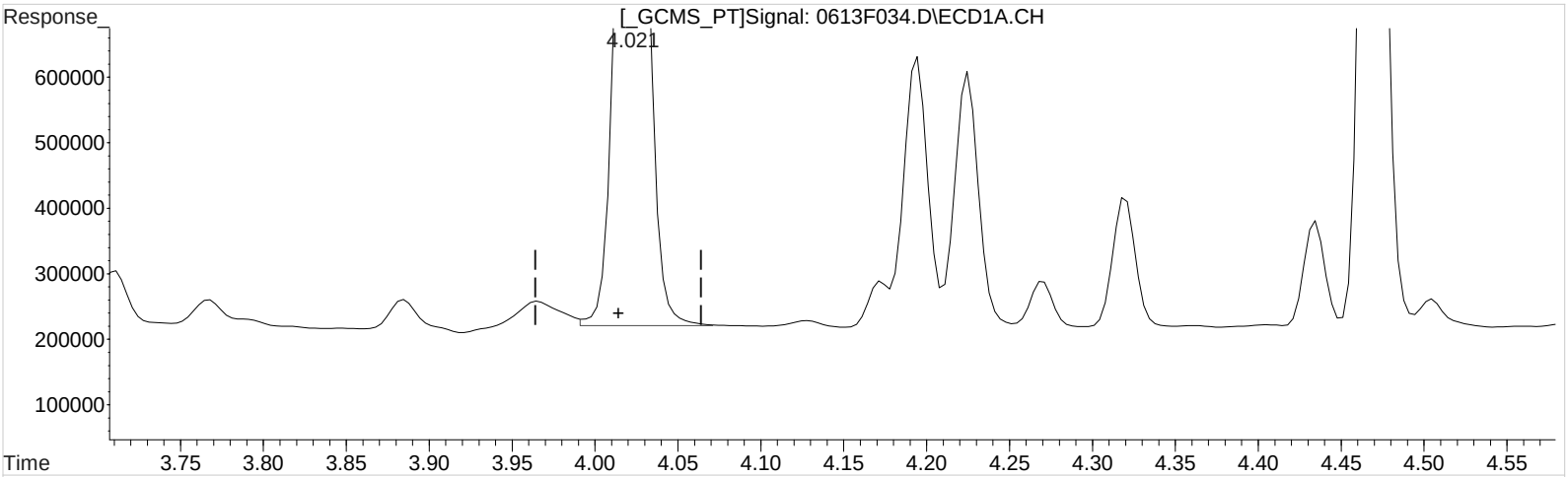
Quantitation Report (Qedit)

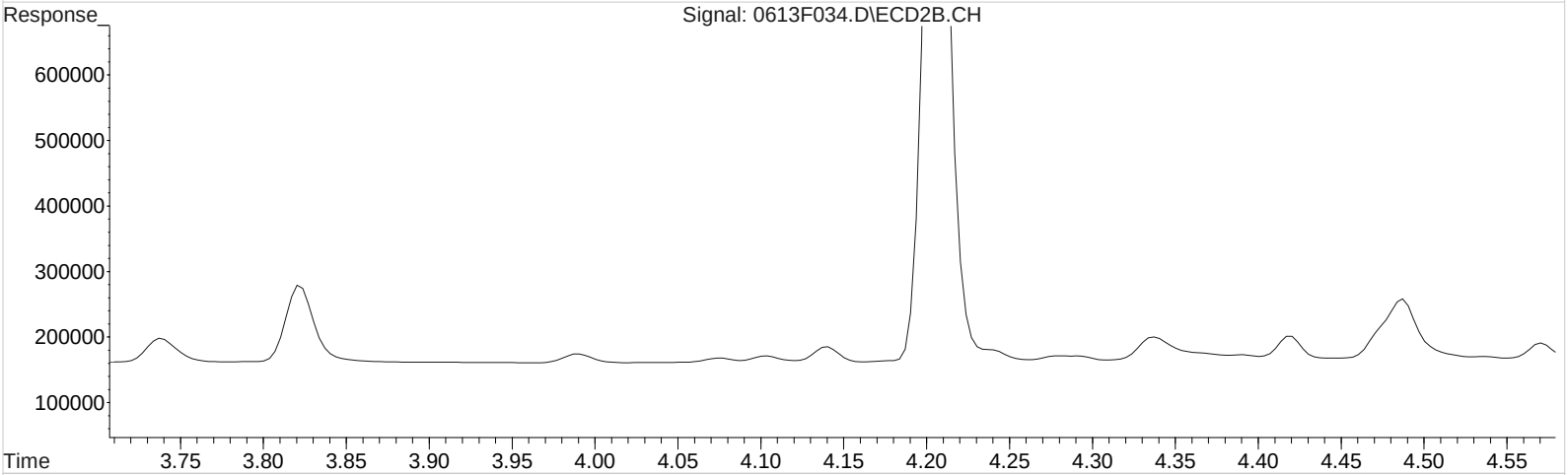
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F034.D Vial: 28
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 7:03 pm Operator: MC
Sample : KQ1907796-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:15:21 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.021min 48.362 ug/L m

response 16721420

Manual Integration:

After

Baseline/Shoulder

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.647min 39.398 ug/L

response 16609325

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F031.D\
Lab ID: KQ1907722-01
RunType: MS
Matrix: Water

Date Acquired: 6/13/19 18:10:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F031.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 18:10:00	**Vial:**	31
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1907722-01	**Raw Units:**	ug/L

Bottle ID:	K1905141-020.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	KQ1907722
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18875180	19056906	54.777	45.204	110	90	90	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15	5.60	40323646	49378661	88.965	72.561	17.8	14.5	**14.5**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F031.D Vial: 25
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 6:10 pm Operator: MC
Sample : K1905141-020 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:14:22 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.022	4.648	18875180	19056906	54.777m	45.204	
		Target Compounds							
1)		3,4-Dichl...	3.132	3.738	466495	569744	29.602	26.265	
2)		3,5-Dichl...	3.372	3.988	72533	259227	5.866	16.138	#
3)		2,4,6-Tri...	3.469	4.205	11755776	13189622	37.966	32.313	
5)		2,4,5-Tri...	4.192	4.715	5836496	5239202	42.780	29.237	#
6)		3,4,5-Tri...	4.222	4.778	4507083	4616722	30.959	26.894	
7)	M	2,3,5,6-T...	4.469	5.012	18359417	22657532	42.539	37.529	
8)	M	2,3,4,5-T...	5.009	5.412	11490920	13362824	37.382	32.129	
9)	M	Pentachlo...	5.146	5.595	40323646	49378661	88.965	72.561	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

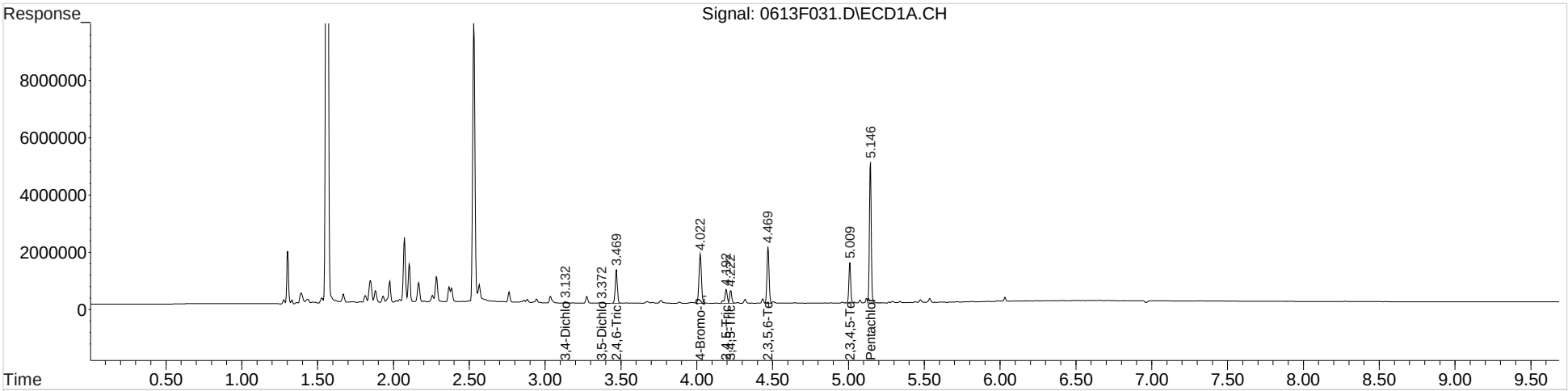
1st MC 06/14/19
2nd TP 06/17/19

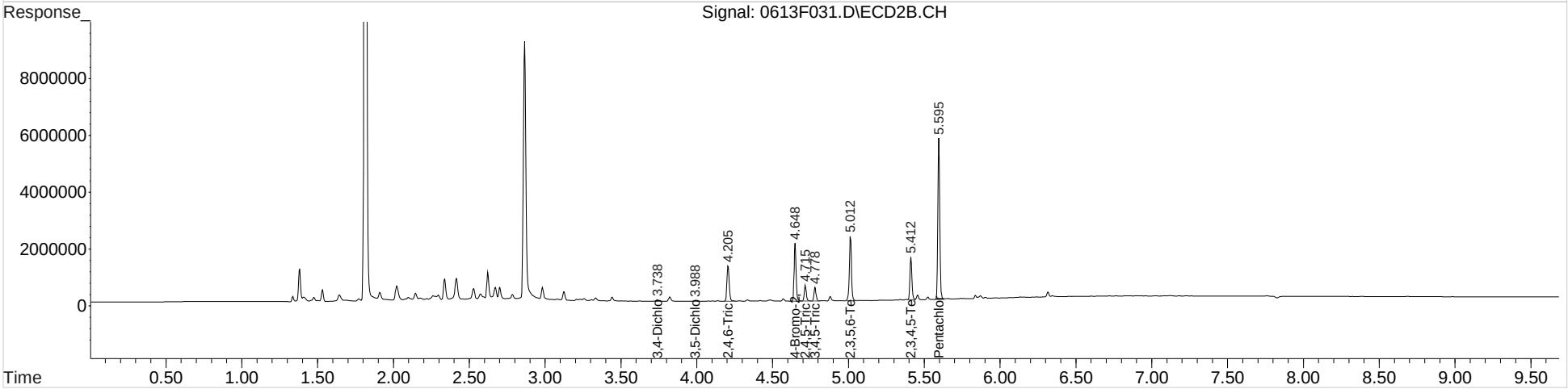
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F031.D Vial: 25
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 6:10 pm Operator: MC
Sample : K1905141-020 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:14:22 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





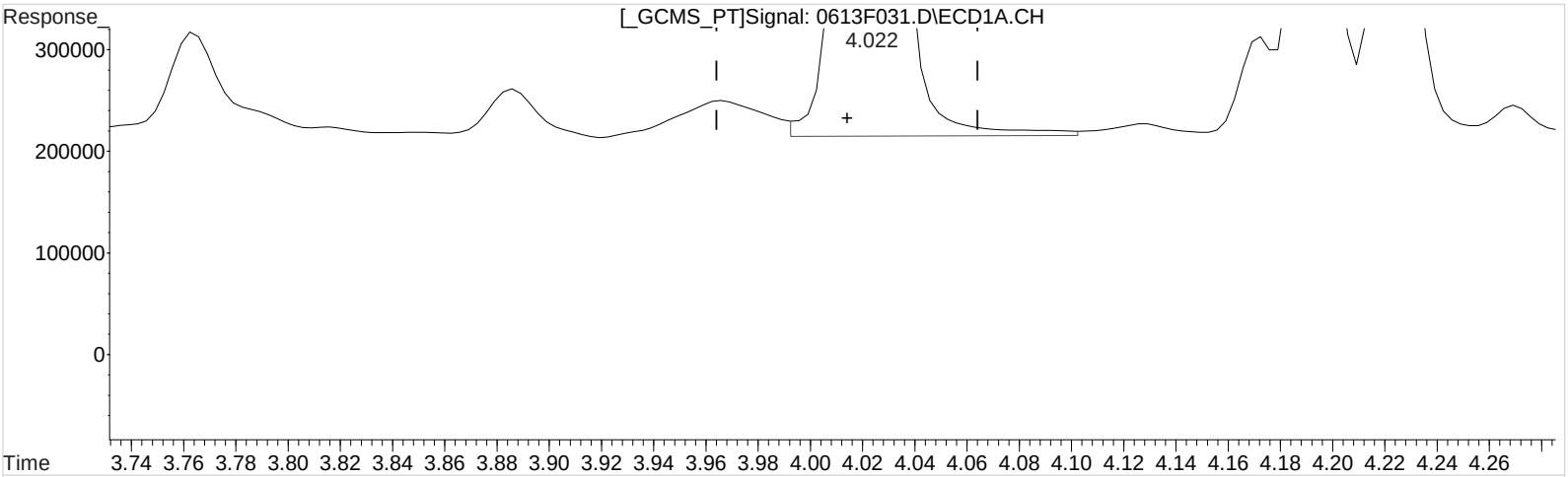
Quantitation Report (Qedit)

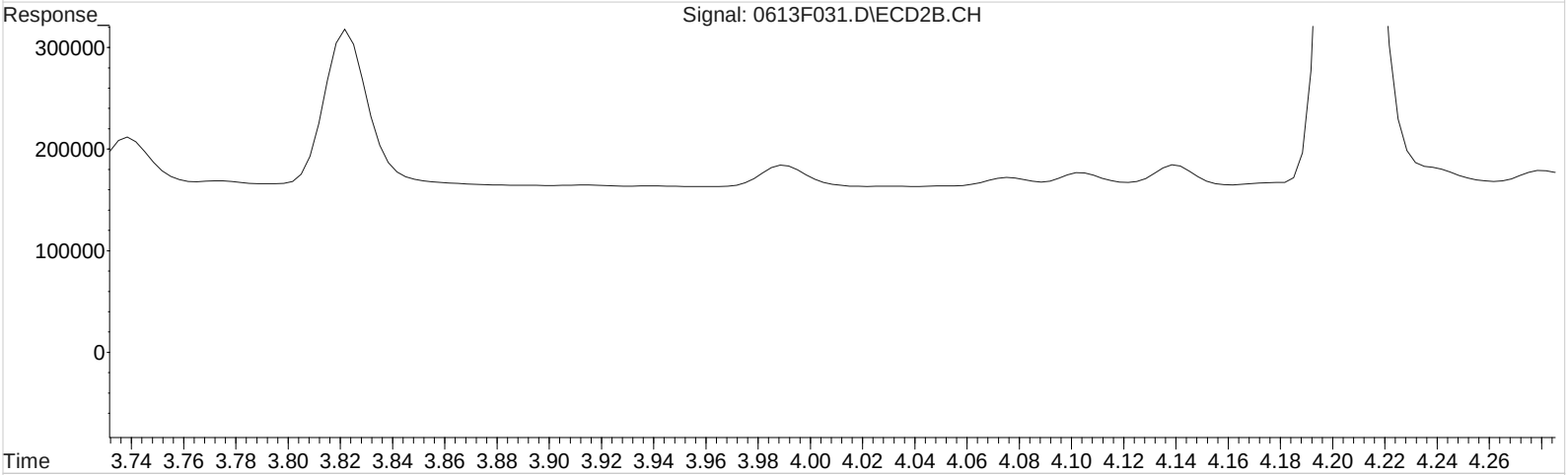
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F031.D Vial: 25
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 6:10 pm Operator: MC
Sample : K1905141-020 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:03:18 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.022min 55.699 ug/L

response 19184335

Manual Integration:

Before

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.648min 45.204 ug/L

response 19056906

(+) = Expected Retention Time

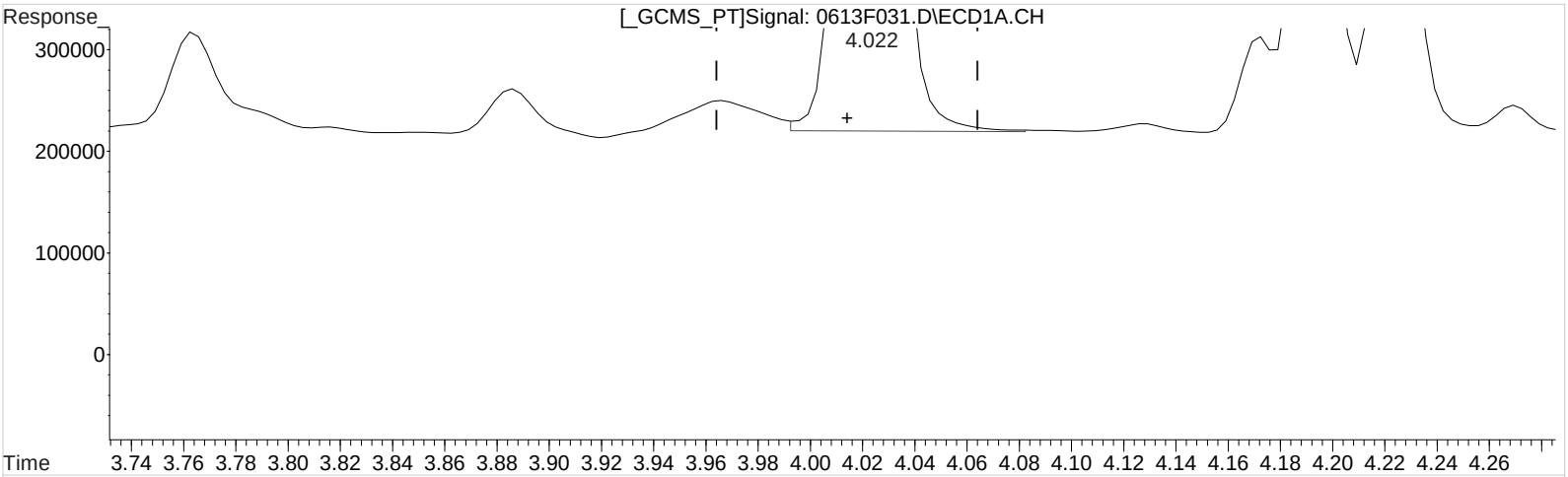
Quantitation Report (Qedit)

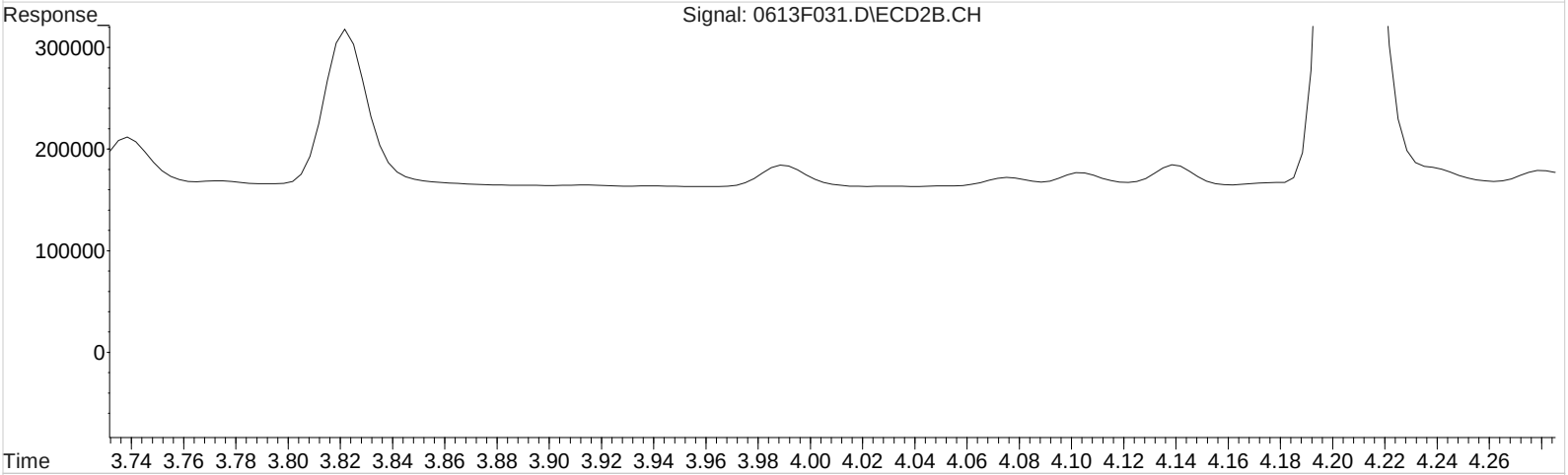
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F031.D Vial: 25
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 6:10 pm Operator: MC
Sample : K1905141-020 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:03:18 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.022min 54.777 ug/L m

response 18875180

Manual Integration:

After

Baseline/Shoulder

06/13/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.648min 45.204 ug/L

response 19056906

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F046.D\
Lab ID: KQ1907796-01
RunType: MS
Matrix: Water

Date Acquired: 6/13/19 22:34:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F046.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 22:34:00	**Vial:**	44
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1907796-01	**Raw Units:**	ug/L

Bottle ID:	K1905141-029.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338123	**Report Group:**	KQ1907796
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	17755880	17828832	51.441	42.291	103	85	85	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14	5.60 +0.01	20190552	24106098	43.635	35.423	8.73	7.08	**7.08**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F046.D Vial: 38
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:34 pm Operator: MC
Sample : K1905141-029 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:03:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.022	4.648	17755880	17828832	51.441m	42.291	
		Target Compounds							
1)		3,4-Dichl...	3.132	3.738	449608	590384	28.478	27.216	
2)		3,5-Dichl...	3.369	3.988	303686	208356	27.488	12.824	#
3)		2,4,6-Tri...	3.469	4.205	12011234	13440912	38.833	32.928	
5)		2,4,5-Tri...	4.192	4.715	6127390	5873696	45.071	32.901	#
6)		3,4,5-Tri...	4.222	4.778	4996762	5255233	34.533	30.732	
7)	M	2,3,5,6-T...	4.469	5.012	17706165	21357368	40.956	35.375	
8)	M	2,3,4,5-T...	5.009	5.412	11879925	13815950	38.736	33.219	
9)	M	Pentachlo...	5.142	5.595	20190552	24106098	43.635	35.423	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

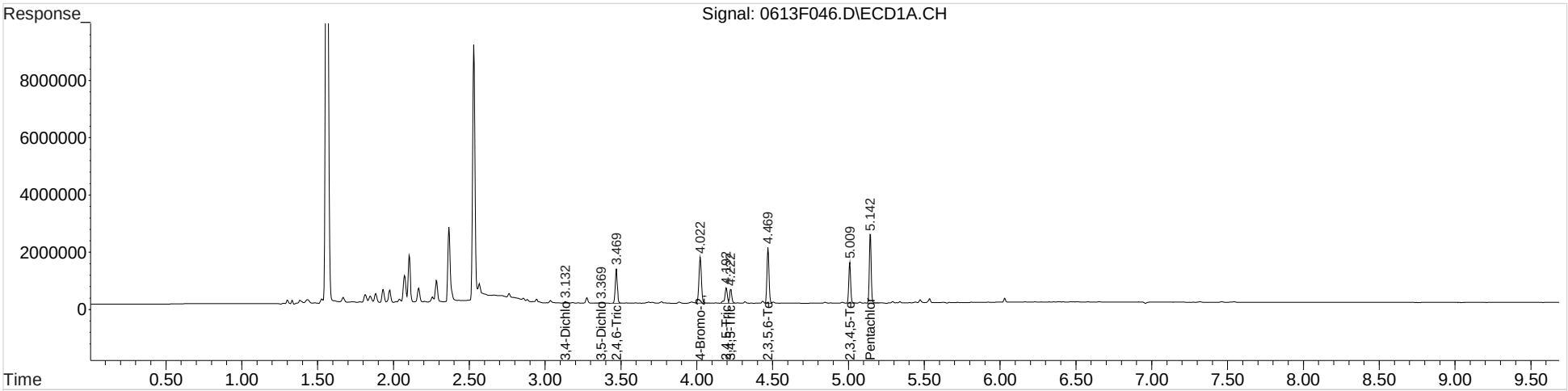
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F046.D Vial: 38
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:34 pm Operator: MC
Sample : K1905141-029 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:03:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



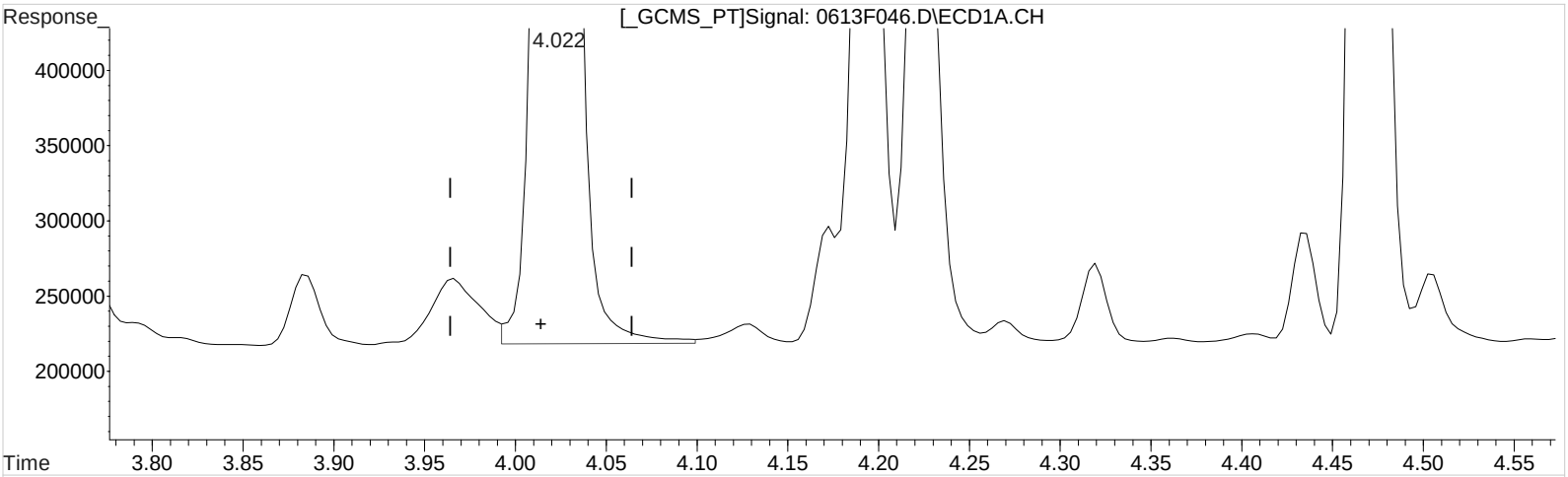
Quantitation Report (Qedit)

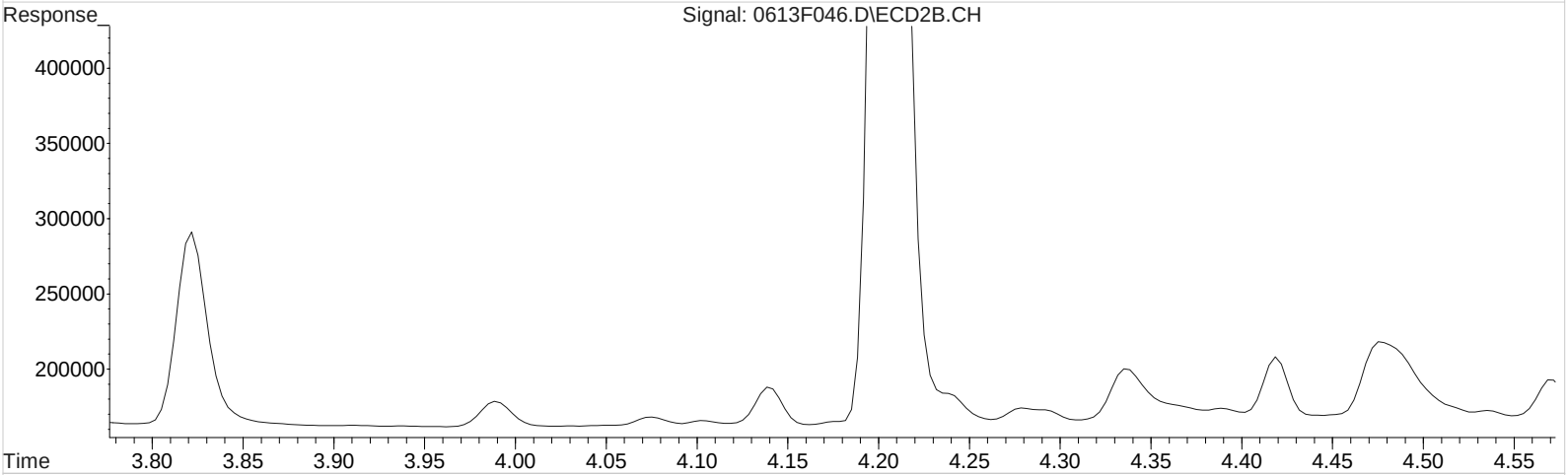
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F046.D Vial: 38
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:34 pm Operator: MC
Sample : K1905141-029 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:55:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.022min 51.977 ug/L

response 17935639

Manual Integration:

Before

06/14/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.648min 42.291 ug/L

response 17828832

(+) = Expected Retention Time

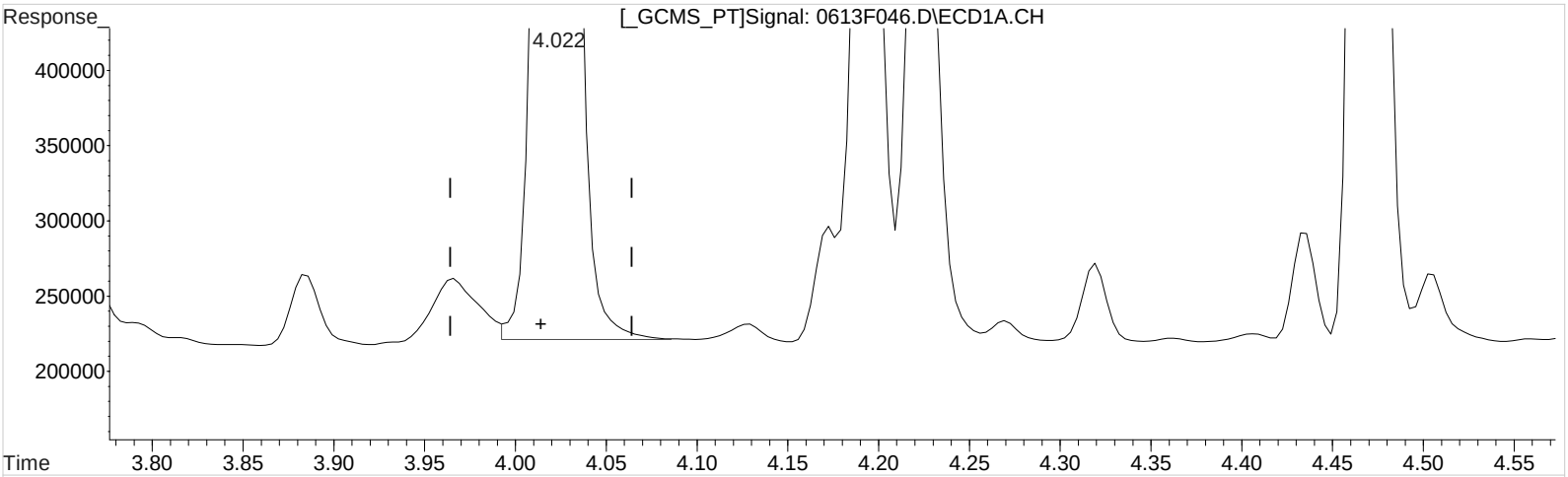
Quantitation Report (Qedit)

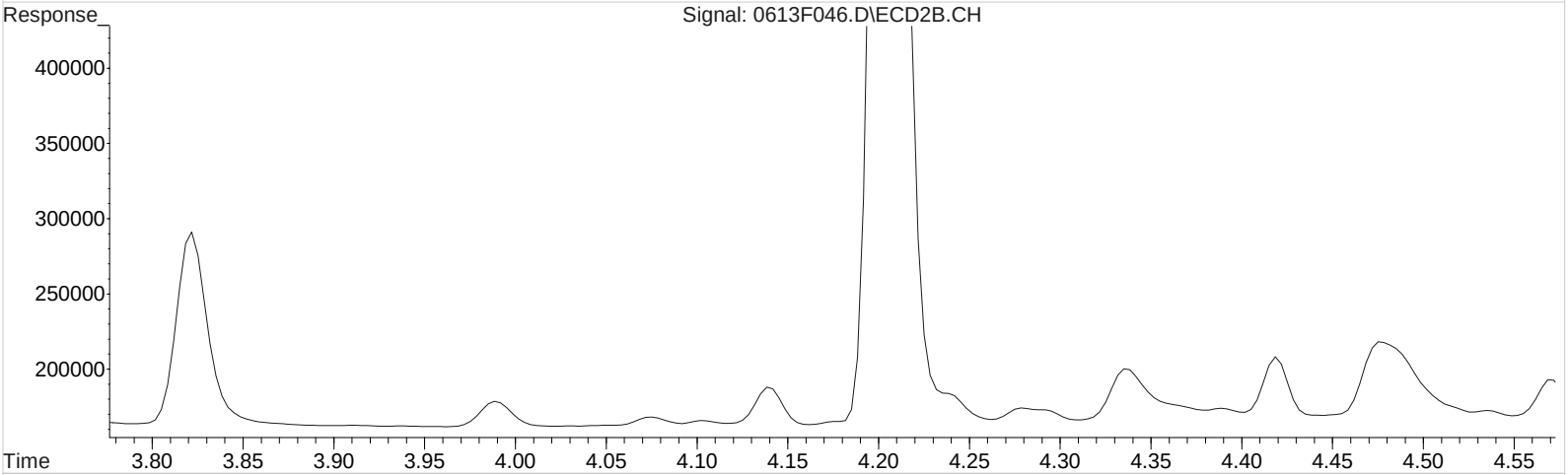
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F046.D Vial: 38
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:34 pm Operator: MC
Sample : K1905141-029 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:55:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.022min 51.441 ug/L m

response 17755880

Manual Integration:

After

Baseline/Shoulder

06/14/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.648min 42.291 ug/L

response 17828832

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F032.D\
Lab ID: KQ1907722-02
RunType: DMS
Matrix: Water

Date Acquired: 6/13/19 18:28:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F032.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 18:28:00	**Vial:**	32
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1907722-02	**Raw Units:**	ug/L

Bottle ID:	K1905141-020.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338052	**Report Group:**	KQ1907722
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/5/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	17981855	18144152	52.114	43.038	104	86	86	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14 -0.01	5.59 -0.01	38903474	47613920	85.737	69.968	17.1	14.0	**14.0**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F032.D Vial: 26
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 6:28 pm Operator: MC
Sample : K1905142-020 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:14:38 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.023	4.646	17981855	18144152	52.114	43.038	
		Target Compounds							
1)		3,4-Dichl...	3.133	3.736	370318	475180	23.234	21.905	
2)		3,5-Dichl...	3.370	3.989	33340	168450	2.321	10.239	#
3)		2,4,6-Tri...	3.470	4.206	11292633	12579966	36.398	30.819	
5)		2,4,5-Tri...	4.193	4.712	5335726	4893513	38.863	27.246	#
6)		3,4,5-Tri...	4.223	4.779	3953426	4197864	26.954	24.382	
7)	M	2,3,5,6-T...	4.470	5.012	17383326	21814037	40.175	36.132	
8)	M	2,3,4,5-T...	5.006	5.409	10970554	12518717	35.576	30.100	
9)	M	Pentachlo...	5.143	5.592	38903474	47613920	85.737	69.968	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

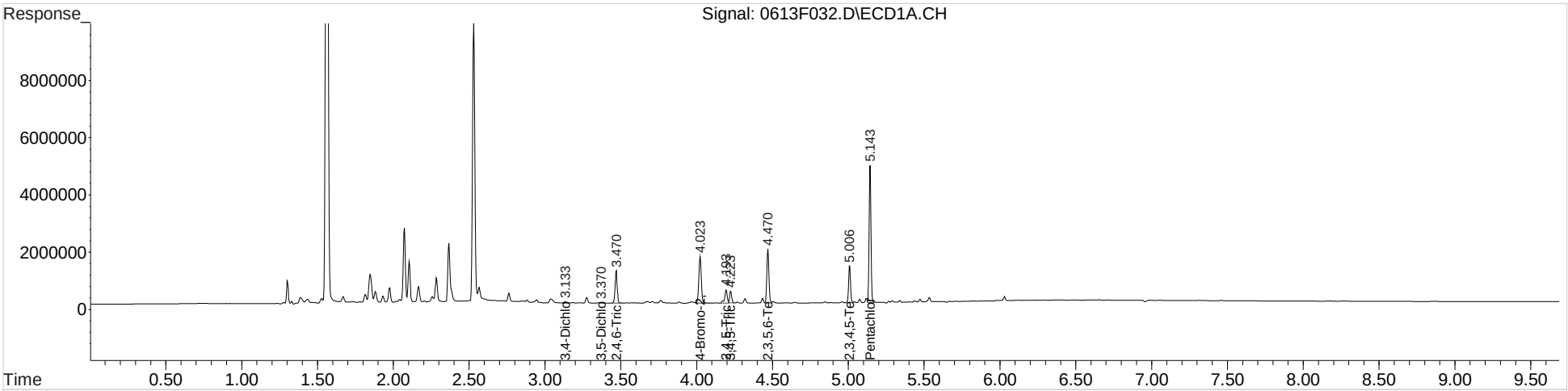
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F032.D Vial: 26
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 6:28 pm Operator: MC
Sample : K1905142-020 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:14:38 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F047.D\
Lab ID: KQ1907796-02
RunType: DMS
Matrix: Water

Date Acquired: 6/13/19 22:52:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F047.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 22:52:00	**Vial:**	45
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1907796-02	**Raw Units:**	ug/L

Bottle ID:	K1905141-029.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**	338123	**Report Group:**	KQ1907796
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	17225694	17440054	49.863	41.368	100	83	83	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14	5.59	19845640	23928440	42.866	35.162	8.57	7.03	**7.03**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F047.D Vial: 39
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:52 pm Operator: MC
Sample : K1905141-029 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:07:18 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.020	4.646	17225694	17440054	49.863m	41.368	
		Target Compounds							
1)		3,4-Dichl...	3.130	3.736	350944	454094	21.961	20.933	
2)		3,5-Dichl...	3.370	3.986	247252	144964	22.089	8.723	#
3)		2,4,6-Tri...	3.467	4.206	11322791	12818293	36.500	31.403	
5)		2,4,5-Tri...	4.194	4.713	4750795	5163964	34.333	28.803	
6)		3,4,5-Tri...	4.224	4.776	4417198	4566760	30.306	26.594	
7)	M	2,3,5,6-T...	4.467	5.010	16979928	20976430	39.200	34.744	
8)	M	2,3,4,5-T...	5.007	5.410	11521506	13498290	37.488	32.455	
9)	M	Pentachlo...	5.144	5.593	19845640	23928440	42.866	35.162	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

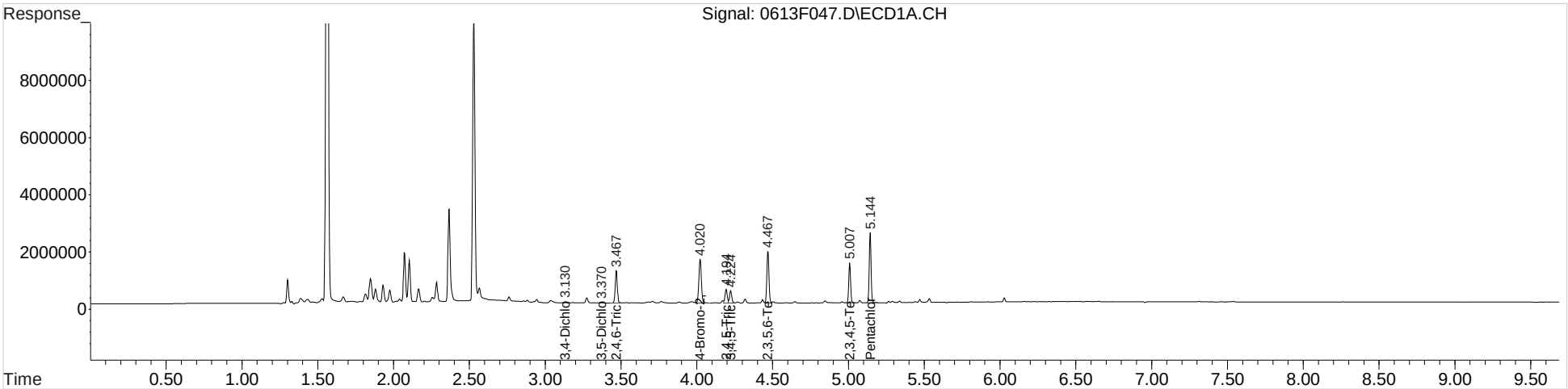
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F047.D Vial: 39
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:52 pm Operator: MC
Sample : K1905141-029 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:07:18 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

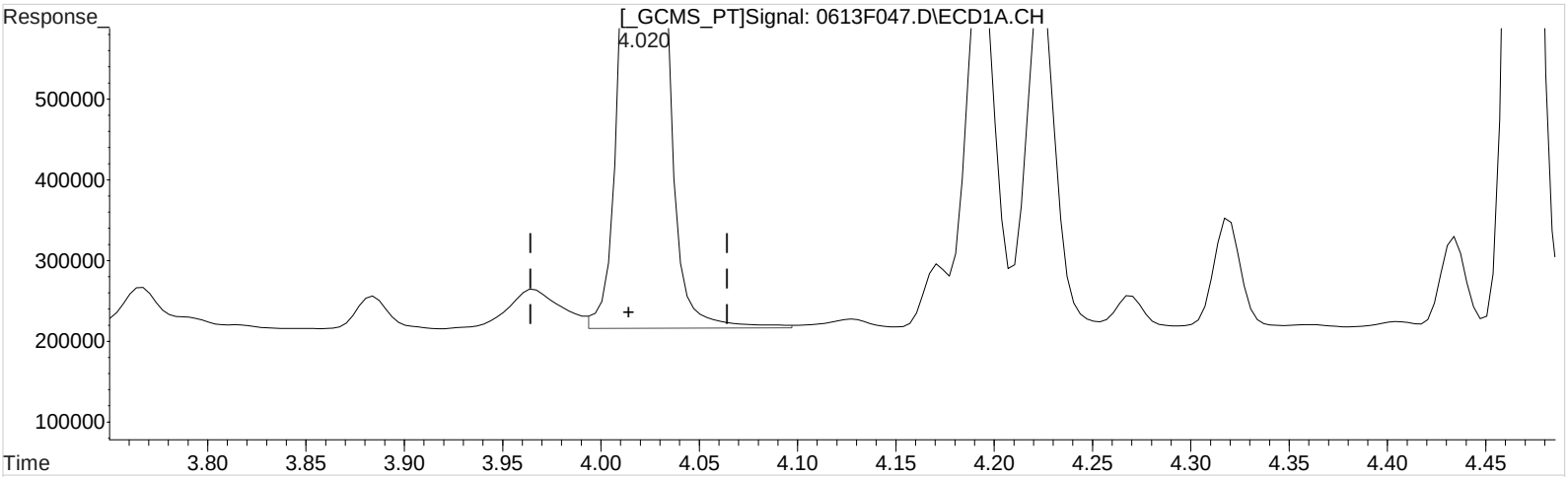


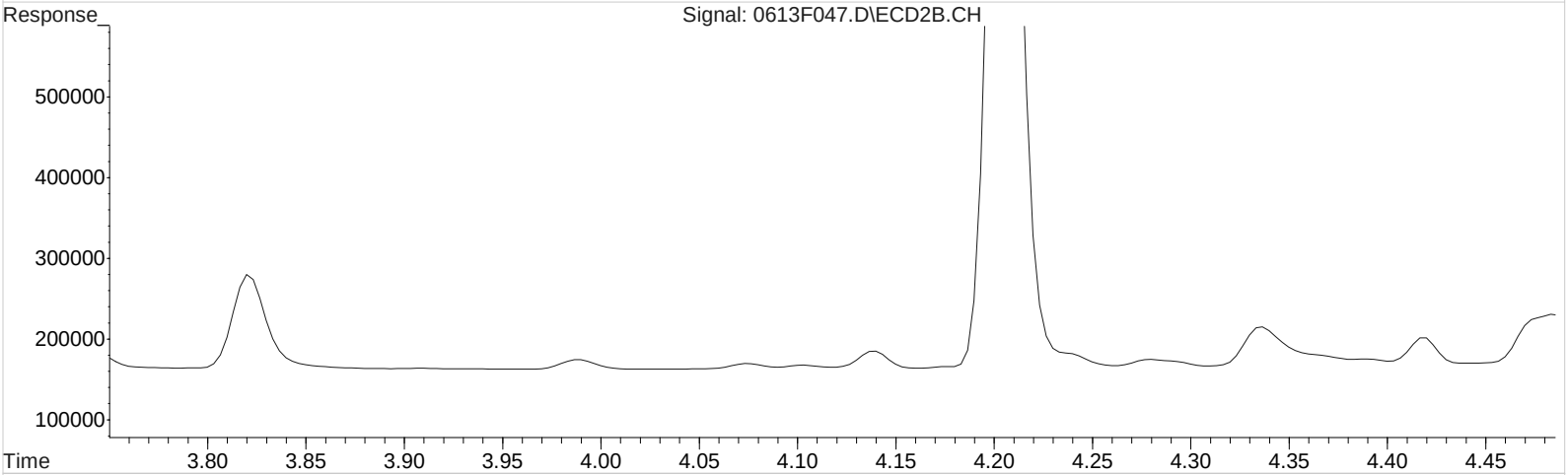
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F047.D Vial: 39
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:52 pm Operator: MC
Sample : K1905141-029 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:55:18 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.020min 50.452 ug/L

response 17423829

Manual Integration:

Before

06/14/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.646min 41.368 ug/L

response 17440054

(+) = Expected Retention Time

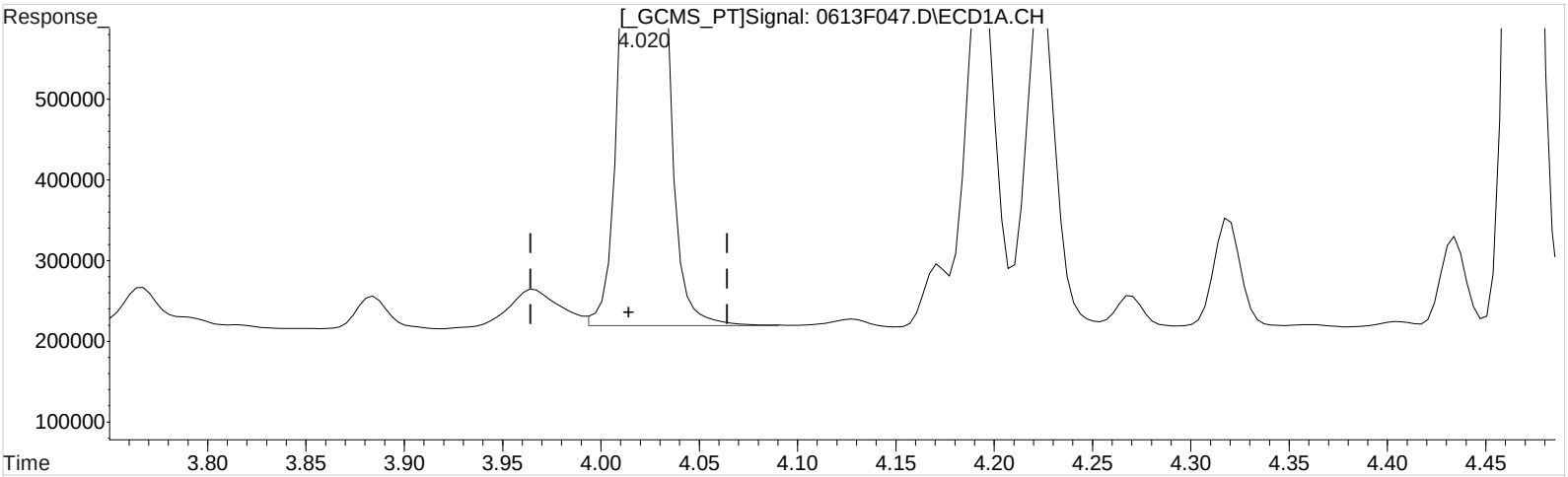
Quantitation Report (Qedit)

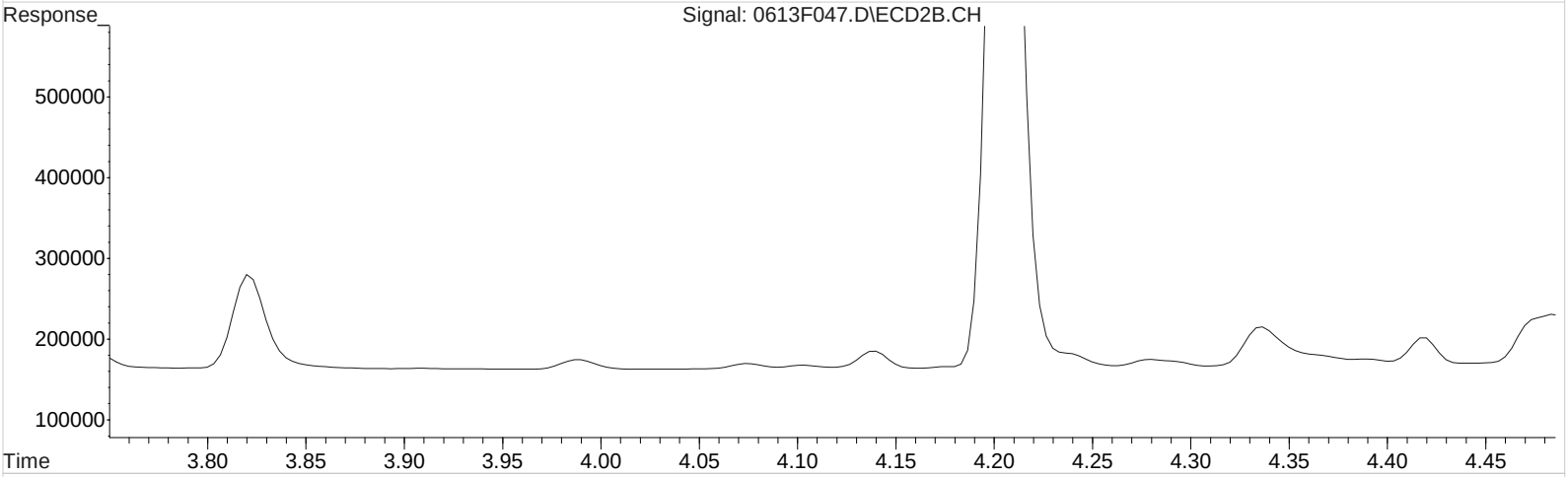
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F047.D Vial: 39
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:52 pm Operator: MC
Sample : K1905141-029 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:55:18 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(4) 4-Bromo-2,6-dichlorophenol (S)

4.020min 49.863 ug/L m

response 17225694

Manual Integration:

After

Baseline/Shoulder

06/14/19

(4) 4-Bromo-2,6-dichlorophenol #2 (S)

4.646min 41.368 ug/L

response 17440054

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F004.D\
Lab ID: KQ1908305-06
RunType: CCB
Matrix: Water

Date Acquired: 6/13/19 10:16:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F004.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 10:16:00	**Vial:**	6
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908305-06	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**		**Report Group:**	KQ1908305
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.67 +0.03	0	9832	0.000	0.023				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:16 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:53:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.668	0	9832	N.D.	0.023 #
		Target Compounds						
1)		3,4-Dichl...	0.000	3.721	0	6969	N.D.	0.321 #
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.028	0	28169	N.D. d	0.047
8)	M	2,3,4,5-T...	0.000	5.385f	0	4135	N.D. d	0.010
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

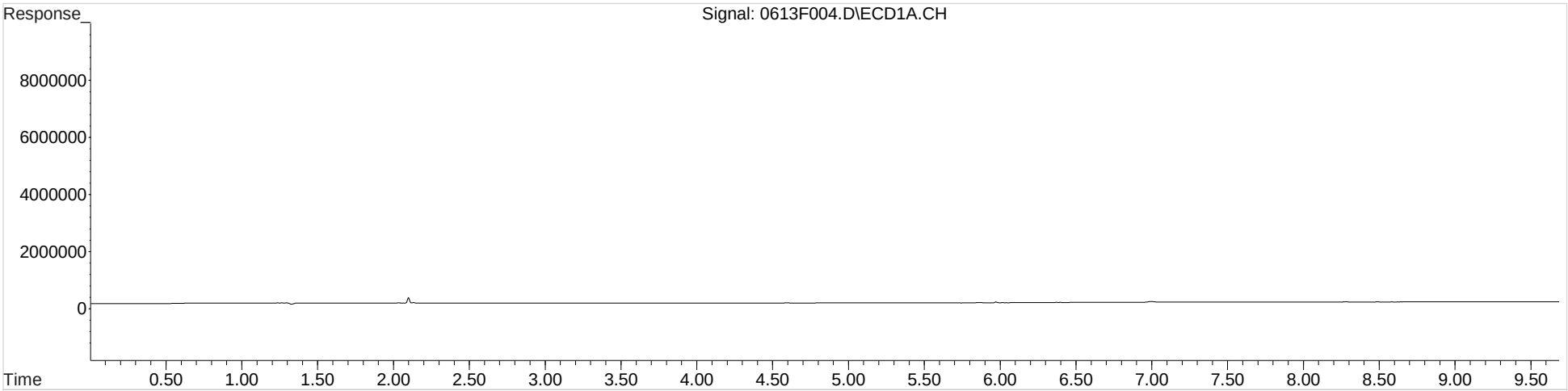
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 10:16 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 11:53:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F018.D\
Lab ID: KQ1908305-07
RunType: CCB
Matrix: Water

Date Acquired: 6/13/19 14:22:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F018.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 14:22:00	**Vial:**	7
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908305-07	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**		**Report Group:**	KQ1908305
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.68 +0.03	0	3305	0.000	0.008				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F018.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 2:22 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:08:35 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.684f	0	3305	N.D.	0.008 #
		Target Compounds						
1)		3,4-Dichl...	0.000	3.734	0	13483	N.D.	0.622 #
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	4.998	0	6257	N.D. d	0.010
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

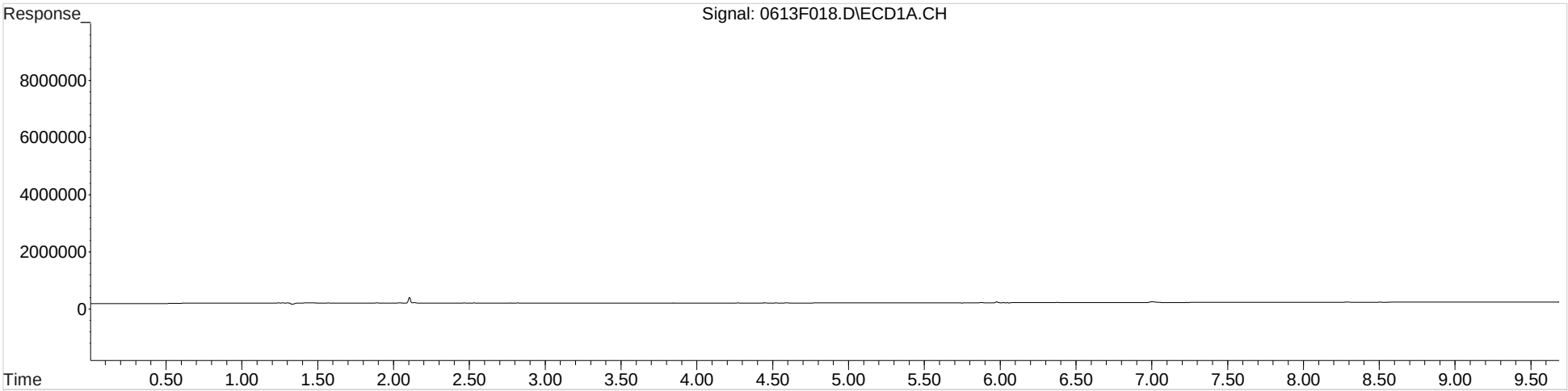
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F018.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 2:22 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:08:35 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F030.D\
Lab ID: KQ1908305-08
RunType: CCB
Matrix: Water

Date Acquired: 6/13/19 17:52:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F030.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 17:52:00	**Vial:**	8
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908305-08	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**		**Report Group:**	KQ1908305
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	0.00	0	0	0.000	0.000				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F030.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 5:52 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:13:59 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	0.000	3.731	0	25878	N.D.	1.193 #
2)		3,5-Dichl...	3.352	0.000	44315	0	3.311	N.D. d#
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D.
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D.
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

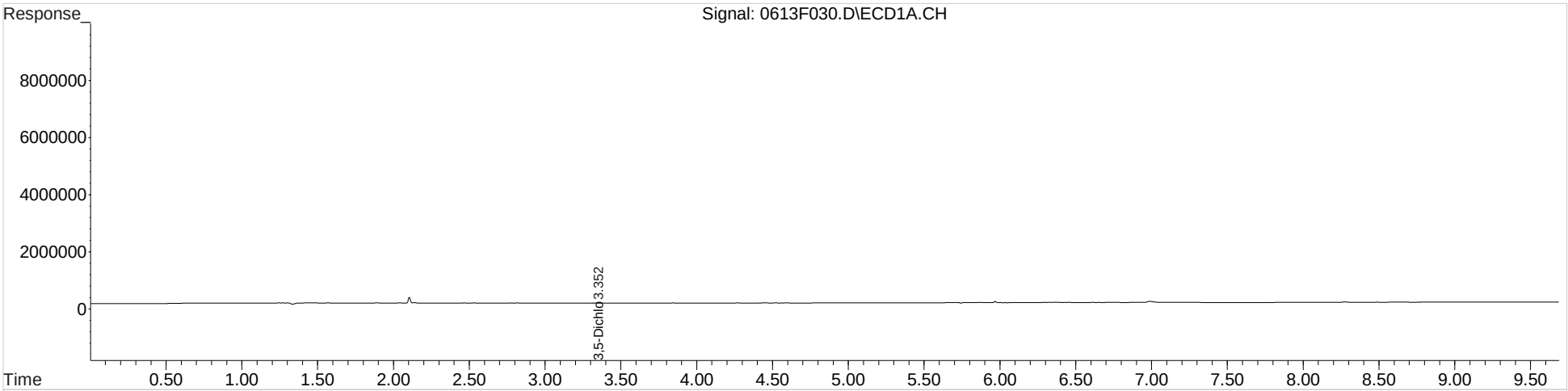
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F030.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 5:52 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:13:59 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F044.D\
Lab ID: KQ1908305-09
RunType: CCB
Matrix: Water

Date Acquired: 6/13/19 21:58:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F044.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 21:58:00	**Vial:**	9
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908305-09	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**		**Report Group:**	KQ1908305
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.66 +0.01	0	7550	0.000	0.018				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.59	0	27080	0.000	0.040	0U	0.0080U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F044.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:58 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:02:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.665	0	7550	N.D.	0.018 #
		Target Compounds						
1)		3,4-Dichl...	0.000	3.728	0	5490	N.D.	0.253 #
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.035	0	97759	N.D. d	0.162
8)	M	2,3,4,5-T...	0.000	5.391	0	3890	N.D. d	0.009
9)	M	Pentachlo...	0.000	5.591	0	27080	N.D. d	0.040m
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

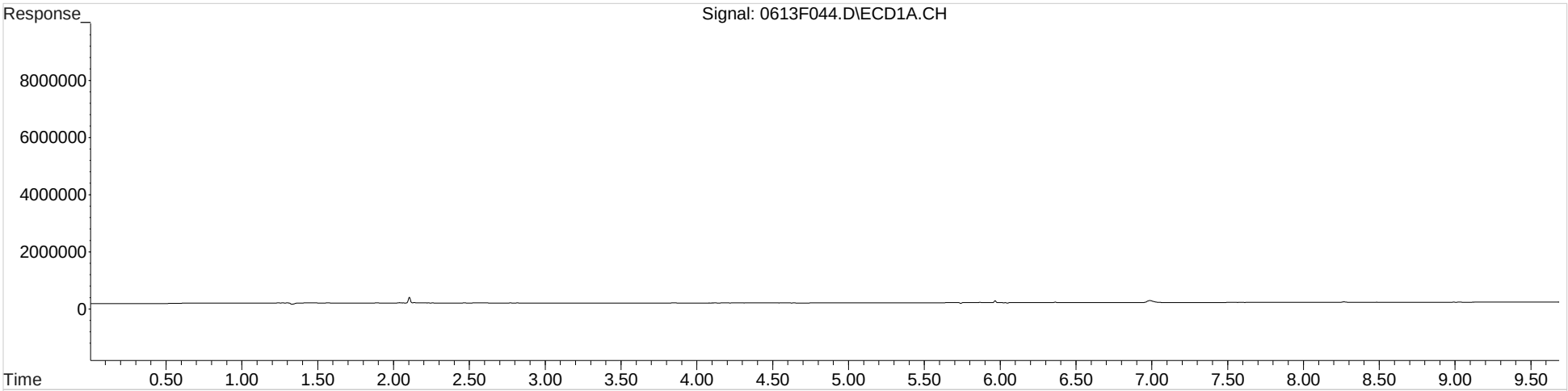
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F044.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:58 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:02:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



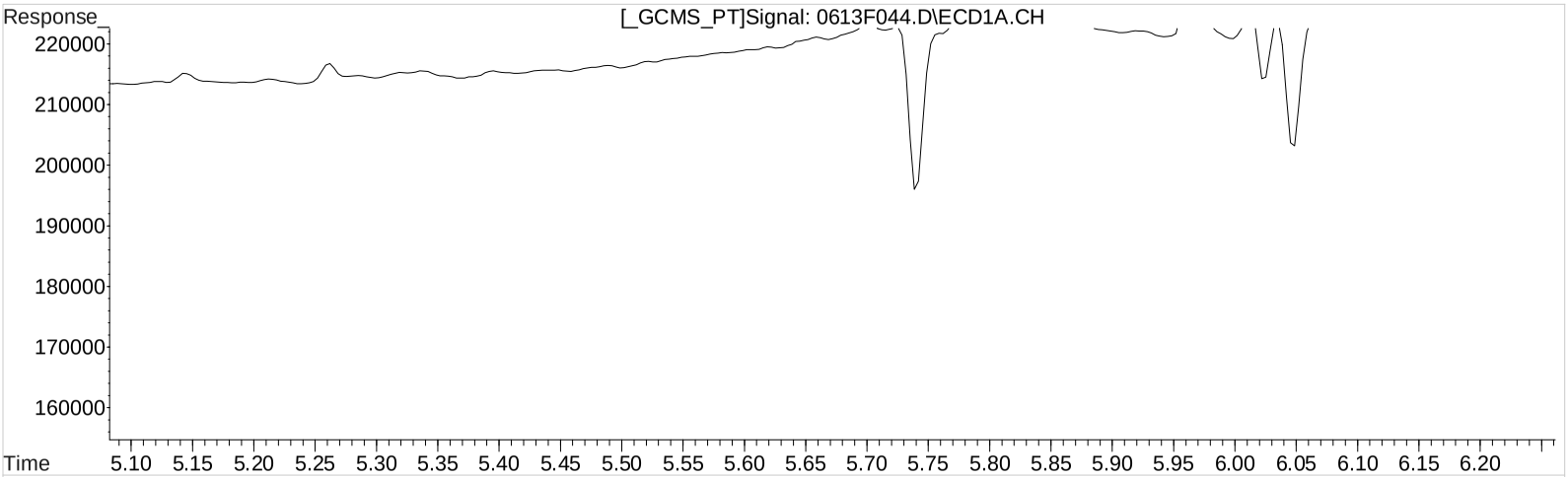
Quantitation Report (Qedit)

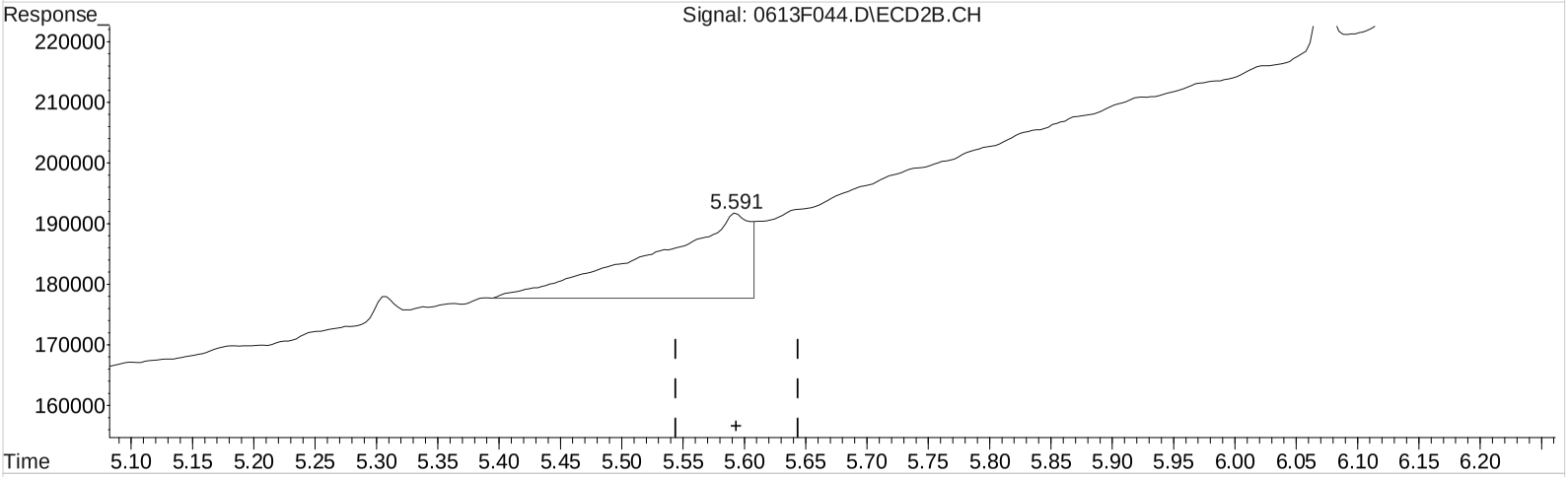
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F044.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:58 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:55:09 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

0.000min 0.000 ug/L d

response 0

Manual Integration:

Before

06/14/19

(9) Pentachlorophenol #2 (M)

5.591min 1.177 ug/L

response 800926

(+) = Expected Retention Time

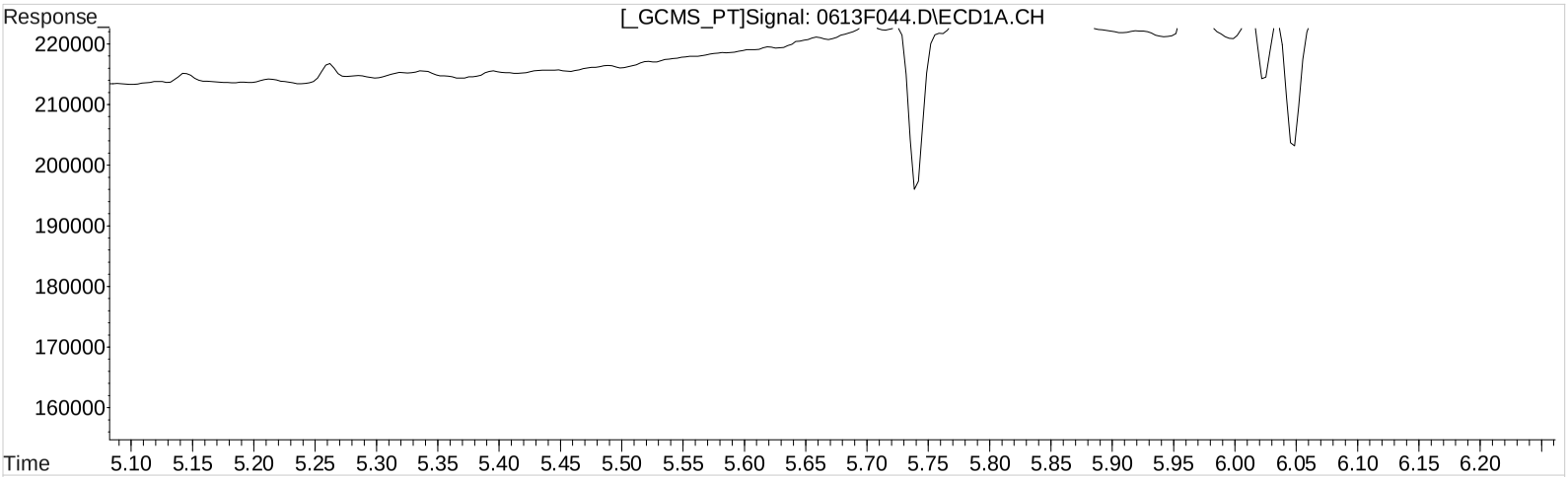
Quantitation Report (Qedit)

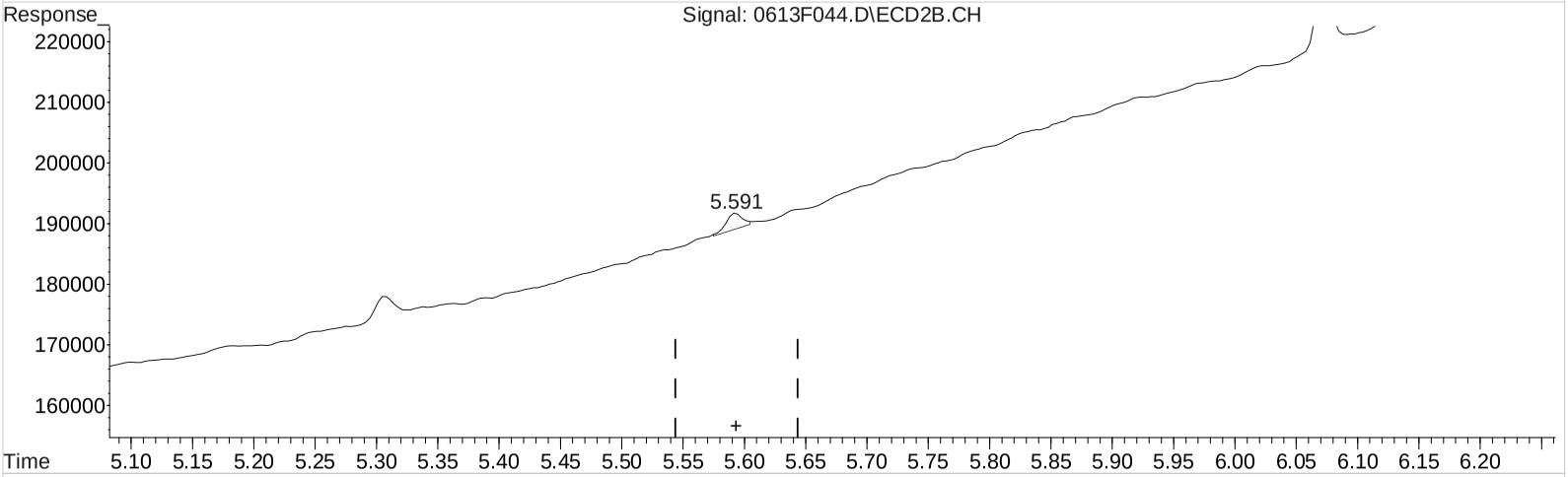
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F044.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:58 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:55:09 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

0.000min 0.000 ug/L d

response 0

Manual Integration:

After

Baseline/Shoulder

06/14/19

(9) Pentachlorophenol #2 (M)

5.591min 0.040 ug/L m

response 27080

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F049.D\
Lab ID: KQ1908305-10
RunType: CCB
Matrix: Water

Date Acquired: 6/13/19 23:28:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F049.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 23:28:00	**Vial:**	10
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908305-10	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**		**Report Group:**	KQ1908305
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	0.00	0	0	0.000	0.000				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.59	0	25824	0.000	0.038	0U	0.0076U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F049.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:28 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:08:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	0.000	3.731	0	16682	N.D.	0.769 #
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D.
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D.
8)	M	2,3,4,5-T...	0.000	5.381f	0	8637	N.D. d	0.021
9)	M	Pentachlo...	0.000	5.588	0	25824	N.D. d	0.038m
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

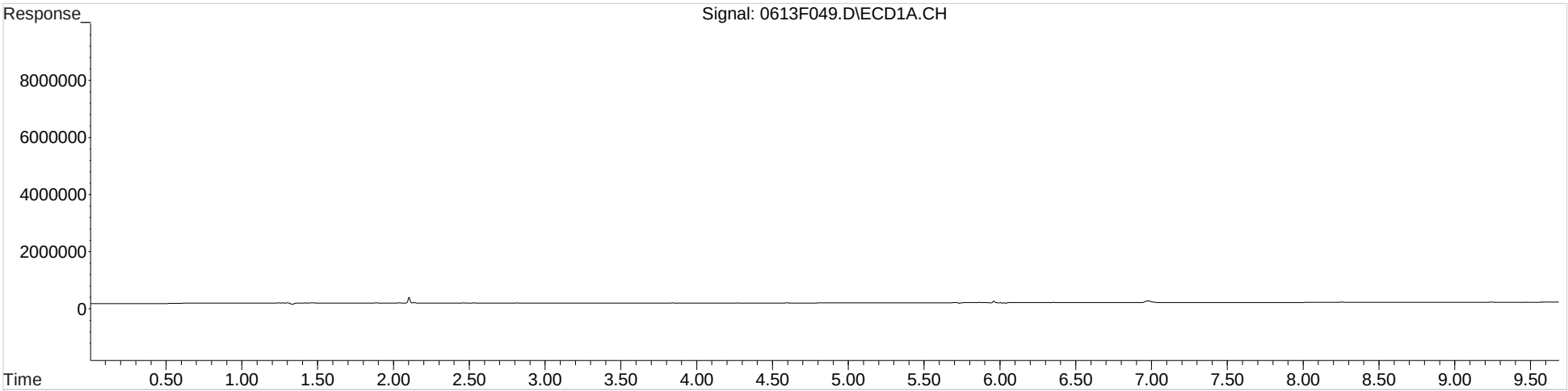
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F049.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:28 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:08:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



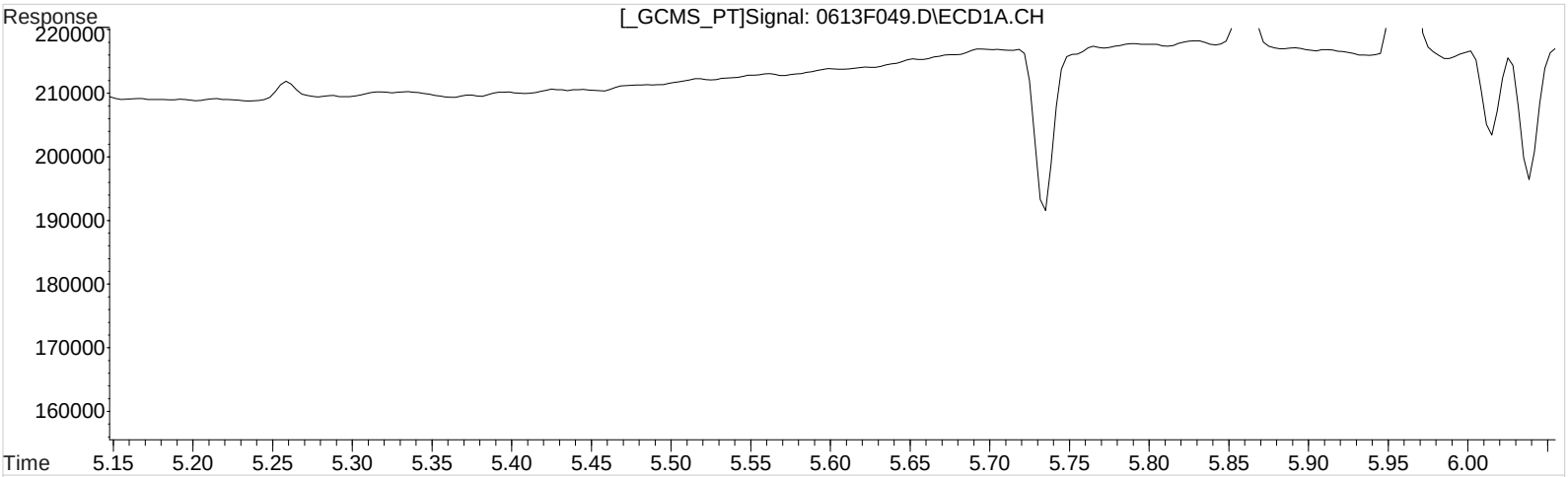
Quantitation Report (Qedit)

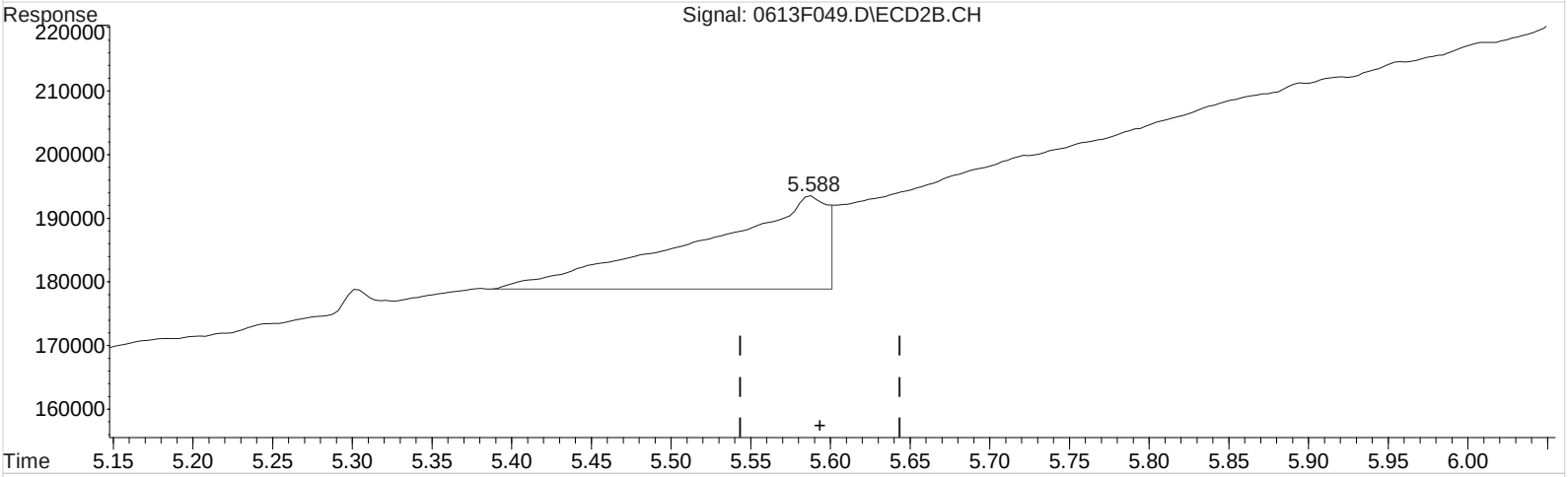
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F049.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:28 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:55:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

0.000min 0.000 ug/L d

response 0

Manual Integration:

Before

06/14/19

(9) Pentachlorophenol #2 (M)

5.588min 1.230 ug/L

response 836771

(+) = Expected Retention Time

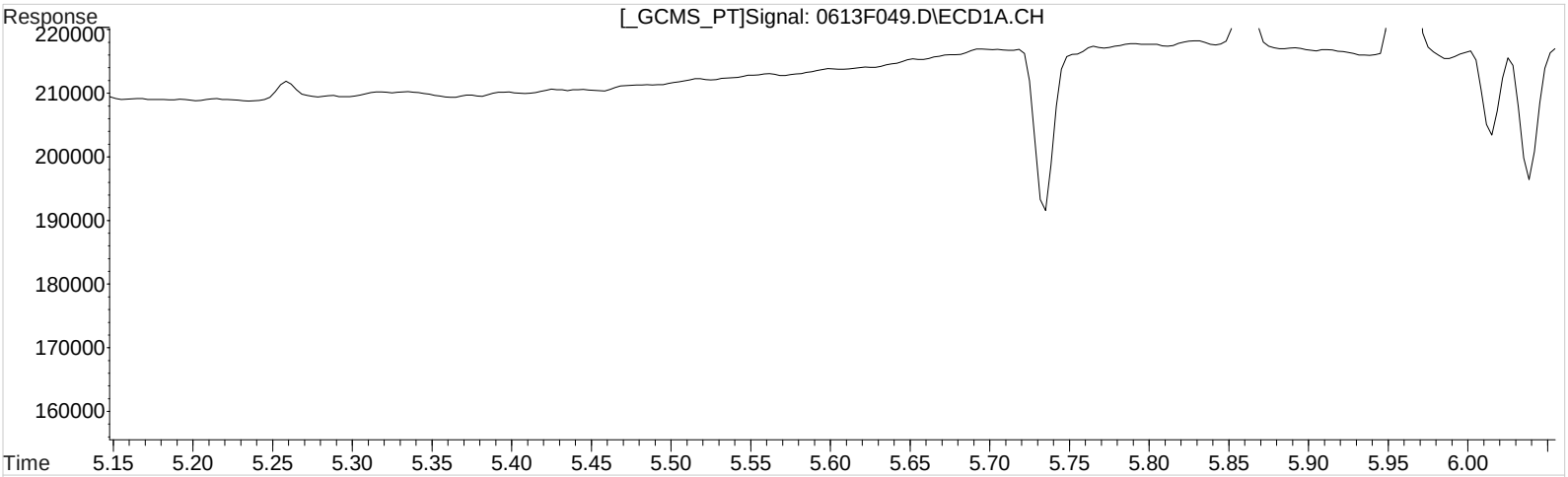
Quantitation Report (Qedit)

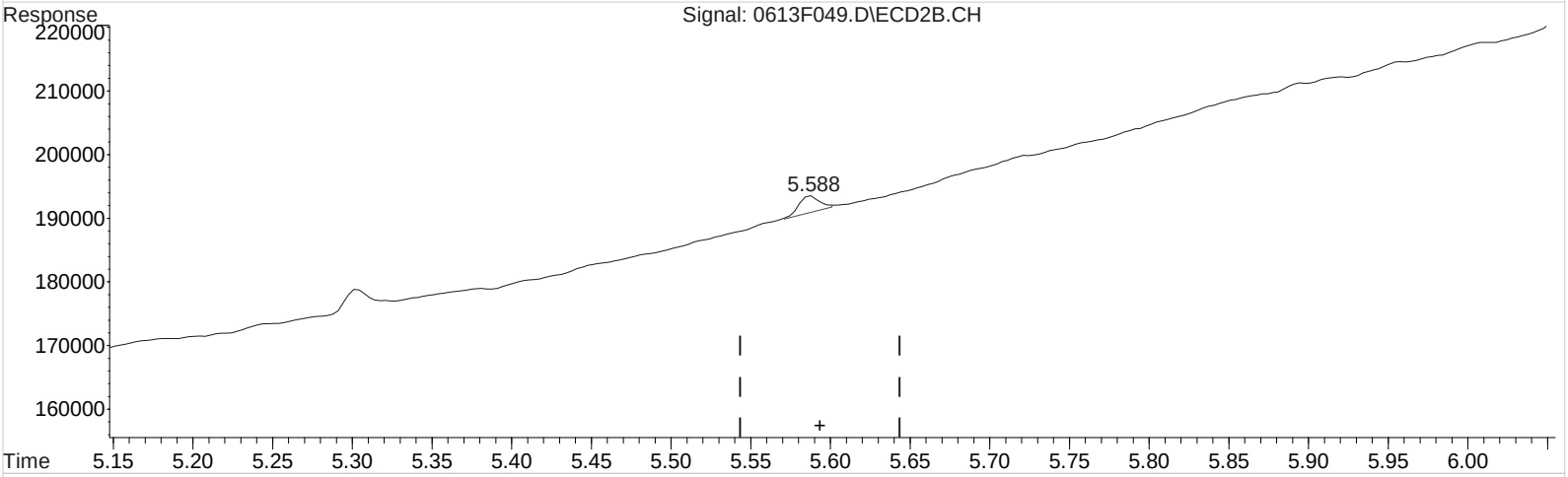
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F049.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:28 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:55:24 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

0.000min 0.000 ug/L d

response 0

Manual Integration:

After

Baseline/Shoulder

06/14/19

(9) Pentachlorophenol #2 (M)

5.588min 0.038 ug/L m

response 25824

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F003.D\
Lab ID: KQ1908305-01
RunType: CCV
Matrix: Water

Date Acquired: 6/13/19 09:59:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Printed: 6/14/19 10:24
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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F003.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 09:59:00	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908305-01	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**		**Report Group:**	KQ1908305
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.01	4.64	17748256	18858652	51.418	44.733			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.59	23449782	29761244	50.913	43.734	50.9	43.7	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/14/19 10:24
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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:59 am Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 10:37:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.013	4.642	17748256	18858652	51.418	44.733
		Target Compounds						
1)		3,4-Dichl...	3.123	3.729	743280	936342	48.413m	43.164
2)		3,5-Dichl...	3.363	3.979	506736	680590	47.632m	44.446
3)		2,4,6-Tri...	3.460	4.196	14656769	18034772	47.882	44.183
5)		2,4,5-Tri...	4.186	4.709	6756386	7939901	50.067	44.913
6)		3,4,5-Tri...	4.216	4.772	6534808	7538462	45.969	44.551
7)	M	2,3,5,6-T...	4.463	5.006	21058926	26753617	49.121	44.313
8)	M	2,3,4,5-T...	5.003	5.409	13709874	17549764	45.153m	42.196
9)	M	Pentachlo...	5.140	5.589	23449782	29761244	50.913	43.734
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

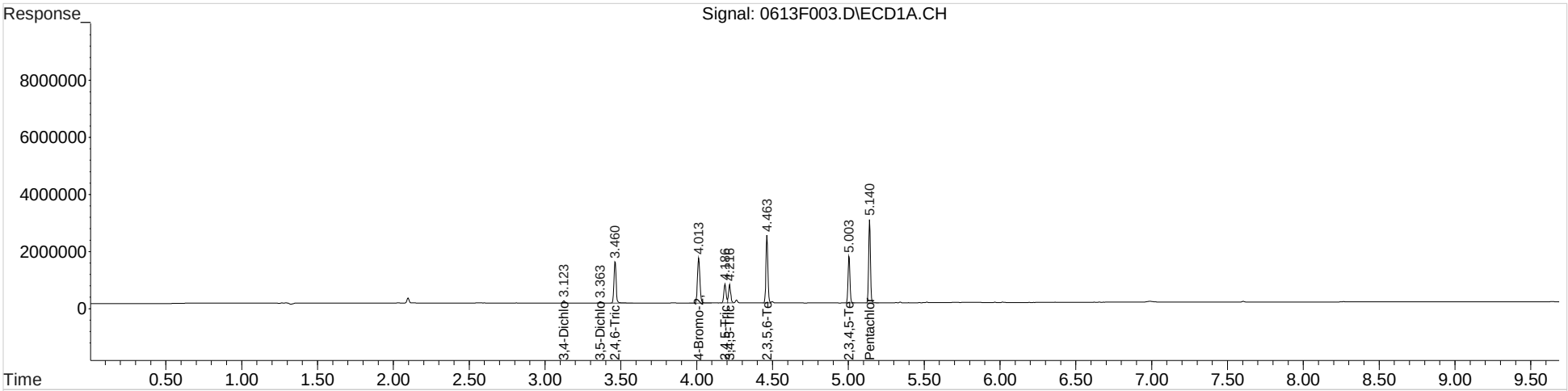
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:59 am Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 10:37:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



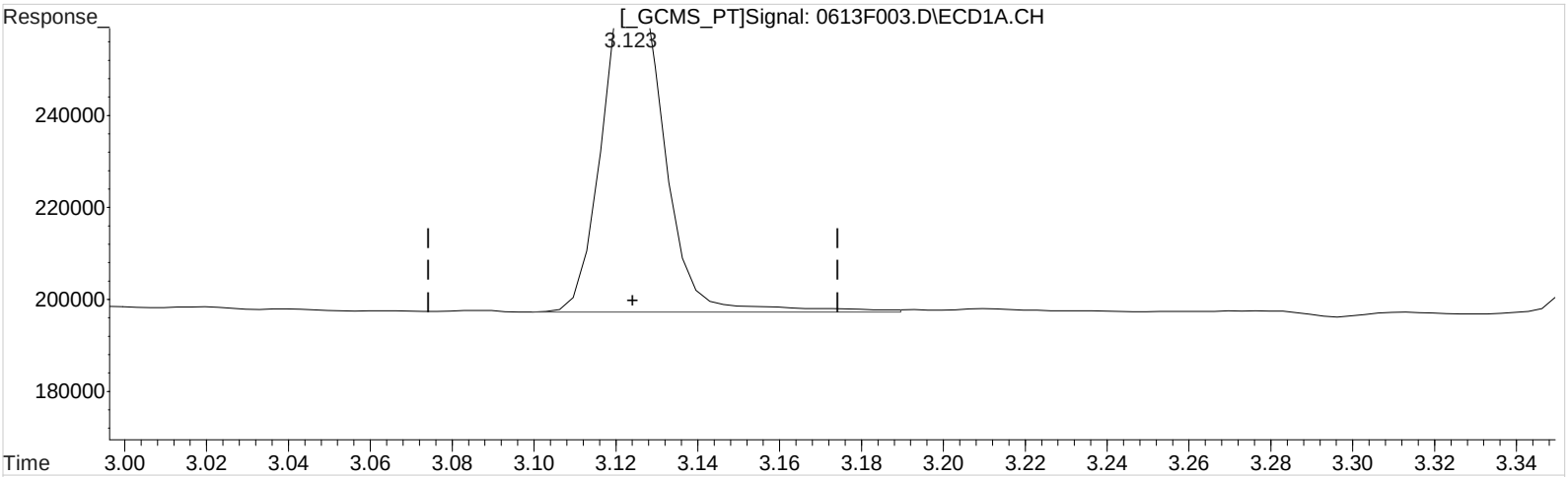
Quantitation Report (Qedit)

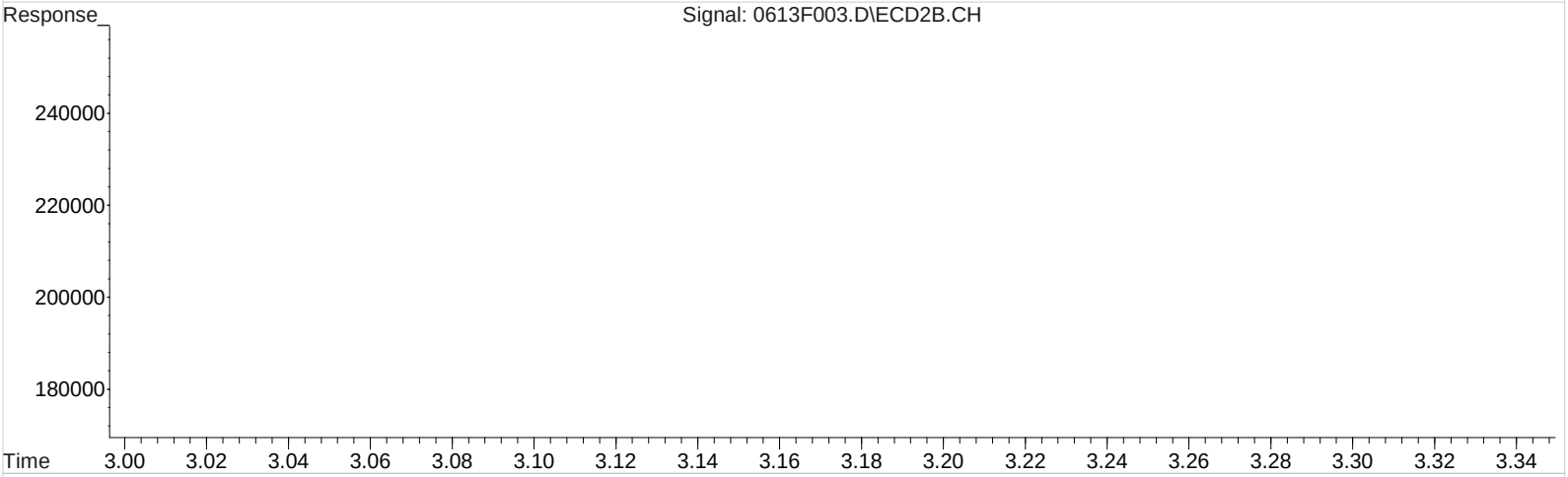
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:59 am Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 10:36:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.123min 50.048 ug/L

response 766817

Manual Integration:

Before

06/13/19

(1) 3,4-Dichlorophenol #2

3.729min 43.164 ug/L

response 936342

(+) = Expected Retention Time

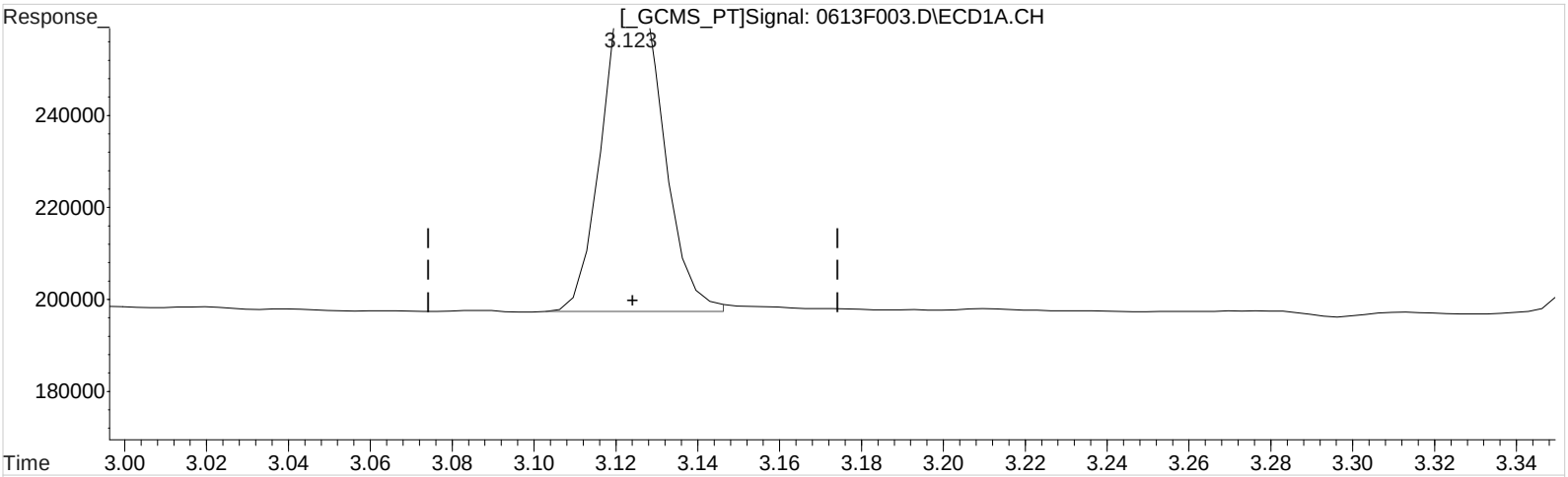
Quantitation Report (Qedit)

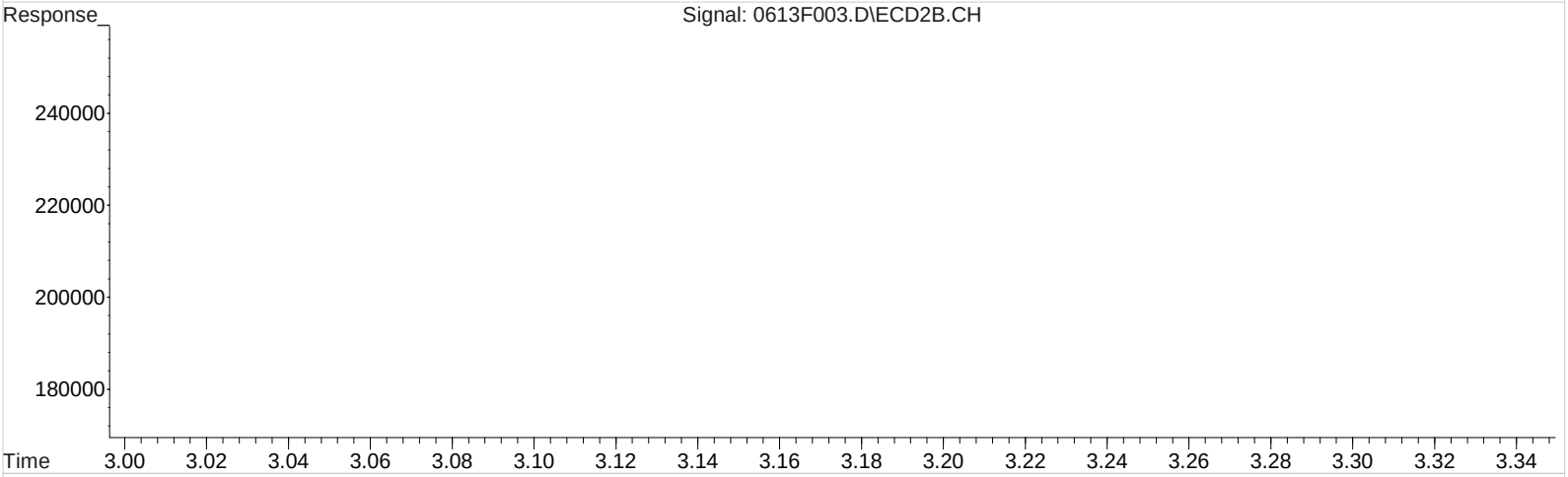
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:59 am Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 10:36:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.123min 48.413 ug/L m

response 743280

Manual Integration:

After

Baseline/Shoulder

06/13/19

(1) 3,4-Dichlorophenol #2

3.729min 43.164 ug/L

response 936342

(+) = Expected Retention Time

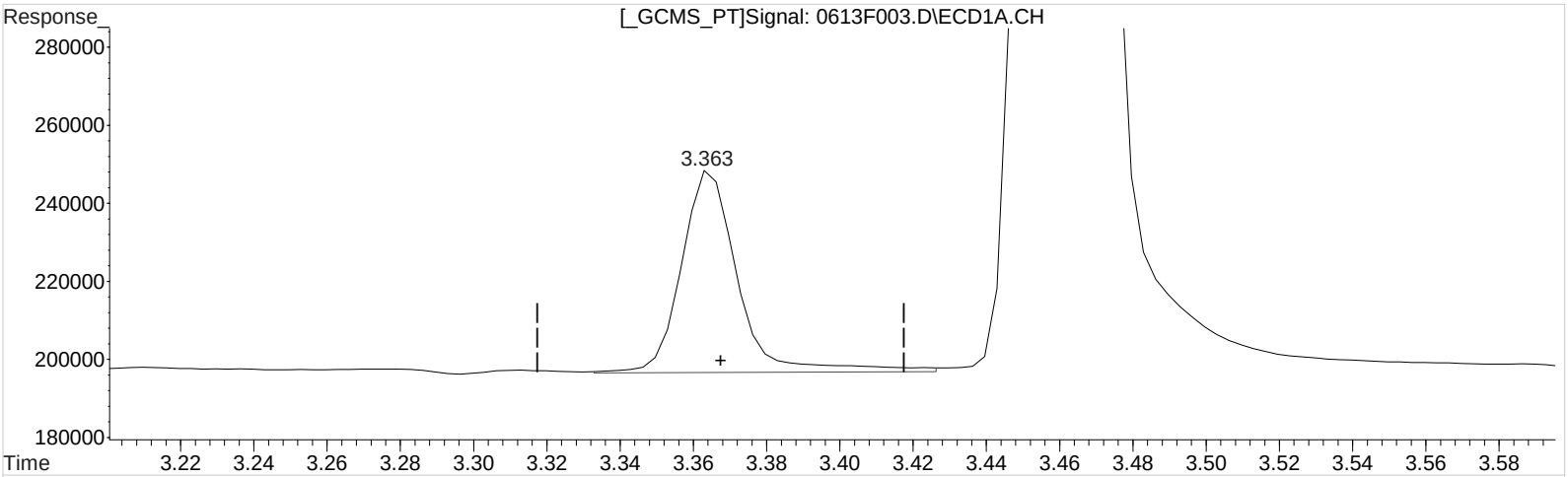
Quantitation Report (Qedit)

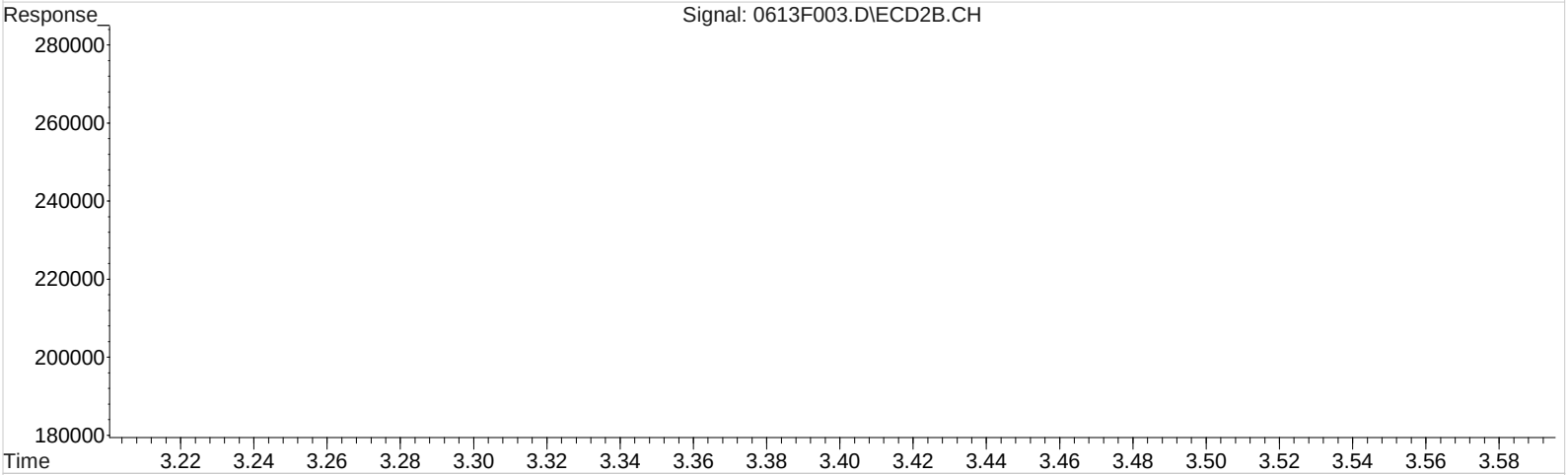
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:59 am Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 10:36:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.363min 52.672 ug/L

response 555683

(2) 3,5-Dichlorophenol #2

3.979min 44.446 ug/L

response 680590

Manual Integration:

Before

06/13/19

(+) = Expected Retention Time

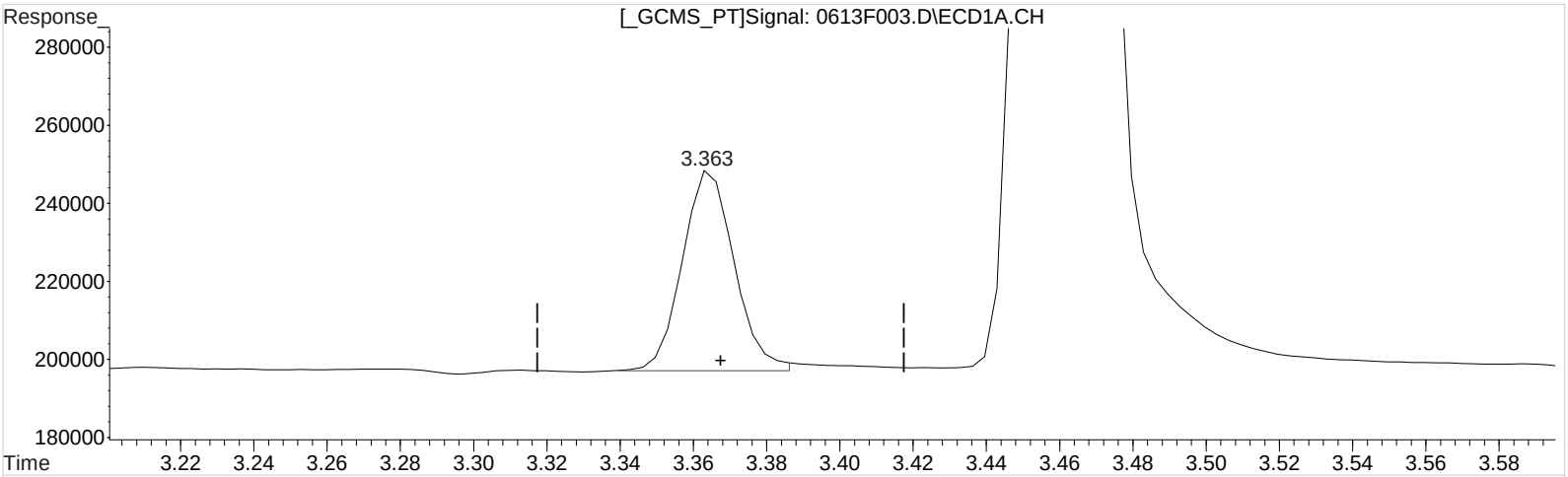
Quantitation Report (Qedit)

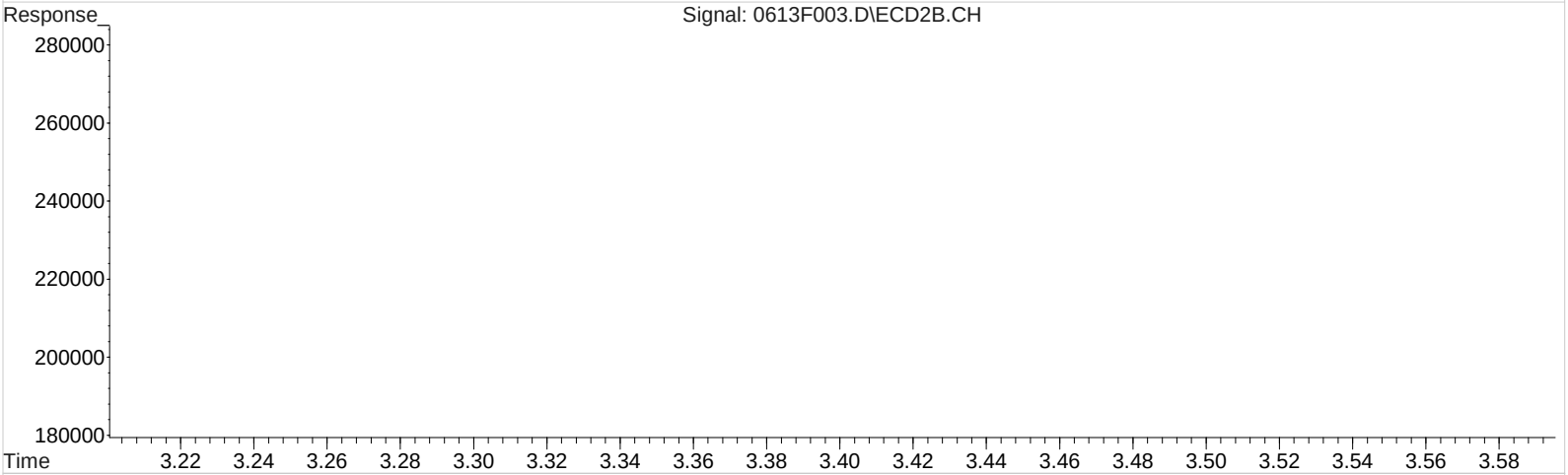
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:59 am Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 10:36:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.363min 47.632 ug/L m

response 506736

Manual Integration:

After

Baseline/Shoulder

06/13/19

(2) 3,5-Dichlorophenol #2

3.979min 44.446 ug/L

response 680590

(+) = Expected Retention Time

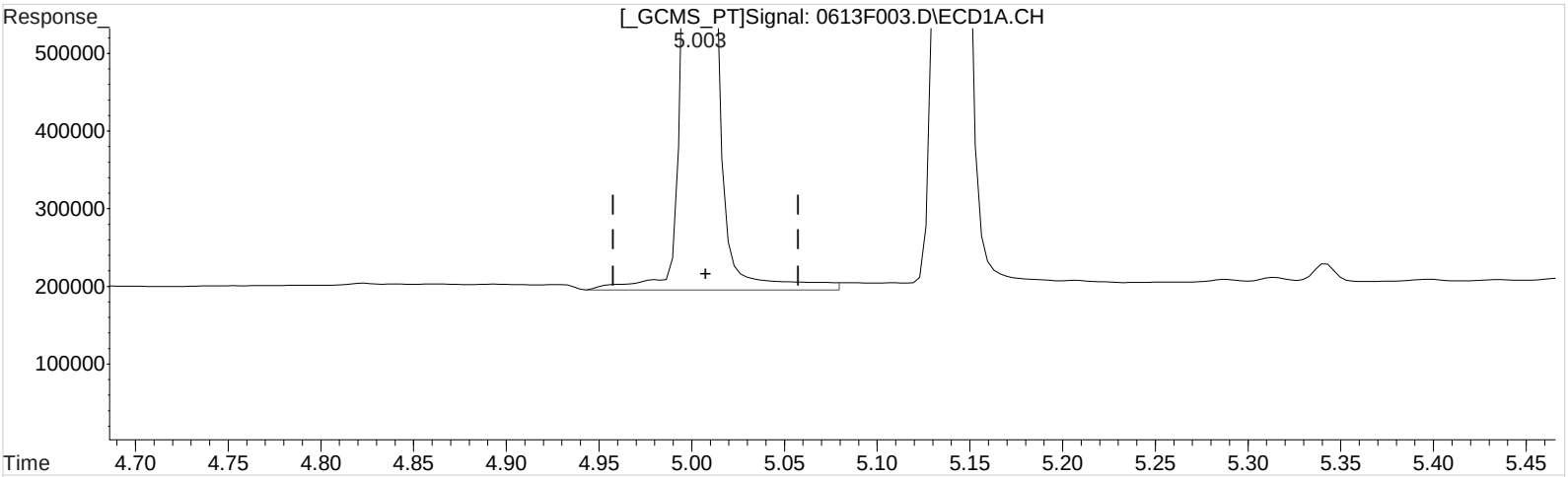
Quantitation Report (Qedit)

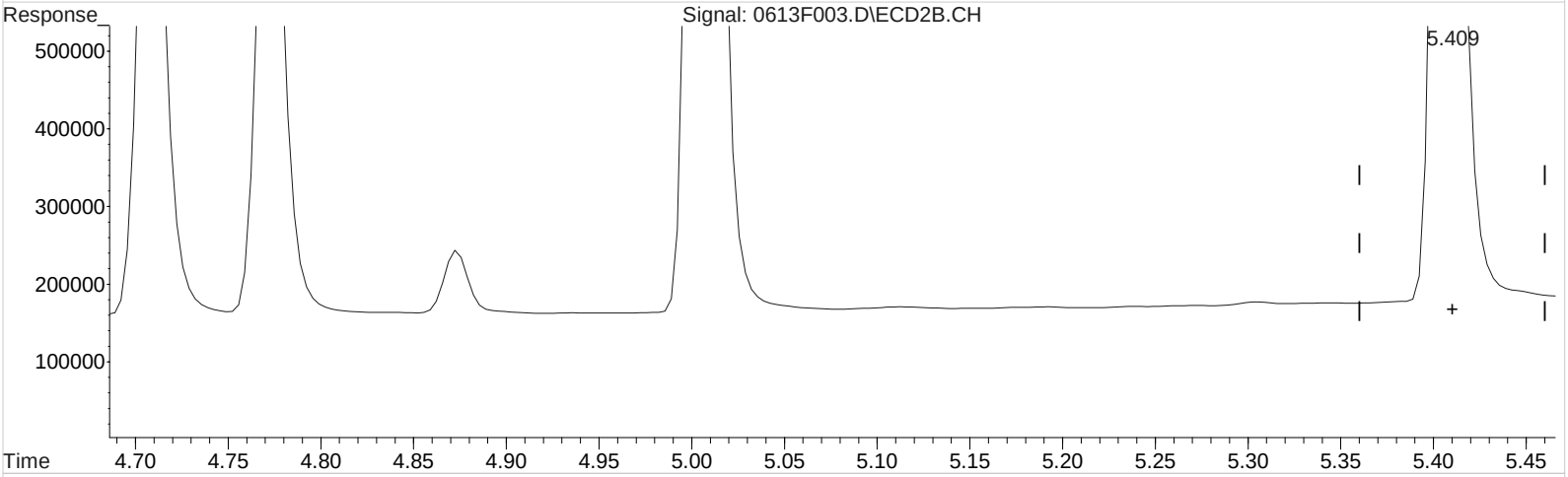
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:59 am Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 10:36:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.003min 48.014 ug/L

response 14518796

Manual Integration:

Before

06/13/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.409min 42.196 ug/L

response 17549764

(+) = Expected Retention Time

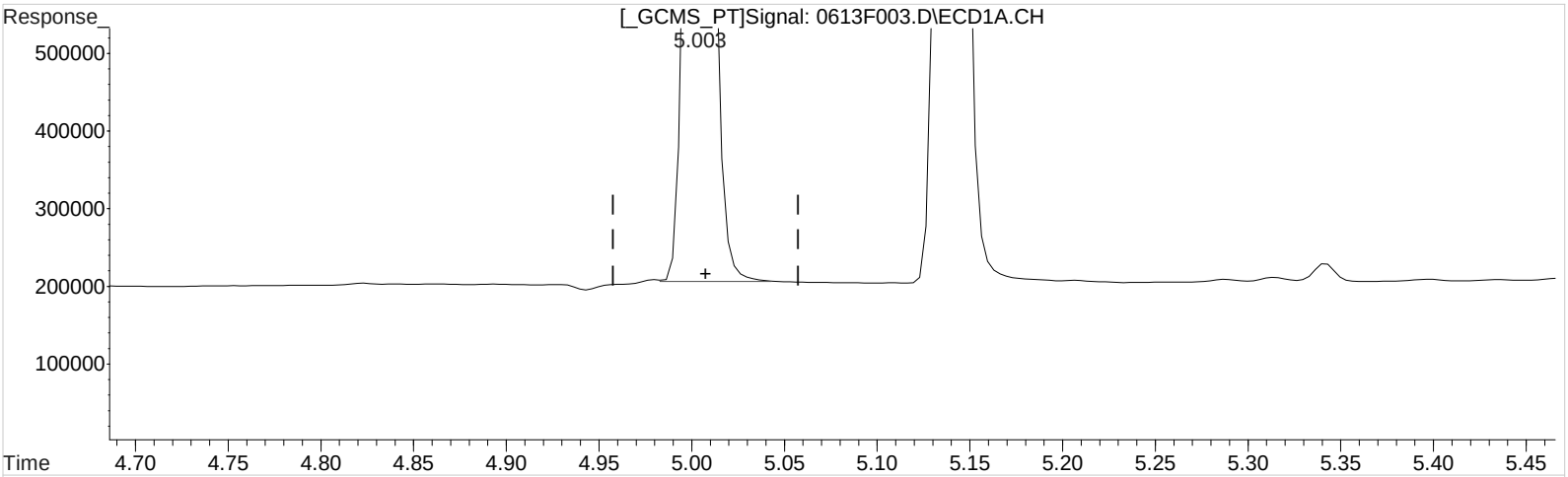
Quantitation Report (Qedit)

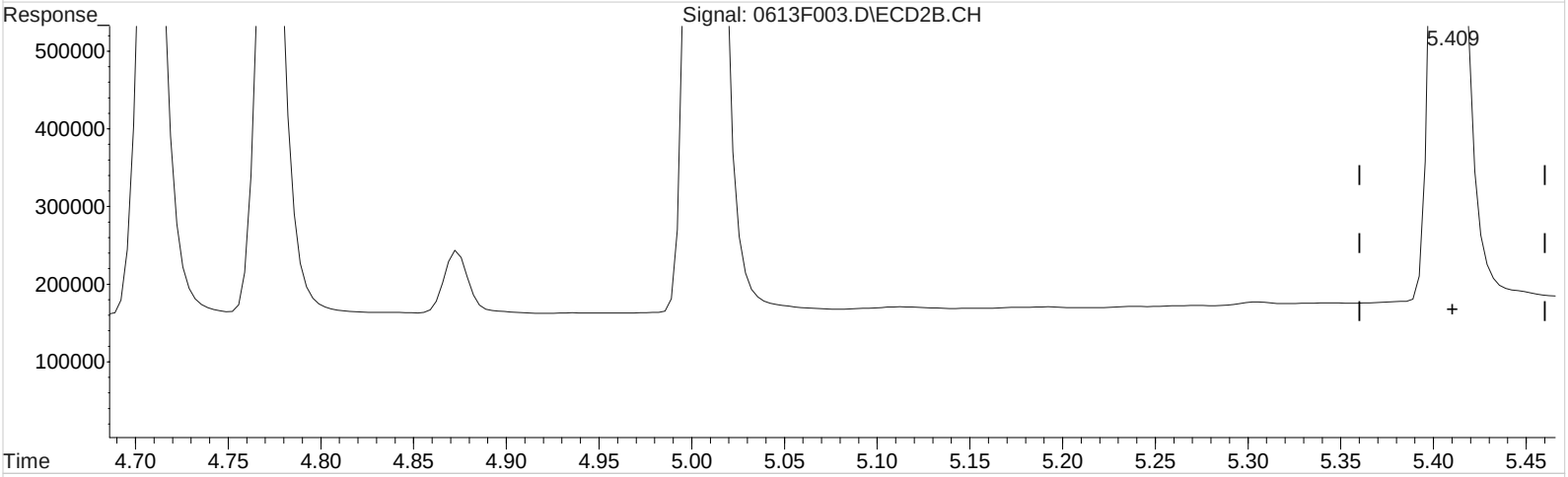
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:59 am Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 10:36:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.003min 45.153 ug/L m

response 13709874

Manual Integration:

After

Baseline/Shoulder

06/13/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.409min 42.196 ug/L

response 17549764

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F017.D\
Lab ID: KQ1908305-02
RunType: CCV
Matrix: Water

Date Acquired: 6/13/19 14:04:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Printed: 6/14/19 10:24
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Secondary Review: _____

1st mc 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F017.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 14:04:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908305-02	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**		**Report Group:**	KQ1908305
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18051958	17376833	52.323	41.218			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.15	5.60	24102030	27647857	52.372	40.628	52.4	40.6	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/14/19 10:24
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F017.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 2:04 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:03:56 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.023	4.649	18051958	17376833	52.323	41.218
		Target Compounds						
1)		3,4-Dichl...	3.133	3.739	783712	914788	51.225	42.171
2)		3,5-Dichl...	3.373	3.993	570701	630736	54.234	41.012
3)		2,4,6-Tri...	3.470	4.209	15085290	16763087	49.361	41.067
5)		2,4,5-Tri...	4.193	4.716	6930764	7483368	51.462	42.249
6)		3,4,5-Tri...	4.223	4.782	6856108	7128487	48.400	42.059
7)	M	2,3,5,6-T...	4.470	5.016	21813064	25064910	50.972	41.516
8)	M	2,3,4,5-T...	5.010	5.416	14968166	16535270	49.610	39.757
9)	M	Pentachlo...	5.146	5.599	24102030	27647857	52.372m	40.628
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

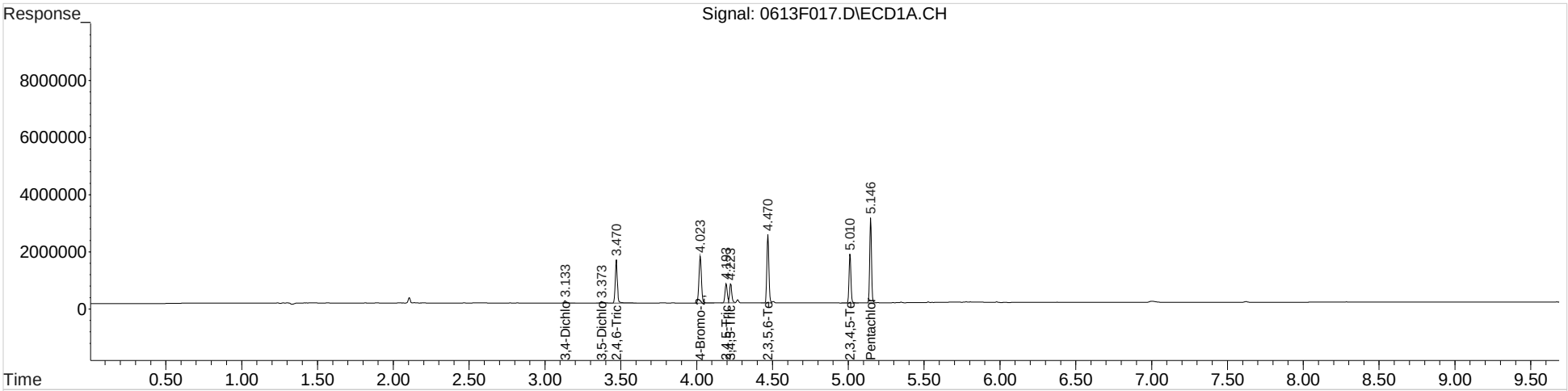
1st MC 06/14/19
2nd TP 06/17/19

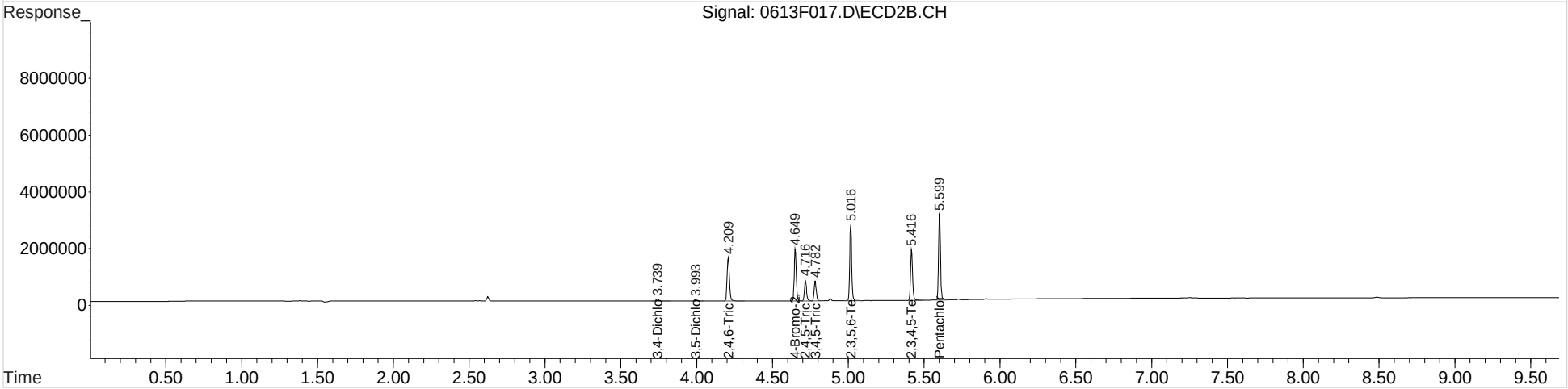
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F017.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 2:04 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:03:56 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





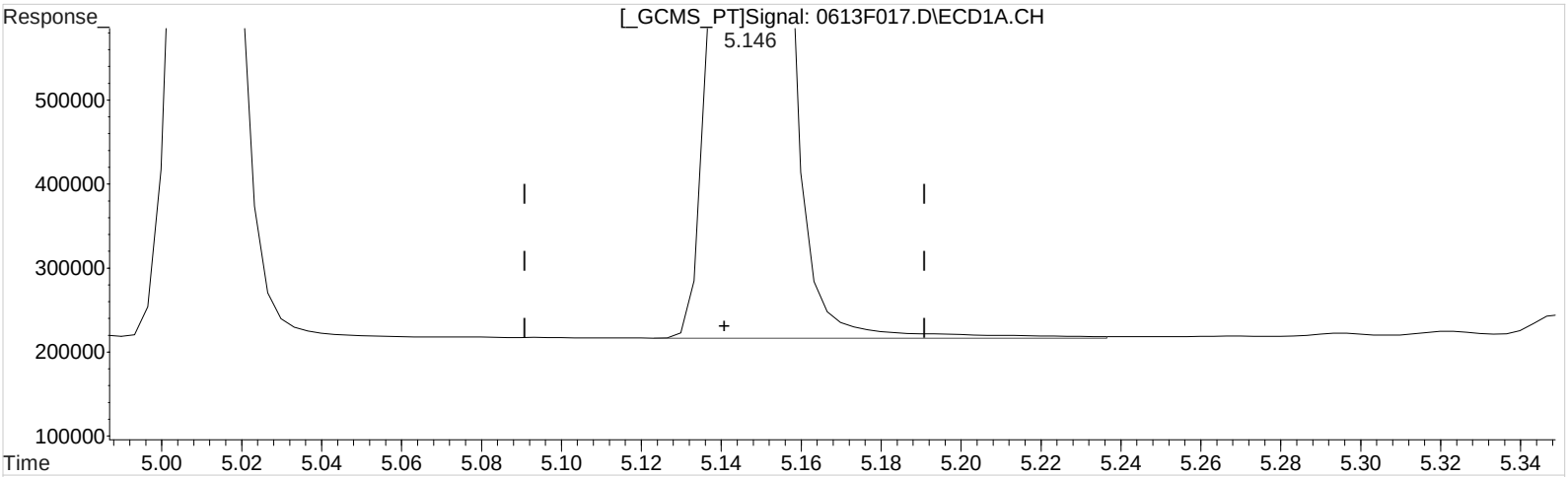
Quantitation Report (Qedit)

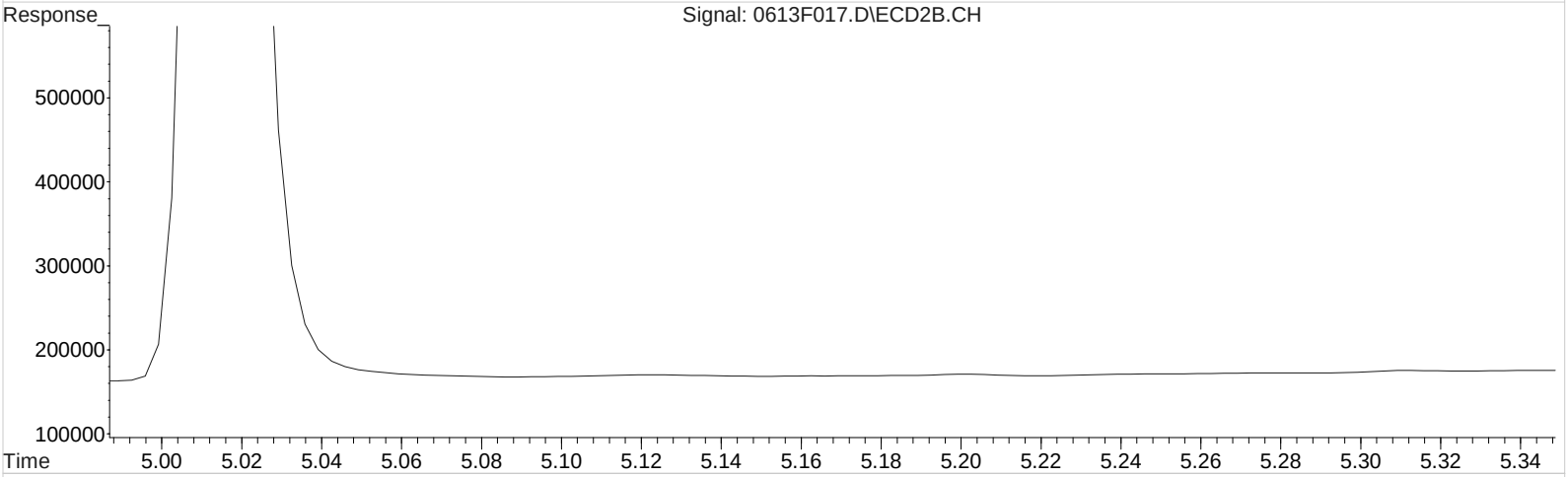
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F017.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 2:04 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:02:35 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.146min 52.554 ug/L

response 24183650

(9) Pentachlorophenol #2 (M)

5.599min 40.628 ug/L

response 27647857

Manual Integration:

Before

06/13/19

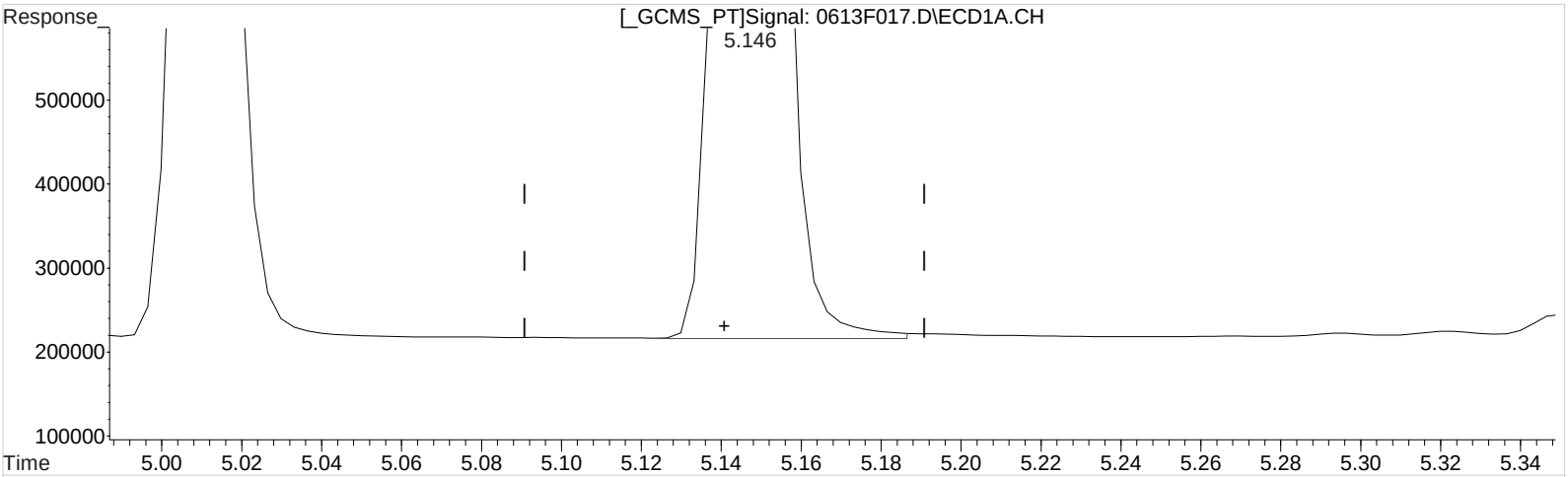
(+) = Expected Retention Time

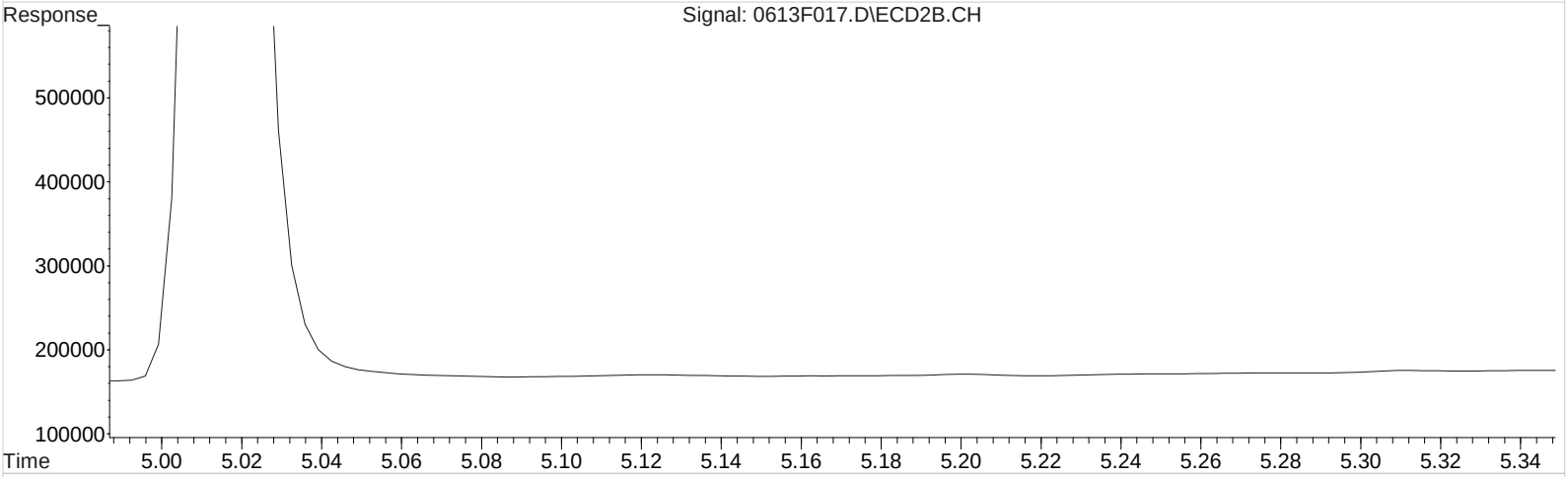
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F017.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 2:04 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:02:35 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.146min 52.372 ug/L m

response 24102030

Manual Integration:

After

Baseline/Shoulder

06/13/19

(9) Pentachlorophenol #2 (M)

5.599min 40.628 ug/L

response 27647857

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F029.D\
Lab ID: KQ1908305-03
RunType: CCV
Matrix: Water

Date Acquired: 6/13/19 17:35:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F029.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 17:35:00	**Vial:**	3
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908305-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**		**Report Group:**	KQ1908305
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18618738	18374374	54.012	43.585			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.15	5.60	24670094	28747757	53.643	42.244	53.6	42.2	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F029.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 5:35 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:04:39 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	18618738	18374374	54.012	43.585
		Target Compounds						
1)		3,4-Dichl...	3.132	3.738	799954	963286	52.359	44.407
2)		3,5-Dichl...	3.372	3.988	532056	675286	50.229m	44.079
3)		2,4,6-Tri...	3.468	4.208	15386974	17654579	50.405	43.251
5)		2,4,5-Tri...	4.192	4.714	7010363	7777392	52.101	43.964
6)		3,4,5-Tri...	4.225	4.778	7018922	7366482	49.637	43.505
7)	M	2,3,5,6-T...	4.468	5.014	22195484	26147625	51.913	43.310
8)	M	2,3,4,5-T...	5.008	5.414	15043398	17106241	49.878	41.130
9)	M	Pentachlo...	5.145	5.598	24670094	28747757	53.643	42.244
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

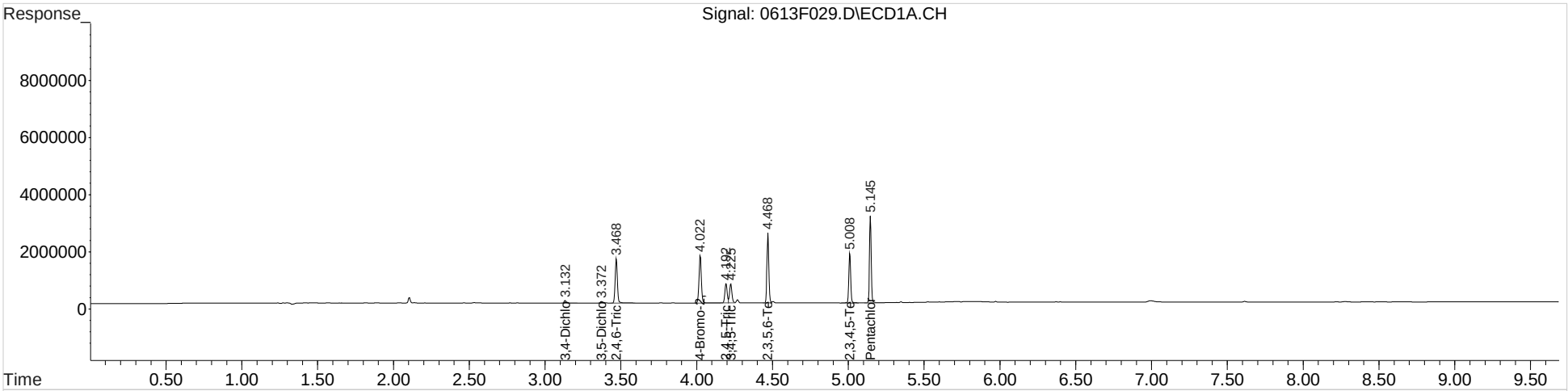
1st MC 06/14/19
2nd TP 06/17/19

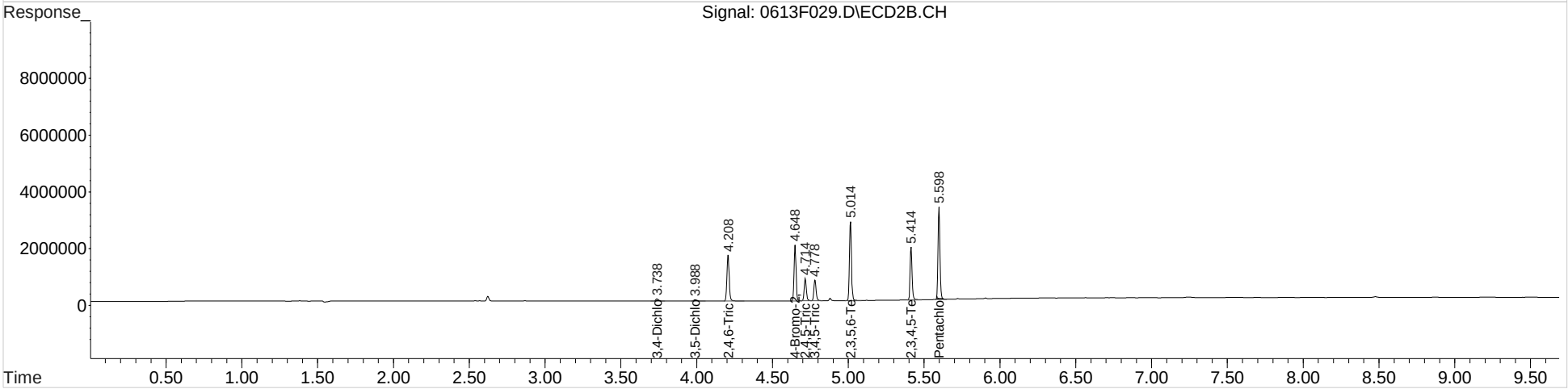
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F029.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 5:35 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:04:39 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





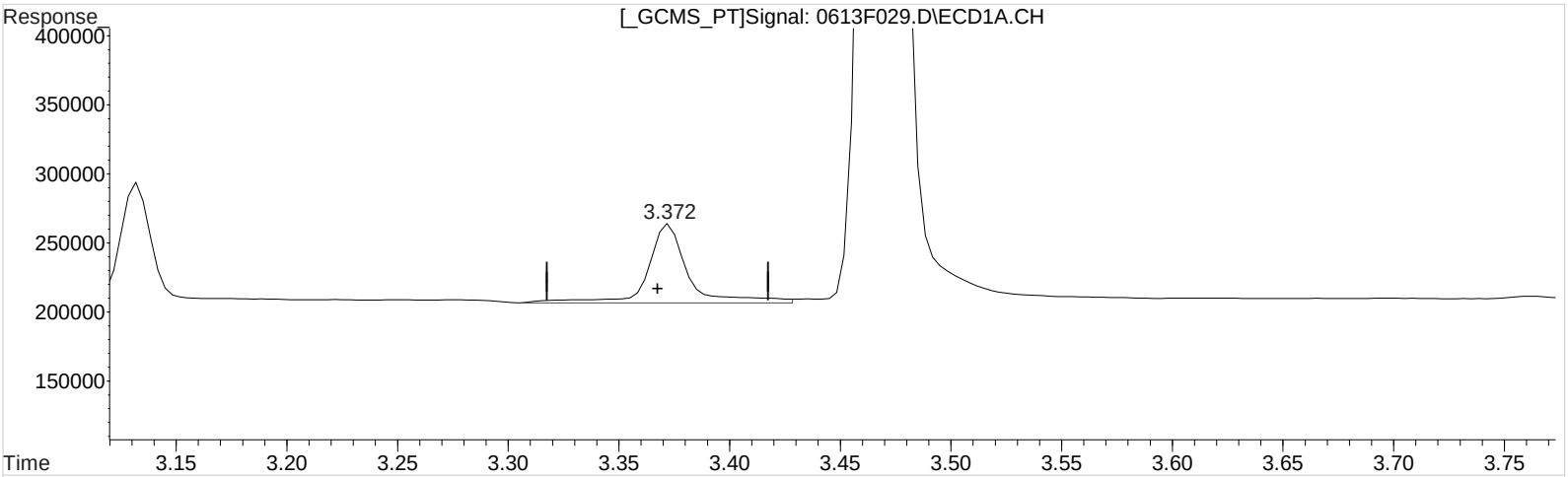
Quantitation Report (Qedit)

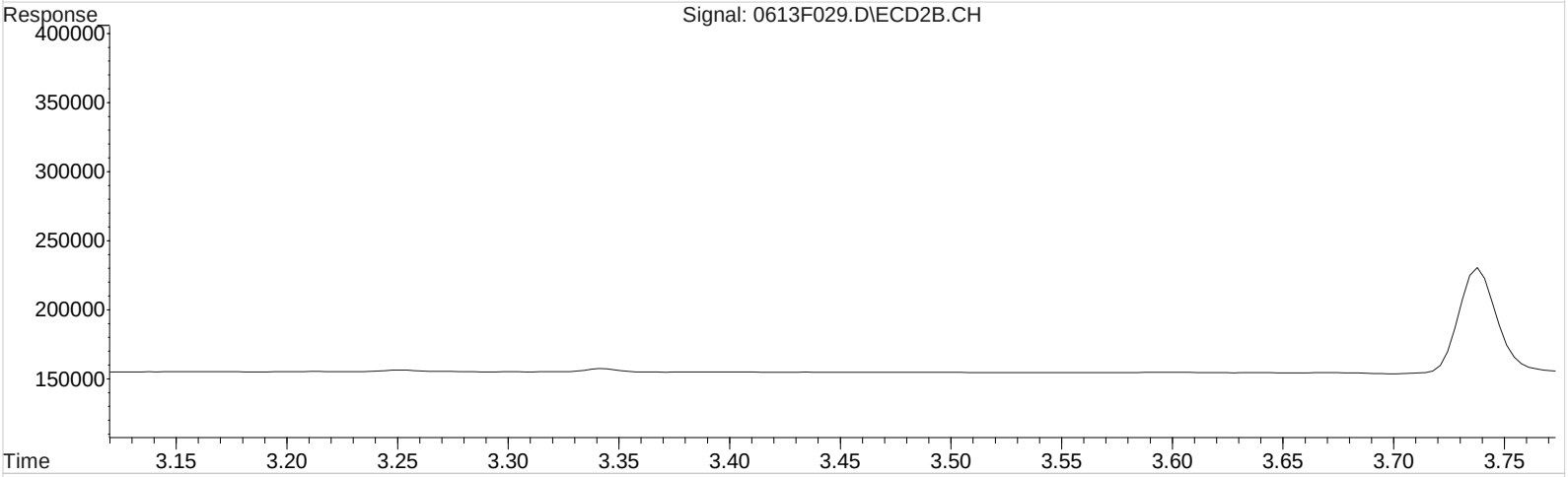
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F029.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 5:35 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:03:11 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.372min 70.653 ug/L

response 724268

Manual Integration:

Before

06/13/19

(2) 3,5-Dichlorophenol #2

3.988min 44.079 ug/L

response 675286

(+) = Expected Retention Time

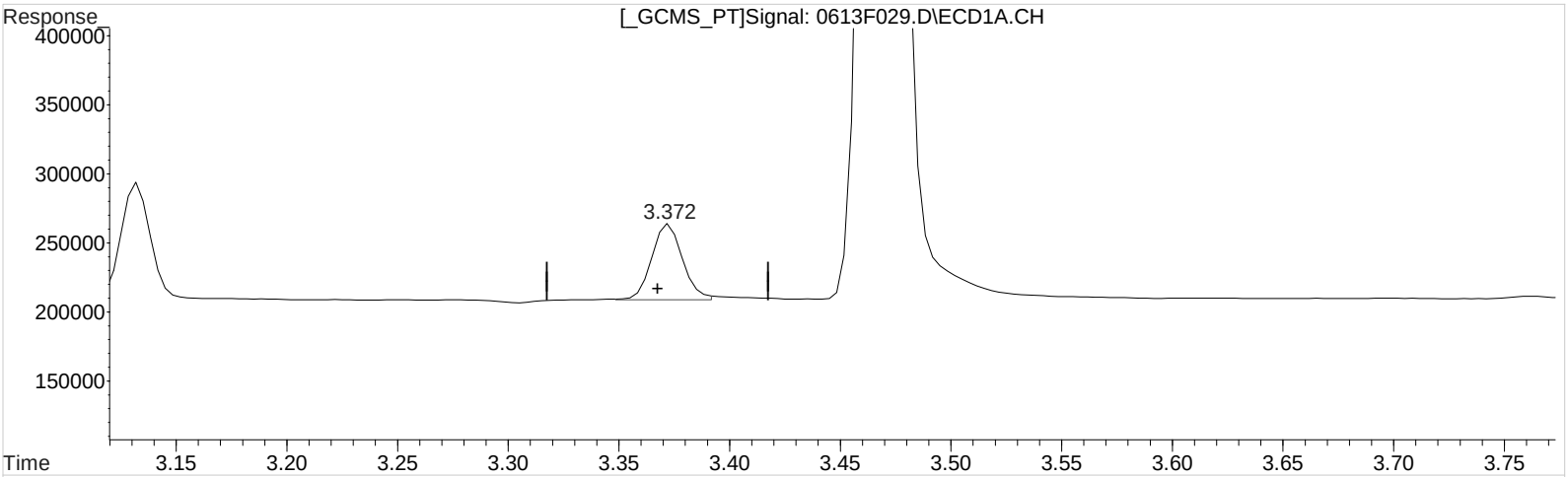
Quantitation Report (Qedit)

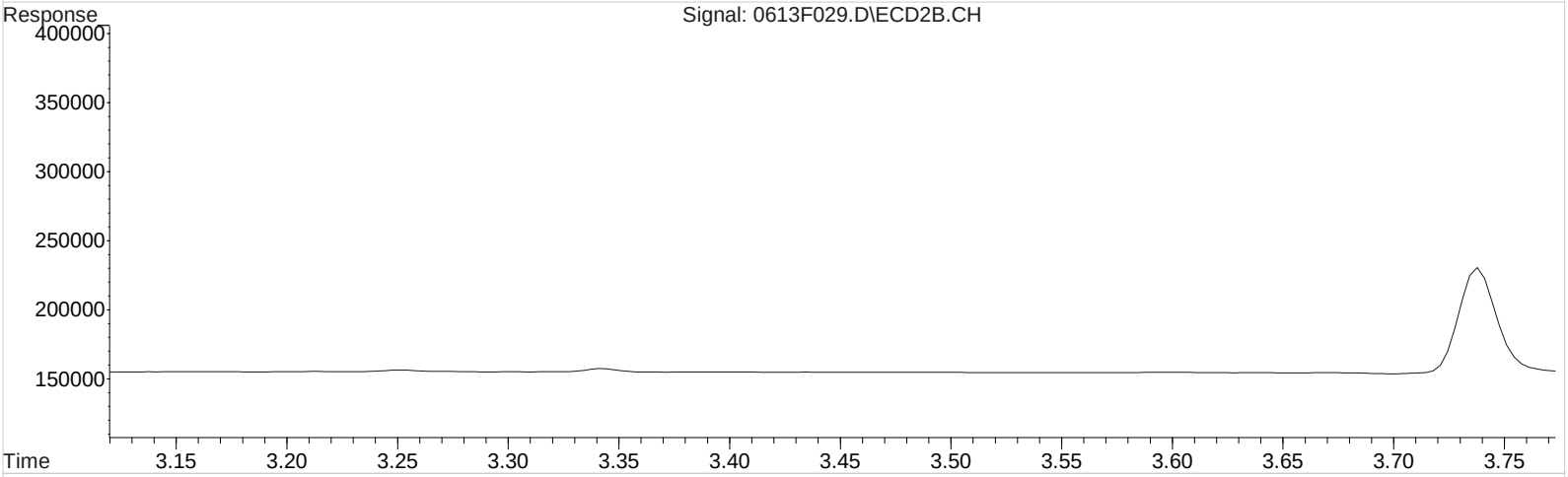
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F029.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 5:35 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 19:03:11 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.372min 50.229 ug/L m

response 532056

Manual Integration:

After

Baseline/Shoulder

06/13/19

(2) 3,5-Dichlorophenol #2

3.988min 44.079 ug/L

response 675286

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F043.D\
Lab ID: KQ1908305-04
RunType: CCV
Matrix: Water

Date Acquired: 6/13/19 21:41:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F043.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 21:41:00	**Vial:**	4
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908305-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**		**Report Group:**	KQ1908305
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18457888	18049660	53.533	42.814			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.59	24698434	28582924	53.707	42.002	53.7	42.0	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/14/19 10:24
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Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F043.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:41 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.023	4.649	18457888	18049660	53.533	42.814
		Target Compounds						
1)		3,4-Dichl...	3.129	3.735	796136	963370	52.092	44.410
2)		3,5-Dichl...	3.373	3.989	508000	665742	47.761m	43.421
3)		2,4,6-Tri...	3.469	4.205	15342000	17365530	50.249	42.543
5)		2,4,5-Tri...	4.193	4.715	7076036	7702982	52.629	43.530
6)		3,4,5-Tri...	4.223	4.779	6883113	7305696	48.605	43.136
7)	M	2,3,5,6-T...	4.469	5.012	22116140	25742069	51.717	42.638
8)	M	2,3,4,5-T...	5.009	5.412	15146296	17031574	50.245	40.950
9)	M	Pentachlo...	5.143	5.592	24698434	28582924	53.707	42.002
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

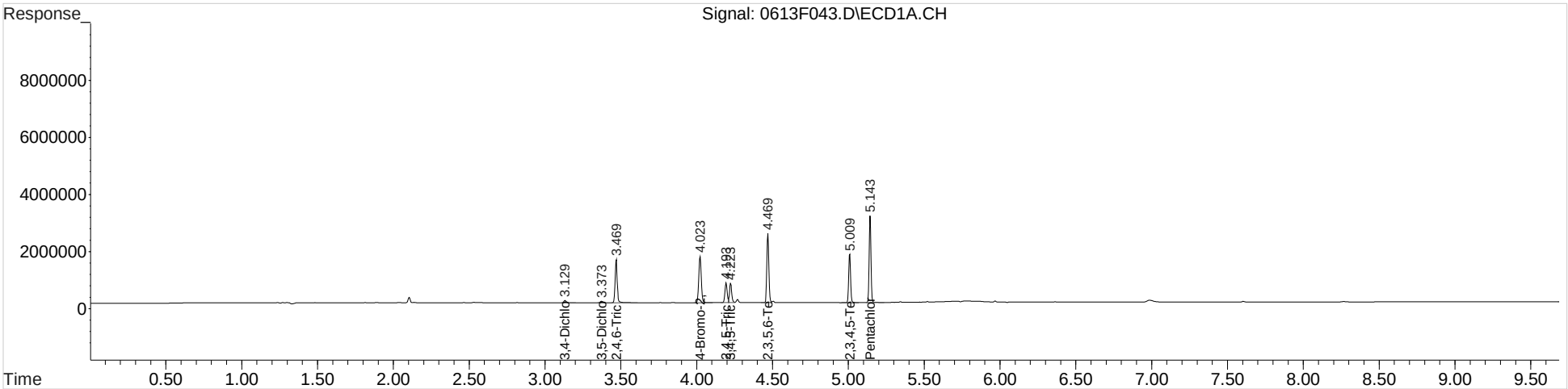
1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061319\0613F043.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:41 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



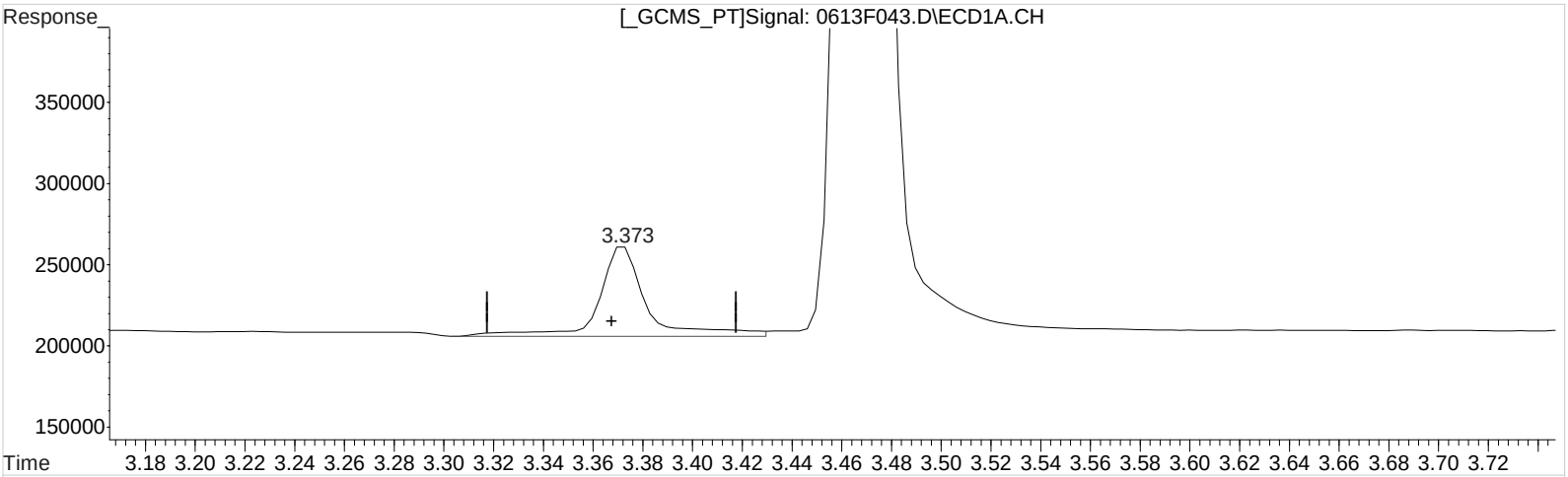
Quantitation Report (Qedit)

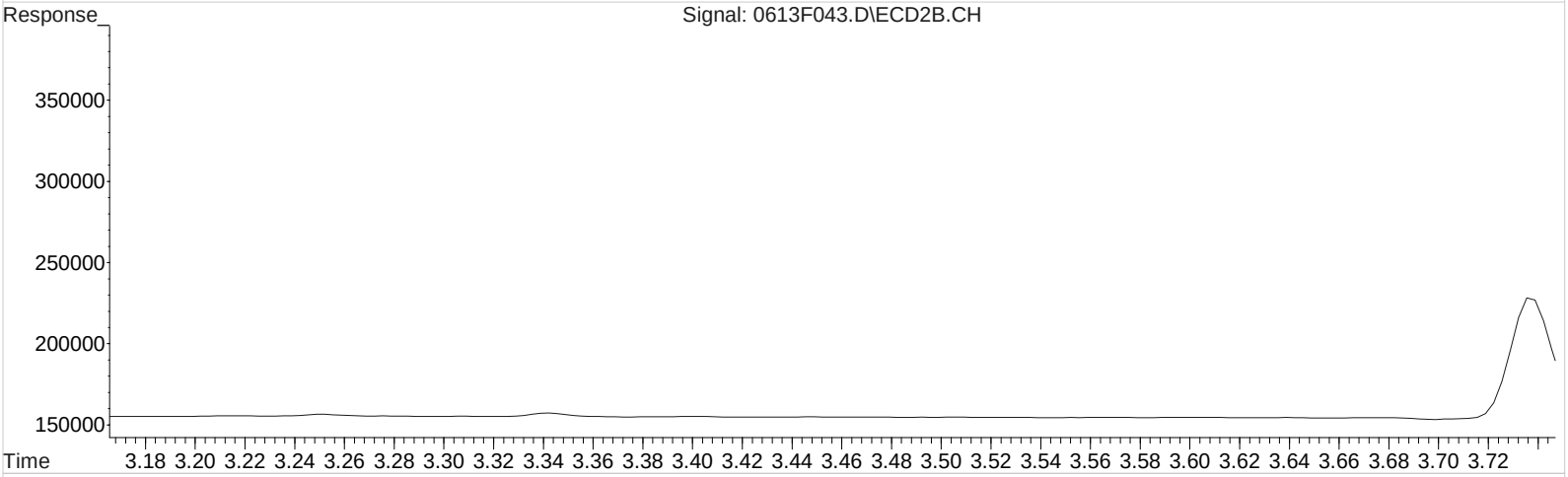
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F043.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:41 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:55:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.373min 72.485 ug/L

response 740914

Manual Integration:

Before

06/14/19

(2) 3,5-Dichlorophenol #2

3.989min 43.421 ug/L

response 665742

(+) = Expected Retention Time

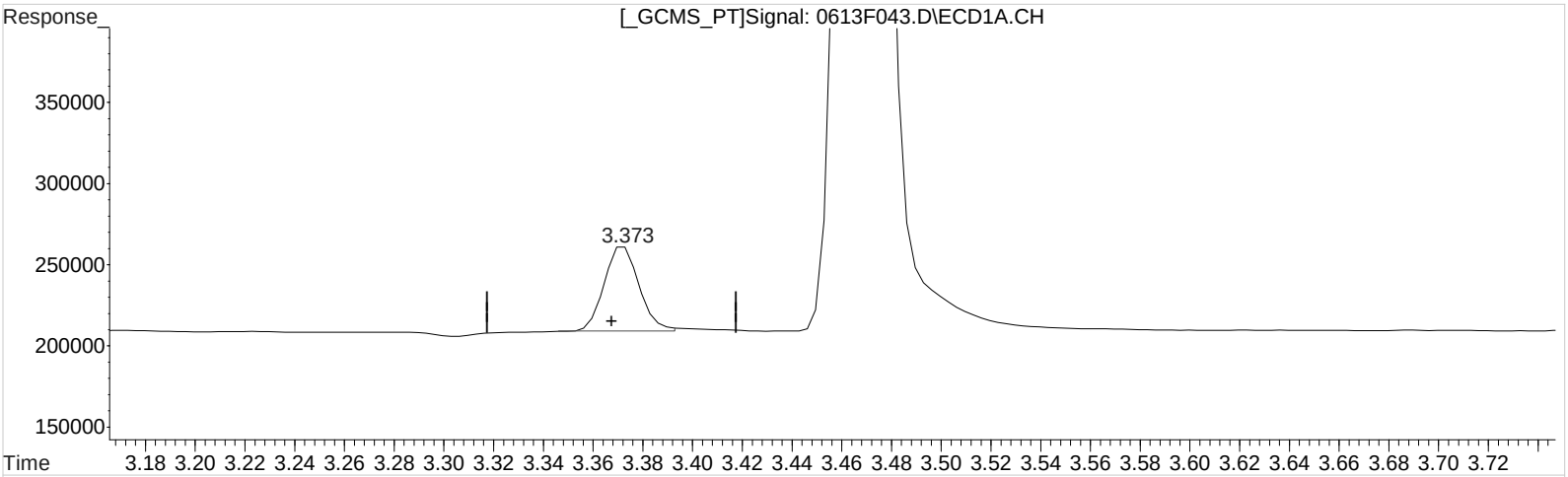
Quantitation Report (Qedit)

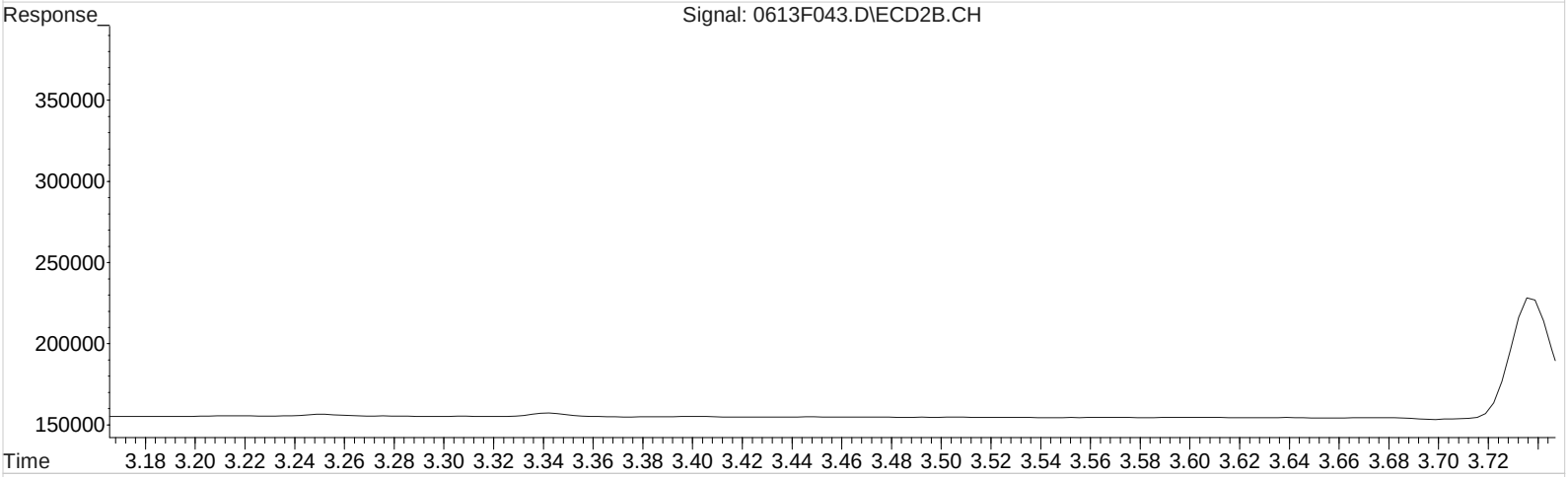
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F043.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 9:41 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:55:06 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.373min 47.761 ug/L m

response 508000

Manual Integration:

After

Baseline/Shoulder

06/14/19

(2) 3,5-Dichlorophenol #2

3.989min 43.421 ug/L

response 665742

(+) = Expected Retention Time

1st MC 06/14/19
2nd TP 06/17/19

Validation Report

Data File: J:\GC28\Data\061319\0613F048.D\
Lab ID: KQ1908305-05
RunType: CCV
Matrix: Water

Date Acquired: 6/13/19 23:10:00
Batch ID: 639197
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/14/19
2nd TP 06/17/19

Quantitation Report

Data File:	J:\GC28\Data\061319\0613F048.D\	**Instrument:**	K-GC-28
Acqu Date:	6/13/19 23:10:00	**Vial:**	5
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908305-05	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	639197	**Prep Lot:**		**Report Group:**	KQ1908305
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18297162	18512902	53.054	43.913			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.59	24352842	29179743	52.933	42.879	52.9	42.9	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/14/19 10:24
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Quantitation Report (QT Reviewed)

1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F048.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:10 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:07:45 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.020	4.646	18297162	18512902	53.054	43.913
		Target Compounds						
1)		3,4-Dichl...	3.130	3.736	804187	981356	52.655	45.240
2)		3,5-Dichl...	3.370	3.986	506388	693764	47.596m	45.357
3)		2,4,6-Tri...	3.467	4.203	15198408	17873666	49.752	43.788
5)		2,4,5-Tri...	4.194	4.713	6843690	7955269	50.765	45.003
6)		3,4,5-Tri...	4.224	4.776	7039583	7571716	49.795	44.754
7)	M	2,3,5,6-T...	4.470	5.010	21994044	26391140	51.417	43.713
8)	M	2,3,4,5-T...	5.007	5.410	15054968	17417526	49.919	41.878
9)	M	Pentachlo...	5.144	5.593	24352842	29179743	52.933	42.879
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

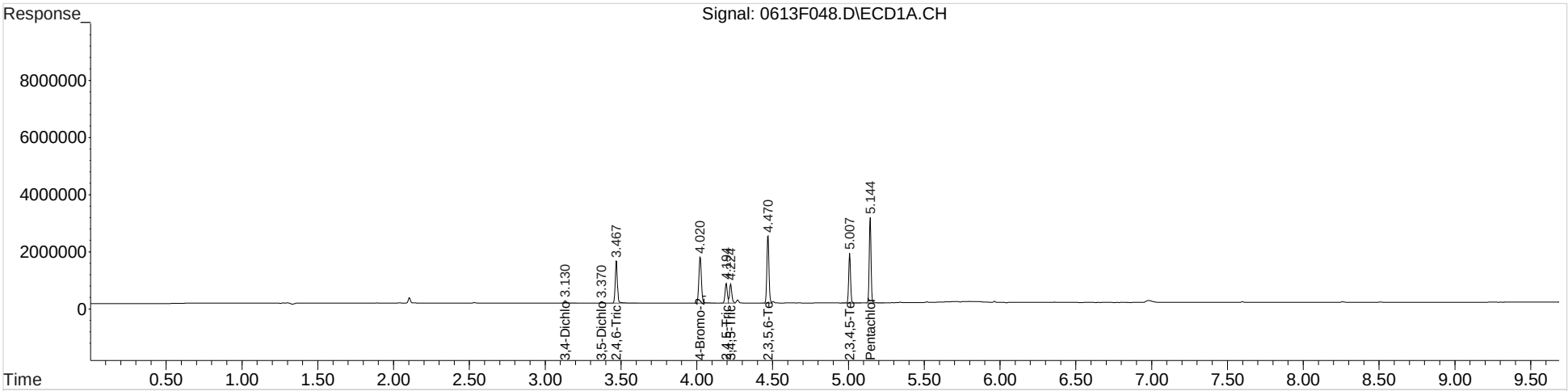
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

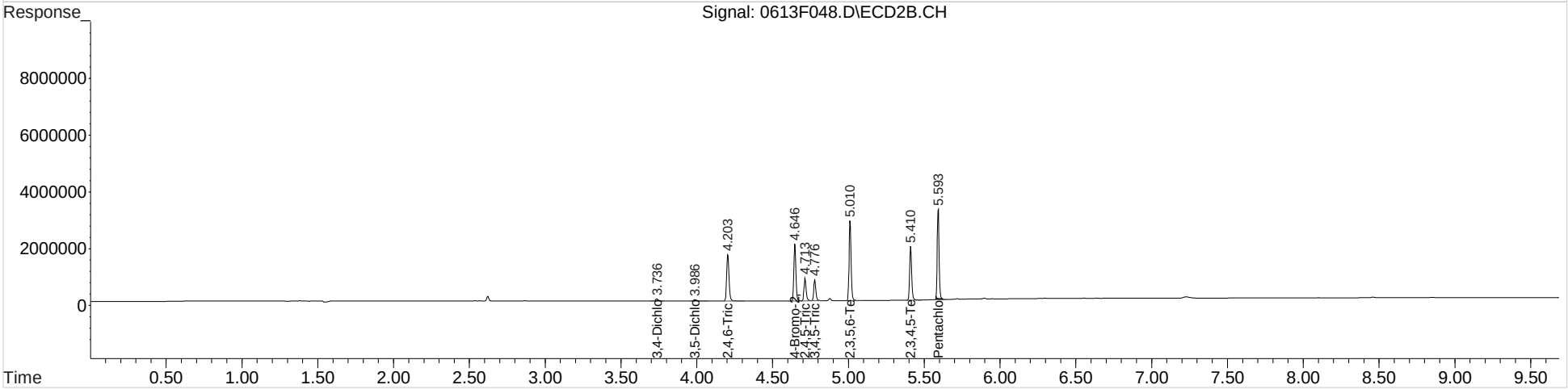
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F048.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:10 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 10:07:45 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





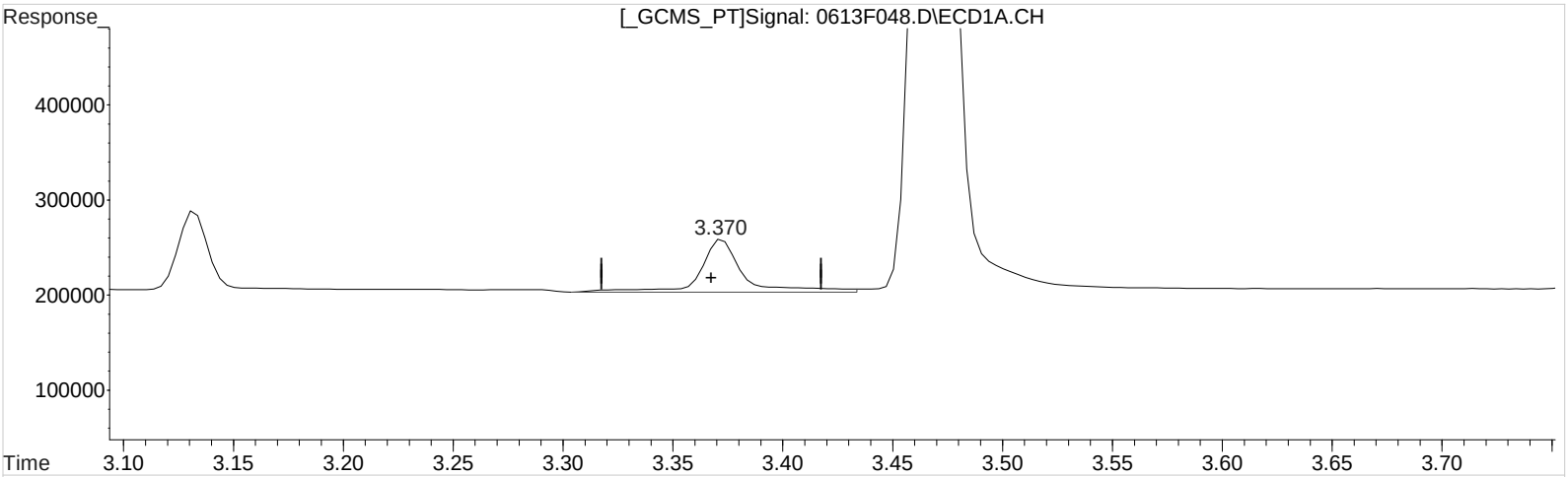
Quantitation Report (Qedit)

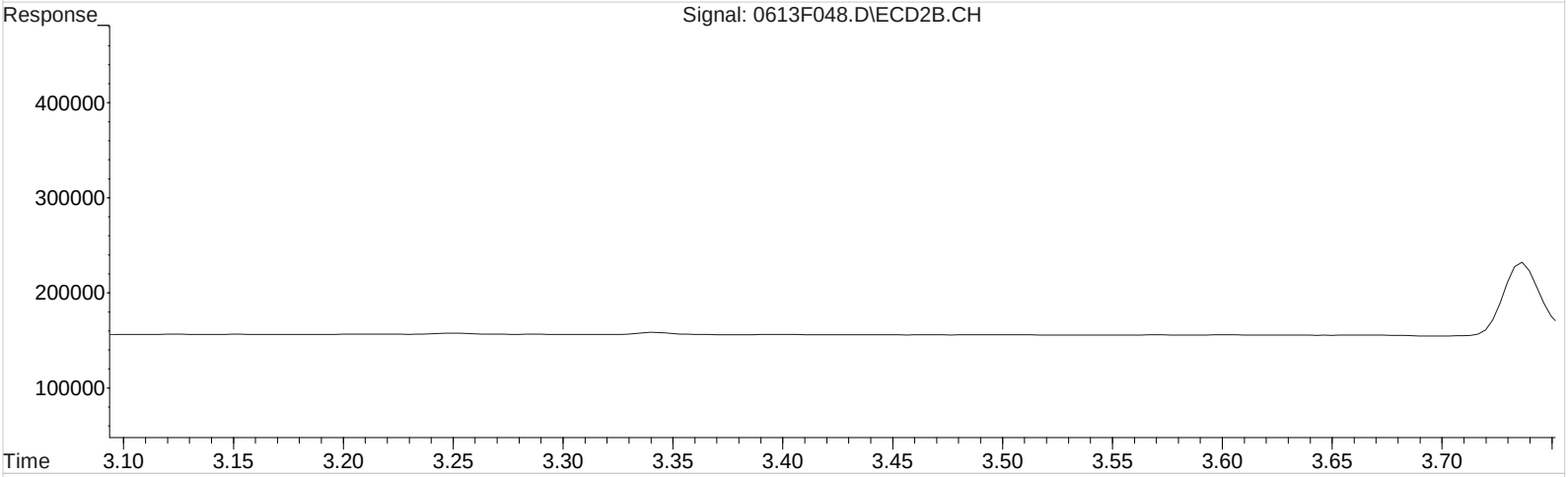
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F048.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:10 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:55:21 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.370min 75.897 ug/L

response 771650

Manual Integration:

Before

06/14/19

(2) 3,5-Dichlorophenol #2

3.986min 45.357 ug/L

response 693764

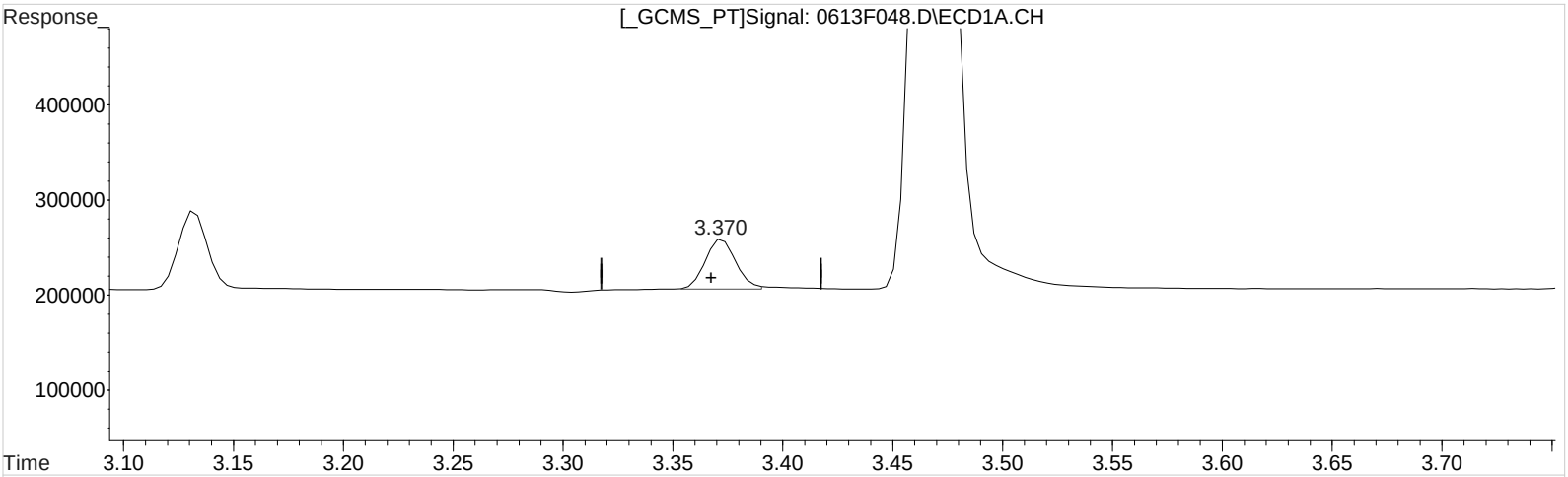
(+) = Expected Retention Time

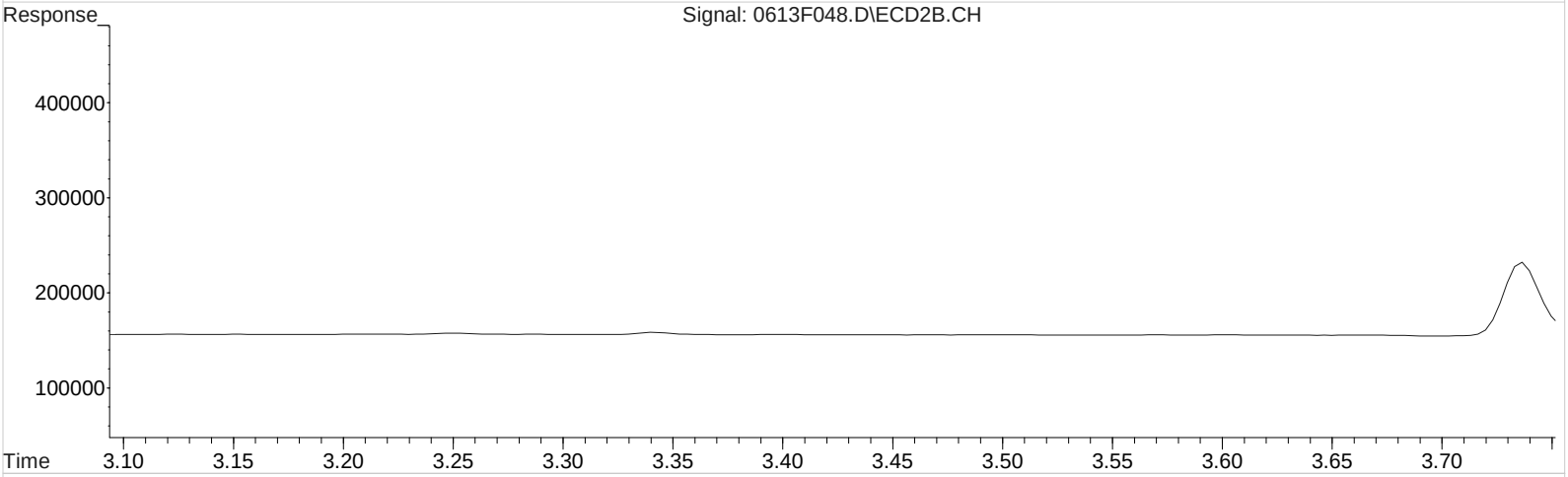
1st MC 06/14/19
2nd TP 06/17/19

Data File : J:\GC28\Data\061319\0613F048.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Jun 2019 11:10 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 14 09:55:21 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.370min 47.596 ug/L m

response 506388

Manual Integration:

After

Baseline/Shoulder

06/14/19

(2) 3,5-Dichlorophenol #2

3.986min 45.357 ug/L

response 693764

(+) = Expected Retention Time

Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\022819CAL\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0228F001	PENTHOT2	PRIMER
2	IB	100	0228F002	PENTHOT2	PRIMER
3	ICAL	1	0228F003	PENTHOT2	IB
4	ICAL	2	0228F004	PENTHOT2	PENTA01-94T 1.0
5	ICAL	NR 3	0228F005	PENTHOT2	PENTA01-94S 2.5 - bad injection
6	ICAL	4	0228F006	PENTHOT2	PENTA01-94R 5.0
7	ICAL	5	0228F007	PENTHOT2	PENTA01-94Q 10
8	ICAL	6	0228F008	PENTHOT2	PENTA01-94P 25
9	ICAL	7	0228F009	PENTHOT2	PENTA01-94O 50
10	ICAL	8	0228F010	PENTHOT2	PENTA01-94N 100
11	ICAL	9	0228F011	PENTHOT2	PENTA01-94M 250
12	ICAL	10	0228F012	PENTHOT2	PENTA01-95G 500
13	ICAL	11	0228F013	PENTHOT2	PENTA01-95H 1000
14	ICAL	3	0228F014	PENTHOT2	PENTA01-94S 2.5 ok
15	IB	1	0228F015	PENTHOT2	IB
16	ICAL	12	0228F016	PENTHOT2	PENTA01-95D ICV

KC1900082
2/28/19

Last Modified: Thu Feb 28 10:29:05 2019 Page: 1

ALS-Kelso
Initial Calibration Checklist GC

Method: 8151M
ICAL ID or Date: KC000821
Instrument: GC28

Primary	Secondary	
☑	☑	The new ICAL is saved with a unique ID.
☑	☑	ICAL was performed continuously (i.e. not interrupted by maintenance event).
☑	☐	All analytes in blank are < ½ MRL.
☑	☑	ICAL contains minimum number of concentrations.
☑	☑	No internal levels excluded for any analytes.
☑	☑	Retention times updated using a midpoint of the calibration. Secondary reviewer double check peak IDs.
☑	☑	Calibration files quantitated with new method.
☑	☑	Check integrations. Primary reviewer must check all integrations electronically. Secondary reviewer will check low point and high point electronically.
☑	☑	ICAL files added to calibration table.
☑	☑	The average RF or COD meets method criteria for all analytes.
☑	☑	ICV is quantitated against new ICAL.
☑	☑	ICV meets method criteria.
☑	☐	Linked in ~~Stealth~~ UMS to an appropriate method. An appropriate method will be one that contains all analytes that were analyzed.
☑	☑	All calibration reports included: ICAL SUMMARY, ICAL DETAILED, ICV SUMMARY.
☑	☑	Enviroquant/Target responses match those in Stealth.
☑	☑	All quant reports and manual integrations initialed and dated.

Data packet should be in the following order: Sequence log, Calibration Review, Stealth ICAL reports, and quant reports.

Primary: _____ Date: 2/28/19

Secondary: _____ Date: 2/28/19

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -87.82 X² + 4.342E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	6.732E5	02	5.000	5.679E5	03	10.000	5.372E5	04	25.000	4.948E5
05	50.000	4.691E5	06	100.000	4.496E5	07	250.000	4.103E5	08	500.000	3.739E5
09	1000.000	3.511E5	10	2.500	6.128E5						

2,3,4,5-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -268.7 X² + 3.077E5 X + 3.627E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	02	4.715	3.979E5	03	9.431	3.696E5	04	23.577	3.259E5
05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5	10	2.358	4.756E5

2,3,5,6-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -316.9 X² + 4.391E5 X + 2.523E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	02	4.715	5.28E5	03	9.431	4.935E5	04	23.577	4.478E5
05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5	10	2.358	5.749E5

2,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -146.2 X² + 1.398E5 X + 1.234E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	02	4.669	1.8E5	03	9.338	1.735E5	04	23.345	1.484E5
05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5	10	2.334	2.006E5

2,4,6-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9995**	**Y= -245.7 X² + 3.136E5 X + 2.021E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	02	4.669	3.846E5	03	9.338	3.638E5	04	23.345	3.225E5
05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5	10	2.334	4.078E5

3,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -166.3 X² + 1.479E5 X + 8.837E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	02	4.669	1.823E5	03	9.338	1.696E5	04	23.345	1.515E5
05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5	10	2.334	1.988E5

3,4-Dichlorophenol	**Quadratic**	**1/X**	**COD = 1.0000**	**Y= -15.47 X² + 1.592E4 X + 8.759E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.529E4	02	4.605	1.749E4	03	9.209	1.718E4	04	23.023	1.584E4
05	46.046	1.558E4	06	92.091	1.446E4	07	230.230	1.241E4	10	2.302	1.966E4

3,5-Dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9982**	**Y= -14.62 X² + 1.118E4 X + 7.47E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	1.798E4	02	4.605	1.407E4	03	9.209	1.255E4	04	23.023	1.076E4
05	46.046	1.147E4	06	92.091	9.36E3	07	230.230	7.904E3	10	2.302	1.374E4

Pentachlorophenol (PCP)	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -97.29 X² + 4.57E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	02	4.750	5.978E5	03	9.501	5.654E5	04	23.752	5.208E5
05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5	08	475.030	3.936E5
09	950.060	3.695E5	10	2.375	6.451E5						

4-Bromo-2,6-dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9994**	**Y= -70.25 X² + 3.43E5 X + 2.985E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	02	5.000	4.356E5	03	10.000	4.141E5	04	25.000	3.754E5
05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5	08	500.000	2.979E5
09	1000.000	2.755E5	10	2.500	4.672E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.555	**-44.5**	02	5.000	5.55	11.0	03	10.000	11.4	14.0
04	25.000	27.6	10.6	05	50.000	53.6	7.2	06	100.000	105	4.8
07	250.000	248	-0.9	08	500.000	475	-5.0	09	1000.000	1020	1.6
10	2.500	2.53	1.4								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.770	-18.3	02	4.715	4.94	4.7	03	9.431	10.2	8.6
04	23.577	24.3	3.1	05	47.153	46.9	-0.6	06	94.307	91.6	-2.8
07	235.770	237	0.6	10	2.358	2.47	4.8				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.738	-21.7	02	4.715	5.11	8.5	03	9.431	10.1	7.1
04	23.577	23.9	1.3	05	47.153	47.4	0.6	06	94.307	91.5	-3.0
07	235.770	237	0.5	10	2.358	2.52	6.8				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.634	**-32.1**	02	4.669	5.16	10.4	03	9.338	10.8	15.9
04	23.345	24.5	5.1	05	46.690	46.1	-1.2	06	93.379	88.6	-5.1
07	233.450	236	1.2	10	2.334	2.47	6.0				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.732	-21.6	02	4.669	5.10	9.3	03	9.338	10.3	10.0
04	23.345	23.8	2.0	05	46.690	47.3	1.2	06	93.379	89.5	-4.1
07	233.450	235	0.8	10	2.334	2.39	2.6				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.655	-29.8	02	4.669	5.19	11.1	03	9.338	10.2	9.6
04	23.345	24.0	2.7	05	46.690	47.4	1.5	06	93.379	88.5	-5.2
07	233.450	236	1.2	10	2.334	2.55	9.2				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.914	-0.8	02	4.605	4.53	-1.6	03	9.209	9.47	2.9
04	23.023	22.9	-0.7	05	46.046	46.6	1.3	06	92.091	91.2	-1.0
07	230.230	231	0.2	10	2.302	2.30	-0.2				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.814	-11.6	02	4.605	5.16	12.1	03	9.209	9.80	6.4
04	23.023	22.1	-3.9	05	46.046	49.8	8.2	06	92.091	86.2	-6.4
07	230.230	233	1.3	10	2.302	2.17	-5.8				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	0.527	**-44.5**	02	4.750	5.27	11.0	03	9.501	10.8	14.0
04	23.752	26.3	10.6	05	47.503	50.9	7.2	06	95.006	99.5	4.8
07	237.520	235	-0.9	08	475.030	452	-5.0	09	950.060	966	1.6
10	2.375	2.41	1.4								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.643	**-35.7**	02	5.000	5.49	9.7	03	10.000	11.2	12.3
04	25.000	26.6	6.5	05	50.000	53.3	6.6	06	100.000	102	1.6
07	250.000	251	0.2	08	500.000	481	-3.9	09	1000.000	1010	1.2
10	2.500	2.54	1.5								

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D\0228F004c.d	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D\0228F006c.d	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D\0228F007c.d	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D\0228F008c.d	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D\0228F009c.d	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D\0228F010c.d	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D\0228F011c.d	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D\0228F012c.d	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D\0228F013c.d	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D\0228F014c.d	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte	Curve Fit	Weighting

2,3,4,5,6-Pentachloroanisole

Average RF | RSD = 9.583 | Average RF = 6.462E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	7.909E5	02	5.000	6.542E5	03	10.000	6.532E5	04	25.000	6.151E5
05	50.000	6.083E5	06	100.000	5.984E5	07	250.000	5.996E5	08	500.000	6.052E5
09	1000.000	6.245E5	10	2.500	7.13E5						

2,3,4,5-Tetrachlorophenol

Average RF | RSD = 12.29 | Average RF = 4.159E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	02	4.715	4.353E5	03	9.431	4.108E5	04	23.577	3.904E5
05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5	10	2.358	4.73E5

2,3,5,6-Tetrachlorophenol

Average RF | RSD = 6.587 | Average RF = 6.037E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	02	4.715	5.882E5	03	9.431	6.075E5	04	23.577	5.816E5
05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5	10	2.358	6.377E5

2,4,5-Trichlorophenol

Quadratic 1/X | COD = 0.9997 | Y= -73.44 X² + 1.777E5 X + 1.058E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	02	4.669	2.059E5	03	9.338	2.015E5	04	23.345	1.829E5
05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5	10	2.334	2.293E5

2,4,6-Trichlorophenol

Average RF | RSD = 4.634 | Average RF = 4.082E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	02	4.669	4.004E5	03	9.338	4.124E5	04	23.345	3.941E5
05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5	10	2.334	4.267E5

3,4,5-Trichlorophenol

Quadratic 1/X | COD = 0.9998 | Y= -63.92 X² + 1.7E5 X + 9.004E4

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	02	4.669	1.919E5	03	9.338	1.89E5	04	23.345	1.732E5
05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5	10	2.334	2.115E5

3,4-Dichlorophenol

Average RF | RSD = 10.82 | Average RF = 2.169E4

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.356E4	02	4.605	2.28E4	03	9.209	2.378E4	04	23.023	2.153E4
05	46.046	2.119E4	06	92.091	1.915E4	07	230.230	1.751E4	10	2.302	2.4E4

3,5-Dichlorophenol

Quadratic 1/X | COD = 0.9996 | Y= -14.71 X² + 1.578E4 X + 8.463E3

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.299E4	02	4.605	1.798E4	03	9.209	1.82E4	04	23.023	1.612E4
05	46.046	1.537E4	06	92.091	1.408E4	07	230.230	1.249E4	10	2.302	1.928E4

Pentachlorophenol (PCP)

Average RF | RSD = 9.573 | Average RF = 6.805E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	02	4.750	6.912E5	03	9.501	6.875E5	04	23.752	6.474E5
05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5	08	475.030	6.37E5
09	950.060	6.573E5	10	2.375	7.52E5						

4-Bromo-2,6-dichlorophenol

Average RF | RSD = 5.968 | Average RF = 4.216E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	02	5.000	3.777E5	03	10.000	4.048E5	04	25.000	4.138E5
05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5	08	500.000	4.395E5
09	1000.000	4.542E5	10	2.500	3.934E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.22	22.4	02	5.000	5.06	1.2	03	10.000	10.1	1.1
04	25.000	23.8	-4.8	05	50.000	47.1	-5.9	06	100.000	92.6	-7.4
07	250.000	232	-7.2	08	500.000	468	-6.4	09	1000.000	966	-3.4
10	2.500	2.76	10.3								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.14	21.2	02	4.715	4.93	4.7	03	9.431	9.31	-1.2
04	23.577	22.1	-6.1	05	47.153	43.3	-8.3	06	94.307	83.5	-11.5
07	235.770	206	-12.5	10	2.358	2.68	13.7				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.07	13.6	02	4.715	4.59	-2.6	03	9.431	9.49	0.6
04	23.577	22.7	-3.7	05	47.153	45.9	-2.6	06	94.307	89.1	-5.6
07	235.770	223	-5.4	10	2.358	2.49	5.6				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.799	-14.5	02	4.669	4.82	3.3	03	9.338	10.0	7.4
04	23.345	23.7	1.3	05	46.690	47.3	1.3	06	93.379	90.7	-2.9
07	233.450	234	0.4	10	2.334	2.42	3.6				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	1.01	8.7	02	4.669	4.58	-1.9	03	9.338	9.43	1.0
04	23.345	22.5	-3.5	05	46.690	46.6	-0.2	06	93.379	89.0	-4.7
07	233.450	224	-4.0	10	2.334	2.44	4.5				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.846	-9.5	02	4.669	4.75	1.7	03	9.338	9.88	5.9
04	23.345	23.5	0.5	05	46.690	47.5	1.7	06	93.379	91.1	-2.4
07	233.450	234	0.3	10	2.334	2.38	1.8				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	1.00	8.6	02	4.605	4.84	5.1	03	9.209	10.1	9.6
04	23.023	22.9	-0.7	05	46.046	45.0	-2.3	06	92.091	81.3	-11.7
07	230.230	186	-19.3	10	2.302	2.55	10.6				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.806	-12.4	02	4.605	4.73	2.8	03	9.209	10.2	10.6
04	23.023	23.5	2.1	05	46.046	46.3	0.6	06	92.091	89.0	-3.3
07	230.230	232	0.7	10	2.302	2.28	-0.9				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	1.16	22.2	02	4.750	4.82	1.6	03	9.501	9.60	1.0
04	23.752	22.6	-4.9	05	47.503	44.7	-5.9	06	95.006	87.9	-7.4
07	237.520	220	-7.3	08	475.030	445	-6.4	09	950.060	918	-3.4
10	2.375	2.62	10.5								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.975	-2.5	02	5.000	4.48	-10.4	03	10.000	9.60	-4.0
04	25.000	24.5	-1.8	05	50.000	52.4	4.9	06	100.000	103	3.0
07	250.000	264	5.5	08	500.000	521	4.2	09	1000.000	1080	7.7
10	2.500	2.33	-6.7								

Initial Calibration Verification Summary Report

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-1701

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Quadratic	50	58.215	ug/L	16.4	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.125	ug/L	6.3	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.742	ug/L	7.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.950	ug/L	7.0	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	47.208	ug/L	1.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.502	ug/L	6.0	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	50.405	ug/L	9.5	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	54.814	ug/L	19.0	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Quadratic	47.5030	55.309	ug/L	16.4	<= 20

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-35

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Average RF	50	51.424	ug/L	2.8	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	46.743	ug/L	-0.9	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	47.890	ug/L	1.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	50.676	ug/L	8.5	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Average RF	46.69	46.729	ug/L	0.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	48.393	ug/L	3.6	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Average RF	46.0460	46.475	ug/L	0.9	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	48.925	ug/L	6.3	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Average RF	47.5030	48.834	ug/L	2.8	<= 20

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:01 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:03:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.712	0	59380	N.D. d	0.137
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
2)		3,5-Dichl...	0.000	4.125f	0	25046	N.D.	1.520 #
3)		2,4,6-Tri...	0.000	4.292	0	32648	N.D. d	0.078
5)		2,4,5-Tri...	0.000	4.802	0	42050	N.D. d	0.210
6)		3,4,5-Tri...	0.000	4.832	0	55519	N.D. d	0.296
7)	M	2,3,5,6-T...	0.000	5.088	0	70520	N.D. d	0.114
8)	M	2,3,4,5-T...	0.000	5.452	0	131834	N.D. d	0.319
9)	M	Pentachlo...	0.000	5.685f	0	269600	N.D. d	0.392
10)		Pentachlo...	0.000	5.685f	0	269600	N.D. d	0.413

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

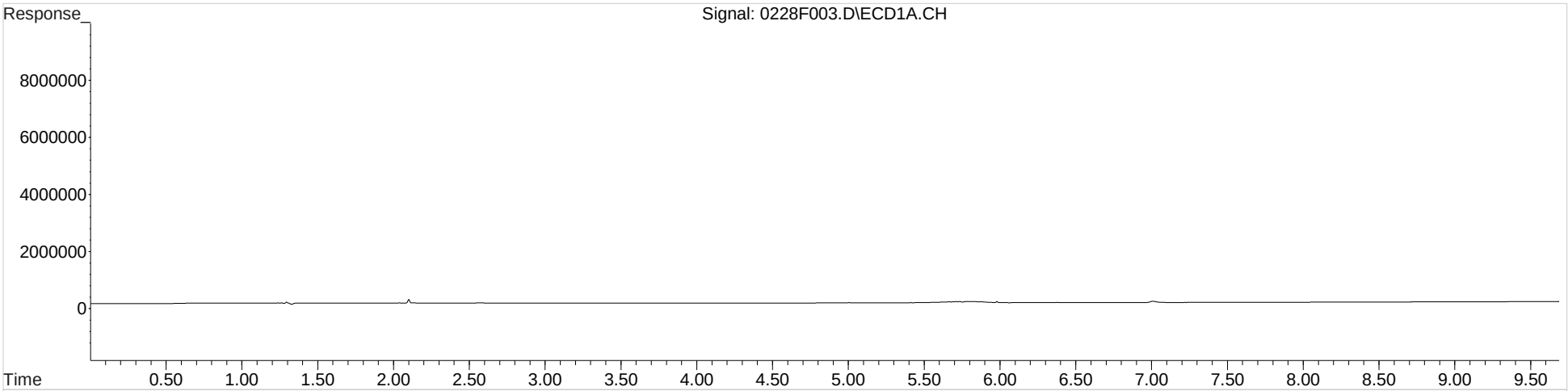
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:01 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:03:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.027	4.714	519128	410904	0.637	0.945 #
		Target Compounds						
1)		3,4-Dichl...	3.137	3.824	23293	21701	0.801m	0.982m
2)		3,5-Dichl...	3.377	4.084	16564	21176	1.036m	1.285m
3)		2,4,6-Tri...	3.473	4.284	431646	414230	0.802	0.993
5)		2,4,5-Tri...	4.200	4.778	211915	247658	0.739	1.239 #
6)		3,4,5-Tri...	4.230	4.844	185206	233780	0.709m	1.245 #
7)	M	2,3,5,6-T...	4.473	5.071	576226	646609	1.211m	1.048m
8)	M	2,3,4,5-T...	5.013	5.468	599618	475513	0.771	1.152m#
9)	M	Pentachlo...	5.150	5.648	673174	789810	0.493	1.149m#
10)		Pentachlo...	5.150	5.648	673174	790854	0.519	1.211m#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

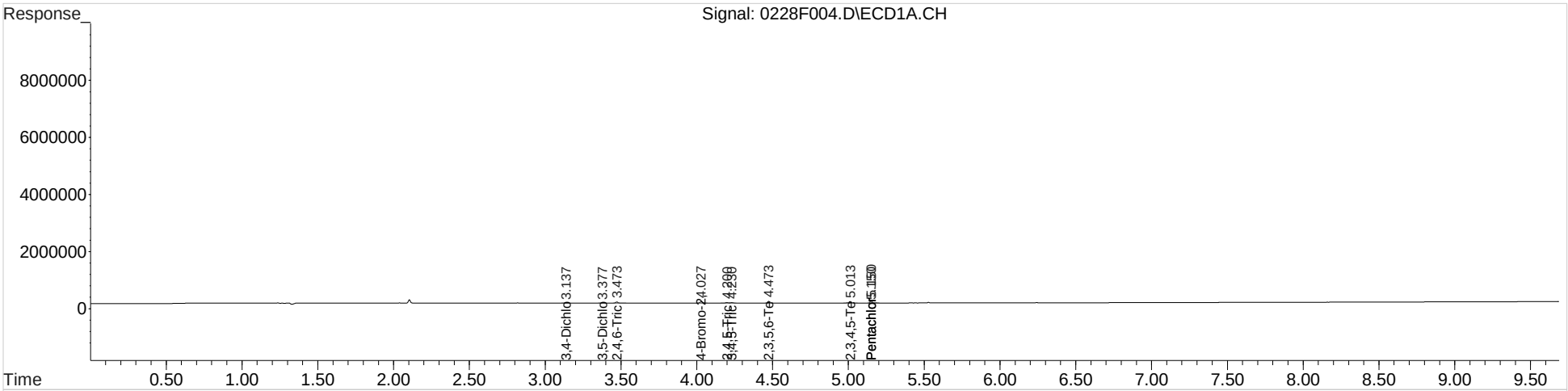
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

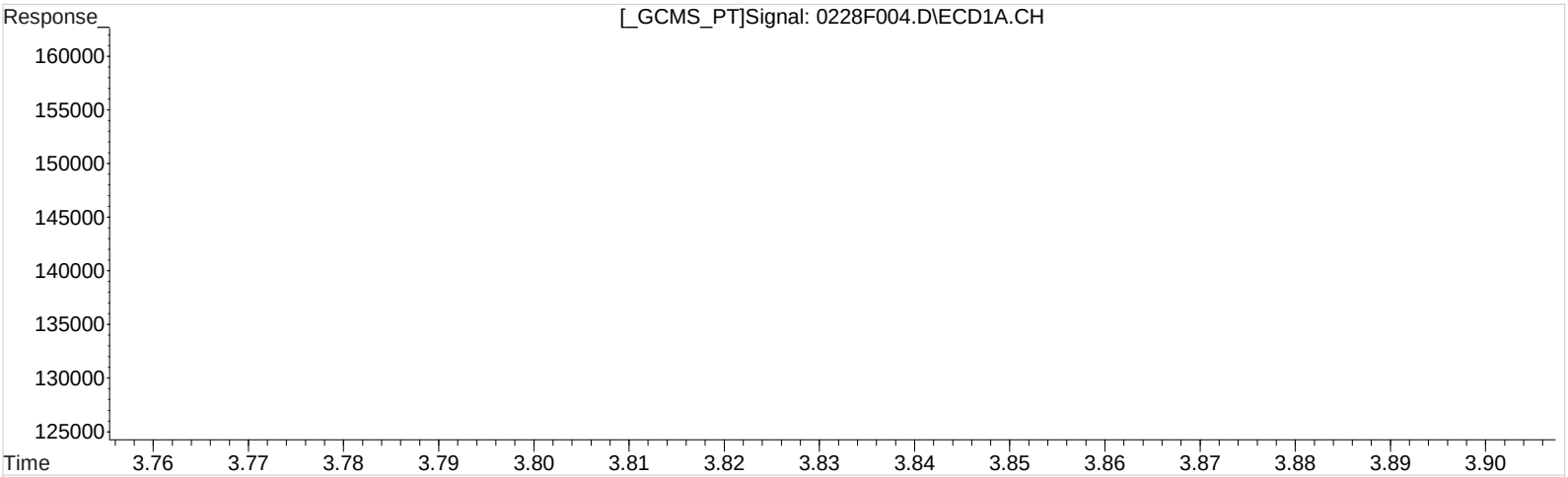


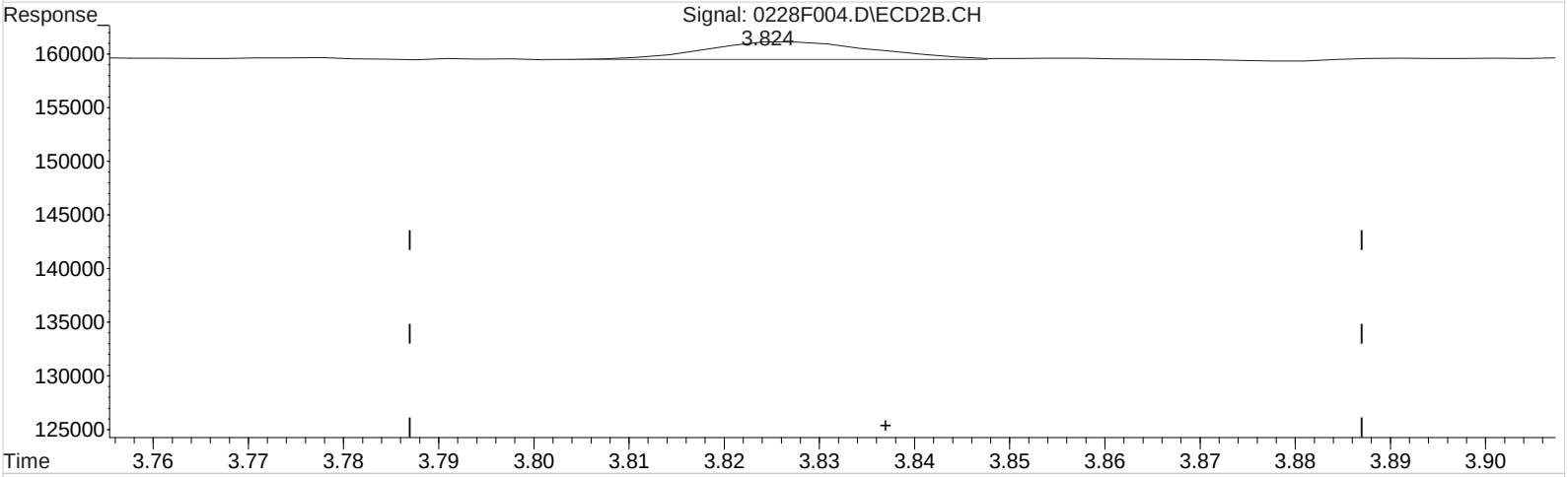
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.924 ug/L

response 20420

(+) = Expected Retention Time

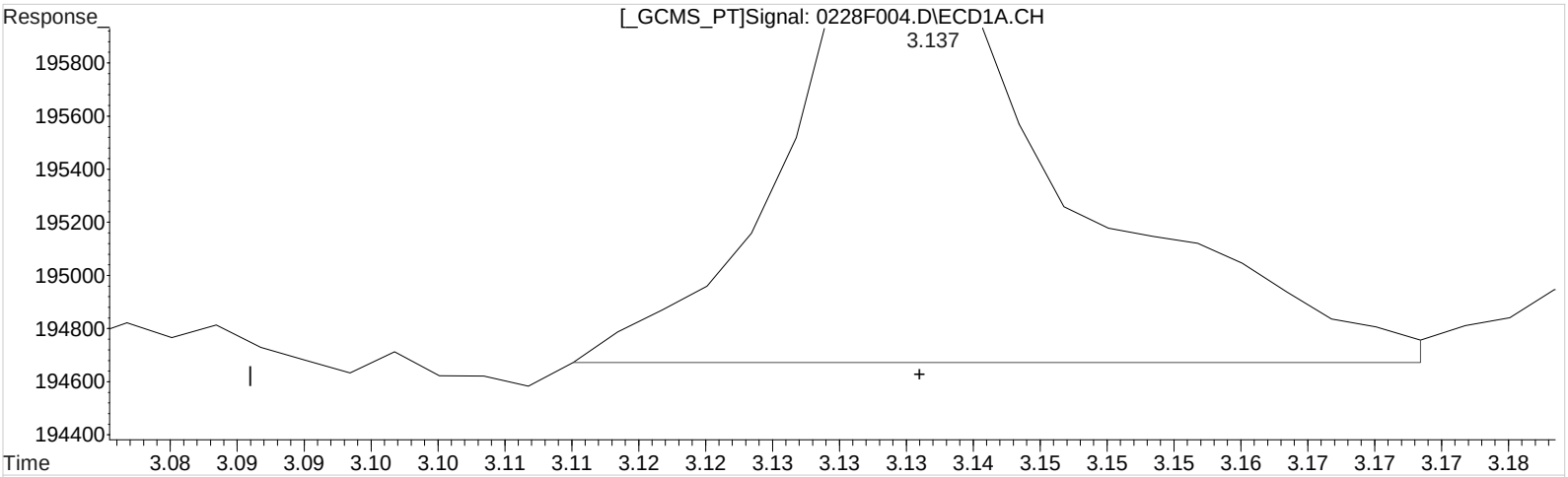
Quantitation Report (Qedit)

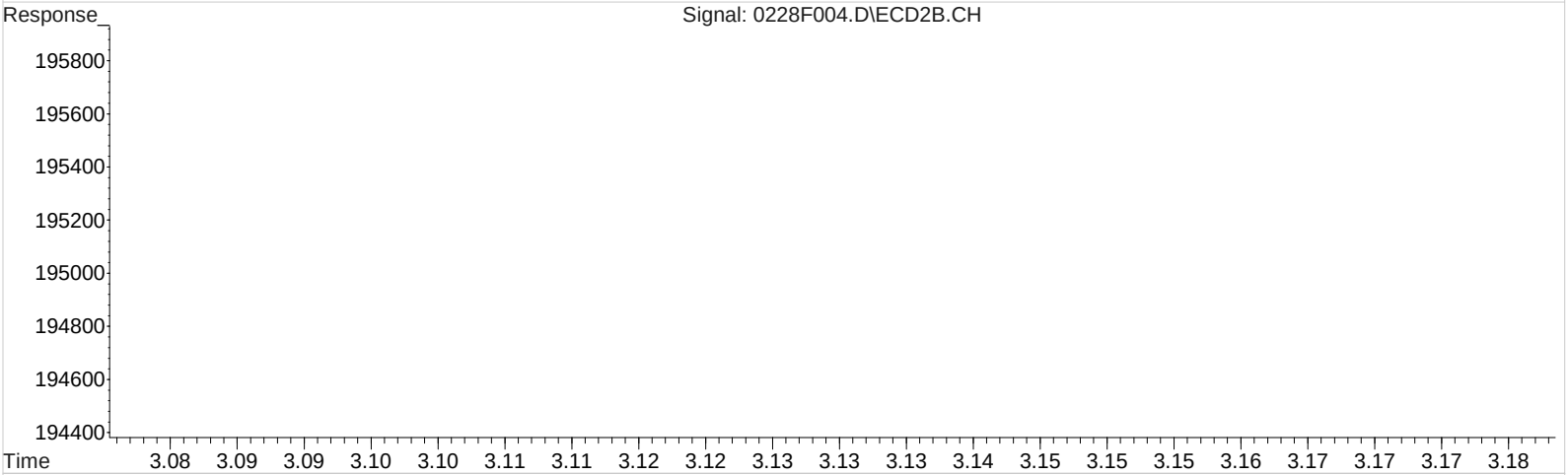
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

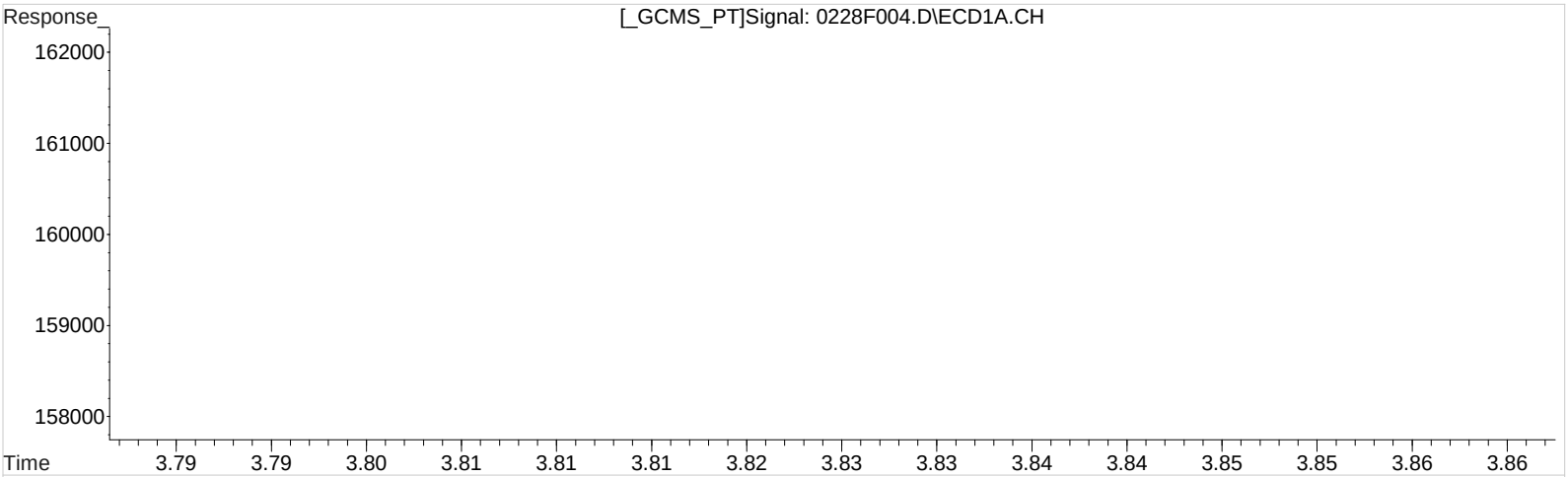
(+) = Expected Retention Time

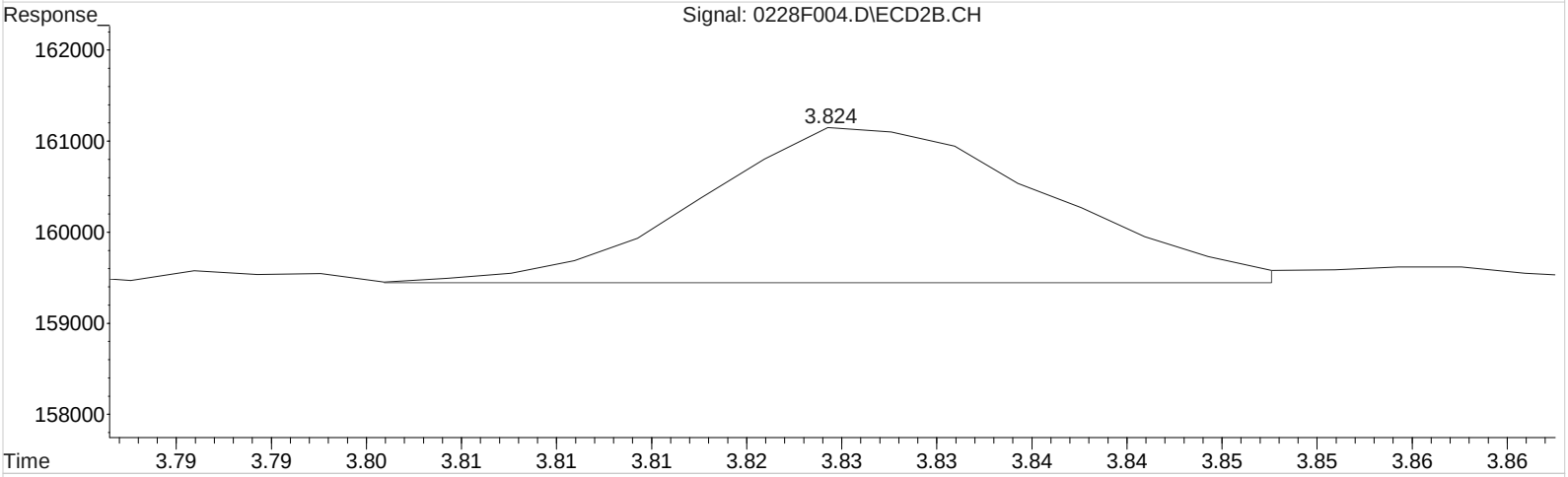
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

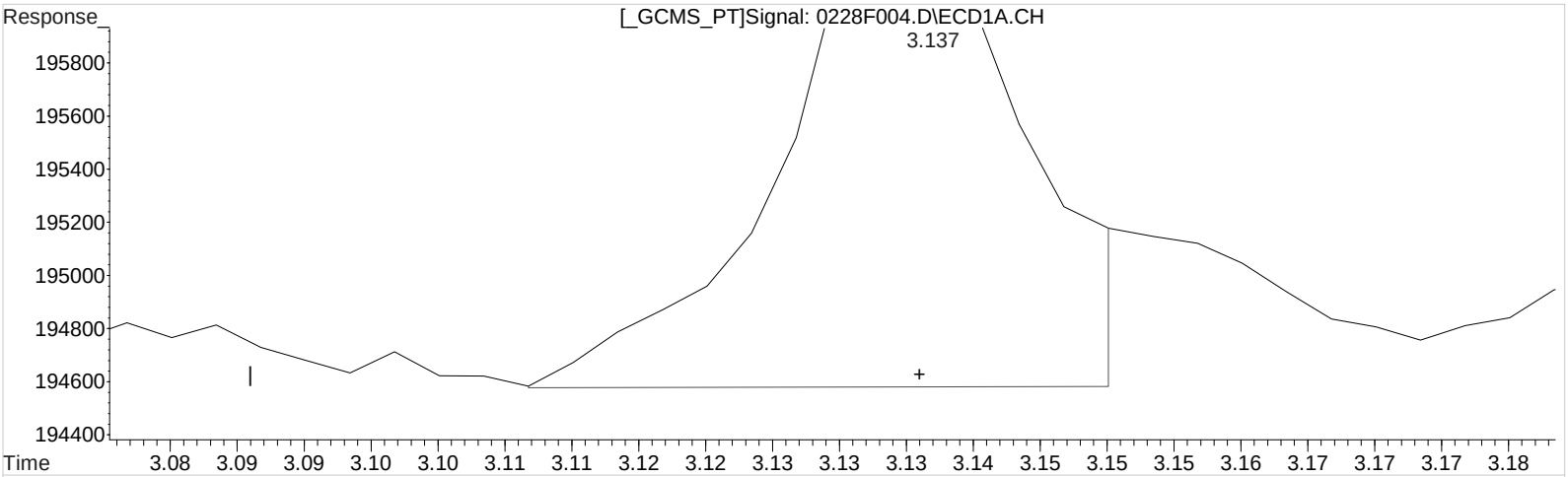
Quantitation Report (Qedit)

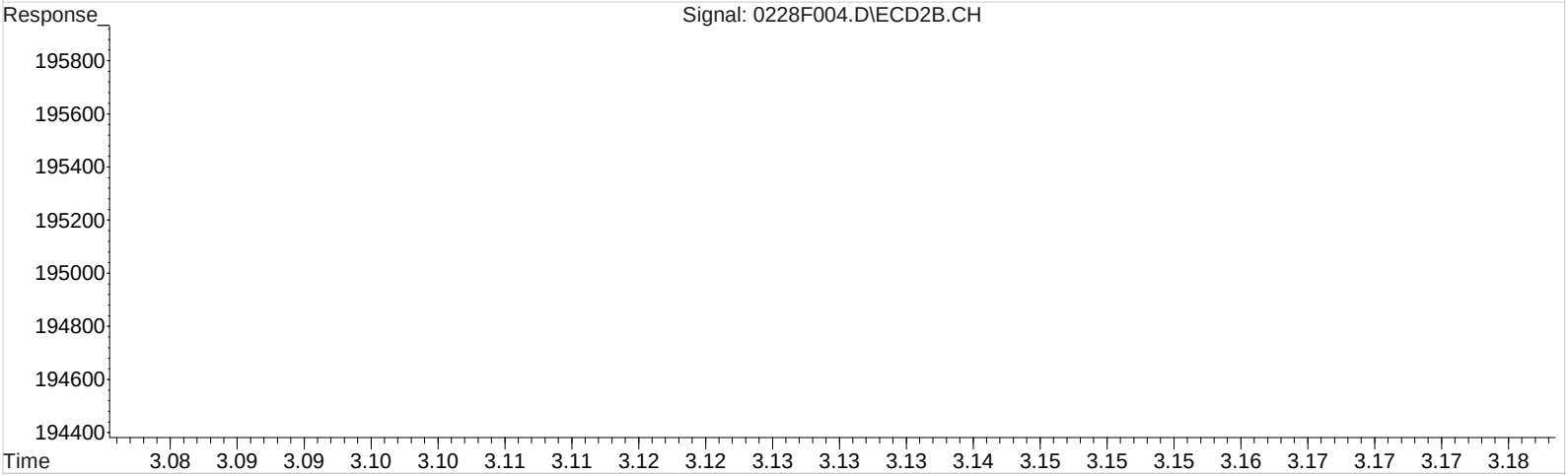
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.801 ug/L m

response 23293

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

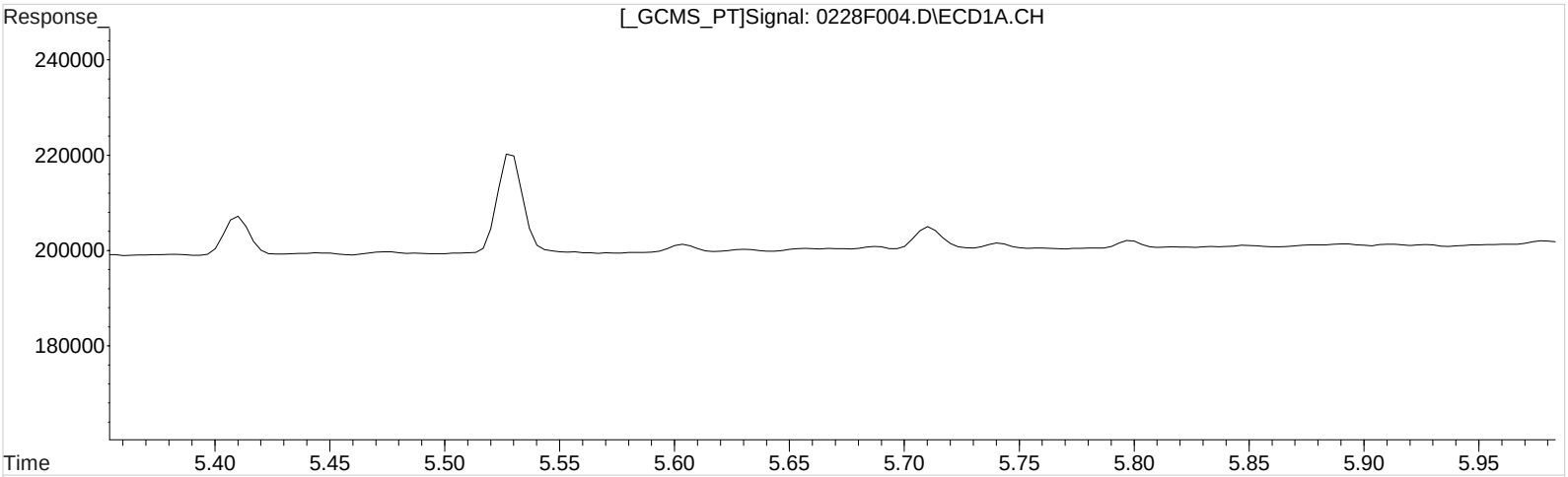
Quantitation Report (Qedit)

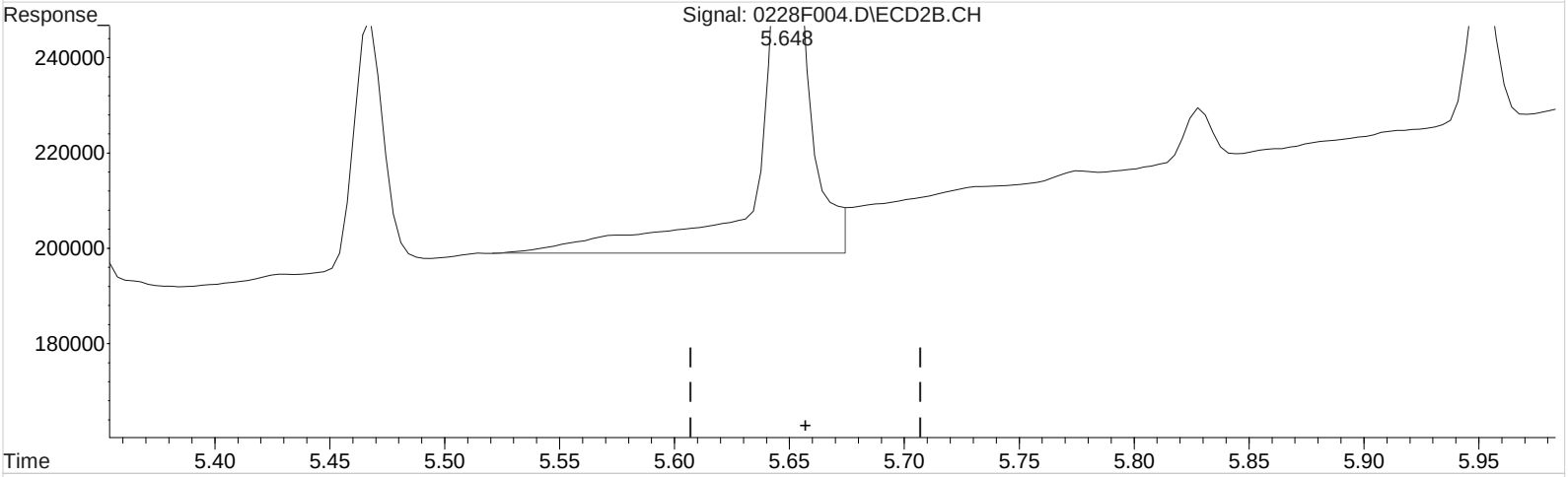
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.150min 0.519 ug/L

response 673174

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.648min 1.879 ug/L

response 1226970

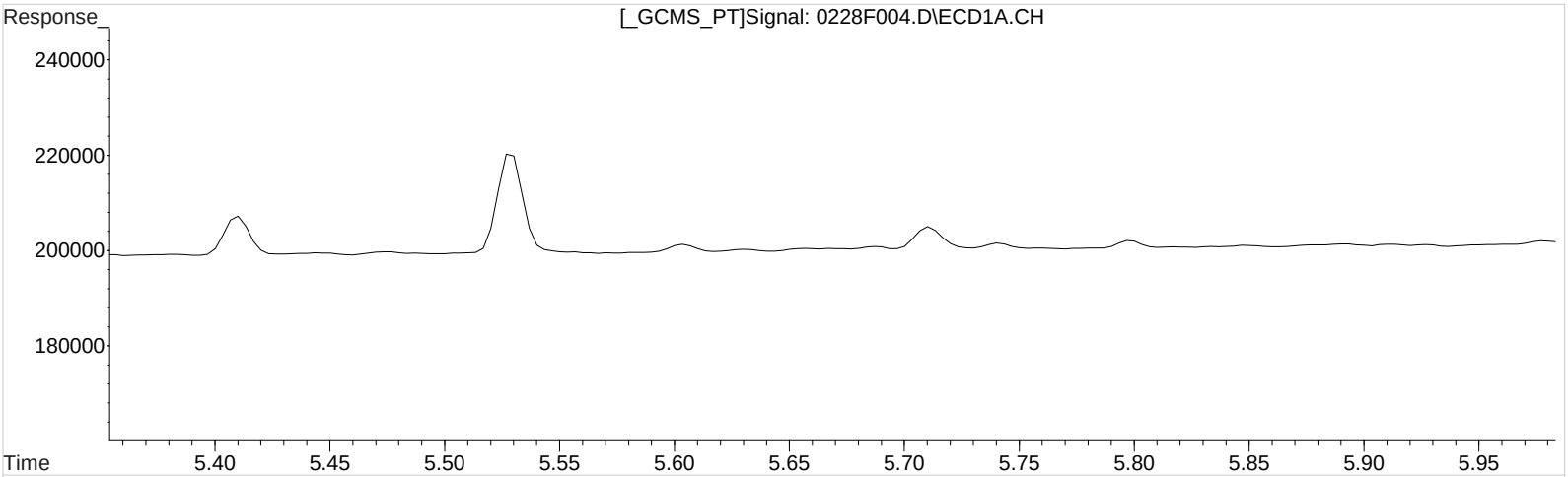
(+) = Expected Retention Time

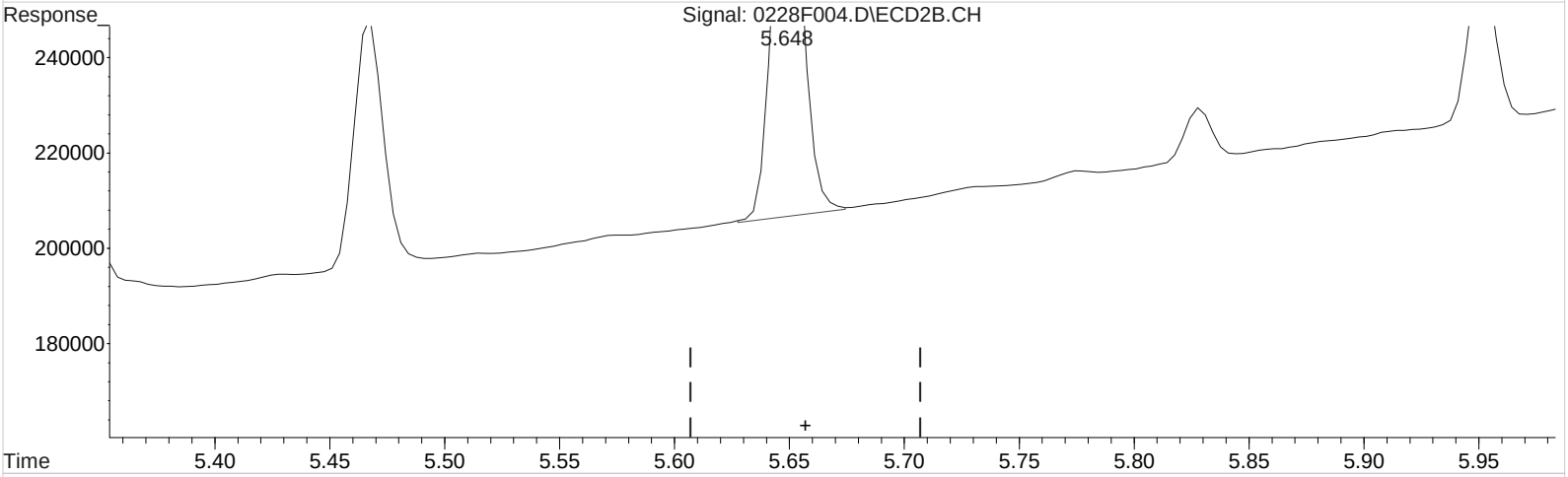
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.150min 0.519 ug/L

response 673174

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.648min 1.211 ug/L m

response 790854

(+) = Expected Retention Time

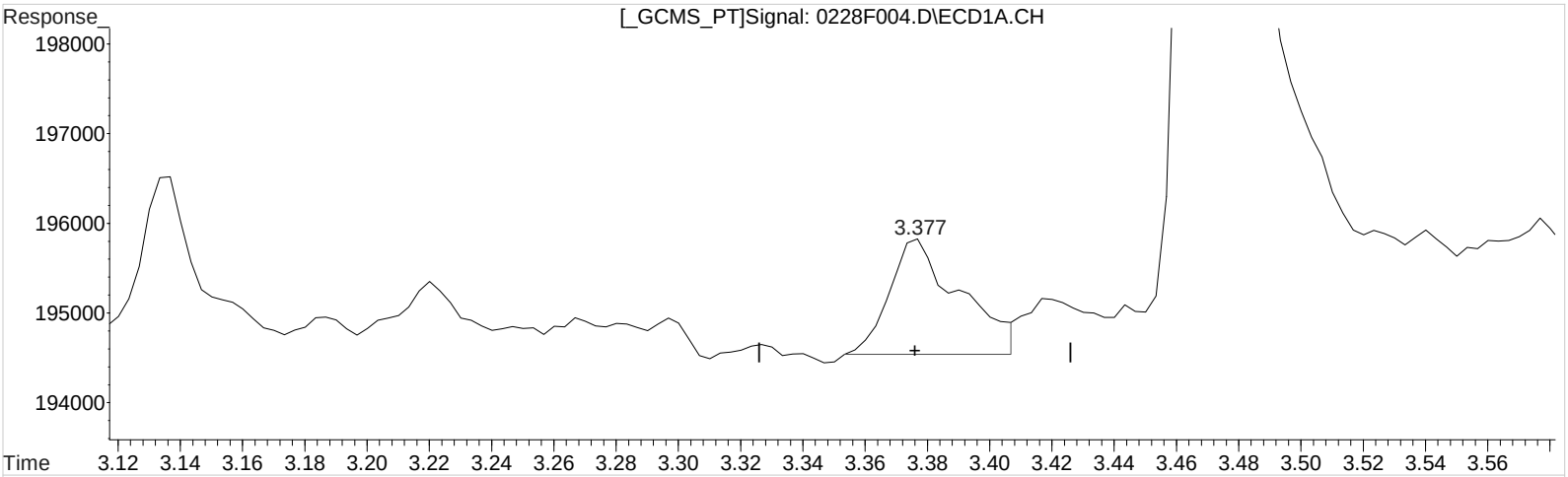
Quantitation Report (Qedit)

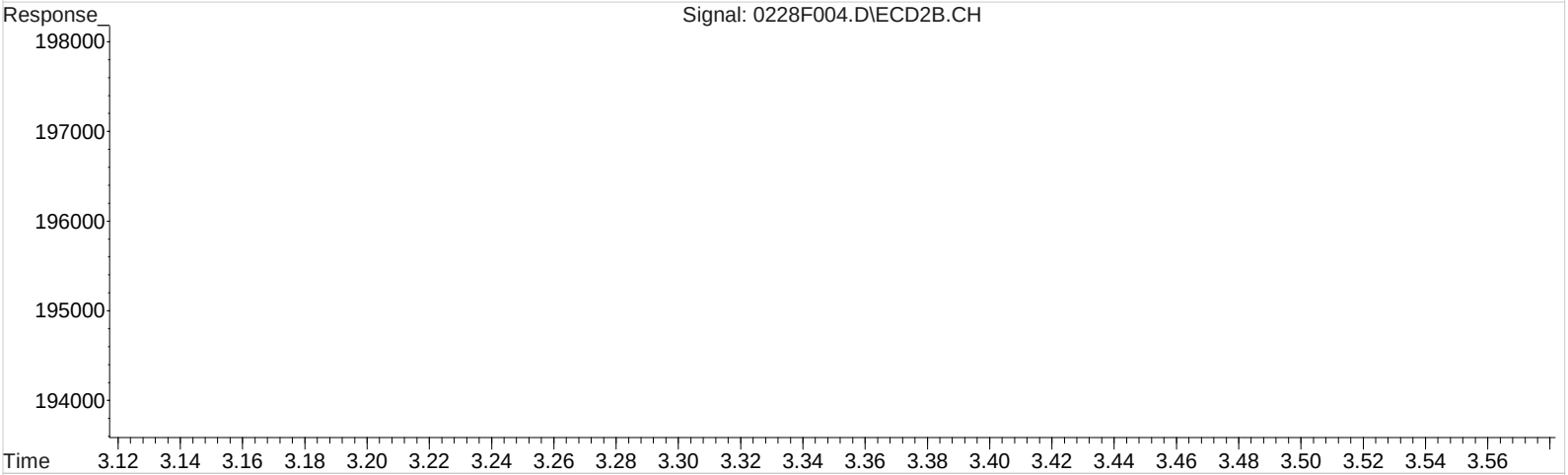
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.388 ug/L

response 20270

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

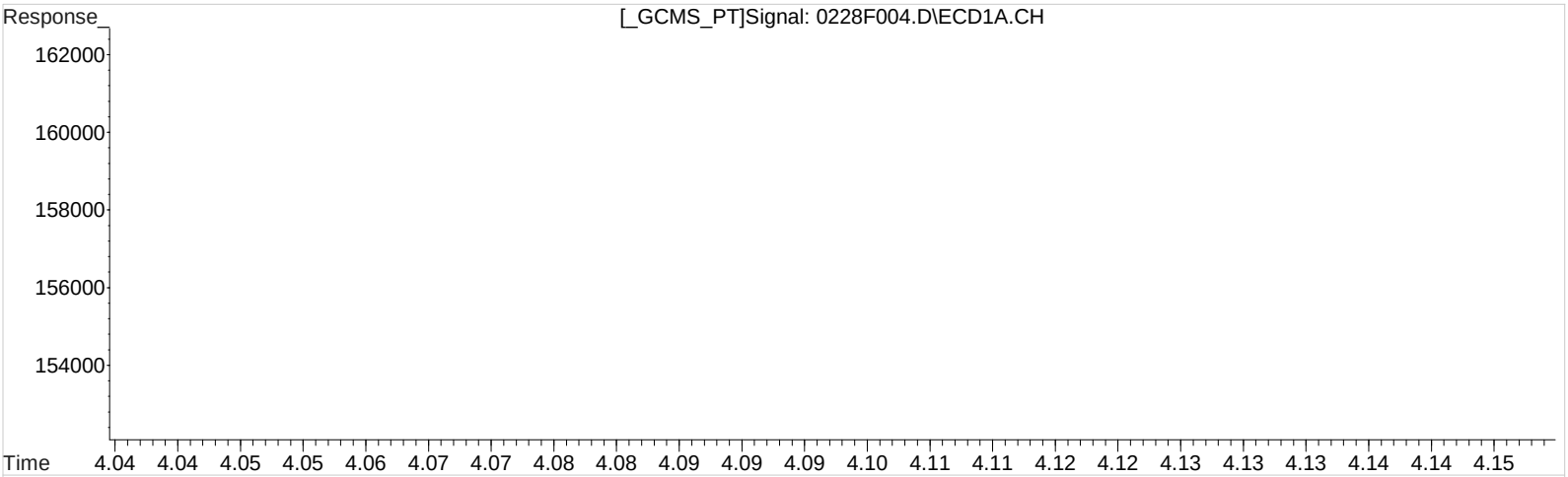
Quantitation Report (Qedit)

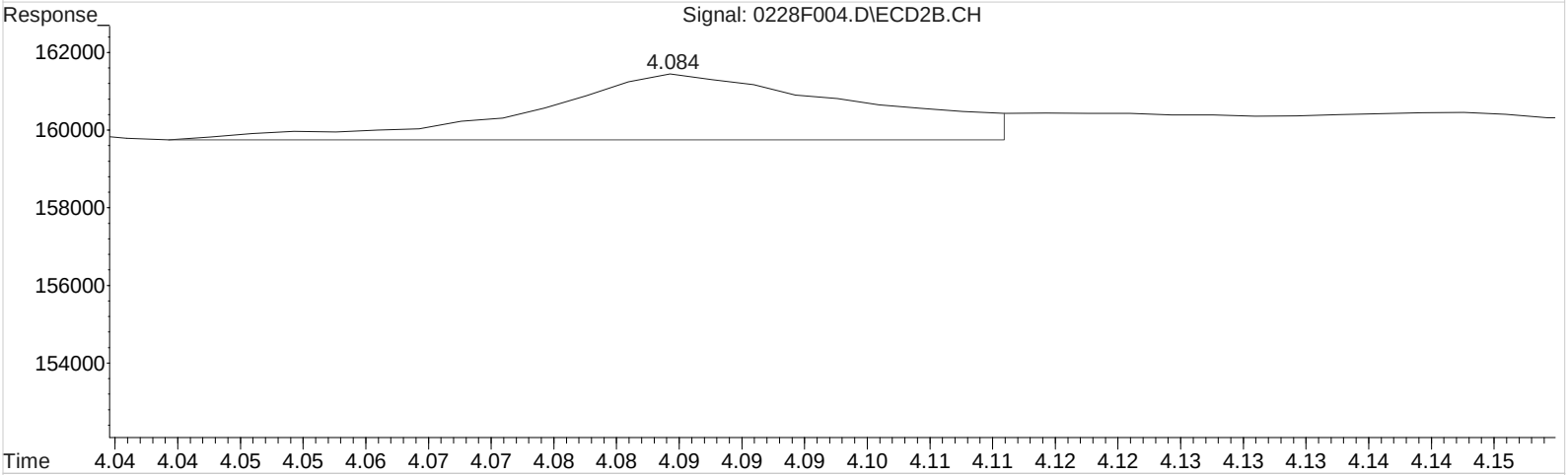
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

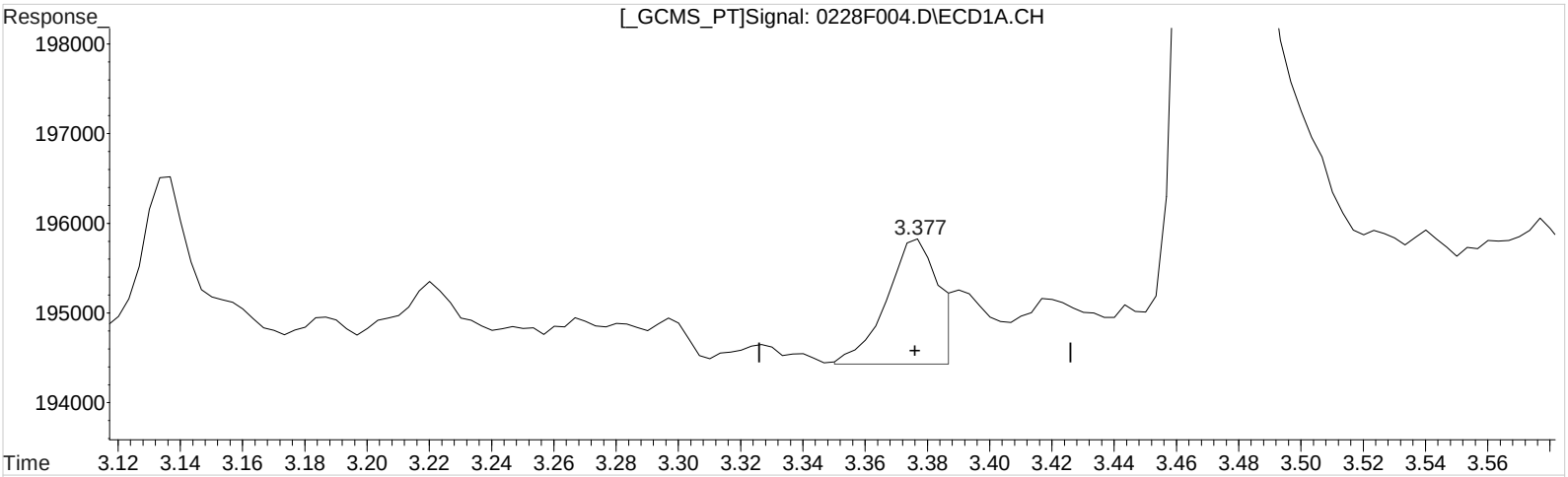
(+) = Expected Retention Time

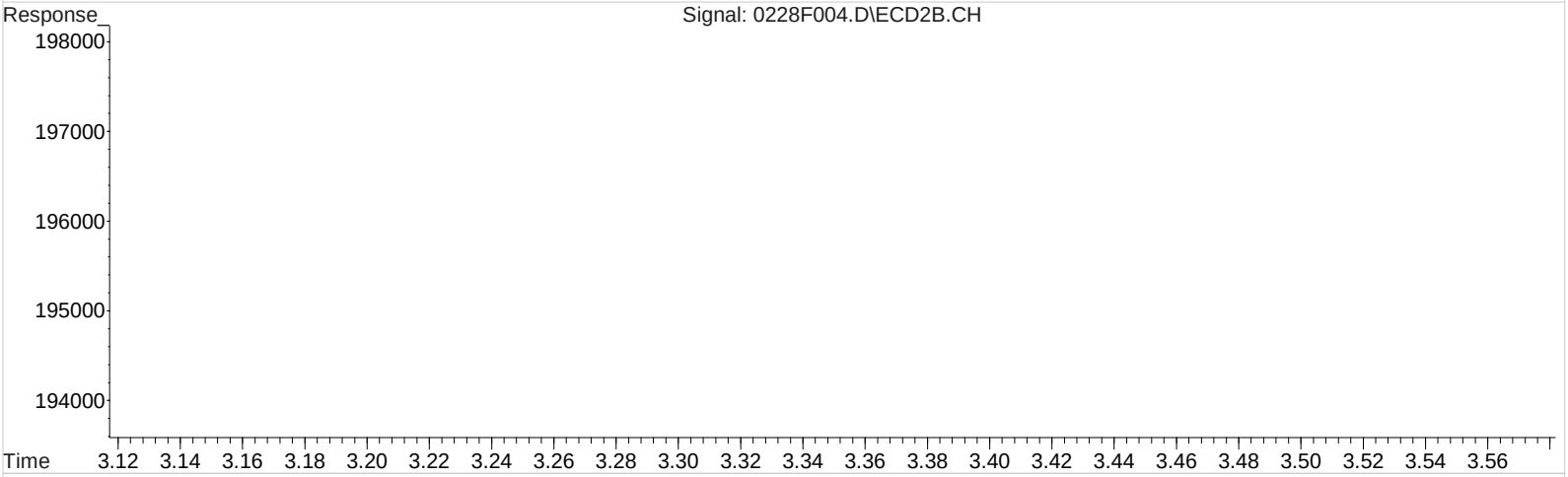
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

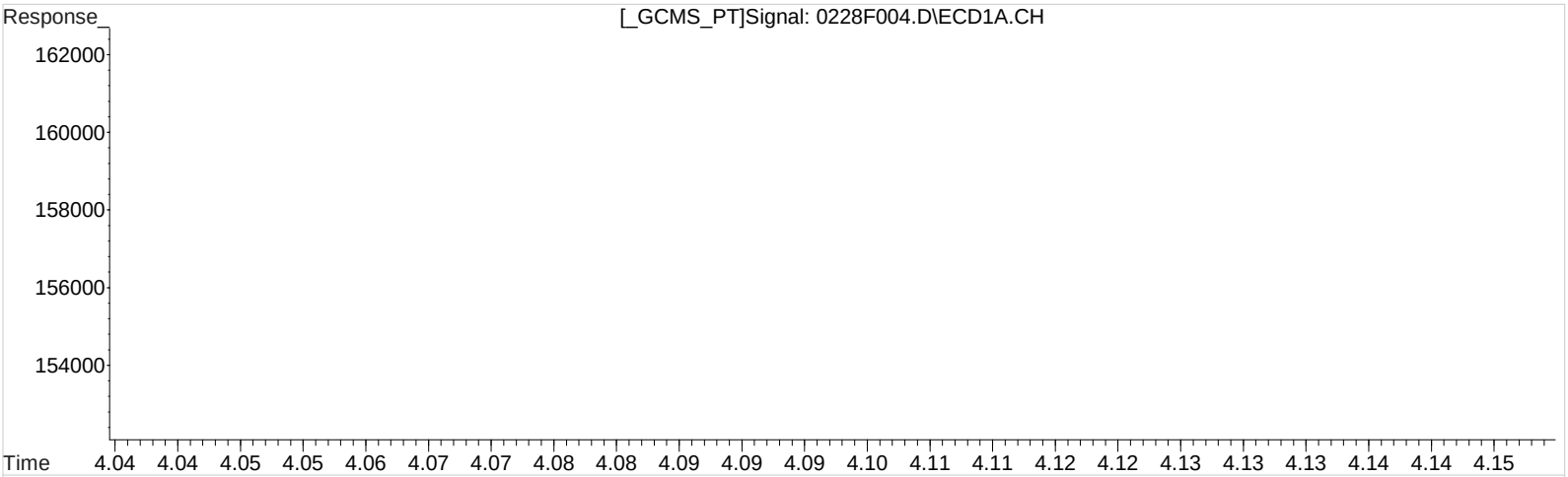
Quantitation Report (Qedit)

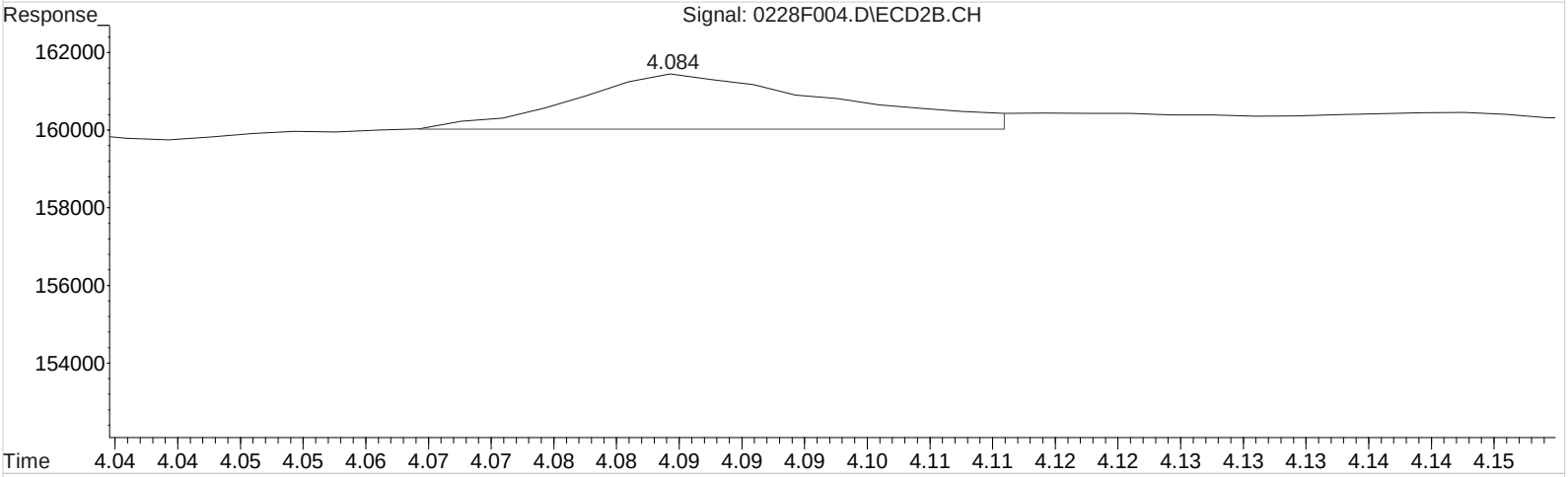
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.285 ug/L m

response 21176

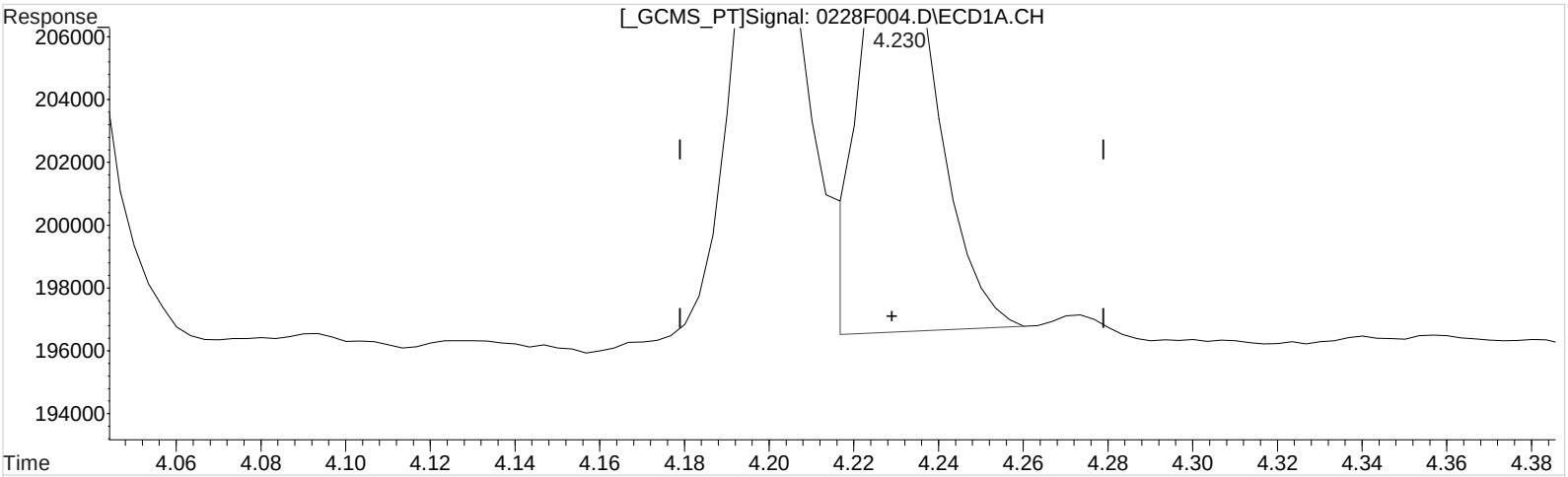
(+) = Expected Retention Time

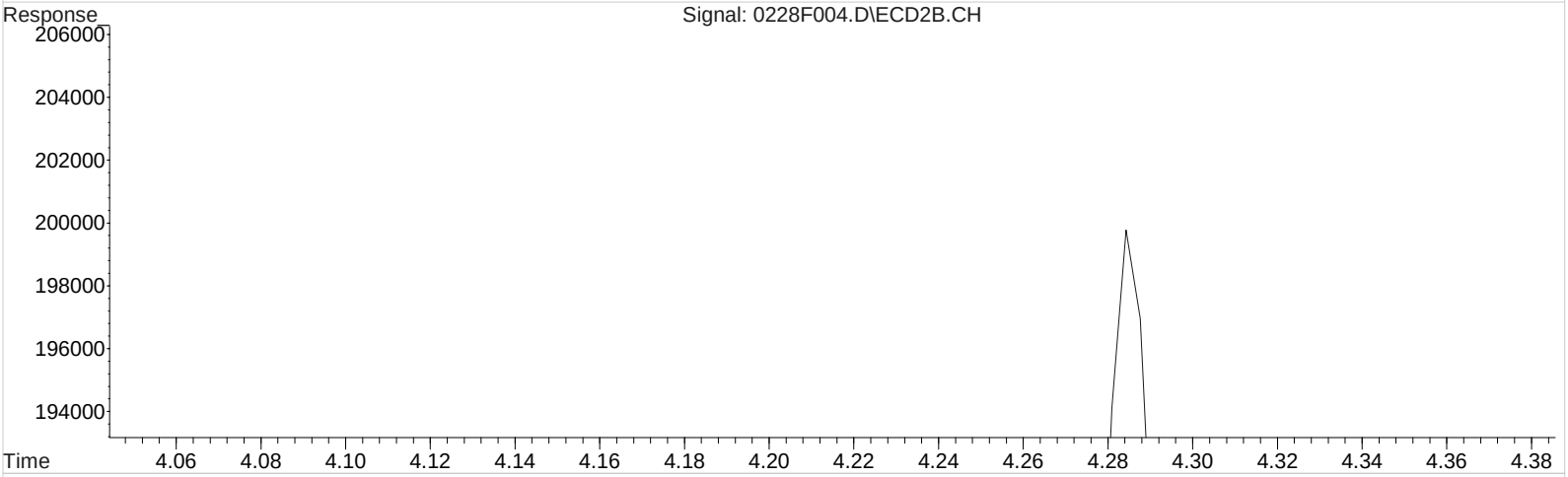
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.230min 0.644 ug/L

response 175885

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.844min 1.245 ug/L

response 233780

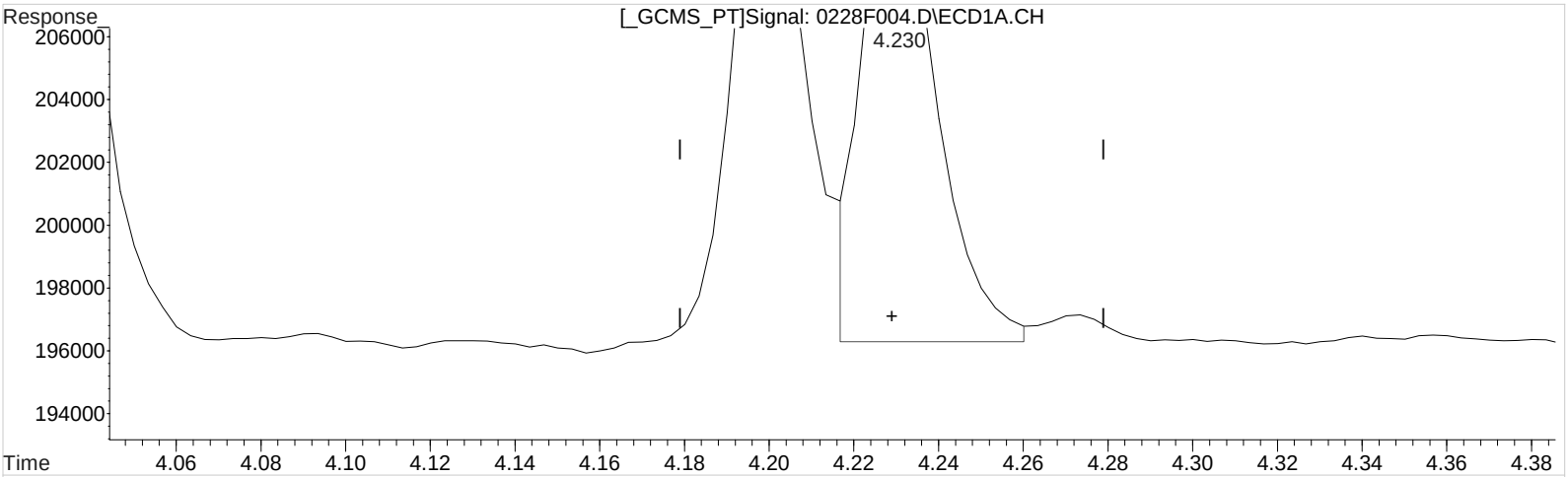
(+) = Expected Retention Time

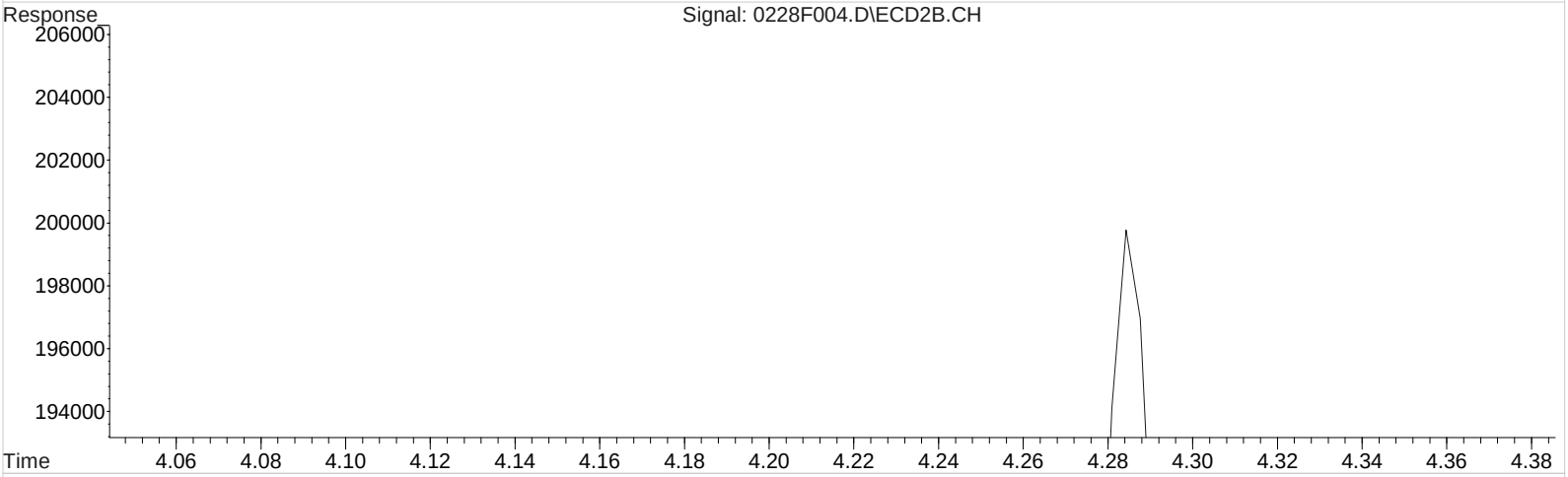
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.230min 0.709 ug/L m

response 185206

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.844min 1.245 ug/L

response 233780

(+) = Expected Retention Time

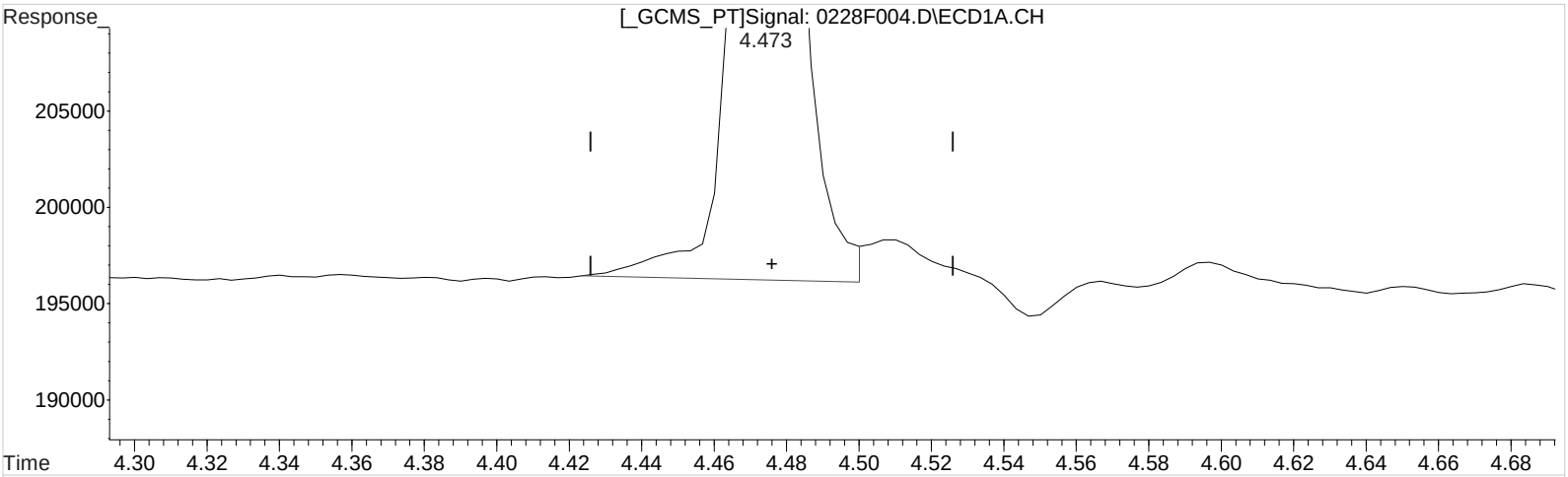
Quantitation Report (Qedit)

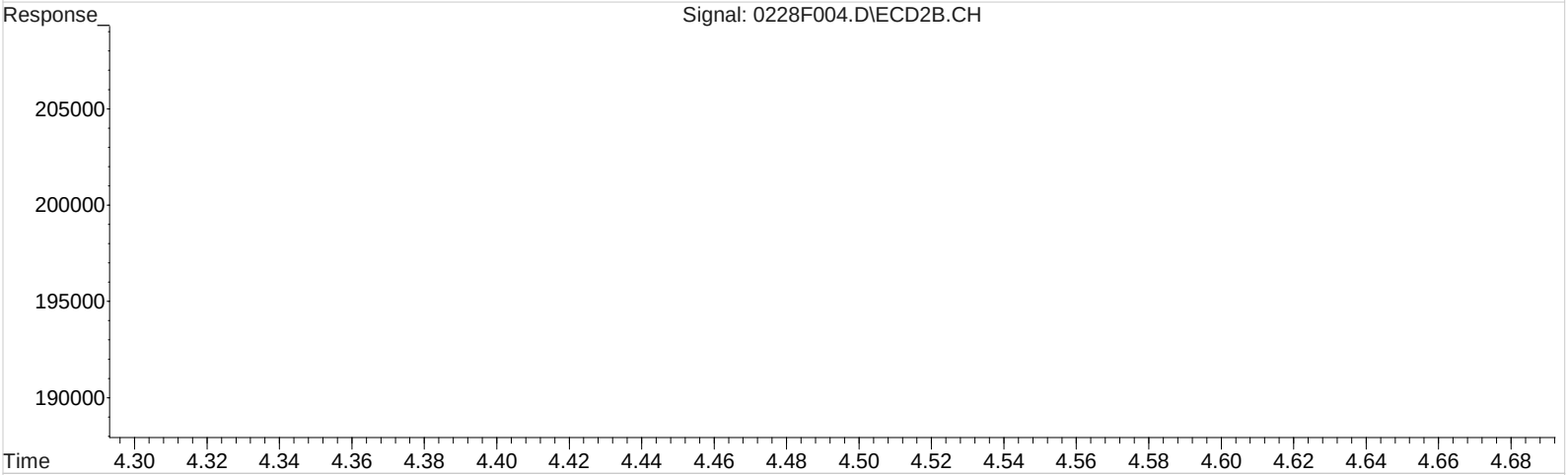
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.319 ug/L

response 627943

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

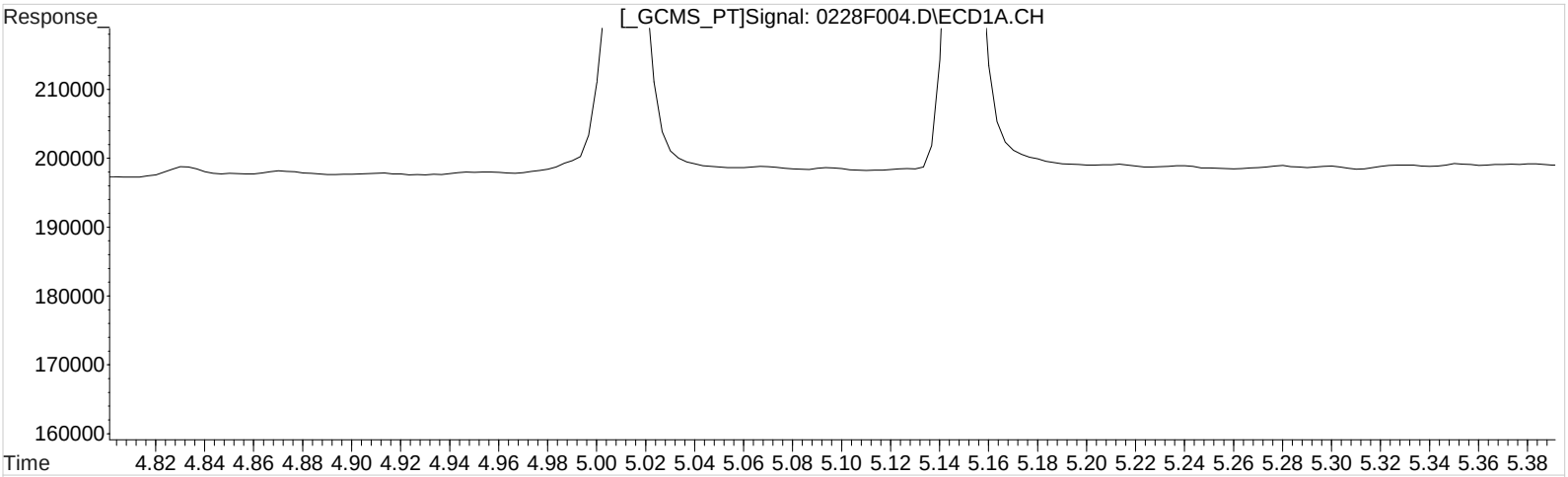
(+) = Expected Retention Time

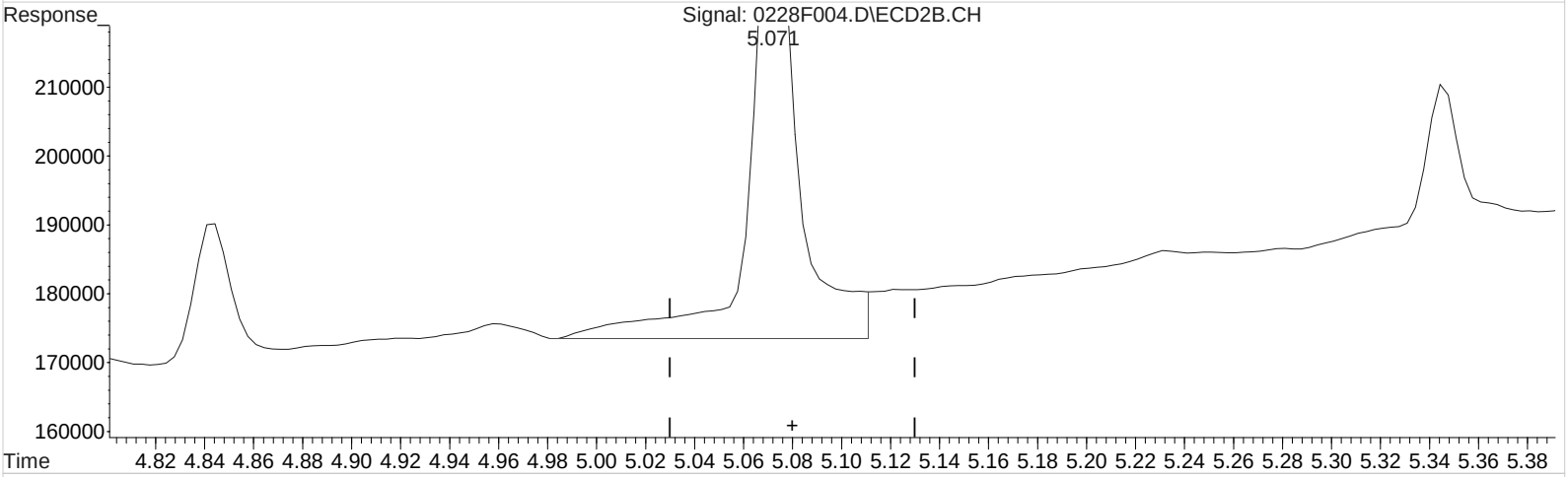
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

(+) = Expected Retention Time

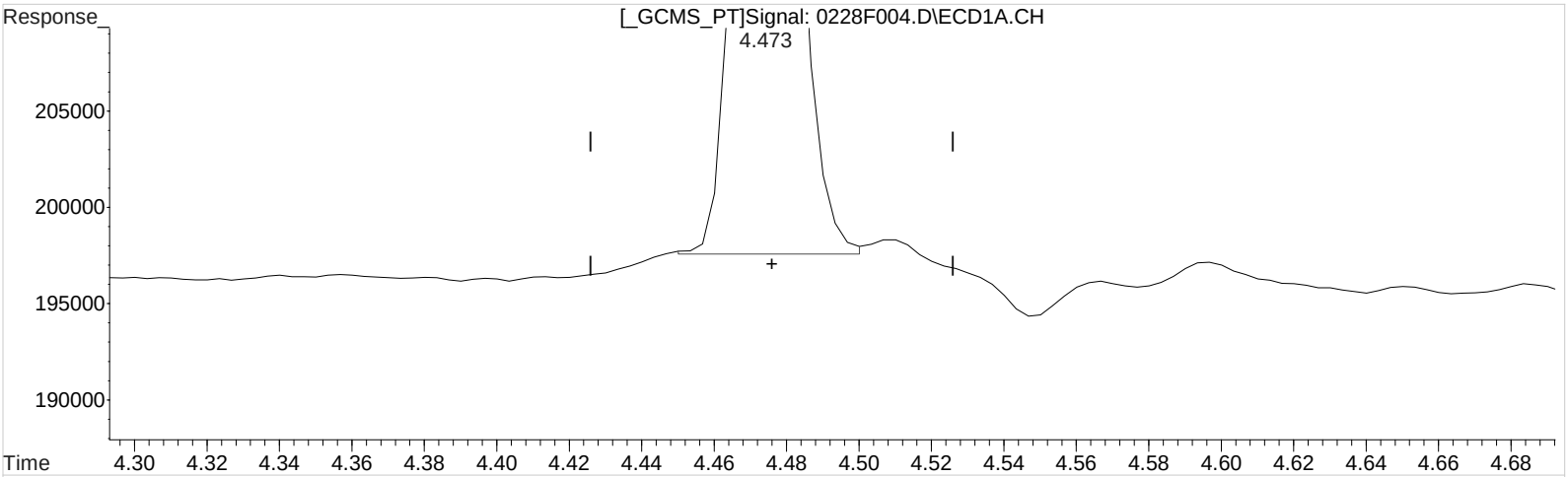
Quantitation Report (Qedit)

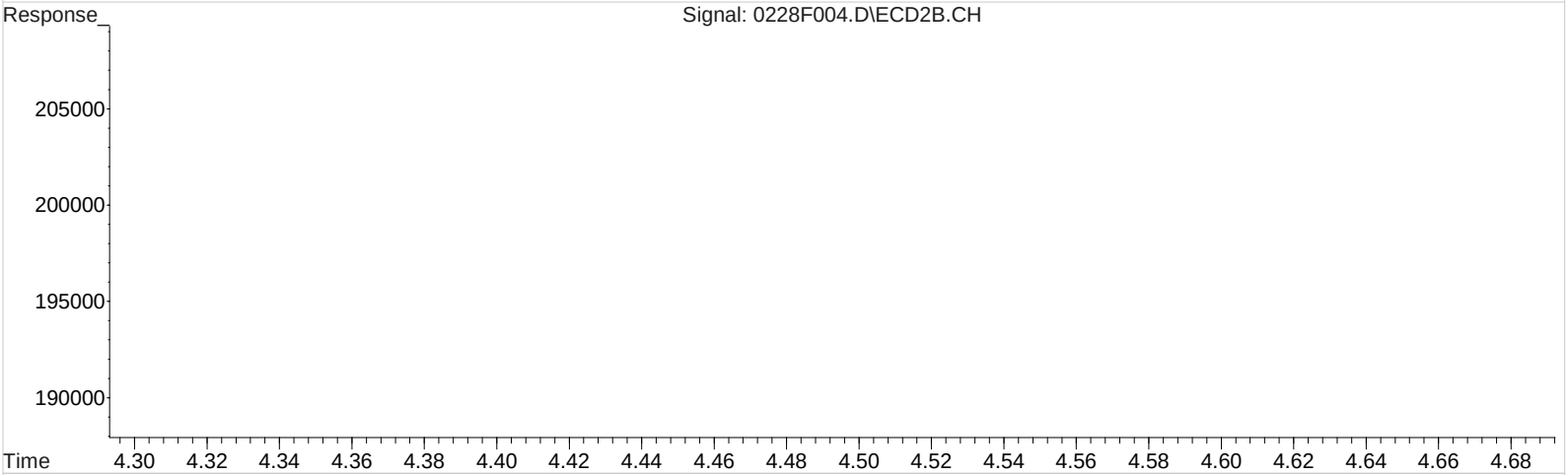
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

(+) = Expected Retention Time

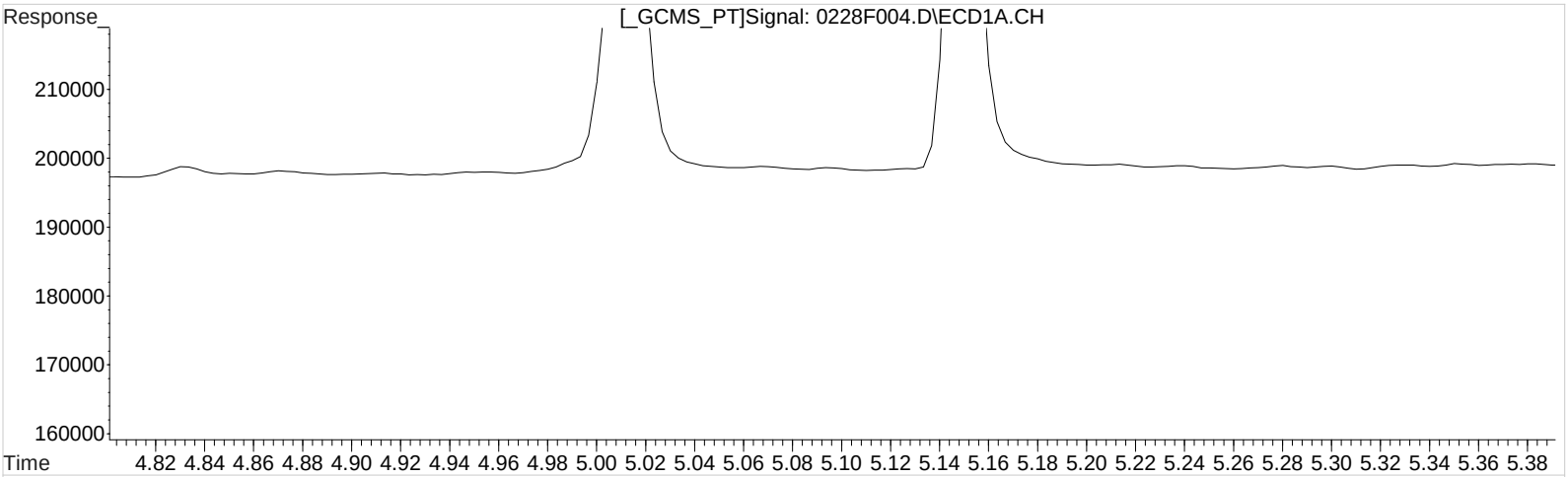
Quantitation Report (Qedit)

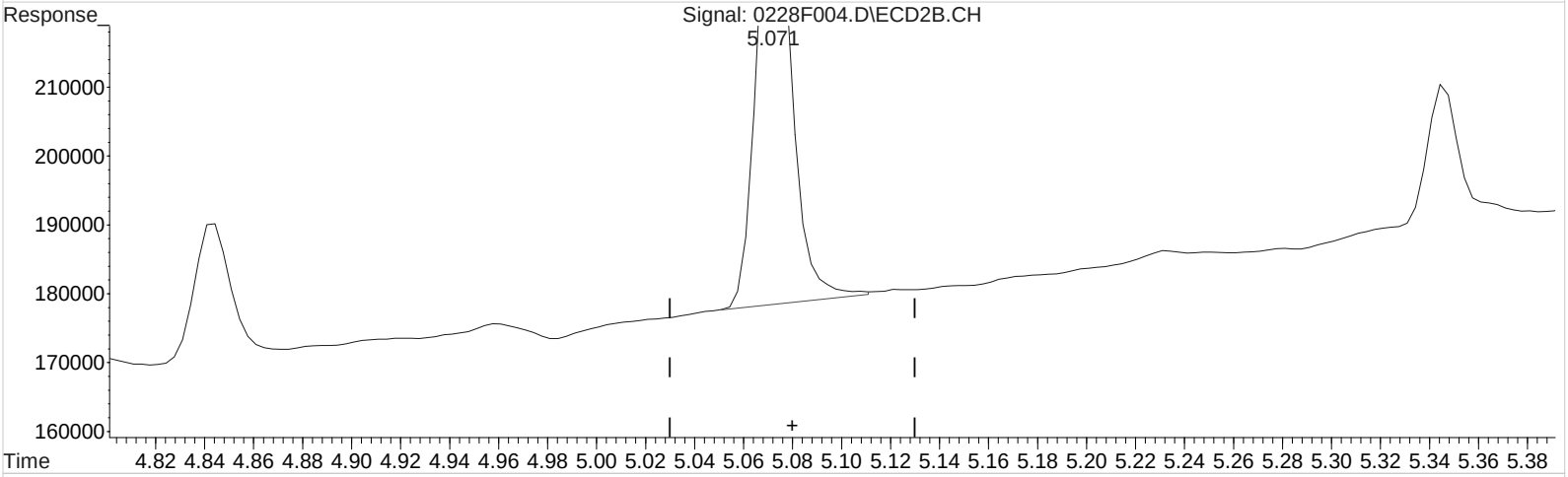
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.048 ug/L m

response 646609

(+) = Expected Retention Time

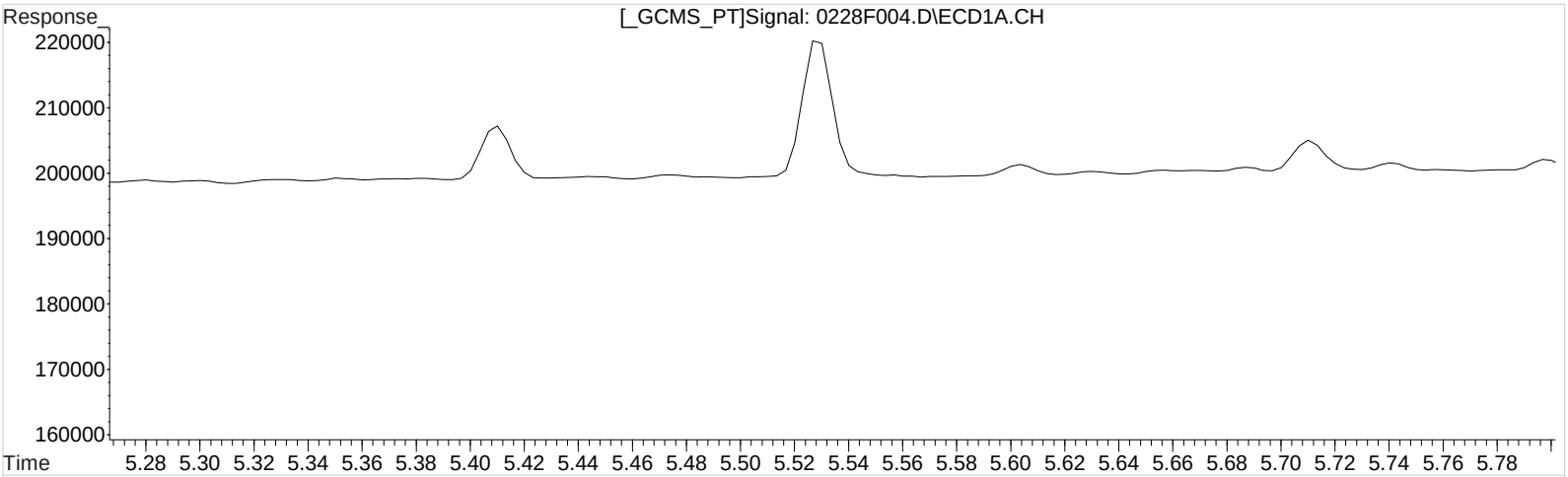
Quantitation Report (Qedit)

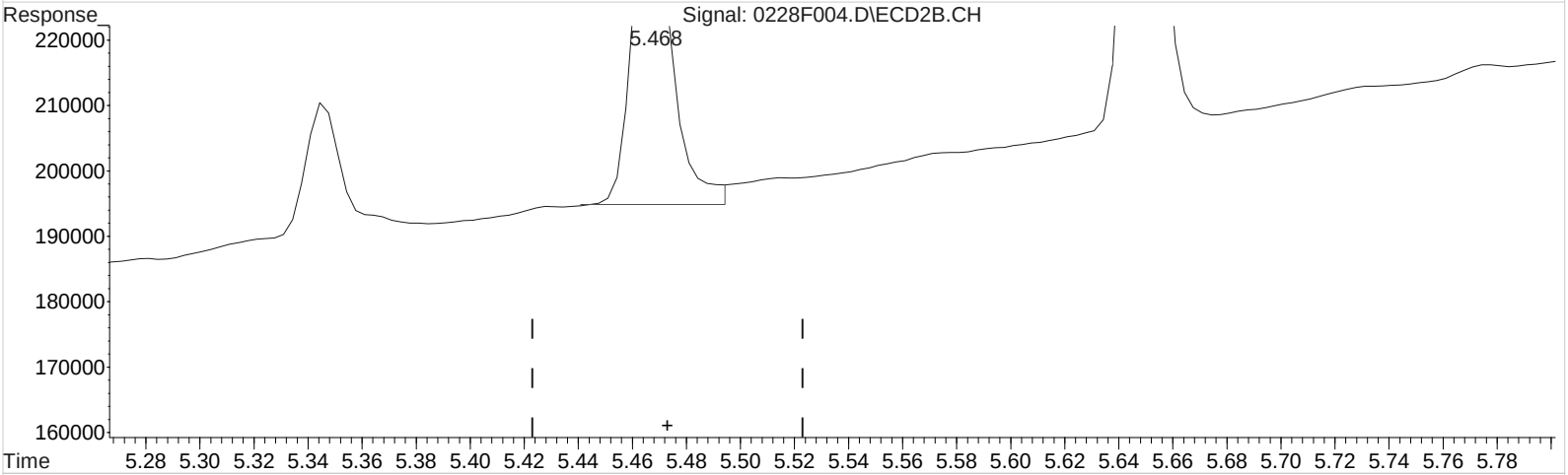
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.013min 0.771 ug/L

response 599618

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.468min 1.232 ug/L

response 508652

(+) = Expected Retention Time

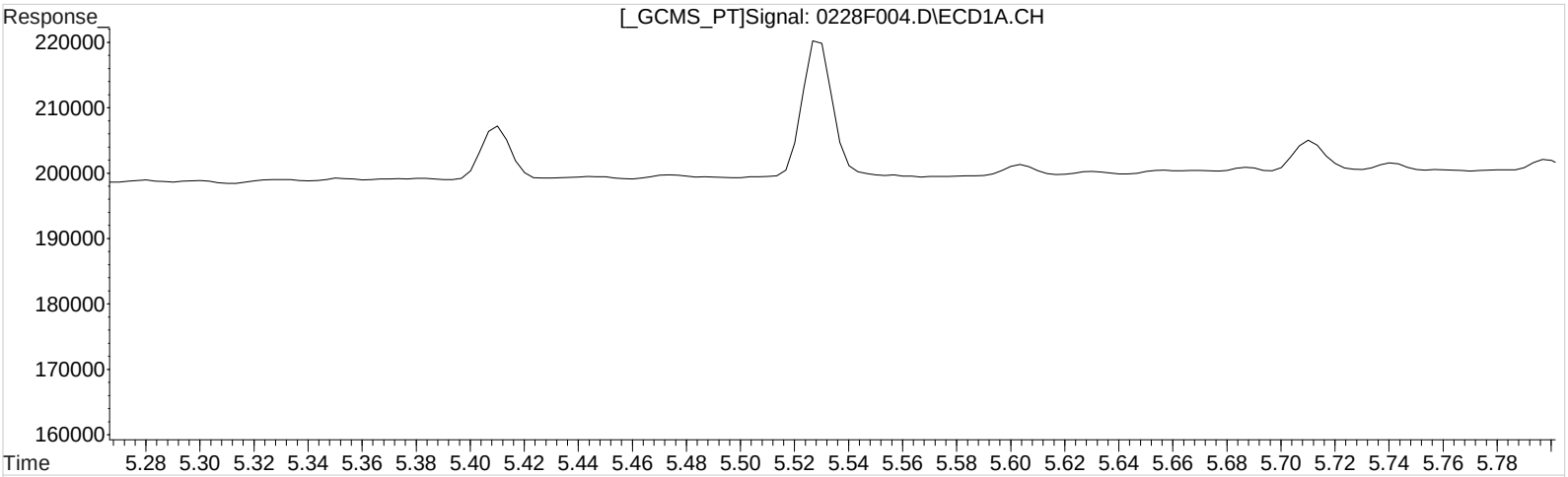
Quantitation Report (Qedit)

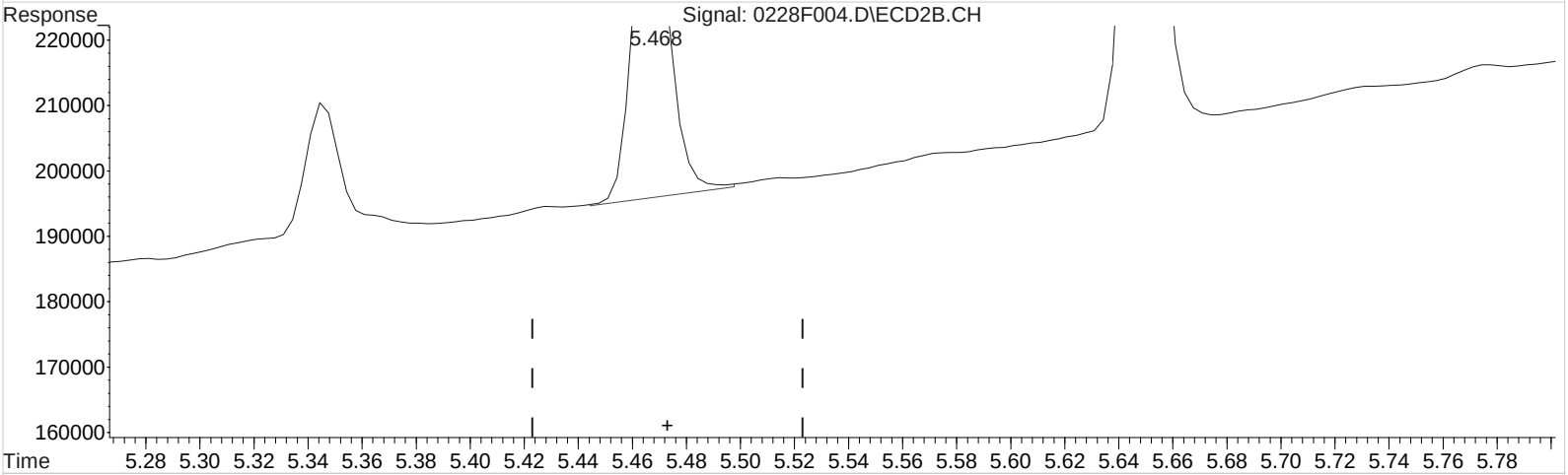
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.013min 0.771 ug/L

response 599618

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.468min 1.152 ug/L m

response 475513

(+) = Expected Retention Time

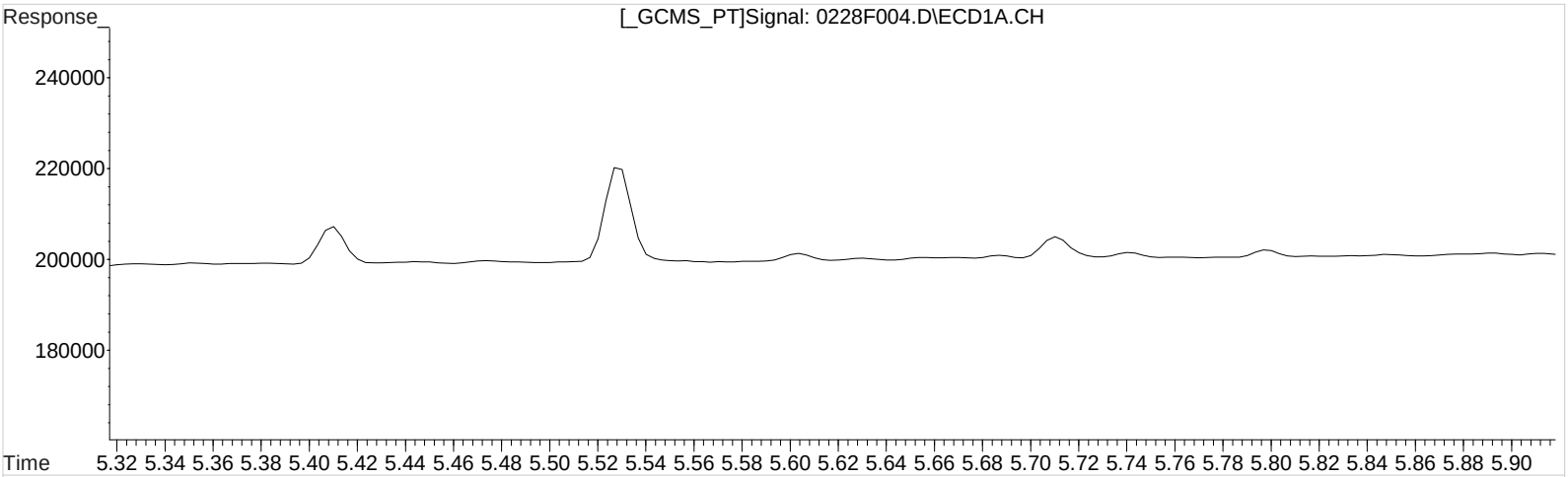
Quantitation Report (Qedit)

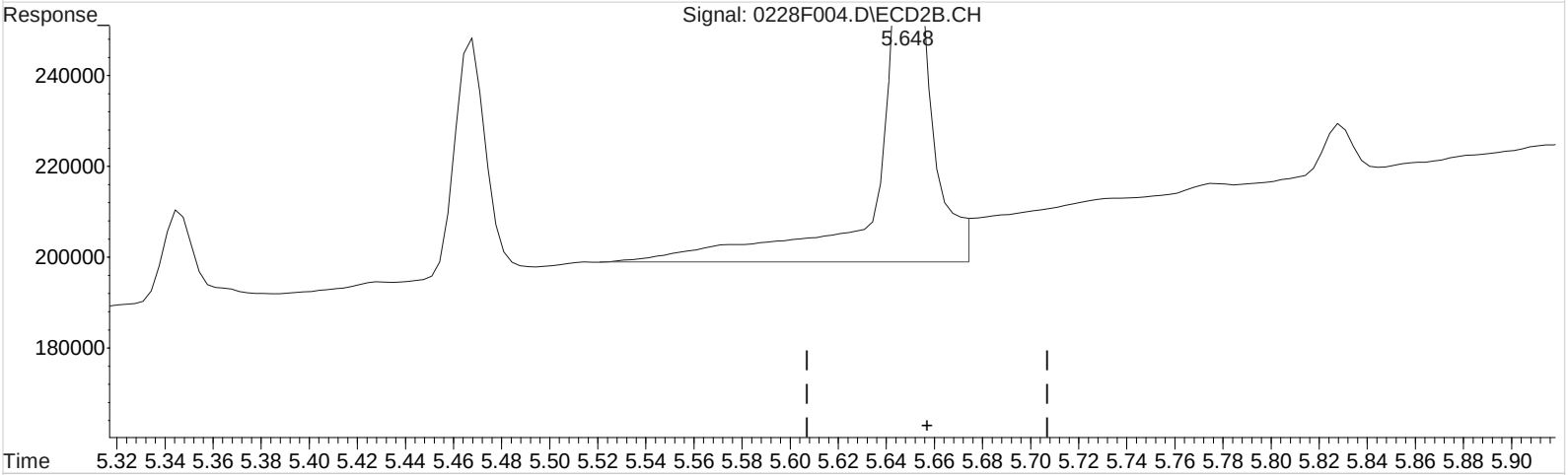
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.150min 0.493 ug/L

response 673174

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.648min 1.785 ug/L

response 1226970

(+) = Expected Retention Time

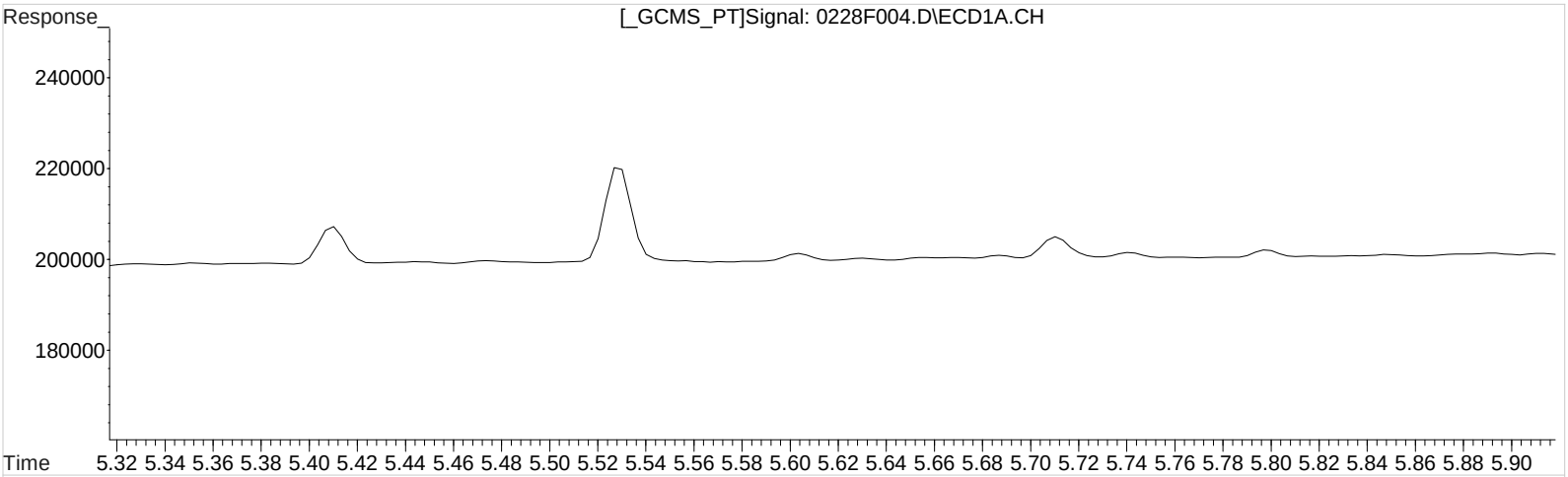
Quantitation Report (Qedit)

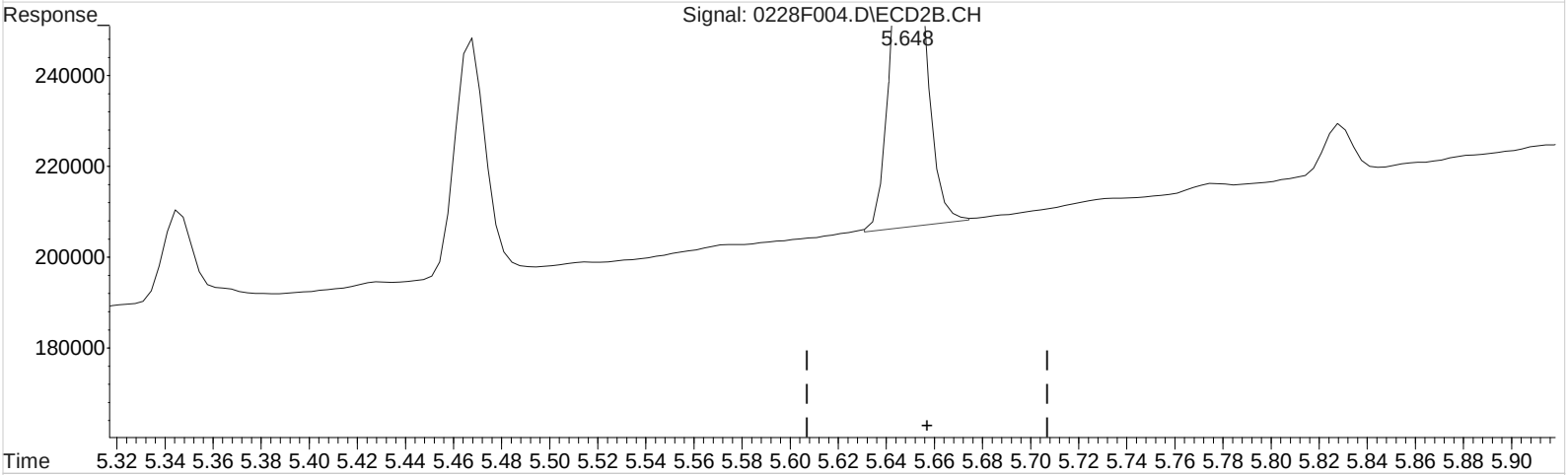
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.150min 0.493 ug/L

response 673174

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.648min 1.149 ug/L m

response 789810

(+) = Expected Retention Time

1st JMS 02/28/19

2nd MC 02/28/19

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28

Column Name: Rtx-1701

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -87.82 X² + 4.342E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	6.732E5	02	5.000	5.679E5	03	10.000	5.372E5	04	25.000	4.948E5
05	50.000	4.691E5	06	100.000	4.496E5	07	250.000	4.103E5	08	500.000	3.739E5
09	1000.000	3.511E5	10	2.500	6.128E5						

2,3,4,5-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -268.7 X² + 3.077E5 X + 3.627E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	02	4.715	3.979E5	03	9.431	3.696E5	04	23.577	3.259E5
05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5	10	2.358	4.756E5

2,3,5,6-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -316.9 X² + 4.391E5 X + 2.523E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	02	4.715	5.28E5	03	9.431	4.935E5	04	23.577	4.478E5
05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5	10	2.358	5.749E5

2,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -146.2 X² + 1.398E5 X + 1.234E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	02	4.669	1.8E5	03	9.338	1.735E5	04	23.345	1.484E5
05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5	10	2.334	2.006E5

2,4,6-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9995**	**Y= -245.7 X² + 3.136E5 X + 2.021E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	02	4.669	3.846E5	03	9.338	3.638E5	04	23.345	3.225E5
05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5	10	2.334	4.078E5

3,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -166.3 X² + 1.479E5 X + 8.837E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	02	4.669	1.823E5	03	9.338	1.696E5	04	23.345	1.515E5
05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5	10	2.334	1.988E5

3,4-Dichlorophenol	**Quadratic**	**1/X**	**COD = 1.0000**	**Y= -15.47 X² + 1.592E4 X + 8.759E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.529E4	02	4.605	1.749E4	03	9.209	1.718E4	04	23.023	1.584E4
05	46.046	1.558E4	06	92.091	1.446E4	07	230.230	1.241E4	10	2.302	1.966E4

3,5-Dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9982**	**Y= -14.62 X² + 1.118E4 X + 7.47E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	1.798E4	02	4.605	1.407E4	03	9.209	1.255E4	04	23.023	1.076E4
05	46.046	1.147E4	06	92.091	9.36E3	07	230.230	7.904E3	10	2.302	1.374E4

Pentachlorophenol (PCP)	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -97.29 X² + 4.57E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	02	4.750	5.978E5	03	9.501	5.654E5	04	23.752	5.208E5
05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5	08	475.030	3.936E5
09	950.060	3.695E5	10	2.375	6.451E5						

4-Bromo-2,6-dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9994**	**Y= -70.25 X² + 3.43E5 X + 2.985E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	02	5.000	4.356E5	03	10.000	4.141E5	04	25.000	3.754E5
05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5	08	500.000	2.979E5
09	1000.000	2.755E5	10	2.500	4.672E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.555	**-44.5**	02	5.000	5.55	11.0	03	10.000	11.4	14.0
04	25.000	27.6	10.6	05	50.000	53.6	7.2	06	100.000	105	4.8
07	250.000	248	-0.9	08	500.000	475	-5.0	09	1000.000	1020	1.6
10	2.500	2.53	1.4								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.770	-18.3	02	4.715	4.94	4.7	03	9.431	10.2	8.6
04	23.577	24.3	3.1	05	47.153	46.9	-0.6	06	94.307	91.6	-2.8
07	235.770	237	0.6	10	2.358	2.47	4.8				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.738	-21.7	02	4.715	5.11	8.5	03	9.431	10.1	7.1
04	23.577	23.9	1.3	05	47.153	47.4	0.6	06	94.307	91.5	-3.0
07	235.770	237	0.5	10	2.358	2.52	6.8				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.634	**-32.1**	02	4.669	5.16	10.4	03	9.338	10.8	15.9
04	23.345	24.5	5.1	05	46.690	46.1	-1.2	06	93.379	88.6	-5.1
07	233.450	236	1.2	10	2.334	2.47	6.0				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.732	-21.6	02	4.669	5.10	9.3	03	9.338	10.3	10.0
04	23.345	23.8	2.0	05	46.690	47.3	1.2	06	93.379	89.5	-4.1
07	233.450	235	0.8	10	2.334	2.39	2.6				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.655	-29.8	02	4.669	5.19	11.1	03	9.338	10.2	9.6
04	23.345	24.0	2.7	05	46.690	47.4	1.5	06	93.379	88.5	-5.2
07	233.450	236	1.2	10	2.334	2.55	9.2				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.914	-0.8	02	4.605	4.53	-1.6	03	9.209	9.47	2.9
04	23.023	22.9	-0.7	05	46.046	46.6	1.3	06	92.091	91.2	-1.0
07	230.230	231	0.2	10	2.302	2.30	-0.2				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.814	-11.6	02	4.605	5.16	12.1	03	9.209	9.80	6.4
04	23.023	22.1	-3.9	05	46.046	49.8	8.2	06	92.091	86.2	-6.4
07	230.230	233	1.3	10	2.302	2.17	-5.8				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	0.527	**-44.5**	02	4.750	5.27	11.0	03	9.501	10.8	14.0
04	23.752	26.3	10.6	05	47.503	50.9	7.2	06	95.006	99.5	4.8
07	237.520	235	-0.9	08	475.030	452	-5.0	09	950.060	966	1.6
10	2.375	2.41	1.4								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.643	**-35.7**	02	5.000	5.49	9.7	03	10.000	11.2	12.3
04	25.000	26.6	6.5	05	50.000	53.3	6.6	06	100.000	102	1.6
07	250.000	251	0.2	08	500.000	481	-3.9	09	1000.000	1010	1.2
10	2.500	2.54	1.5								

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D\0228F004c.d	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D\0228F006c.d	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D\0228F007c.d	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D\0228F008c.d	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D\0228F009c.d	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D\0228F010c.d	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D\0228F011c.d	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D\0228F012c.d	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D\0228F013c.d	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D\0228F014c.d	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte	Curve Fit	Weighting

2,3,4,5,6-Pentachloroanisole

Average RF **RSD = 9.583** **Average RF = 6.462E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	7.909E5	02	5.000	6.542E5	03	10.000	6.532E5	04	25.000	6.151E5
05	50.000	6.083E5	06	100.000	5.984E5	07	250.000	5.996E5	08	500.000	6.052E5
09	1000.000	6.245E5	10	2.500	7.13E5						

2,3,4,5-Tetrachlorophenol

Average RF **RSD = 12.29** **Average RF = 4.159E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	02	4.715	4.353E5	03	9.431	4.108E5	04	23.577	3.904E5
05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5	10	2.358	4.73E5

2,3,5,6-Tetrachlorophenol

Average RF **RSD = 6.587** **Average RF = 6.037E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	02	4.715	5.882E5	03	9.431	6.075E5	04	23.577	5.816E5
05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5	10	2.358	6.377E5

2,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9997** **Y= -73.44 X² + 1.777E5 X + 1.058E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	02	4.669	2.059E5	03	9.338	2.015E5	04	23.345	1.829E5
05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5	10	2.334	2.293E5

2,4,6-Trichlorophenol

Average RF **RSD = 4.634** **Average RF = 4.082E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	02	4.669	4.004E5	03	9.338	4.124E5	04	23.345	3.941E5
05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5	10	2.334	4.267E5

3,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9998** **Y= -63.92 X² + 1.7E5 X + 9.004E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	02	4.669	1.919E5	03	9.338	1.89E5	04	23.345	1.732E5
05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5	10	2.334	2.115E5

3,4-Dichlorophenol

Average RF **RSD = 10.82** **Average RF = 2.169E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.356E4	02	4.605	2.28E4	03	9.209	2.378E4	04	23.023	2.153E4
05	46.046	2.119E4	06	92.091	1.915E4	07	230.230	1.751E4	10	2.302	2.4E4

3,5-Dichlorophenol

Quadratic **1/X** **COD = 0.9996** **Y= -14.71 X² + 1.578E4 X + 8.463E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.299E4	02	4.605	1.798E4	03	9.209	1.82E4	04	23.023	1.612E4
05	46.046	1.537E4	06	92.091	1.408E4	07	230.230	1.249E4	10	2.302	1.928E4

Pentachlorophenol (PCP)

Average RF **RSD = 9.573** **Average RF = 6.805E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	02	4.750	6.912E5	03	9.501	6.875E5	04	23.752	6.474E5
05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5	08	475.030	6.37E5
09	950.060	6.573E5	10	2.375	7.52E5						

4-Bromo-2,6-dichlorophenol

Average RF **RSD = 5.968** **Average RF = 4.216E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	02	5.000	3.777E5	03	10.000	4.048E5	04	25.000	4.138E5
05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5	08	500.000	4.395E5
09	1000.000	4.542E5	10	2.500	3.934E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.22	22.4	02	5.000	5.06	1.2	03	10.000	10.1	1.1
04	25.000	23.8	-4.8	05	50.000	47.1	-5.9	06	100.000	92.6	-7.4
07	250.000	232	-7.2	08	500.000	468	-6.4	09	1000.000	966	-3.4
10	2.500	2.76	10.3								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.14	21.2	02	4.715	4.93	4.7	03	9.431	9.31	-1.2
04	23.577	22.1	-6.1	05	47.153	43.3	-8.3	06	94.307	83.5	-11.5
07	235.770	206	-12.5	10	2.358	2.68	13.7				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.07	13.6	02	4.715	4.59	-2.6	03	9.431	9.49	0.6
04	23.577	22.7	-3.7	05	47.153	45.9	-2.6	06	94.307	89.1	-5.6
07	235.770	223	-5.4	10	2.358	2.49	5.6				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.799	-14.5	02	4.669	4.82	3.3	03	9.338	10.0	7.4
04	23.345	23.7	1.3	05	46.690	47.3	1.3	06	93.379	90.7	-2.9
07	233.450	234	0.4	10	2.334	2.42	3.6				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	1.01	8.7	02	4.669	4.58	-1.9	03	9.338	9.43	1.0
04	23.345	22.5	-3.5	05	46.690	46.6	-0.2	06	93.379	89.0	-4.7
07	233.450	224	-4.0	10	2.334	2.44	4.5				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.846	-9.5	02	4.669	4.75	1.7	03	9.338	9.88	5.9
04	23.345	23.5	0.5	05	46.690	47.5	1.7	06	93.379	91.1	-2.4
07	233.450	234	0.3	10	2.334	2.38	1.8				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	1.00	8.6	02	4.605	4.84	5.1	03	9.209	10.1	9.6
04	23.023	22.9	-0.7	05	46.046	45.0	-2.3	06	92.091	81.3	-11.7
07	230.230	186	-19.3	10	2.302	2.55	10.6				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.806	-12.4	02	4.605	4.73	2.8	03	9.209	10.2	10.6
04	23.023	23.5	2.1	05	46.046	46.3	0.6	06	92.091	89.0	-3.3
07	230.230	232	0.7	10	2.302	2.28	-0.9				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	1.16	22.2	02	4.750	4.82	1.6	03	9.501	9.60	1.0
04	23.752	22.6	-4.9	05	47.503	44.7	-5.9	06	95.006	87.9	-7.4
07	237.520	220	-7.3	08	475.030	445	-6.4	09	950.060	918	-3.4
10	2.375	2.62	10.5								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.975	-2.5	02	5.000	4.48	-10.4	03	10.000	9.60	-4.0
04	25.000	24.5	-1.8	05	50.000	52.4	4.9	06	100.000	103	3.0
07	250.000	264	5.5	08	500.000	521	4.2	09	1000.000	1080	7.7
10	2.500	2.33	-6.7								

Initial Calibration Verification Summary Report

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-1701

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Quadratic	50	58.215	ug/L	16.4	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.125	ug/L	6.3	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.742	ug/L	7.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.950	ug/L	7.0	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	47.208	ug/L	1.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.502	ug/L	6.0	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	50.405	ug/L	9.5	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	54.814	ug/L	19.0	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Quadratic	47.5030	55.309	ug/L	16.4	<= 20

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-35

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Average RF	50	51.424	ug/L	2.8	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	46.743	ug/L	-0.9	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	47.890	ug/L	1.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	50.676	ug/L	8.5	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Average RF	46.69	46.729	ug/L	0.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	48.393	ug/L	3.6	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Average RF	46.0460	46.475	ug/L	0.9	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	48.925	ug/L	6.3	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Average RF	47.5030	48.834	ug/L	2.8	<= 20

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:10:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.031	4.715	2177979	1888328	5.516	4.344
		Target Compounds						
1)		3,4-Dichl...	3.138	3.832	80562	104986	4.505m	4.752
2)		3,5-Dichl...	3.378	4.089	64800	82809	5.639m	5.025
3)		2,4,6-Tri...	3.474	4.289	1795636	1869642	5.068	4.483
5)		2,4,5-Tri...	4.201	4.782	840314	961190	5.239	4.809
6)		3,4,5-Tri...	4.231	4.845	851278	896194	5.313	4.774
7)	M	2,3,5,6-T...	4.478	5.075	2489684	2773207	5.230	4.493m
8)	M	2,3,4,5-T...	5.014	5.469	1875877	2052365	4.930m	4.970
9)	M	Pentachlo...	5.151	5.649	2839370	3283089	5.309	4.775m
10)		Pentachlo...	5.151	5.649	2839370	3271189	5.588	5.010m

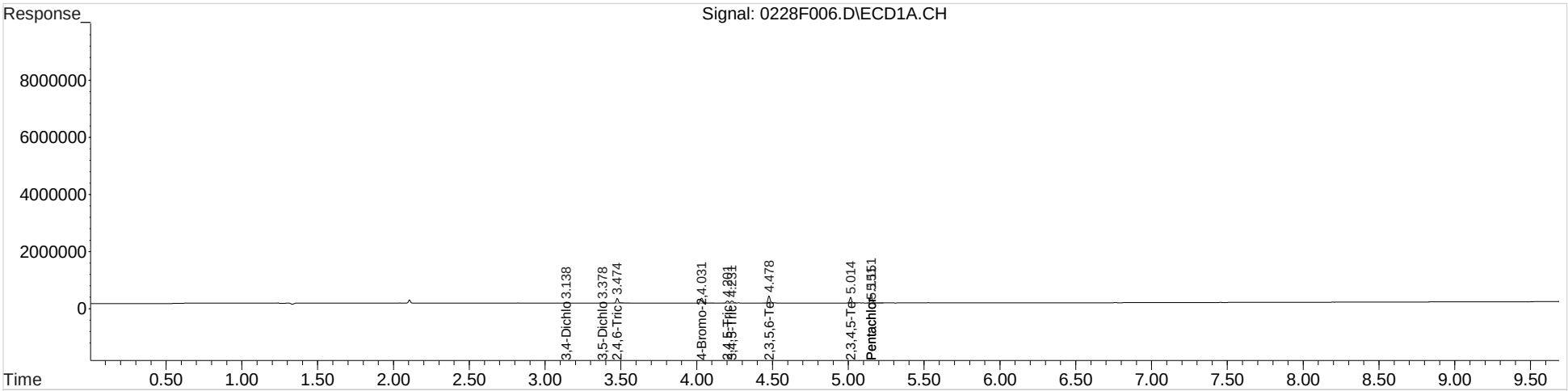
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:10:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



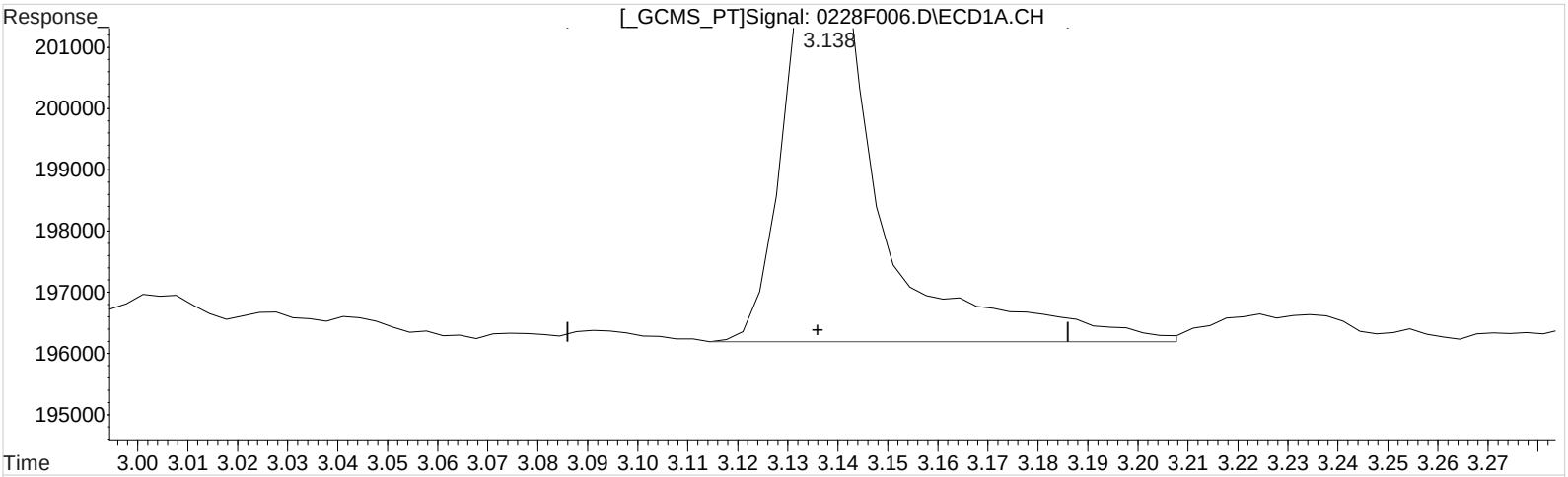
Quantitation Report (Qedit)

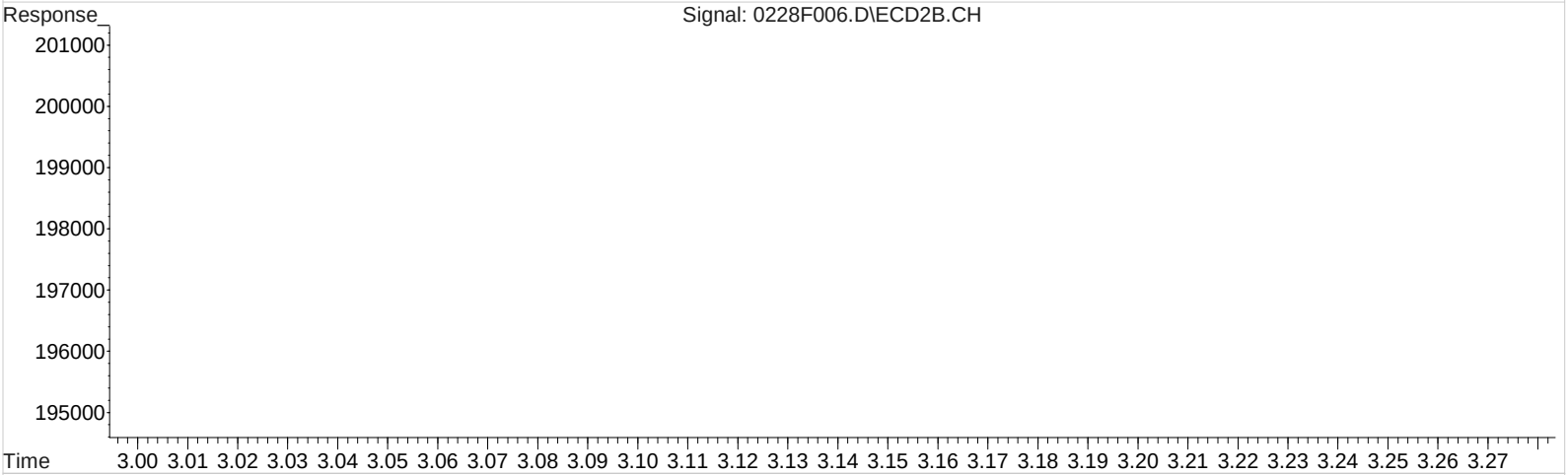
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.138min 5.274 ug/L

response 92393

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.832min 4.752 ug/L

response 104986

(+) = Expected Retention Time

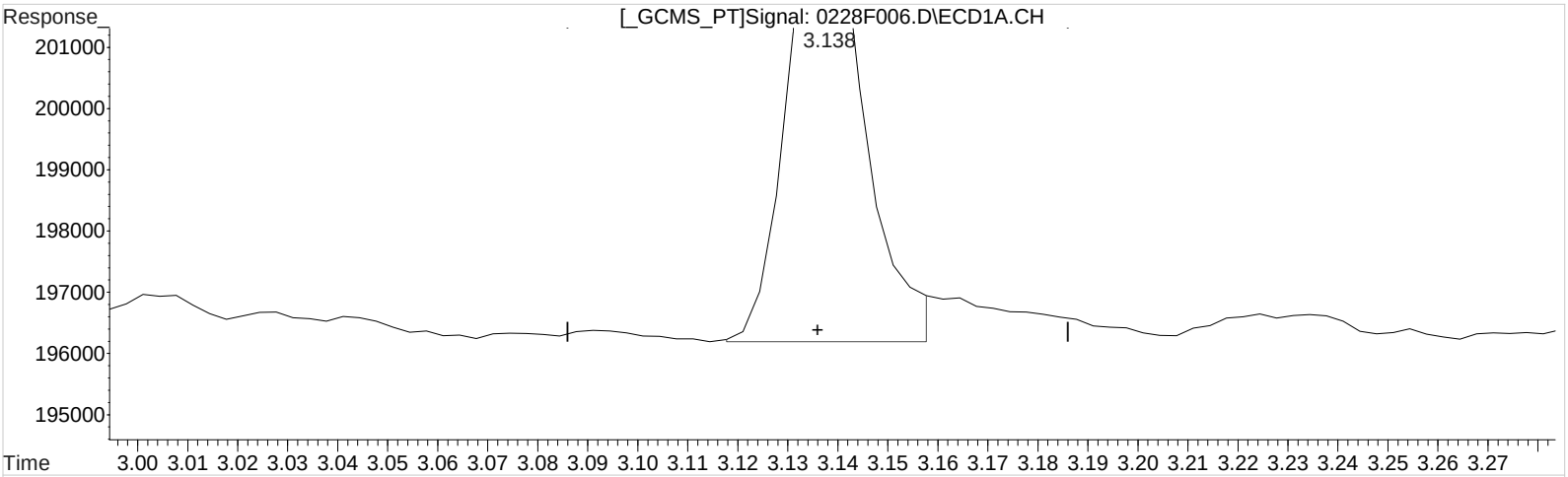
Quantitation Report (Qedit)

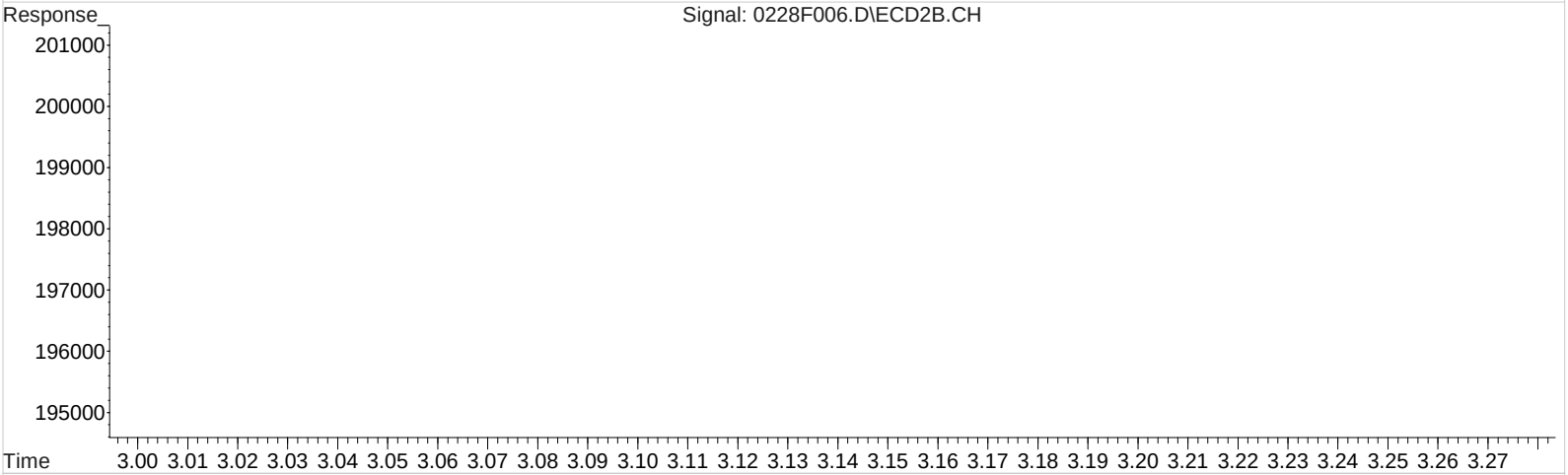
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.138min 4.505 ug/L m

response 80562

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.832min 4.752 ug/L

response 104986

(+) = Expected Retention Time

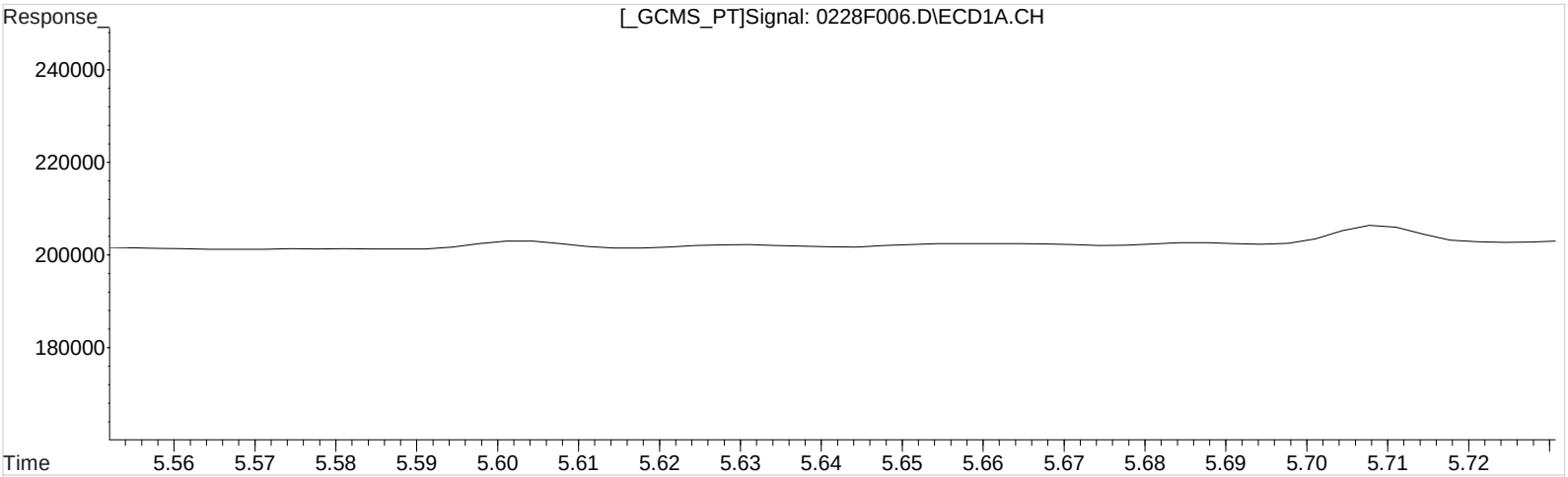
Quantitation Report (Qedit)

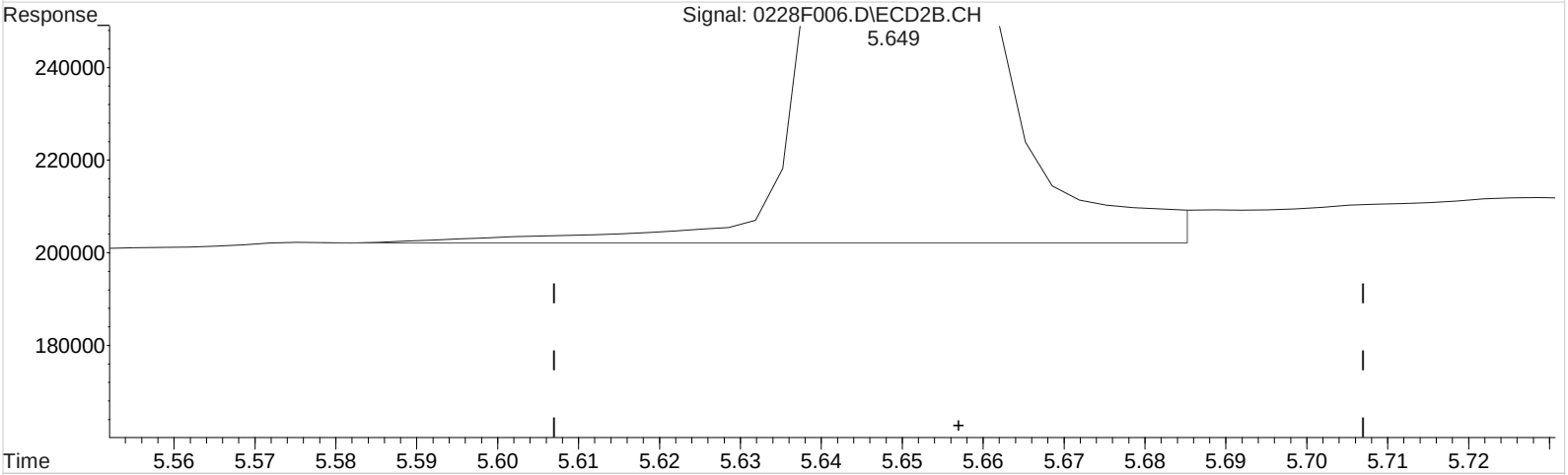
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.151min 5.588 ug/L

response 2839370

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.649min 5.332 ug/L

response 3480960

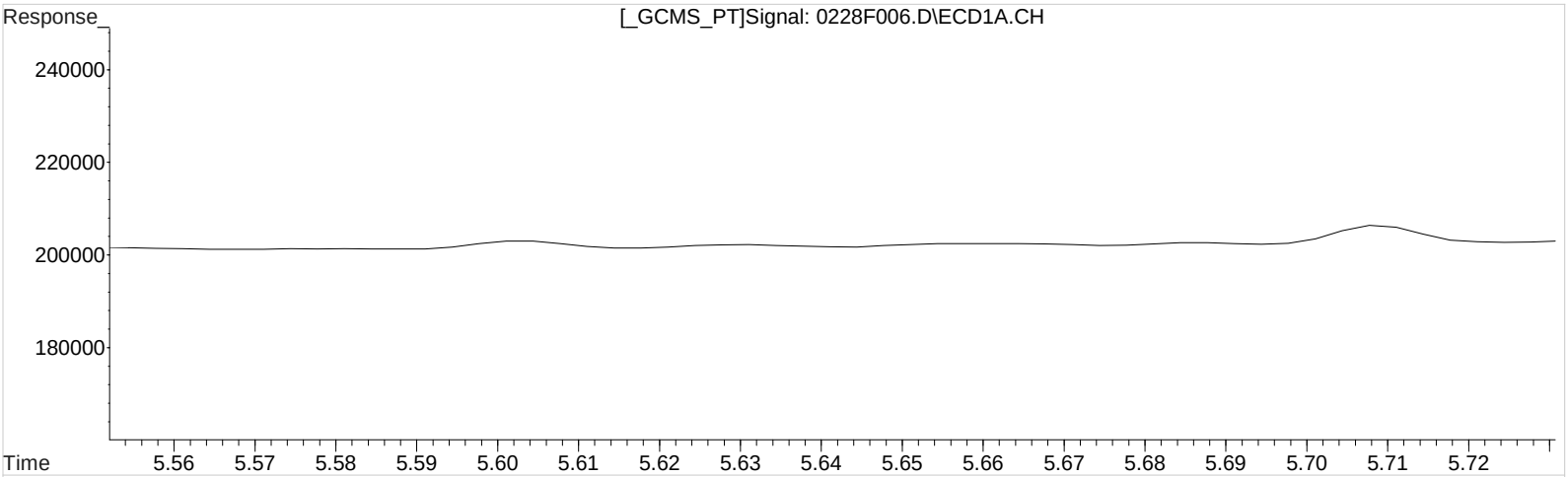
(+) = Expected Retention Time

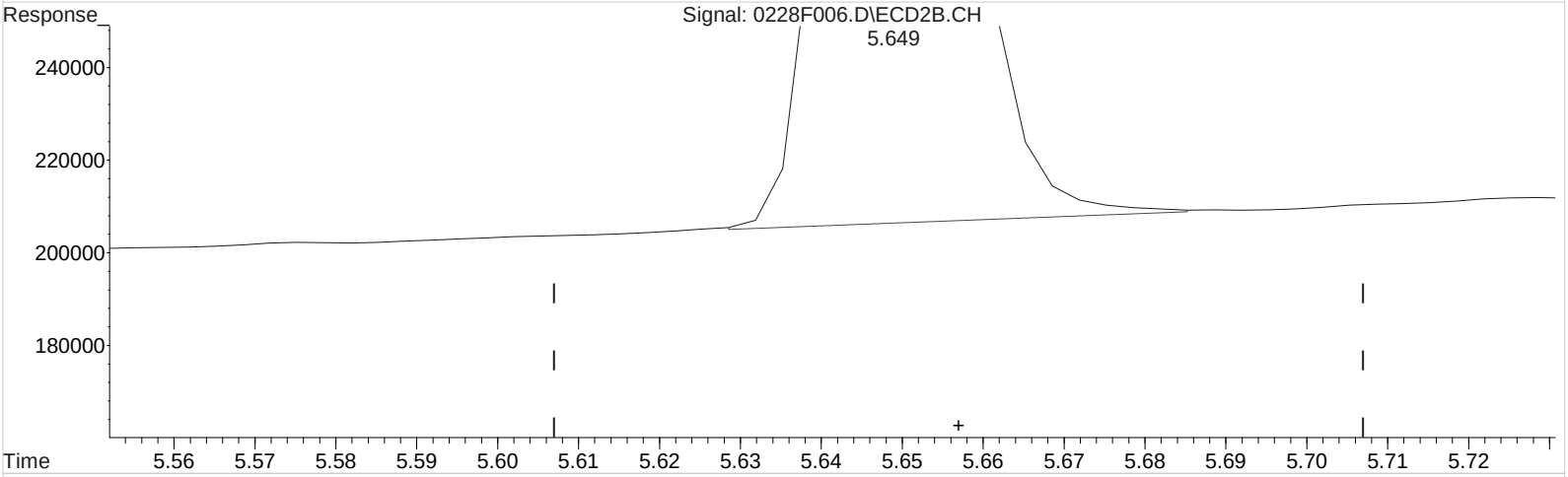
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.151min 5.588 ug/L

response 2839370

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.649min 5.010 ug/L m

response 3271189

(+) = Expected Retention Time

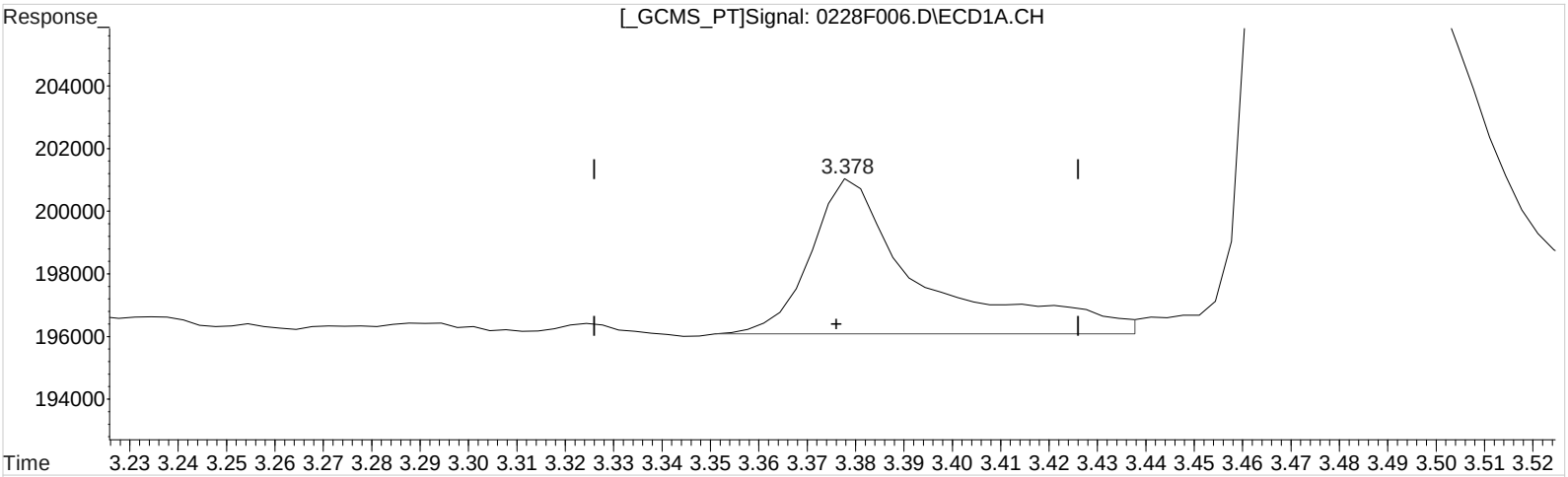
Quantitation Report (Qedit)

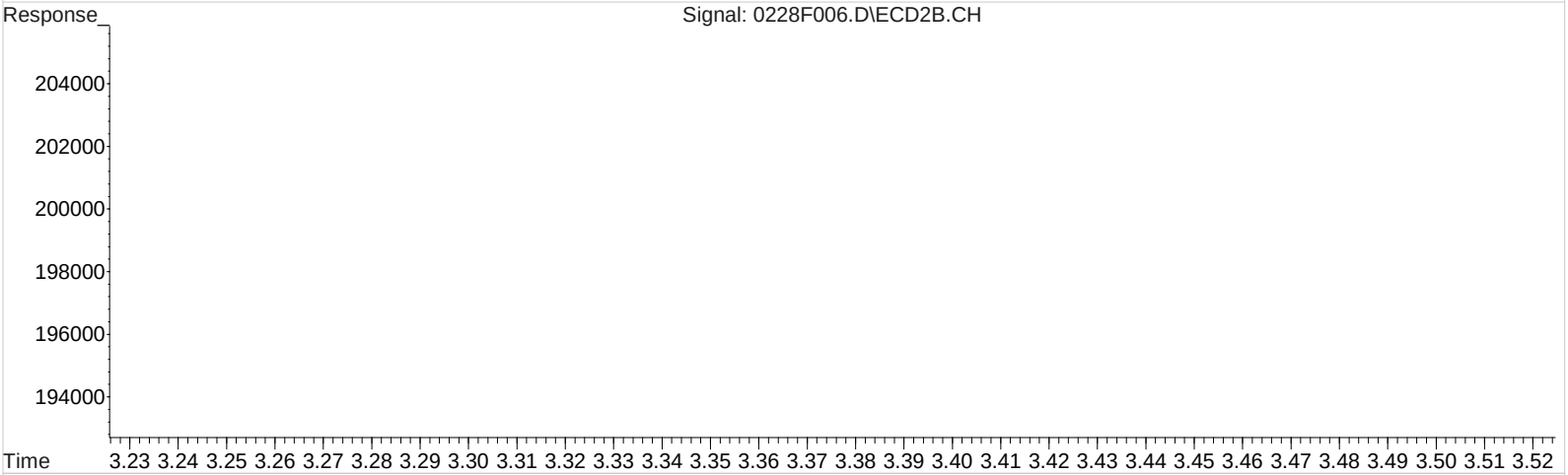
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 6.986 ug/L

response 78818

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 5.025 ug/L

response 82809

(+) = Expected Retention Time

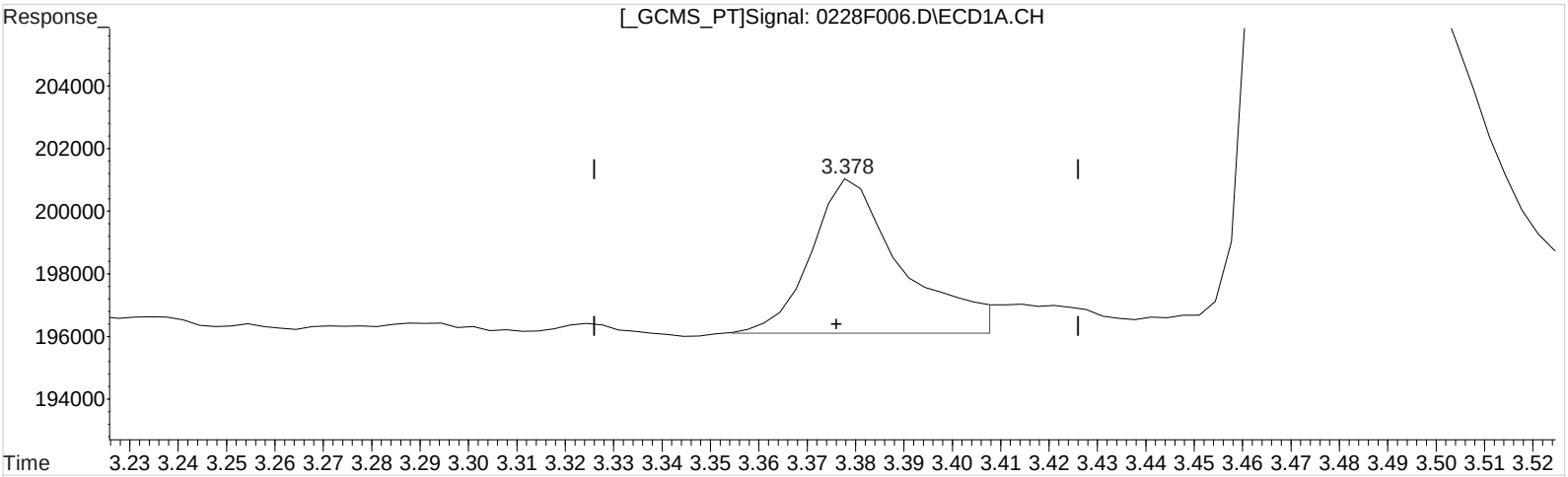
Quantitation Report (Qedit)

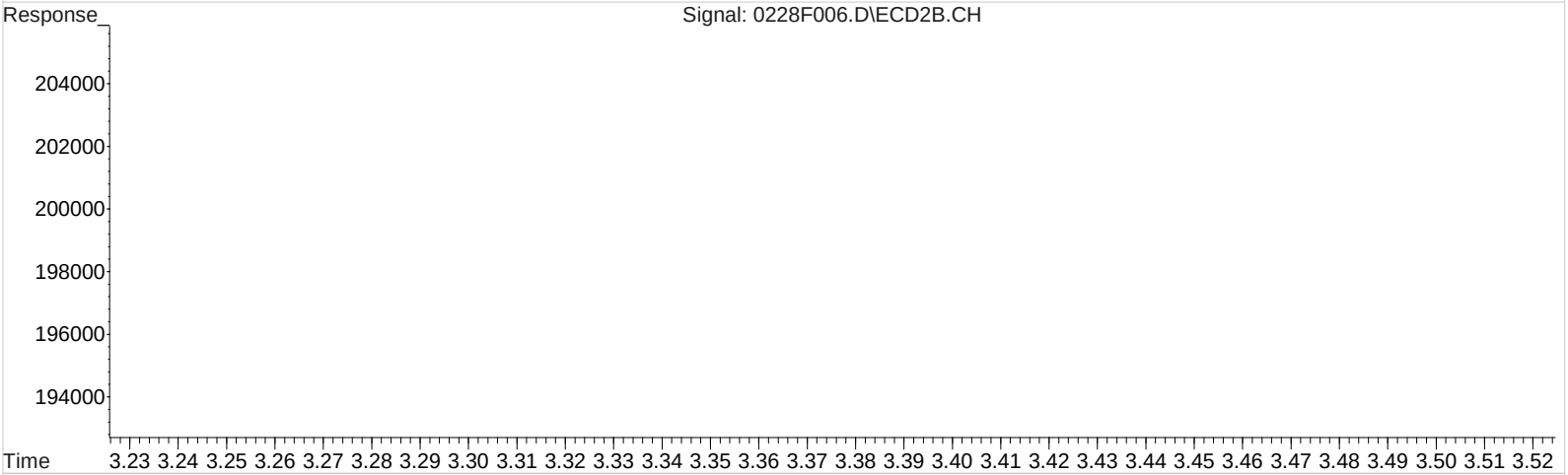
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 5.639 ug/L m

response 64800

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 5.025 ug/L

response 82809

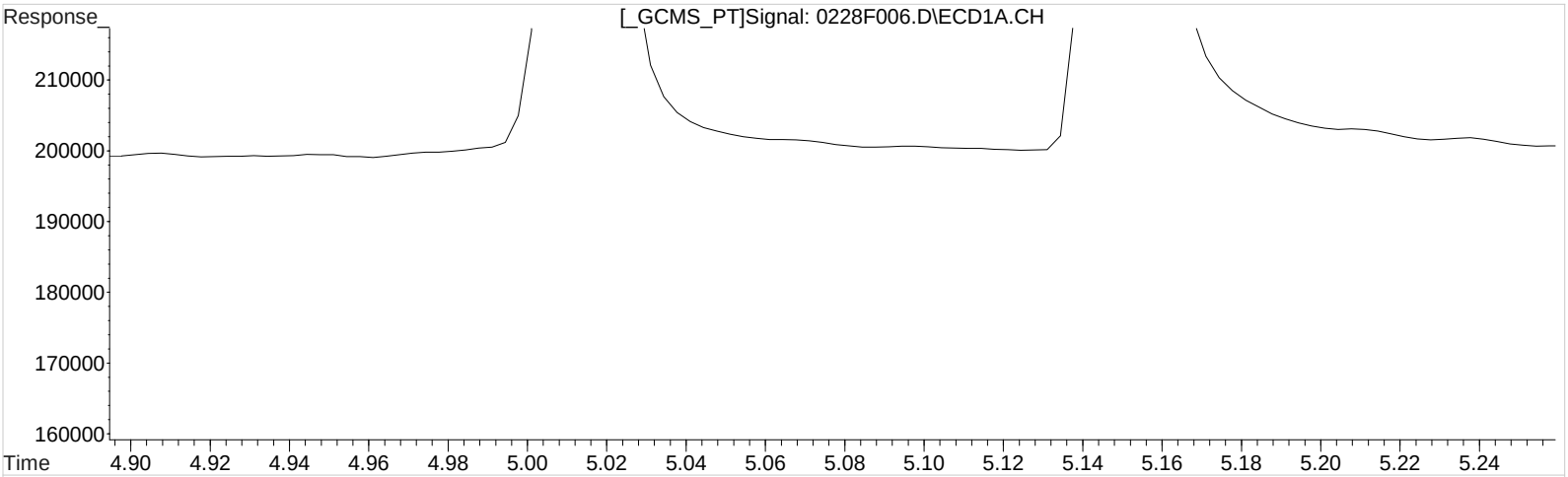
(+) = Expected Retention Time

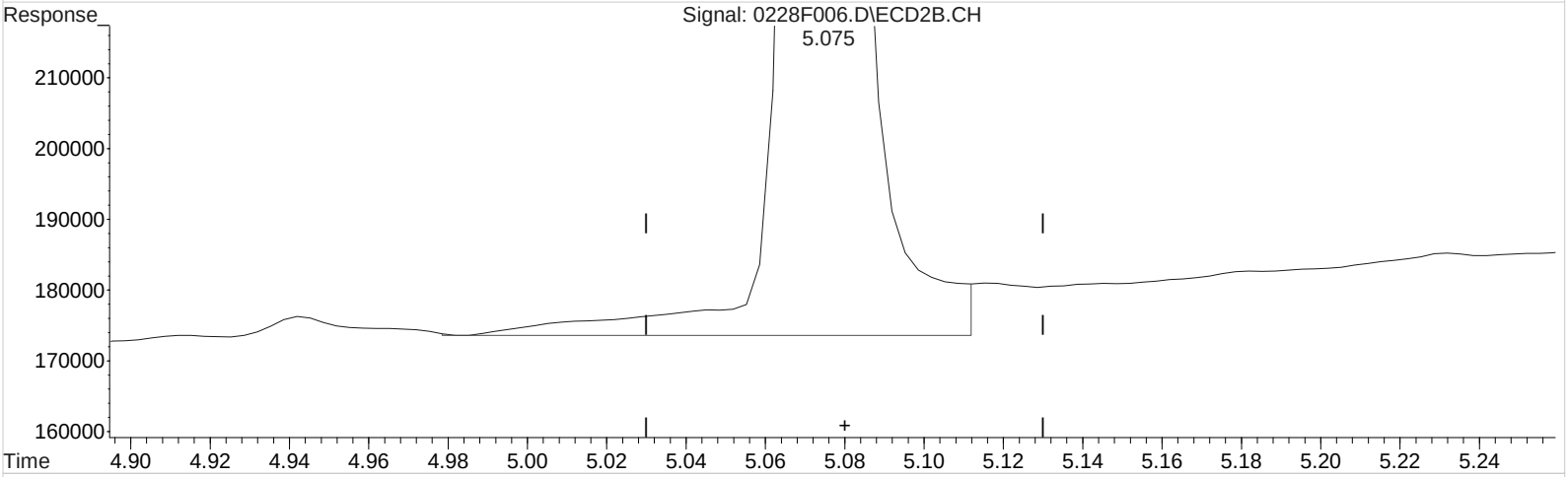
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 5.230 ug/L

response 2489684

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.075min 4.942 ug/L

response 3050029

(+) = Expected Retention Time

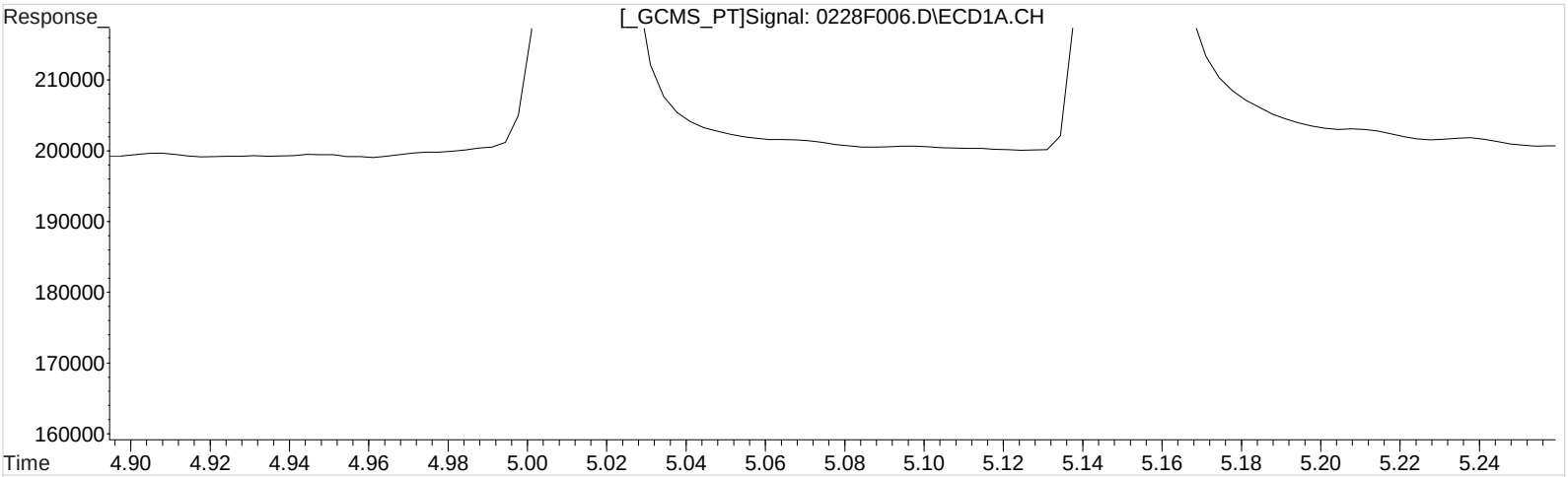
Quantitation Report (Qedit)

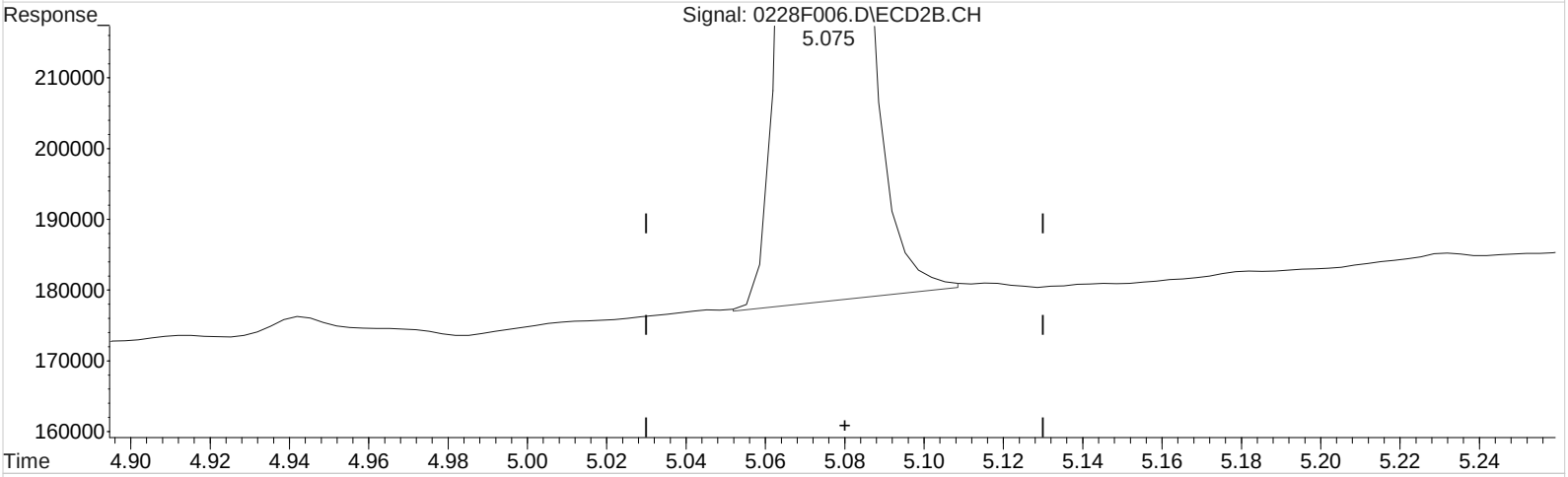
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 5.230 ug/L

response 2489684

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.075min 4.493 ug/L m

response 2773207

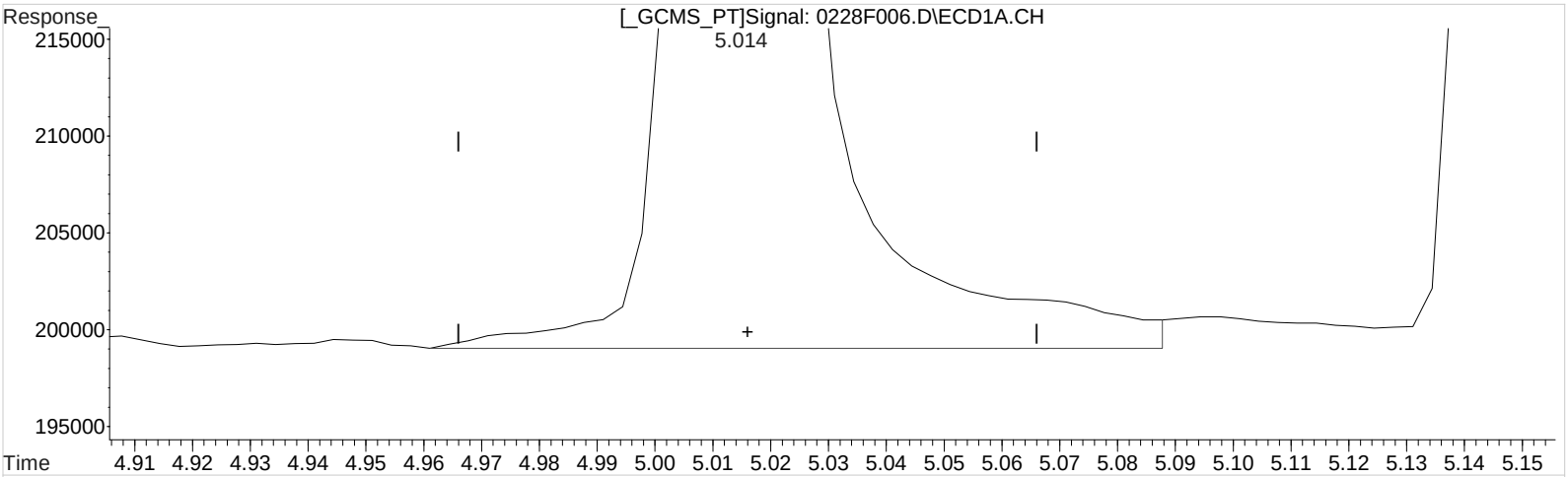
(+) = Expected Retention Time

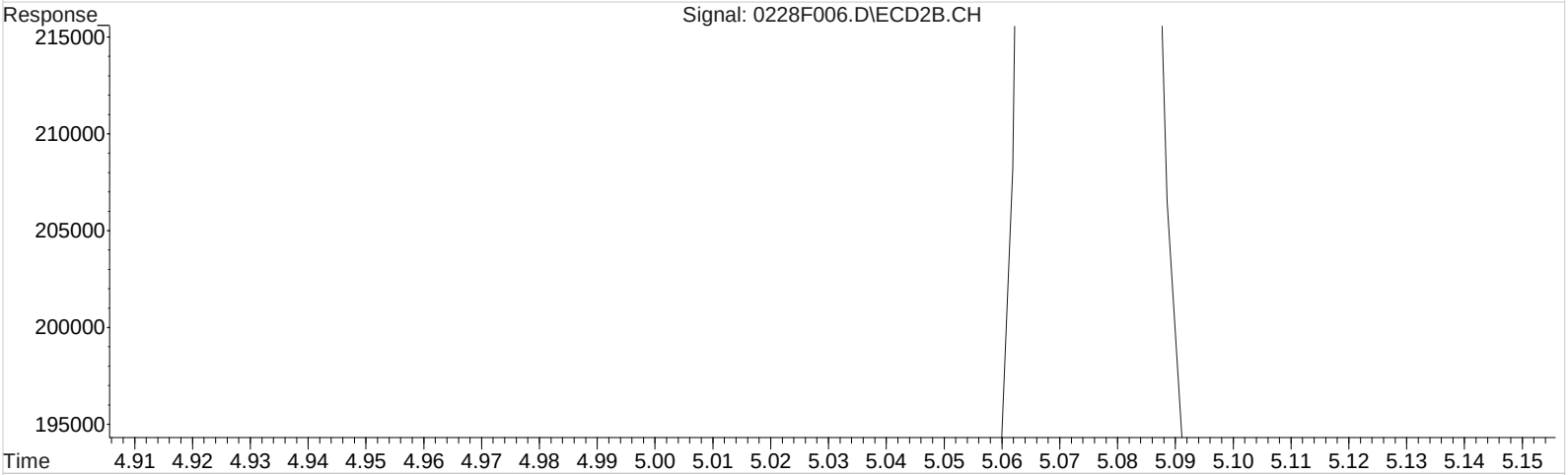
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.014min 5.252 ug/L

response 1974382

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.469min 4.970 ug/L

response 2052365

(+) = Expected Retention Time

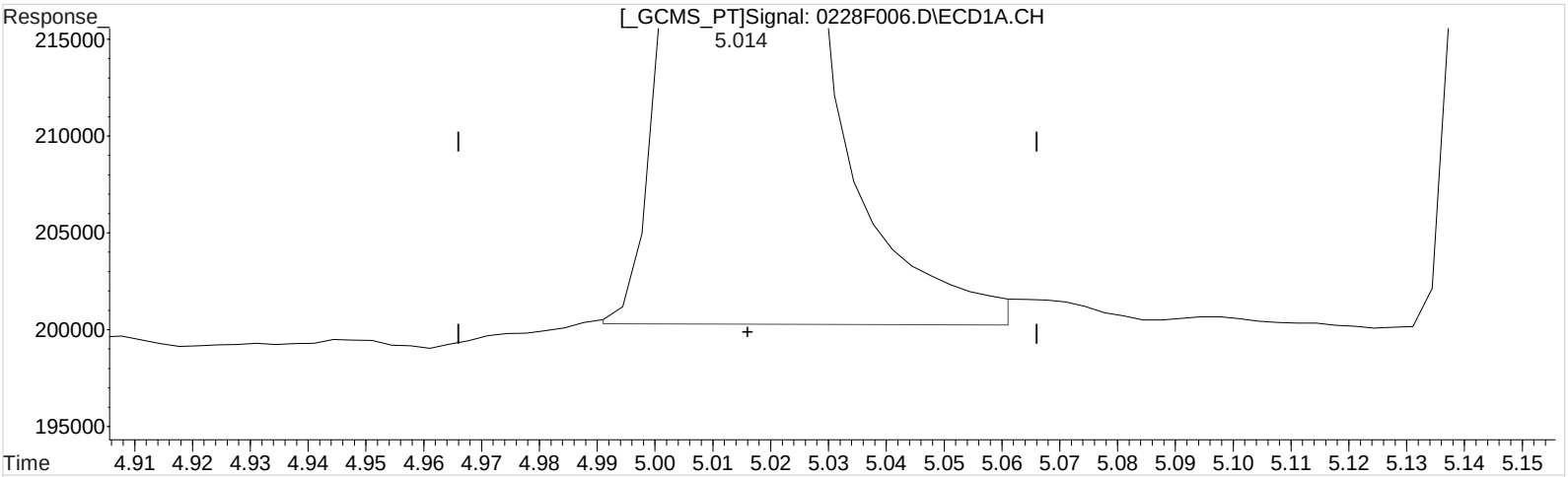
Quantitation Report (Qedit)

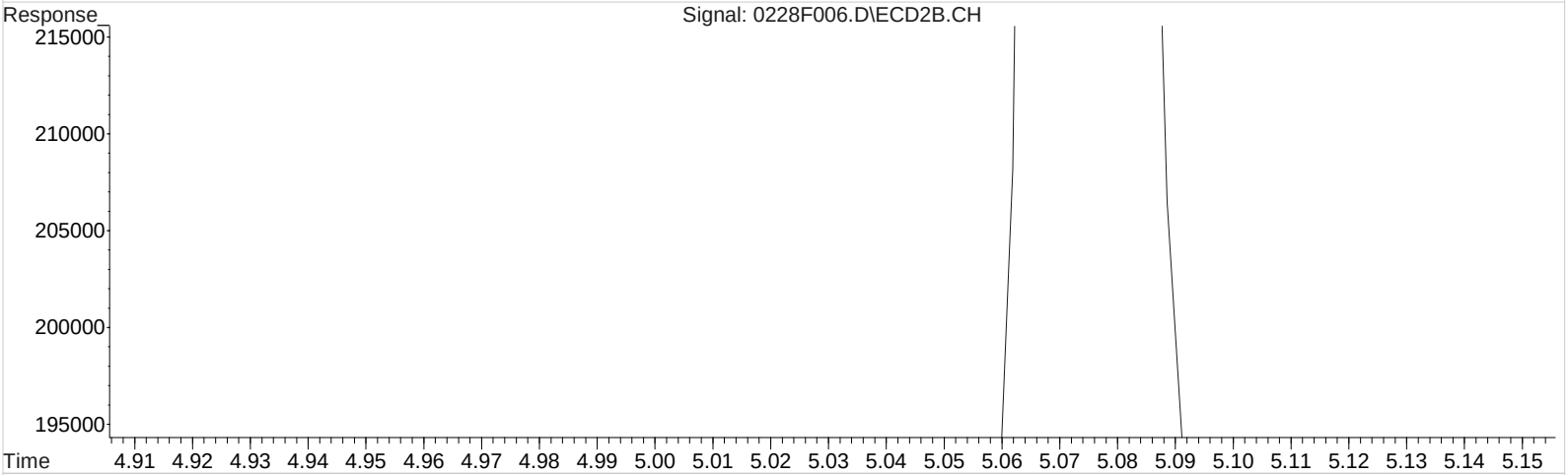
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.014min 4.930 ug/L m

response 1875877

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.469min 4.970 ug/L

response 2052365

(+) = Expected Retention Time

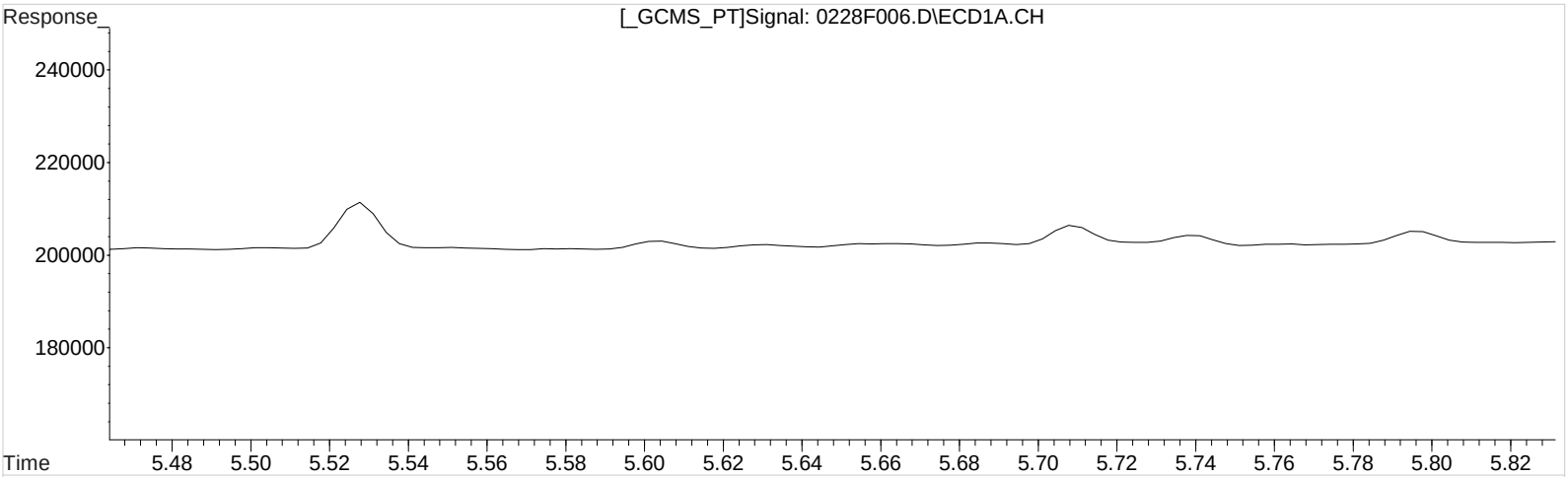
Quantitation Report (Qedit)

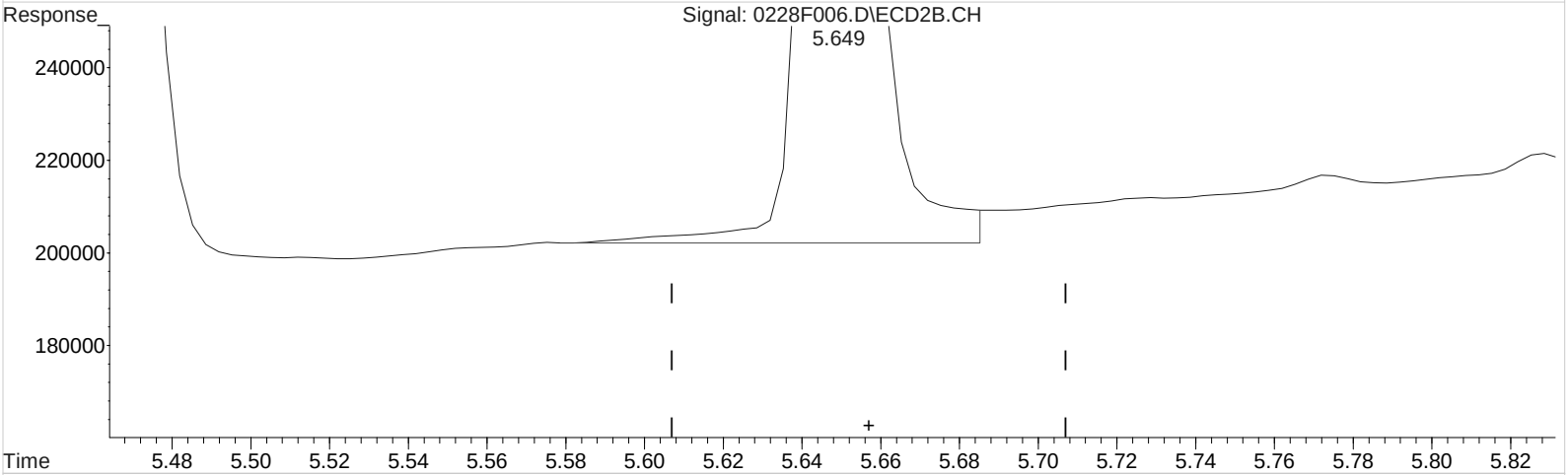
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.151min 5.309 ug/L

response 2839370

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.649min 5.063 ug/L

response 3480960

(+) = Expected Retention Time

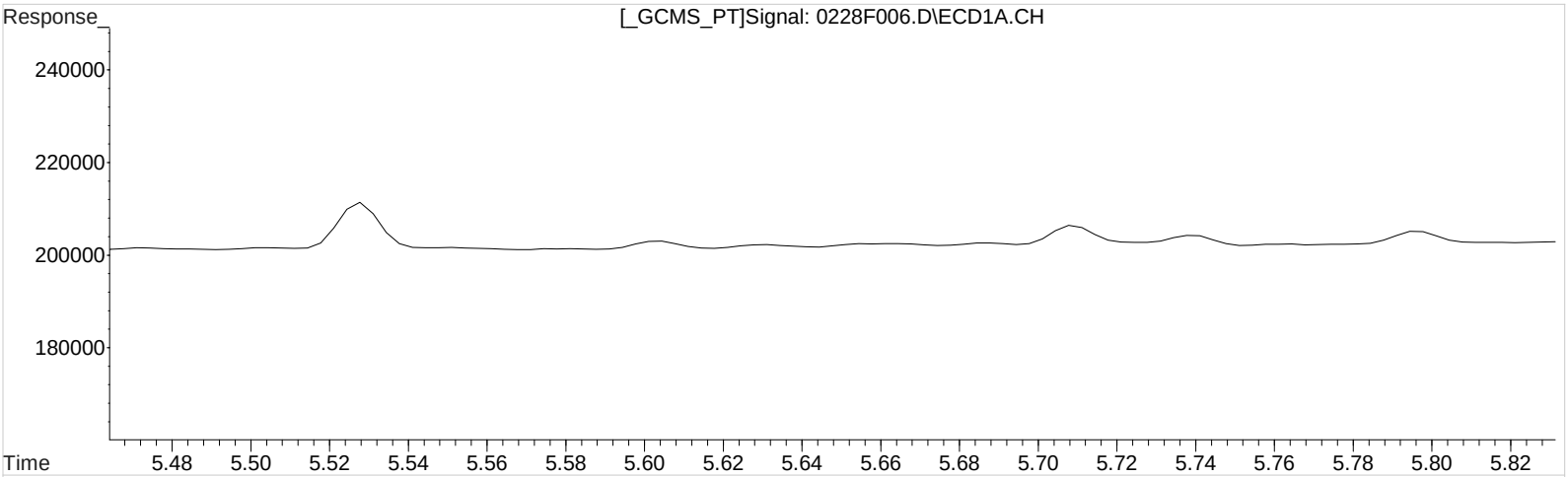
Quantitation Report (Qedit)

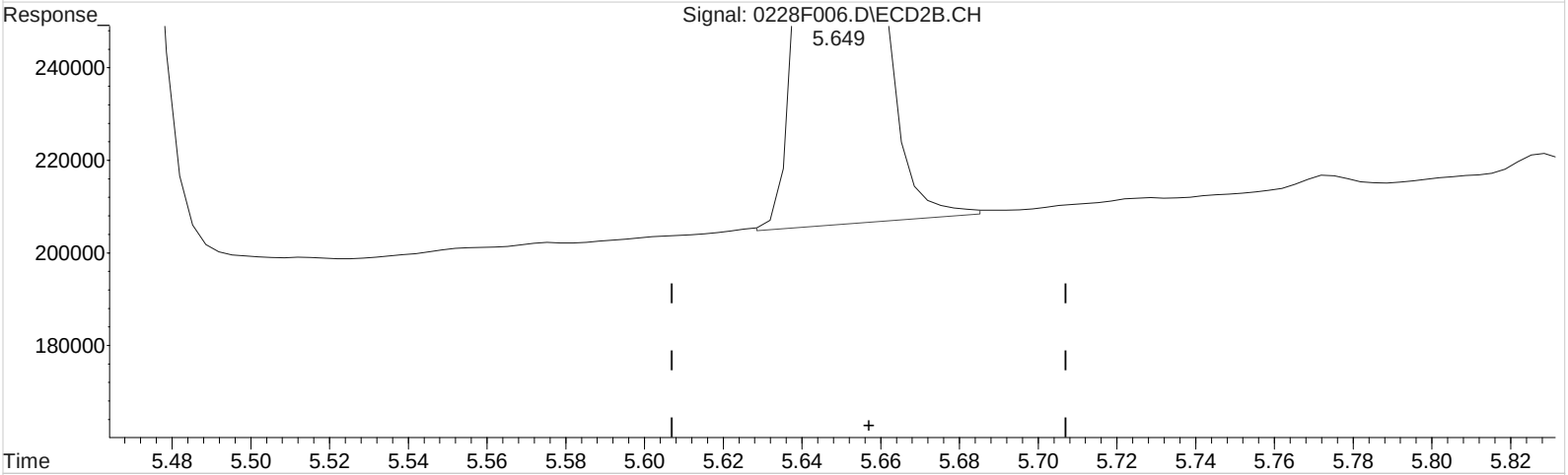
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.151min 5.309 ug/L

response 2839370

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.649min 4.775 ug/L m

response 3283089

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:31:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.033	4.717	4141410	4048056	11.304	9.312
		Target Compounds						
1)		3,4-Dichl...	3.136	3.831	158218	219018	9.573m	9.913
2)		3,5-Dichl...	3.380	4.087	115610	167574	10.545m	10.169
3)		2,4,6-Tri...	3.476	4.291	3397194	3850826	10.122	9.233
5)		2,4,5-Tri...	4.203	4.784	1619859	1881218	10.889	9.413
6)		3,4,5-Tri...	4.233	4.847	1583734	1764529	10.435m	9.401
7)	M	2,3,5,6-T...	4.476	5.077	4654510	5729619	9.778m	9.283
8)	M	2,3,4,5-T...	5.020	5.474	3486028	3874012	10.225m	9.382m
9)	M	Pentachlo...	5.156	5.657	5372015	6532395	10.950	9.501
10)		Pentachlo...	5.156	5.657	5372015	6532395	11.526	10.005

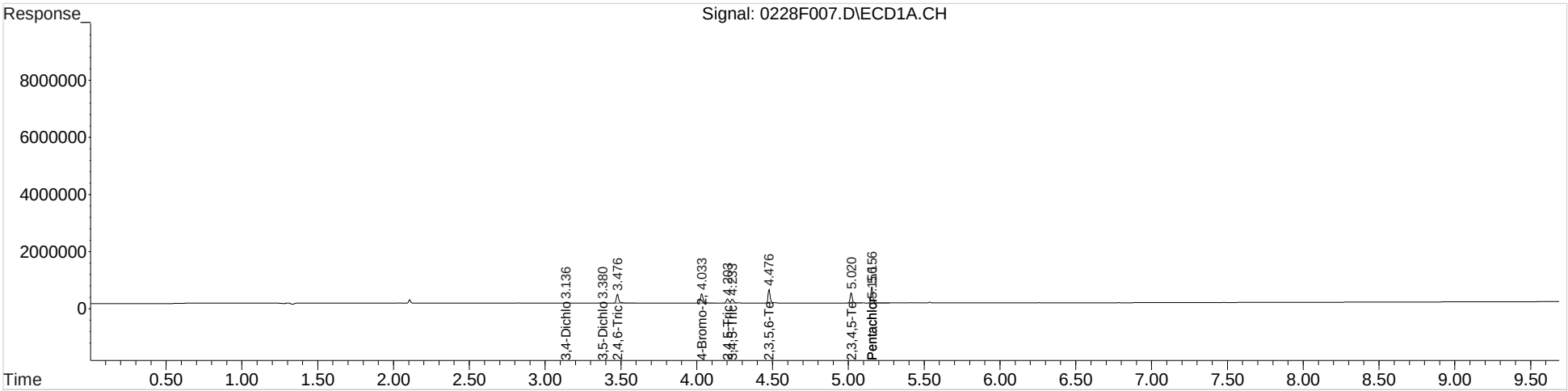
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:31:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



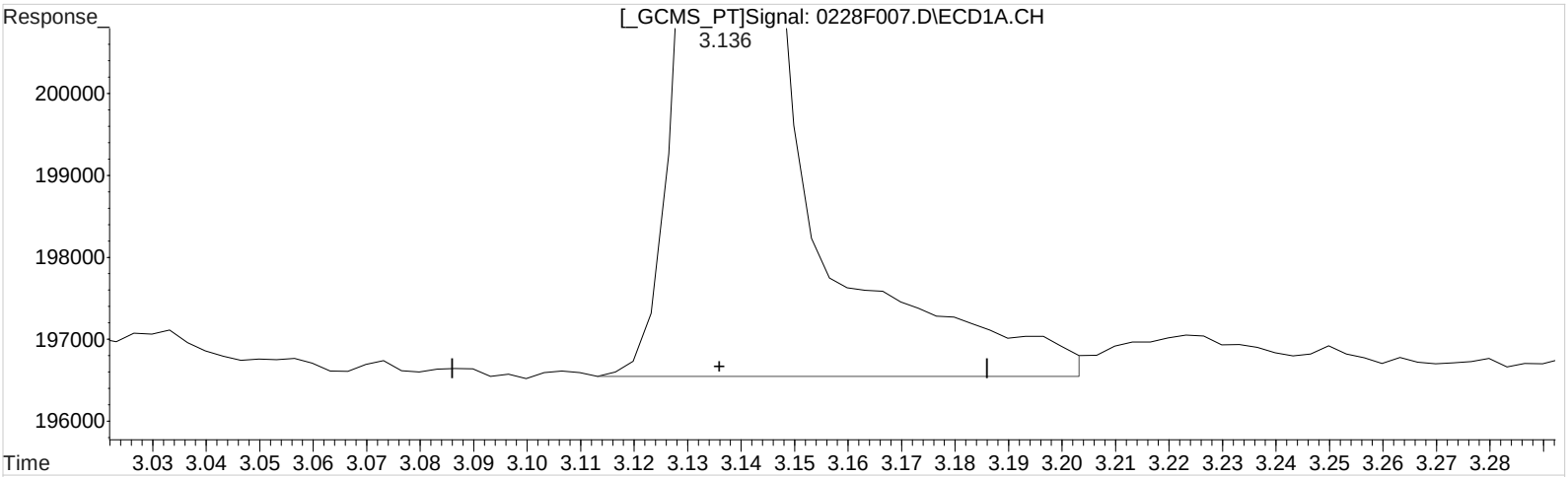
Quantitation Report (Qedit)

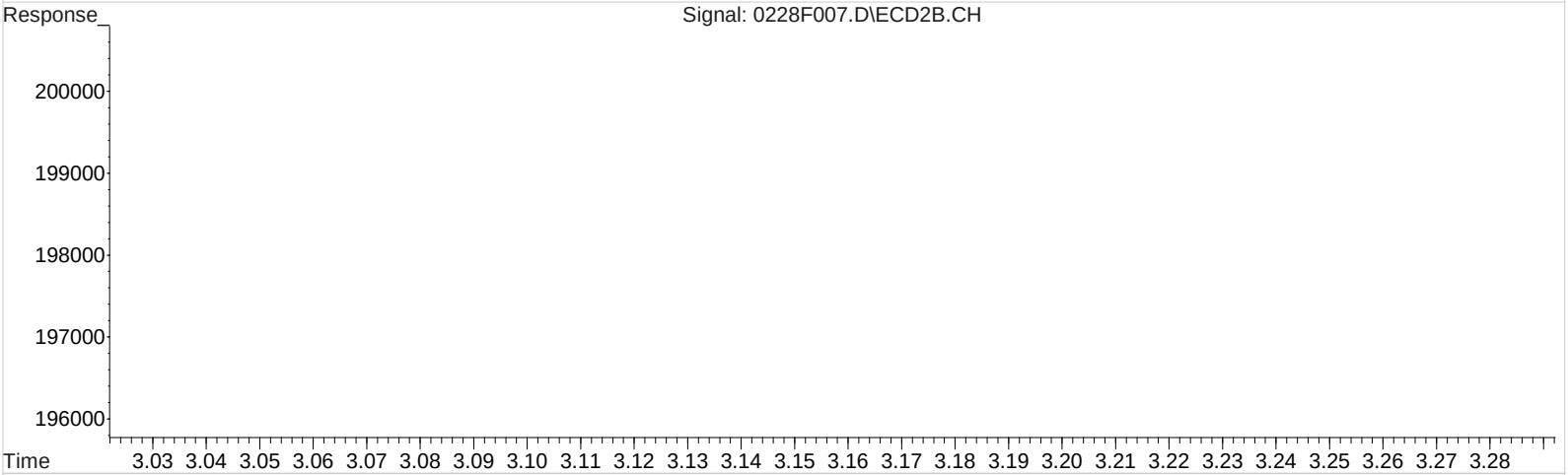
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.136min 10.715 ug/L

response 175614

(1) 3,4-Dichlorophenol #2

3.831min 9.913 ug/L

response 219018

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

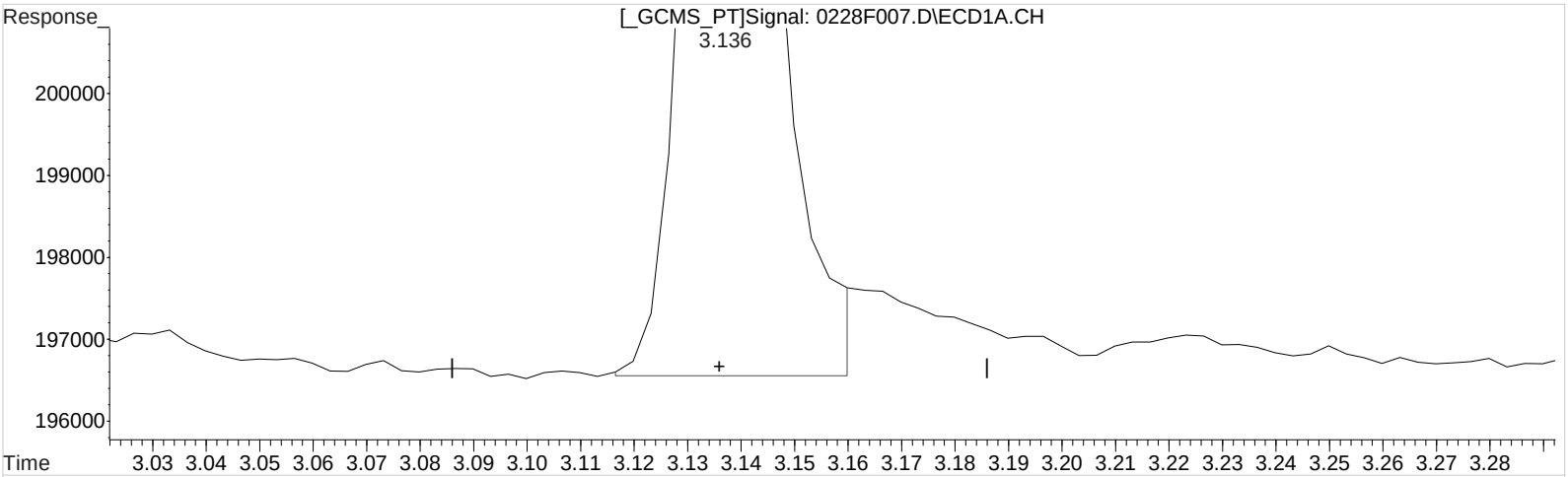
Quantitation Report (Qedit)

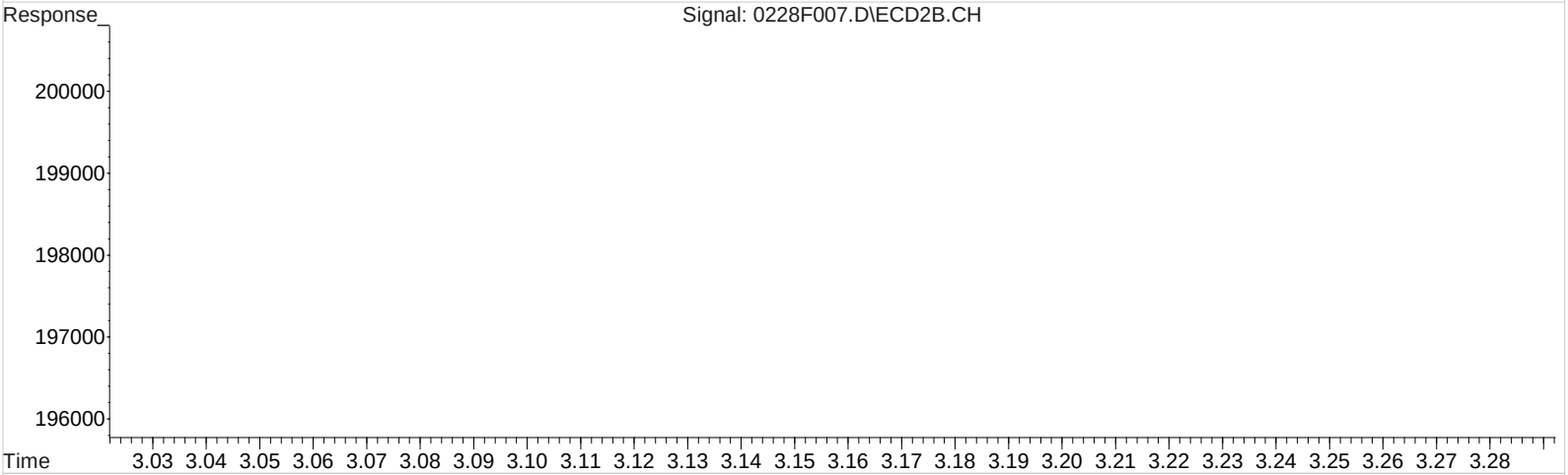
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.136min 9.573 ug/L m

response 158218

(1) 3,4-Dichlorophenol #2

3.831min 9.913 ug/L

response 219018

Manual Integration:

After

Baseline/Shoulder

02/28/19

(+) = Expected Retention Time

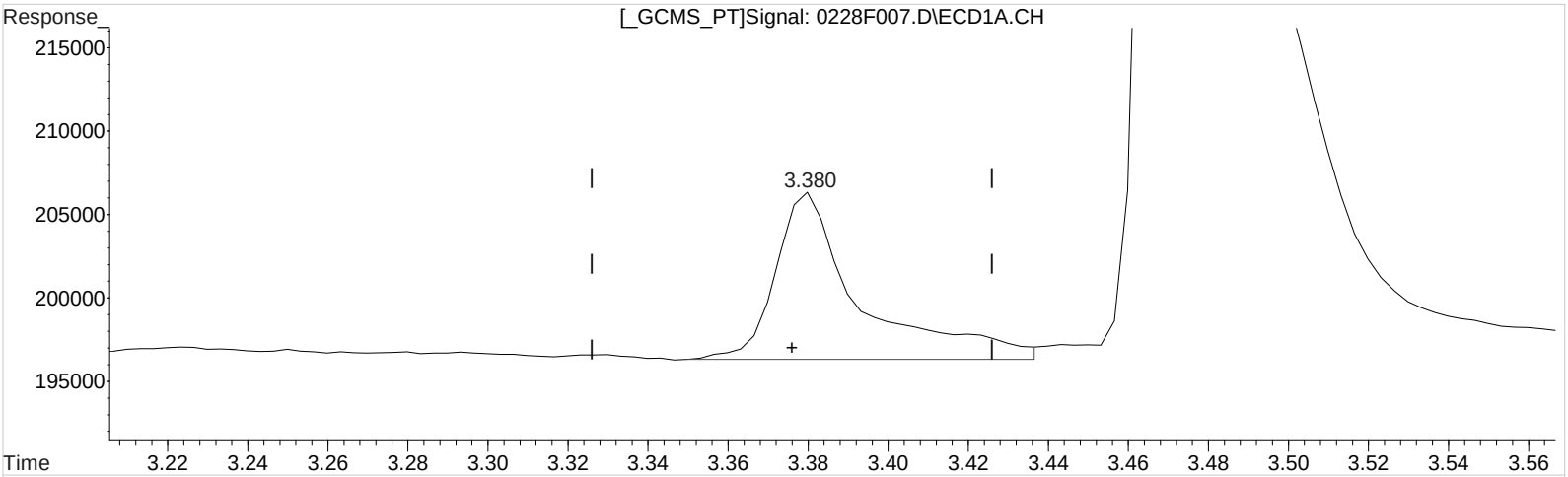
Quantitation Report (Qedit)

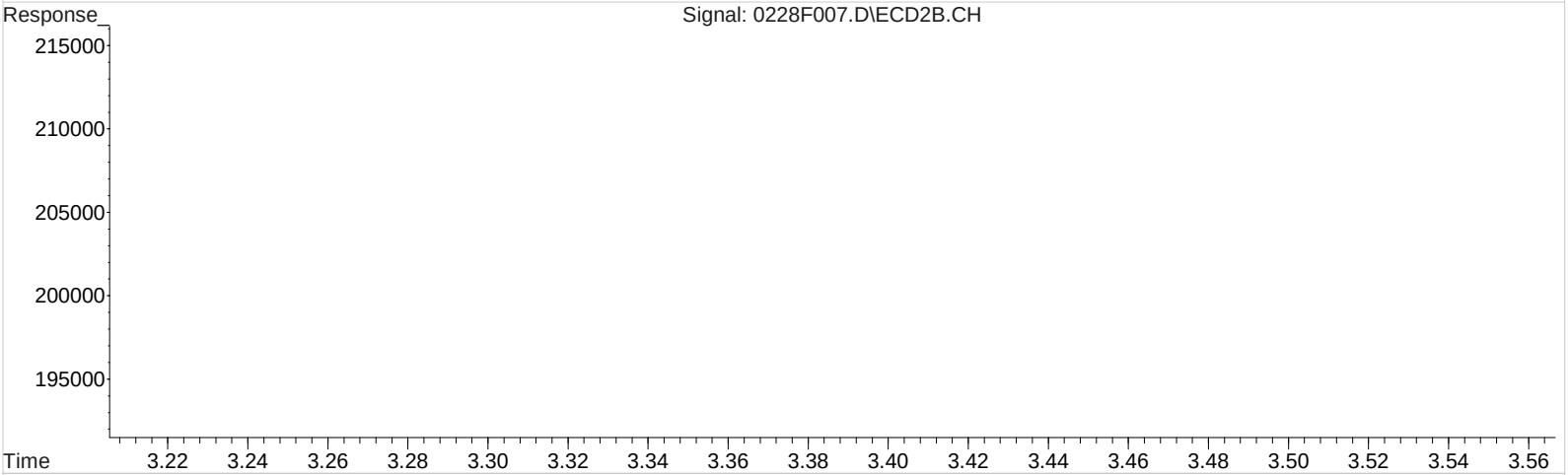
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 13.605 ug/L

response 146982

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.087min 10.169 ug/L

response 167574

(+) = Expected Retention Time

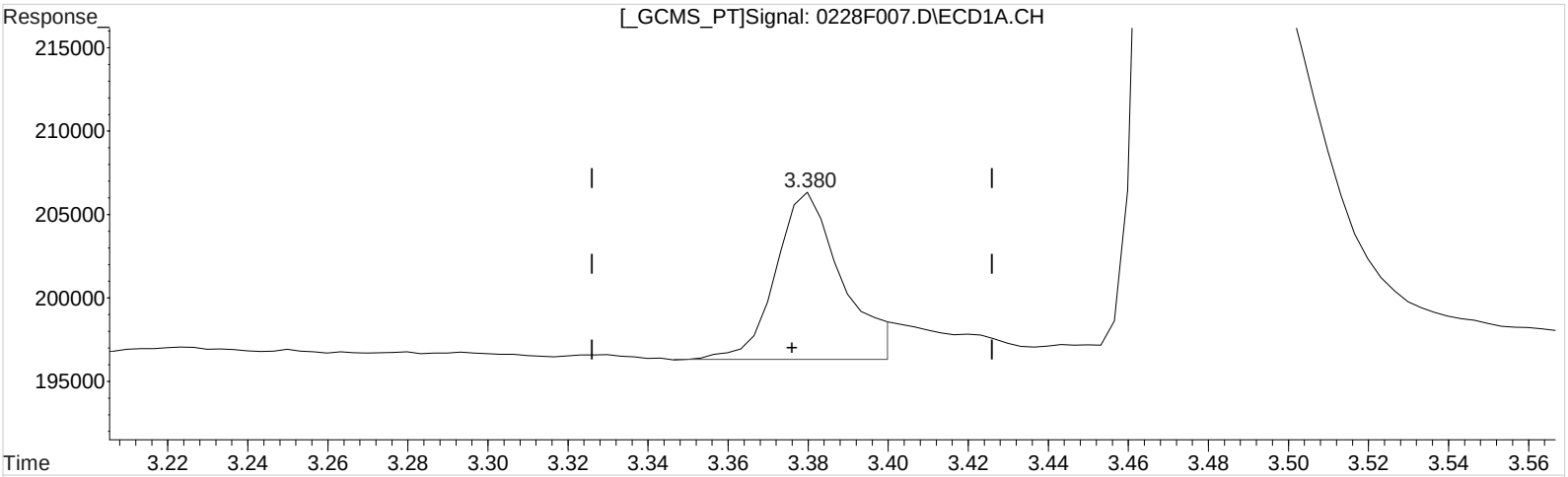
Quantitation Report (Qedit)

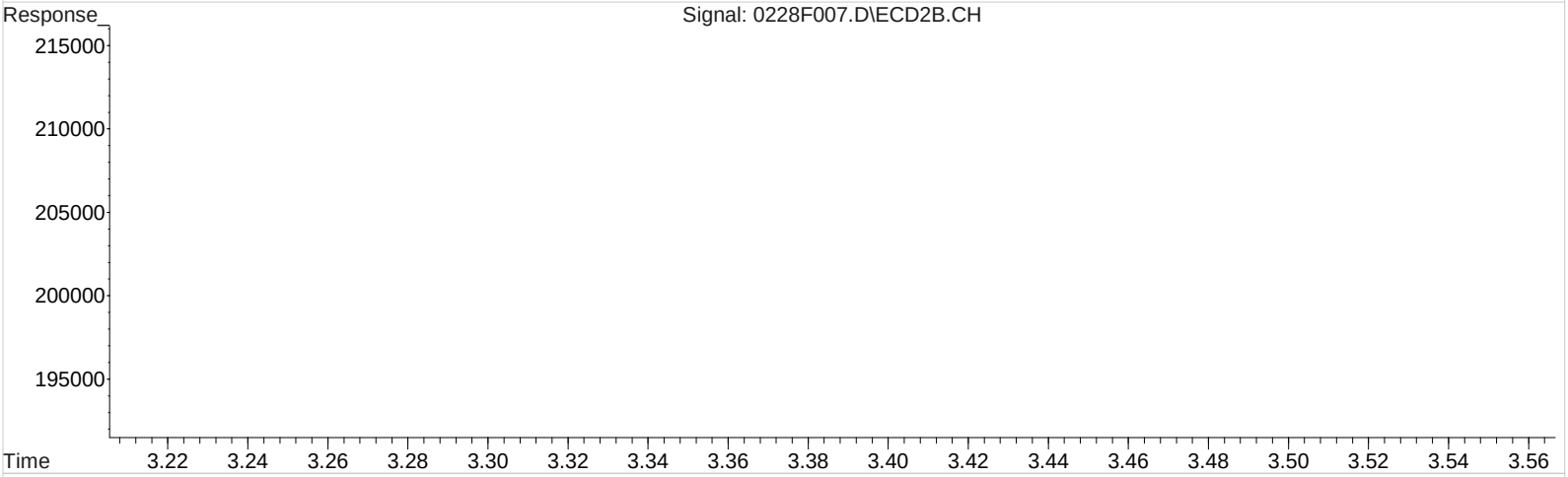
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 10.545 ug/L m

response 115610

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.087min 10.169 ug/L

response 167574

(+) = Expected Retention Time

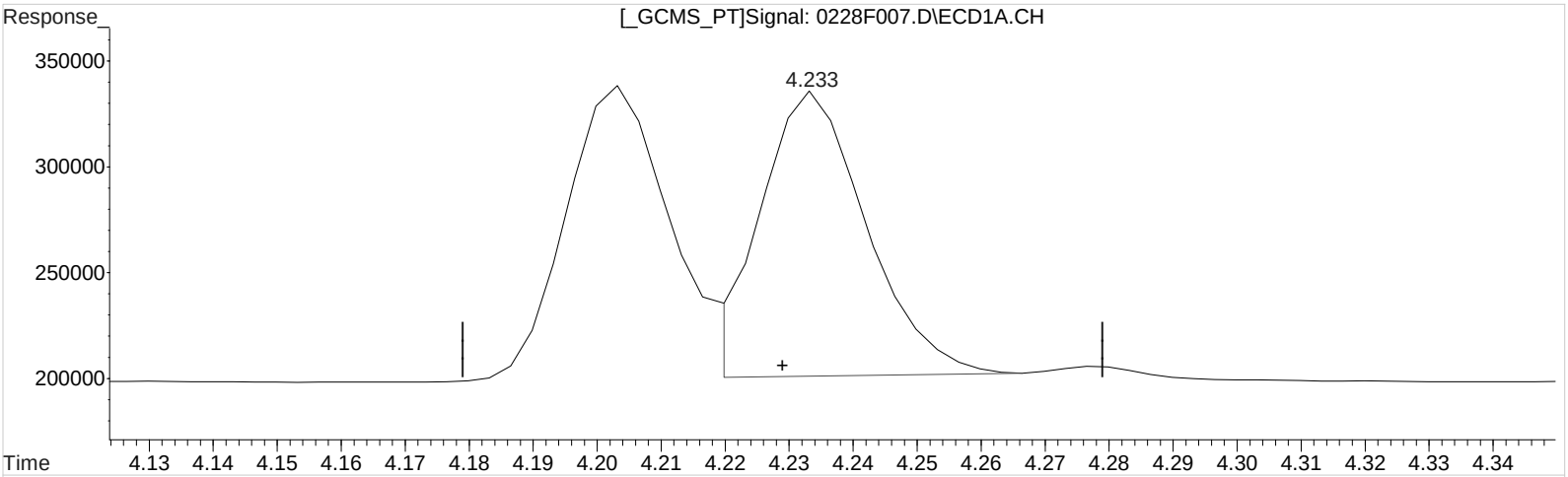
Quantitation Report (Qedit)

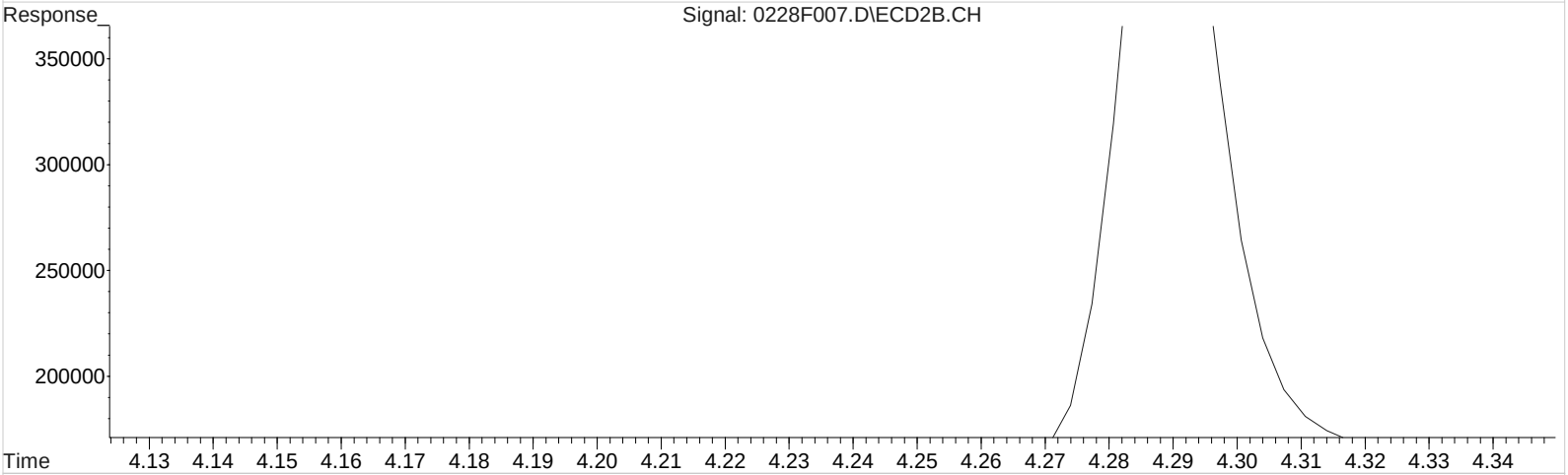
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 9.891 ug/L

response 1506370

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 9.401 ug/L

response 1764529

(+) = Expected Retention Time

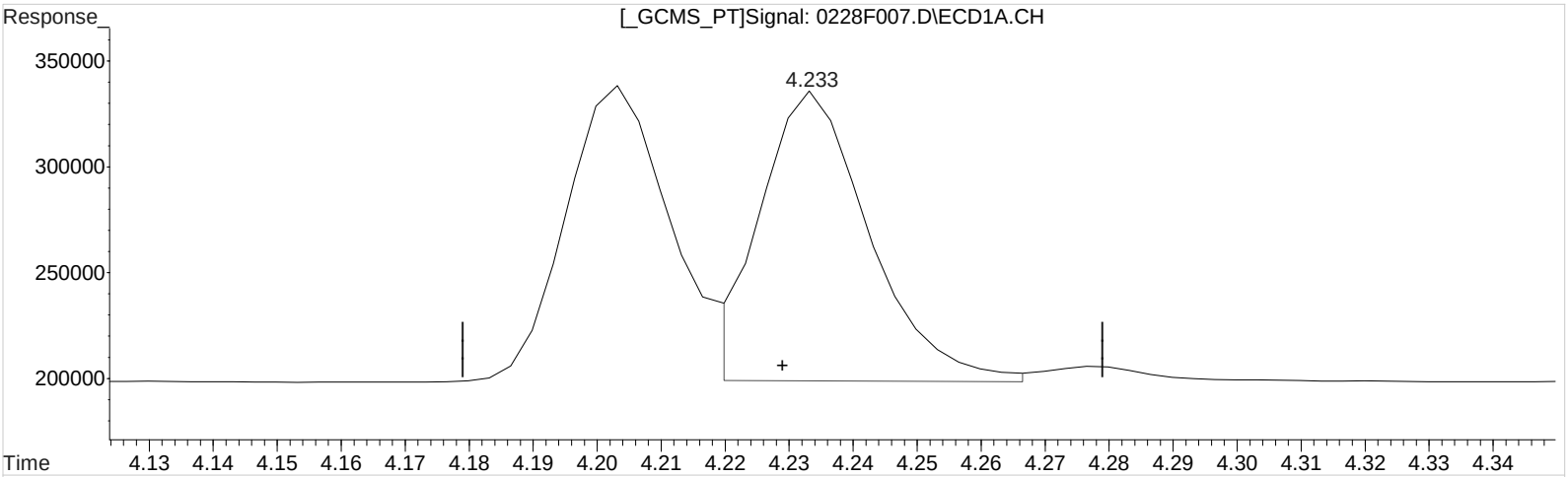
Quantitation Report (Qedit)

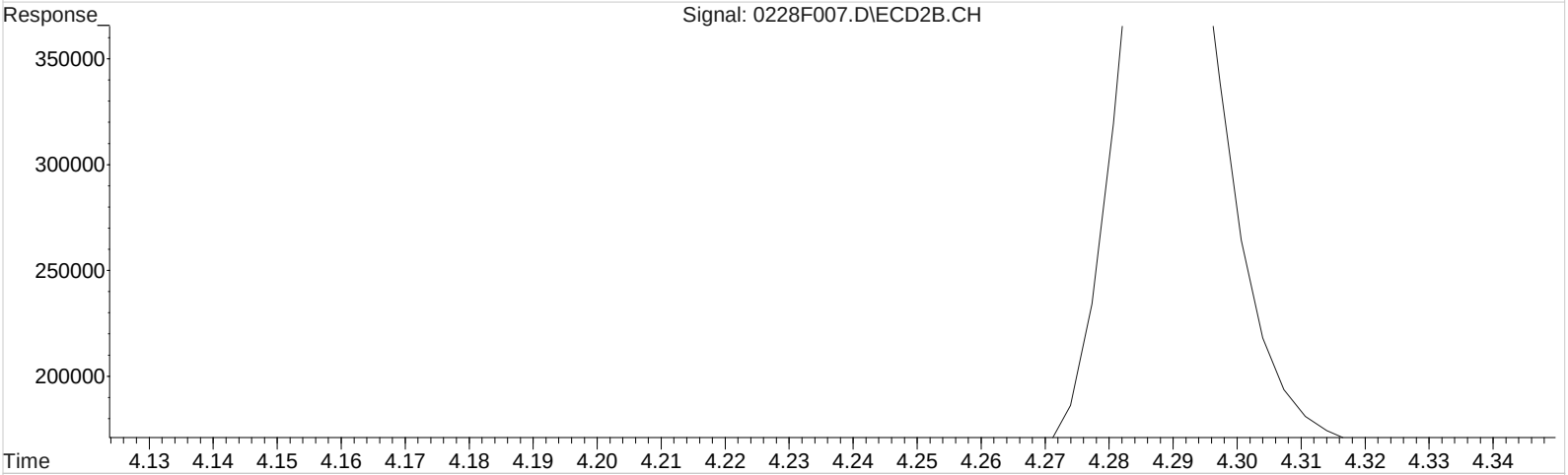
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 10.435 ug/L m

response 1583734

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 9.401 ug/L

response 1764529

(+) = Expected Retention Time

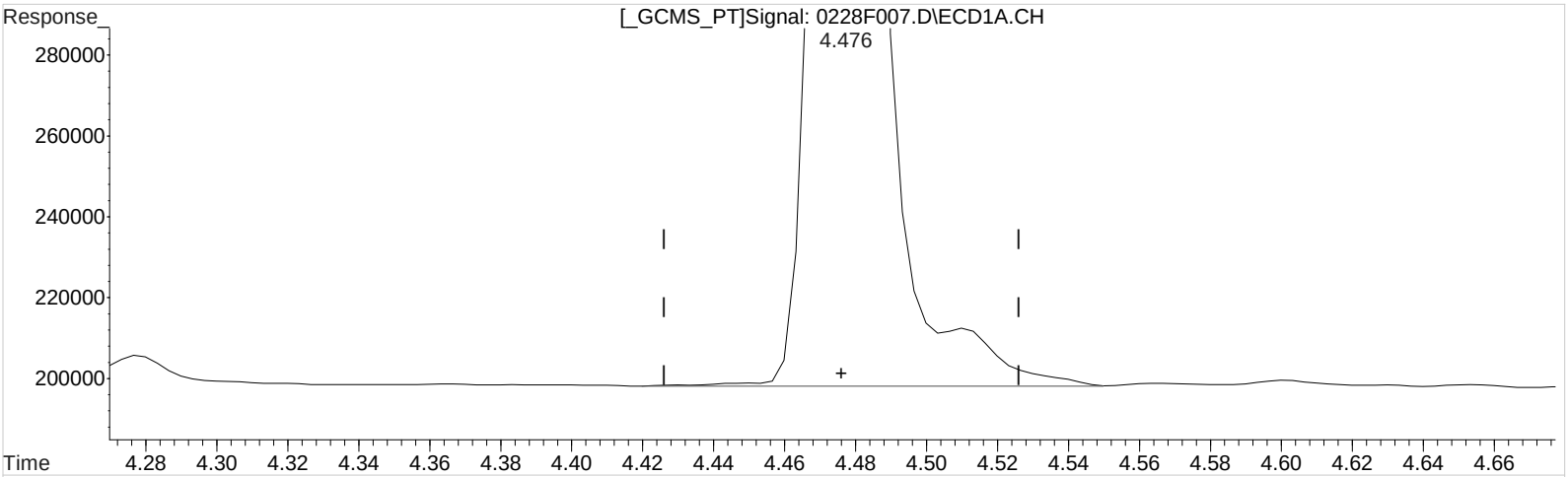
Quantitation Report (Qedit)

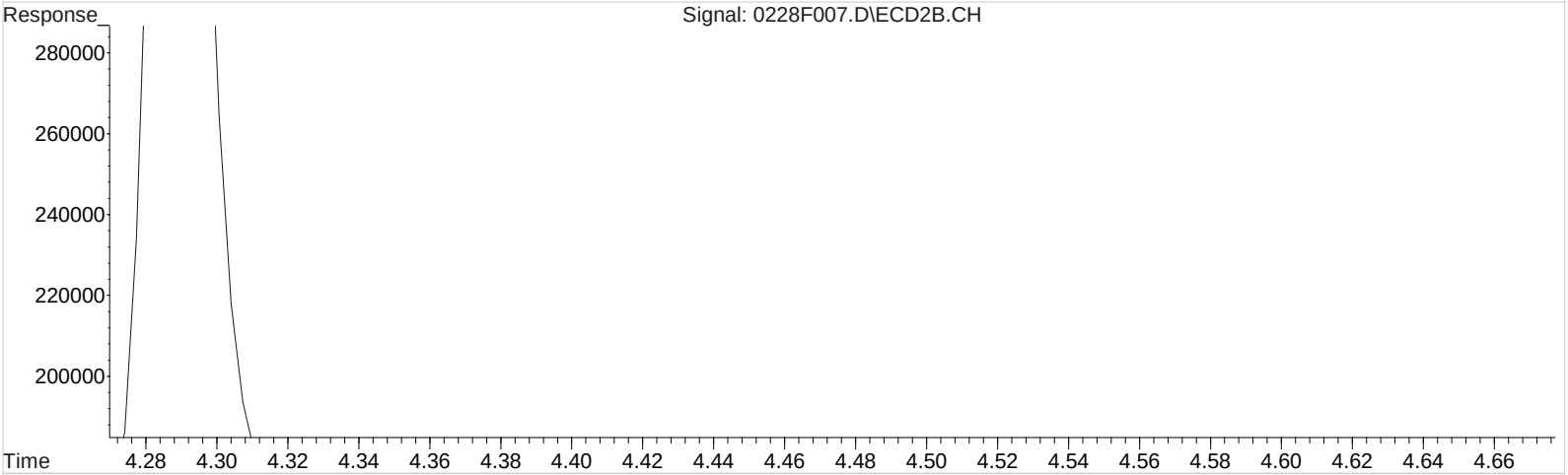
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.476min 10.180 ug/L

response 4845604

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.077min 9.283 ug/L

response 5729619

(+) = Expected Retention Time

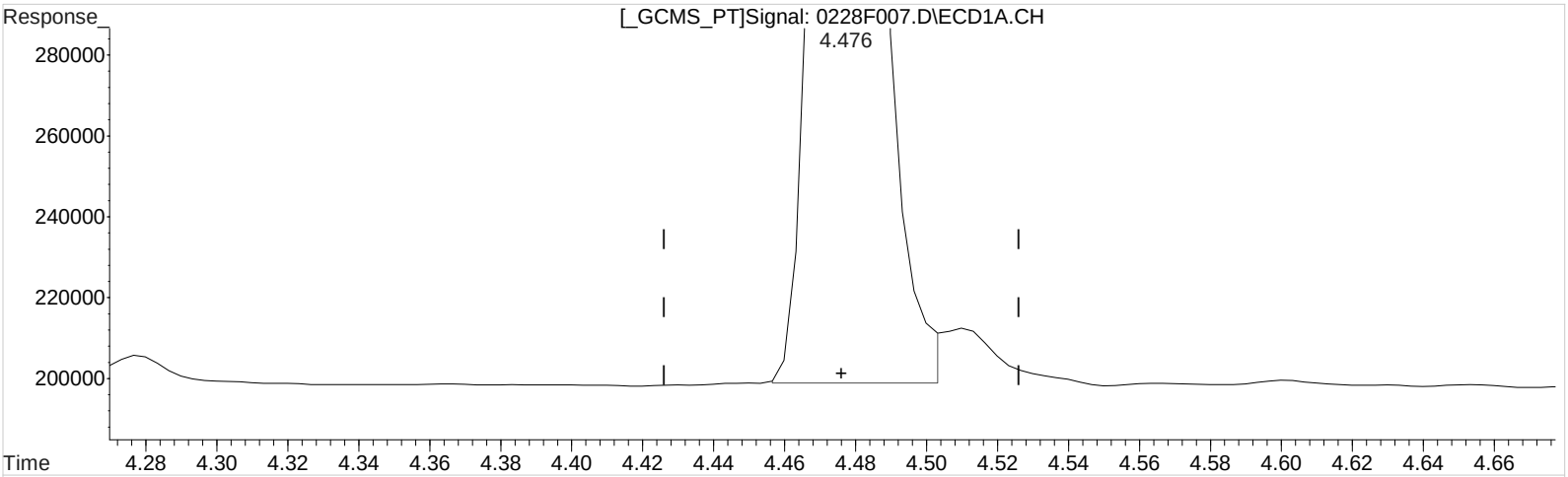
Quantitation Report (Qedit)

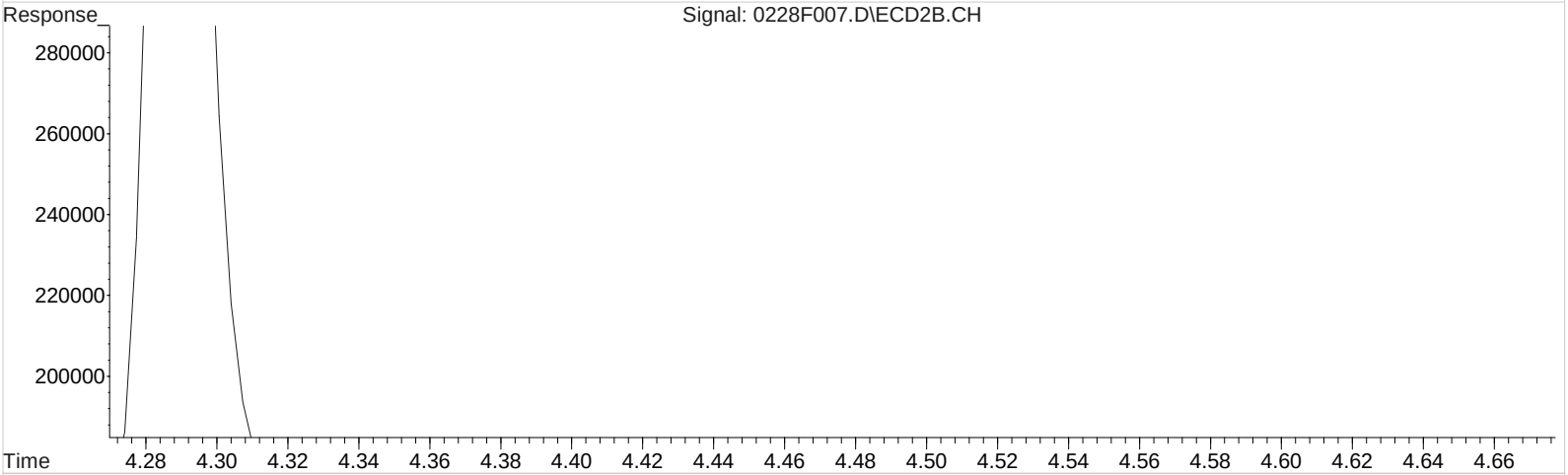
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.476min 9.778 ug/L m

response 4654510

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.077min 9.283 ug/L

response 5729619

(+) = Expected Retention Time

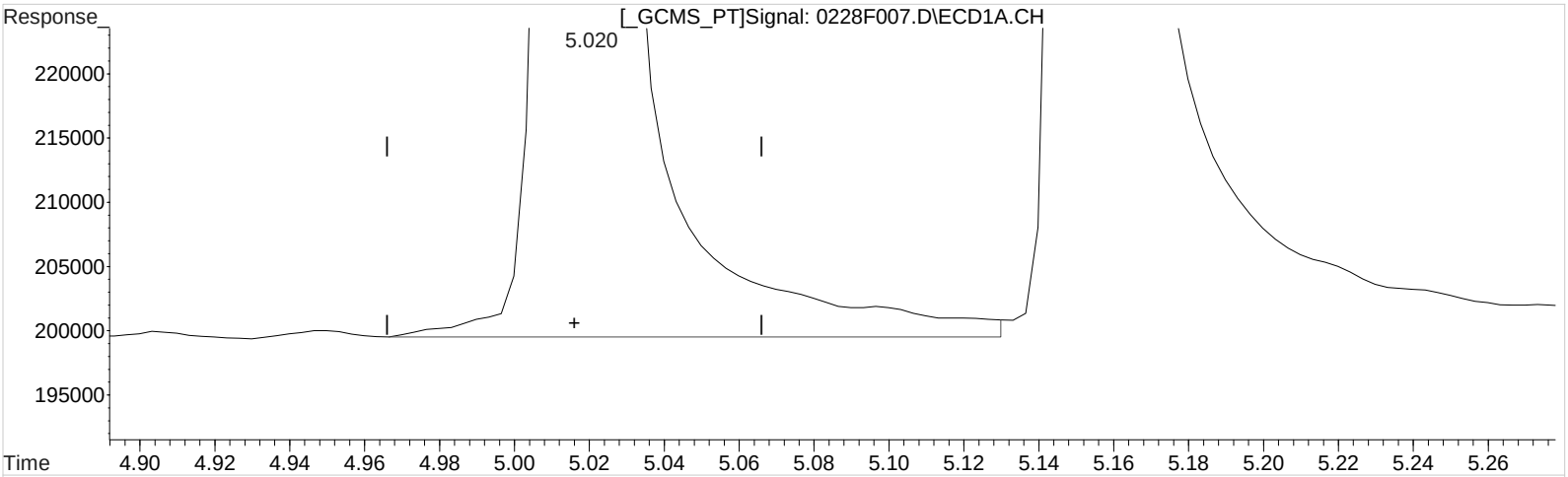
Quantitation Report (Qedit)

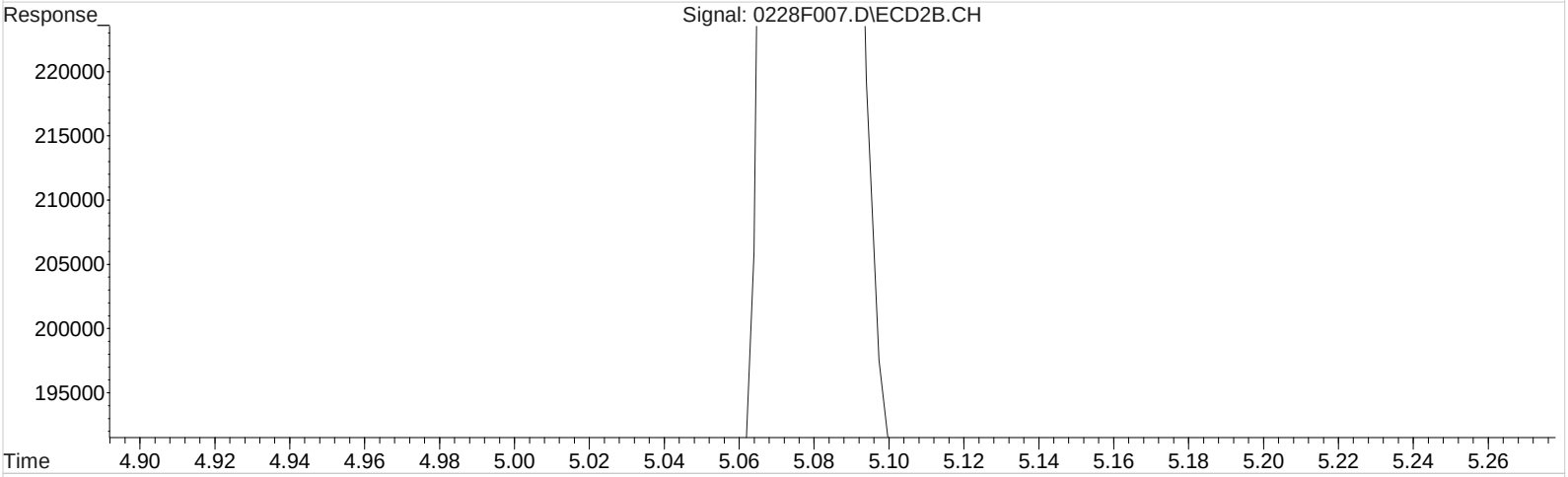
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.552 ug/L

response 3584964

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

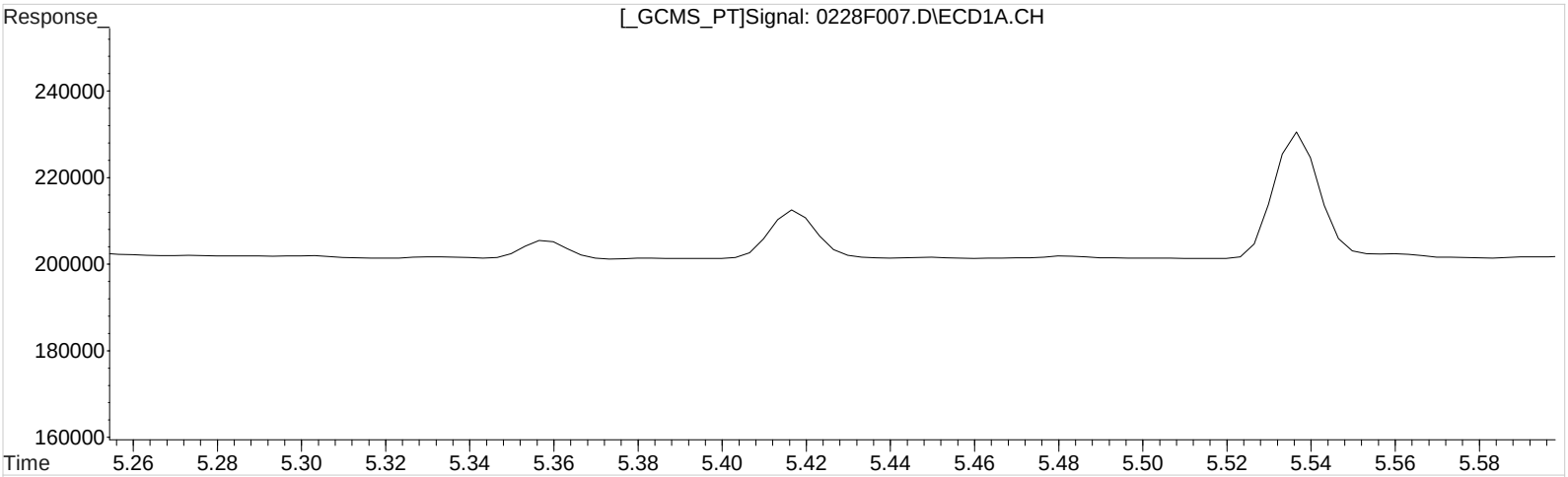
Quantitation Report (Qedit)

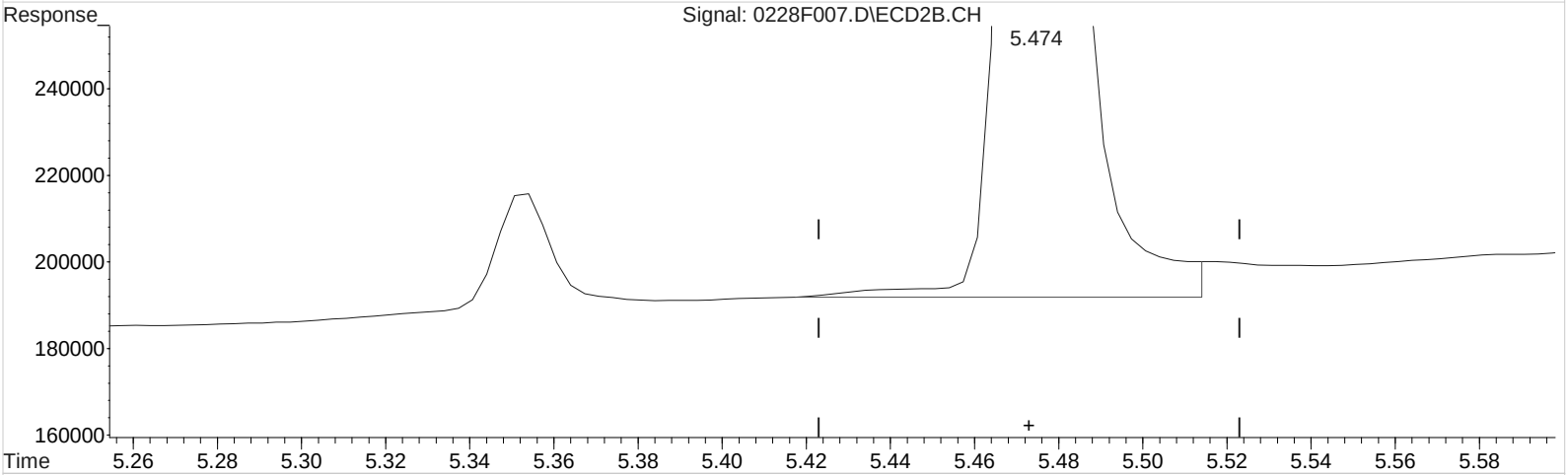
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

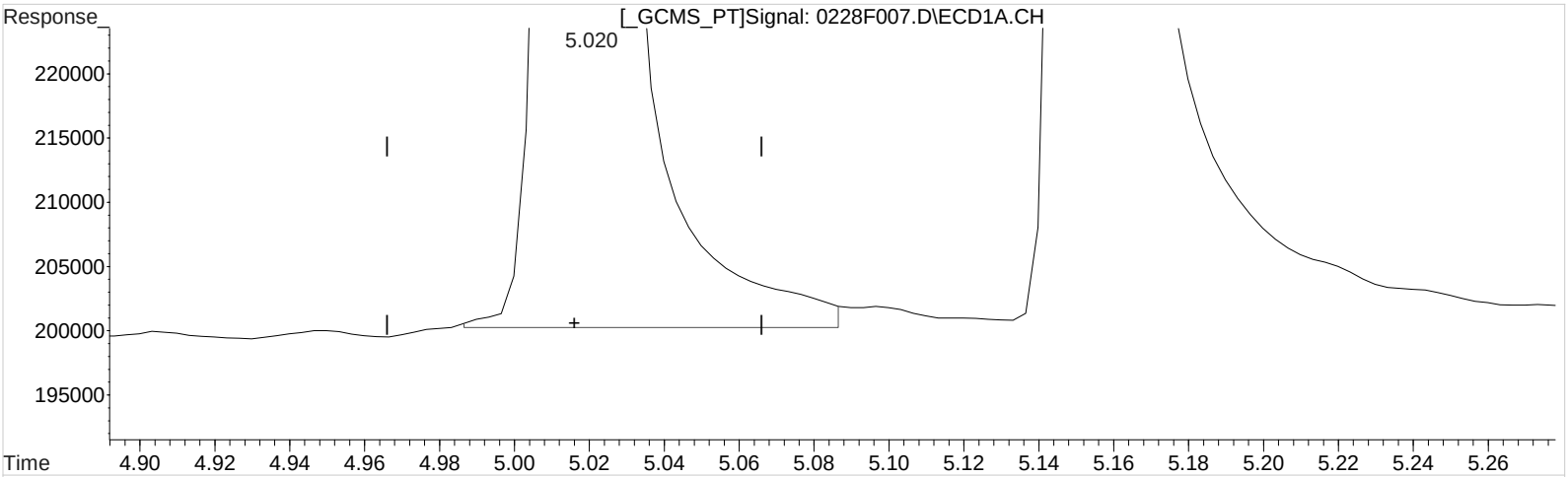
Quantitation Report (Qedit)

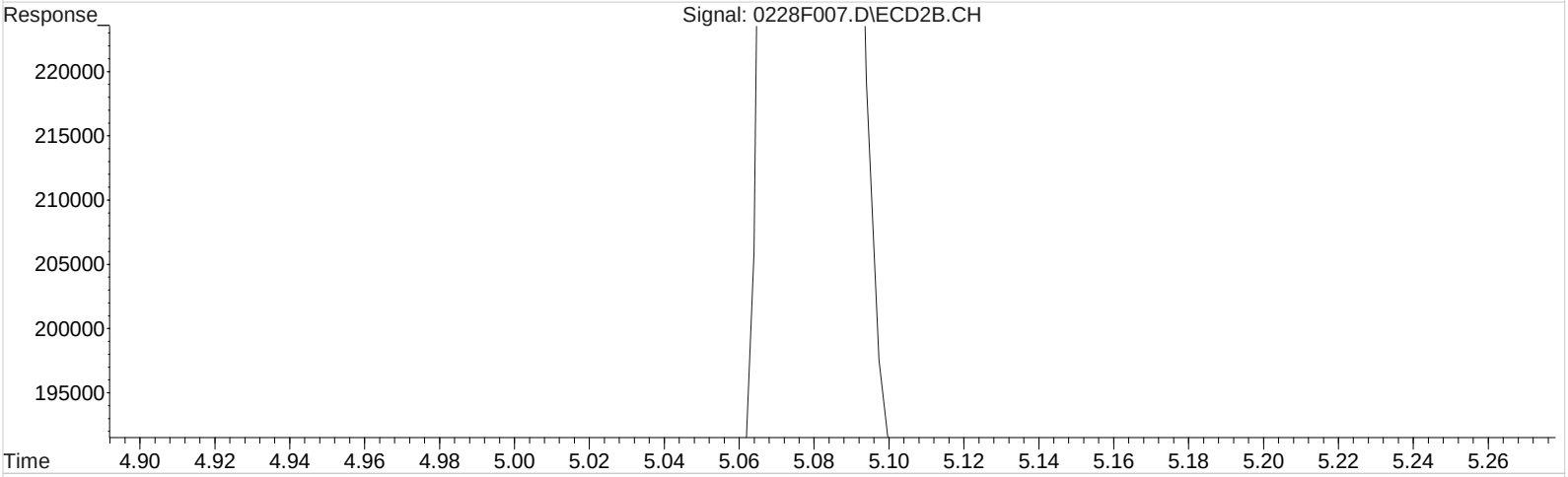
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

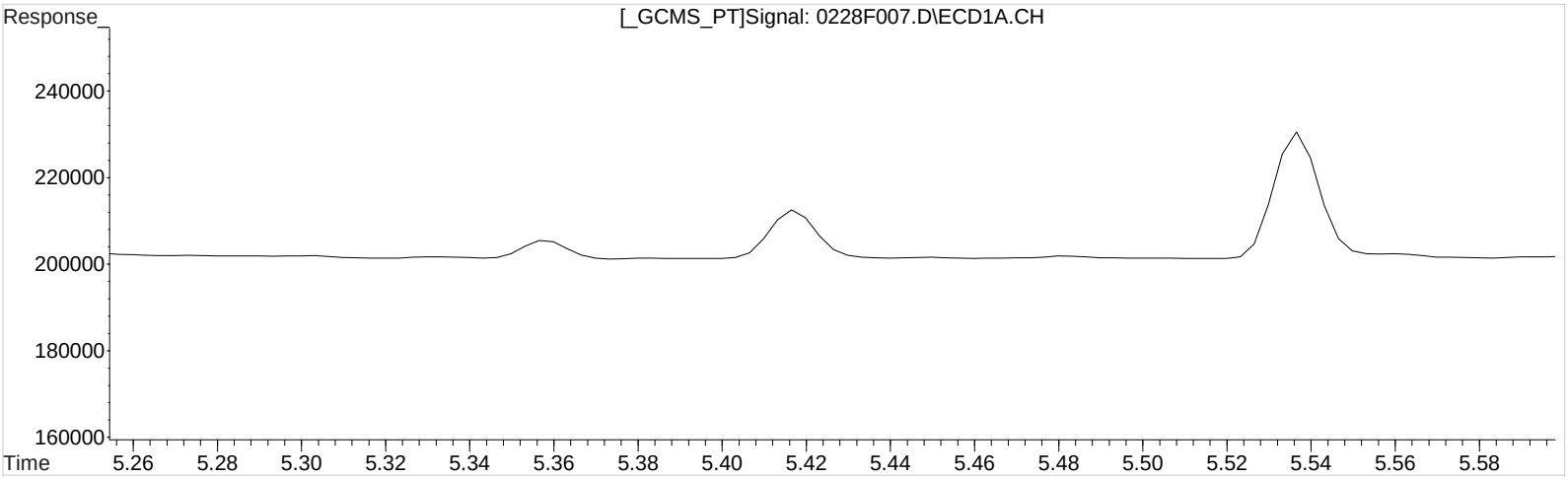
(+) = Expected Retention Time

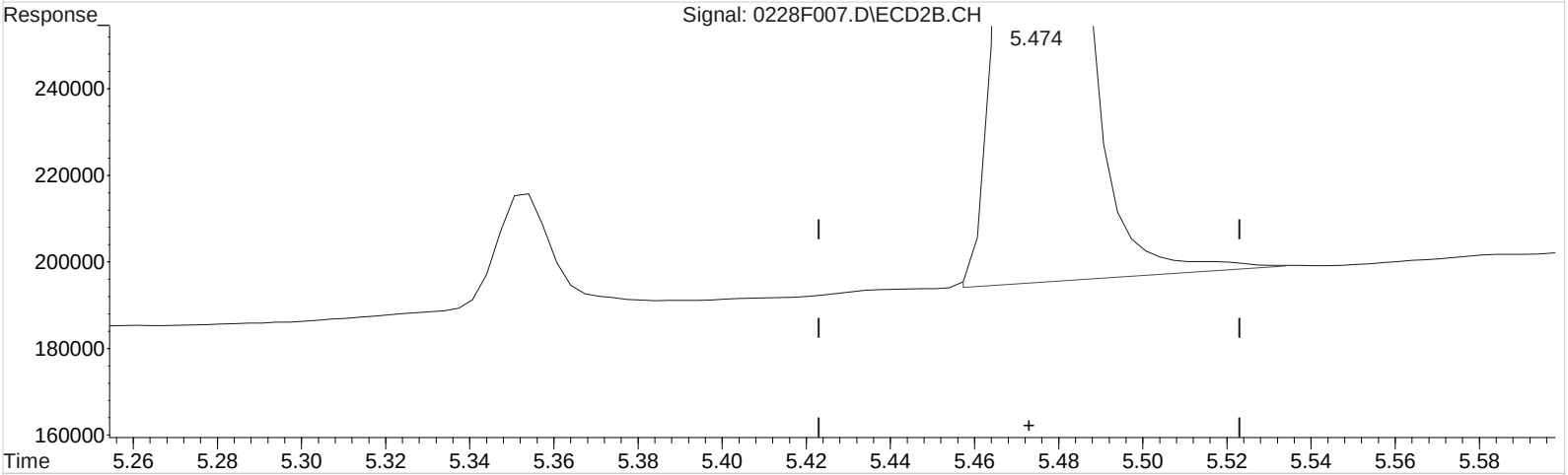
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.382 ug/L m

response 3874012

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.033	4.720	9384726	10345828	26.823	23.800
		Target Compounds						
1)		3,4-Dichl...	3.139	3.833	364718	495787	23.304m	22.440
2)		3,5-Dichl...	3.379	4.090	247686	371212	23.594m	22.526
3)		2,4,6-Tri...	3.476	4.290	7528057	9199994	23.385	22.059
5)		2,4,5-Tri...	4.203	4.783	3465348	4268979	24.581	21.360
6)		3,4,5-Tri...	4.233	4.847	3537210	4043017	24.409m	21.539
7)	M	2,3,5,6-T...	4.476	5.080	10557180	13711688	22.178	22.215
8)	M	2,3,4,5-T...	5.019	5.477	7682979	9204669	24.286	22.291
9)	M	Pentachlo...	5.156	5.660	12370956	15378050	26.604	22.366
10)		Pentachlo...	5.156	5.660	12370956	15378050	28.002	23.554

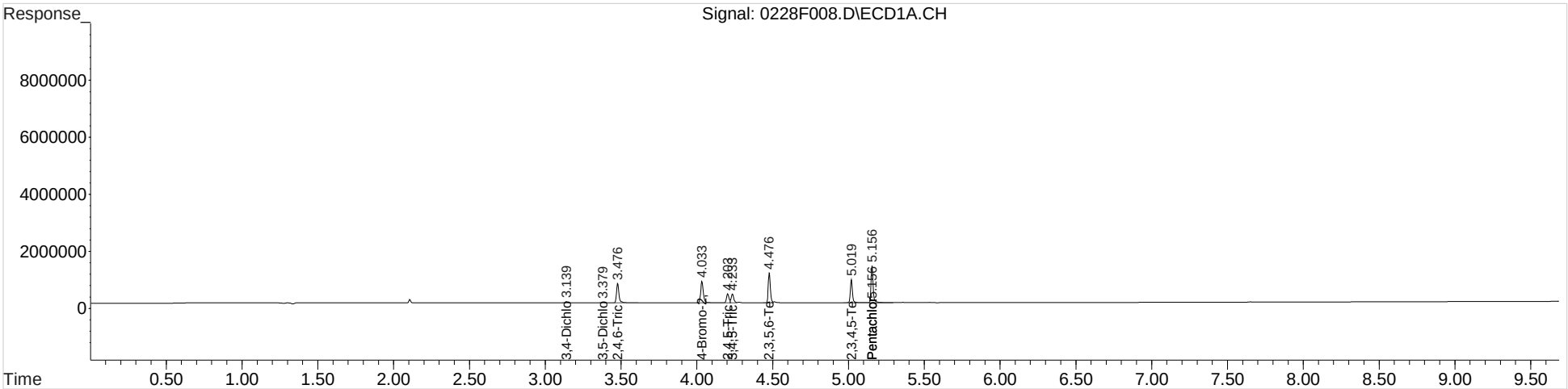
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



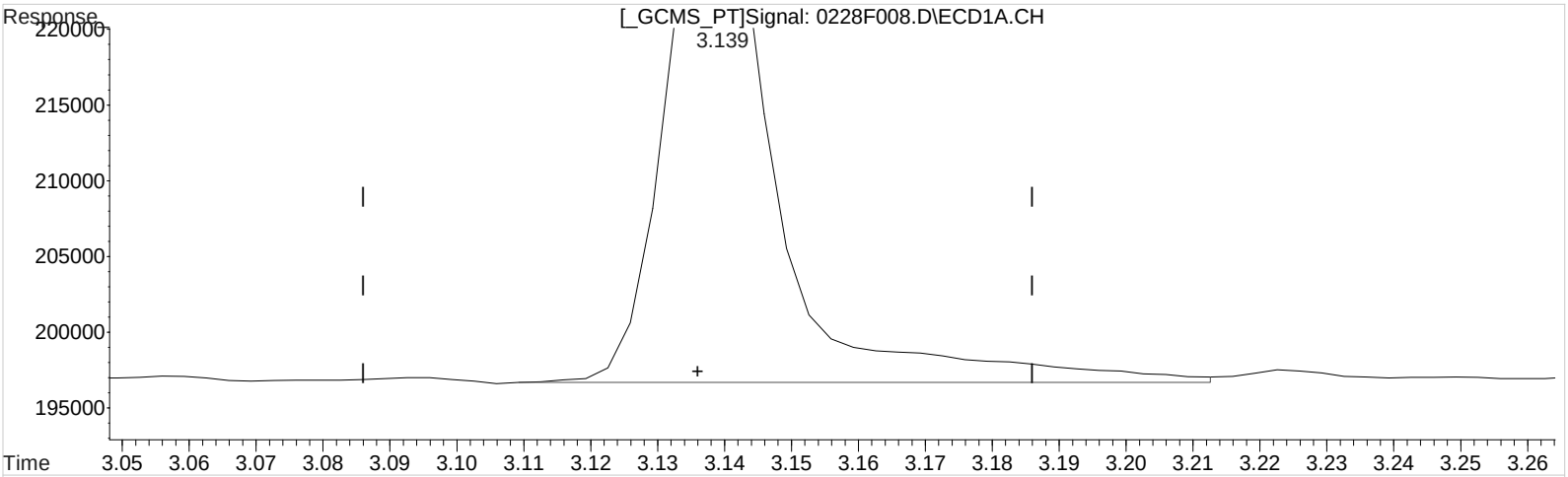
Quantitation Report (Qedit)

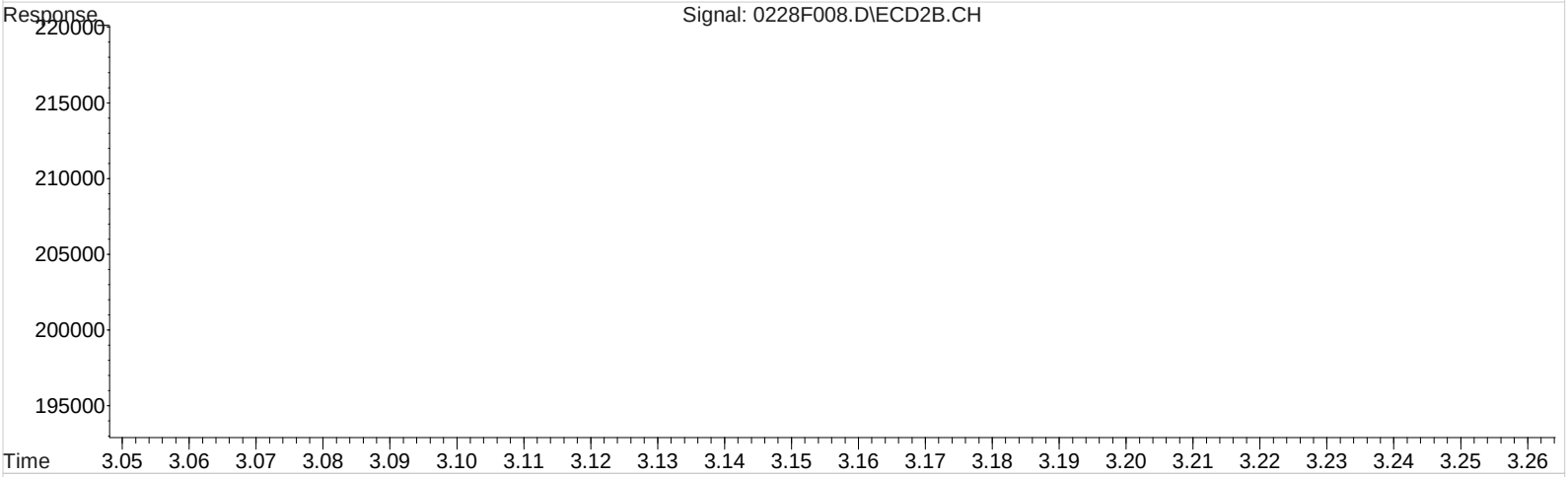
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 25.378 ug/L

response 395414

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 22.440 ug/L

response 495787

(+) = Expected Retention Time

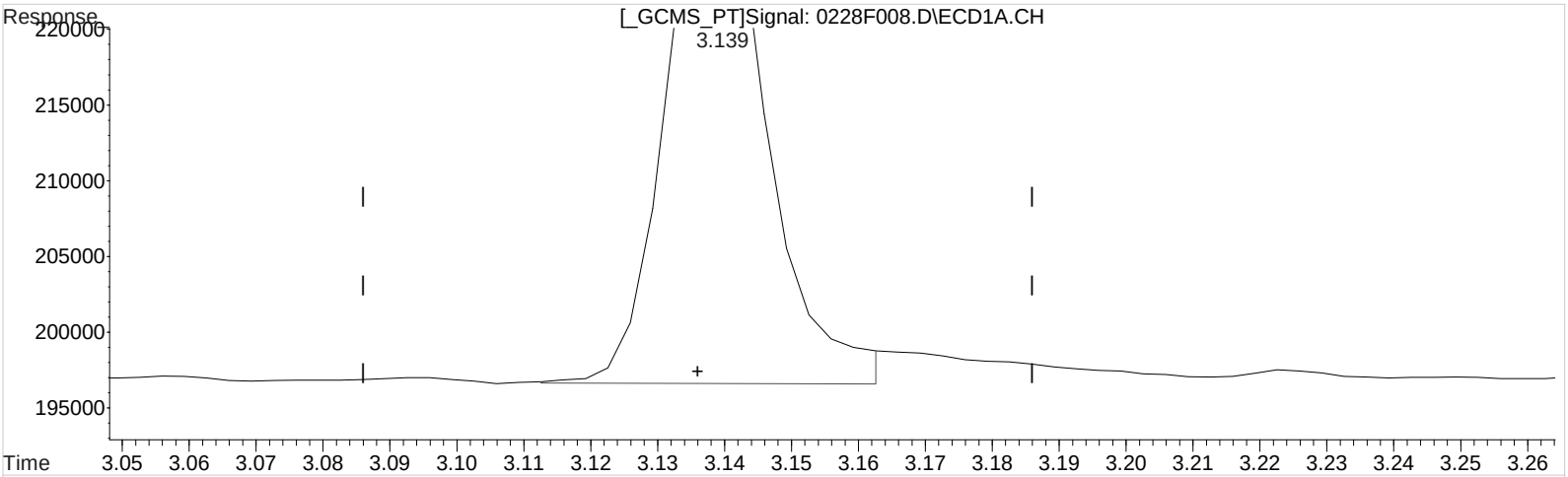
Quantitation Report (Qedit)

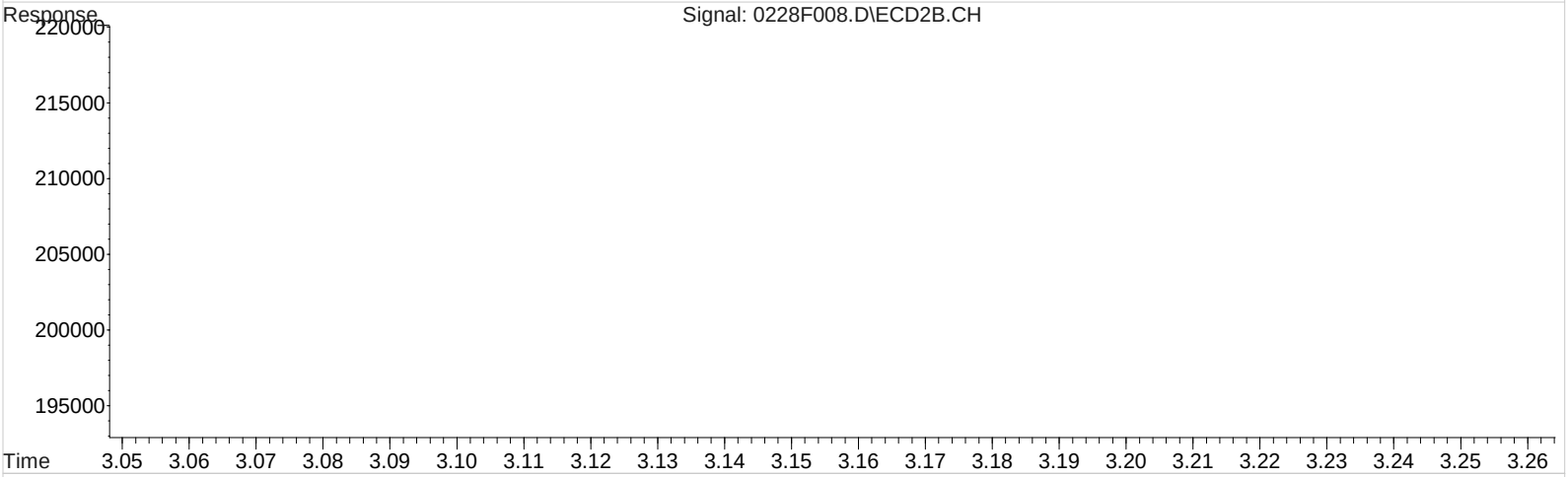
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 23.304 ug/L m

response 364718

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 22.440 ug/L

response 495787

(+) = Expected Retention Time

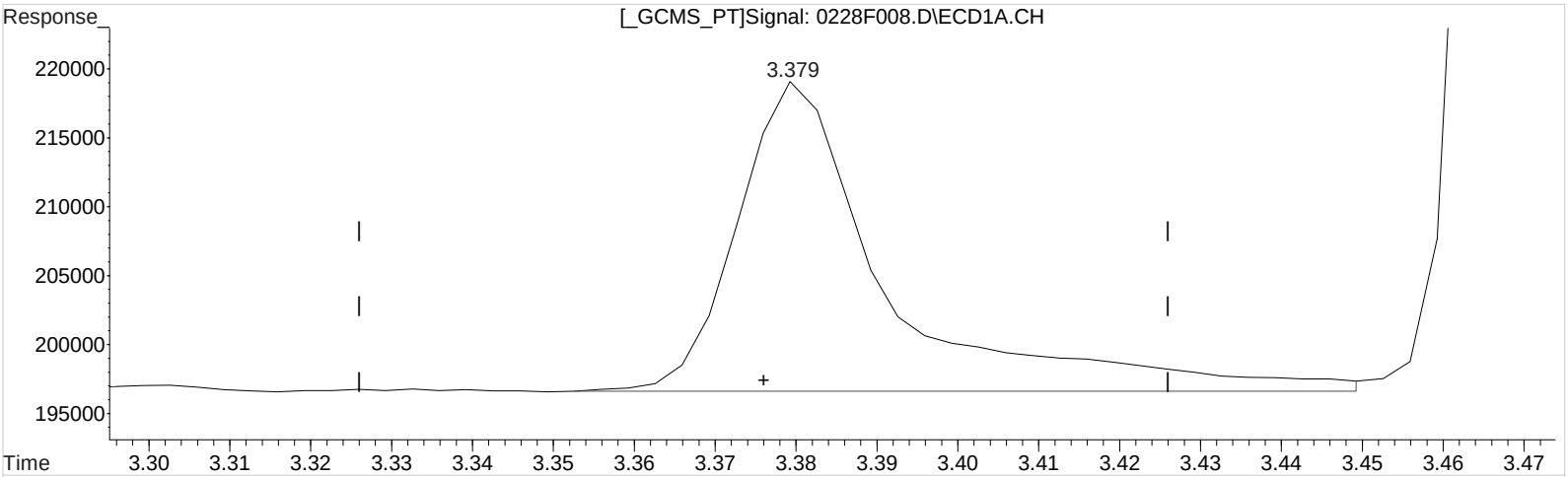
Quantitation Report (Qedit)

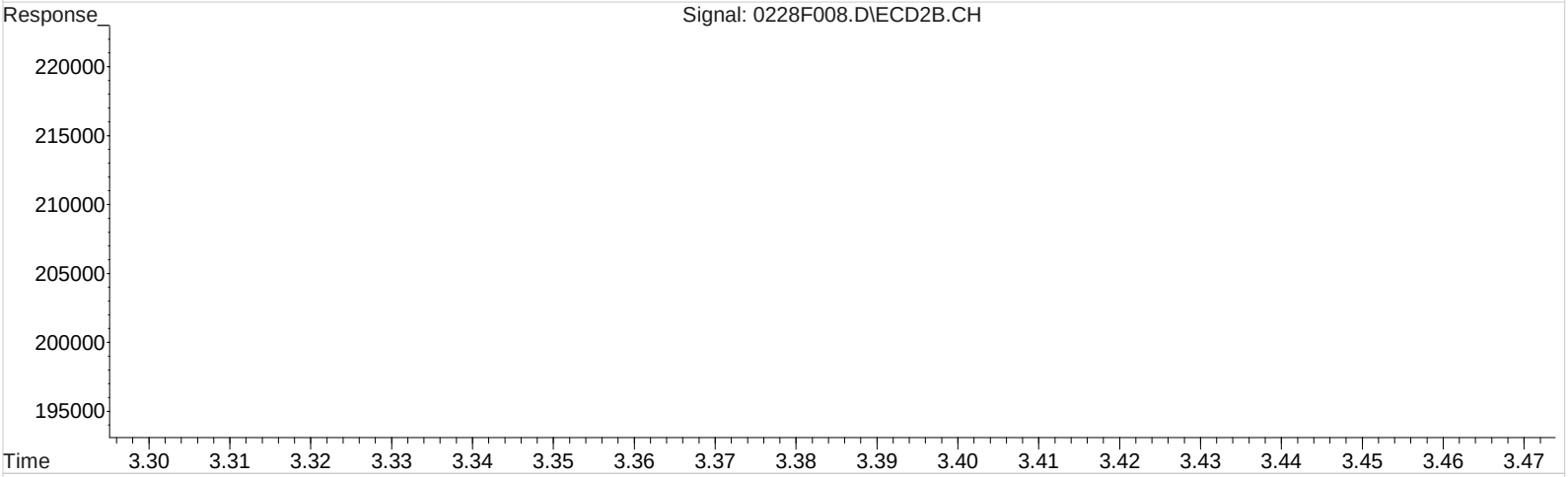
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 27.619 ug/L

response 287533

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 22.526 ug/L

response 371212

(+) = Expected Retention Time

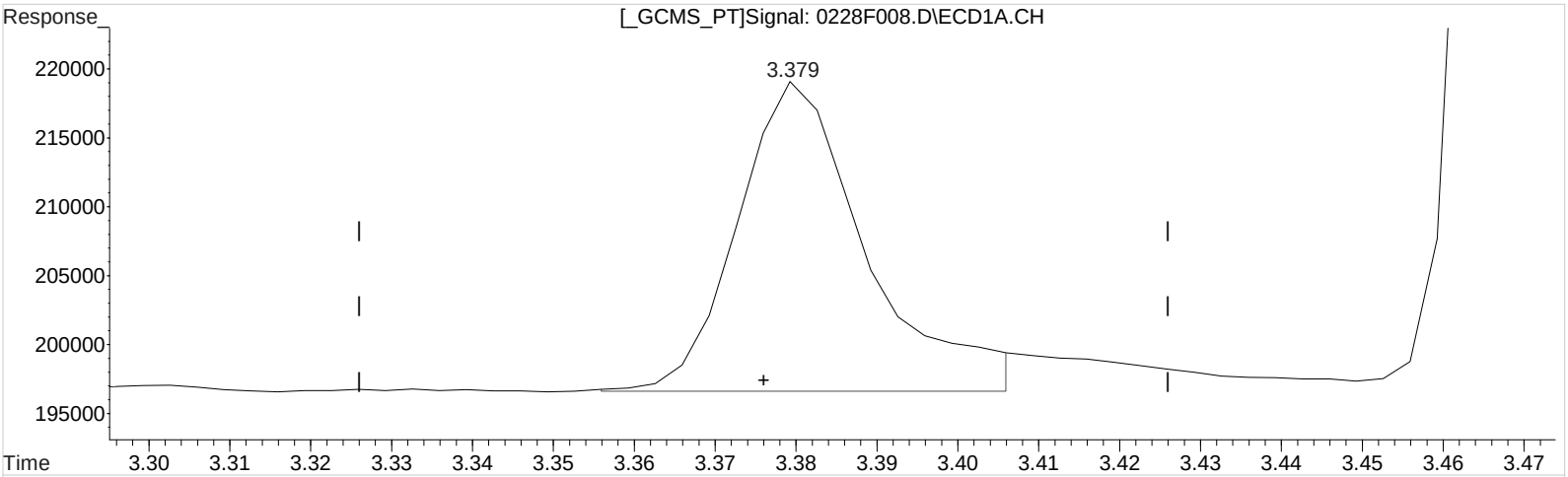
Quantitation Report (Qedit)

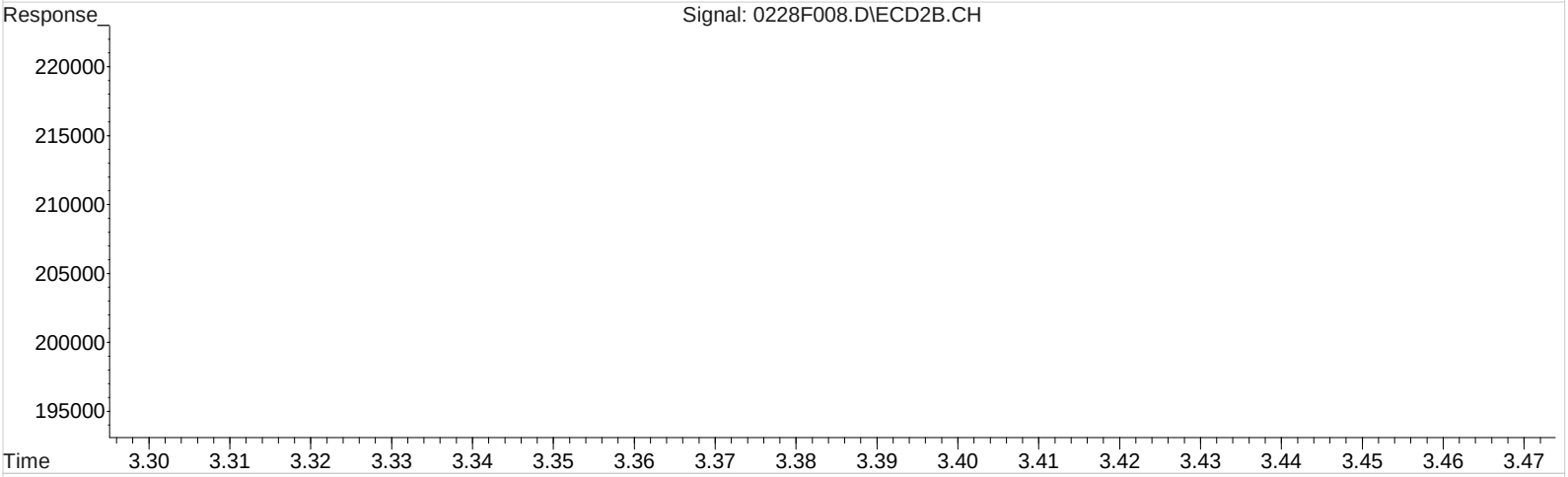
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 23.594 ug/L m

response 247686

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 22.526 ug/L

response 371212

(+) = Expected Retention Time

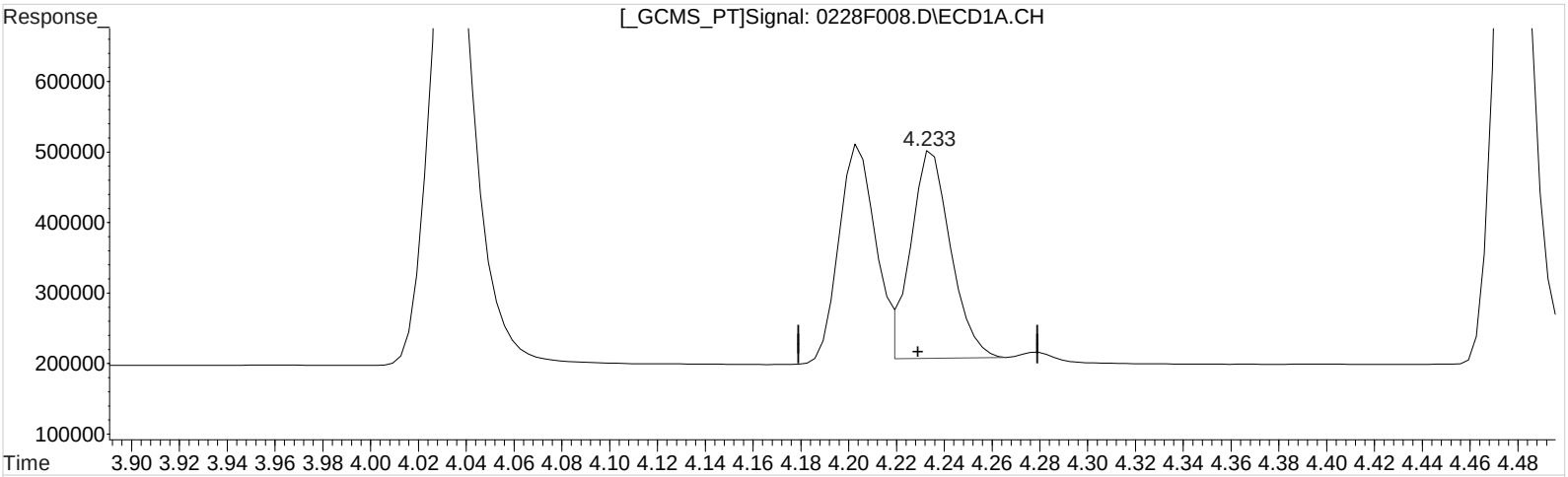
Quantitation Report (Qedit)

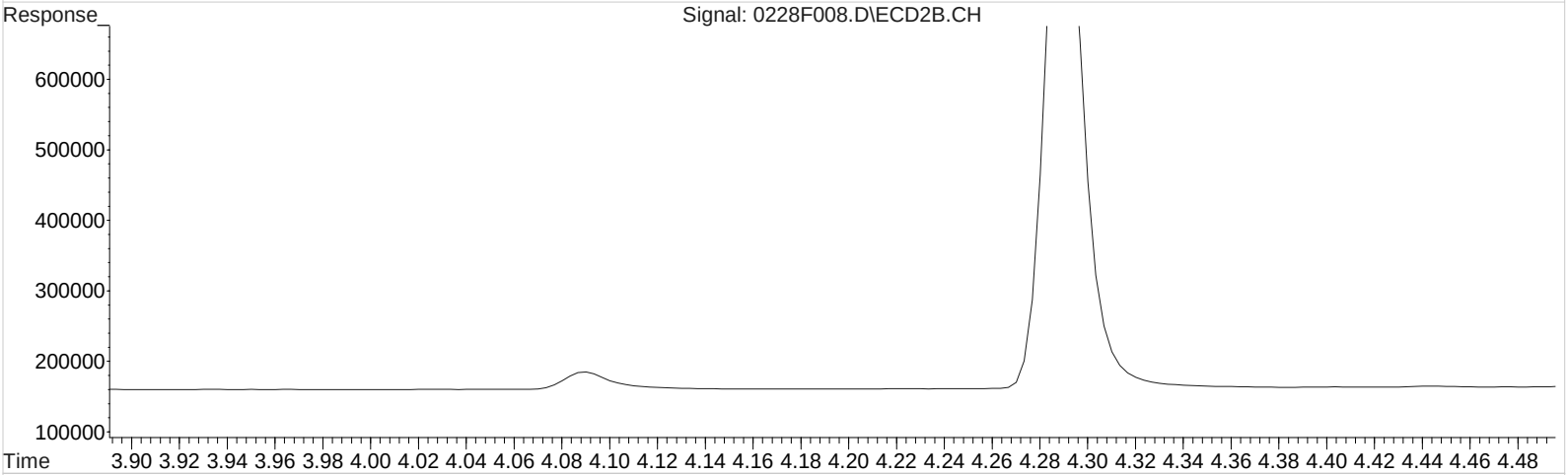
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 22.824 ug/L

response 3318986

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 21.539 ug/L

response 4043017

(+) = Expected Retention Time

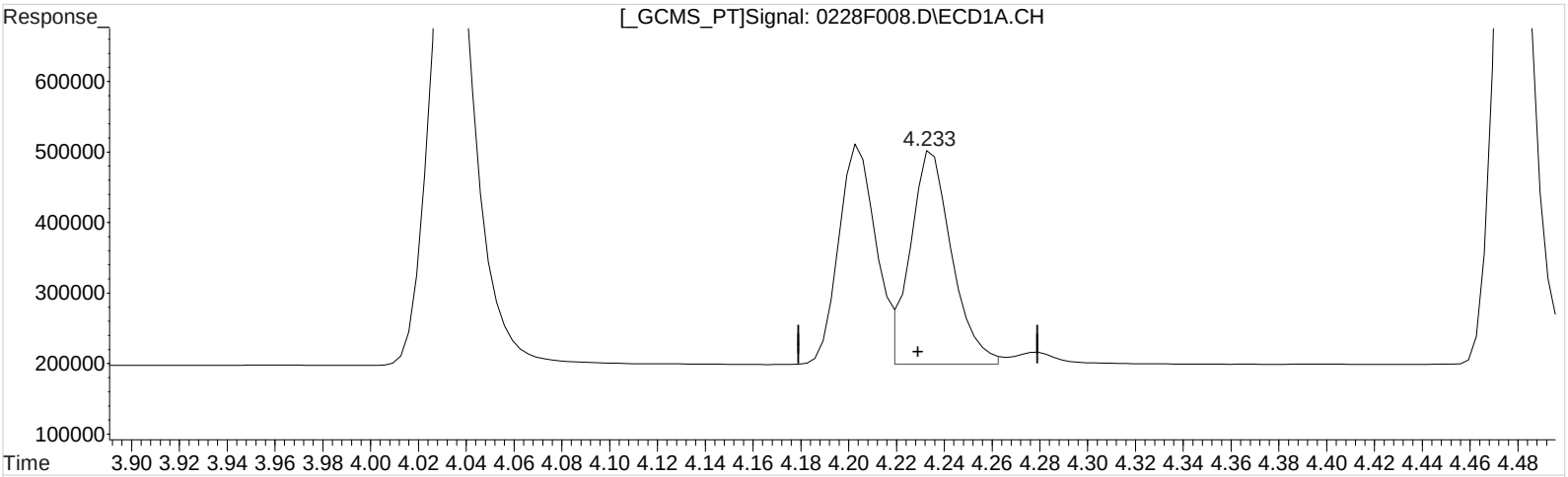
Quantitation Report (Qedit)

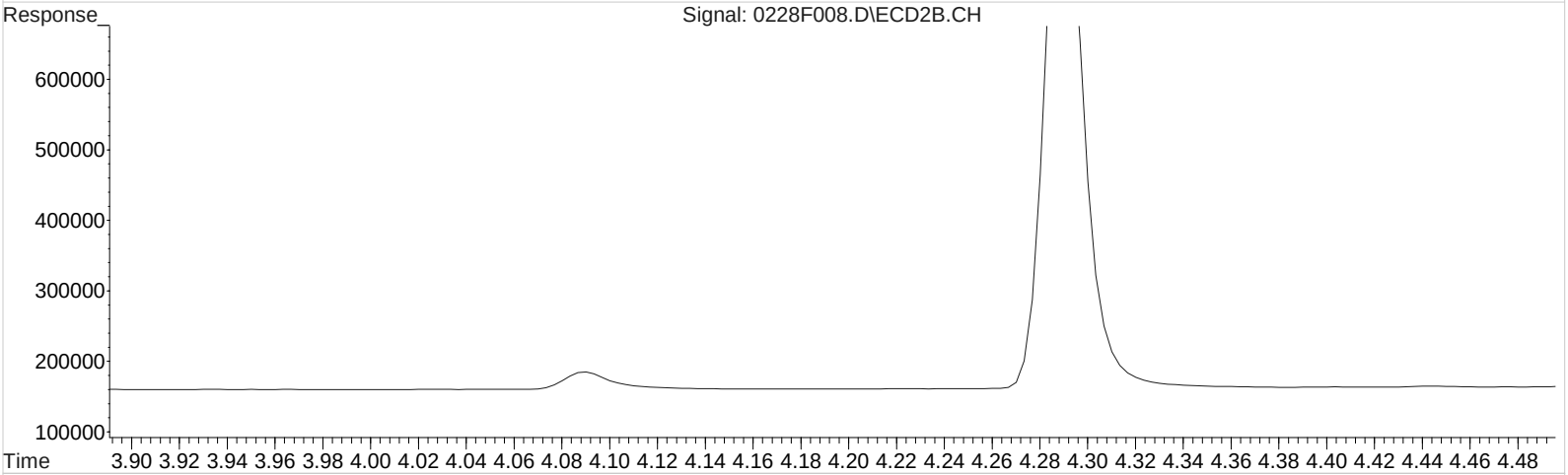
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 24.409 ug/L m

response 3537210

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 21.539 ug/L

response 4043017

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.034	4.718	18373800	22111030	53.653	50.866
		Target Compounds						
1)		3,4-Dichl...	3.137	3.831	717598	975860	47.710m	44.168
2)		3,5-Dichl...	3.380	4.088	527946	707614	52.883m	42.939
3)		2,4,6-Tri...	3.477	4.291	14477823	19027390	46.510	45.622
5)		2,4,5-Tri...	4.204	4.784	6258374	8346897	46.243	41.763
6)		3,4,5-Tri...	4.234	4.848	6723516	8022672	48.287m	42.741
7)	M	2,3,5,6-T...	4.477	5.078	20376062	27736415	42.806	44.938
8)	M	2,3,4,5-T...	5.017	5.474	14199642	17989254	46.931	43.566
9)	M	Pentachlo...	5.154	5.658	23456614	30413144	51.593	44.234
10)		Pentachlo...	5.154	5.658	23456614	30413144	54.305	46.582

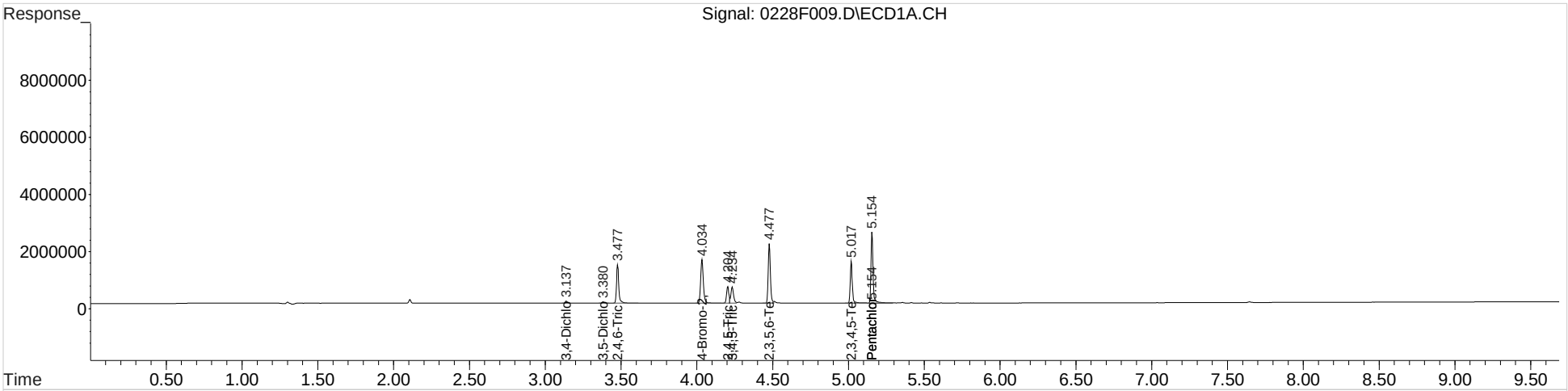
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



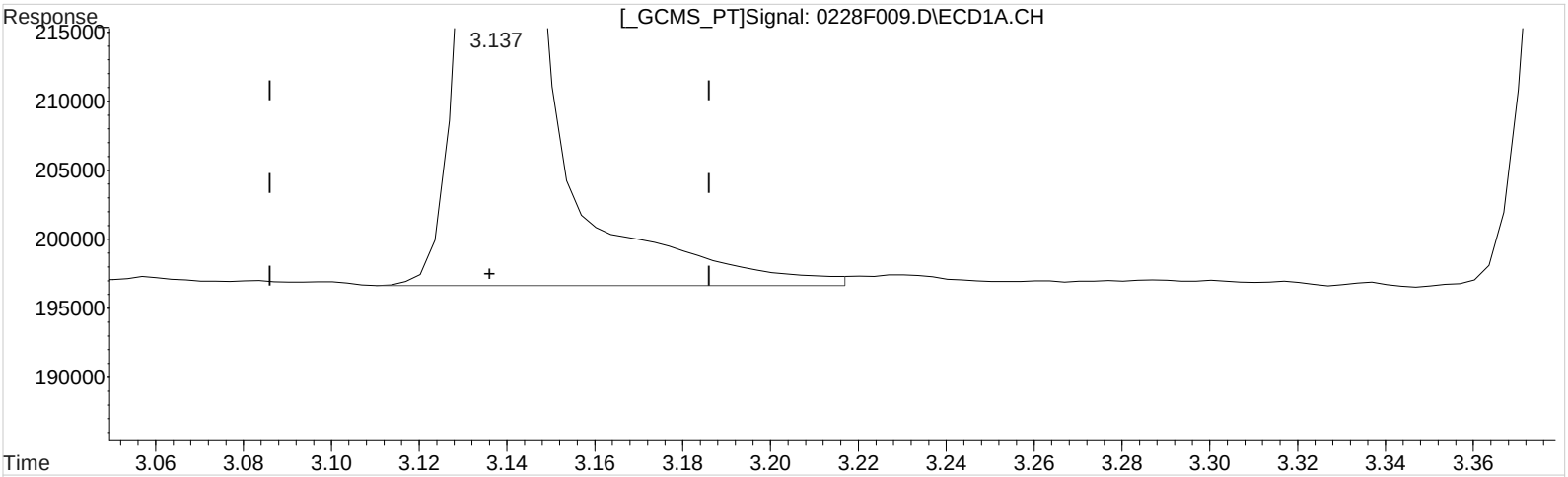
Quantitation Report (Qedit)

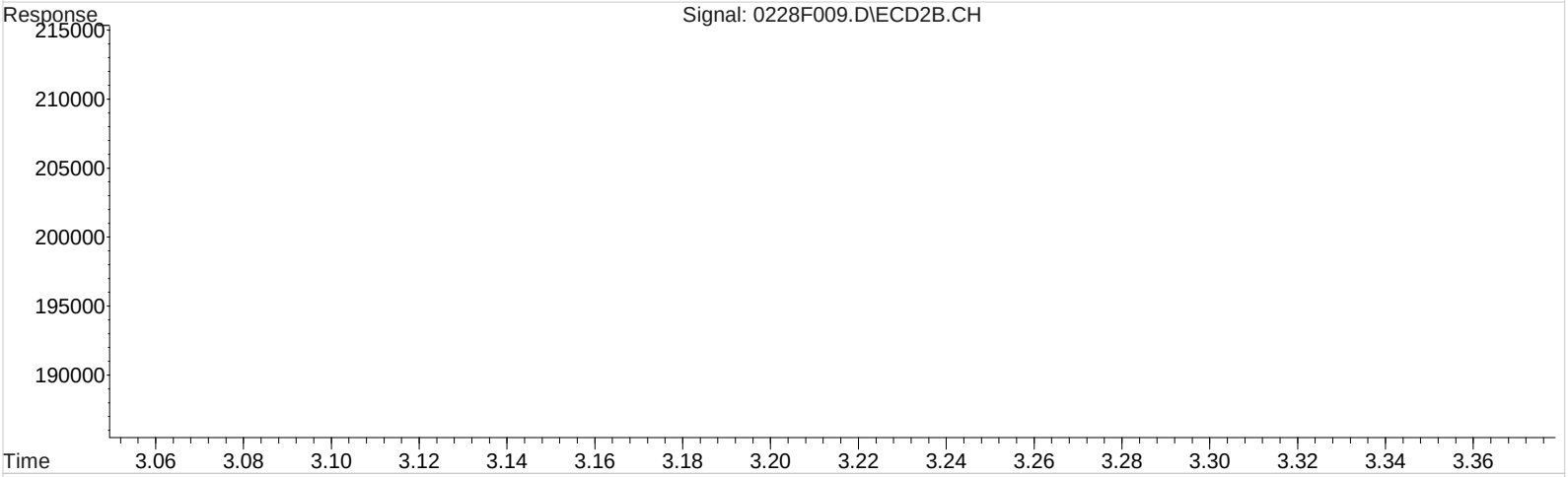
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 51.582 ug/L

response 771918

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 44.168 ug/L

response 975860

(+) = Expected Retention Time

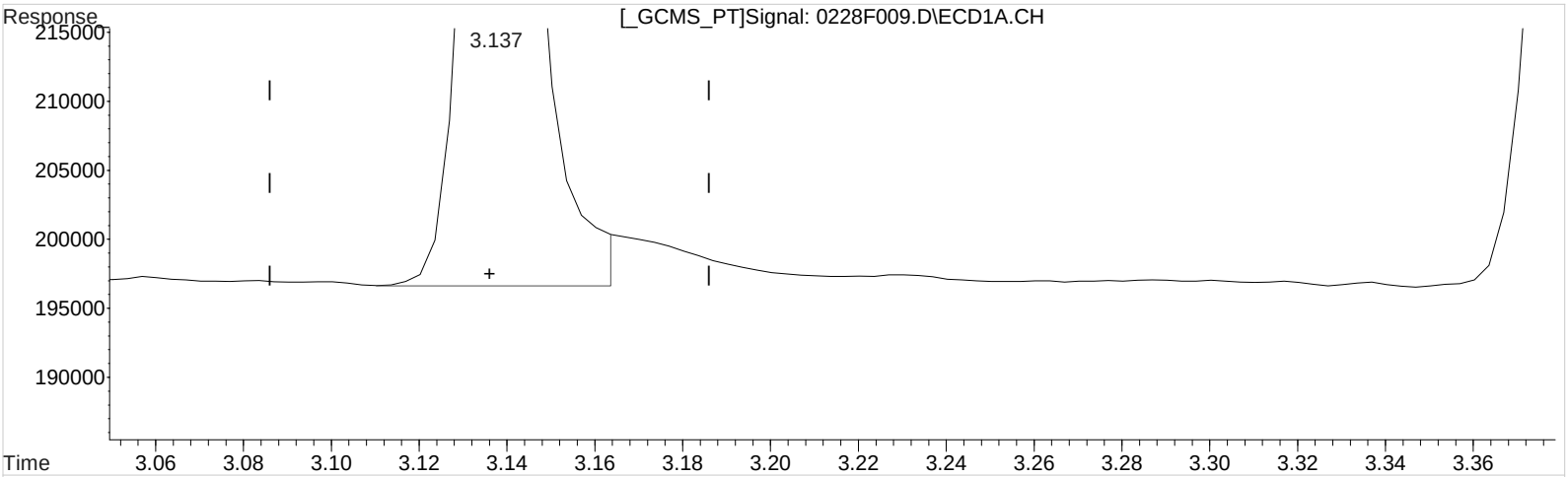
Quantitation Report (Qedit)

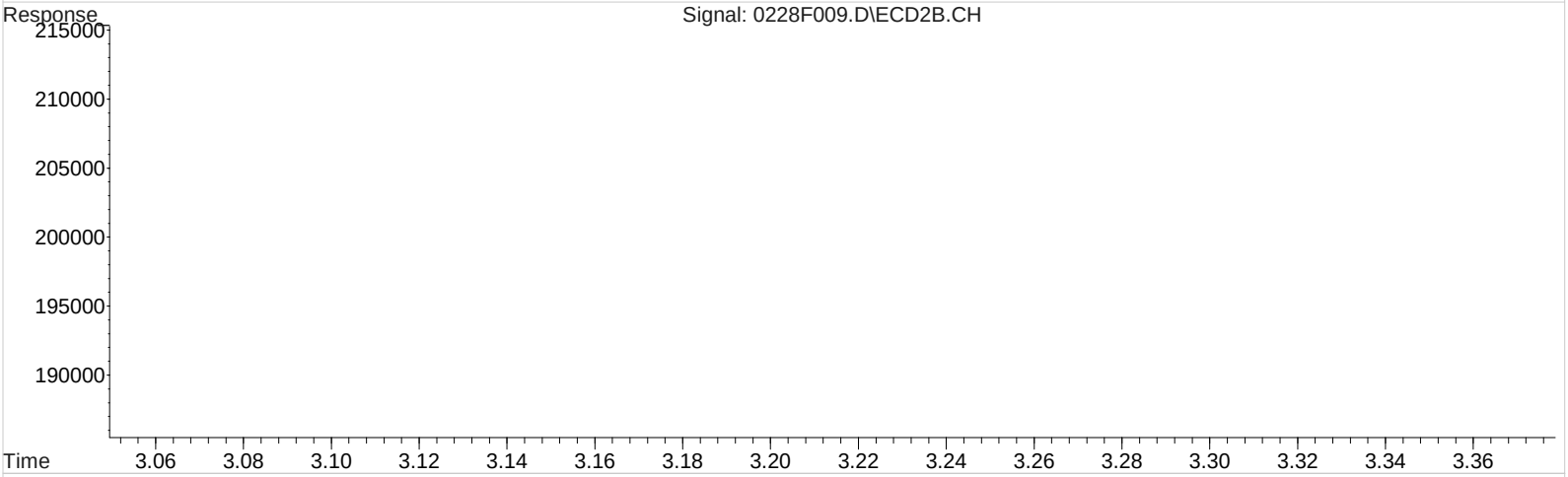
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 47.710 ug/L m

response 717598

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 44.168 ug/L

response 975860

(+) = Expected Retention Time

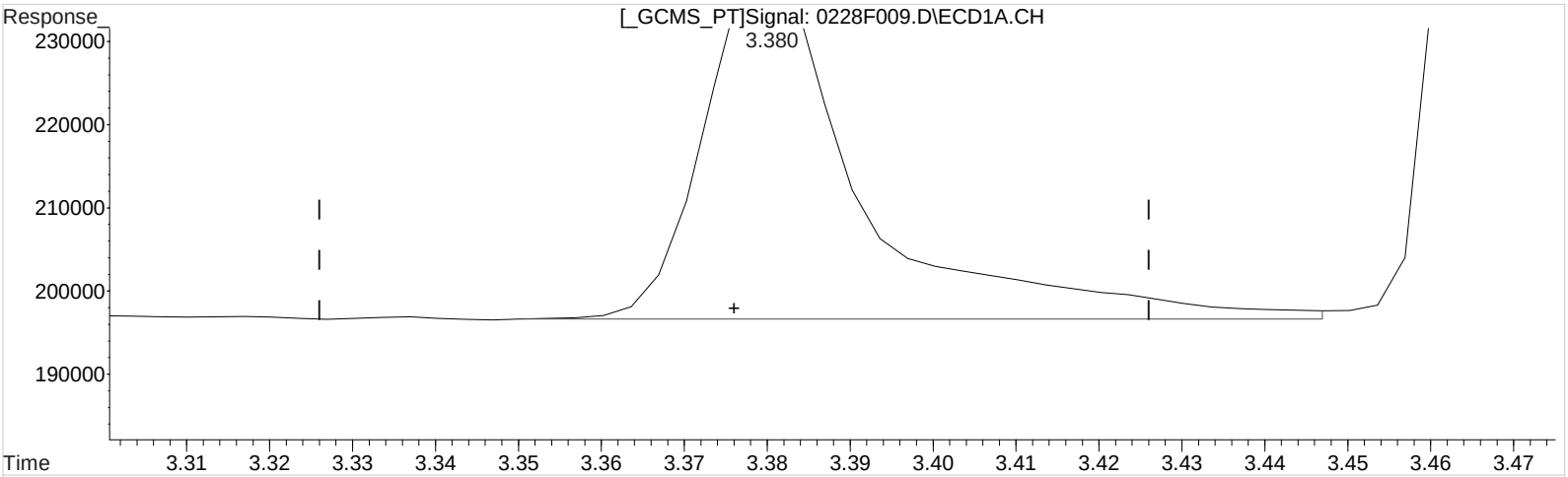
Quantitation Report (Qedit)

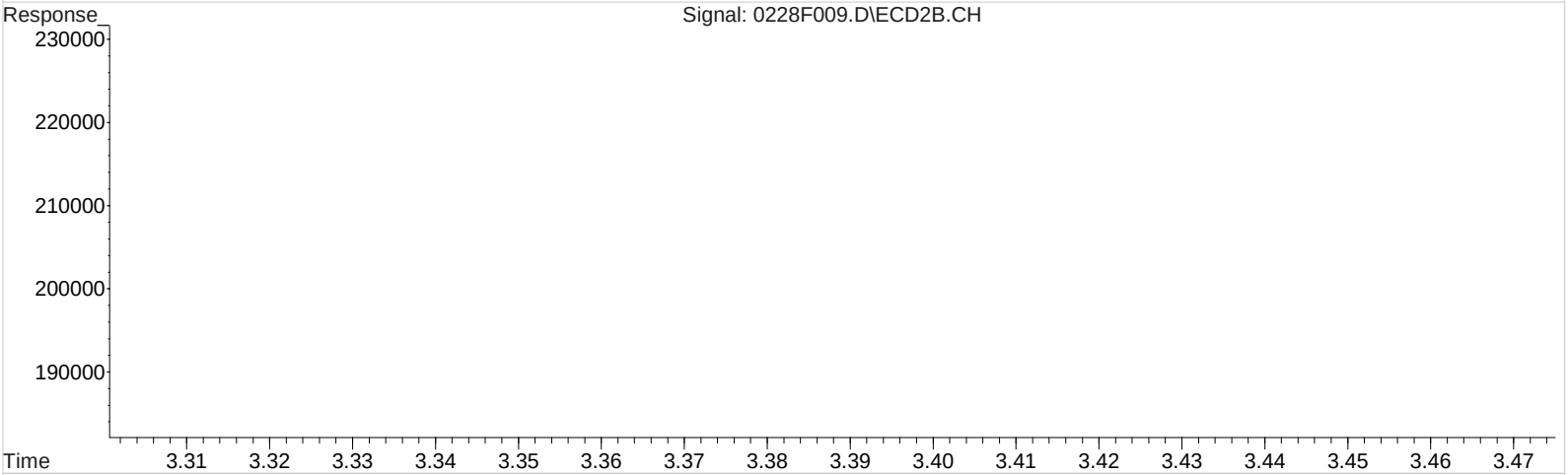
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 55.786 ug/L

response 554512

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 42.939 ug/L

response 707614

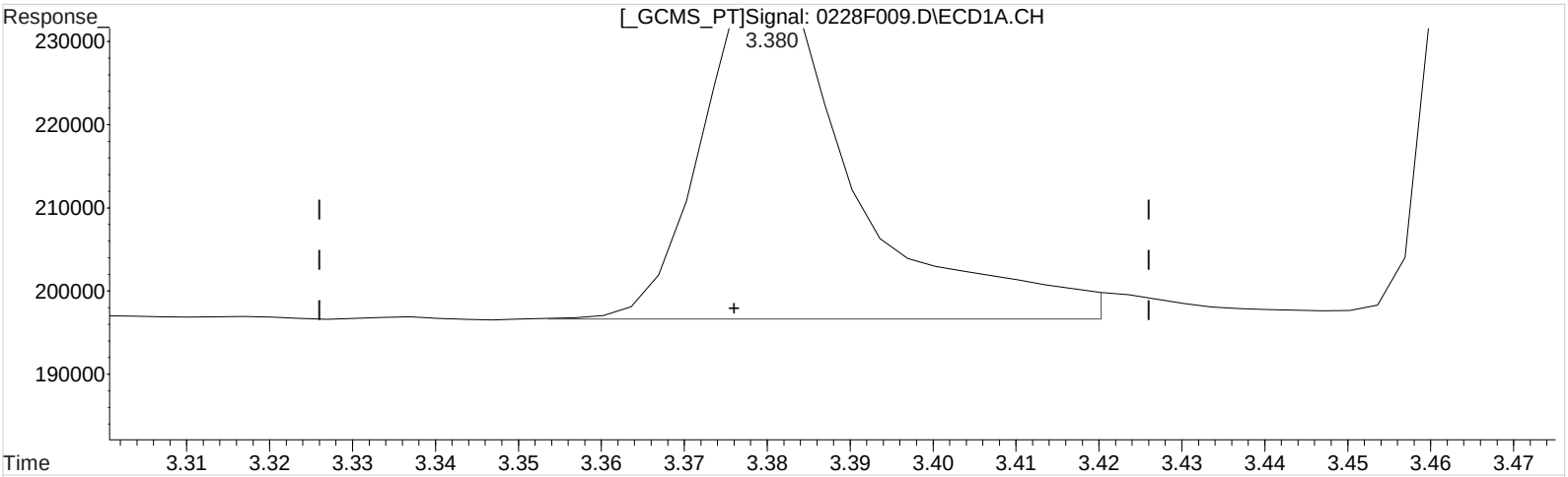
(+) = Expected Retention Time

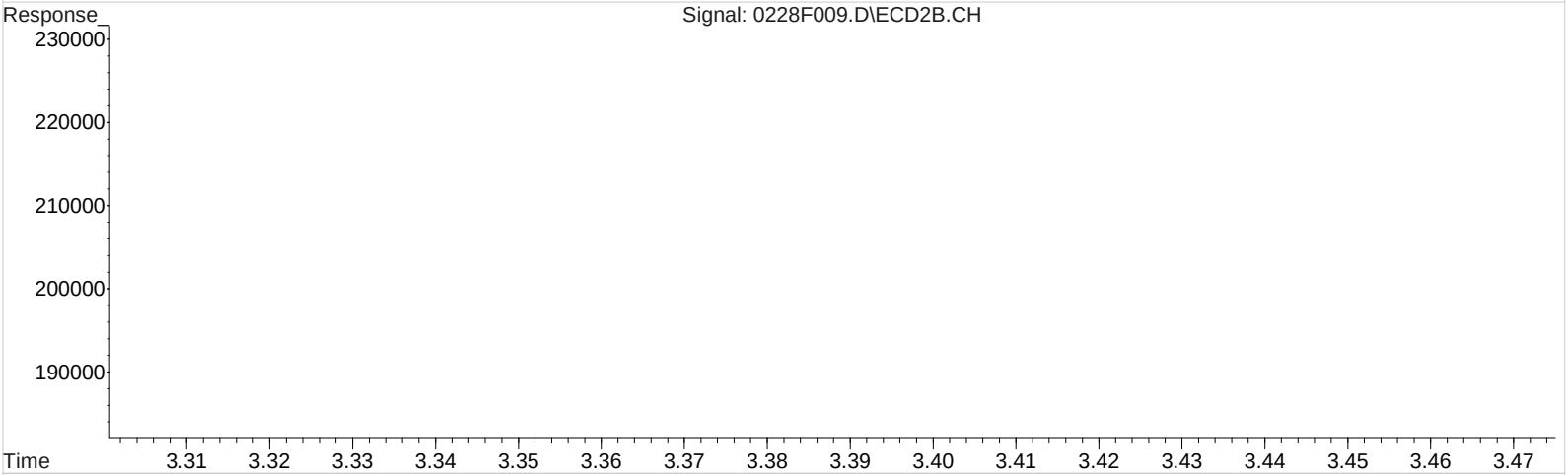
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 52.883 ug/L m

response 527946

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 42.939 ug/L

response 707614

(+) = Expected Retention Time

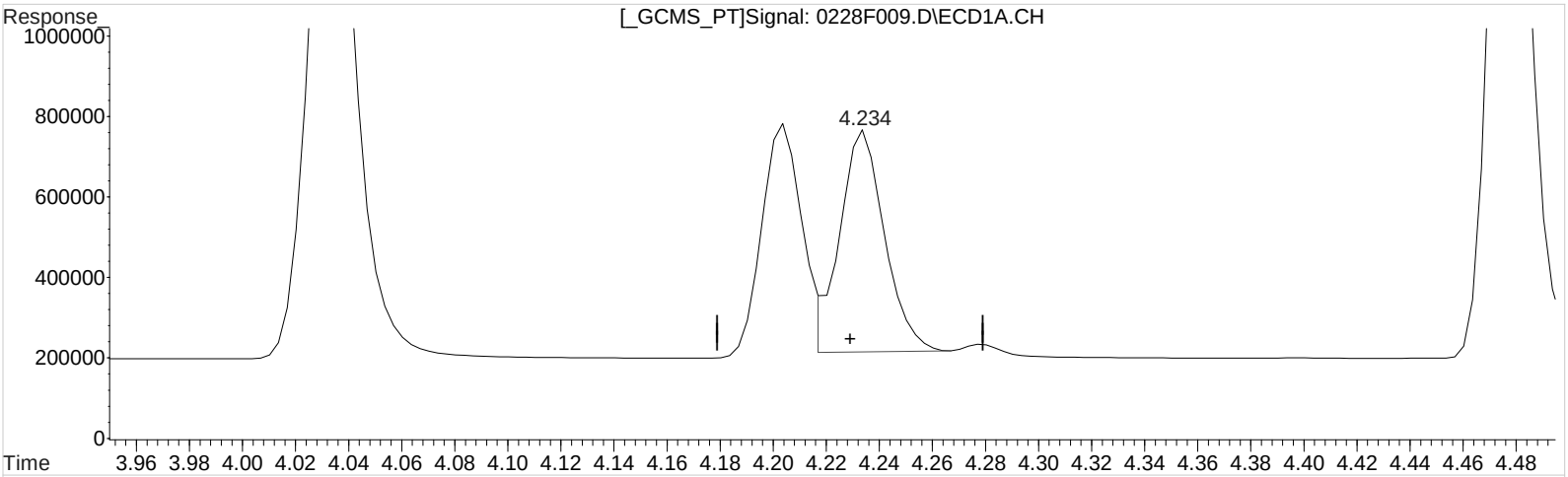
Quantitation Report (Qedit)

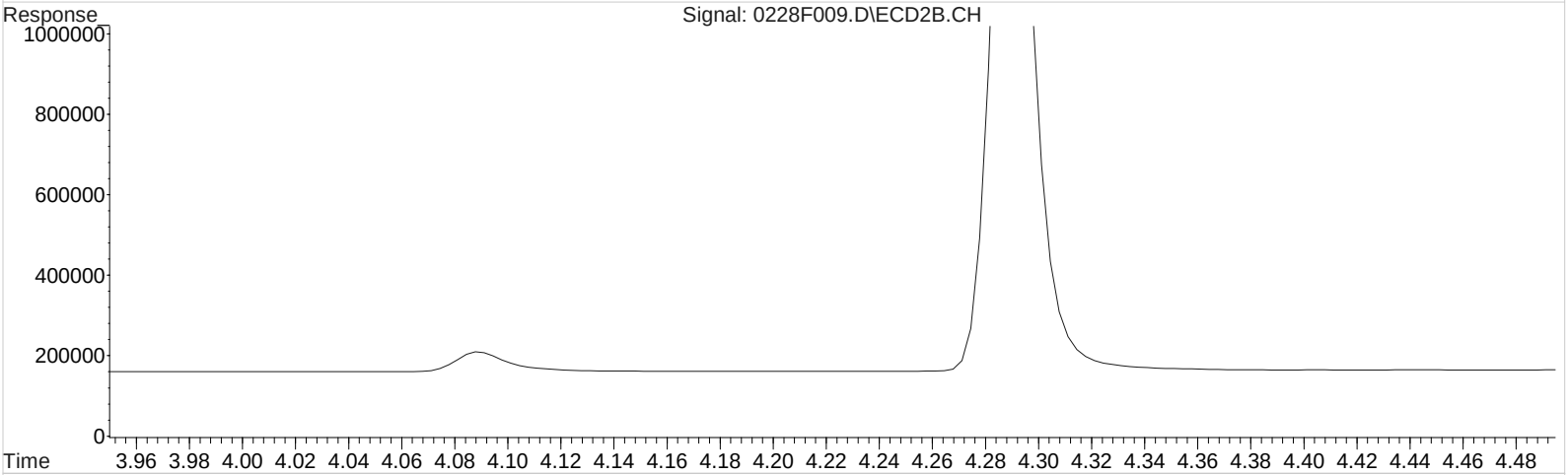
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.234min 45.176 ug/L

response 6319301

(6) 3,4,5-Trichlorophenol #2

4.848min 42.741 ug/L

response 8022672

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

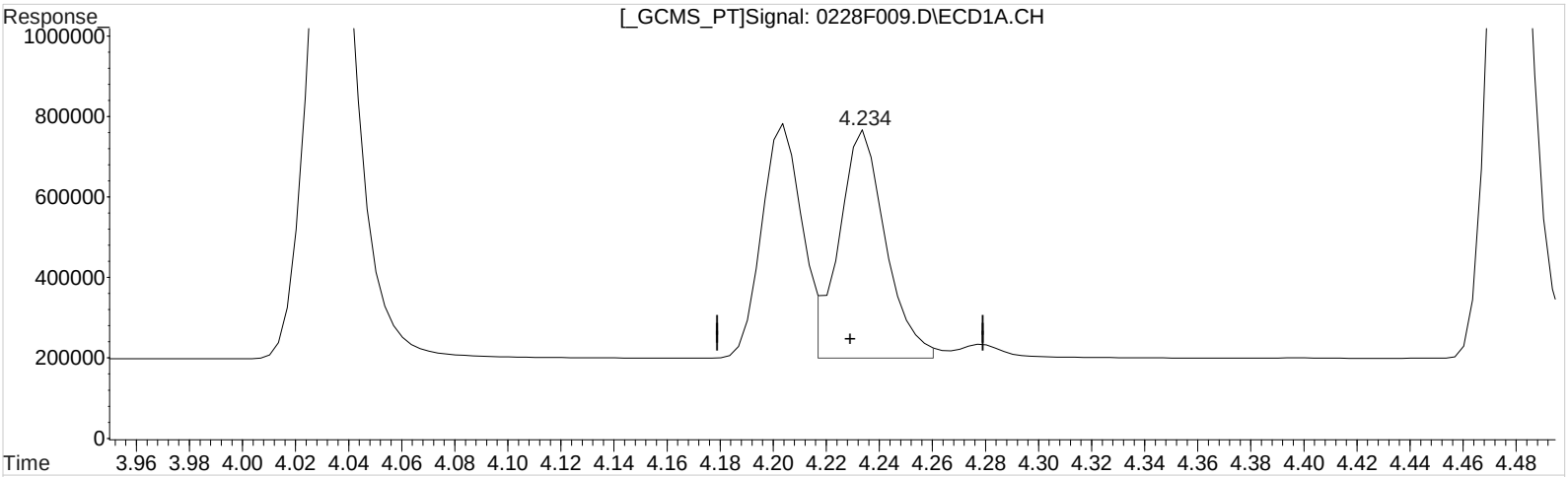
Quantitation Report (Qedit)

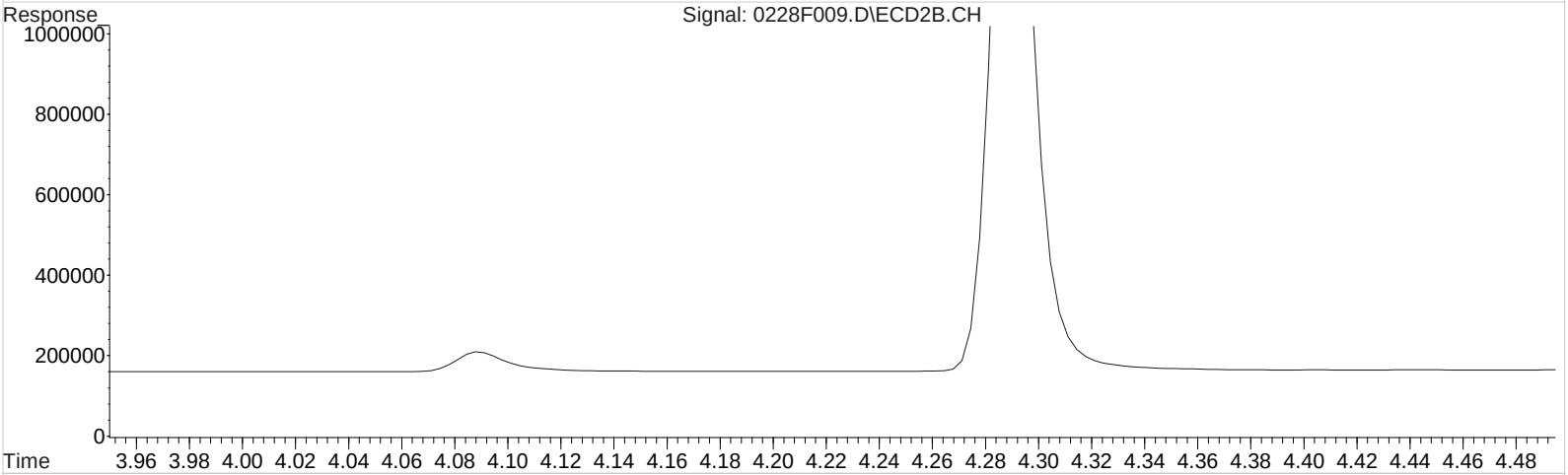
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.234min 48.287 ug/L m

response 6723516

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.848min 42.741 ug/L

response 8022672

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:22:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.032	4.719	34413155	43435506	102.249	99.922
		Target Compounds						
1)		3,4-Dichl...	3.138	3.833	1331525	1763970	93.560	79.838
2)		3,5-Dichl...	3.378	4.089	862010	1296503	91.350m	78.674
3)		2,4,6-Tri...	3.478	4.289	26311215	36325037	88.628	87.097
5)		2,4,5-Tri...	4.202	4.783	11366036	15617448	89.447	78.141
6)		3,4,5-Tri...	4.232	4.846	11877626	15048739	90.412	80.172
7)	M	2,3,5,6-T...	4.478	5.079	37783526	53764292	79.375	87.108
8)	M	2,3,4,5-T...	5.018	5.476	26302592	34720321	92.085	84.084
9)	M	Pentachlo...	5.155	5.659	44955036	59841010	100.762	87.035
10)		Pentachlo...	5.155	5.659	44955036	59841010	106.058	91.655

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

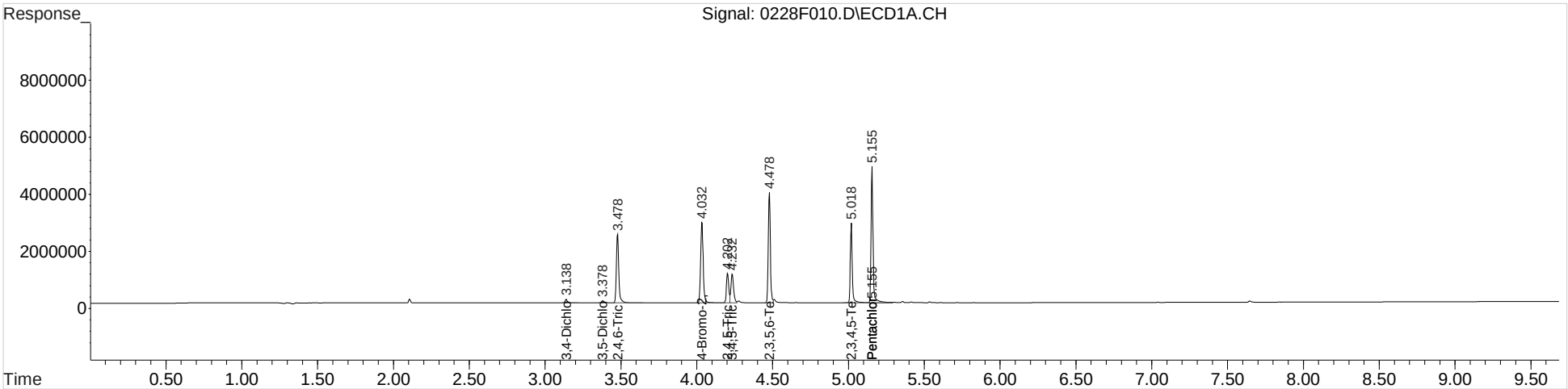
Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:22:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



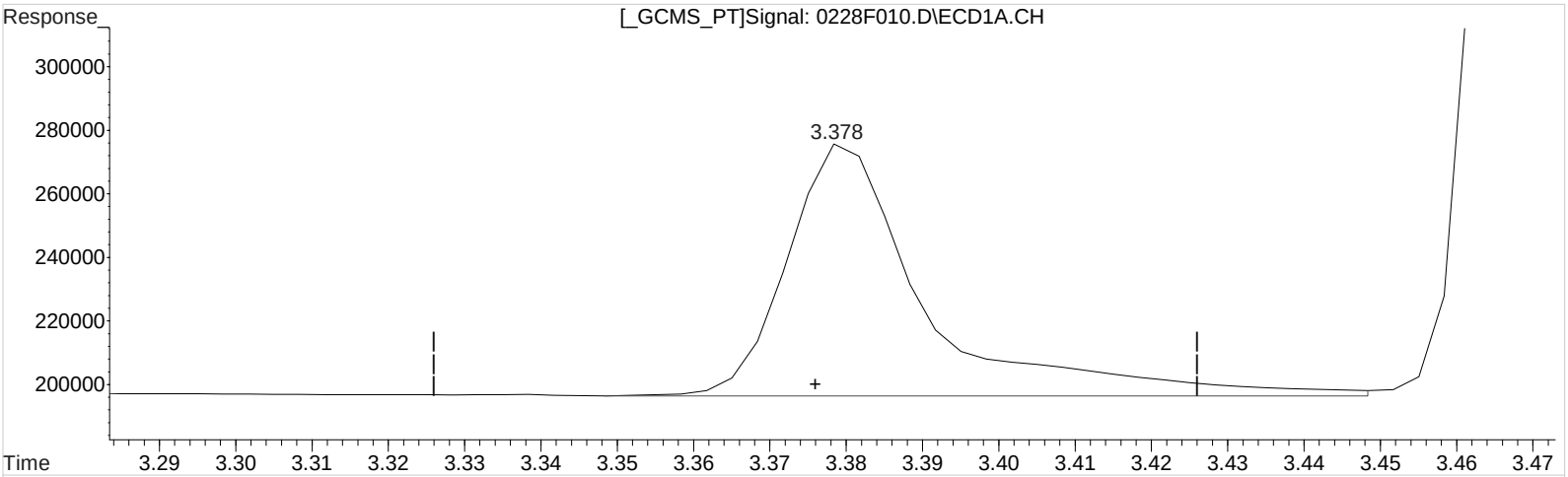
Quantitation Report (Qedit)

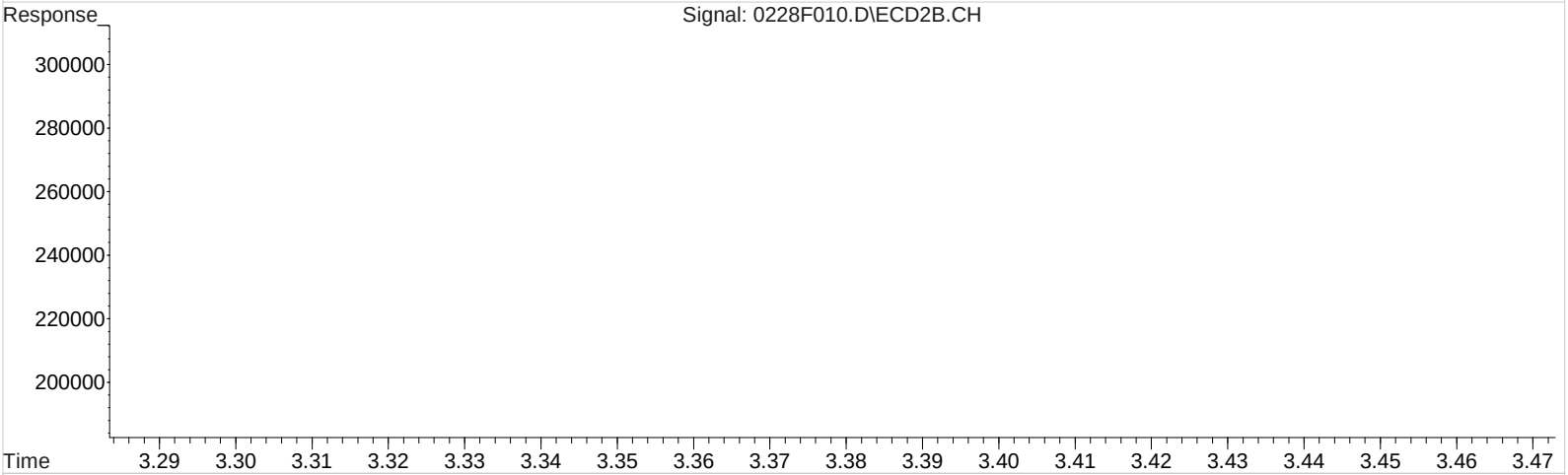
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 107.753 ug/L

response 992711

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 78.674 ug/L

response 1296503

(+) = Expected Retention Time

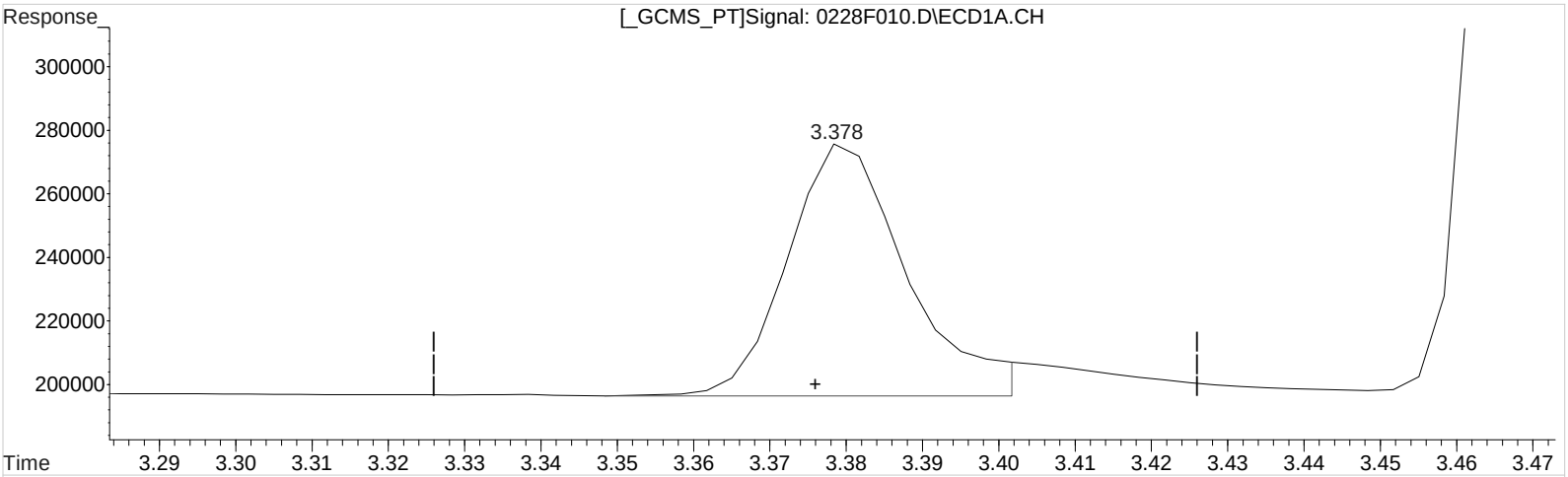
Quantitation Report (Qedit)

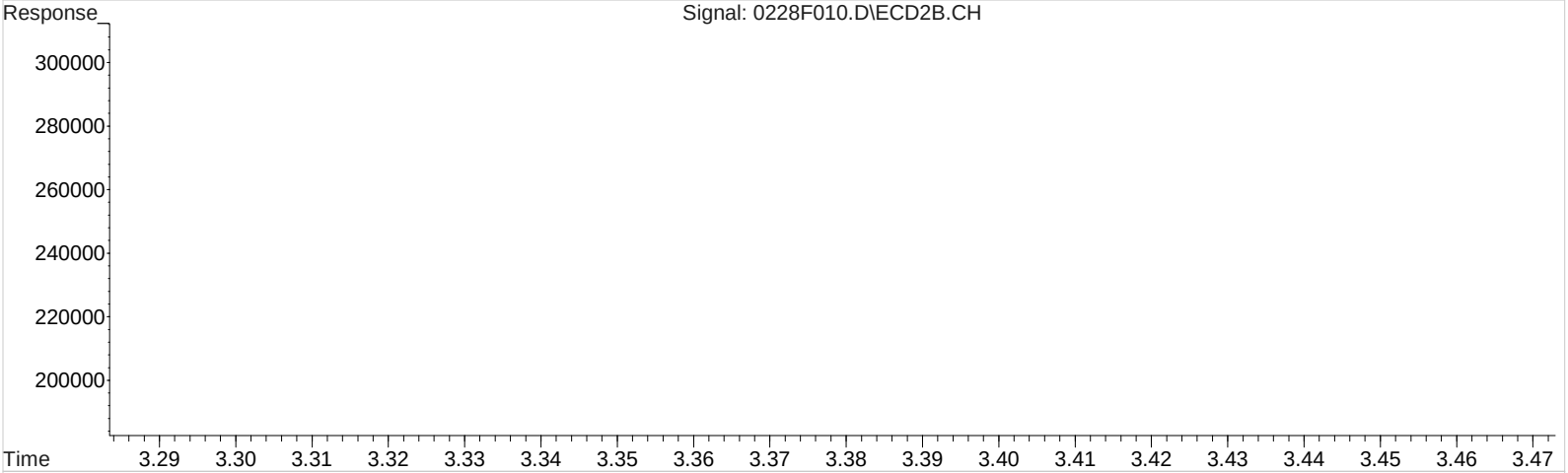
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 91.350 ug/L m

response 862010

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 78.674 ug/L

response 1296503

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:40:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.032	4.720	81814734	111.2E6	251.811	255.909	
		Target Compounds							
1)		3,4-Dichl...	3.139	3.833	2857364	4032207	239.203m	182.500	
2)		3,5-Dichl...	3.379	4.090	1819808	2874954	247.123m	174.458	#
3)		2,4,6-Tri...	3.479	4.290	60385111	91468356	241.870	219.315	
5)		2,4,5-Tri...	4.202	4.783	24998272	37739444	250.979	188.827	
6)		3,4,5-Tri...	4.232	4.846	25742104	36413226	245.950m	193.992	
7)	M	2,3,5,6-T...	4.479	5.076	86546934	134.6E6	181.817	218.076	
8)	M	2,3,4,5-T...	5.016	5.473	58240789	85792304	243.632	207.768	
9)	M	Pentachlo...	5.152	5.656	102.6E6	149.9E6	237.563	218.038	
10)		Pentachlo...	5.152	5.656	102.6E6	149.9E6	250.048	229.611	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

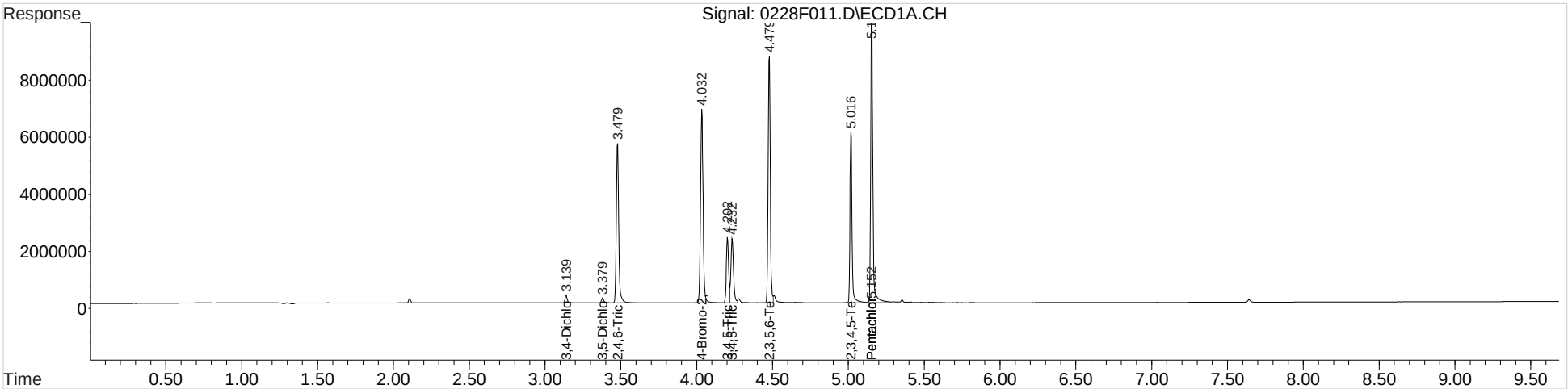
Quantitation Report (QT Reviewed)

1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:40:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



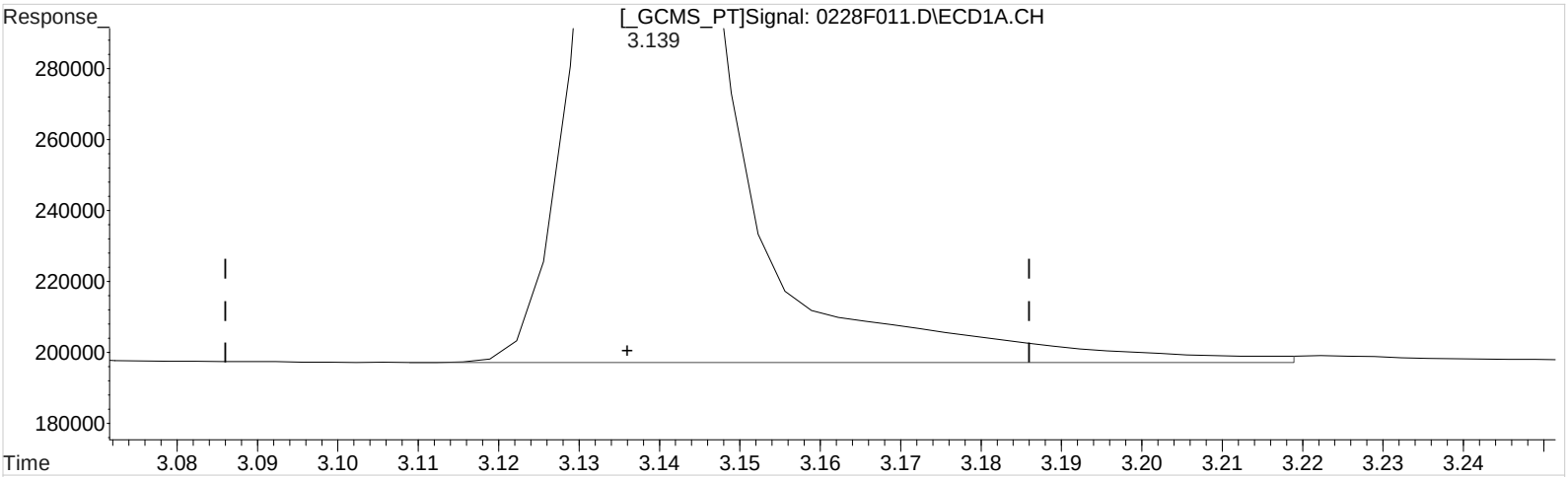
Quantitation Report (Qedit)

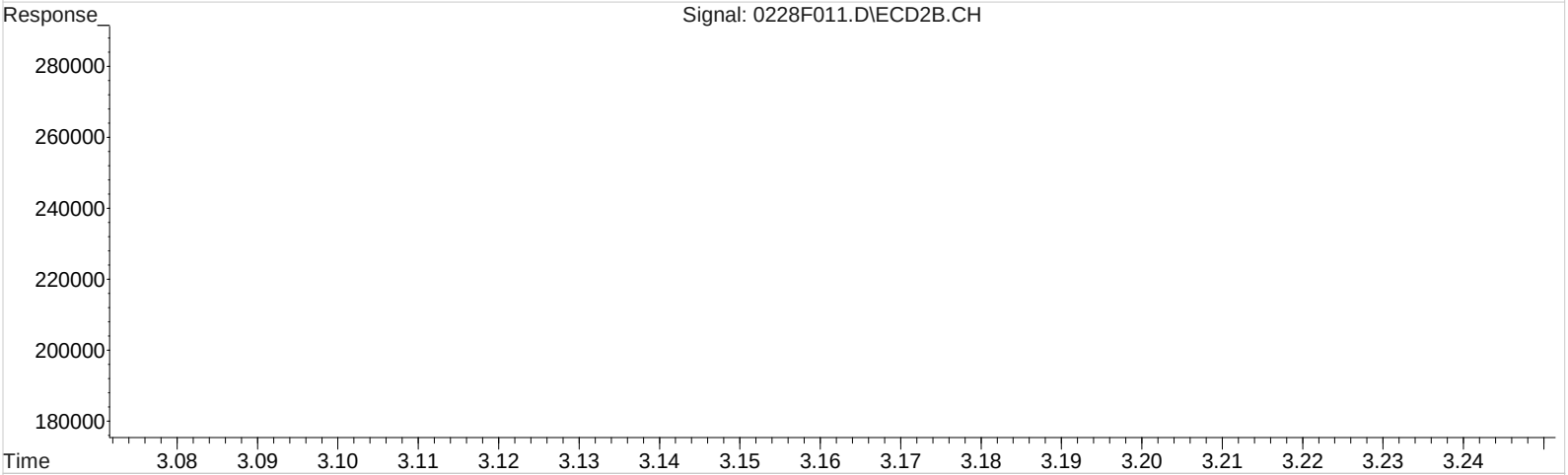
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 239.087 ug/L

response 2856406

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 182.500 ug/L

response 4032207

(+) = Expected Retention Time

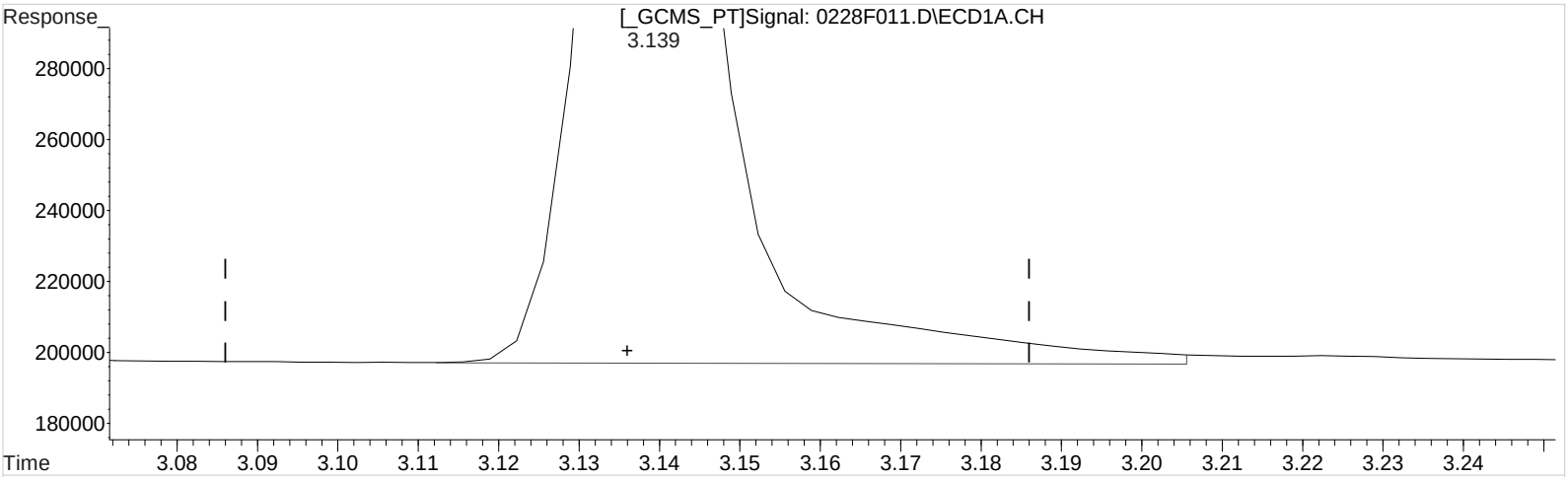
Quantitation Report (Qedit)

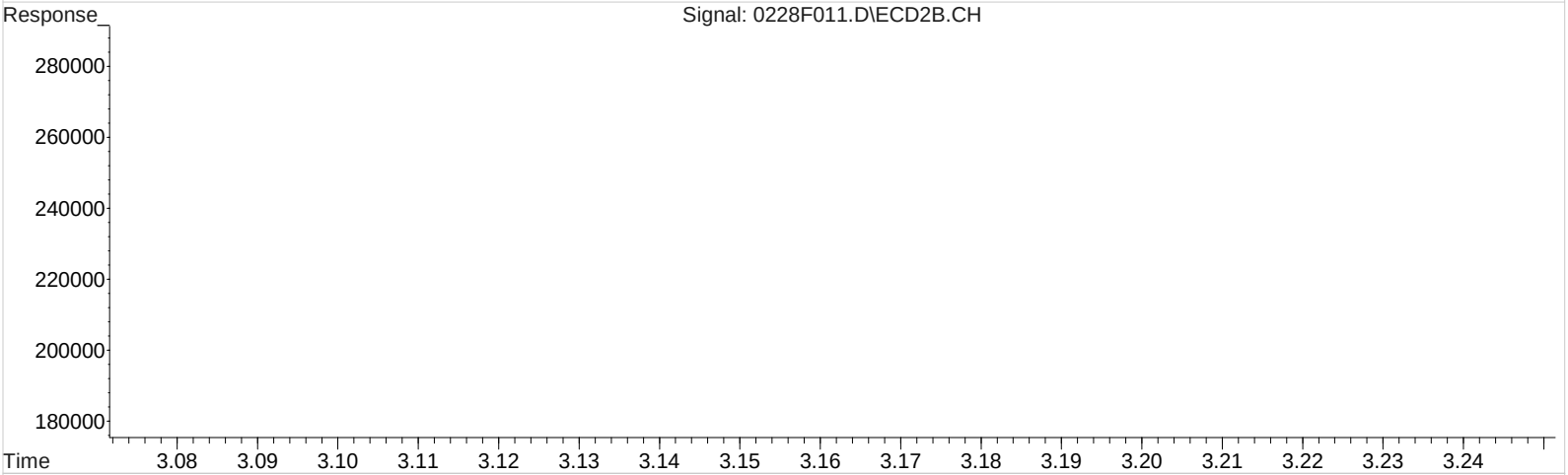
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 239.203 ug/L m

response 2857364

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 182.500 ug/L

response 4032207

(+) = Expected Retention Time

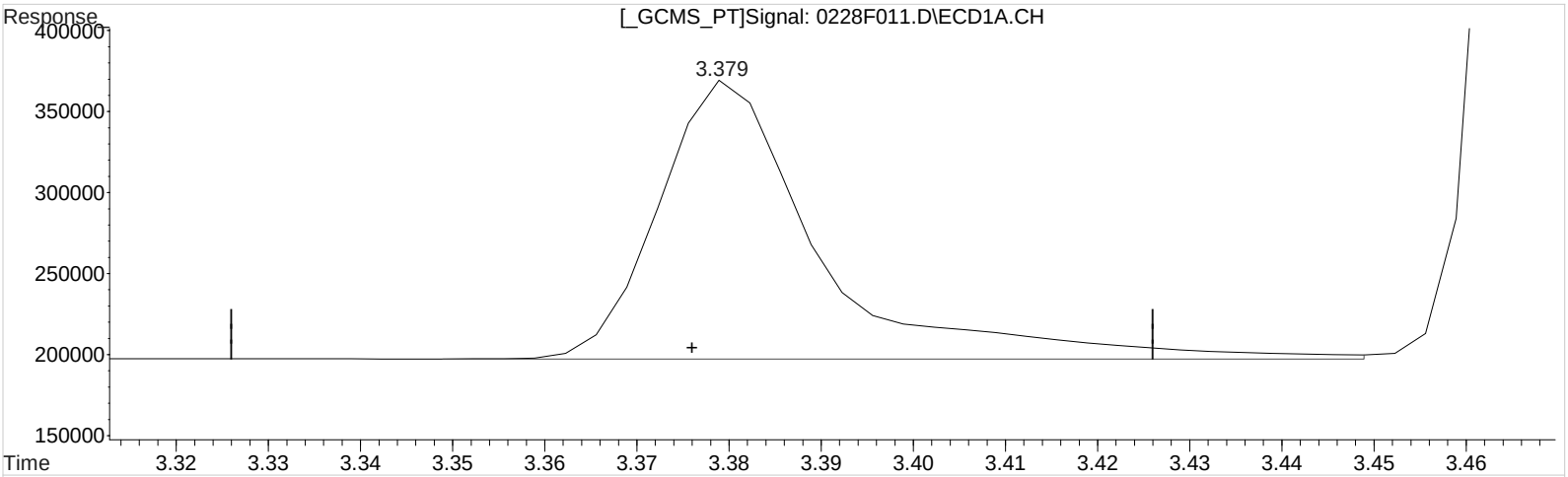
Quantitation Report (Qedit)

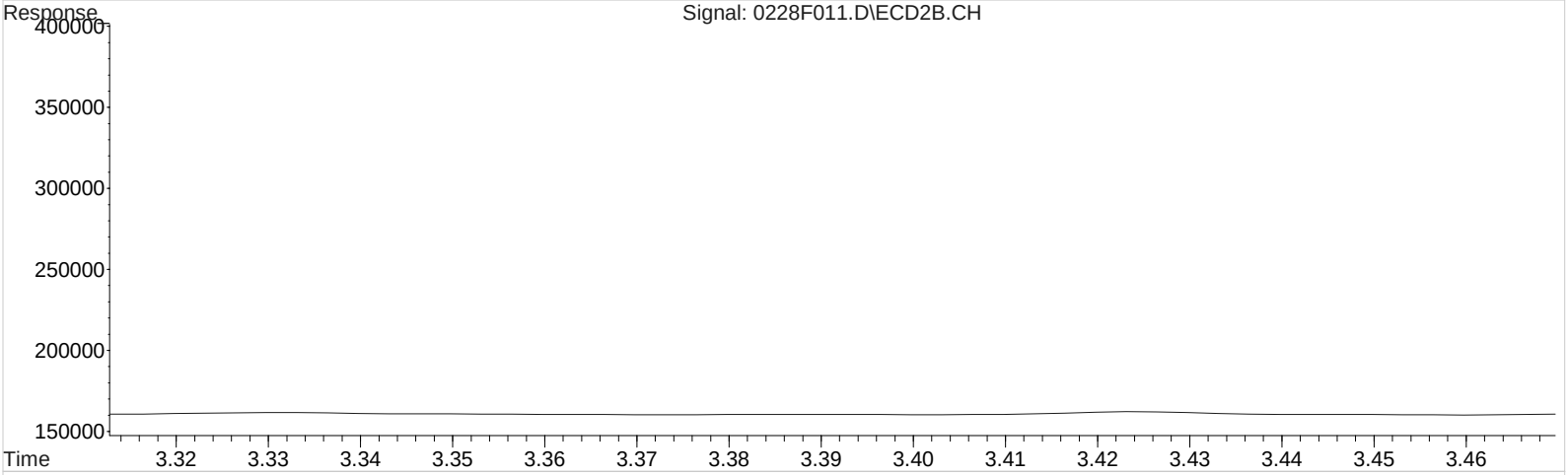
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 331.758 ug/L

response 2074587

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 174.458 ug/L

response 2874954

(+) = Expected Retention Time

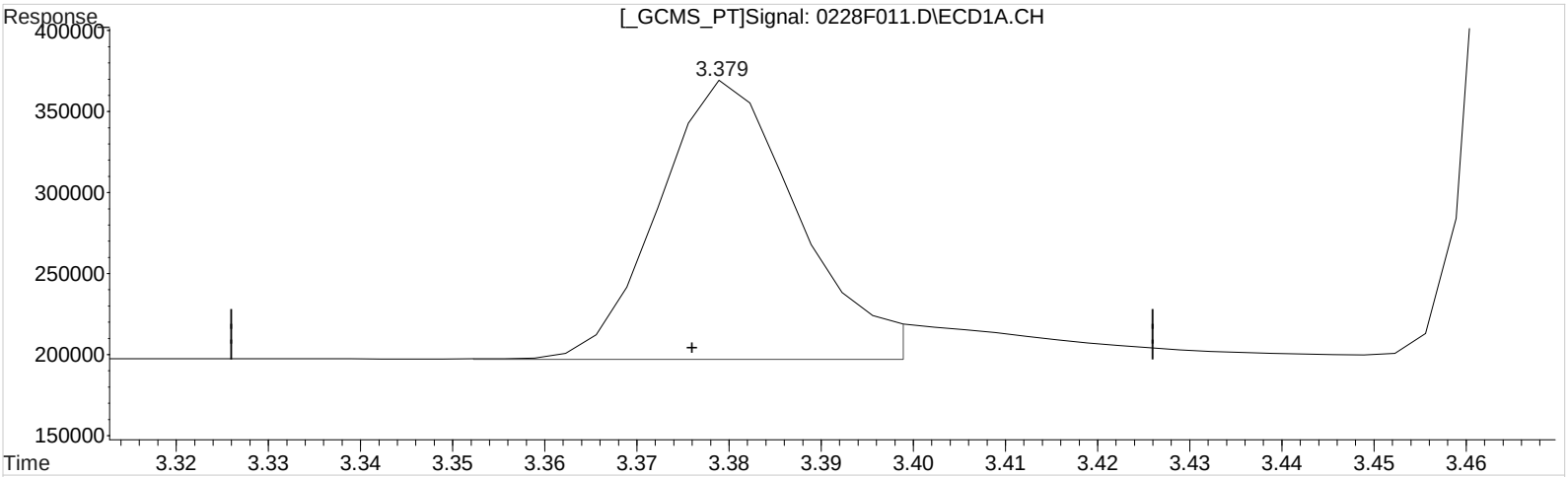
Quantitation Report (Qedit)

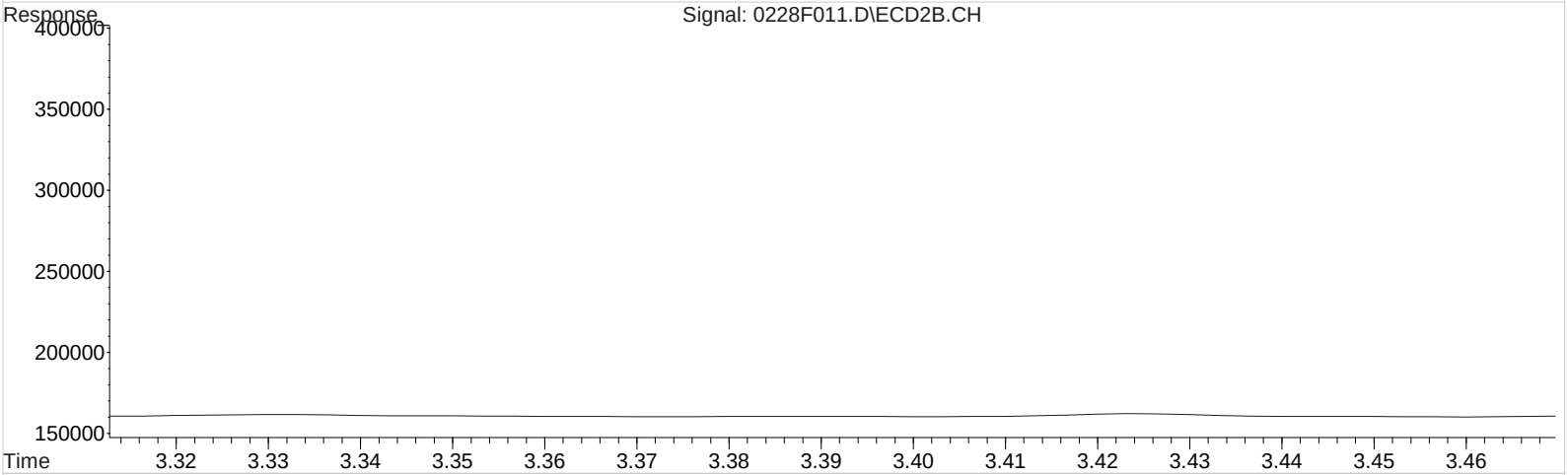
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 247.123 ug/L m

response 1819808

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 174.458 ug/L

response 2874954

(+) = Expected Retention Time

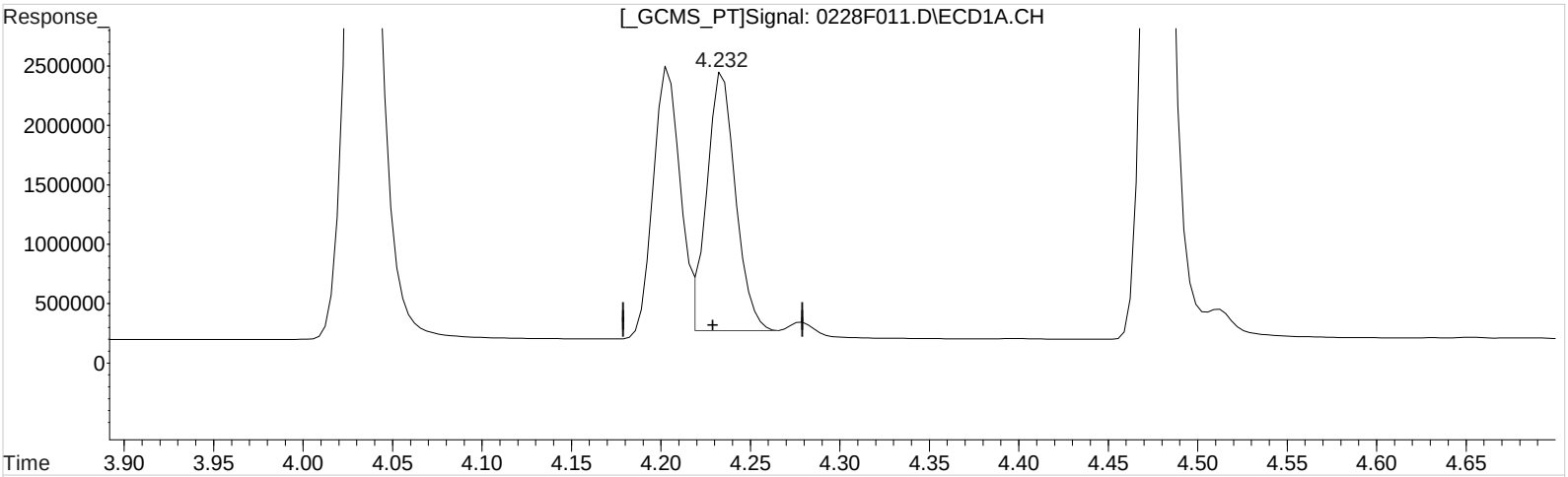
Quantitation Report (Qedit)

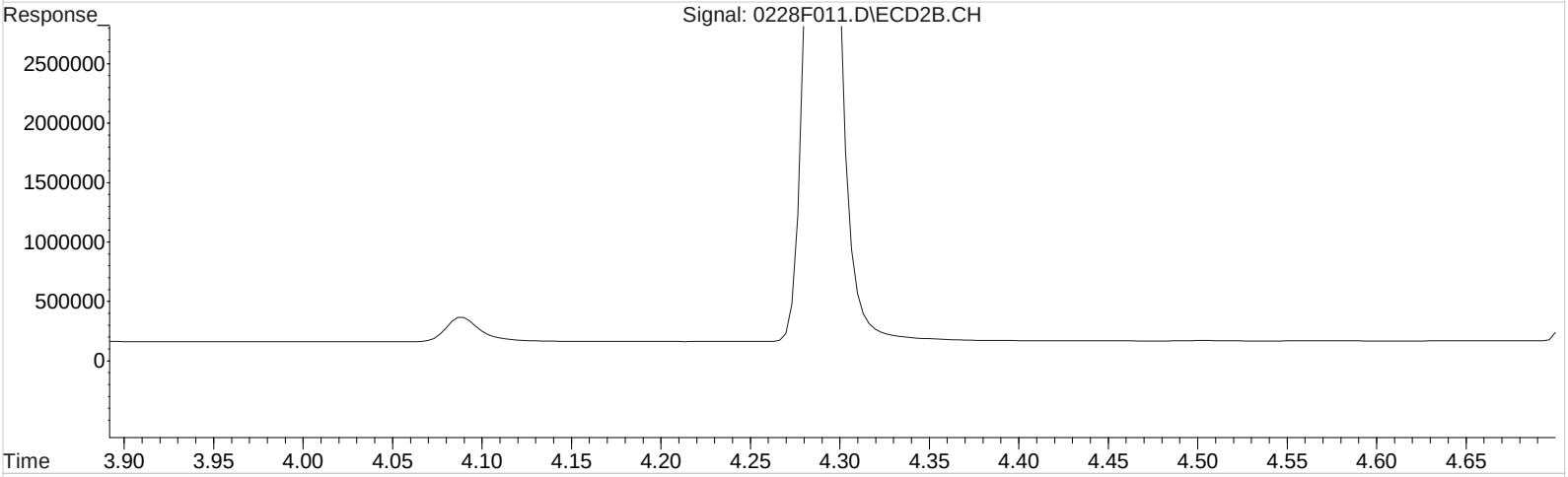
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min 214.424 ug/L

response 23588772

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.846min 193.992 ug/L

response 36413226

(+) = Expected Retention Time

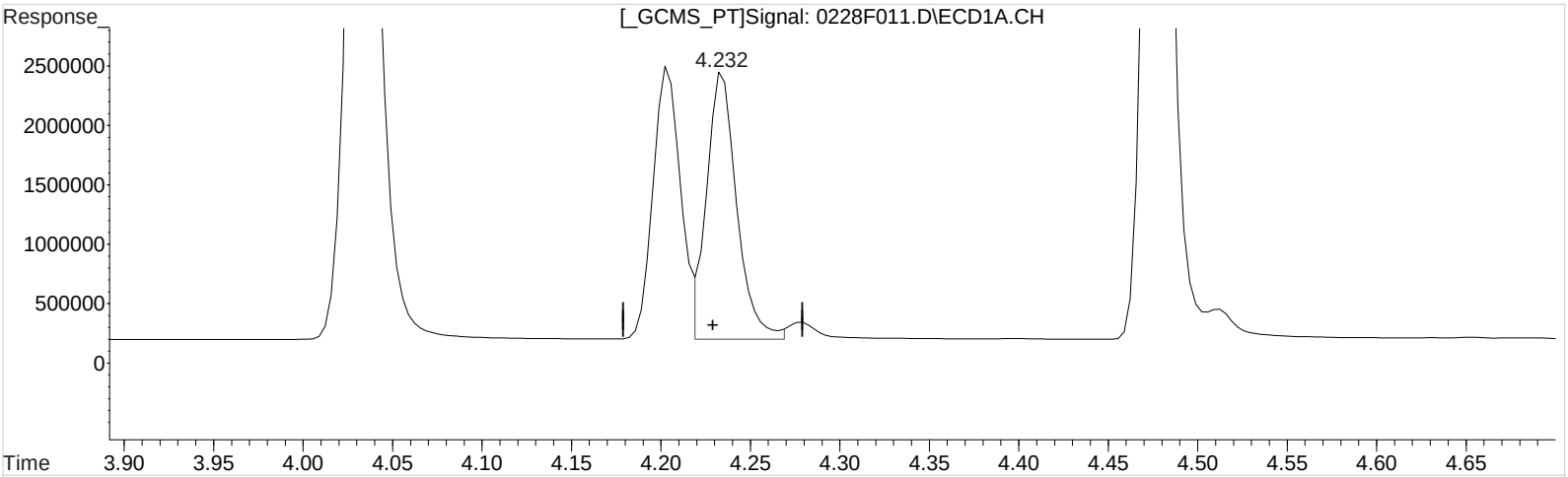
Quantitation Report (Qedit)

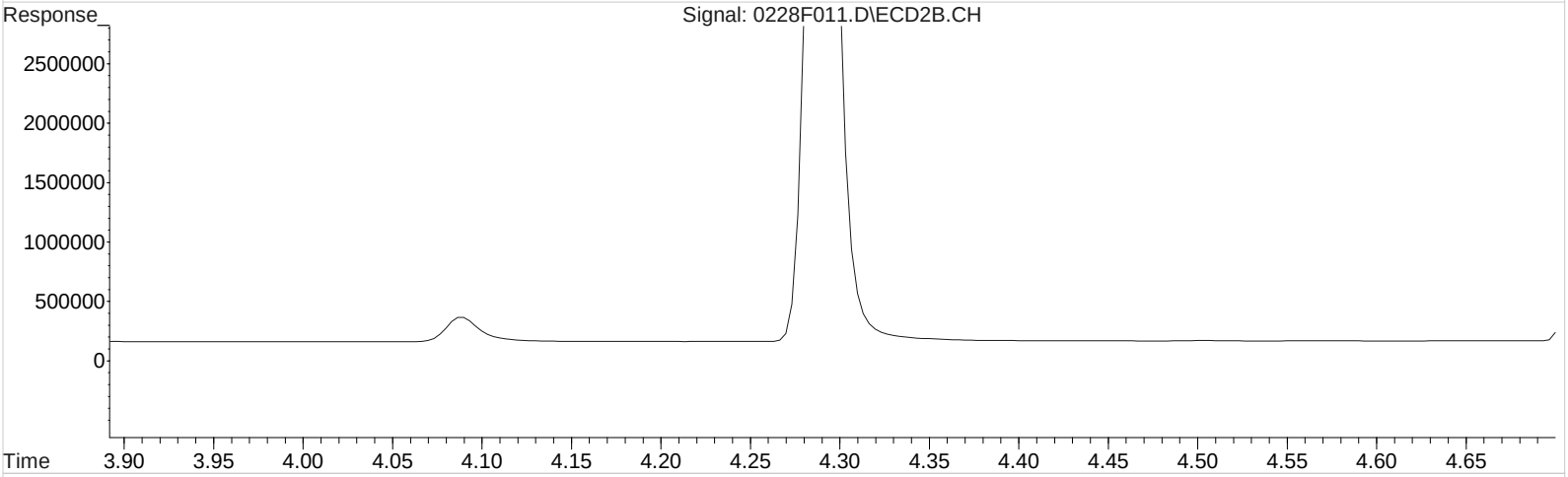
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min 245.950 ug/L m

response 25742104

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.846min 193.992 ug/L

response 36413226

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:02:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.034	4.718	148.9E6	219.7E6	481.796	505.496
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D. d
9)	M	Pentachlo...	5.154	5.658	187.0E6	302.6E6	453.396	440.083
10)		Pentachlo...	5.154	5.658	187.0E6	302.6E6	477.226	463.441

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

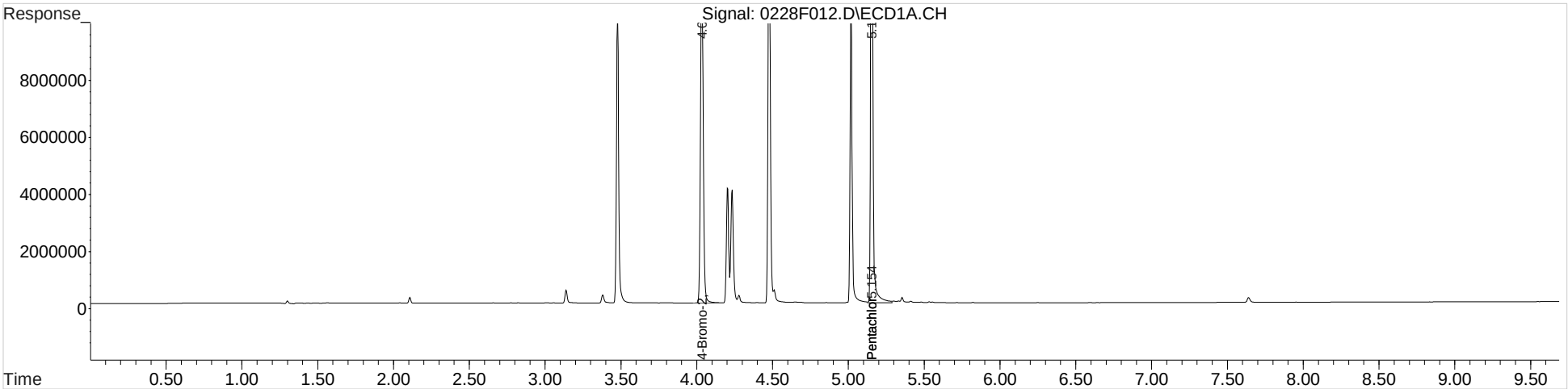
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:02:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



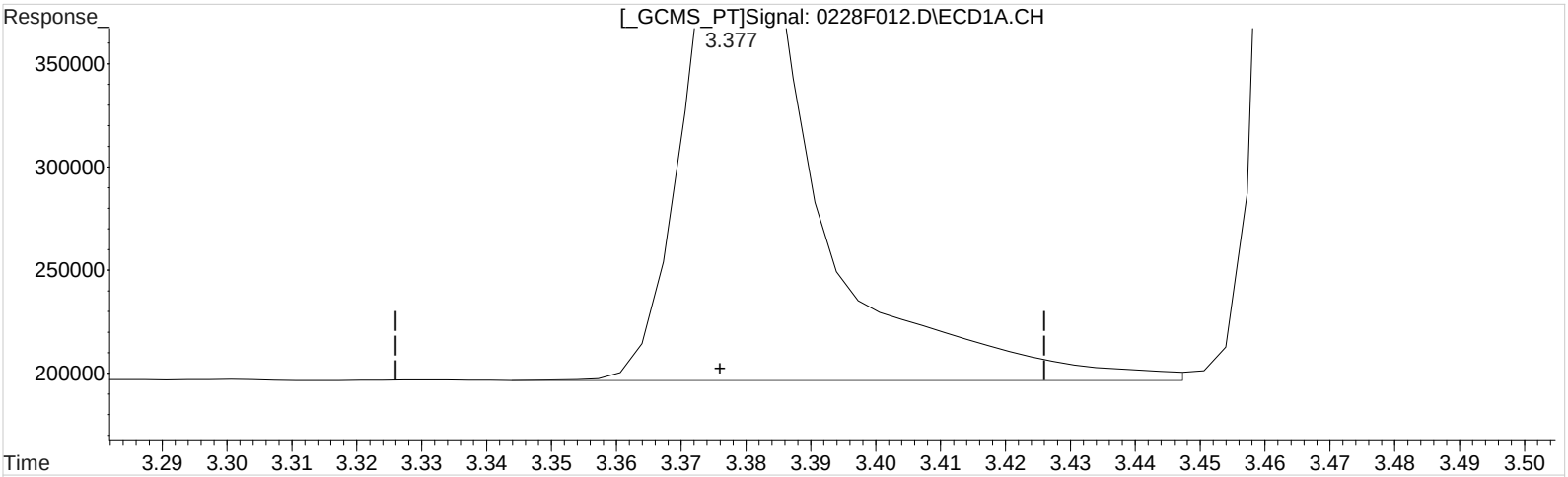
Quantitation Report (Qedit)

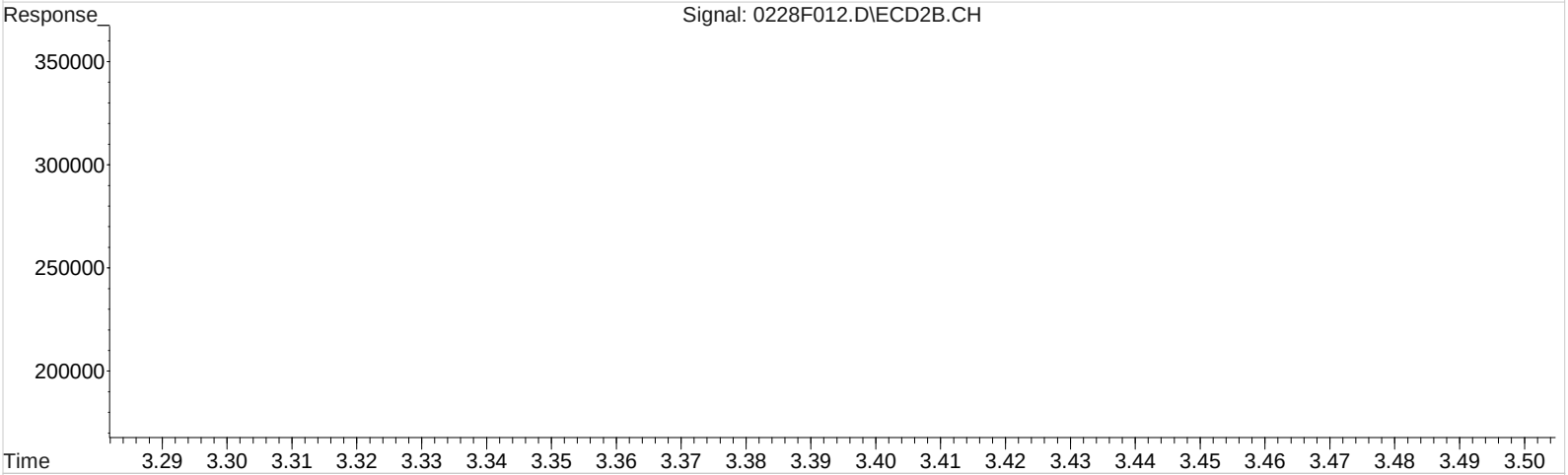
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:57:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min -1.000 ug/L

response 3515486

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 308.529 ug/L

response 5084362

(+) = Expected Retention Time

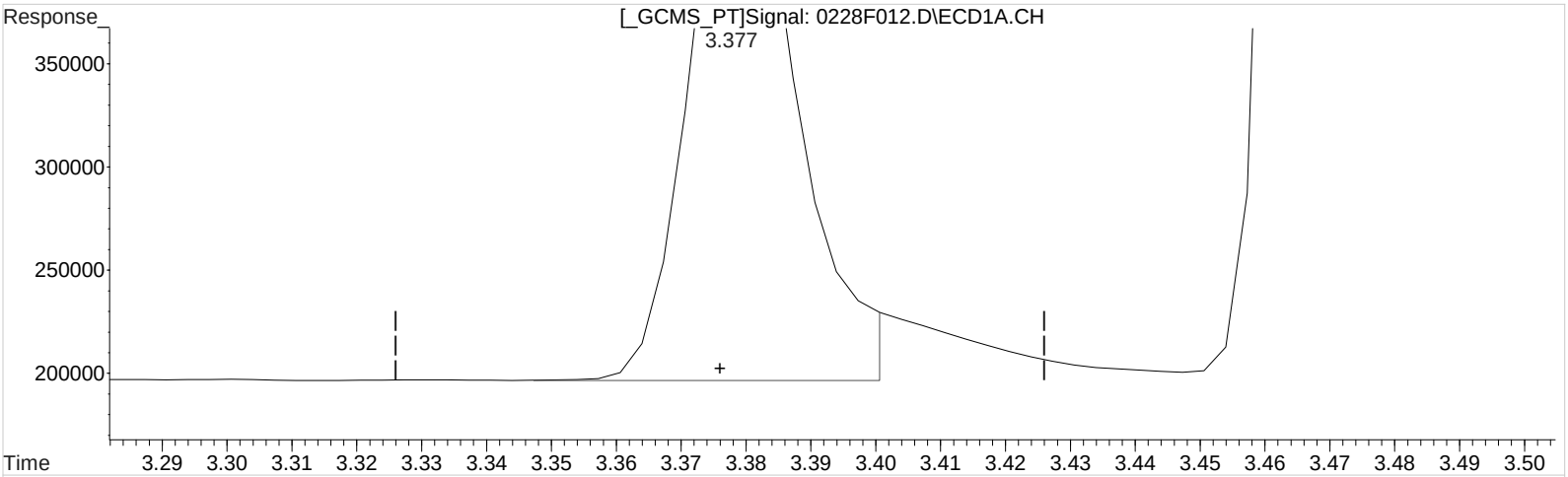
Quantitation Report (Qedit)

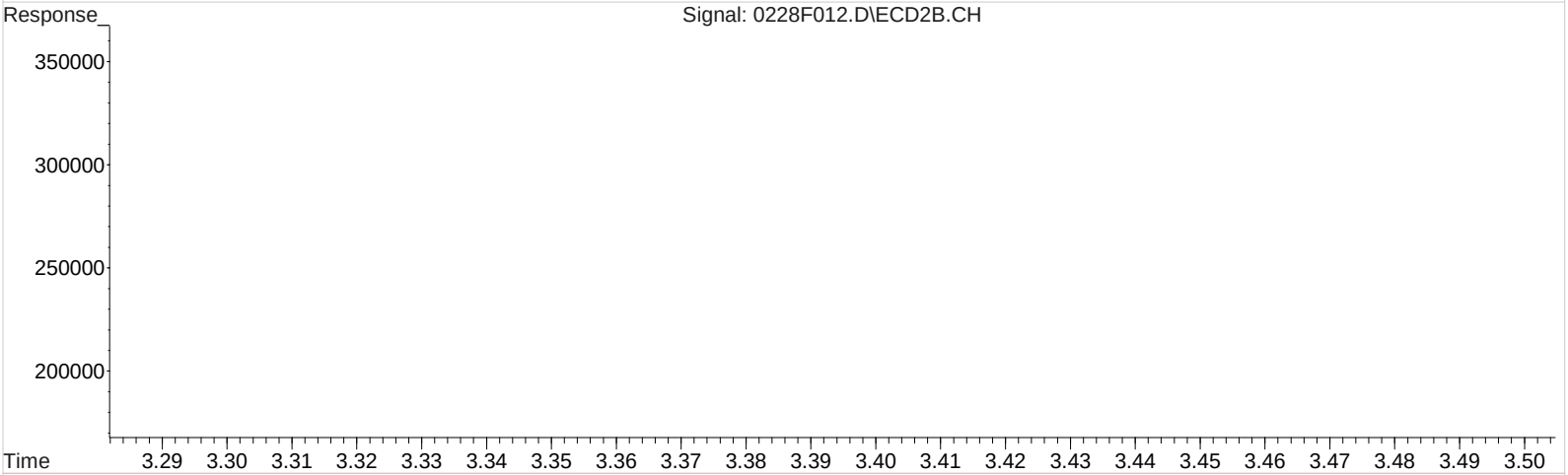
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:57:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min -1.000 ug/L m

response 3148268

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 308.529 ug/L

response 5084362

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:03:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.032	4.720	275.5E6	454.2E6	1004.956	1044.829
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D. d
9)	M	Pentachlo...	5.152	5.657	351.1E6	624.5E6	951.331	908.276
10)		Pentachlo...	5.152	5.657	351.1E6	624.5E6	1001.338	956.483

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

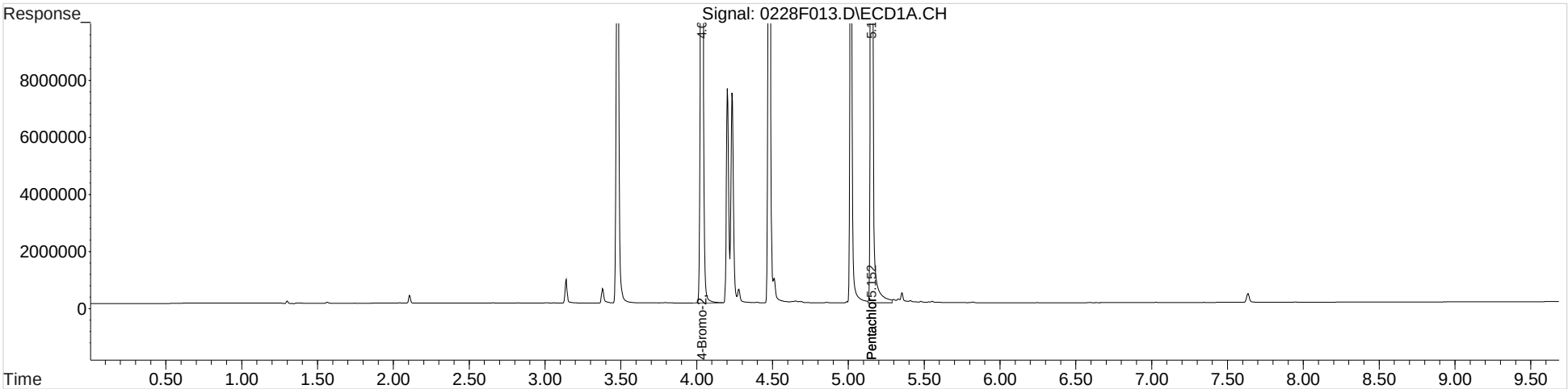
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:03:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



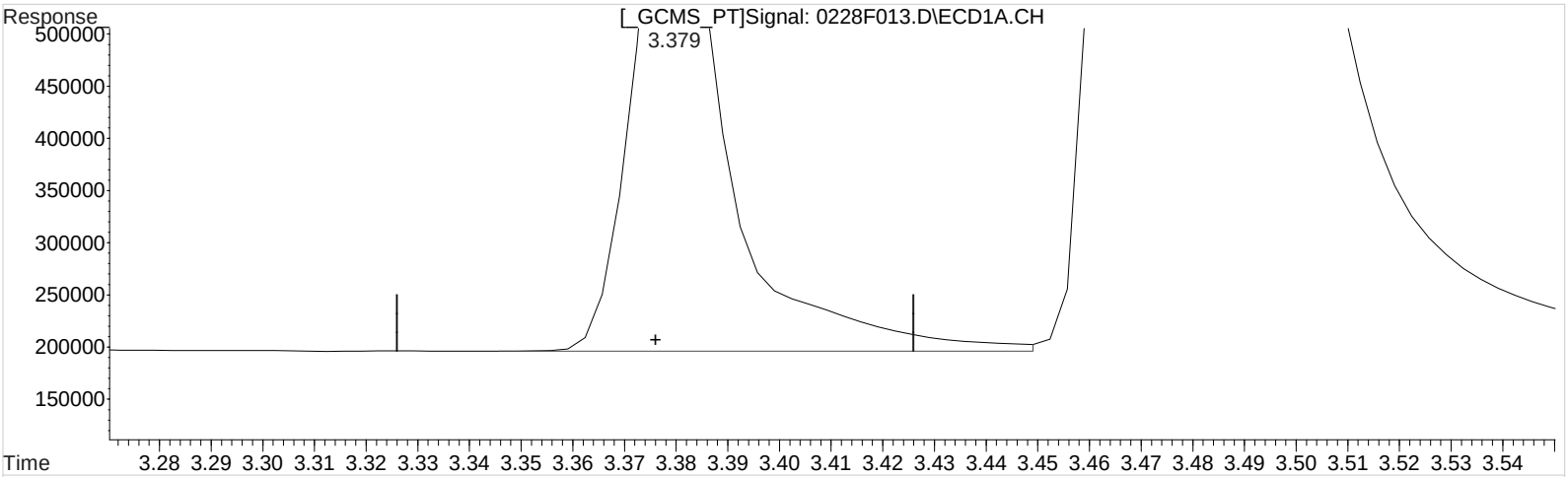
Quantitation Report (Qedit)

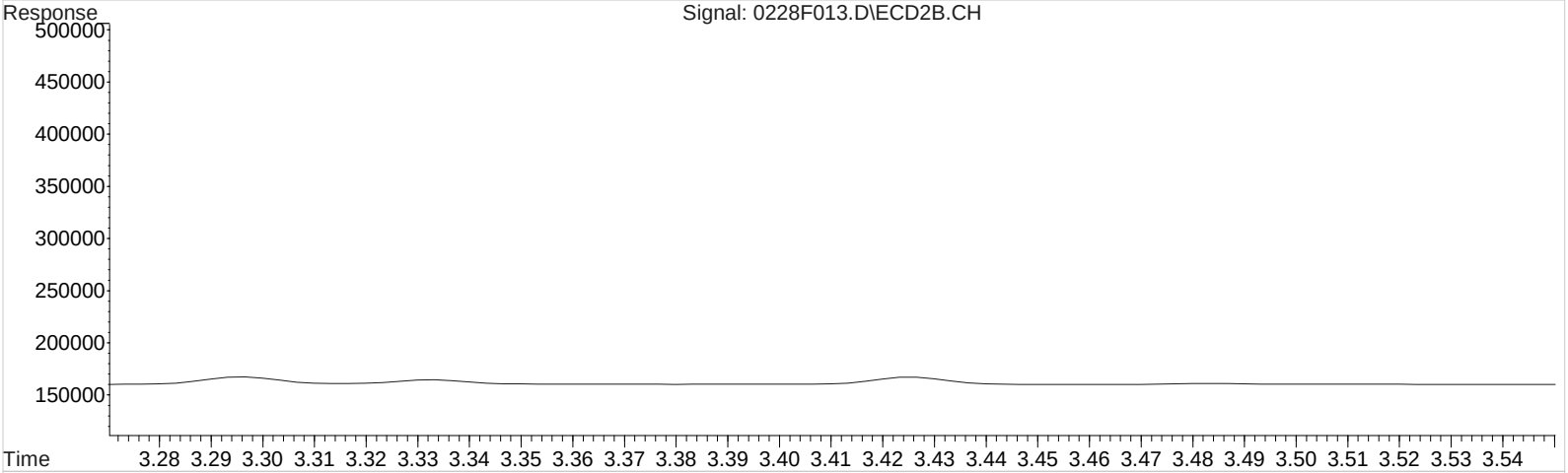
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min -1.000 ug/L

response 6094712

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 574.054 ug/L

response 9460033

(+) = Expected Retention Time

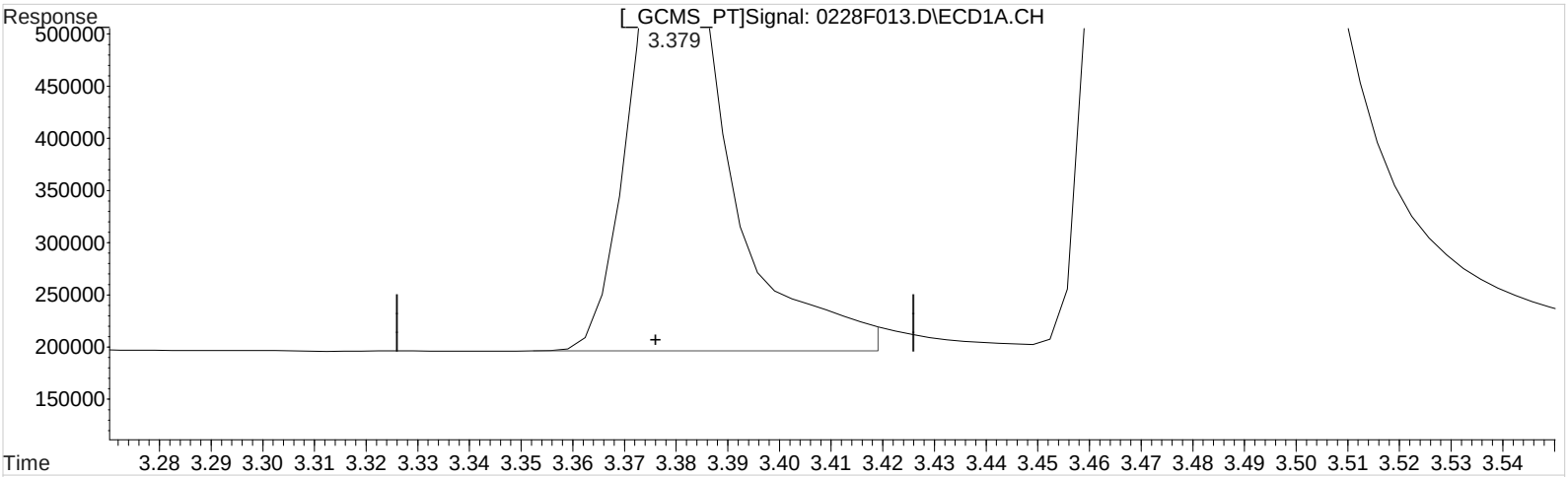
Quantitation Report (Qedit)

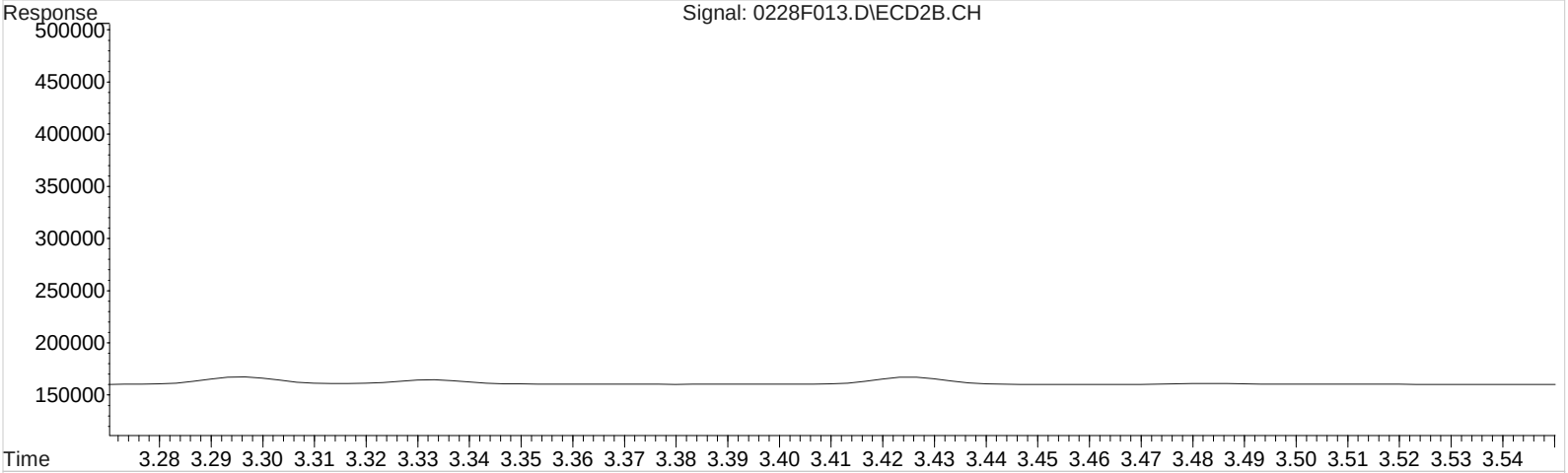
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min -1.000 ug/L m

response 5889814

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 574.054 ug/L

response 9460033

(+) = Expected Retention Time

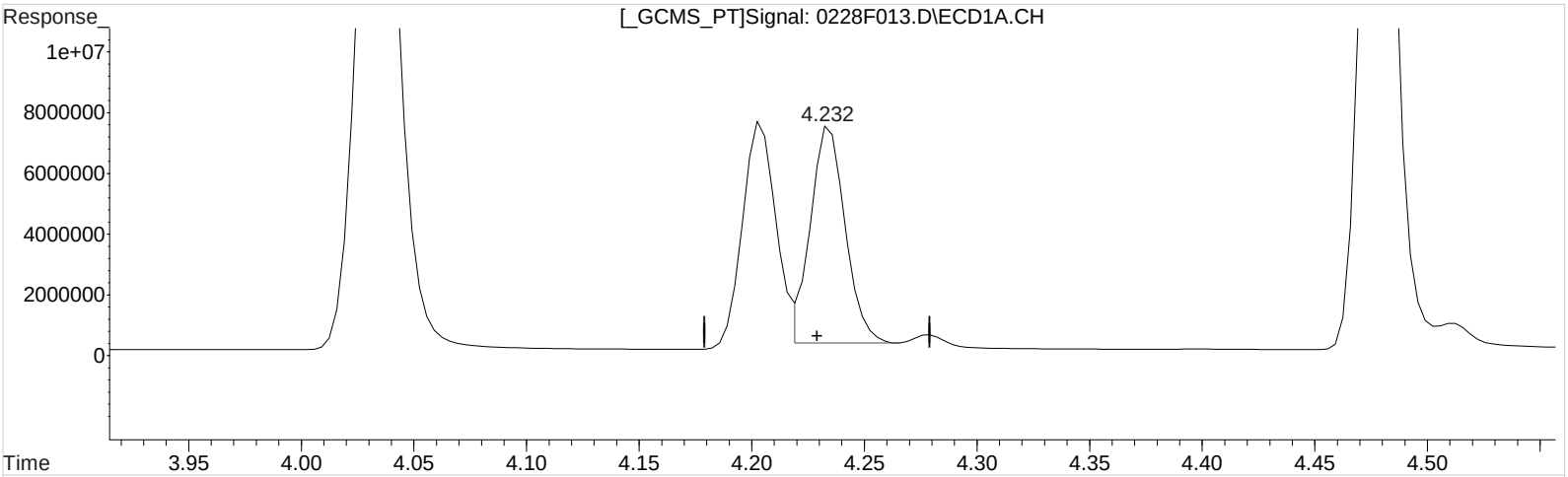
Quantitation Report (Qedit)

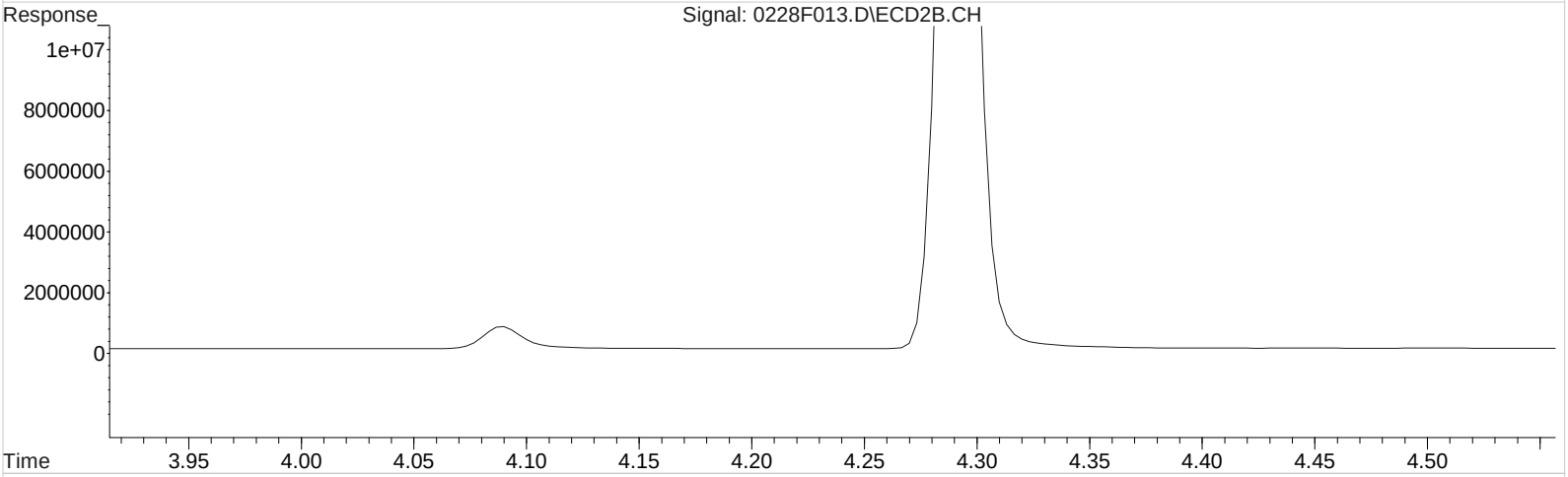
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min -1.000 ug/L

response 74934079

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 737.496 ug/L

response 138431346

(+) = Expected Retention Time

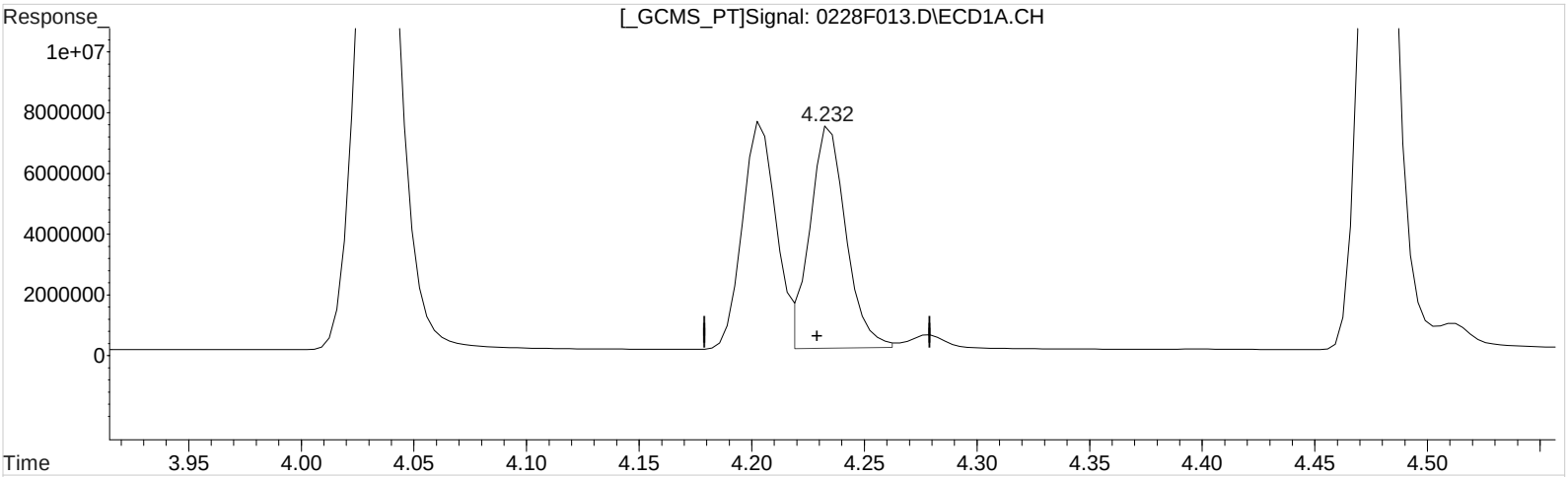
Quantitation Report (Qedit)

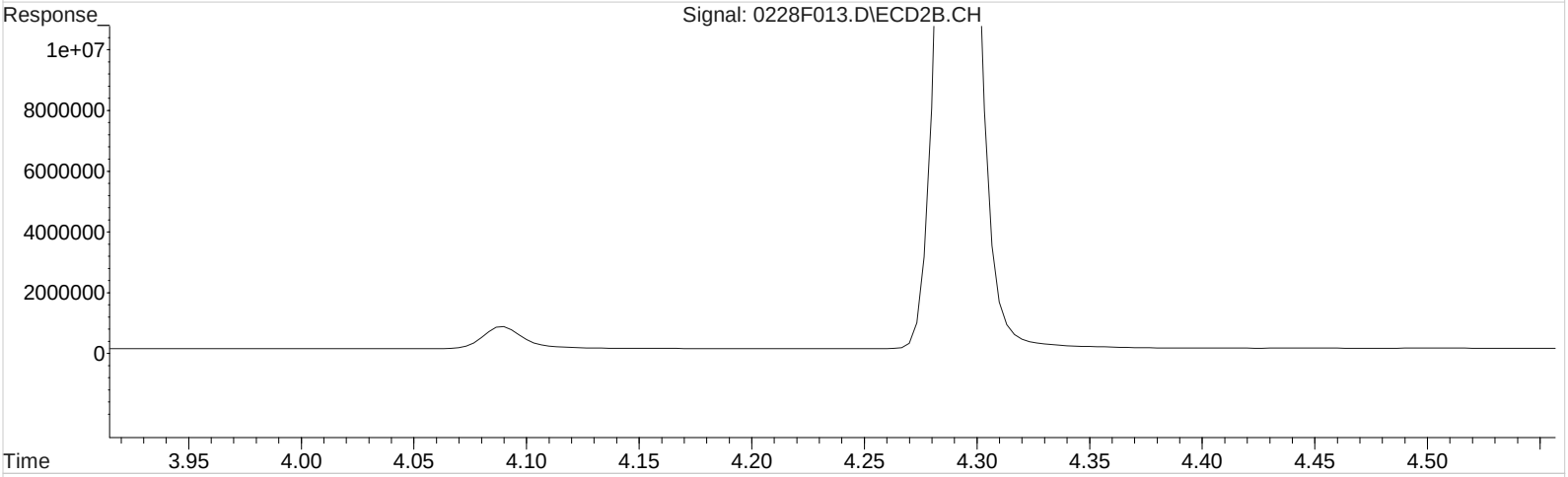
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min -1.000 ug/L m

response 79254186

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 737.496 ug/L

response 138431346

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:00:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.035	4.719	1168028	983474	2.544	2.262
		Target Compounds						
1)		3,4-Dichl...	3.138	3.832	45256	55247	2.218	2.501
2)		3,5-Dichl...	3.378	4.089	31638	44372	2.469m	2.693
3)		2,4,6-Tri...	3.478	4.289	951850	996024	2.425	2.388
5)		2,4,5-Tri...	4.205	4.785	468262	535226	2.569	2.678
6)		3,4,5-Tri...	4.235	4.849	464016	493606	2.630	2.630
7)	M	2,3,5,6-T...	4.478	5.079	1355696	1503718	2.848	2.436m
8)	M	2,3,4,5-T...	5.018	5.472	1121382	1115328	2.467m	2.701
9)	M	Pentachlo...	5.155	5.655	1532111	1786099	2.401	2.598m
10)		Pentachlo...	5.155	5.655	1532111	1782521	2.528	2.730m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

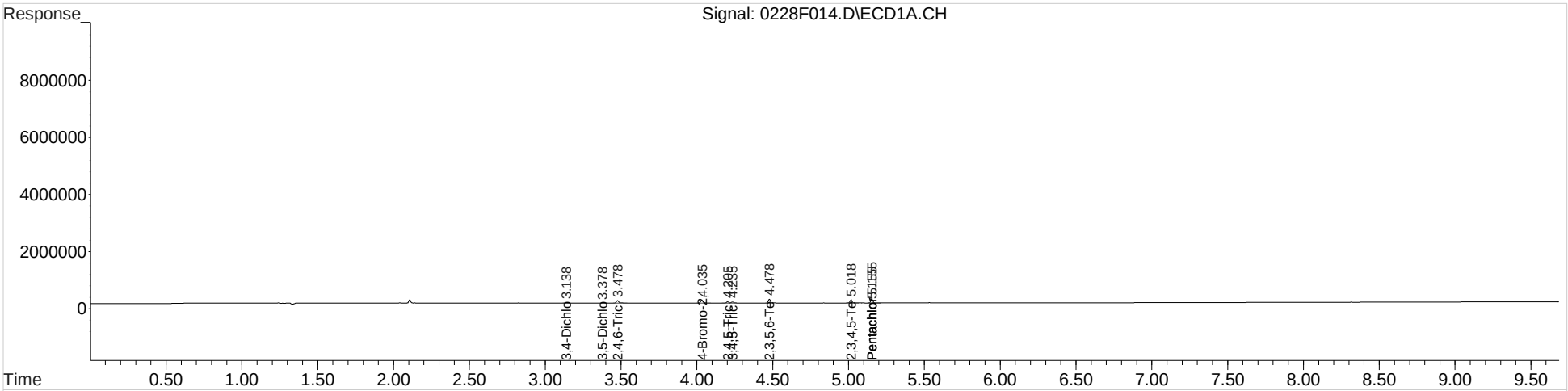
1st JMS 02/28/19
2nd MC 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:00:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



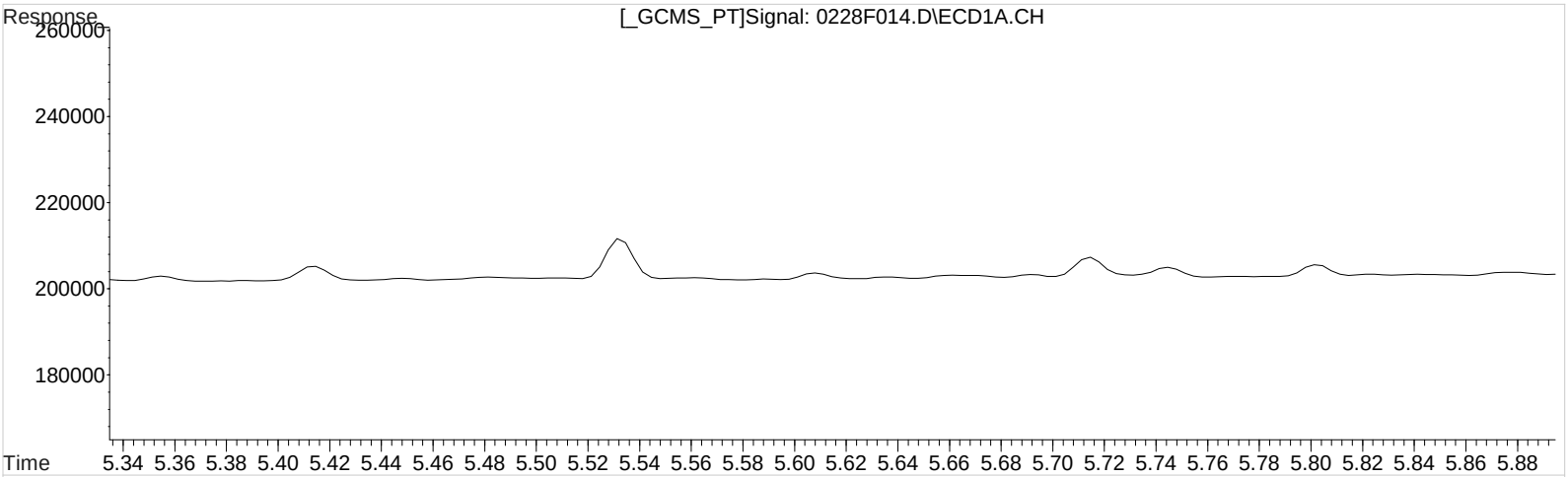
Quantitation Report (Qedit)

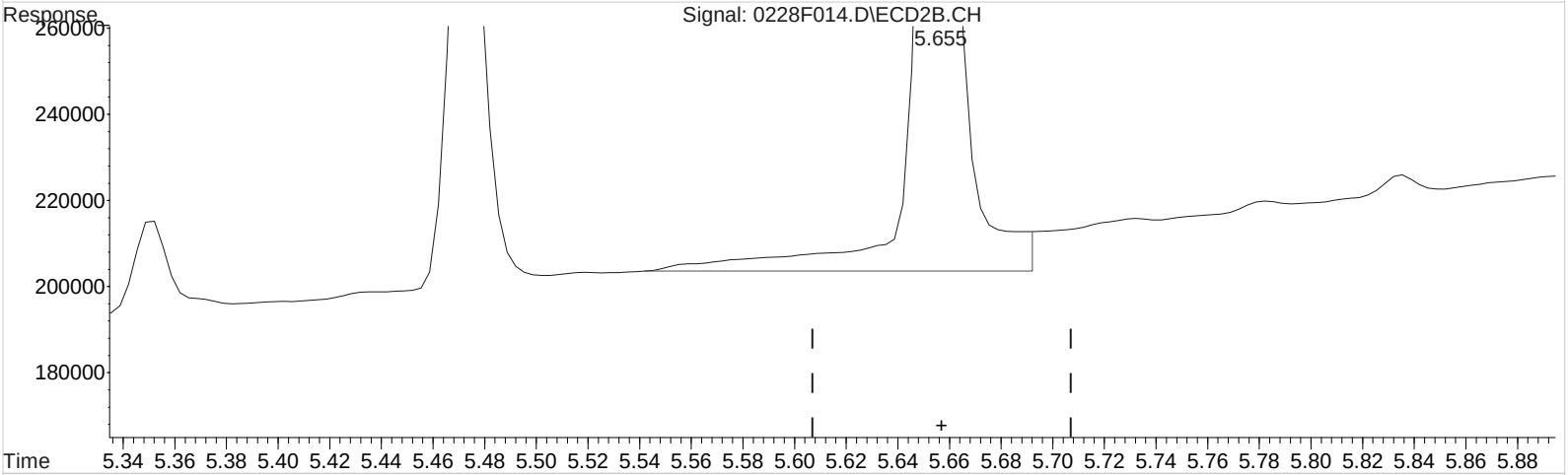
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.155min 2.528 ug/L

response 1532111

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.655min 3.364 ug/L

response 2196034

(+) = Expected Retention Time

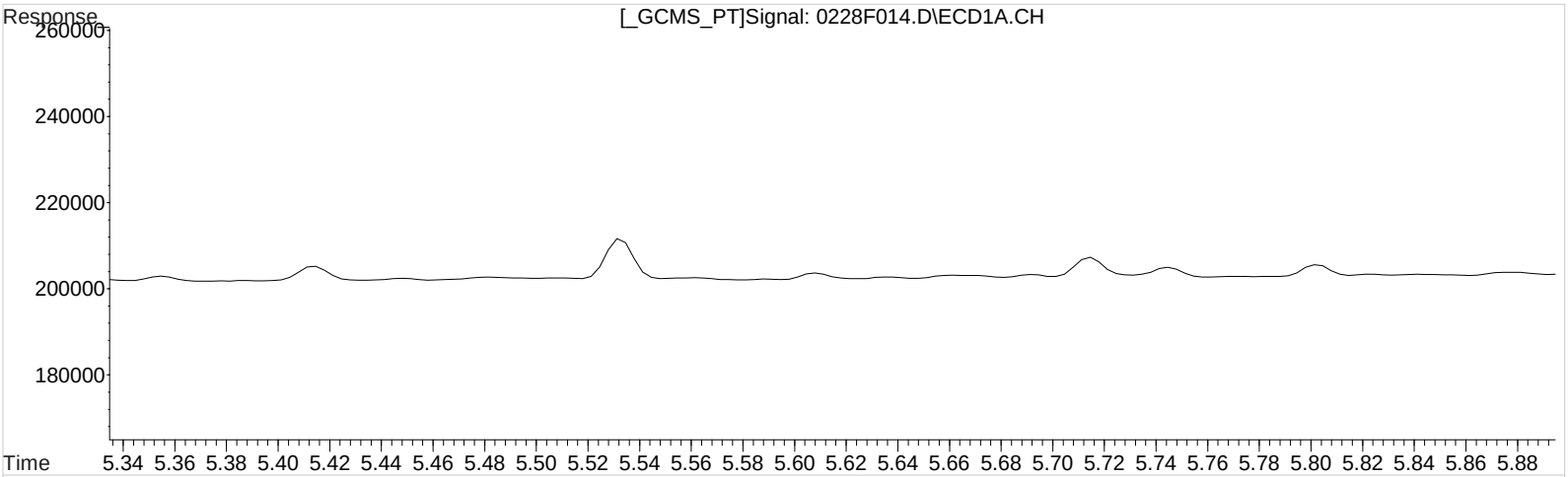
Quantitation Report (Qedit)

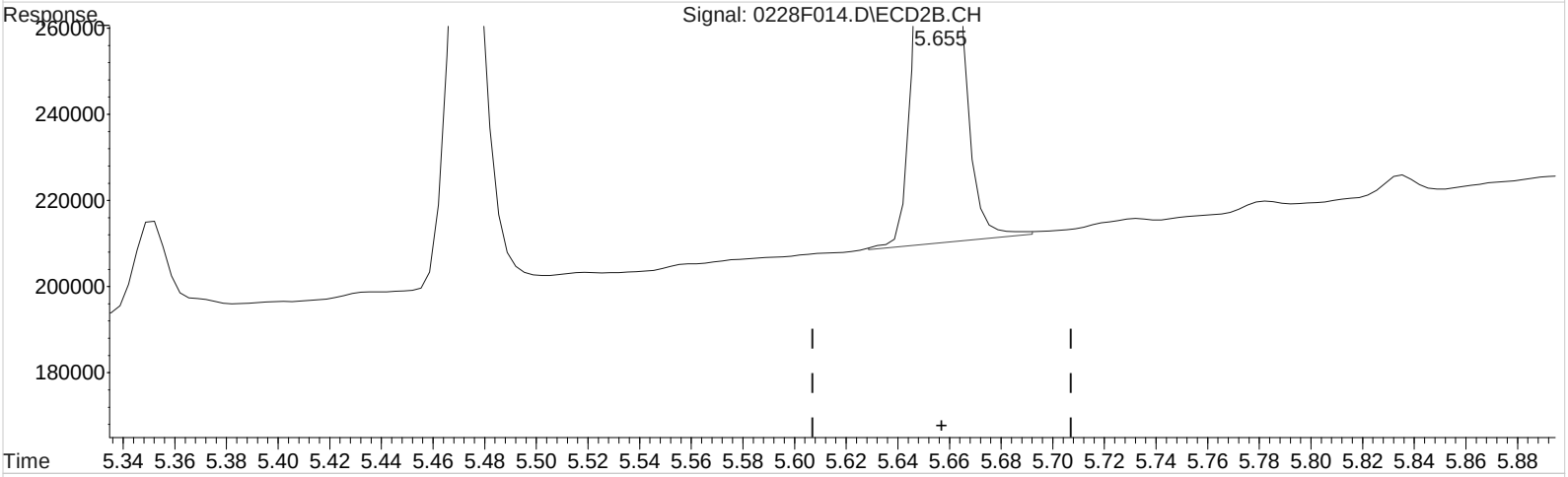
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.155min 2.528 ug/L

response 1532111

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.655min 2.730 ug/L m

response 1782521

(+) = Expected Retention Time

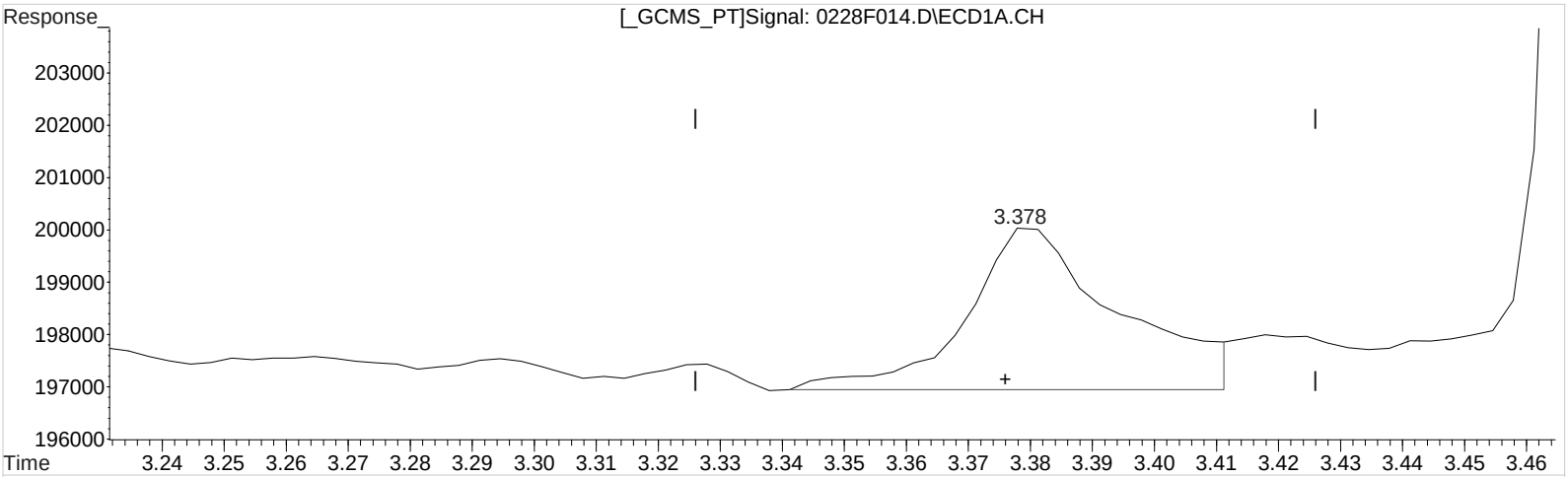
Quantitation Report (Qedit)

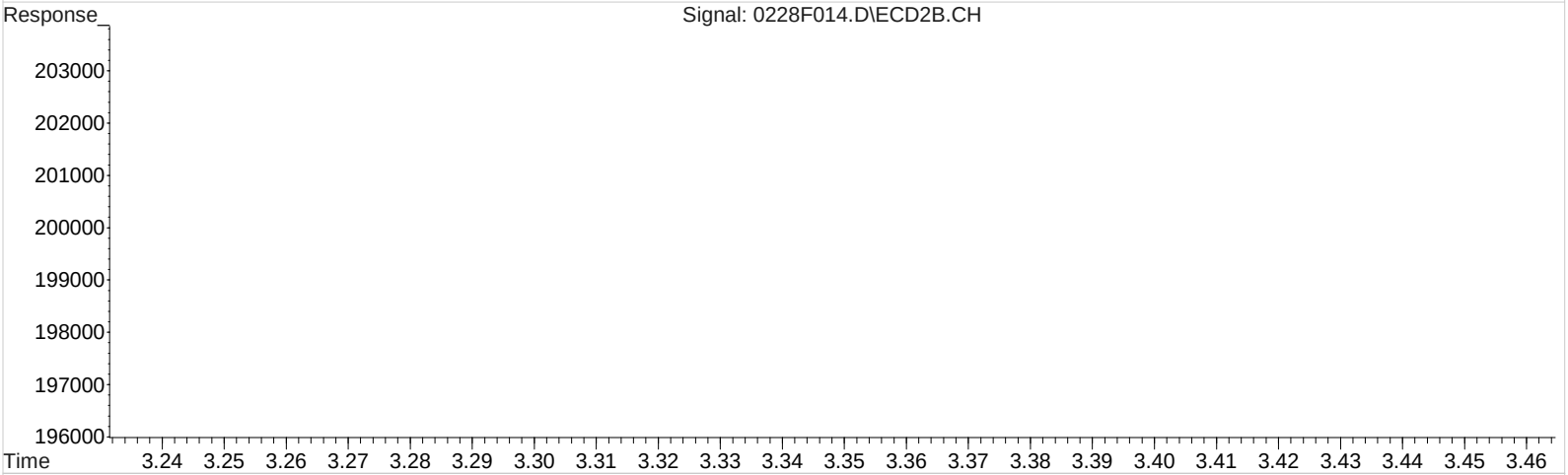
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 4.540 ug/L

response 53339

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 2.693 ug/L

response 44372

(+) = Expected Retention Time

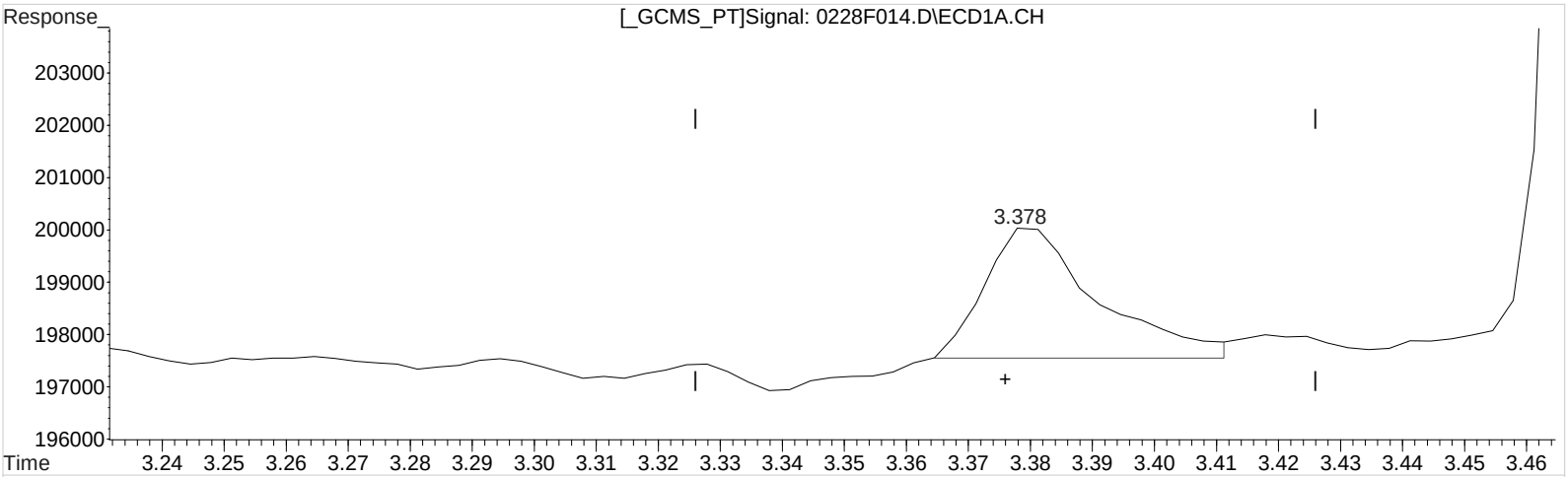
Quantitation Report (Qedit)

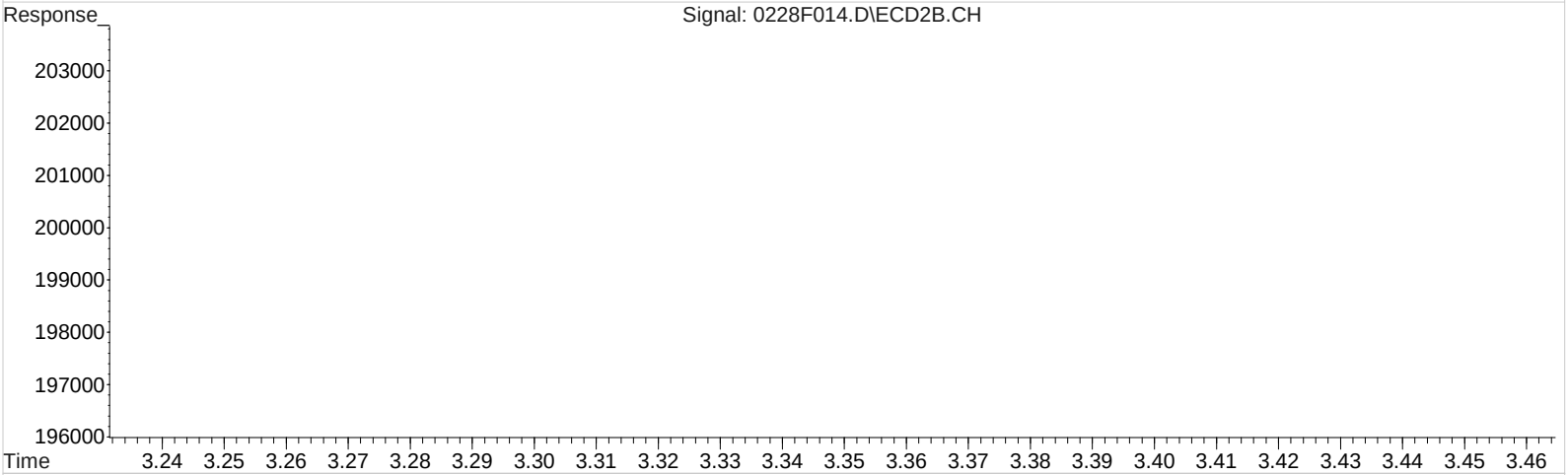
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 2.469 ug/L m

response 31638

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 2.693 ug/L

response 44372

(+) = Expected Retention Time

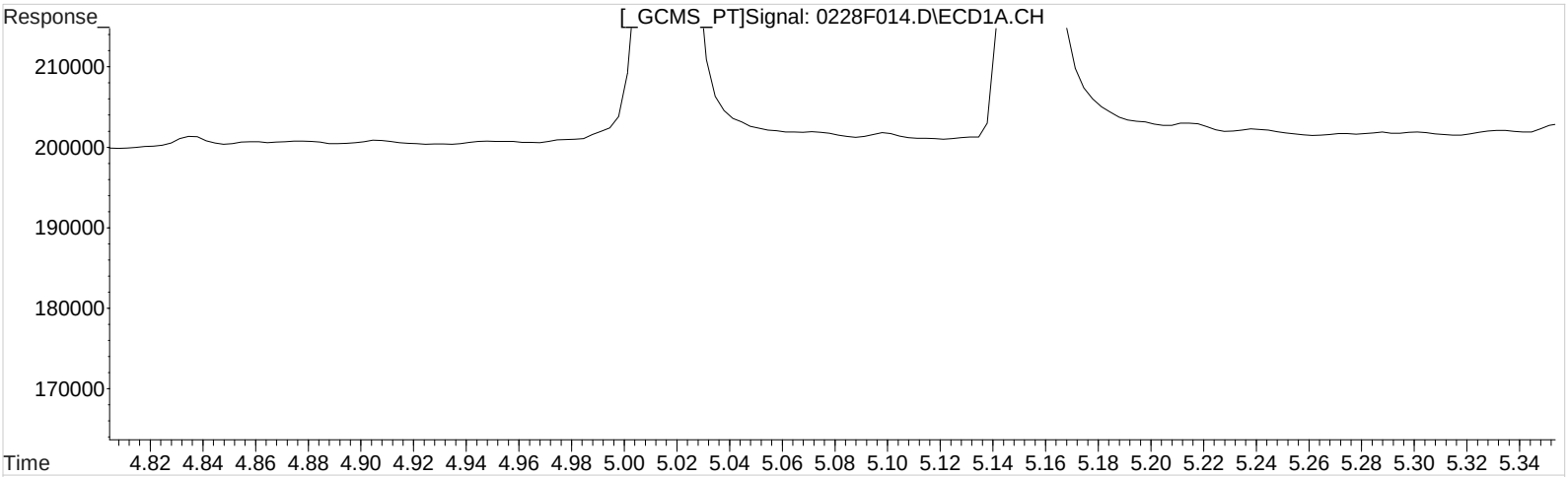
Quantitation Report (Qedit)

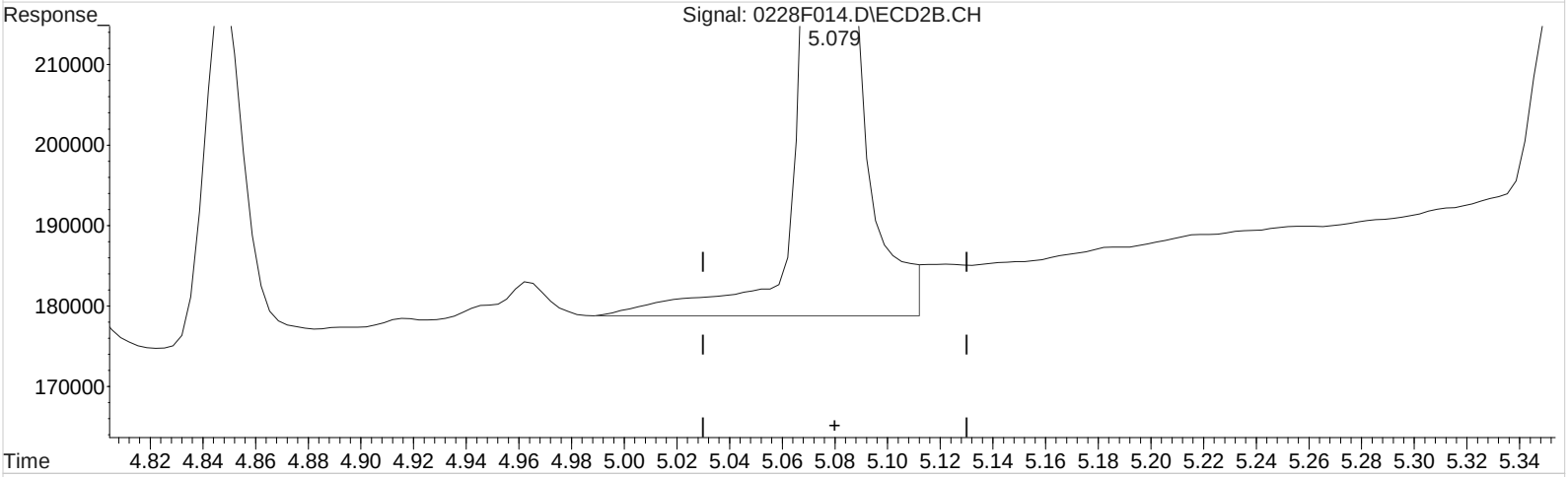
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 2.848 ug/L

response 1355696

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.079min 2.775 ug/L

response 1712944

(+) = Expected Retention Time

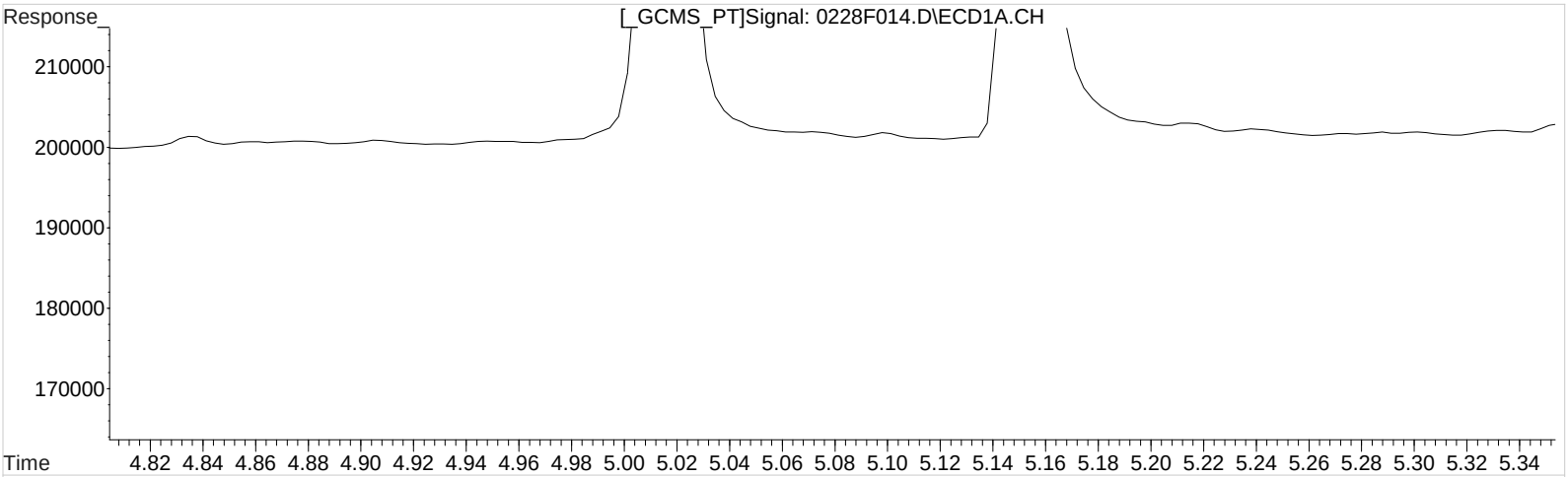
Quantitation Report (Qedit)

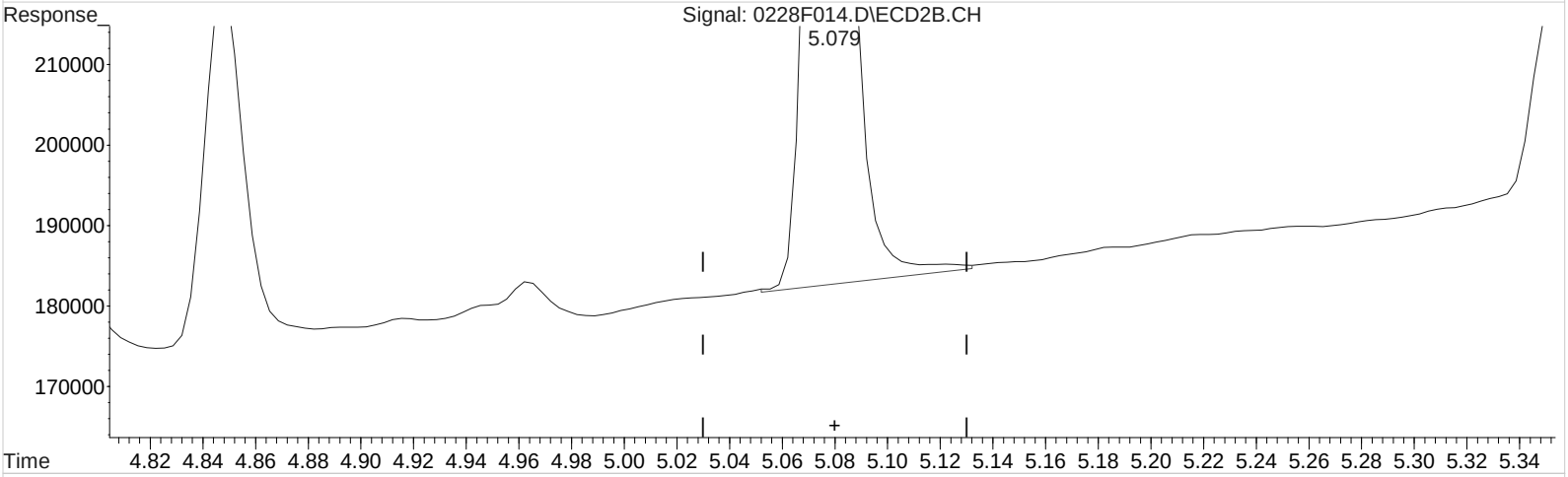
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 2.848 ug/L

response 1355696

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.079min 2.436 ug/L m

response 1503718

(+) = Expected Retention Time

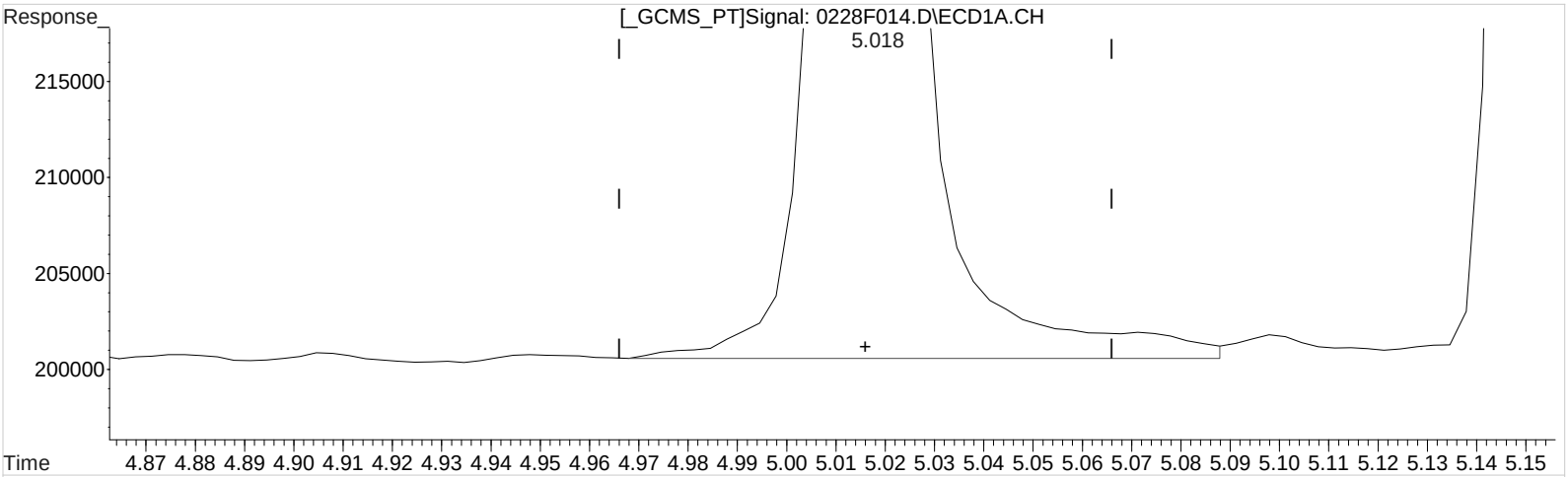
Quantitation Report (Qedit)

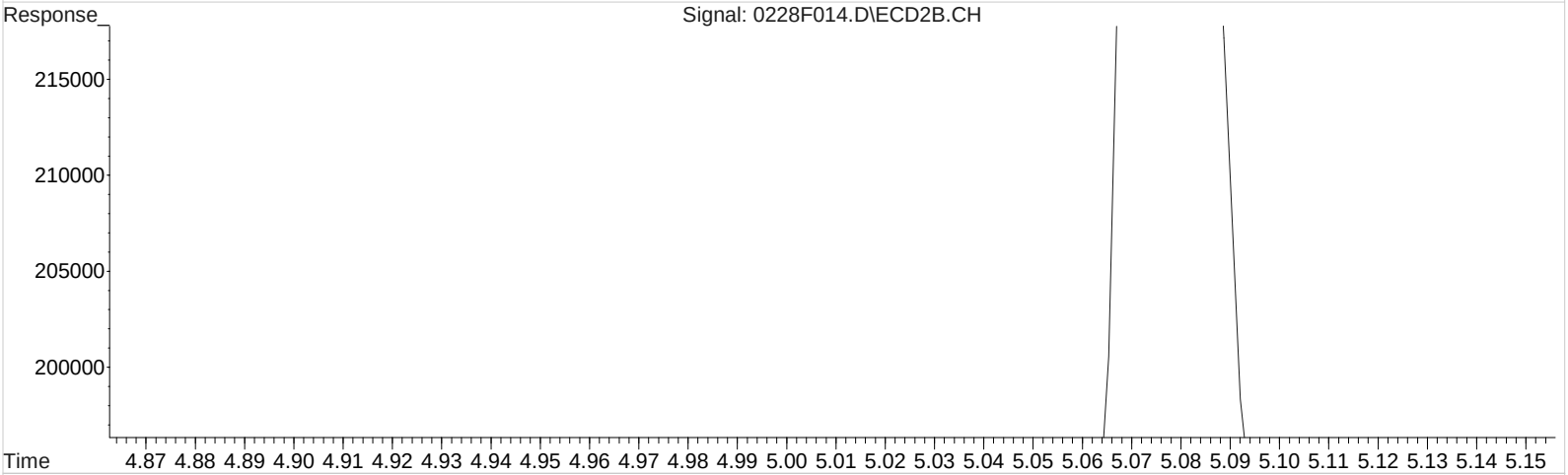
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.018min 2.609 ug/L

response 1164930

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.472min 2.701 ug/L

response 1115328

(+) = Expected Retention Time

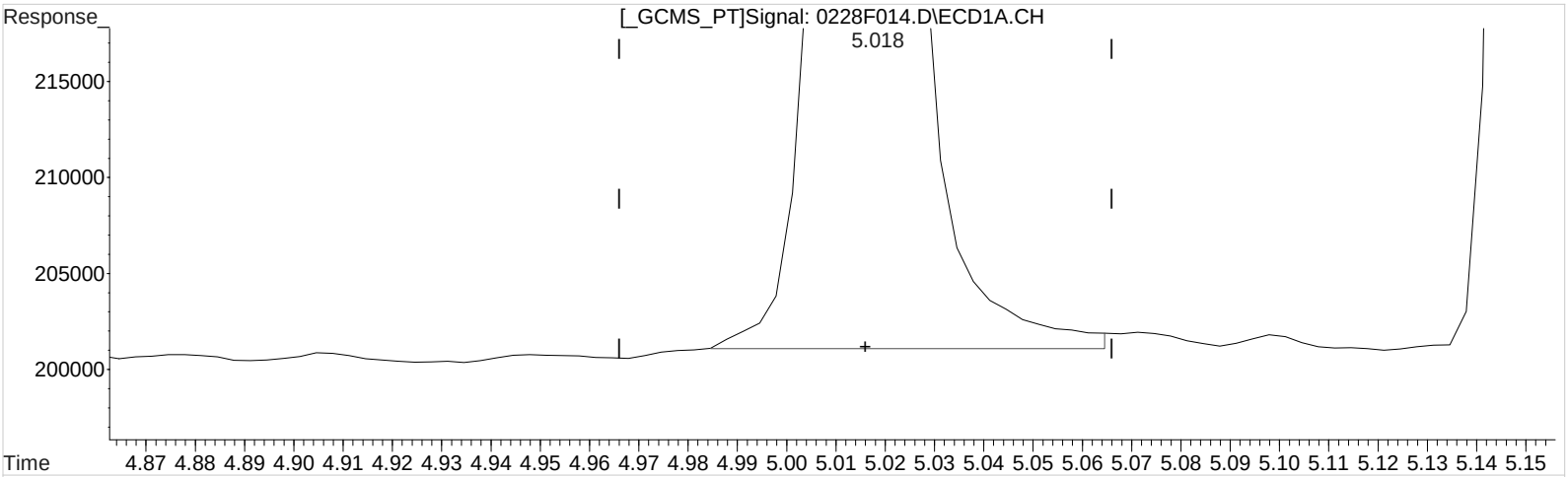
Quantitation Report (Qedit)

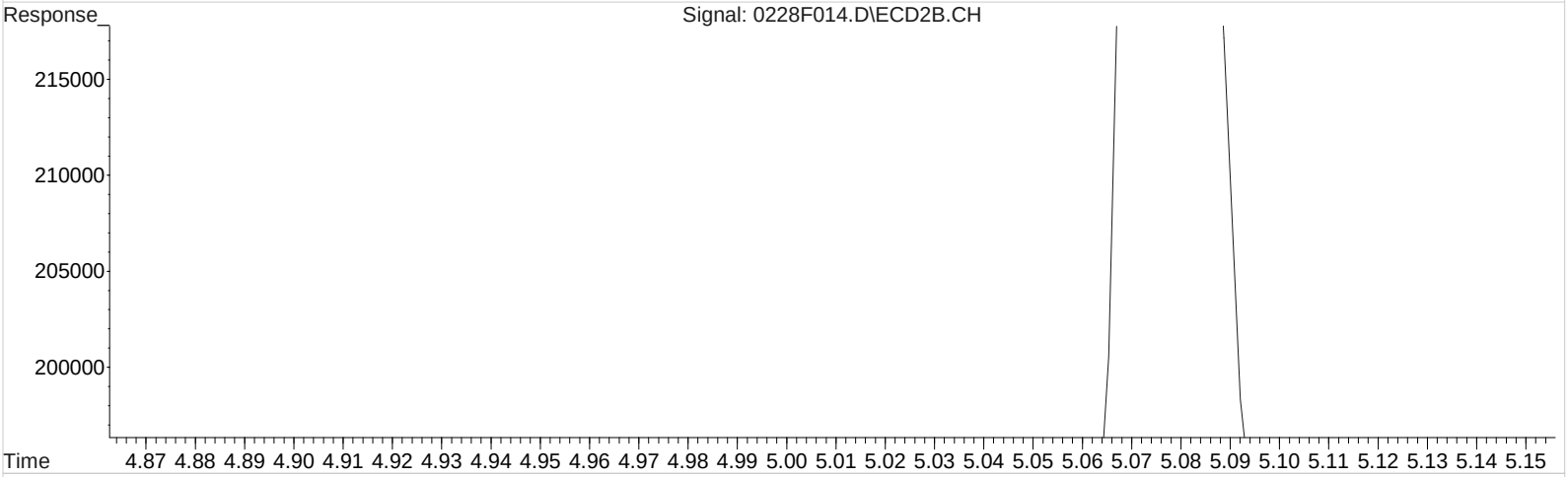
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.018min 2.467 ug/L m

response 1121382

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.472min 2.701 ug/L

response 1115328

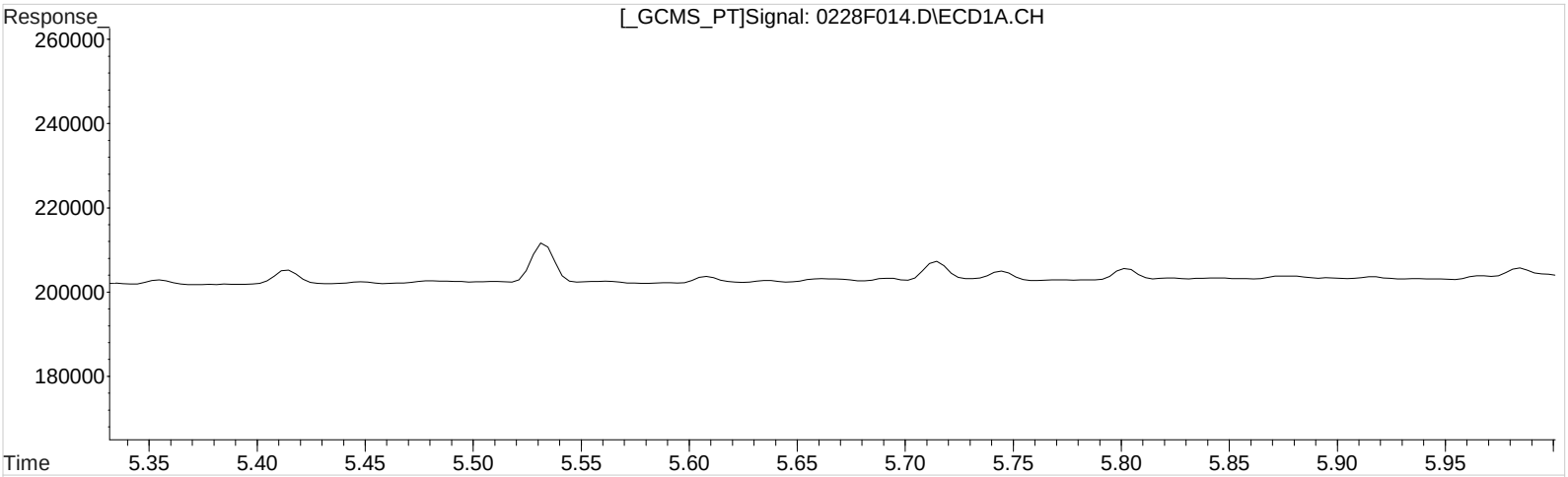
(+) = Expected Retention Time

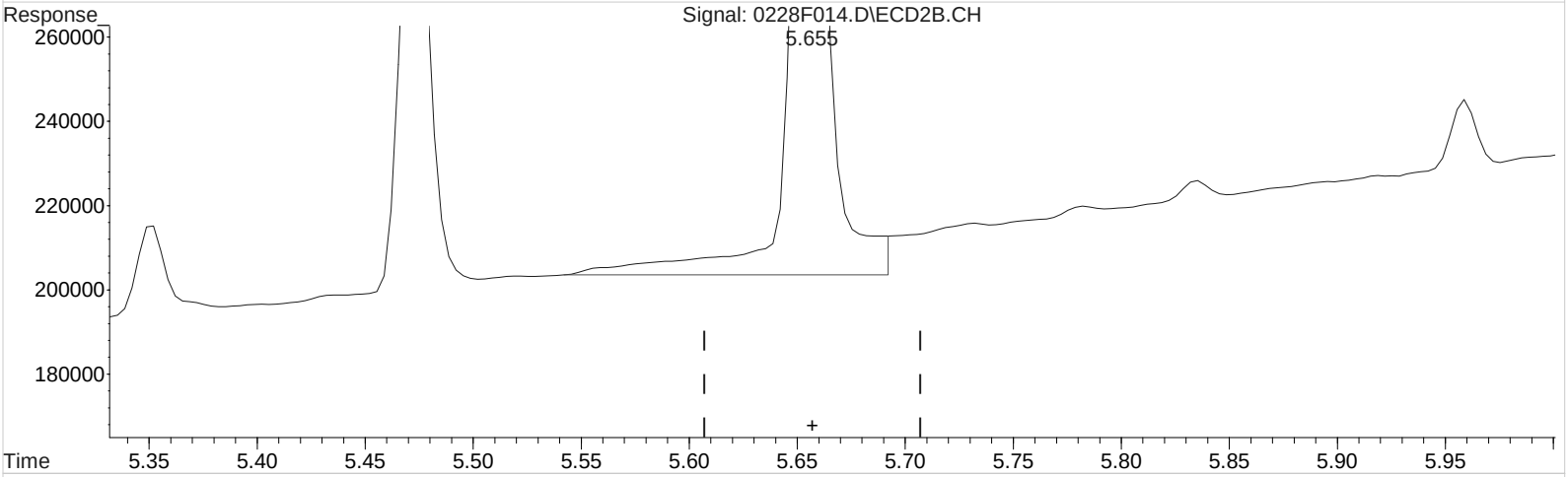
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.155min 2.401 ug/L

response 1532111

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.655min 3.194 ug/L

response 2196034

(+) = Expected Retention Time

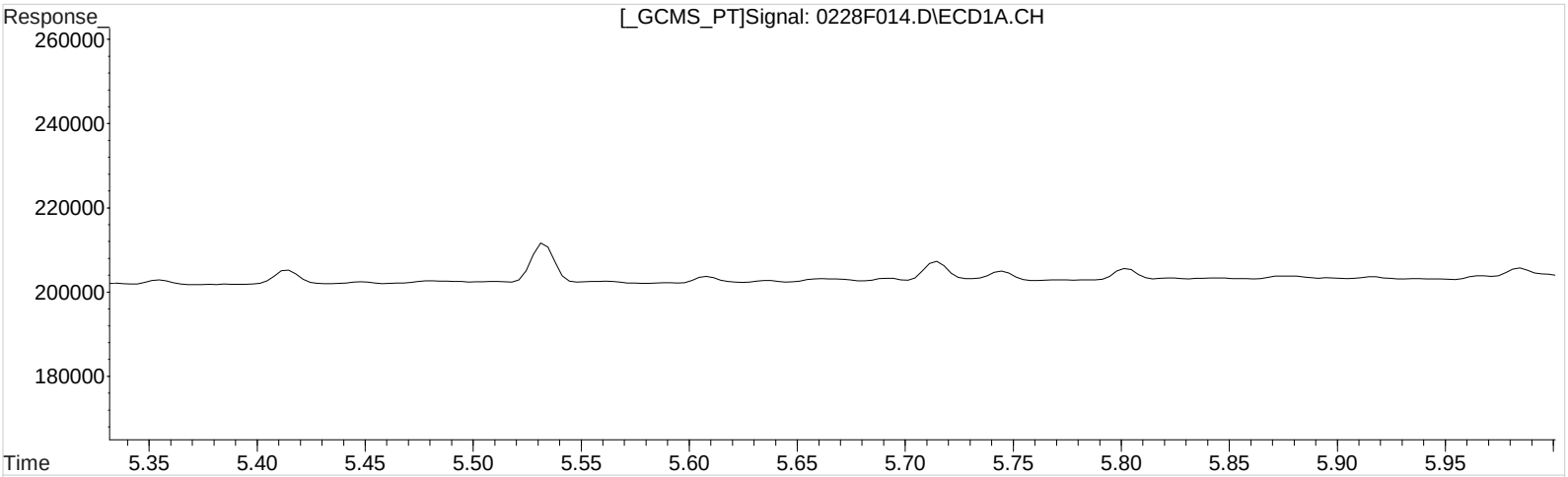
Quantitation Report (Qedit)

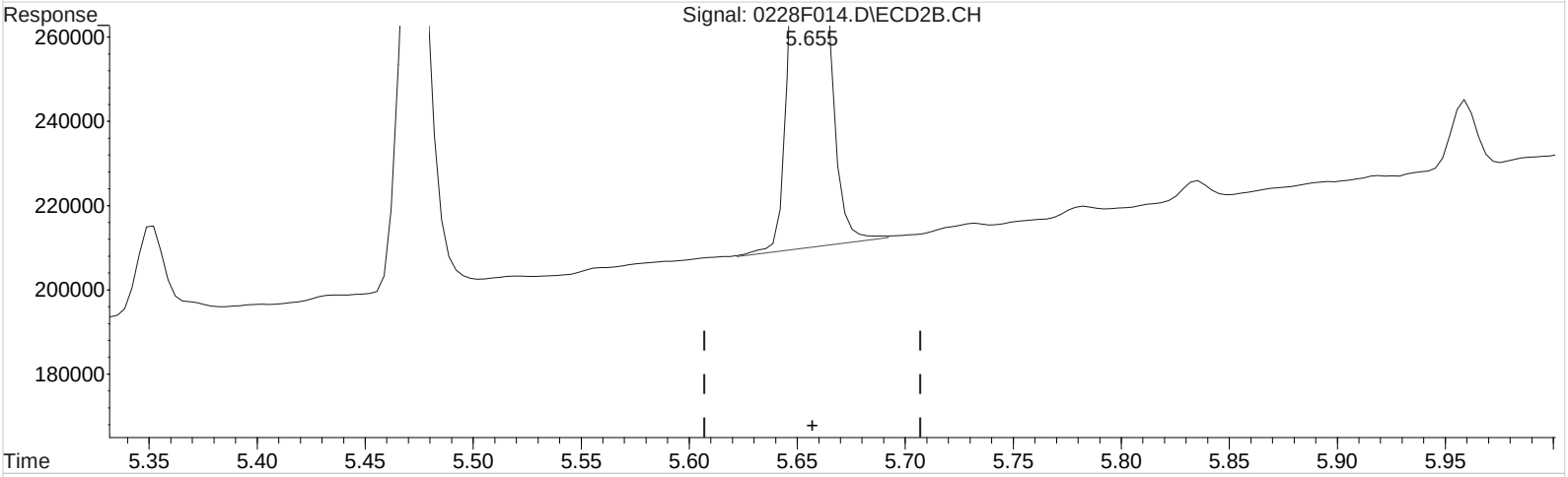
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.155min 2.401 ug/L

response 1532111

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.655min 2.598 ug/L m

response 1786099

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 12:00 pm Operator: MC
Sample : PENTA01-95D ICV Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:59:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	3.139	3.833	771944	1008155	50.405	46.475
2)		3,5-Dichl...	3.379	4.090	576261	745111	54.814	48.925
3)		2,4,6-Tri...	3.479	4.290	14461186	19074371	47.208	46.729
5)		2,4,5-Tri...	4.202	4.783	6741744	8923551	49.950	50.676
6)		3,4,5-Tri...	4.232	4.846	7001162	8168830	49.502	48.393
7)	M	2,3,5,6-T...	4.479	5.076	21719554	28913168	50.742	47.890
8)	M	2,3,4,5-T...	5.019	5.473	15112649	19440727	50.125	46.743
9)	M	Pentachlo...	5.152	5.656	25413518	33232162	55.308	48.834
10)		Pentachlo...	5.152	5.656	25413518	33232162	58.215	51.424

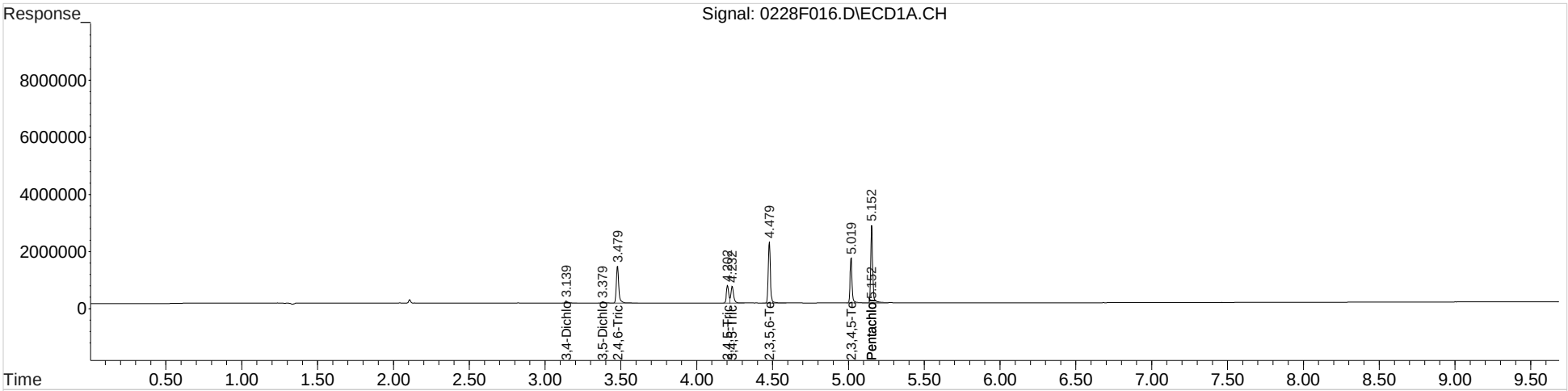
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 12:00 pm Operator: MC
Sample : PENTA01-95D ICV Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:59:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Sequence Name: C:\GC28\SEQUENCE\061319.S
Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\061319\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Run# 6391197

Cal: KC1900082

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0613F001	PENTHOT2	PRIMER
2	IB	100	0613F002	PENTHOT2	PRIMER
3	CCV	1	0613F003	PENTHOT2	CCV 50PPB PENTA01-97M
4	IB	2	0613F004	PENTHOT2	IB
5	MB	3	0613F005	PENTHOT2	KQ1907722-04 MB
6	LCS	4	0613F006	PENTHOT2	KQ1907722-03 LCS
7	SMPL	5	0613F007	PENTHOT2	K1905141-001
8	SMPL	6	0613F008	PENTHOT2	K1905141-002
9	SMPL	7	0613F009	PENTHOT2	K1905141-003
10	SMPL	8	0613F010	PENTHOT2	K1905141-004
11	SMPL	9	0613F011	PENTHOT2	K1905141-005
12	SMPL	10	0613F012	PENTHOT2	K1905141-006
13	SMPL	11	0613F013	PENTHOT2	K1905141-007
14	SMPL	12	0613F014	PENTHOT2	K1905141-008
15	SMPL	13	0613F015	PENTHOT2	K1905141-009
16	SMPL	14	0613F016	PENTHOT2	K1905141-010 @5X
17	CCV	1	0613F017	PENTHOT2	CCV 50PPB PENTA01-97M
18	IB	2	0613F018	PENTHOT2	IB
19	SMPL	15	0613F019	PENTHOT2	K1905141-011
20	SMPL	16	0613F020	PENTHOT2	K1905141-012
21	SMPL	17	0613F021	PENTHOT2	K1905141-013
22	SMPL	18	0613F022	PENTHOT2	K1905141-014
23	SMPL	19	0613F023	PENTHOT2	K1905141-015
24	SMPL	20	0613F024	PENTHOT2	K1905141-016
25	SMPL	21	0613F025	PENTHOT2	K1905141-017 @50X
26	SMPL	22	0613F026	PENTHOT2	K1905141-018 @5X
27	SMPL	23	0613F027	PENTHOT2	K1905141-019
28	SMPL	24	0613F028	PENTHOT2	K1905141-020
29	CCV	1	0613F029	PENTHOT2	CCV 50PPB PENTA01-97M
30	IB	2	0613F030	PENTHOT2	IB
31	MS	25	0613F031	PENTHOT2	K1905141-020 MS
32	DMS	26	0613F032	PENTHOT2	~~K1905142-020~~ DMS K1905141-020
33	MB	27	0613F033	PENTHOT2	KQ1907796-04 MB
34	LCS	28	0613F034	PENTHOT2	KQ1907796-03 LCS
35	SMPL	29	0613F035	PENTHOT2	K1905141-021
36	SMPL	30	0613F036	PENTHOT2	K1905141-022
37	SMPL	31	0613F037	PENTHOT2	K1905141-023 @10X - NR, 1X
38	SMPL	32	0613F038	PENTHOT2	K1905141-024 @10X - NR, 1X
39	SMPL	33	0613F039	PENTHOT2	K1905141-025
40	SMPL	34	0613F040	PENTHOT2	K1905141-026
41	SMPL	35	0613F041	PENTHOT2	K1905141-027
42	SMPL	36	0613F042	PENTHOT2	K1905141-028
43	CCV	1	0613F043	PENTHOT2	CCV 50PPB PENTA01-97M

Last Modified: Thu Jun 13 09:21:56 2019 Page: 1

Sequence Name: C:\GC28\SEQUENCE\061319.S

Line	Type	Vial	DataFile	Method	Sample Name
44	IB	2	0613F044	PENTHOT2	IB
45	SMPL	37	0613F045	PENTHOT2	K1905141-029
46	MS	38	0613F046	PENTHOT2	K1905141-029 MS
47	DMS	39	0613F047	PENTHOT2	K1905141-029 DMS
48	CCV	1	0613F048	PENTHOT2	CCV 50PPB PENTA01-97M
49	IB	2	0613F049	PENTHOT2	IB
50					

DILUTION LOG

LAB ID	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	DATE	ANALYST	SOLVENT LOT	COMMENTS
K1905141 - 010	100 µl	500 µl	5X	6.13.19	MC	ISO DR253	
-017	20 µl	1 ml	50X				
-018	100 µl	500 µl	5X				
-023	100 µl	1 ml	10X				
-024	100 µl	1 ml	10X				

Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\061419\
Pre-Seq Cmd:
Post-Seq Cmd:

Run# 639402

cal KC1900082

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0614F001	PENTHOT2	PRIMER
2	IB	100	0614F002	PENTHOT2	PRIMER
3	CCV	1	0614F003	PENTHOT2	CCV 50PPB PENTA01-97M
4	IB	2	0614F004	PENTHOT2	IB
5	SMPL	3	0614F005	PENTHOT2	K1905141-023
6	SMPL	4	0614F006	PENTHOT2	K1905141-024
7	CCV	1	0614F007	PENTHOT2	CCV 50PPB PENTA01-97M
8	IB	2	0614F008	PENTHOT2	IB
9					

Last Modified: Fri Jun 14 10:12:16 2019

Page: 1

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 338019 **Prep WorkFlow:** OrgExtSimAq(7) **Status:** Prepped
Team: Semivoa GCMS/JDUNFIELD **Prep Method:** EPA 3511 **Prep Date/Time:** 6/5/19 10:03
Number of Copies to make: 2

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1905141-003	MW-16	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
2	K1905141-005	MW-18	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
3	K1905141-015	MW-30	.01	8270D/PAH SIM	6	Water	450mL	4.00mL	
4	K1905141-020	MW-36	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
5	K1905141-021	MW-37	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
6	K1905141-028	MW-44 DUP.	.01	8270D/PAH SIM	6	Water	450mL	4.00mL	
7	K1905141-029	MW-3	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
8	K1905144-001	BXS-1	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
9	K1905144-002	BXS-5	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
10	KQ1907688-01	LCS	—	8270D/PAH SIM	5	Liquid	450mL	2.00mL	
11	KQ1907688-02	DLCS	—	8270D/PAH SIM	5	Liquid	450mL	2.00mL	
12	KQ1907688-03	MB	—	8270D/PAH SIM	5	Liquid	450mL	2.00mL	

Spiking Solutions

Name: 8270 SIM-PAH Matrix Spike 25ppm Inventory ID 197598 Logbook Ref: SVM60-50D Expires On: 08/13/2019

KQ1907688-01 50.00µL KQ1907688-02 50.00µL

Name: 8270 ALL PURPOSE SURROGATE Inventory ID 198047 Logbook Ref: SVM60-60D Expires On: 09/07/2019

K1905141-003	20.00µL	K1905141-005	20.00µL	K1905141-015	20.00µL	K1905141-020	20.00µL	K1905141-021	20.00µL	K1905141-028	20.00µL
K1905141-029	20.00µL	K1905144-001	20.00µL	K1905144-002	20.00µL	KQ1907688-01	20.00µL	KQ1907688-02	20.00µL	KQ1907688-03	20.00µL

Preparation Steps

Step:	Extraction	Step:	Final Volume
Started:	6/5/19 10:03	Started:	6/5/19 12:37
Finished:	6/5/19 10:33	Finished:	6/5/19 12:37
By:	JLORIMER	By:	JLORIMER
Comments		Comments	

IS = SVM 60-41D

Comments: 6/7/19

Reviewed By: Date: 6/7/19

Page 492 of 697

Preparation Information Benchsheet

Prep Run#: 338019
Team: Semivoa GCMS/JDUNFIELD

Prep WorkFlow: OrgExtSimAq(7)
Prep Method: EPA 3511

Status: Prepped
Prep Date/Time: 6/5/19 10:03

Chain of Custody

Relinquished By:		Date:	6.5.19	Extracts Examined
Received By:		Date:	6/7/19	(Yes) No

Preparation Information Benchsheet

D: 4/12/19
ID: 6/2/19

Prep Run#: 338019
Team: Semivoa GCMS/JDUNFIELD
Number of Copies to make: 2

Prep WorkFlow: OrgExtSimAq(7)
Prep Method: EPA 3511

Status: Draft
Prep Date/Time: 6/5/19 07:28 AM

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. mL	pH	Int. Vol	Final Vol mL	Surr Amt µL	Spike Amt µL
1	K1905141-003	MW-16	.01	✓	8270D / PAH SIM	Water	450	7	N/A	1 + 2	20	-
2	K1905141-005	MW-18	.01	✓	8270D / PAH SIM	Water	450	7		1 + 2		-
3	K1905141-015	MW-30	.01	✓	8270D / PAH SIM	Water	450	6		1 + 4		-
4	K1905141-020	MW-36	.01	✓	8270D / PAH SIM	Water	450	7		1 + 2		-
5	K1905141-021	MW-37	.01	✓	8270D / PAH SIM	Water	450	7		1 + 2		-
6	K1905141-028	MW-44 DUP.	~~.01~~ .02	✓	8270D / PAH SIM	Water	450	6		1 + 4		-
7	K1905141-029	MW-3	.01	✓	8270D / PAH SIM	Water	450	7		1 + 2		-
8	K1905144-001	BXS-1	.01	✓	8270D / PAH SIM	Water	450	7		1 + 2		-
9	K1905144-002	BXS-5	.01	✓	8270D / PAH SIM	Water	450	7		1 + 2		-
10	KQ1907688-01	LCS	-	-	8270D / PAH SIM	Liquid	450	5		1 + 2		50
11	KQ1907688-02	DLCS	-	-	8270D / PAH SIM	Liquid	450	5		1 + 2		〃
12	KQ1907688-03	MB	-	-	8270D / PAH SIM	Liquid	450	5		1 + 2		-

DEE JD 6/5/19

Comments: Insufficient sample amount for ms/DMS. JD 6/5/19. FV x2 due to emulsion. JD 6/5/19

Surrogate ID: SVMXD-60D 100/150ppm XB 9/7/19 20 µL syr.

Spike ID: SVMXD-50D 25ppm XB 8/13/19 50 µL syr.

Witnessed By: BWillard 6-4-19 6-5-19 BW

Analyst: J. Official 6/5/19

Assisted By: —

Pest/PCB/PAH by 3511

Service Request # K1905141; K1905144 **Work Group # Pest:** —
PCB: —
PAH: KR1907088

Solvent Lot # 221327

Extraction Start (time/date/initial): 10:03 6/5/19 JP

Extraction Stop (time/date/initial): 10:33 6/5/19 JP

NaCL Lot# 0000197939
Sulfate Lot # 2018110573

Carbon Clean-up (Ext-Car)(time/date/initial): — Carbon Lot # —
1:1 DCM/Hexane Lot # —

Sulfuric Acid Clean-up (3665) (time/date/initial): — Acid Lot # —

Other Clean-up (type/time/date/initial) —
Lot# —

Pipette (5 mL) Lot # — Pipette (2 mL) Lot # 20717646
Pipette (1mL) 28517645

Pest Vial: — Vial Storage: —
PCB Vial: — Vial Storage: —
PAH Vial: Green Vial Storage: K-Tundra

Archived Extract Storage: Tianna

Additional Comments:

Bench Sheet Review Check List
☑ Hold times met; if no, reason:
☑ Prep date, time, method, department, product code correct
☑ Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☑ Weights/Volumes and units correct on raw and final bench sheets
☑ Sample IDs have been checked - bottle numbers appended if required
☑ Names present for: started by, completed by, relinquished by, and witnessed by
☑ Extract storage recorded
☑ Additional prep sheet completely filled out (NA or line out blanks)
☑ All clean-ups have been noted on additional prep sheet

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F036.D\
Lab ID: K1905141-003
RunType: N/A
Matrix: Water

Date Acquired: 6/8/19 01:18:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/17/19 10:31
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F036.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 01:18:00	**Vial:**	12
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-003	**Raw Units:**	ng/mL

Bottle ID:	K1905141-003.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	638644	**Prep Lot:**	338019	**Report Group:**	K1905141
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/5/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		36600	200.00	OK
Chrysene-d12	10.03	-0.01	73110	200.00	OK
Naphthalene-d8	4.75	+0.01	72815	200.00	OK
Perylene-d12	13.07	-0.01	82502	200.00	OK
Phenanthrene-d10	7.53		67508	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.51		389637	984.97	98	42 - 133	Y
Fluorene-d10	6.73		204695	983.89	98	42 - 131	Y
Terphenyl-d14	8.85	-0.01	245171	725.16	73	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.40		202	0.76	0.0034	J	Y
Acenaphthene	6.32		351	1.57	0.0070	J	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.03		203	0.43	0.0019	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	6.47		267	0.76	0.0034	J	Y
Fluoranthene	8.52	-0.01	175	0.37	0.0016	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F036.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 01:18:00	**Vial:**	12
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-003	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.75		142	0.52	0.0023	J	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.77	+0.01	292	0.75	0.0033	J	Y
Phenanthrene	7.55		714	1.76	0.0078	J	Y
Pyrene	8.71	-0.01	153	0.27	0.0012	J	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

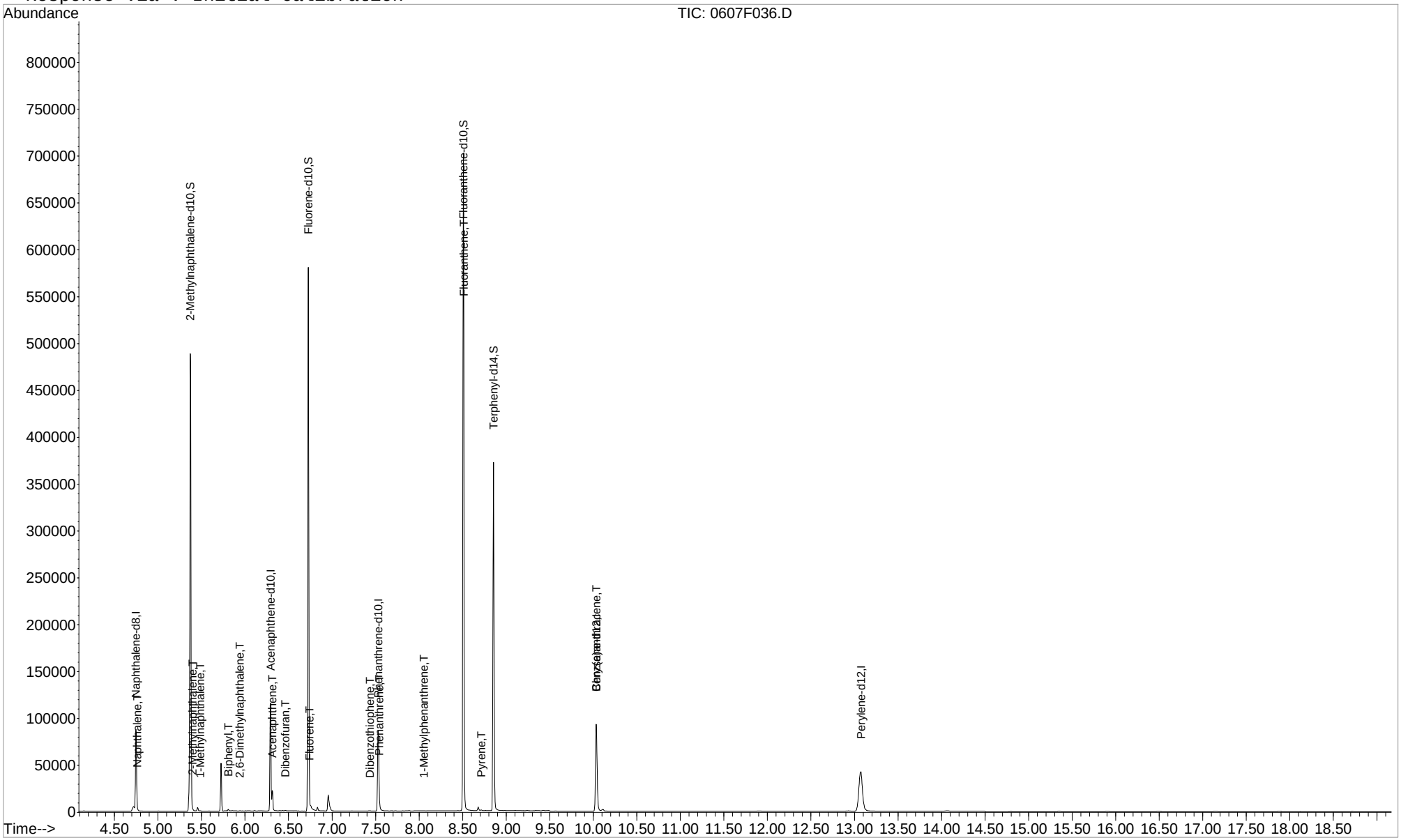
Printed: 6/17/19 10:31

\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

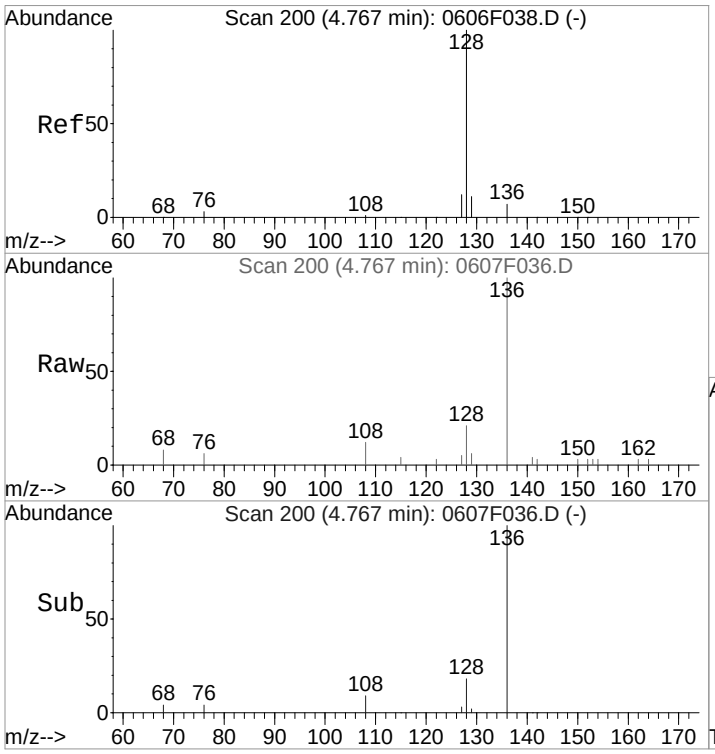
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F036.D Vial: 32
Acq On : 8 Jun 2019 1:18 am Operator: LWeiskopf
Sample : K1905141-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:06 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration



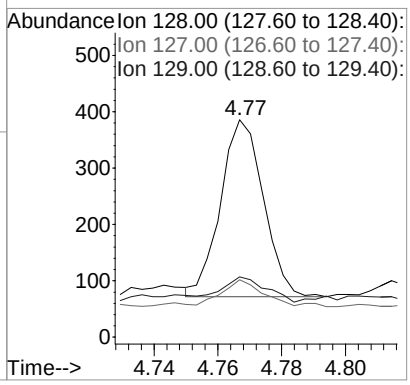
1st 06/17/19
2nd 06/17/19

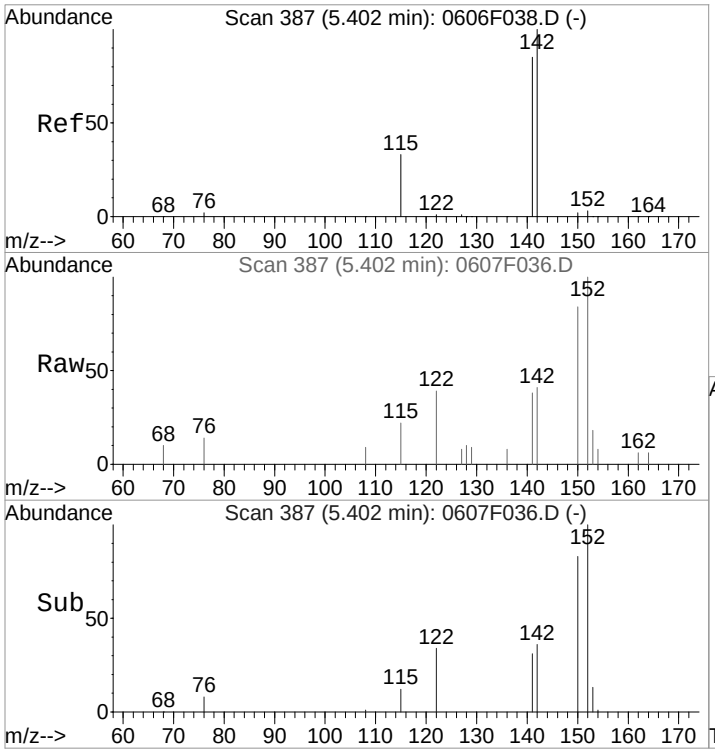


#2
Naphthalene
Concen: 0.75 ng/ml
RT: 4.77 min Scan# 200
Delta R.T. -0.01 min
Lab File: 0607F036.D
Acq: 8 Jun 2019 1:18 am

Tgt Ion:128 Resp: 292

Ion	Ratio	Lower	Upper
128	100		
127	15.3	0.0	42.3
129	10.8	0.0	30.8

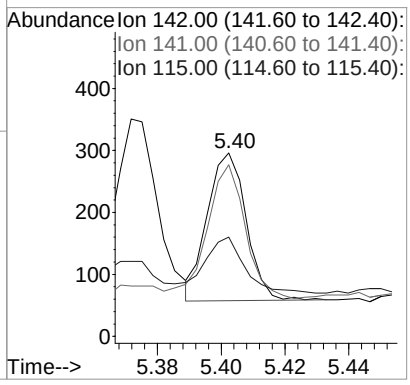


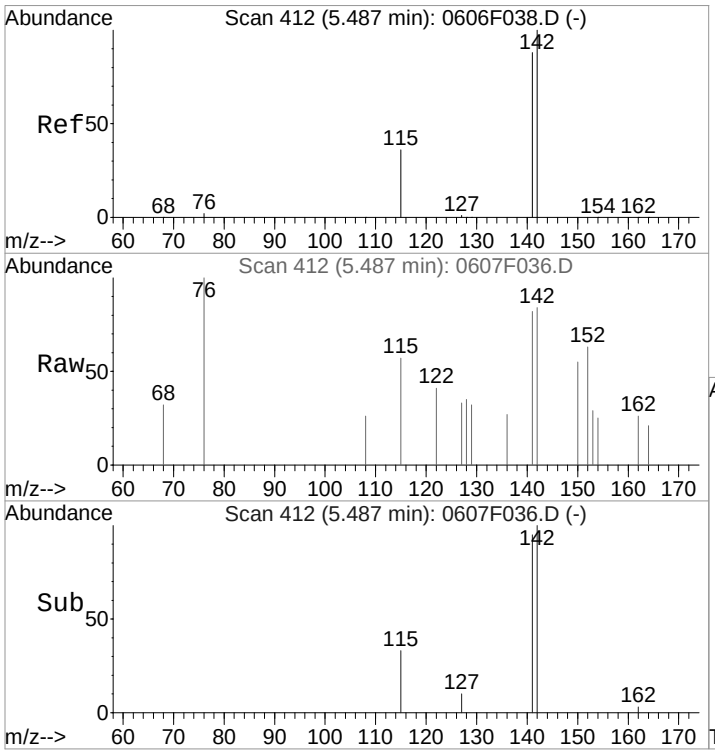


#4
2-Methylnaphthalene
Concen: 0.76 ng/ml
RT: 5.40 min Scan# 387
Delta R.T. -0.01 min
Lab File: 0607F036.D
Acq: 8 Jun 2019 1:18 am

Tgt Ion:142 Resp: 202

Ion	Ratio	Lower	Upper
142	100		
141	88.6	52.7	112.7
115	38.0	8.2	48.2

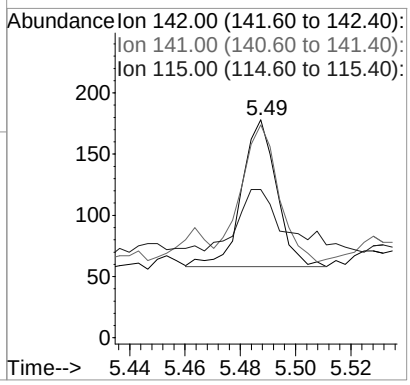


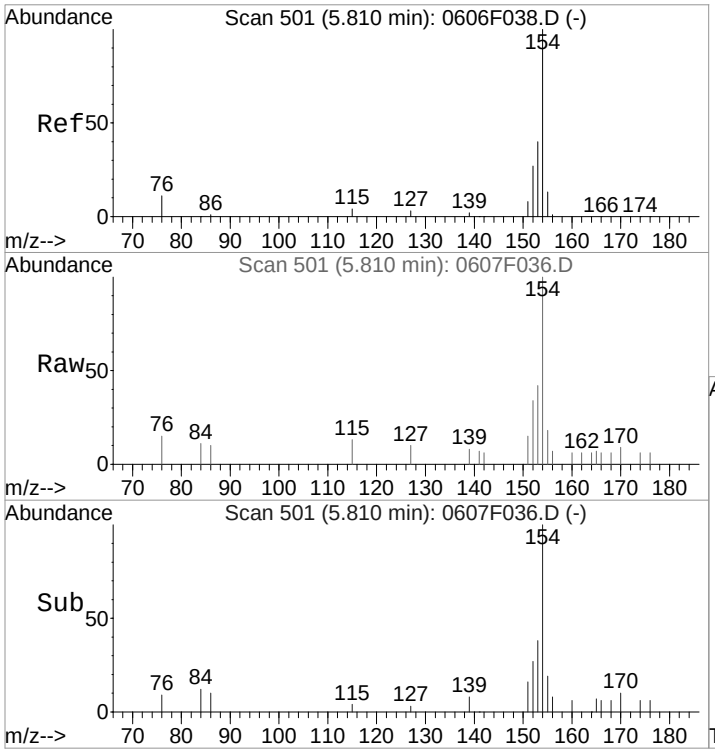


#5
1-Methylnaphthalene
Concen: 0.42 ng/ml
RT: 5.49 min Scan# 412
Delta R.T. -0.01 min
Lab File: 0607F036.D
Acq: 8 Jun 2019 1:18 am

Tgt Ion:142 Resp: 105

Ion	Ratio	Lower	Upper
142	100		
141	91.7	55.8	115.8
115	40.0	10.1	50.1

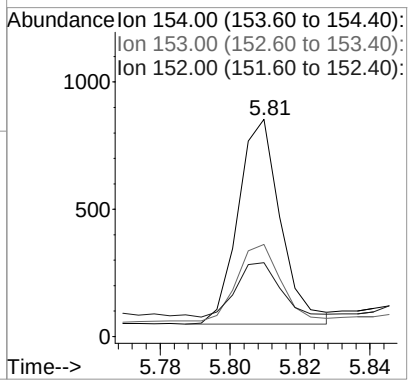


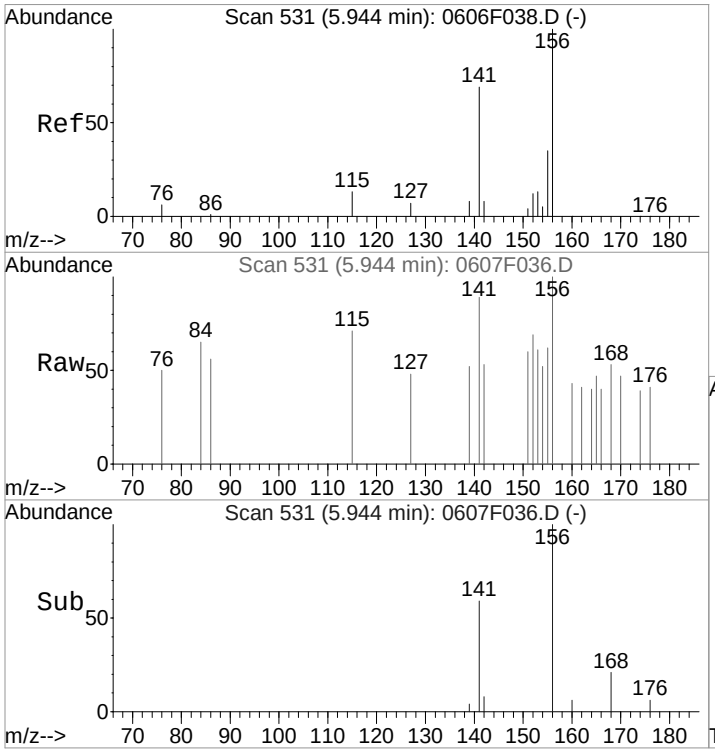


#6
Biphenyl
Concen: 2.05 ng/ml
RT: 5.81 min Scan# 501
Delta R.T. -0.01 min
Lab File: 0607F036.D
Acq: 8 Jun 2019 1:18 am

Tgt Ion:154 Resp: 684

Ion	Ratio	Lower	Upper
154	100		
153	37.4	8.2	68.2
152	25.5	6.1	46.1

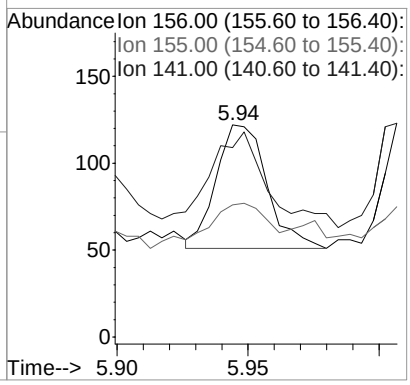


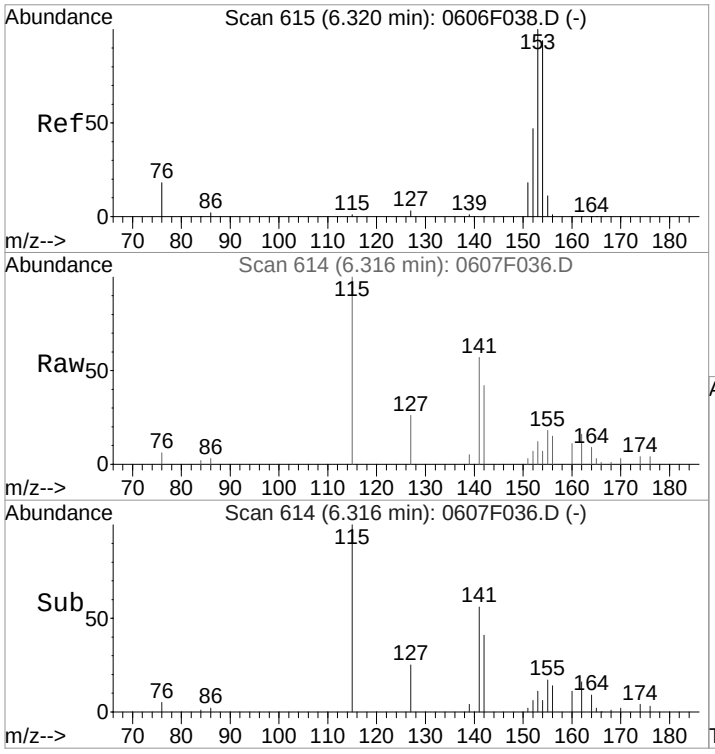


#7
2,6-Dimethylnaphthalene
Concen: 0.40 ng/ml
RT: 5.94 min Scan# 531
Delta R.T. -0.01 min
Lab File: 0607F036.D
Acq: 8 Jun 2019 1:18 am

Tgt Ion:156 Resp: 96

Ion	Ratio	Lower	Upper
156	100		
155	28.2	3.3	63.3
141	53.5	40.6	80.6

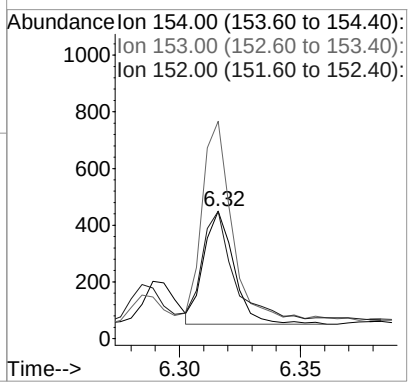


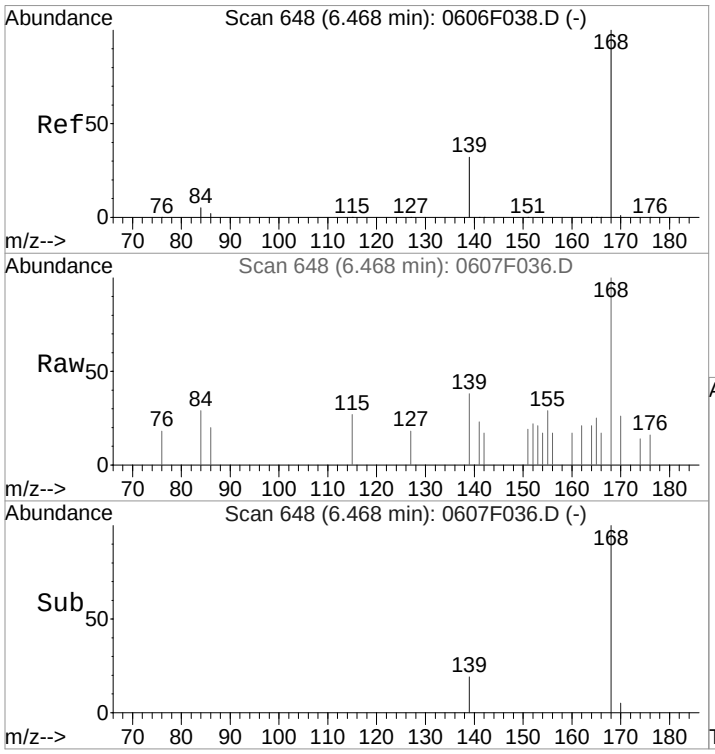


#10
Acenaphthene
Concen: 1.57 ng/ml
RT: 6.32 min Scan# 614
Delta R.T. -0.01 min
Lab File: 0607F036.D
Acq: 8 Jun 2019 1:18 am

Tgt Ion:154 Resp: 351

Ion	Ratio	Lower	Upper
154	100		
153	174.4	72.8	132.8#
152	94.5	17.7	77.7#

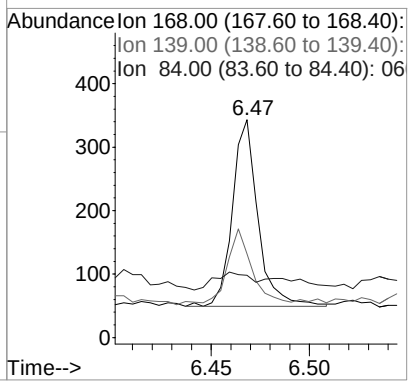


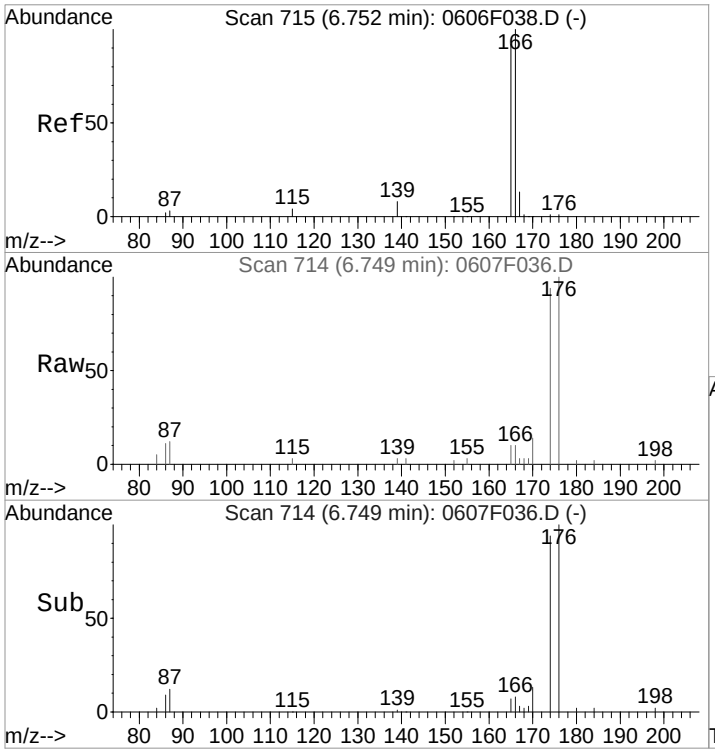


#11
Dibenzofuran
Concen: 0.76 ng/ml
RT: 6.47 min Scan# 648
Delta R.T. -0.01 min
Lab File: 0607F036.D
Acq: 8 Jun 2019 1:18 am

Tgt Ion:168 Resp: 267

Ion	Ratio	Lower	Upper
168	100		
139	26.2	0.0	54.7
84	6.5	0.0	22.9

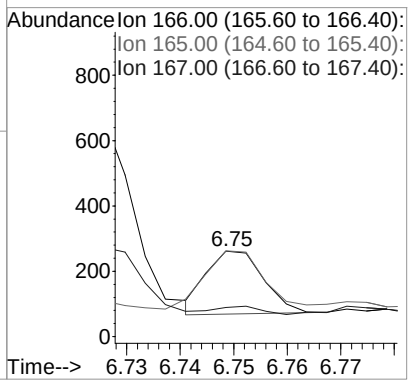


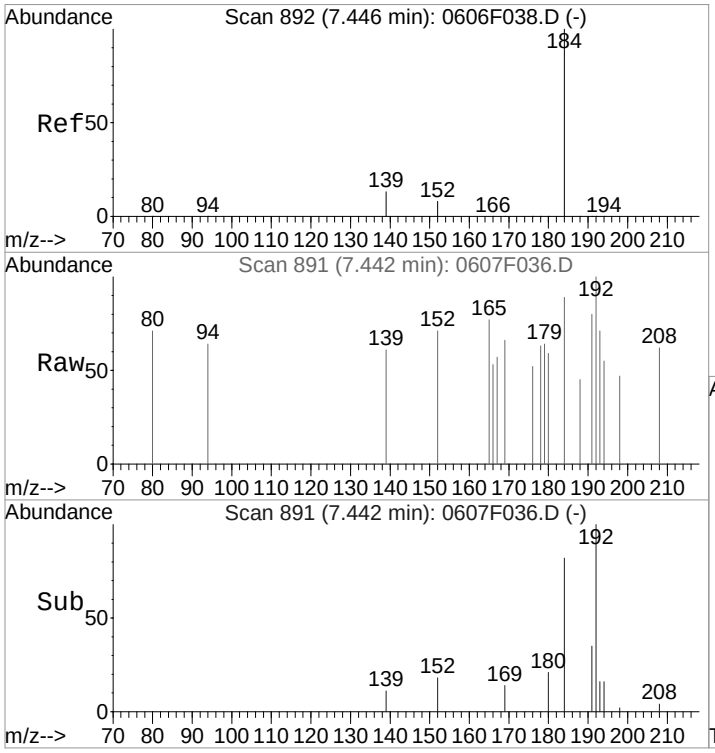


#14
Fluorene
Concen: 0.52 ng/ml
RT: 6.75 min Scan# 714
Delta R.T. -0.01 min
Lab File: 0607F036.D
Acq: 8 Jun 2019 1:18 am

Tgt Ion:166 Resp: 142

Ion	Ratio	Lower	Upper
166	100		
165	87.7	59.0	119.0
167	8.0	0.0	33.1

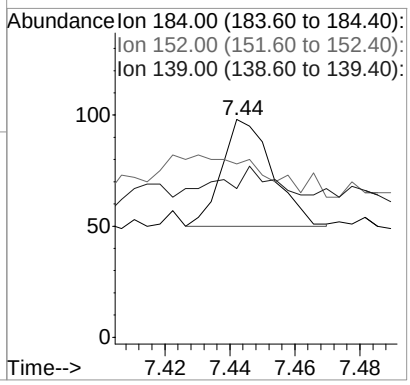


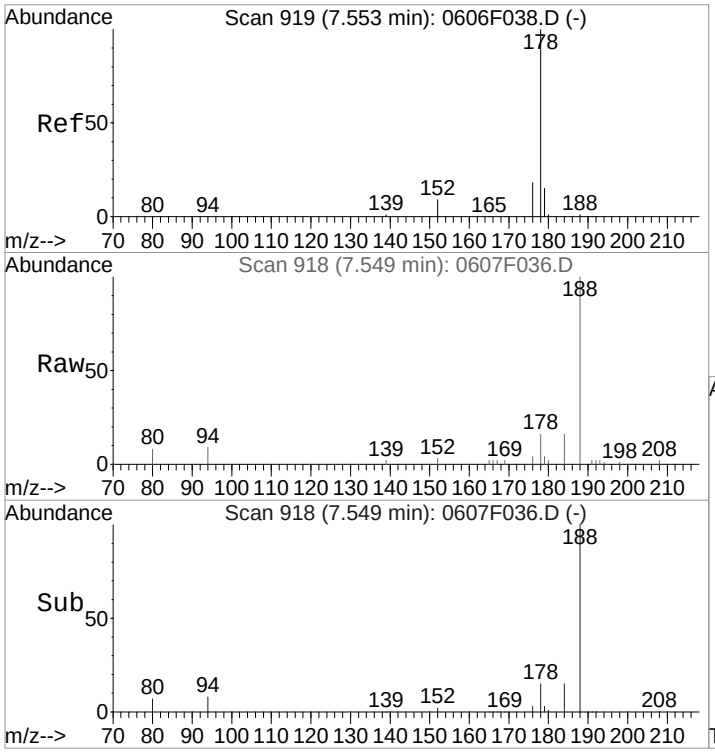


#16
Dibenzothiophene
Concen: 0.14 ng/ml
RT: 7.44 min Scan# 891
Delta R.T. -0.01 min
Lab File: 0607F036.D
Acq: 8 Jun 2019 1:18 am

Tgt Ion:184 Resp: 52

Ion	Ratio	Lower	Upper
184	100		
152	31.3	0.0	37.7
139	0.0	0.0	32.3

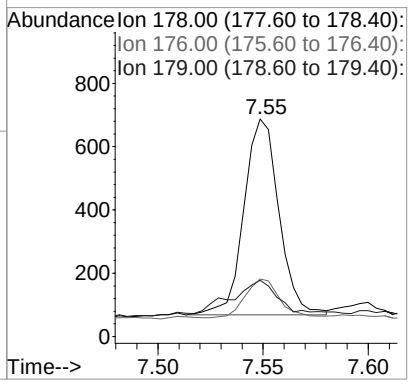




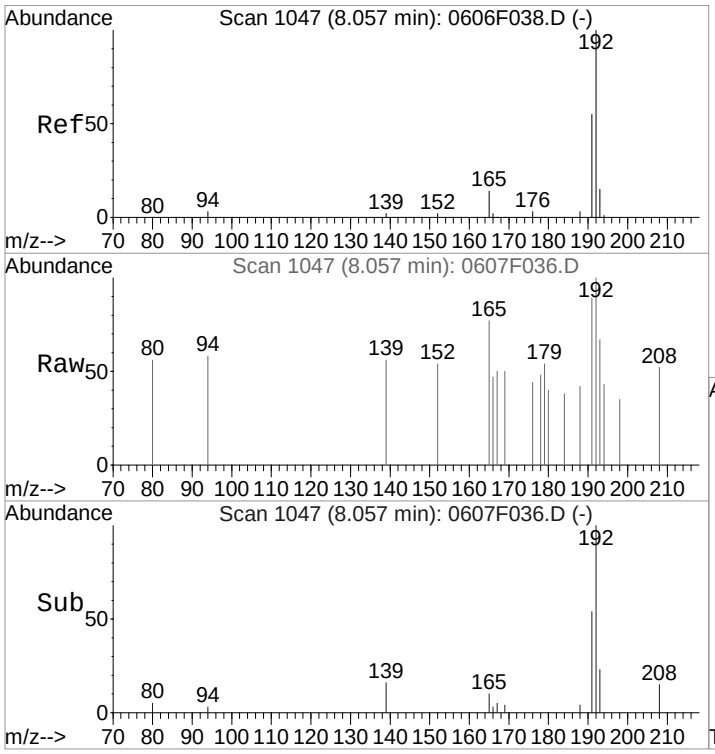
#17
Phenanthrene
Concen: 1.76 ng/ml
RT: 7.55 min Scan# 918
Delta R.T. -0.00 min
Lab File: 0607F036.D
Acq: 8 Jun 2019 1:18 am

Tgt Ion:178 Resp: 714

Ion	Ratio	Lower	Upper
178	100		
176	19.4	0.0	48.4
179	16.8	0.0	35.2



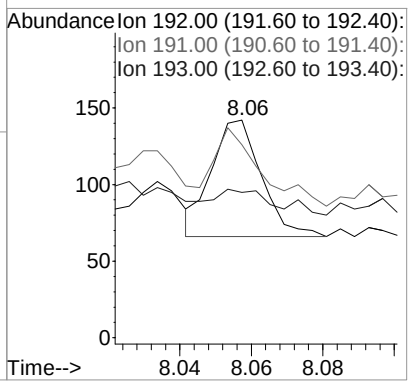
1st 06/17/19
2nd 06/17/19

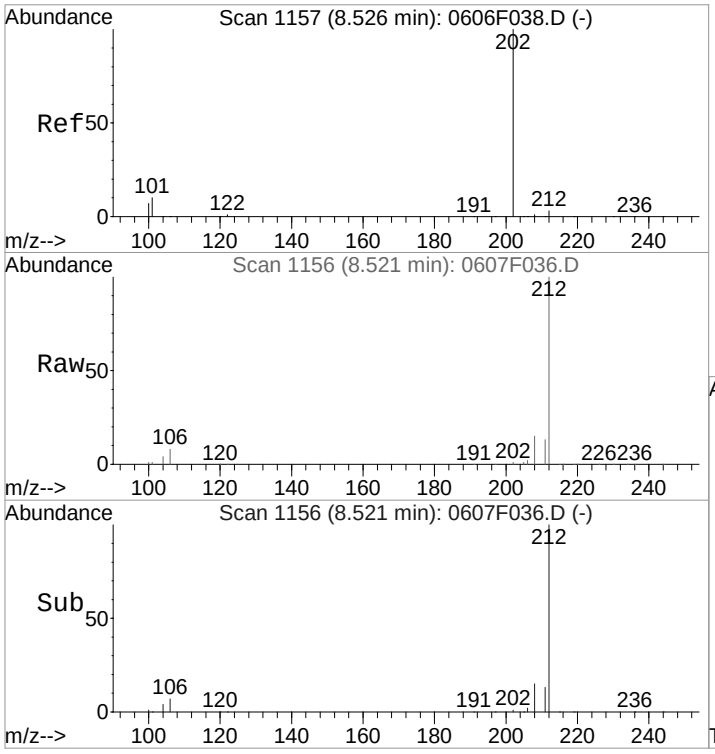


#20
1-Methylphenanthrene
Concen: 0.24 ng/ml
RT: 8.06 min Scan# 1047
Delta R.T. -0.00 min
Lab File: 0607F036.D
Acq: 8 Jun 2019 1:18 am

Tgt Ion:192 Resp: 74

Ion	Ratio	Lower	Upper
192	100		
191	52.6	23.2	83.2
193	19.7	0.0	45.5

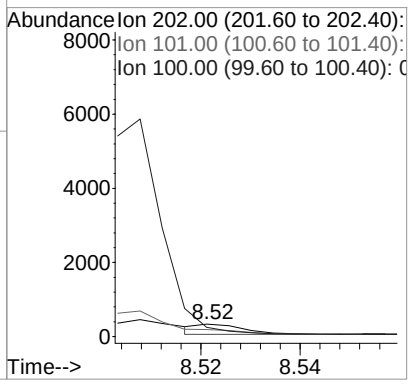


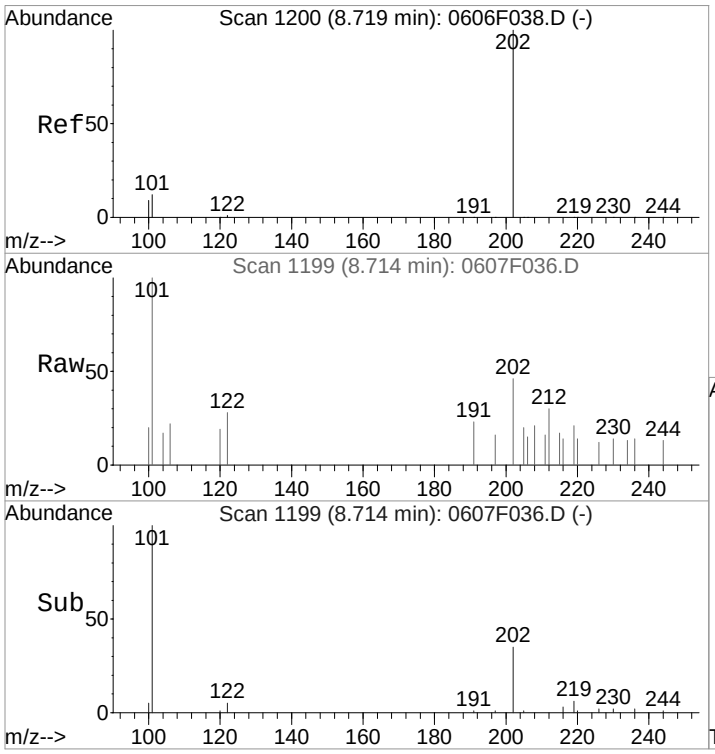


#21
Fluoranthene
Concen: 0.37 ng/ml m
RT: 8.52 min Scan# 1156
Delta R.T. -0.01 min
Lab File: 0607F036.D
Acq: 8 Jun 2019 1:18 am

Tgt Ion:202 Resp: 175

Ion	Ratio	Lower	Upper
202	100		
101	54.7	0.0	37.0#
100	73.4	0.0	24.7#

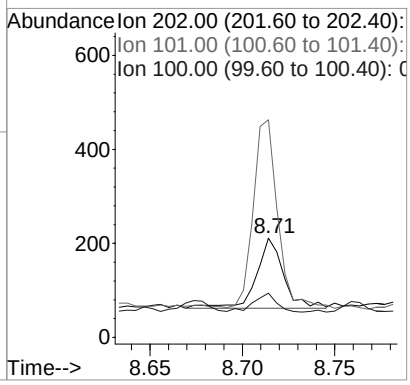


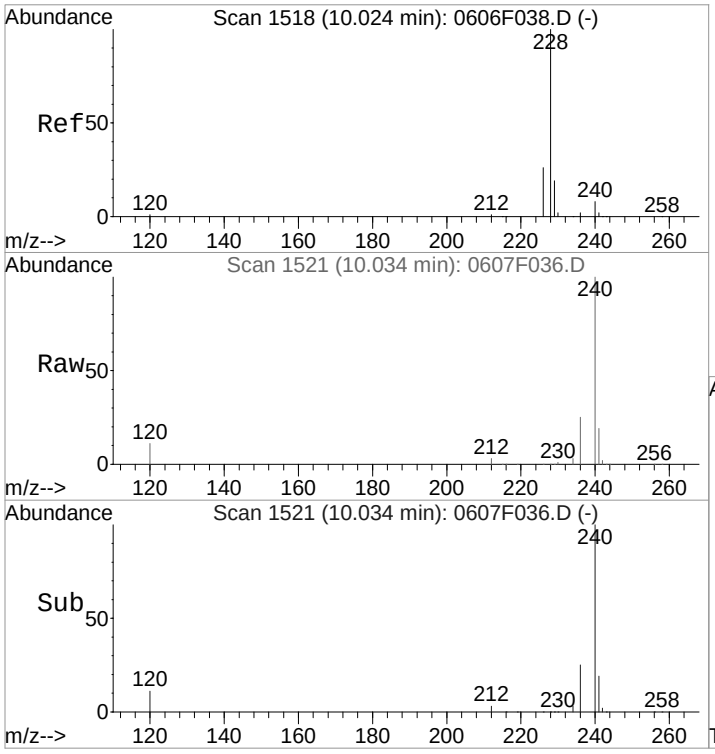


#24
Pyrene
Concen: 0.27 ng/ml
RT: 8.71 min Scan# 1199
Delta R.T. -0.01 min
Lab File: 0607F036.D
Acq: 8 Jun 2019 1:18 am

Tgt Ion:202 Resp: 153

Ion	Ratio	Lower	Upper
202	100		
101	266.4	0.0	38.8#
100	26.8	0.0	26.4#

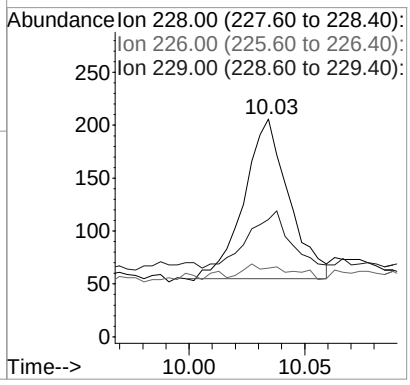




#26
Benz(a)anthracene
Concen: 0.43 ng/ml
RT: 10.03 min Scan# 1521
Delta R.T. 0.01 min
Lab File: 0607F036.D
Acq: 8 Jun 2019 1:18 am

Tgt Ion:228 Resp: 203

Ion	Ratio	Lower	Upper
228	100		
226	6.6	0.0	55.6
229	28.5	0.0	39.5



Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F036.D Vial: 32
Acq On : 8 Jun 2019 1:18 am Operator: LWeiskopf
Sample : K1905141-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:13:48 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	72815m	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.29	164	36600	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.53	188	67508	200.00	ng/ml	0.00
23) Chrysene-d12	10.03	240	73110	200.00	ng/ml	0.00
28) Perylene-d12	13.07	264	82502	200.00	ng/ml	0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.37	152	185751	1011.60	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 101.16%			
13) Fluorene-d10	6.73	176	204695	983.89	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 98.39%			
22) Fluoranthene-d10	8.51	212	389637	984.97	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 98.50%			
25) Terphenyl-d14	8.85	244	245171	725.16	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 72.52%			
Target Compounds						Qvalue
2) Naphthalene	4.77	128	292	0.75	ng/ml	96
4) 2-Methylnaphthalene	5.40	142	202	0.76	ng/ml	90
5) 1-Methylnaphthalene	5.49	142	105	0.42	ng/ml	91
6) Biphenyl	5.81	154	684	2.05	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.94	156	96	0.40	ng/ml	91
10) Acenaphthene	6.32	154	351	1.57	ng/ml#	30
11) Dibenzofuran	6.47	168	267	0.76	ng/ml	96
14) Fluorene	6.75	166	142	0.52	ng/ml	97
16) Dibenzothiophene	7.44	184	52	0.14	ng/ml	55
17) Phenanthrene	7.55	178	714	1.76	ng/ml	97
20) 1-Methylphenanthrene	8.06	192	74	0.24	ng/ml	97
21) Fluoranthene	8.52	202	175m	0.37	ng/ml	
24) Pyrene	8.71	202	153	0.27	ng/ml#	1
26) Benz(a)anthracene	10.03	228	203	0.43	ng/ml	70

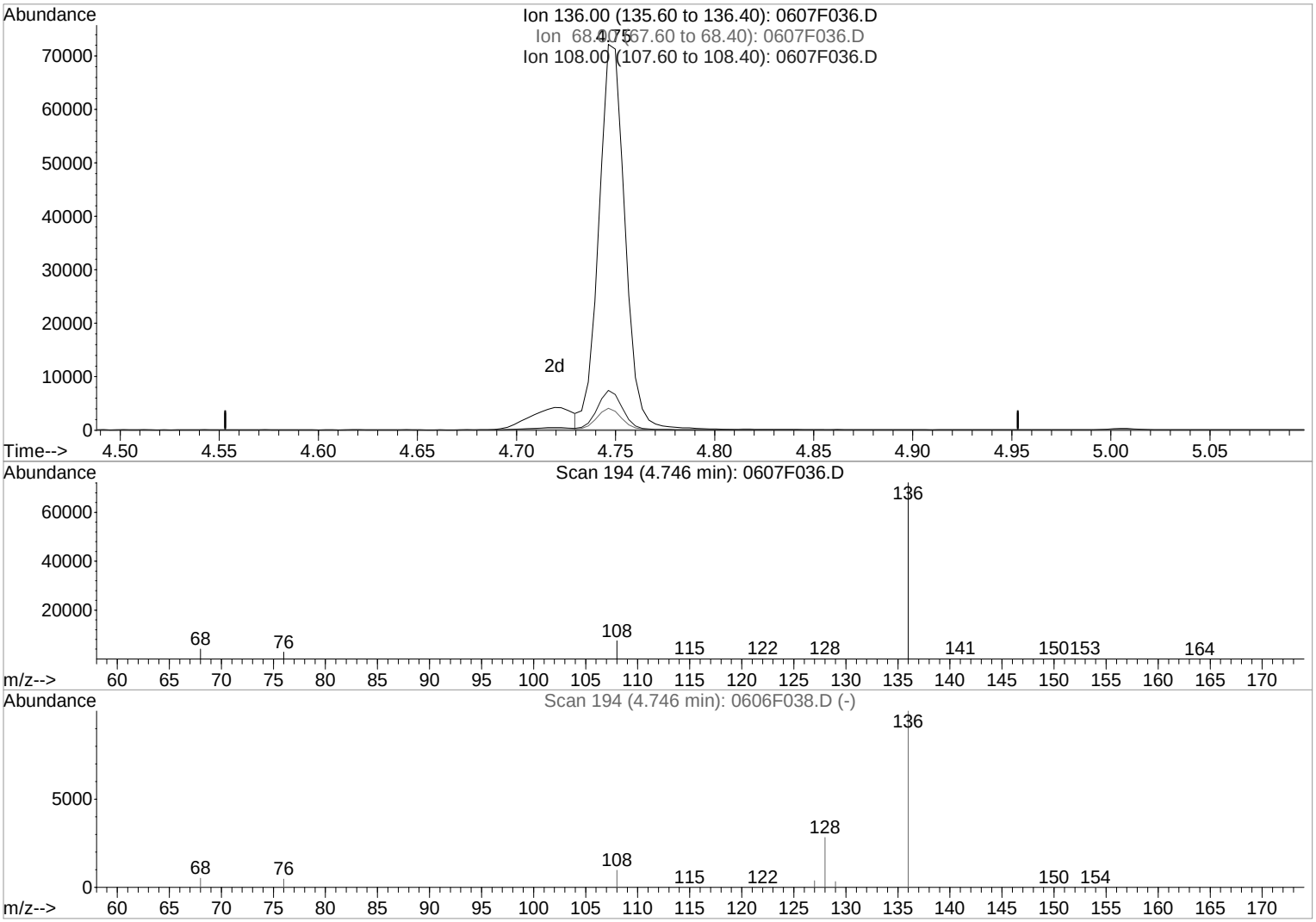
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F036.D Vial: 32
Acq On : 8 Jun 2019 1:18 am Operator: LWeiskopf
Sample : K1905141-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:13 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F036.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml

response 66472

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.59
108.00	8.80	10.27
0.00	0.00	0.00

Manual Integration:

Before

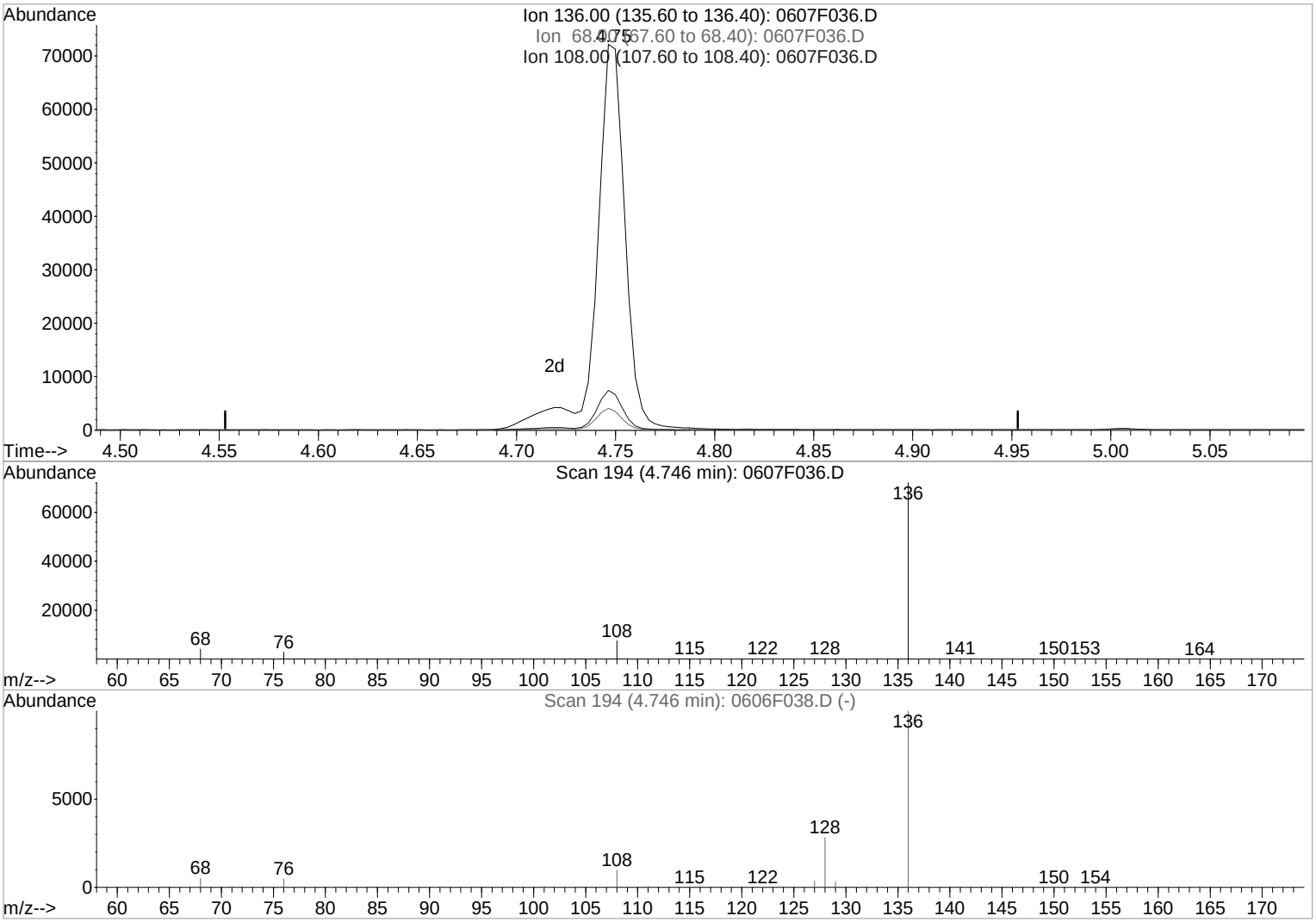
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F036.D Vial: 32
Acq On : 8 Jun 2019 1:18 am Operator: LWeiskopf
Sample : K1905141-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:00 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F036.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml m

response 72815

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.69
108.00	8.80	10.34
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

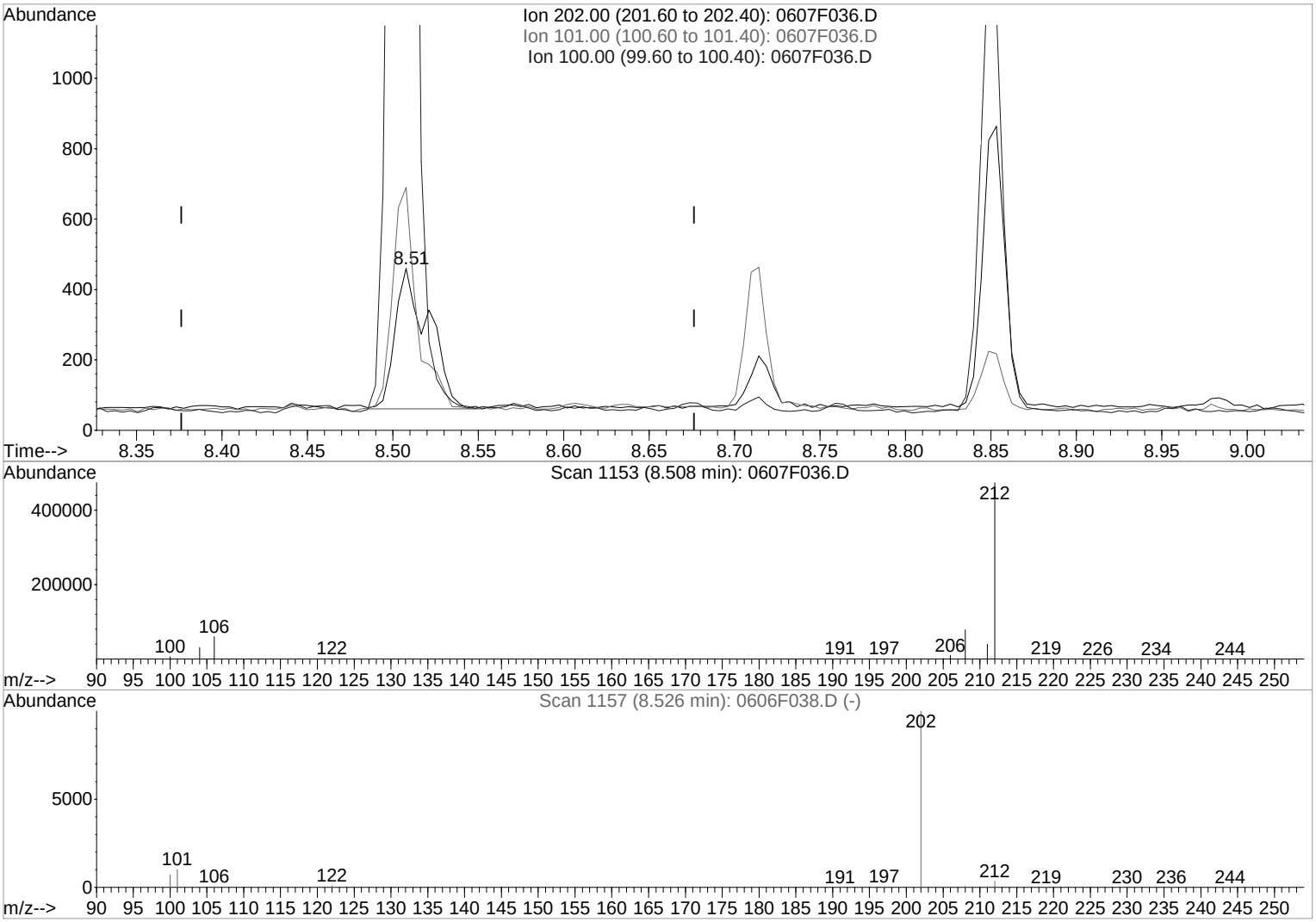
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F036.D Vial: 32
Acq On : 8 Jun 2019 1:18 am Operator: LWeiskopf
Sample : K1905141-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:05 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F036.D

(21) Fluoranthene (T)

8.51min 1.15ng/ml

response 549

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	157.14#
100.00	4.70	1455.39#
0.00	0.00	0.00

Manual Integration:

Before

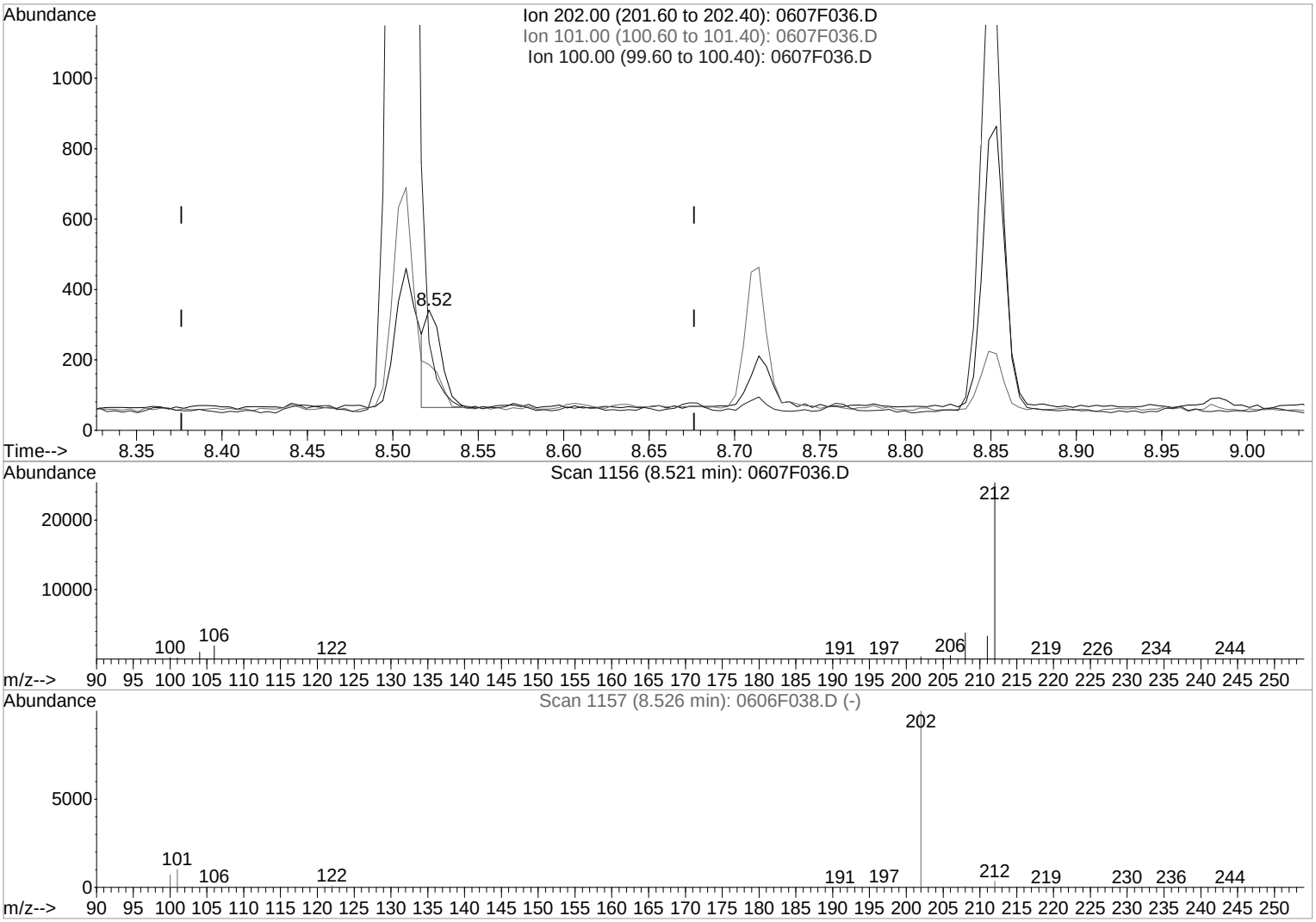
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F036.D Vial: 32
Acq On : 8 Jun 2019 1:18 am Operator: LWeiskopf
Sample : K1905141-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:06 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F036.D

(21) Fluoranthene (T)

8.52min 0.37ng/ml m

response 175

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	54.68#
100.00	4.70	73.39#
0.00	0.00	0.00

Manual Integration:

After

WP

06/17/19

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F037.D\
Lab ID: K1905141-005
RunType: N/A
Matrix: Water

Date Acquired: 6/8/19 01:45:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F037.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 01:45:00	**Vial:**	13
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-005	**Raw Units:**	ng/mL

Bottle ID:	K1905141-005.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	638644	**Prep Lot:**	338019	**Report Group:**	K1905141
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/5/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		36549	200.00	OK
Chrysene-d12	10.03	-0.01	74522	200.00	OK
Naphthalene-d8	4.75	+0.01	72970	200.00	OK
Perylene-d12	13.07	-0.01	84524	200.00	OK
Phenanthrene-d10	7.53		68353	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.51		385964	963.63	96	42 - 133	Y
Fluorene-d10	6.73		205462	988.96	99	42 - 131	Y
Terphenyl-d14	8.85	-0.01	233426	677.34	68	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.40		1423	5.33	0.024		Y
Acenaphthene	6.32		152	0.68	0.0030	J	Y
Acenaphthylene	6.17		69	0.19	0.00084	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.03		200	0.42	0.0019	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	6.47		398	1.13	0.0050	J	Y
Fluoranthene	8.52	-0.01	166	0.34	0.0015	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F037.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 01:45:00	**Vial:**	13
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-005	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.75		295	1.08	0.0048	J	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.77	+0.01	3100	7.93	0.035		Y
Phenanthrene	7.54	-0.01	956	2.33	0.010	J	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31

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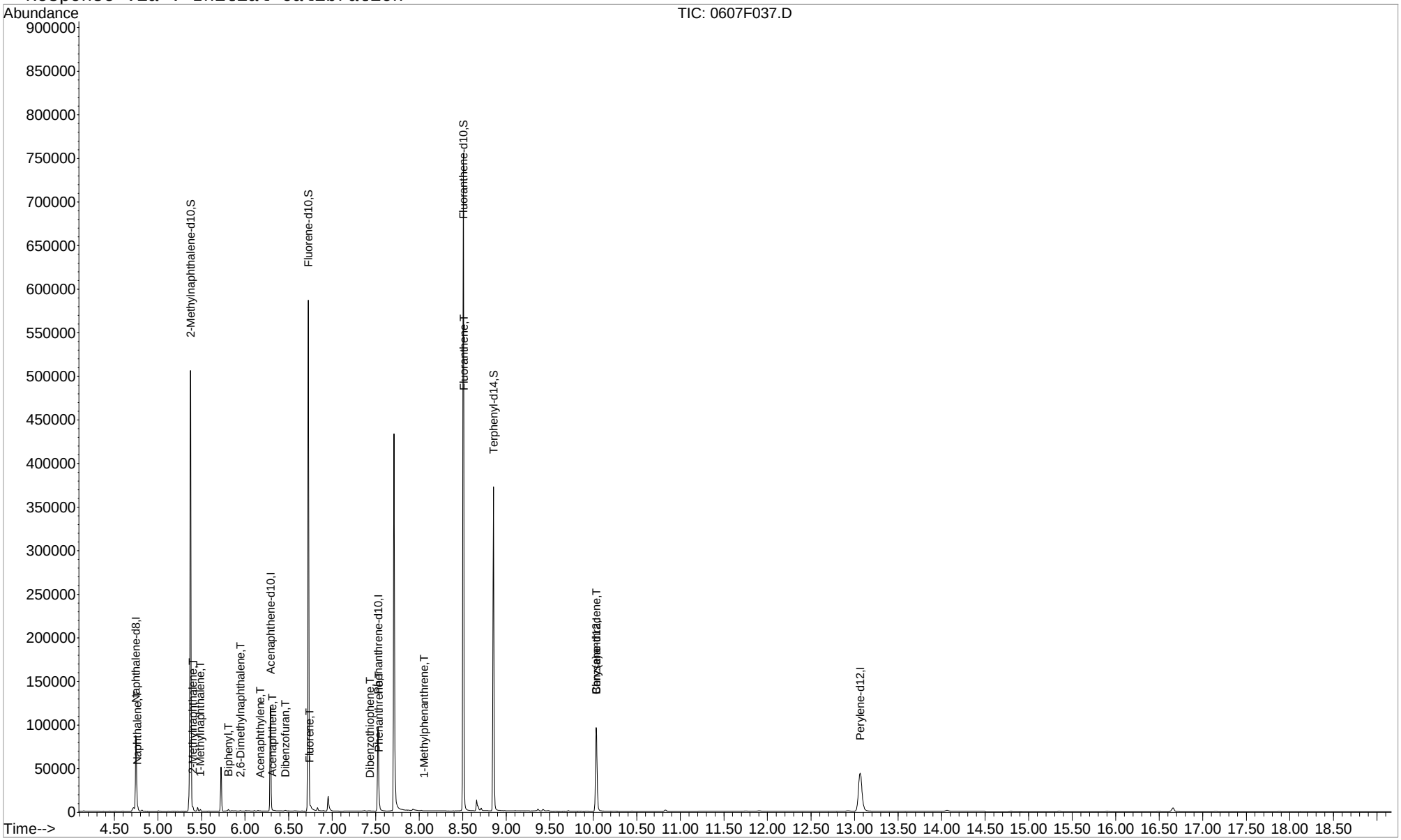
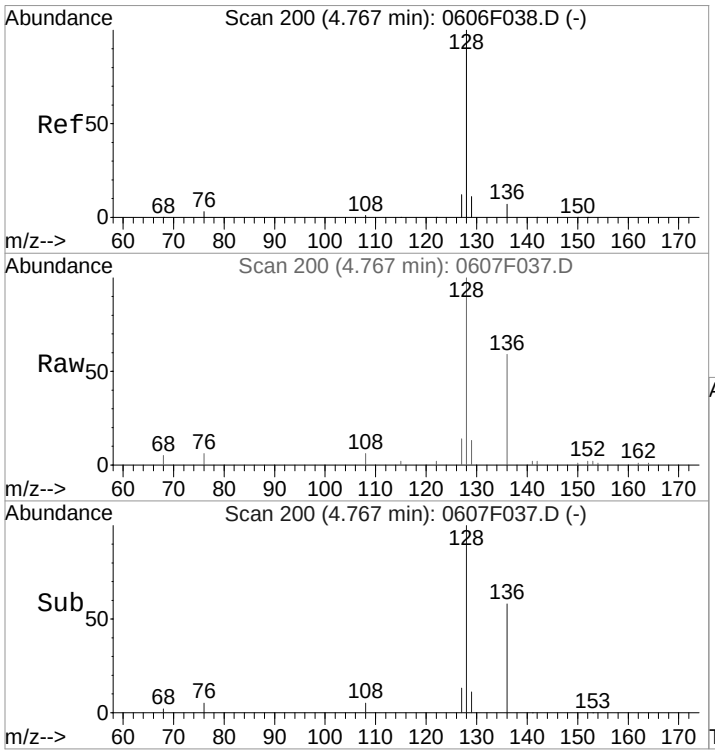
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F037.D Vial: 33
Acq On : 8 Jun 2019 1:45 am Operator: LWeiskopf
Sample : K1905141-005 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:09 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration

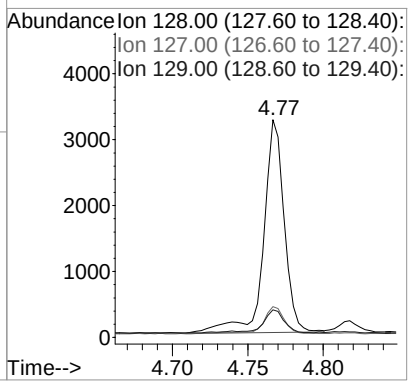


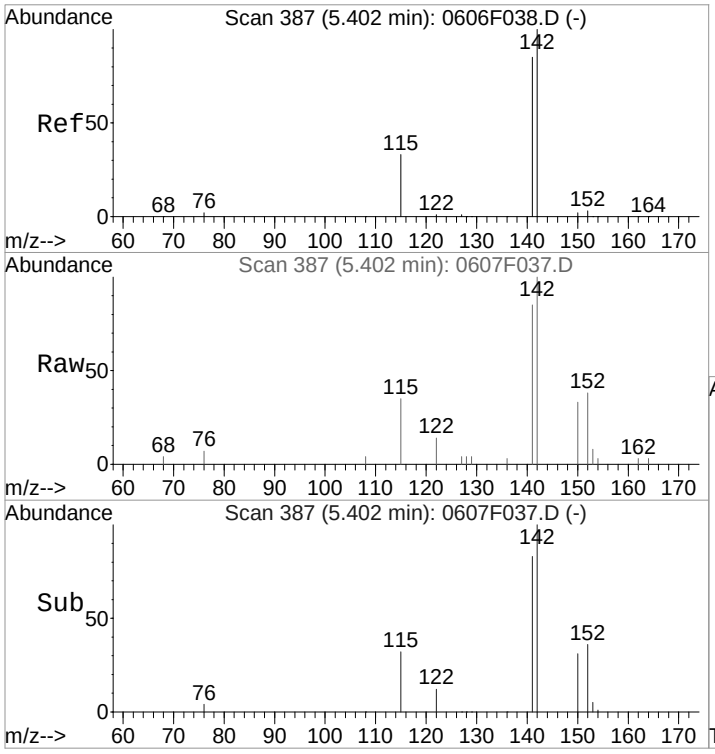


#2
Naphthalene
Concen: 7.93 ng/ml m
RT: 4.77 min Scan# 200
Delta R.T. -0.01 min
Lab File: 0607F037.D
Acq: 8 Jun 2019 1:45 am

Tgt Ion:128 Resp: 3100

Ion	Ratio	Lower	Upper
128	100		
127	14.1	0.0	42.3
129	12.6	0.0	30.8

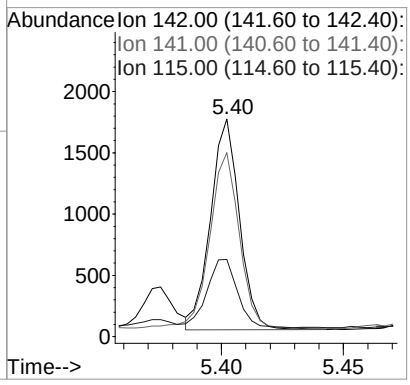


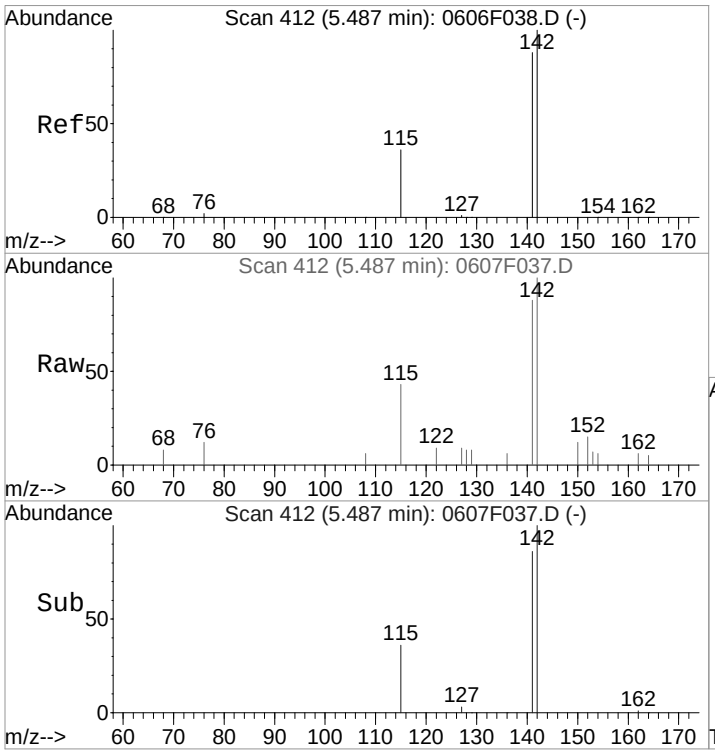


#4
2-Methylnaphthalene
Concen: 5.33 ng/ml
RT: 5.40 min Scan# 387
Delta R.T. -0.01 min
Lab File: 0607F037.D
Acq: 8 Jun 2019 1:45 am

Tgt Ion:142 Resp: 1423

Ion	Ratio	Lower	Upper
142	100		
141	83.4	52.7	112.7
115	32.2	8.2	48.2

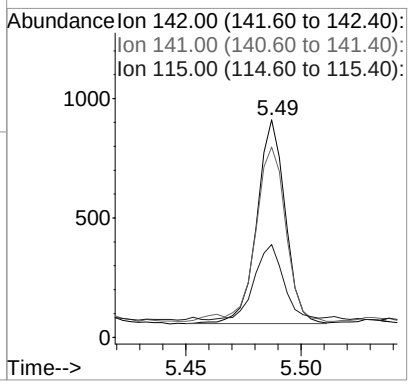


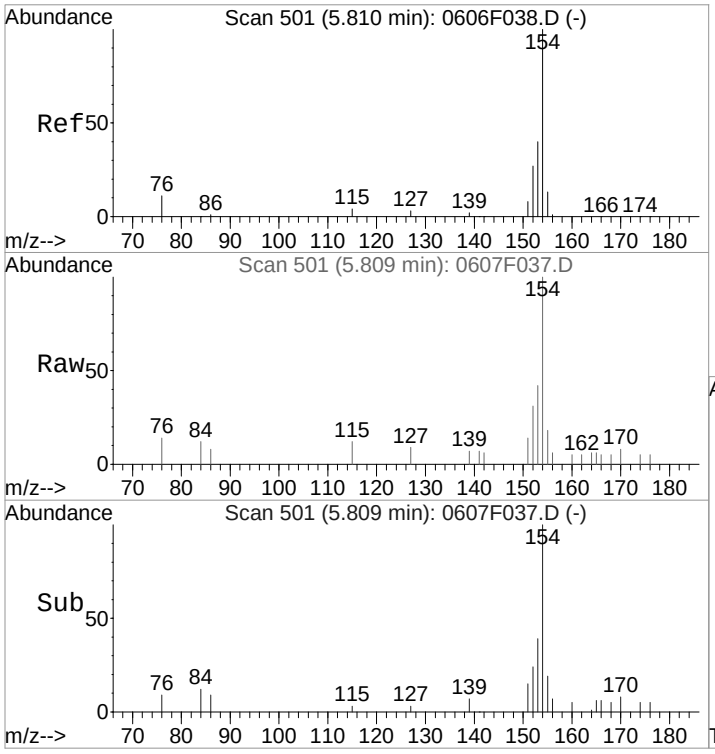


#5
1-Methylnaphthalene
Concen: 2.96 ng/ml
RT: 5.49 min Scan# 412
Delta R.T. -0.01 min
Lab File: 0607F037.D
Acq: 8 Jun 2019 1:45 am

Tgt Ion:142 Resp: 734

Ion	Ratio	Lower	Upper
142	100		
141	85.7	55.8	115.8
115	36.8	10.1	50.1

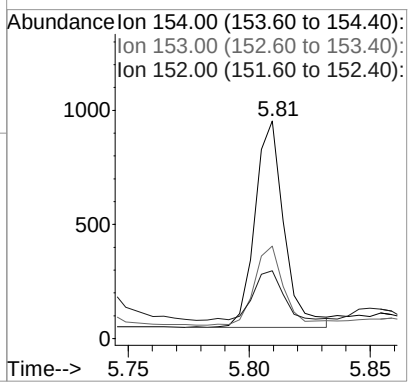


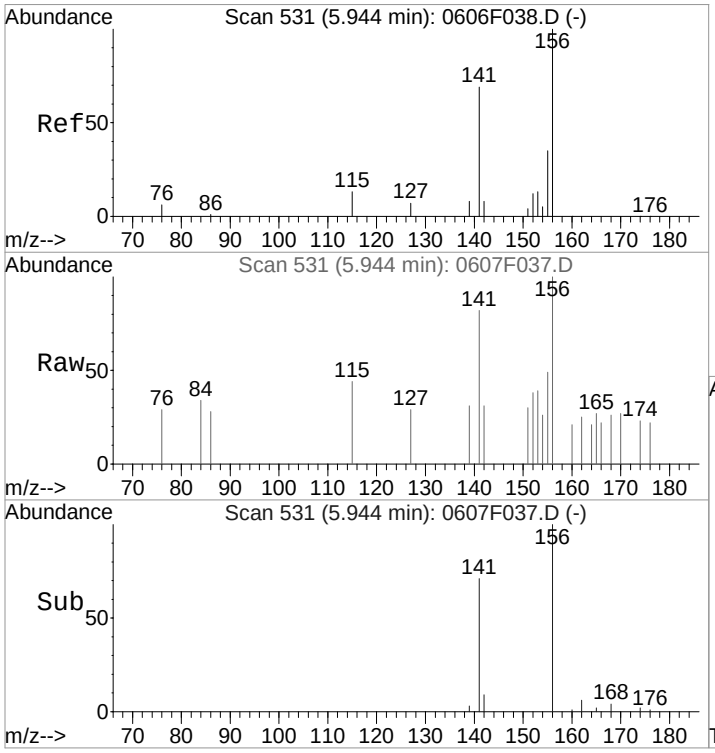


#6
Biphenyl
Concen: 2.26 ng/ml
RT: 5.81 min Scan# 501
Delta R.T. -0.01 min
Lab File: 0607F037.D
Acq: 8 Jun 2019 1:45 am

Tgt Ion:154 Resp: 756

Ion	Ratio	Lower	Upper
154	100		
153	37.9	8.2	68.2
152	23.6	6.1	46.1

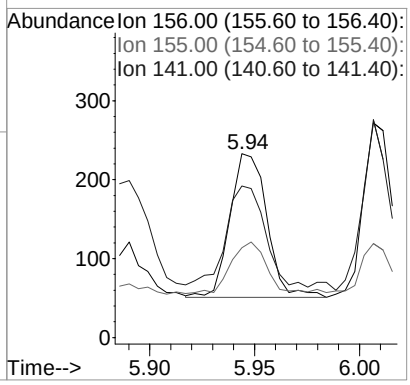


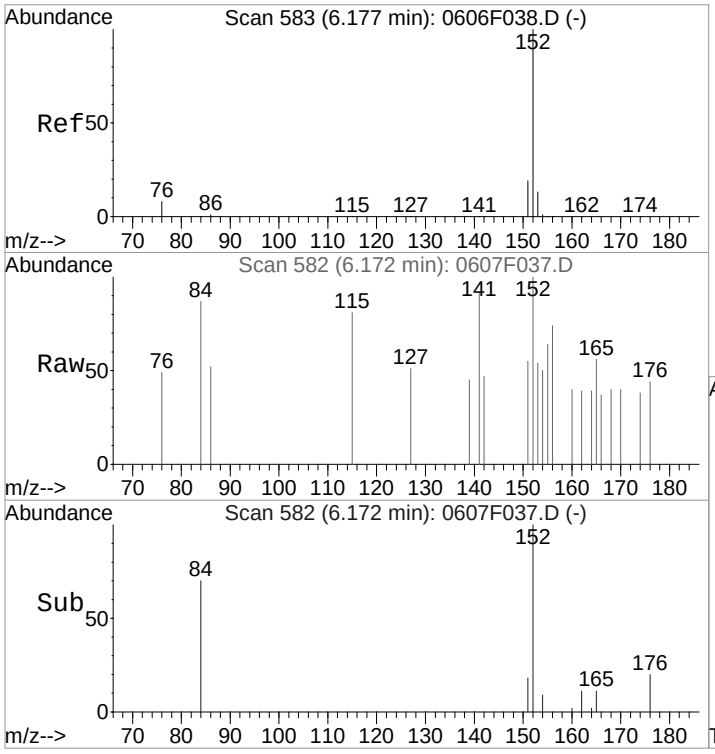


#7
2,6-Dimethylnaphthalene
Concen: 0.93 ng/ml
RT: 5.94 min Scan# 531
Delta R.T. -0.01 min
Lab File: 0607F037.D
Acq: 8 Jun 2019 1:45 am

Tgt Ion:156 Resp: 223

Ion	Ratio	Lower	Upper
156	100		
155	31.9	3.3	63.3
141	68.7	40.6	80.6

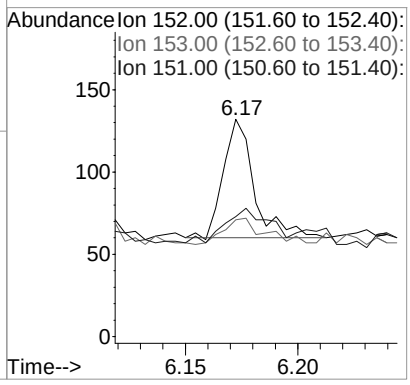


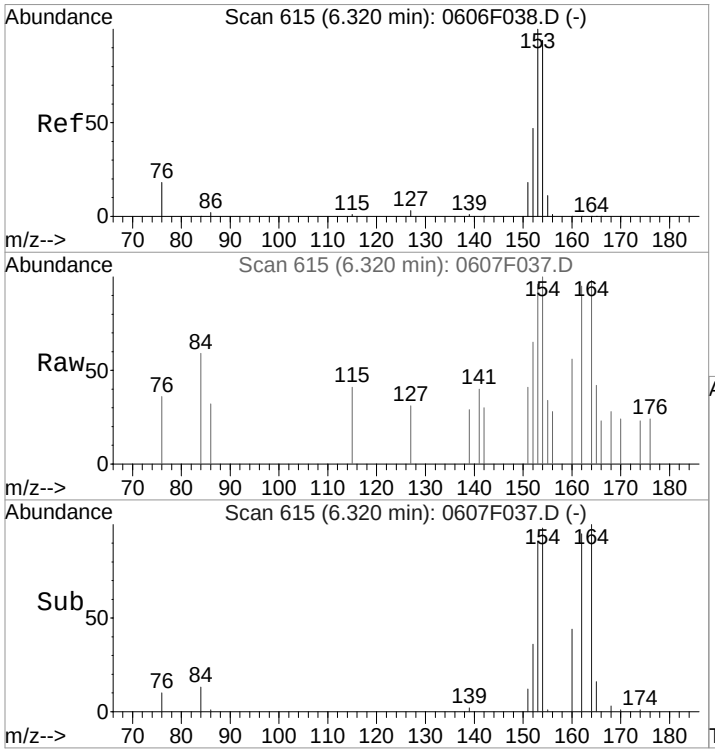


#9
Acenaphthylene
Concen: 0.19 ng/ml
RT: 6.17 min Scan# 582
Delta R.T. -0.01 min
Lab File: 0607F037.D
Acq: 8 Jun 2019 1:45 am

Tgt Ion:152 Resp: 69

Ion	Ratio	Lower	Upper
152	100		
153	19.4	0.0	42.9
151	22.2	0.0	38.8

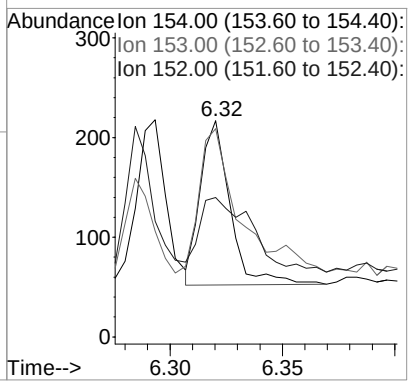


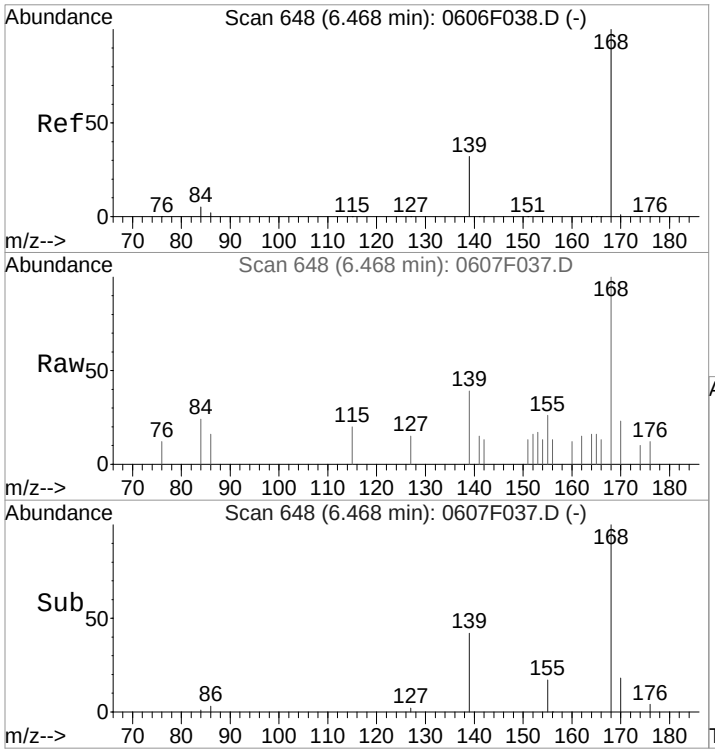


#10
Acenaphthene
Concen: 0.68 ng/ml
RT: 6.32 min Scan# 615
Delta R.T. -0.01 min
Lab File: 0607F037.D
Acq: 8 Jun 2019 1:45 am

Tgt Ion:154 Resp: 152

Ion	Ratio	Lower	Upper
154	100		
153	87.8	72.8	132.8
152	45.7	17.7	77.7

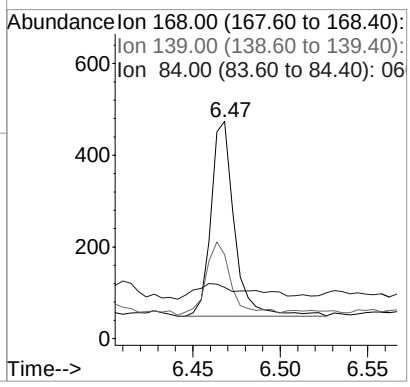




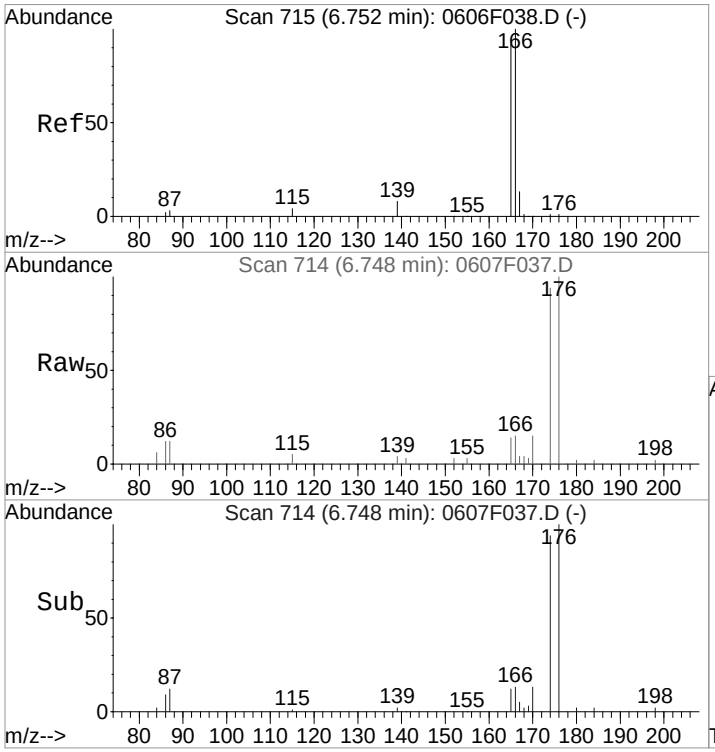
#11
Dibenzofuran
Concen: 1.13 ng/ml
RT: 6.47 min Scan# 648
Delta R.T. -0.01 min
Lab File: 0607F037.D
Acq: 8 Jun 2019 1:45 am

Tgt Ion:168 Resp: 398

Ion	Ratio	Lower	Upper
168	100		
139	29.6	0.0	54.7
84	4.0	0.0	22.9



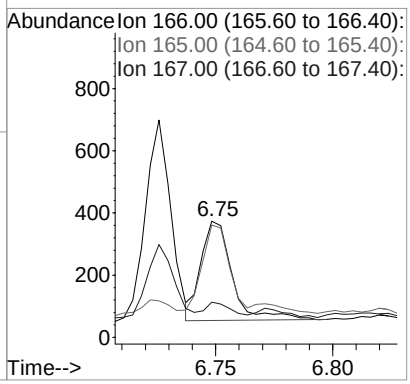
1st 06/17/19
2nd 06/17/19

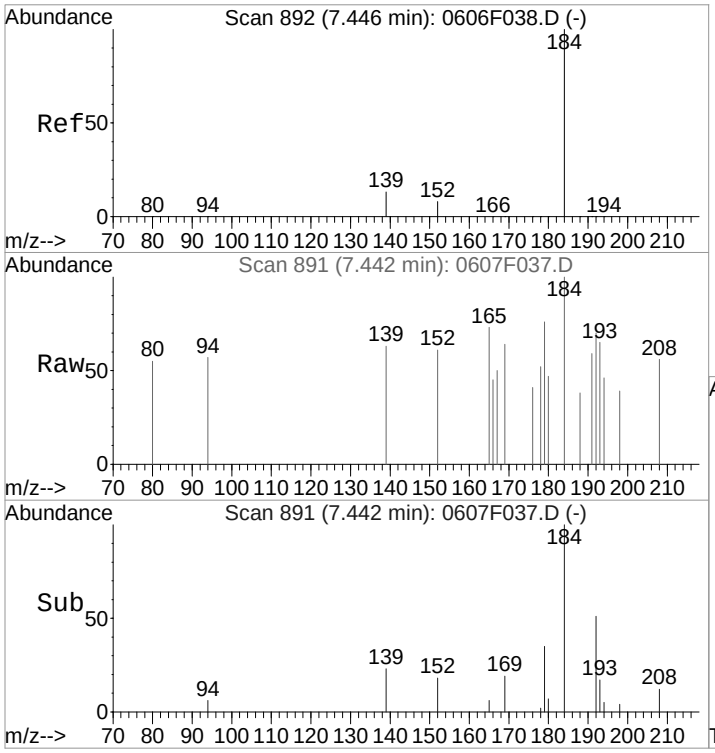


#14
Fluorene
Concen: 1.08 ng/ml
RT: 6.75 min Scan# 714
Delta R.T. -0.01 min
Lab File: 0607F037.D
Acq: 8 Jun 2019 1:45 am

Tgt Ion:166 Resp: 295

Ion	Ratio	Lower	Upper
166	100		
165	88.3	59.0	119.0
167	13.0	0.0	33.1

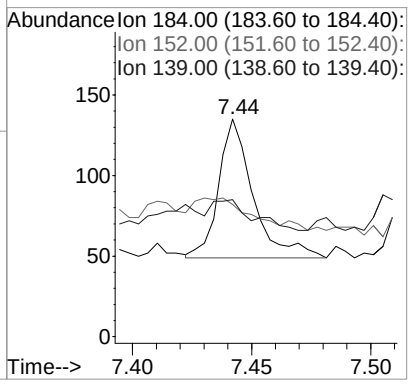




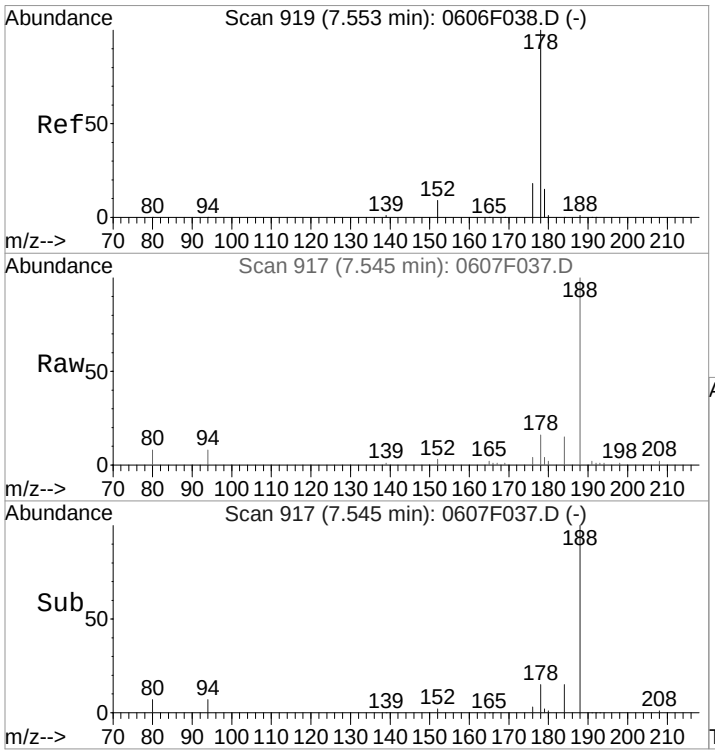
#16
Dibenzothiophene
Concen: 0.22 ng/ml
RT: 7.44 min Scan# 891
Delta R.T. -0.01 min
Lab File: 0607F037.D
Acq: 8 Jun 2019 1:45 am

Tgt Ion:184 Resp: 86

Ion	Ratio	Lower	Upper
184	100		
152	18.6	0.0	37.7
139	12.8	0.0	32.3



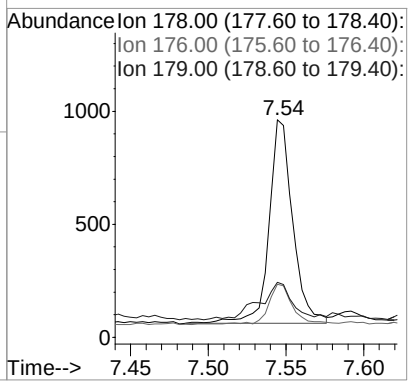
1st 06/17/19
2nd 06/17/19

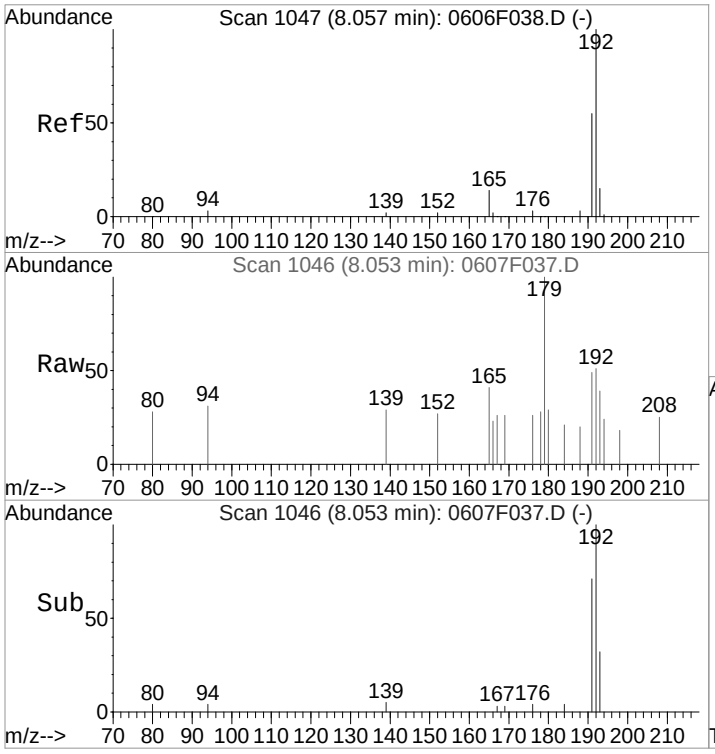


#17
Phenanthrene
Concen: 2.33 ng/ml
RT: 7.54 min Scan# 917
Delta R.T. -0.01 min
Lab File: 0607F037.D
Acq: 8 Jun 2019 1:45 am

Tgt Ion:178 Resp: 956

Ion	Ratio	Lower	Upper
178	100		
176	19.7	0.0	48.4
179	17.9	0.0	35.2

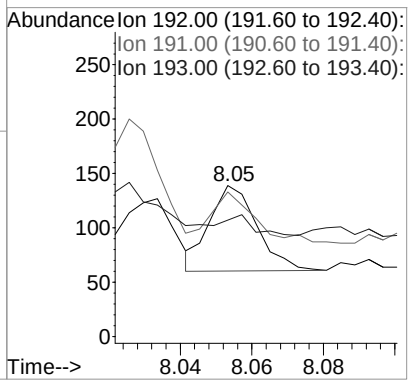




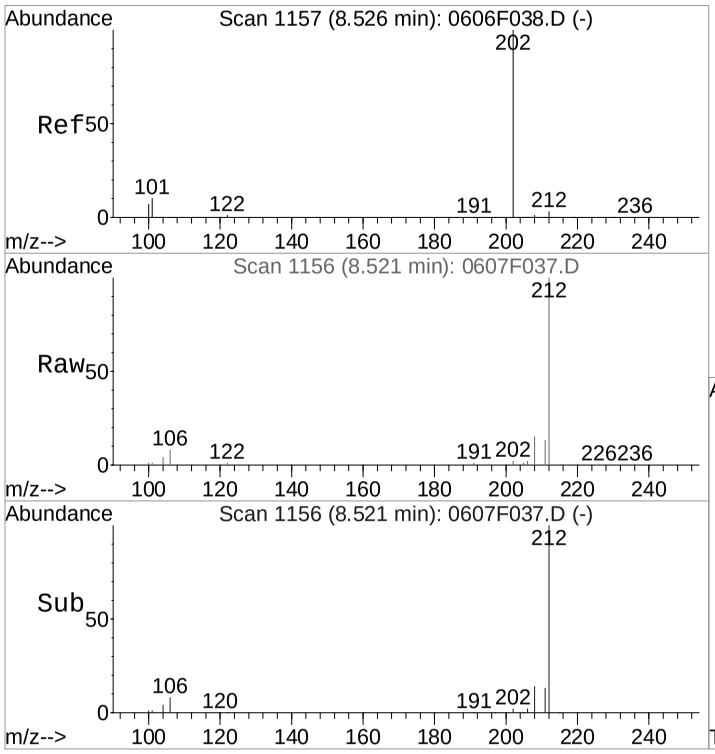
#20
1-Methylphenanthrene
Concen: 0.23 ng/ml
RT: 8.05 min Scan# 1046
Delta R.T. -0.00 min
Lab File: 0607F037.D
Acq: 8 Jun 2019 1:45 am

Tgt Ion:192 Resp: 72

Ion	Ratio	Lower	Upper
192	100		
191	59.0	23.2	83.2
193	9.0	0.0	45.5



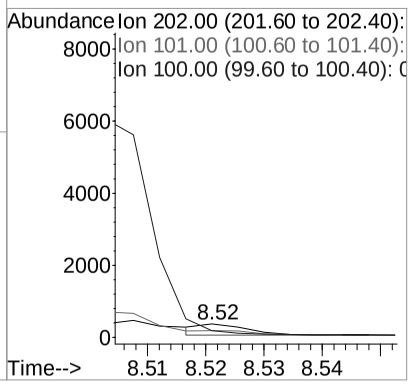
1st 06/17/19
2nd 06/17/19

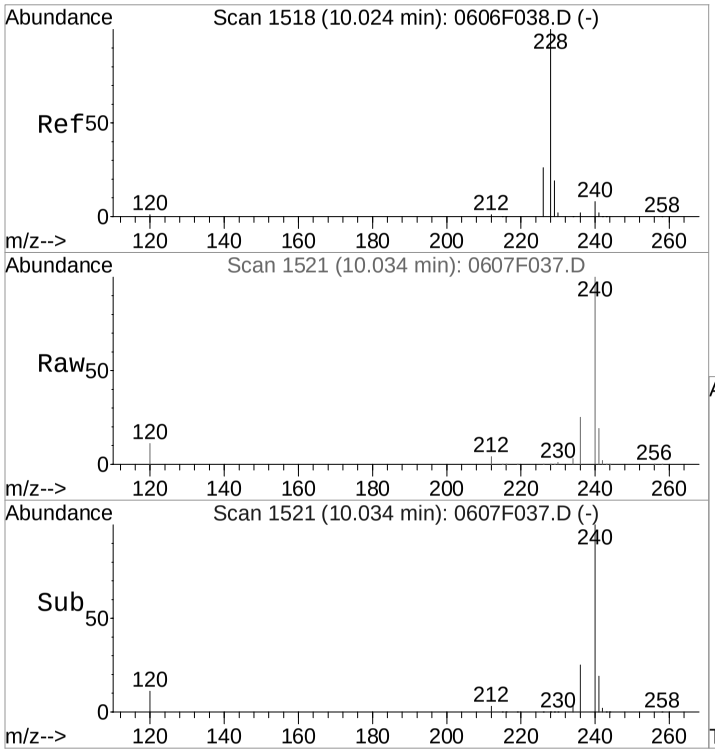


#21
Fluoranthene
Concen: 0.34 ng/ml m
RT: 8.52 min Scan# 1156
Delta R.T. -0.01 min
Lab File: 0607F037.D
Acq: 8 Jun 2019 1:45 am

Tgt Ion:202 Resp: 166

Ion	Ratio	Lower	Upper
202	100		
101	50.0	0.0	37.0#
100	50.5	0.0	24.7#

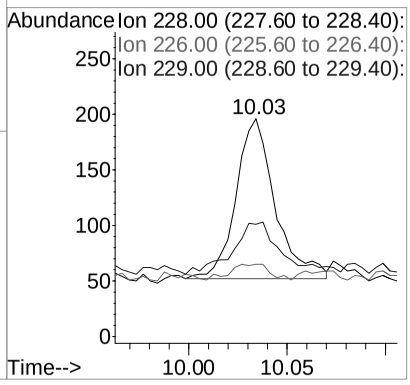




#26
Benz(a)anthracene
Concen: 0.42 ng/ml
RT: 10.03 min Scan# 1521
Delta R.T. 0.01 min
Lab File: 0607F037.D
Acq: 8 Jun 2019 1:45 am

Tgt Ion:228 Resp: 200

Ion	Ratio	Lower	Upper
228	100		
226	6.3	0.0	55.6
229	31.3	0.0	39.5



Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F037.D Vial: 33
Acq On : 8 Jun 2019 1:45 am Operator: LWeiskopf
Sample : K1905141-005 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:13:50 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	72970m	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.29	164	36549	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.53	188	68353	200.00	ng/ml	0.00
23) Chrysene-d12	10.03	240	74522	200.00	ng/ml	0.00
28) Perylene-d12	13.07	264	84524	200.00	ng/ml	0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.38	152	187726	1020.18	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 102.02%			
13) Fluorene-d10	6.73	176	205462	988.96	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 98.90%			
22) Fluoranthene-d10	8.51	212	385964	963.63	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 96.36%			
25) Terphenyl-d14	8.85	244	233426	677.34	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 67.73%			
Target Compounds						Qvalue
2) Naphthalene	4.77	128	3100m	7.93	ng/ml	
4) 2-Methylnaphthalene	5.40	142	1423	5.33	ng/ml	98
5) 1-Methylnaphthalene	5.49	142	734	2.96	ng/ml	97
6) Biphenyl	5.81	154	756	2.26	ng/ml	98
7) 2,6-Dimethylnaphthalene	5.94	156	223	0.93	ng/ml	92
9) Acenaphthylene	6.17	152	69	0.19	ng/ml	89
10) Acenaphthene	6.32	154	152	0.68	ng/ml	89
11) Dibenzofuran	6.47	168	398	1.13	ng/ml	91
14) Fluorene	6.75	166	295	1.08	ng/ml	99
16) Dibenzothiophene	7.44	184	86	0.22	ng/ml	87
17) Phenanthrene	7.54	178	956	2.33	ng/ml	96
20) 1-Methylphenanthrene	8.05	192	72	0.23	ng/ml	90
21) Fluoranthene	8.52	202	166m	0.34	ng/ml	
26) Benz(a)anthracene	10.03	228	200	0.42	ng/ml	67

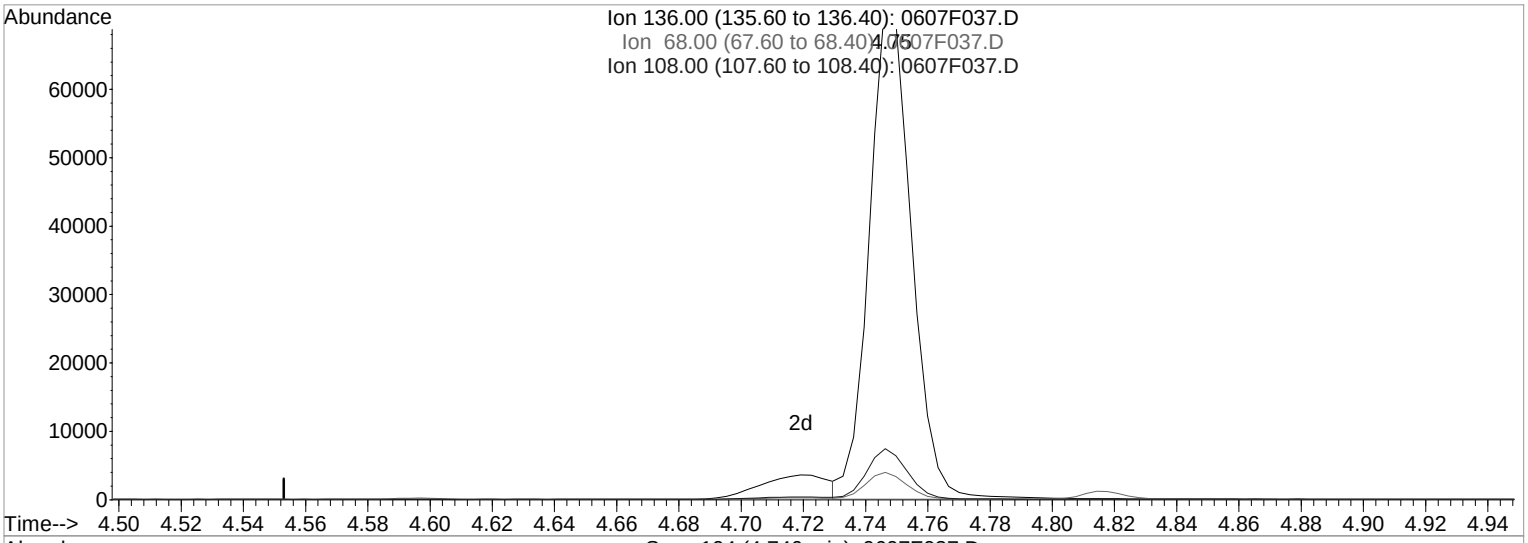
(#) = qualifier out of range (m) = manual integration

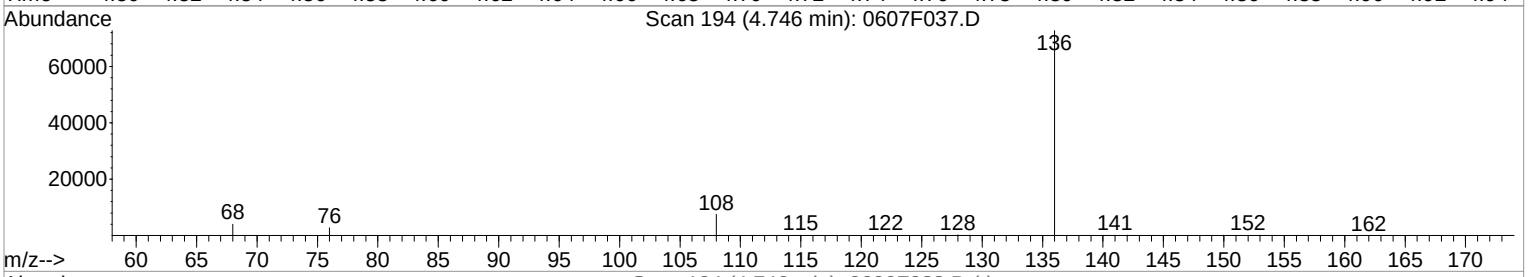
Quantitation Report (Qedit)

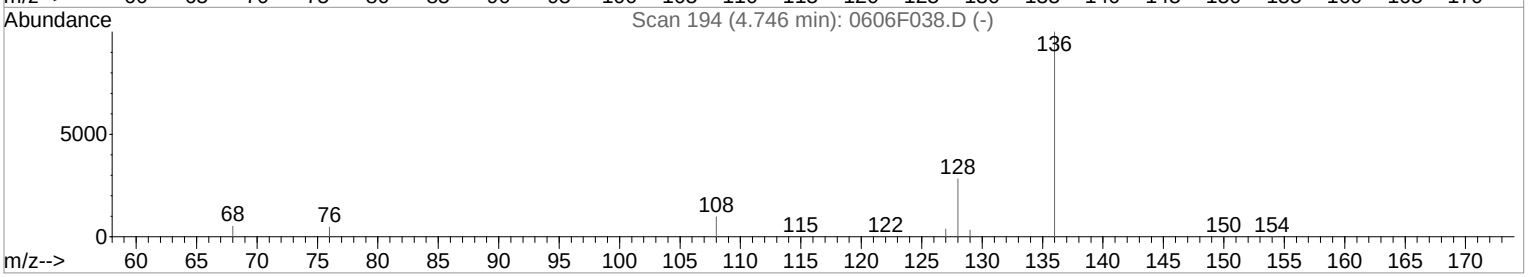
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F037.D Vial: 33
Acq On : 8 Jun 2019 1:45 am Operator: LWeiskopf
Sample : K1905141-005 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:13 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration







TIC: 0607F037.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml

response 68137

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.42
108.00	8.80	10.16
0.00	0.00	0.00

Manual Integration:

Before

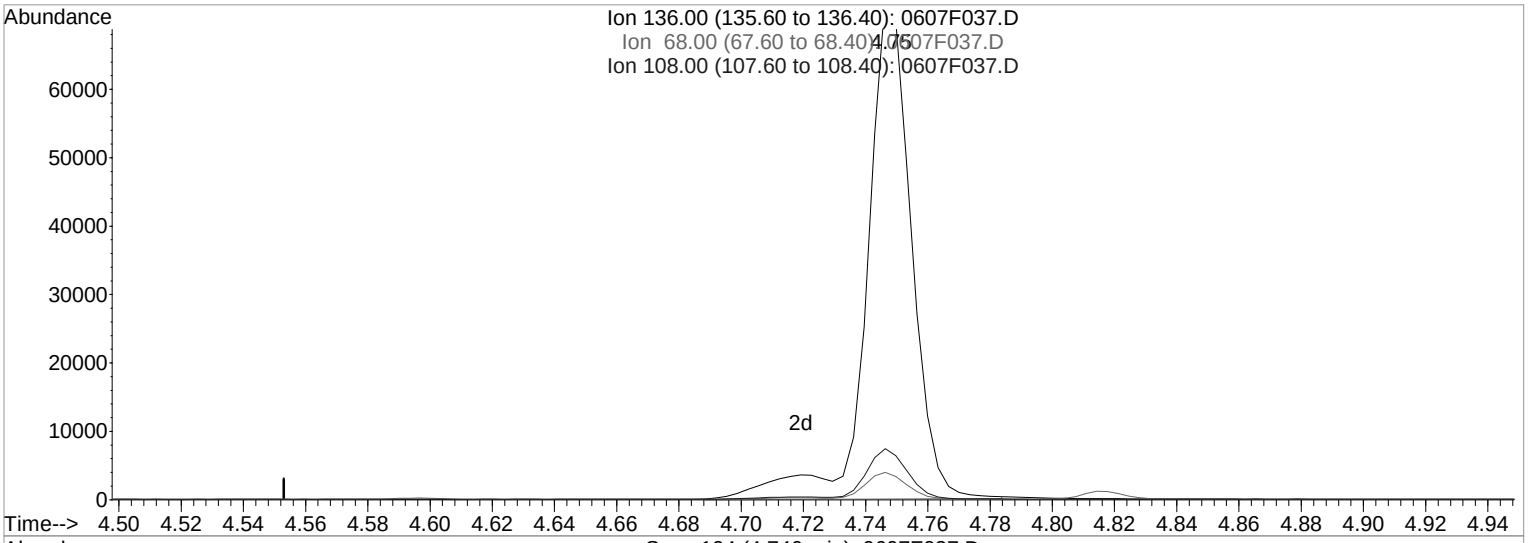
06/17/19

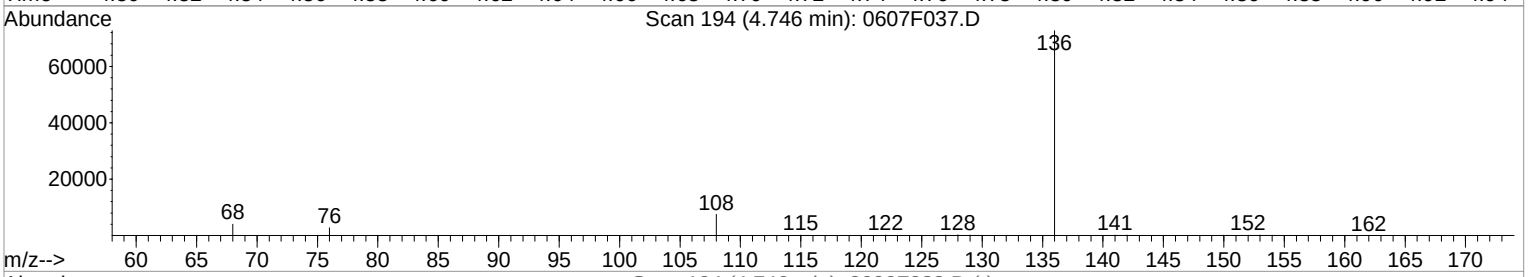
Quantitation Report (Qedit)

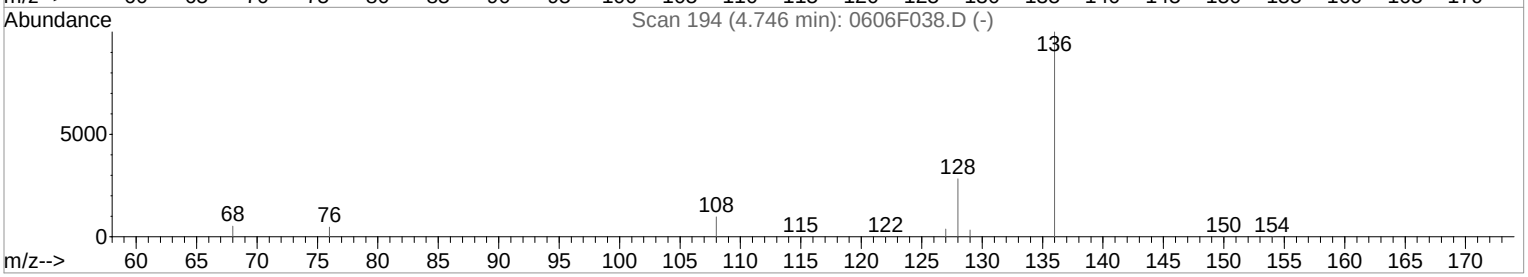
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F037.D Vial: 33
Acq On : 8 Jun 2019 1:45 am Operator: LWeiskopf
Sample : K1905141-005 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:06 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration







TIC: 0607F037.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml m

response 72970

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.52
108.00	8.80	10.23
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

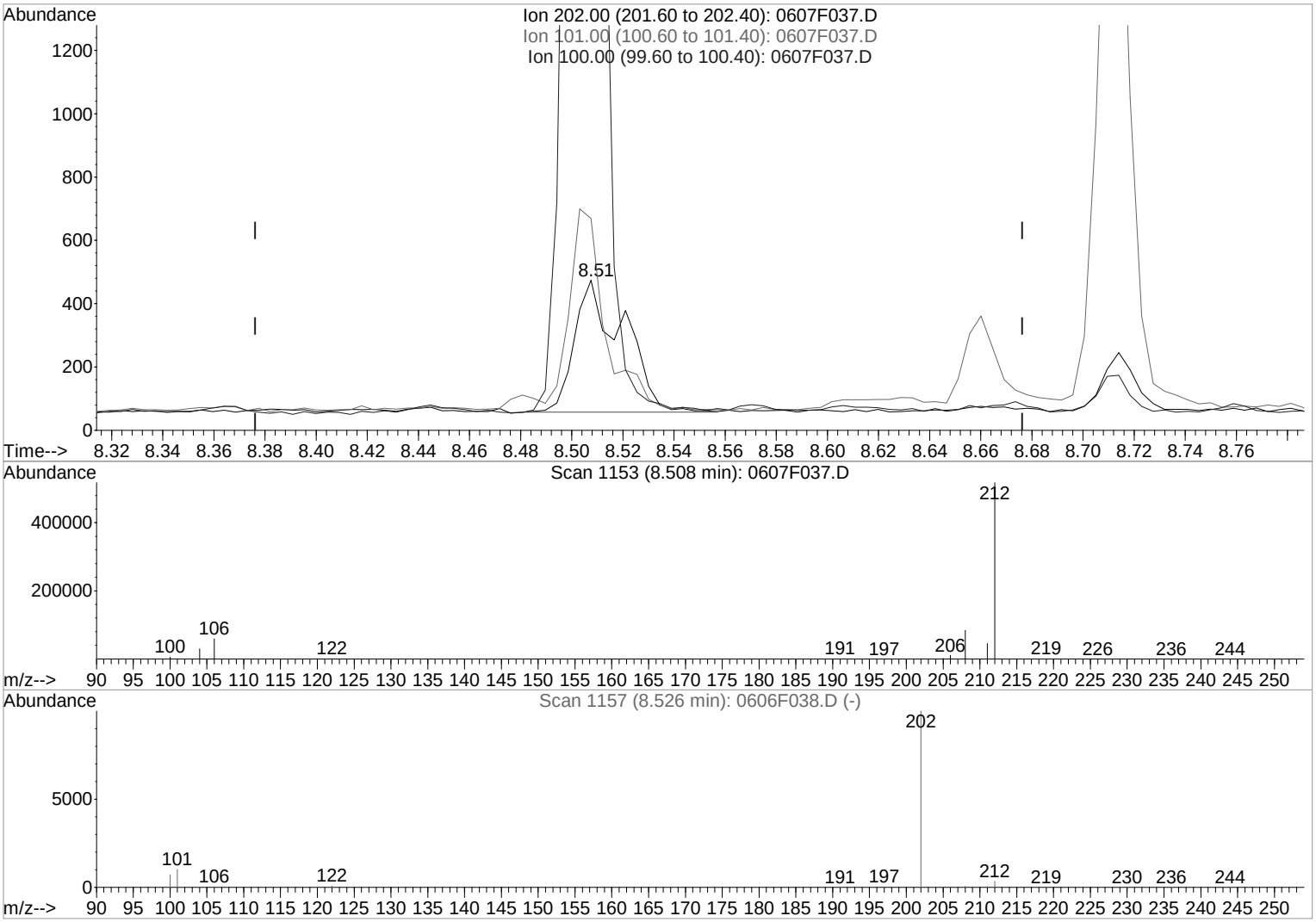
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F037.D Vial: 33
Acq On : 8 Jun 2019 1:45 am Operator: LWeiskopf
Sample : K1905141-005 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:08 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F037.D

(21) Fluoranthene (T)

8.51min 1.15ng/ml

response 558

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	144.84#
100.00	4.70	1335.49#
0.00	0.00	0.00

Manual Integration:

Before

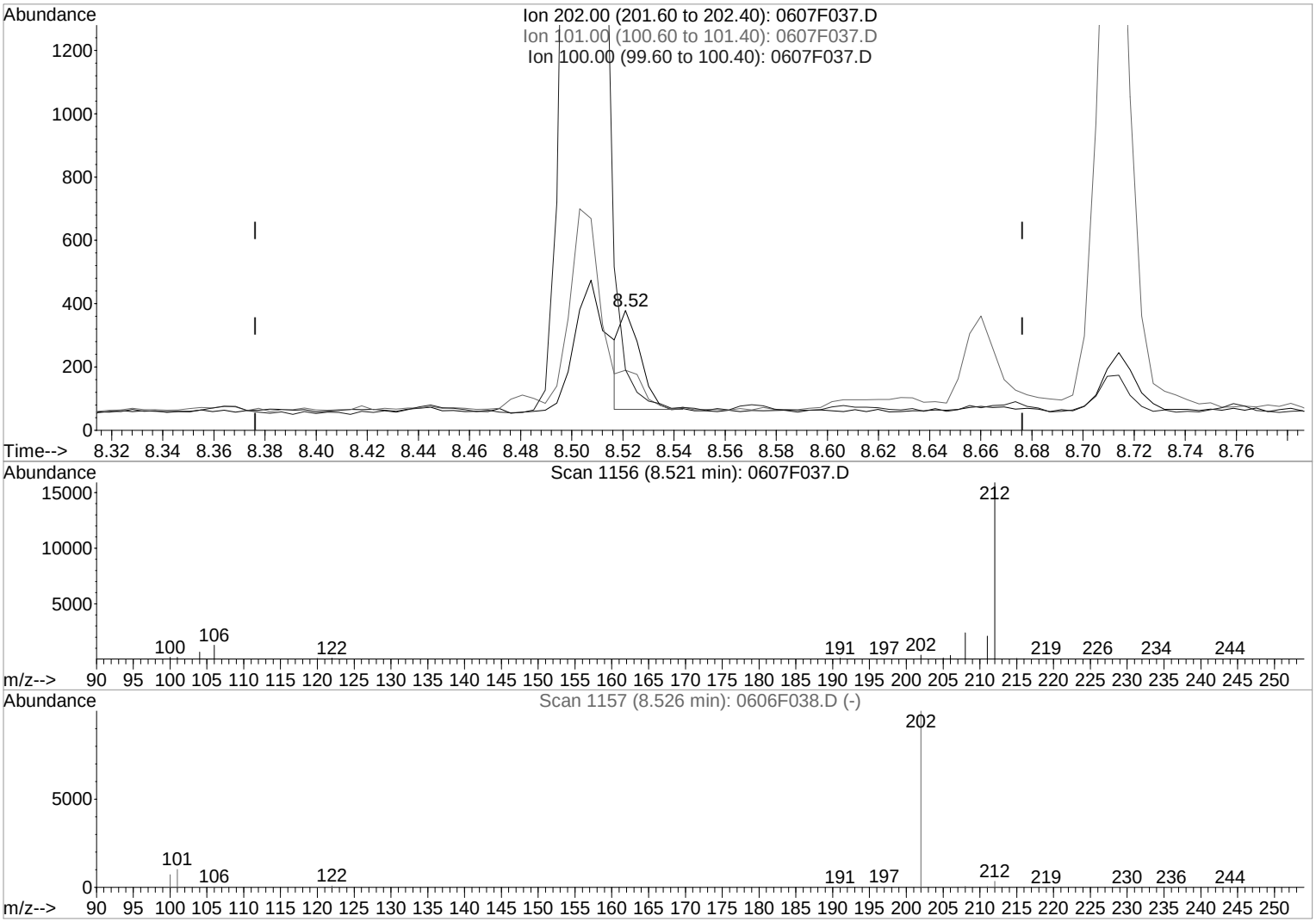
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F037.D Vial: 33
Acq On : 8 Jun 2019 1:45 am Operator: LWeiskopf
Sample : K1905141-005 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:08 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F037.D

(21) Fluoranthene (T)

8.52min 0.34ng/ml m

response 166

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	50.00#
100.00	4.70	50.53#
0.00	0.00	0.00

Manual Integration:

After

WP

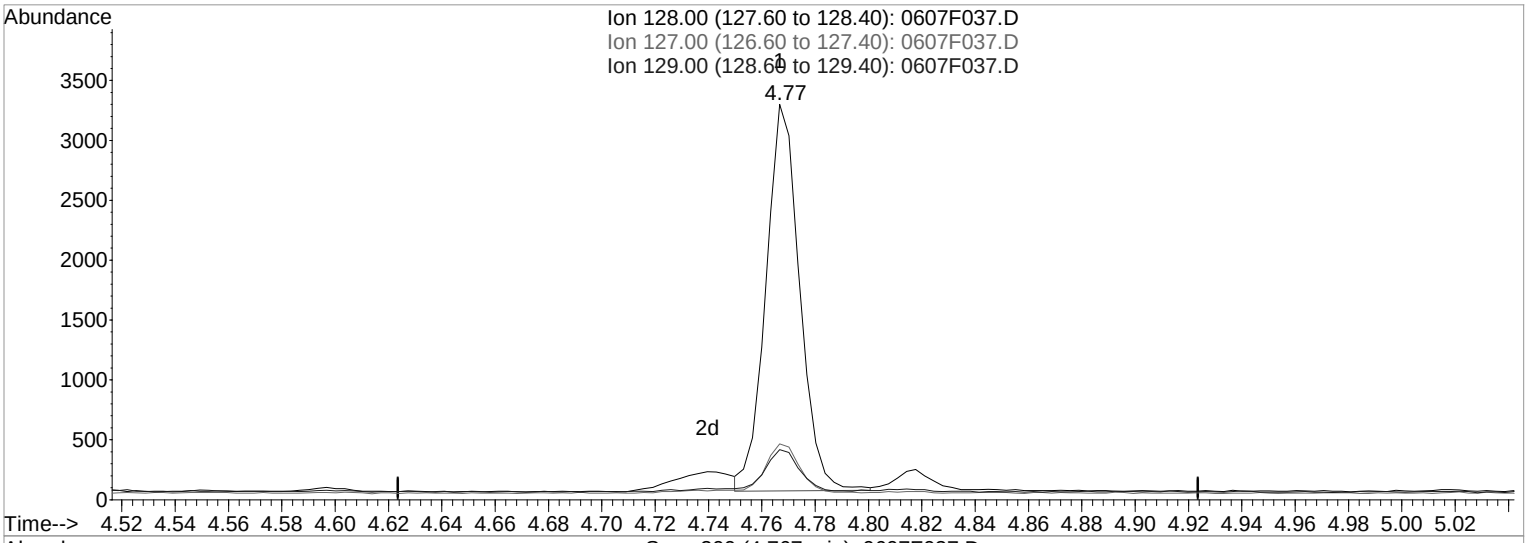
06/17/19

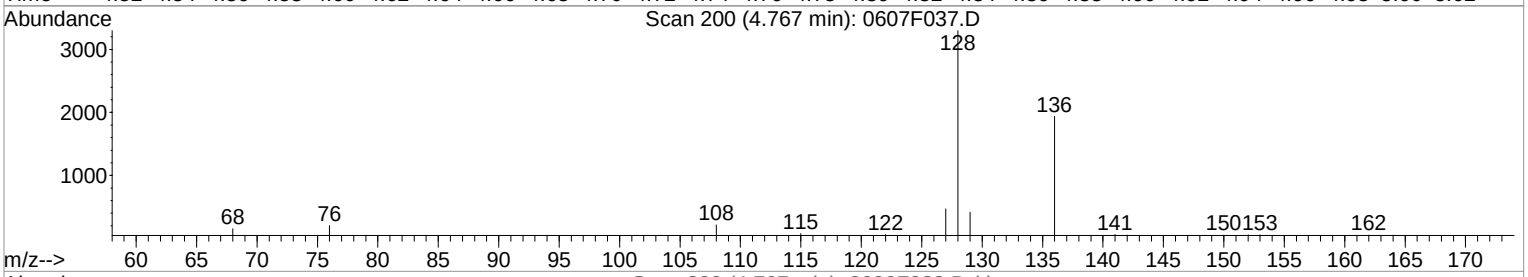
Quantitation Report (Qedit)

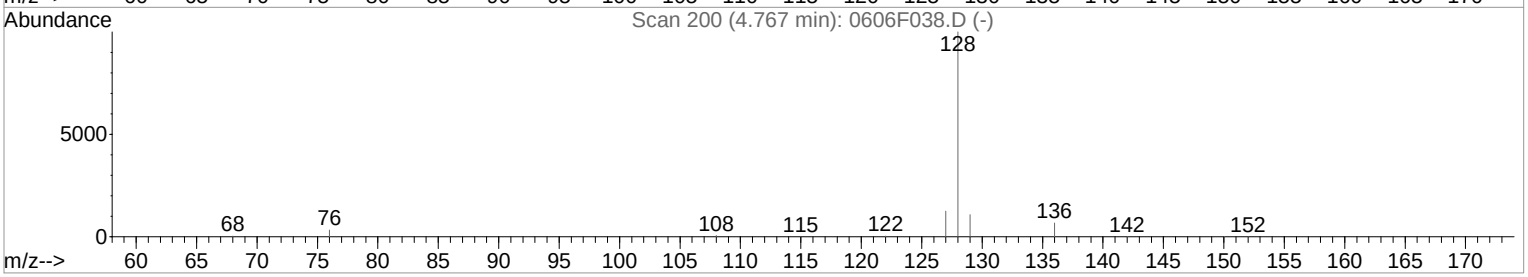
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F037.D Vial: 33
Acq On : 8 Jun 2019 1:45 am Operator: LWeiskopf
Sample : K1905141-005 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:06 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration







TIC: 0607F037.D

(2) Naphthalene (T)

4.77min 7.27ng/ml

response 2840

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	12.69
129.00	10.80	10.69
0.00	0.00	0.00

Manual Integration:

Before

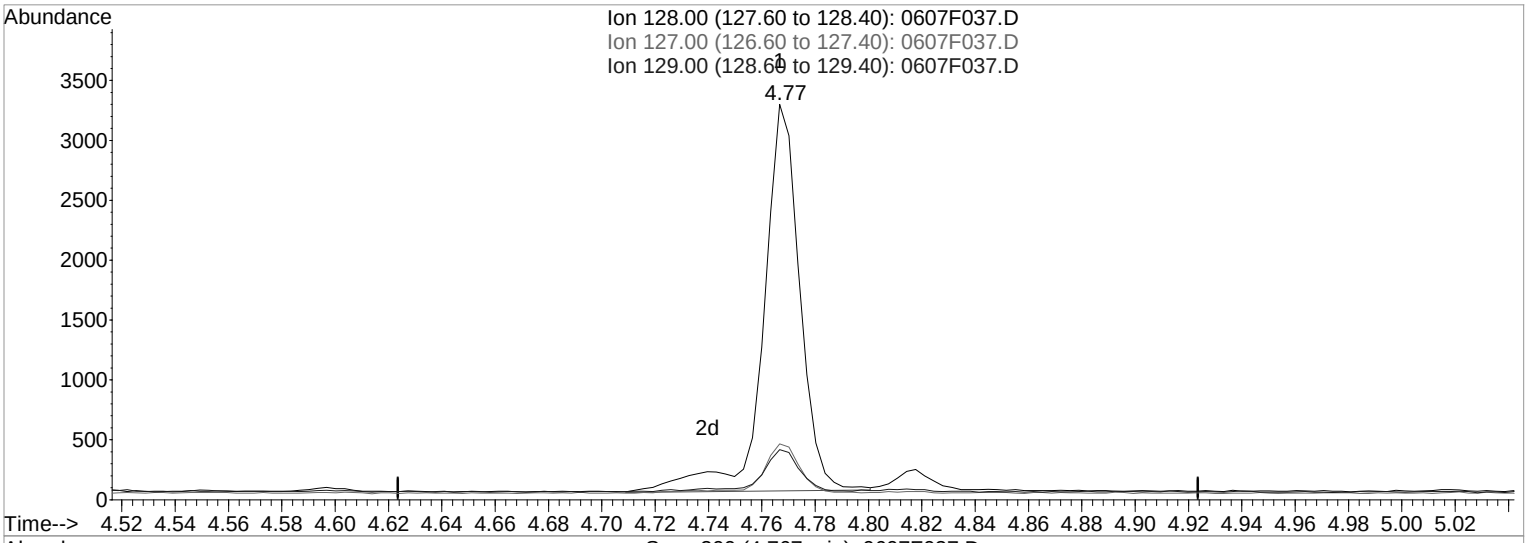
06/17/19

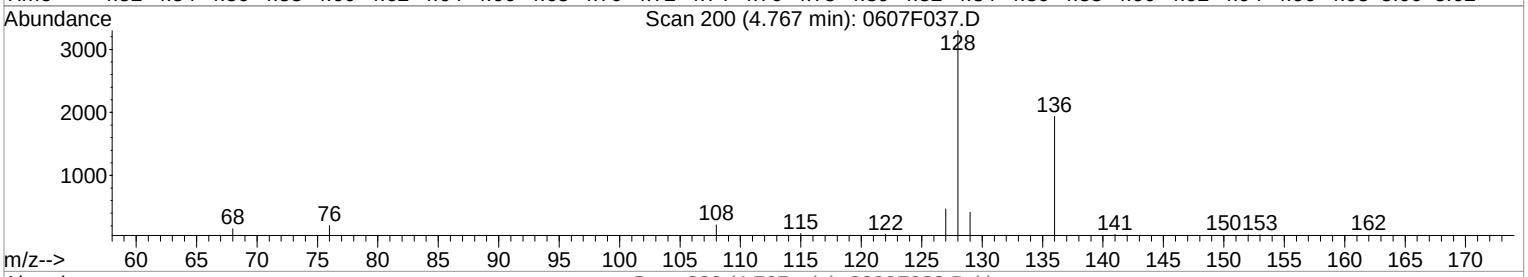
Quantitation Report (Qedit)

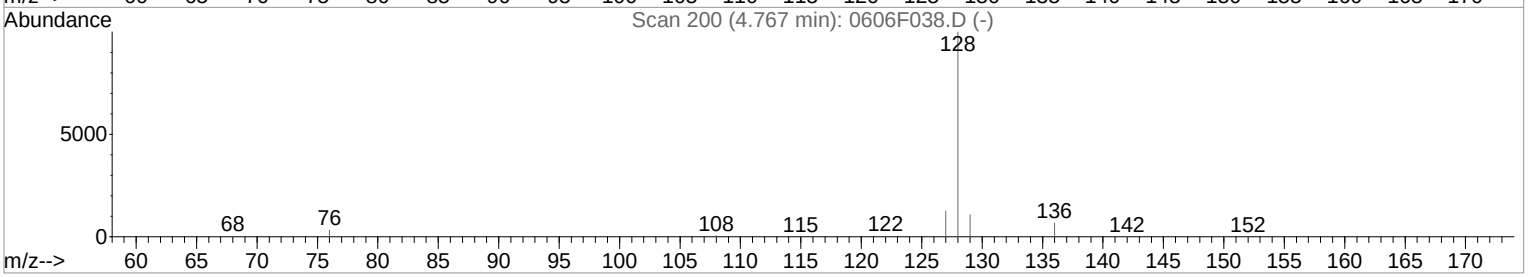
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F037.D Vial: 33
Acq On : 8 Jun 2019 1:45 am Operator: LWeiskopf
Sample : K1905141-005 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:07 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration







TIC: 0607F037.D

(2) Naphthalene (T)

4.77min 7.93ng/ml m

response 3100

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	14.12
129.00	10.80	12.63
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

06/17/19

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F038.D\
Lab ID: K1905141-015
RunType: N/A
Matrix: Water

Date Acquired: 6/8/19 02:13:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/17/19 10:31
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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F038.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 02:13:00	**Vial:**	14
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-015	**Raw Units:**	ng/mL

Bottle ID:	K1905141-015.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	638644	**Prep Lot:**	338019	**Report Group:**	K1905141
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/5/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		35073	200.00	OK
Chrysene-d12	10.03	-0.01	69703	200.00	OK
Naphthalene-d8	4.75	+0.01	69158	200.00	OK
Perylene-d12	13.07	-0.01	79474	200.00	OK
Phenanthrene-d10	7.53		65456	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.51		190197	495.88	99	42 - 133	Y
Fluorene-d10	6.73		102800	515.63	103	42 - 131	Y
Terphenyl-d14	8.85	-0.01	73797	228.94	46	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.40		257	1.02	0.0091	J	Y
Acenaphthene	6.32		120	0.56	0.0050	J	Y
Acenaphthylene	6.17		53	0.15	0.0013	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.03		206	0.46	0.0041	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	6.46	-0.01	272	0.81	0.0072	J	Y
Fluoranthene	8.52	-0.01	235	0.51	0.0045	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31
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1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F038.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 02:13:00	**Vial:**	14
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-015	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.75		196	0.74	0.0066	J	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.77	+0.01	300	0.81	0.0072	J	Y
Phenanthrene	7.54	-0.01	859	2.18	0.019	J	Y
Pyrene	8.71	-0.01	144	0.26	0.0023	J	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31

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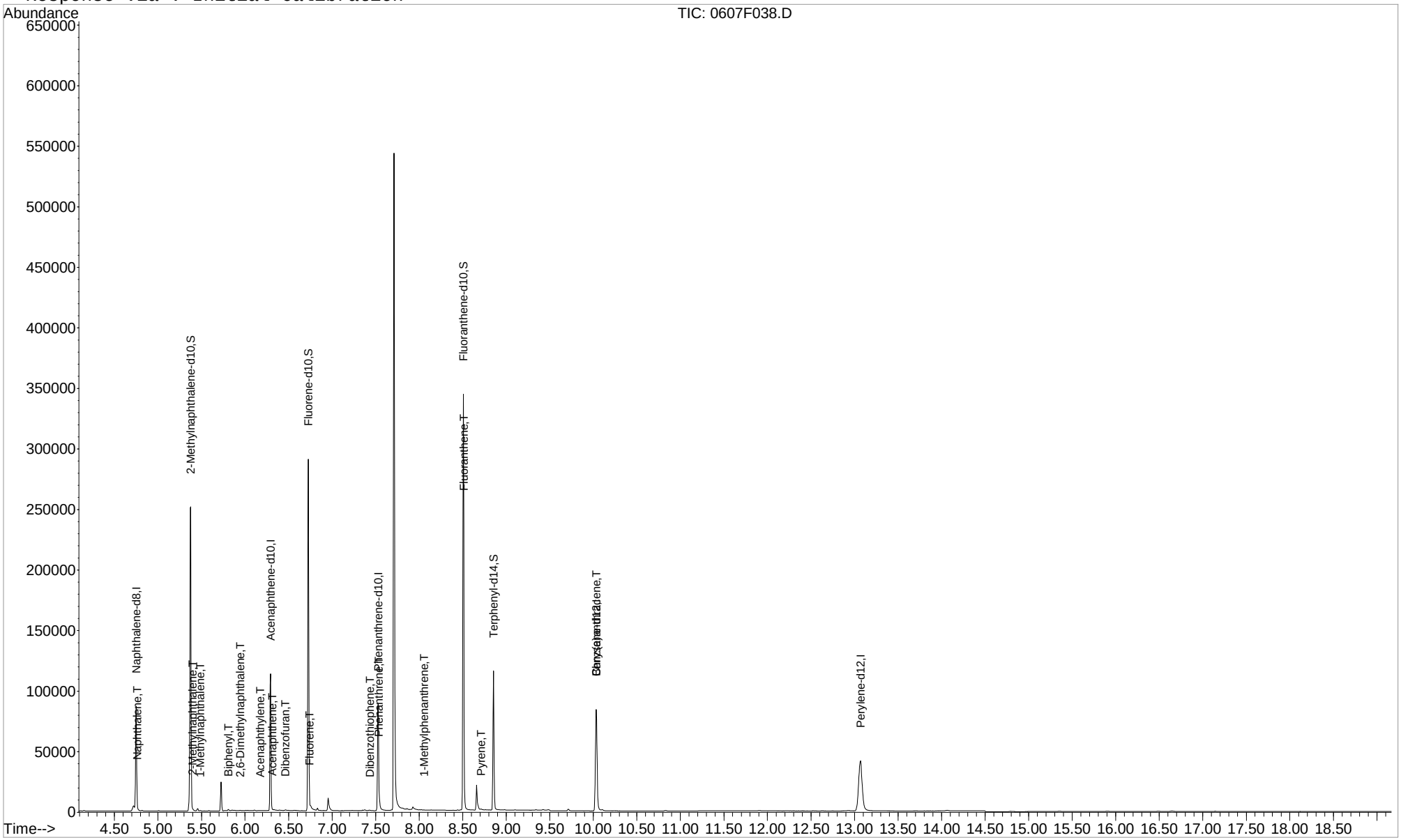
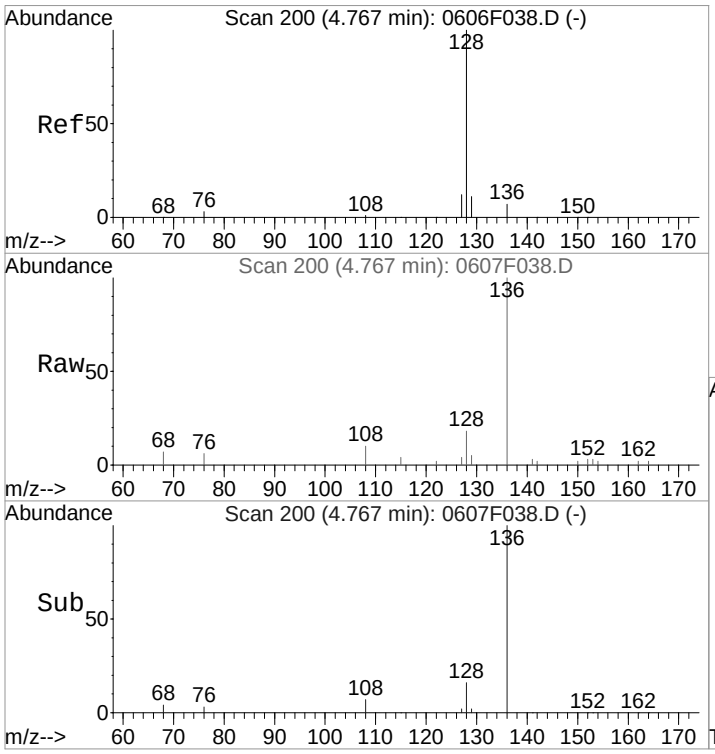
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F038.D Vial: 34
Acq On : 8 Jun 2019 2:13 am Operator: LWeiskopf
Sample : K1905141-015 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:11 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration



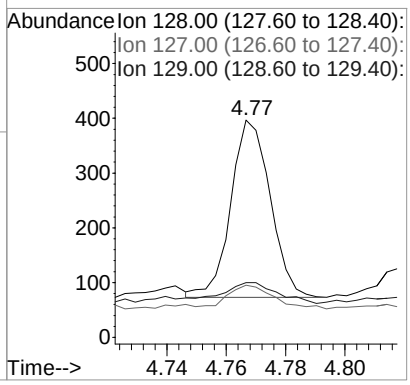
1st 06/17/19
2nd 06/17/19

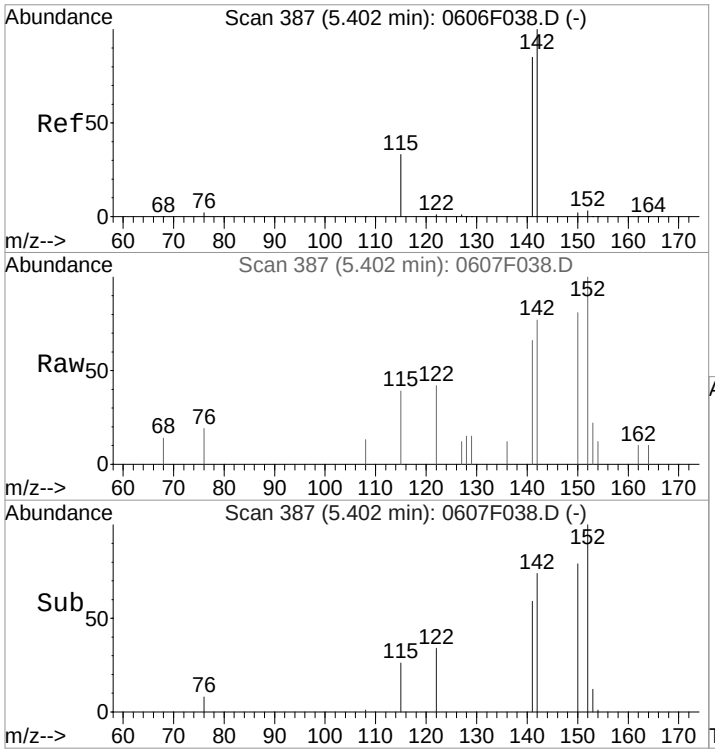


#2
Naphthalene
Concen: 0.81 ng/ml
RT: 4.77 min Scan# 200
Delta R.T. -0.01 min
Lab File: 0607F038.D
Acq: 8 Jun 2019 2:13 am

Tgt Ion:128 Resp: 300

Ion	Ratio	Lower	Upper
128	100		
127	13.3	0.0	42.3
129	11.1	0.0	30.8

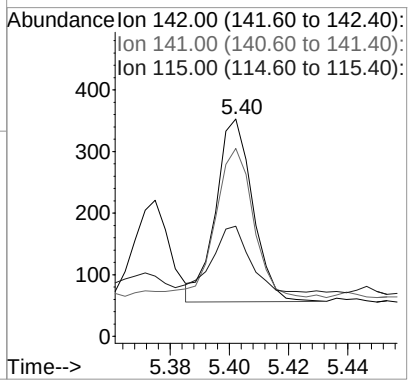


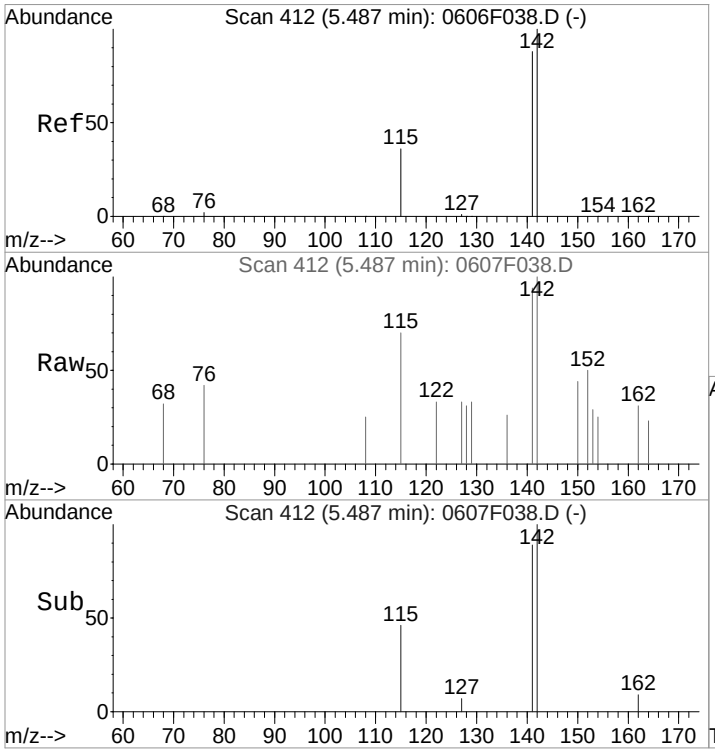


#4
2-Methylnaphthalene
Concen: 1.02 ng/ml
RT: 5.40 min Scan# 387
Delta R.T. -0.01 min
Lab File: 0607F038.D
Acq: 8 Jun 2019 2:13 am

Tgt Ion:142 Resp: 257

Ion	Ratio	Lower	Upper
142	100		
141	81.8	52.7	112.7
115	36.1	8.2	48.2

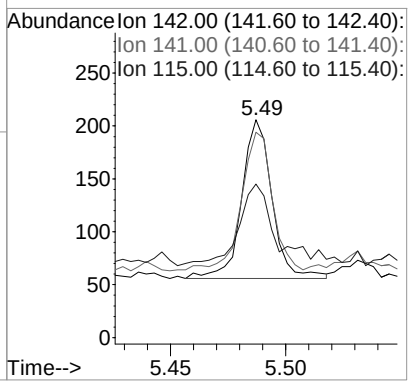


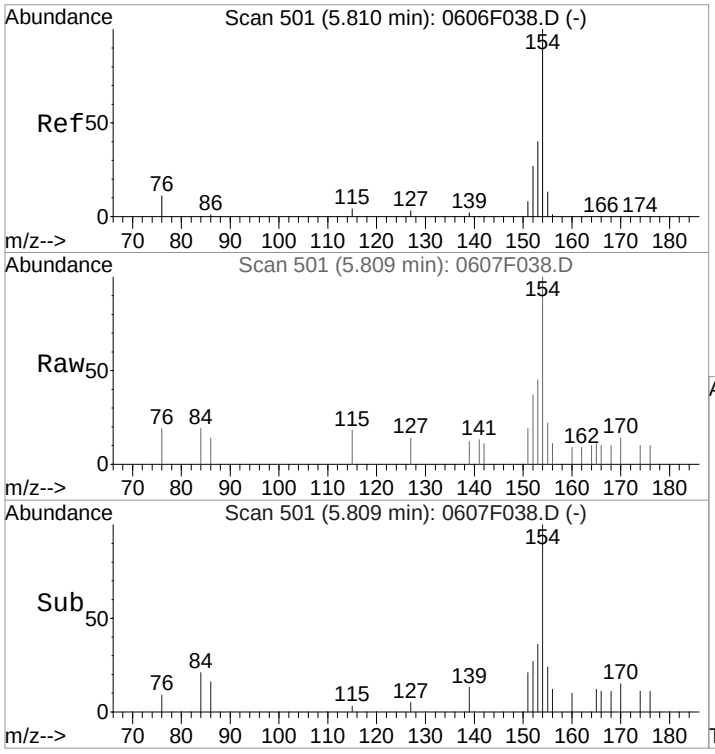


#5
1-Methylnaphthalene
Concen: 0.58 ng/ml
RT: 5.49 min Scan# 412
Delta R.T. -0.01 min
Lab File: 0607F038.D
Acq: 8 Jun 2019 2:13 am

Tgt Ion:142 Resp: 137

Ion	Ratio	Lower	Upper
142	100		
141	86.7	55.8	115.8
115	50.0	10.1	50.1

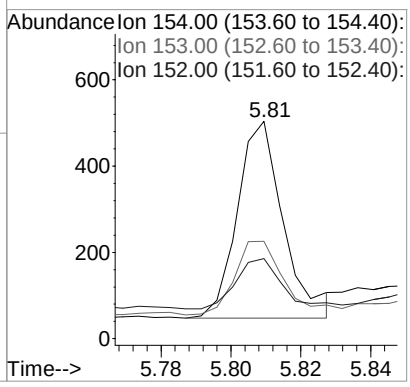




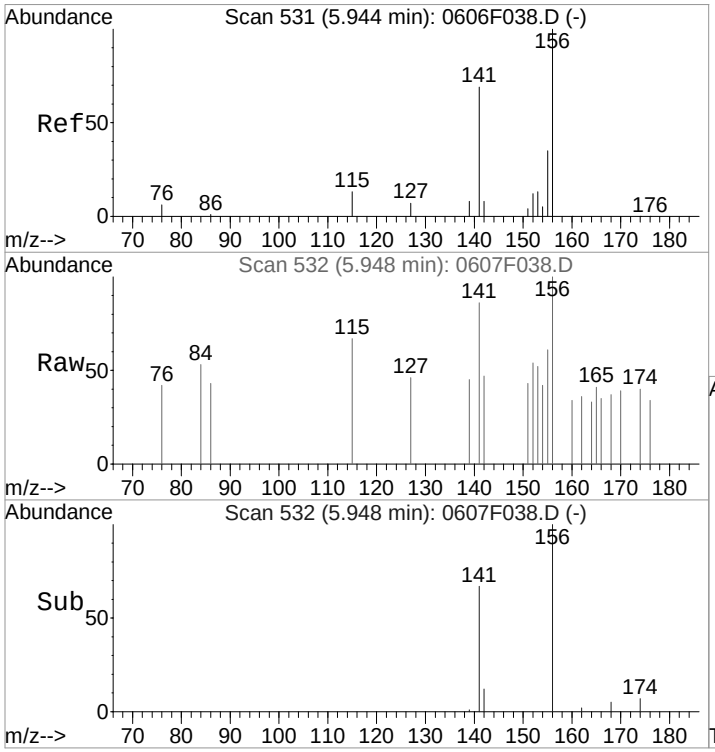
#6
Biphenyl
Concen: 1.32 ng/ml
RT: 5.81 min Scan# 501
Delta R.T. -0.01 min
Lab File: 0607F038.D
Acq: 8 Jun 2019 2:13 am

Tgt Ion:154 Resp: 417

Ion	Ratio	Lower	Upper
154	100		
153	37.5	8.2	68.2
152	25.7	6.1	46.1



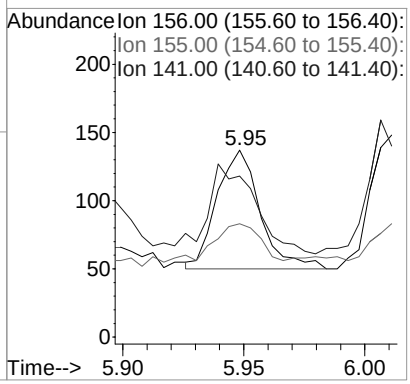
1st 06/17/19
2nd 06/17/19

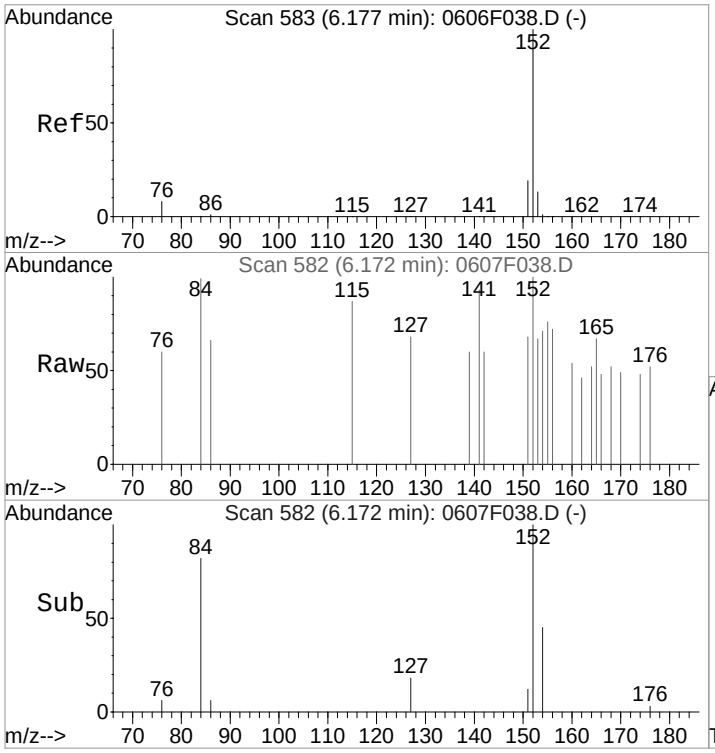


#7
2,6-Dimethylnaphthalene
Concen: 0.48 ng/ml
RT: 5.95 min Scan# 532
Delta R.T. -0.00 min
Lab File: 0607F038.D
Acq: 8 Jun 2019 2:13 am

Tgt Ion:156 Resp: 109

Ion	Ratio	Lower	Upper
156	100		
155	28.7	3.3	63.3
141	60.9	40.6	80.6

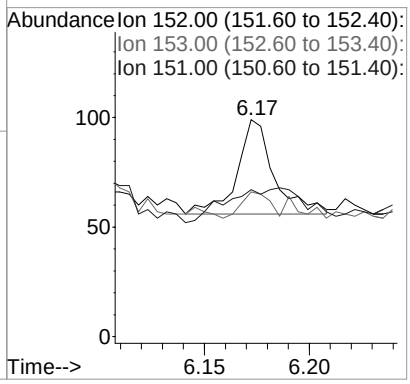


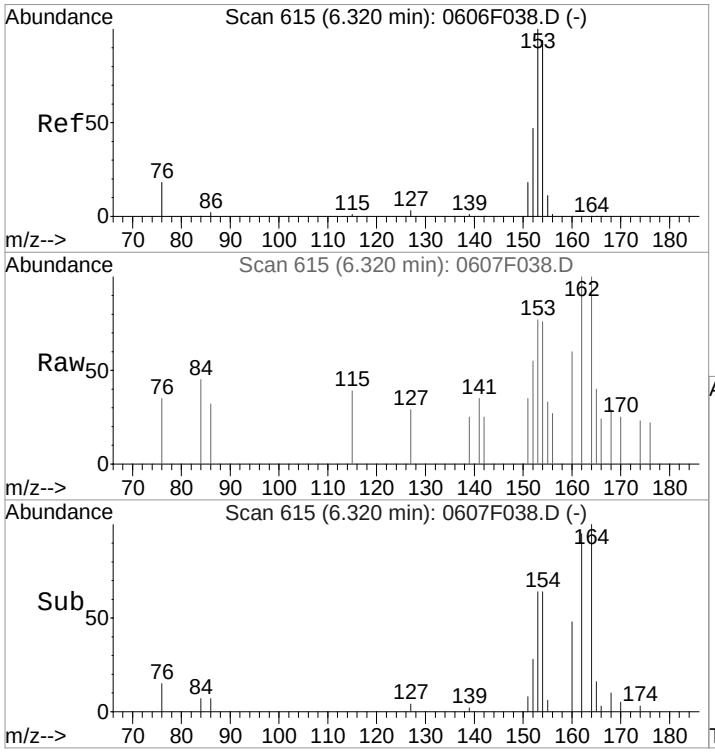


#9
Acenaphthylene
Concen: 0.15 ng/ml
RT: 6.17 min Scan# 582
Delta R.T. -0.01 min
Lab File: 0607F038.D
Acq: 8 Jun 2019 2:13 am

Tgt Ion:152 Resp: 53

Ion	Ratio	Lower	Upper
152	100		
153	27.9	0.0	42.9
151	34.9	0.0	38.8

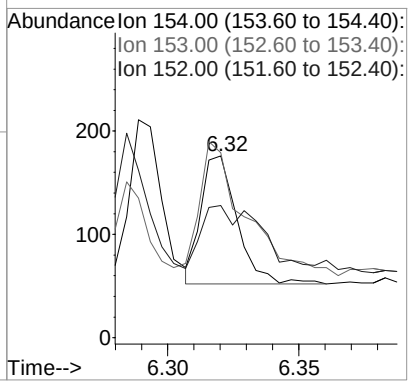


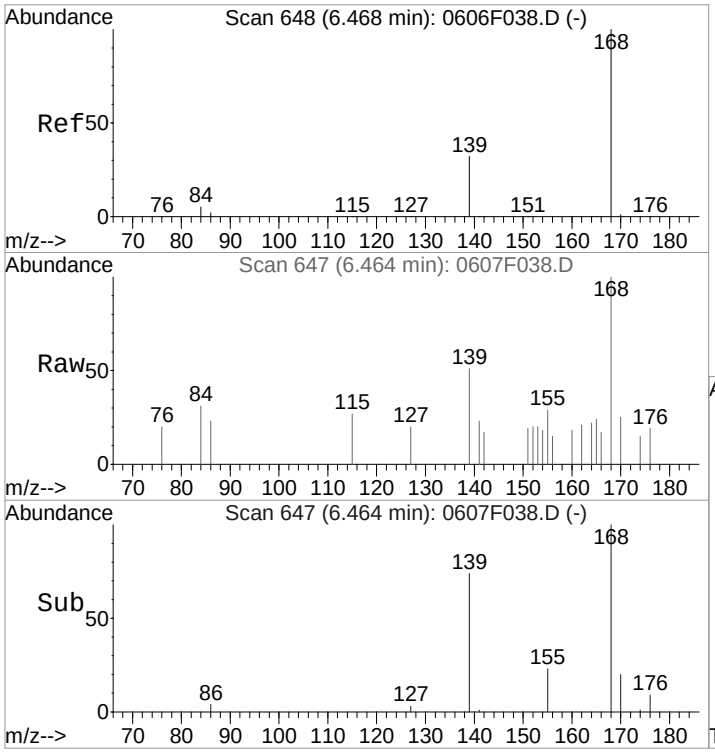


#10
Acenaphthene
Concen: 0.56 ng/ml
RT: 6.32 min Scan# 615
Delta R.T. -0.01 min
Lab File: 0607F038.D
Acq: 8 Jun 2019 2:13 am

Tgt Ion:154 Resp: 120

Ion	Ratio	Lower	Upper
154	100		
153	89.5	72.8	132.8
152	49.2	17.7	77.7

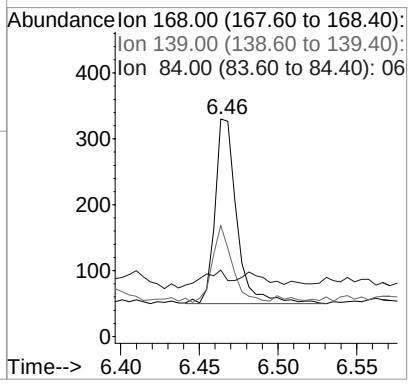


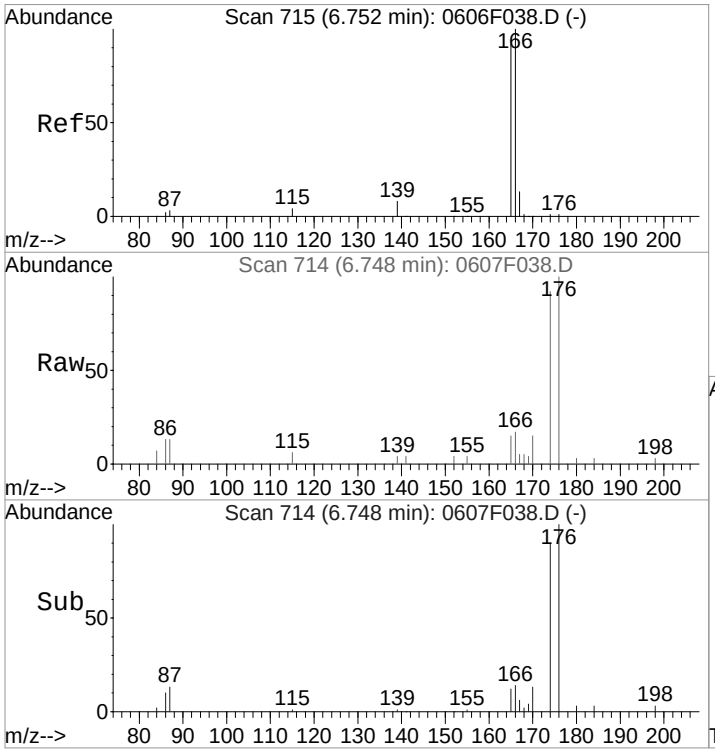


#11
Dibenzofuran
Concen: 0.81 ng/ml
RT: 6.46 min Scan# 647
Delta R.T. -0.01 min
Lab File: 0607F038.D
Acq: 8 Jun 2019 2:13 am

Tgt Ion:168 Resp: 272

Ion	Ratio	Lower	Upper
168	100		
139	39.6	0.0	54.7
84	8.2	0.0	22.9

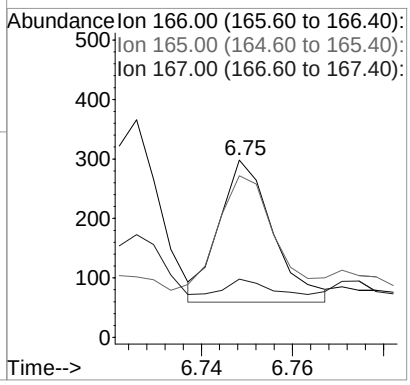


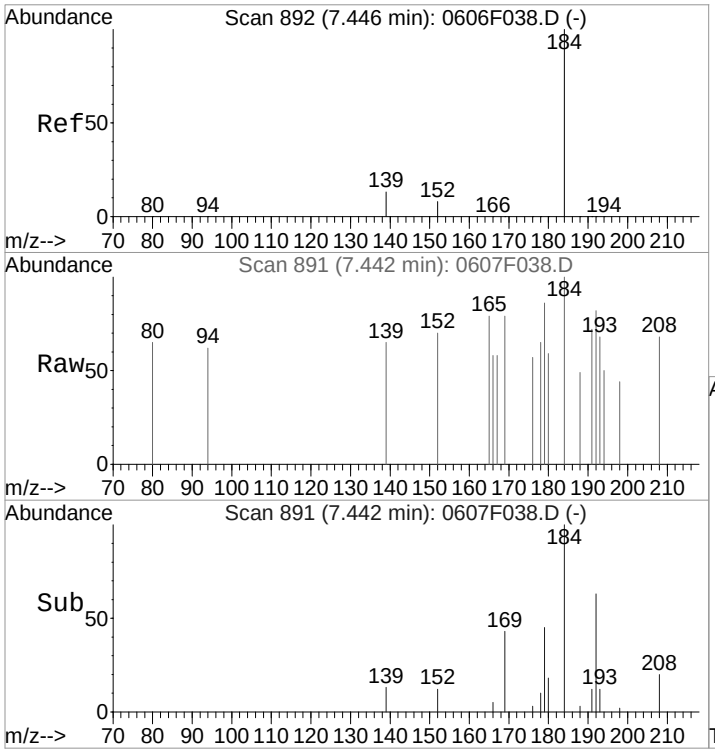


#14
Fluorene
Concen: 0.74 ng/ml m
RT: 6.75 min Scan# 714
Delta R.T. -0.01 min
Lab File: 0607F038.D
Acq: 8 Jun 2019 2:13 am

Tgt Ion:166 Resp: 196

Ion	Ratio	Lower	Upper
166	100		
165	91.3	59.0	119.0
167	32.9	0.0	33.1

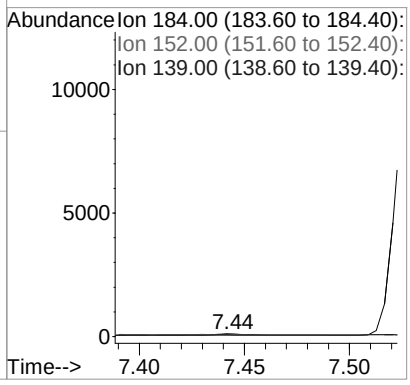




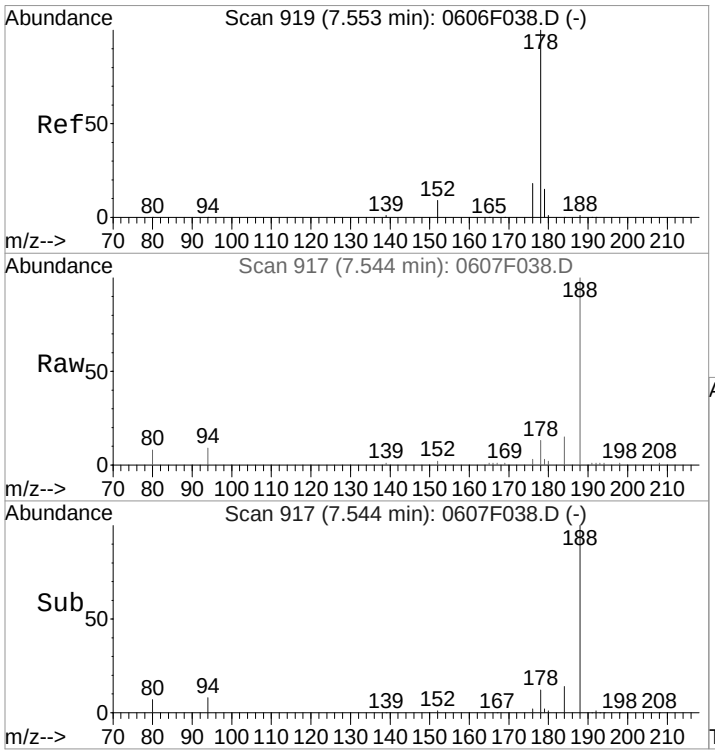
#16
Dibenzothiophene
Concen: 0.18 ng/ml
RT: 7.44 min Scan# 891
Delta R.T. -0.01 min
Lab File: 0607F038.D
Acq: 8 Jun 2019 2:13 am

Tgt Ion:184 Resp: 67

Ion	Ratio	Lower	Upper
184	100		
152	14.5	0.0	37.7
139	21.0	0.0	32.3



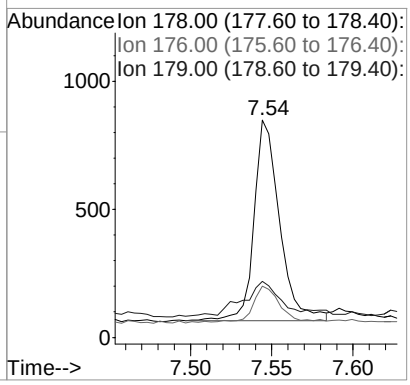
1st 06/17/19
2nd 06/17/19

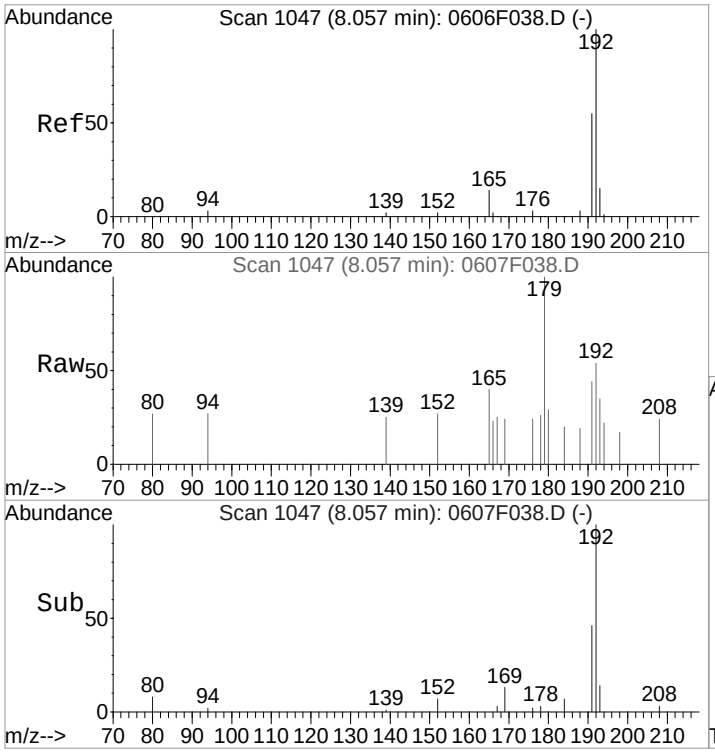


#17
Phenanthrene
Concen: 2.18 ng/ml
RT: 7.54 min Scan# 917
Delta R.T. -0.01 min
Lab File: 0607F038.D
Acq: 8 Jun 2019 2:13 am

Tgt Ion:178 Resp: 859

Ion	Ratio	Lower	Upper
178	100		
176	18.4	0.0	48.4
179	17.4	0.0	35.2

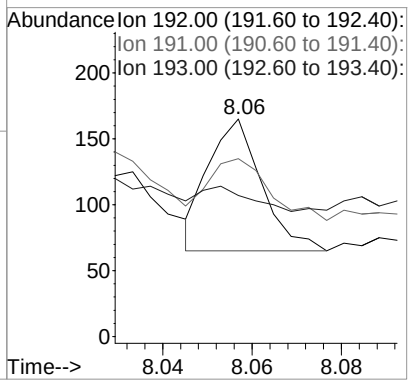


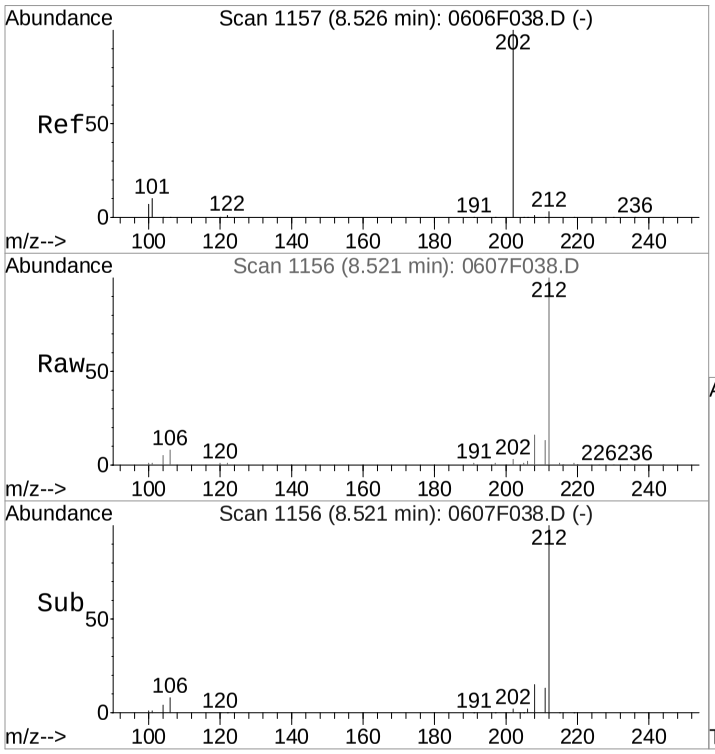


#20
1-Methylphenanthrene
Concen: 0.28 ng/ml
RT: 8.06 min Scan# 1047
Delta R.T. -0.00 min
Lab File: 0607F038.D
Acq: 8 Jun 2019 2:13 am

Tgt Ion:192 Resp: 83

Ion	Ratio	Lower	Upper
192	100		
191	47.0	23.2	83.2
193	11.0	0.0	45.5

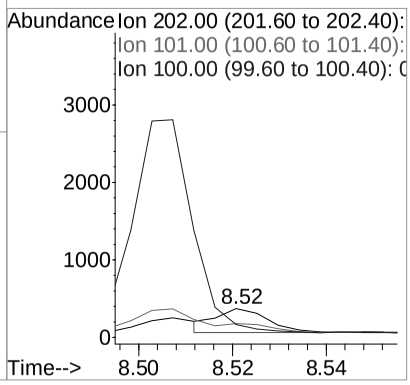


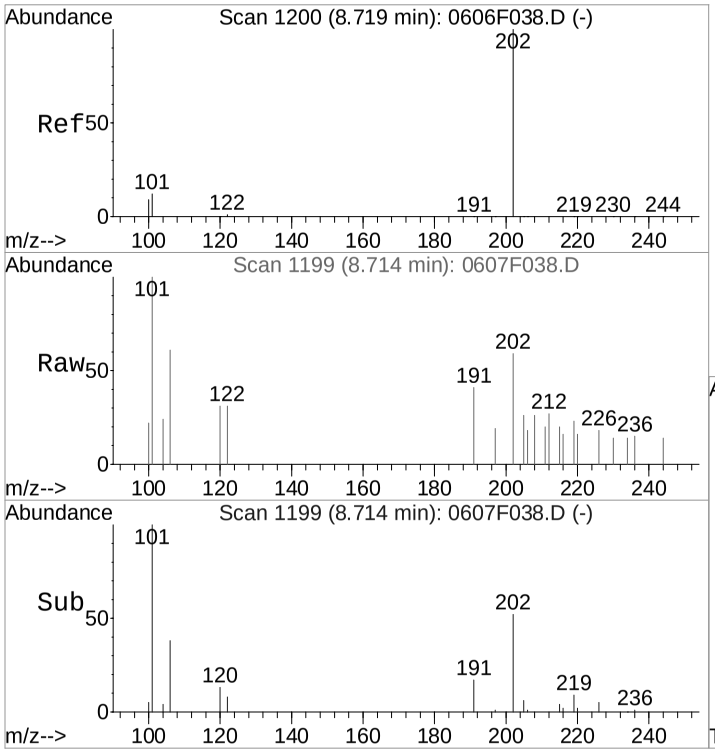


#21
Fluoranthene
Concen: 0.51 ng/ml m
RT: 8.52 min Scan# 1156
Delta R.T. -0.01 min
Lab File: 0607F038.D
Acq: 8 Jun 2019 2:13 am

Tgt Ion:202 Resp: 235

Ion	Ratio	Lower	Upper
202	100		
101	48.5	0.0	37.0#
100	44.7	0.0	24.7#

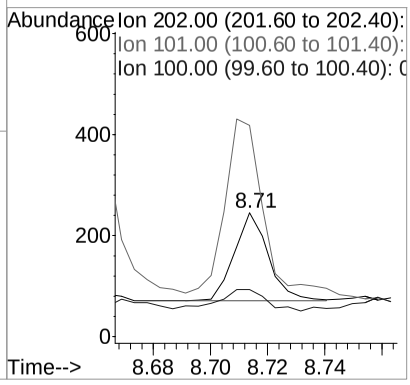




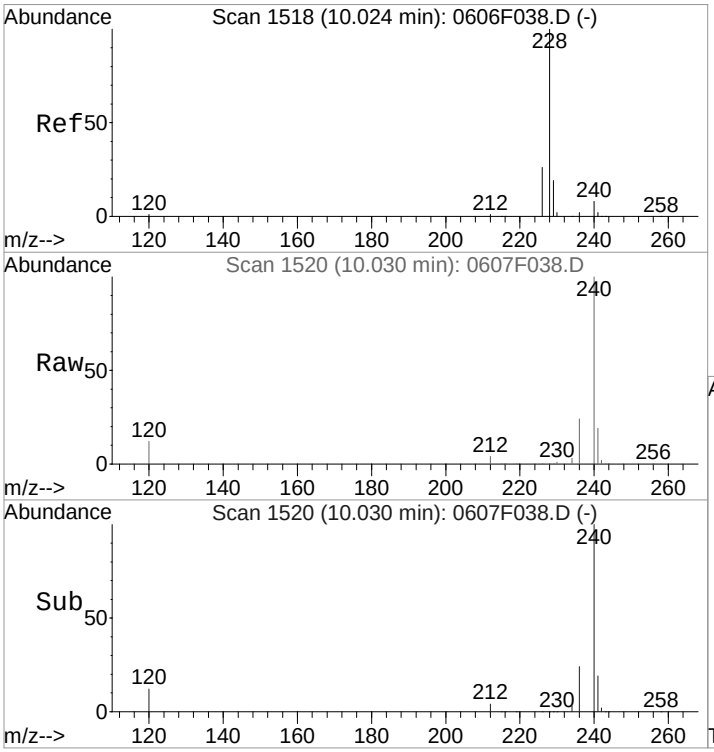
#24
Pyrene
Concen: 0.26 ng/ml
RT: 8.71 min Scan# 1199
Delta R.T. -0.01 min
Lab File: 0607F038.D
Acq: 8 Jun 2019 2:13 am

Tgt Ion:202 Resp: 144

Ion	Ratio	Lower	Upper
202	100		
101	190.8	0.0	38.8#
100	21.3	0.0	26.4



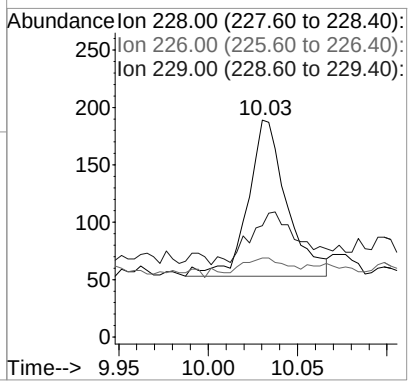
1st 06/17/19
2nd 06/17/19



#26
Benz(a)anthracene
Concen: 0.46 ng/ml
RT: 10.03 min Scan# 1520
Delta R.T. 0.01 min
Lab File: 0607F038.D
Acq: 8 Jun 2019 2:13 am

Tgt Ion:228 Resp: 206

Ion	Ratio	Lower	Upper
228	100		
226	9.6	0.0	55.6
229	22.8	0.0	39.5



Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F038.D Vial: 34
Acq On : 8 Jun 2019 2:13 am Operator: LWeiskopf
Sample : K1905141-015 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:13:52 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	69158m	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.29	164	35073	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.53	188	65456	200.00	ng/ml	0.00
23) Chrysene-d12	10.03	240	69703	200.00	ng/ml	0.00
28) Perylene-d12	13.07	264	79474	200.00	ng/ml	0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.37	152	93132	534.02	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	53.40%		
13) Fluorene-d10	6.73	176	102800	515.63	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	51.56%		
22) Fluoranthene-d10	8.51	212	190197	495.88	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	49.59%		
25) Terphenyl-d14	8.85	244	73797	228.94	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	22.89%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	300	0.81	ng/ml	98
4) 2-Methylnaphthalene	5.40	142	257	1.02	ng/ml	95
5) 1-Methylnaphthalene	5.49	142	137	0.58	ng/ml	90
6) Biphenyl	5.81	154	417	1.32	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.95	156	109	0.48	ng/ml	97
9) Acenaphthylene	6.17	152	53	0.15	ng/ml	63
10) Acenaphthene	6.32	154	120	0.56	ng/ml	90
11) Dibenzofuran	6.46	168	272	0.81	ng/ml	72
14) Fluorene	6.75	166	196m	0.74	ng/ml	
16) Dibenzothiophene	7.44	184	67	0.18	ng/ml	79
17) Phenanthrene	7.54	178	859	2.18	ng/ml	98
20) 1-Methylphenanthrene	8.06	192	83	0.28	ng/ml	91
21) Fluoranthene	8.52	202	235m	0.51	ng/ml	
24) Pyrene	8.71	202	144	0.26	ng/ml#	1
26) Benz(a)anthracene	10.03	228	206	0.46	ng/ml	79

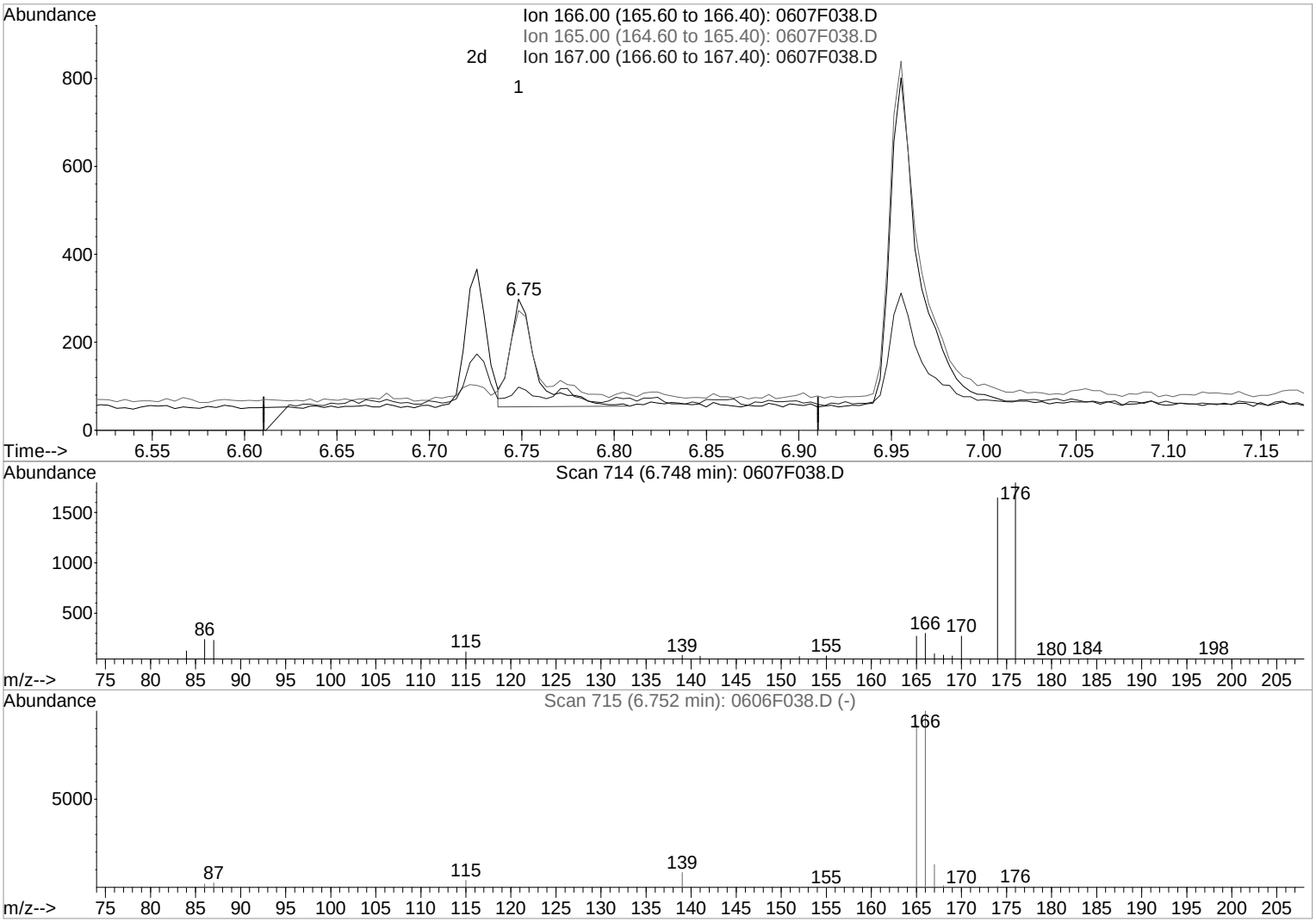
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F038.D Vial: 34
Acq On : 8 Jun 2019 2:13 am Operator: LWeiskopf
Sample : K1905141-015 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:10 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F038.D

(14) Fluorene (T)

6.75min 0.90ng/ml

response 238

Ion	Exp%	Act%
166.00	100	100
165.00	89.00	78.60
167.00	13.10	10.70
0.00	0.00	0.00

Manual Integration:

Before

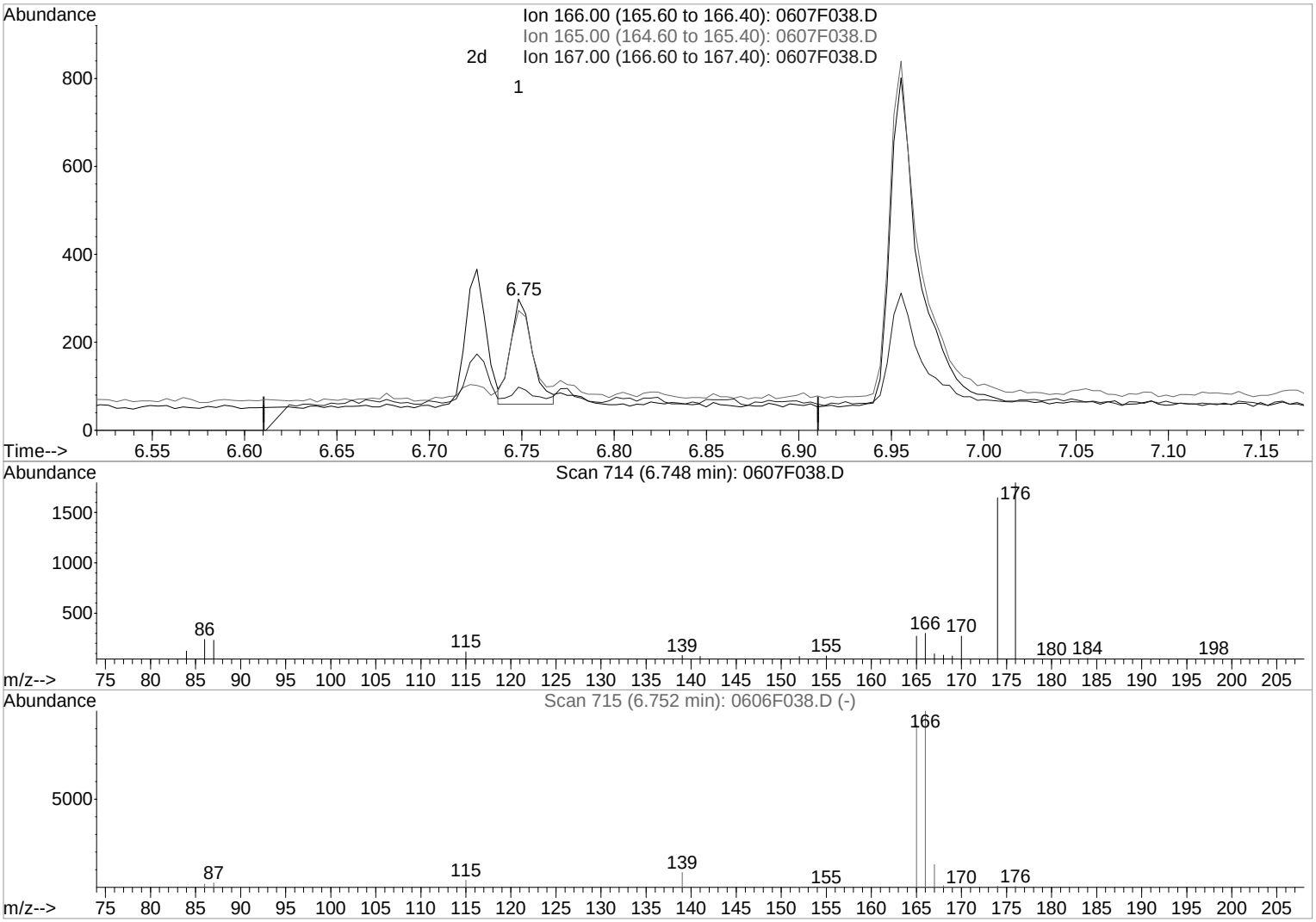
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F038.D Vial: 34
Acq On : 8 Jun 2019 2:13 am Operator: LWeiskopf
Sample : K1905141-015 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:10 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F038.D

(14) Fluorene (T)

6.75min 0.74ng/ml m

response 196

Ion	Exp%	Act%
166.00	100	100
165.00	89.00	91.28
167.00	13.10	32.89
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

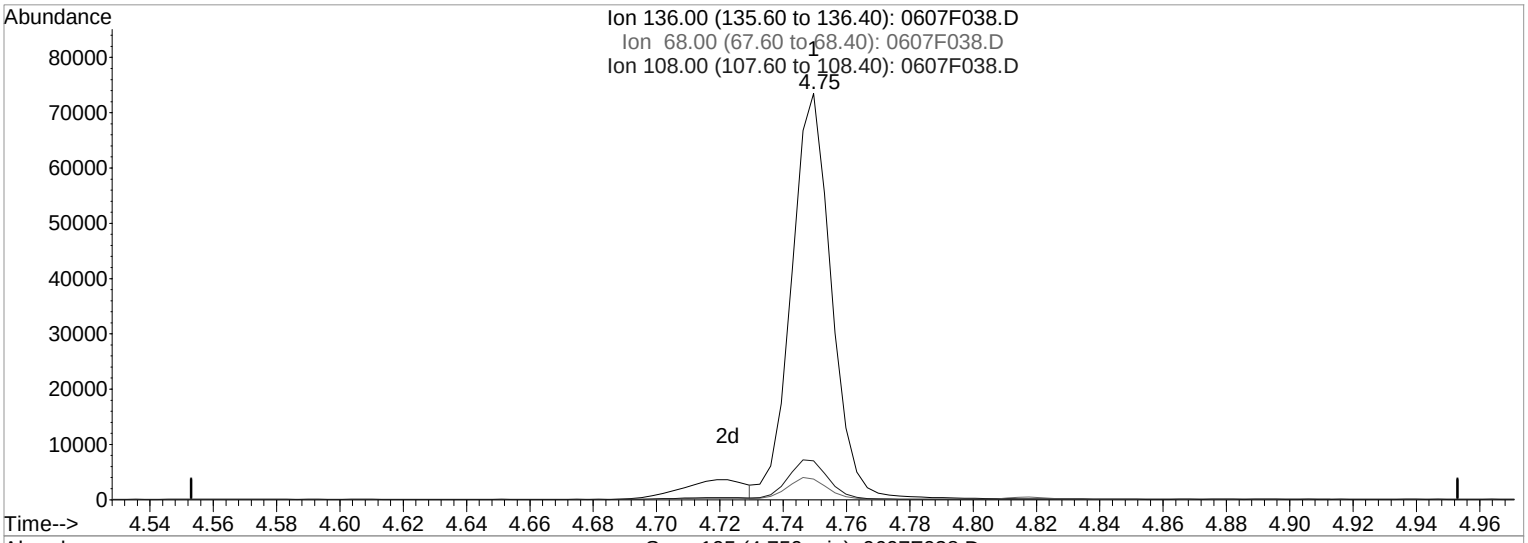
06/17/19

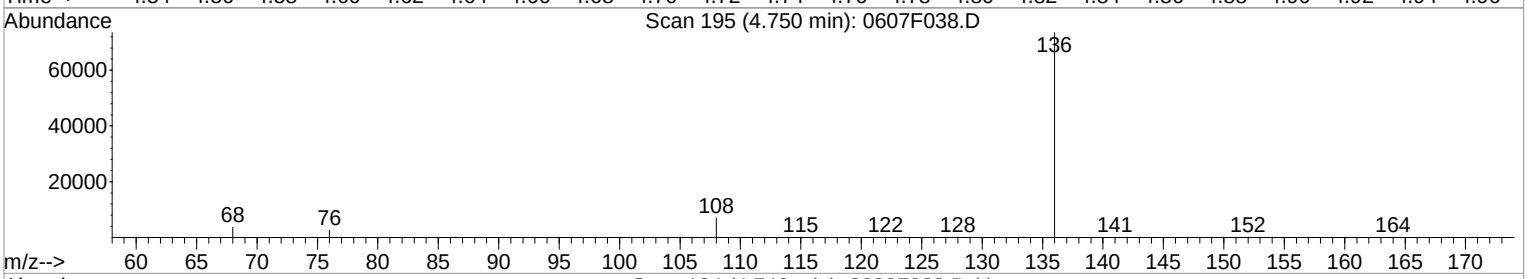
Quantitation Report (Qedit)

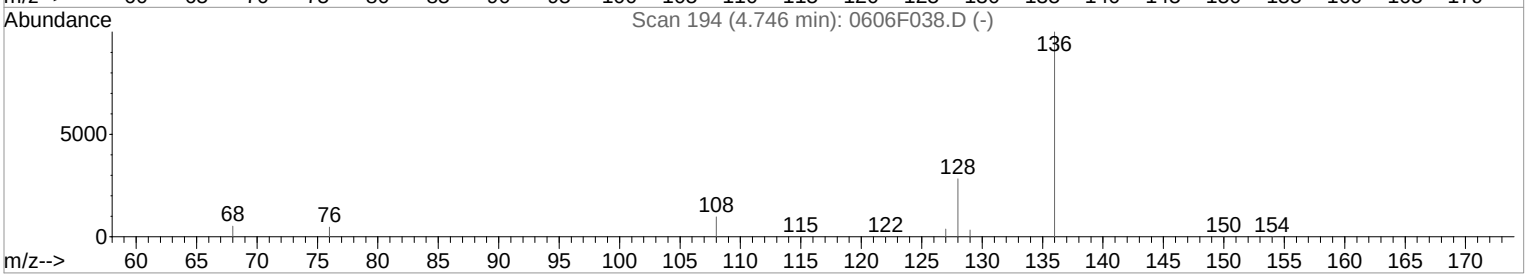
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F038.D Vial: 34
Acq On : 8 Jun 2019 2:13 am Operator: LWeiskopf
Sample : K1905141-015 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:13 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration







TIC: 0607F038.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml

response 65093

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	4.95
108.00	8.80	9.48
0.00	0.00	0.00

Manual Integration:

Before

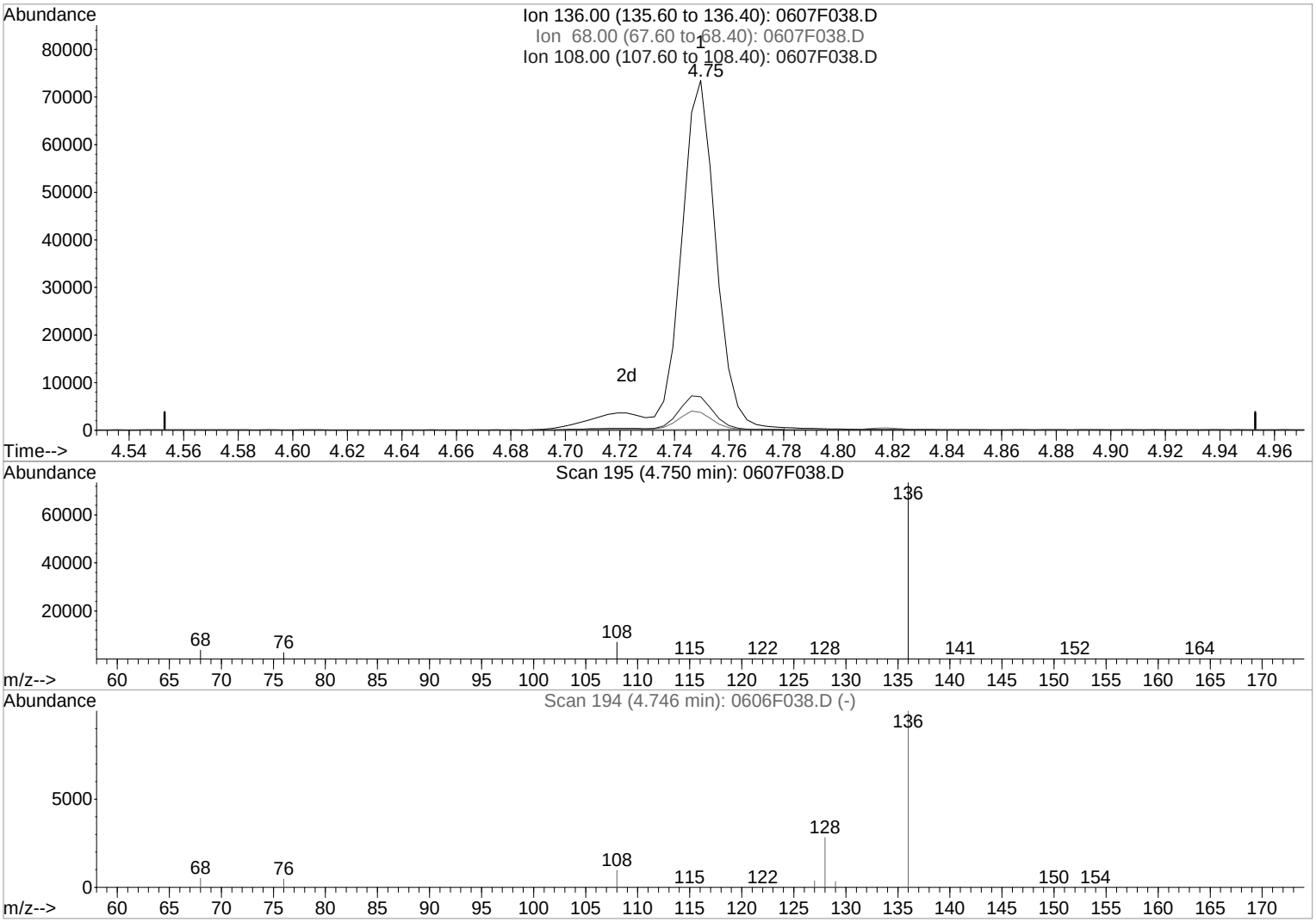
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F038.D Vial: 34
Acq On : 8 Jun 2019 2:13 am Operator: LWeiskopf
Sample : K1905141-015 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:09 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F038.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml m

response 69158

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.05
108.00	8.80	9.55
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

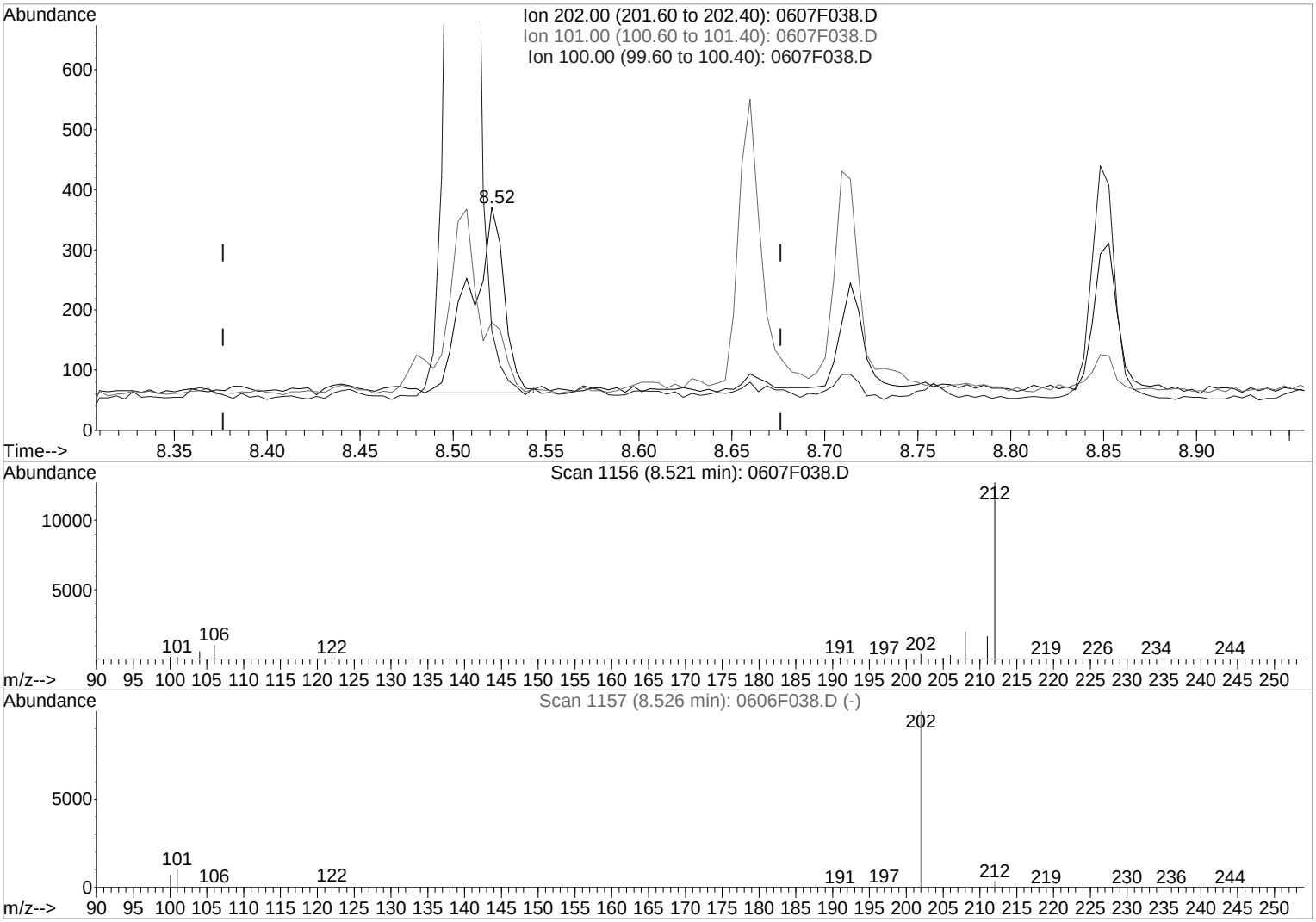
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F038.D Vial: 34
Acq On : 8 Jun 2019 2:13 am Operator: LWeiskopf
Sample : K1905141-015 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:10 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F038.D

(21) Fluoranthene (T)

8.52min 0.86ng/ml

response 397

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	36.25
100.00	4.70	31.07#
0.00	0.00	0.00

Manual Integration:

Before

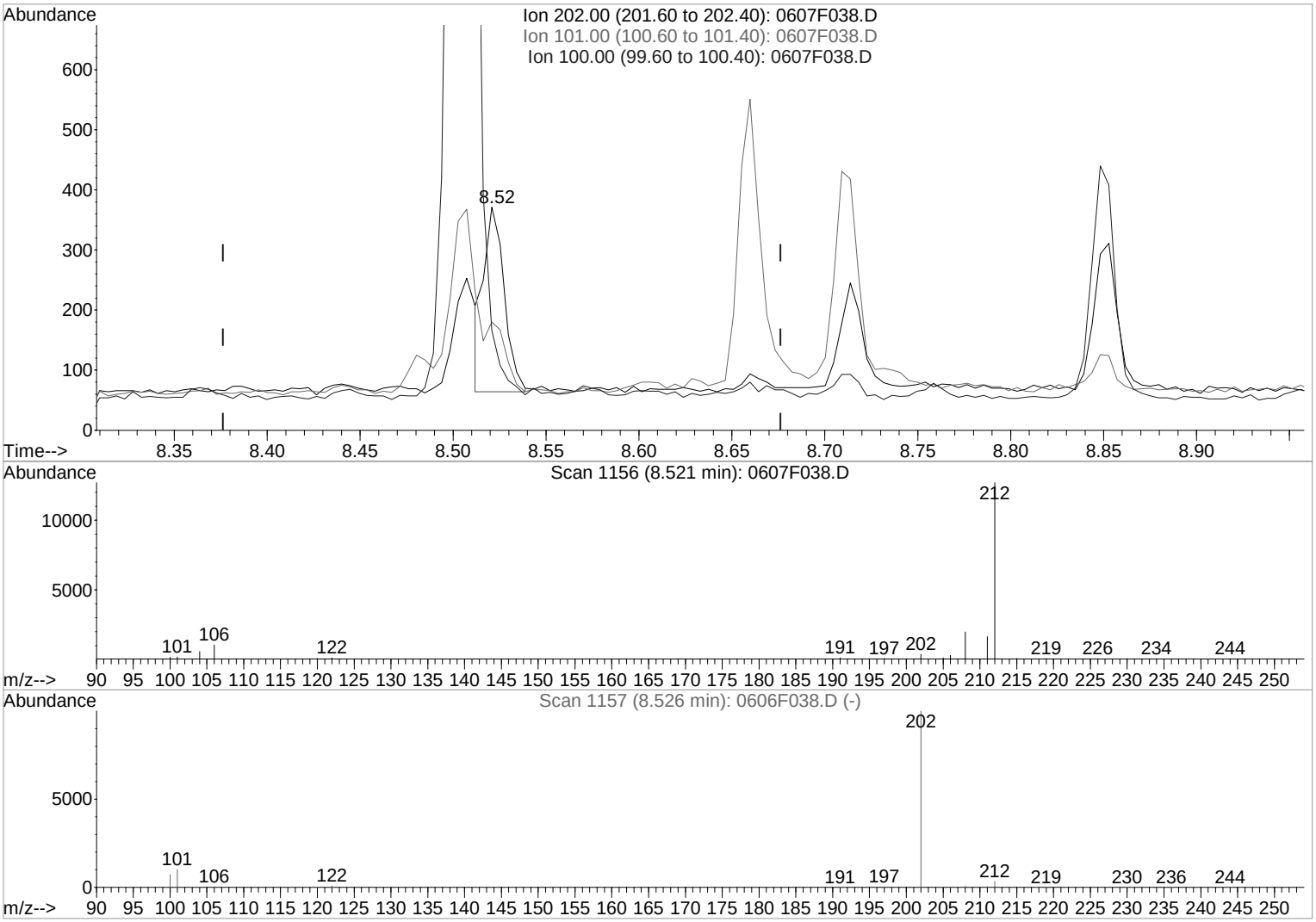
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F038.D Vial: 34
Acq On : 8 Jun 2019 2:13 am Operator: LWeiskopf
Sample : K1905141-015 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:10 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F038.D

(21) Fluoranthene (T)

8.52min 0.51ng/ml m

response 235

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	48.52#
100.00	4.70	44.74#
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

06/17/19

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F039.D\
Lab ID: K1905141-020
RunType: N/A
Matrix: Water

Date Acquired: 6/8/19 02:40:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F039.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 02:40:00	**Vial:**	15
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-020	**Raw Units:**	ng/mL

Bottle ID:	K1905141-020.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	638644	**Prep Lot:**	338019	**Report Group:**	K1905141
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/5/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		36215	200.00	OK
Chrysene-d12	10.03	-0.01	74451	200.00	OK
Naphthalene-d8	4.75	+0.01	73394	200.00	OK
Perylene-d12	13.07	-0.01	85653	200.00	OK
Phenanthrene-d10	7.52	-0.01	68644	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.51		366512	911.18	91	42 - 133	Y
Fluorene-d10	6.73		193586	940.39	94	42 - 131	Y
Terphenyl-d14	8.85	-0.01	274758	798.03	80	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.40		243	0.91	0.0040	J	Y
Acenaphthene	6.32		131	0.59	0.0026	J	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.03		213	0.44	0.0020	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	6.46	-0.01	299	0.86	0.0038	J	Y
Fluoranthene	8.52	-0.01	209	0.43	0.0019	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F039.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 02:40:00	**Vial:**	15
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-020	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.75		182	0.67	0.0030	J	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.77	+0.01	372	0.95	0.0042	J	Y
Phenanthrene	7.54	-0.01	813	1.97	0.0088	J	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31

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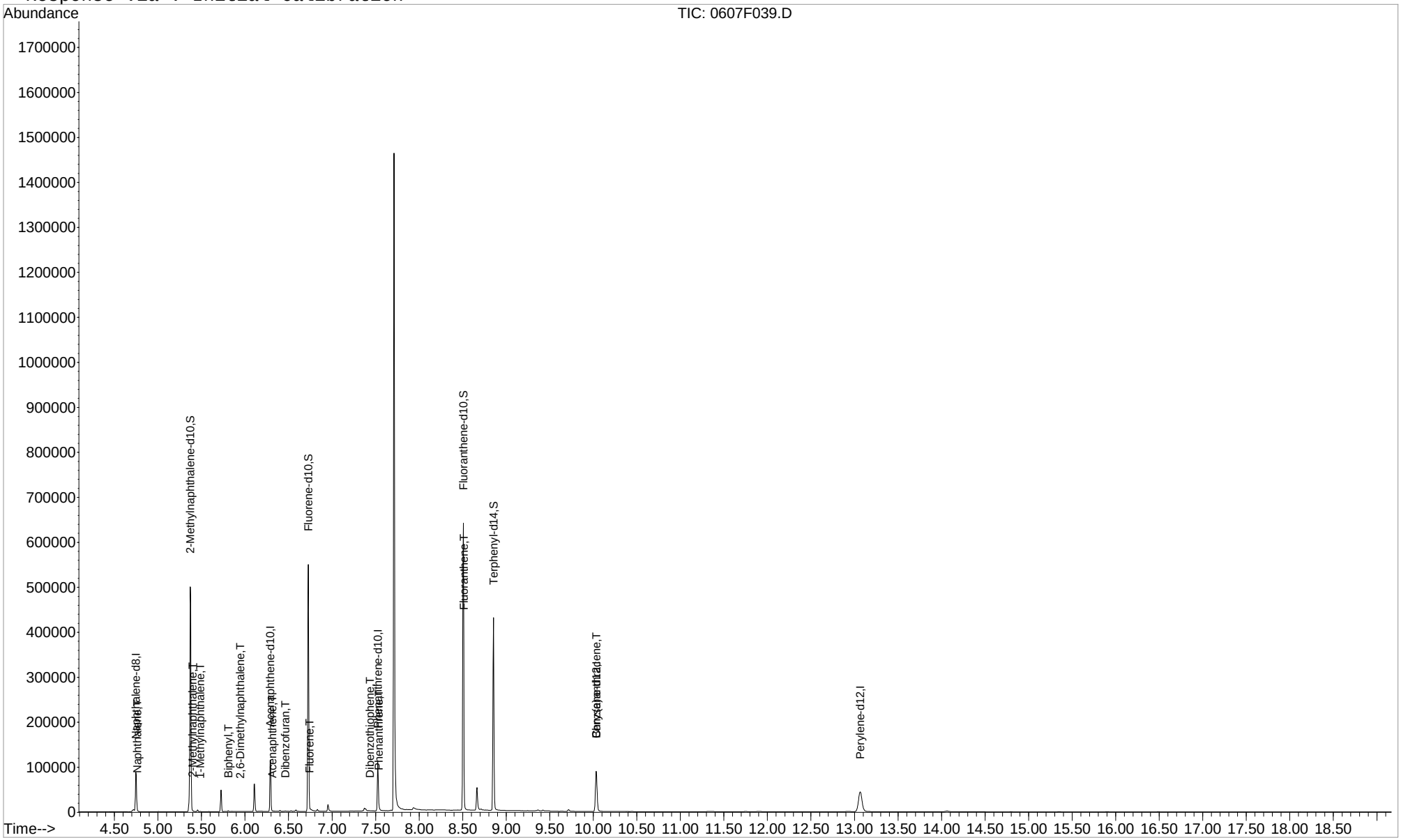
Quantitation Report (QT Reviewed)

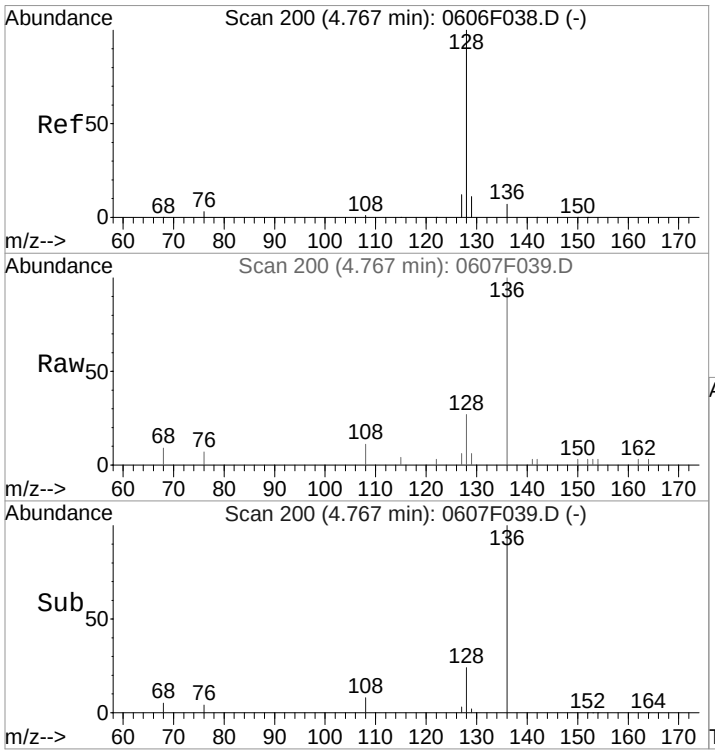
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F039.D Vial: 35
Acq On : 8 Jun 2019 2:40 am Operator: LWeiskopf
Sample : K1905141-020 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:13 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration



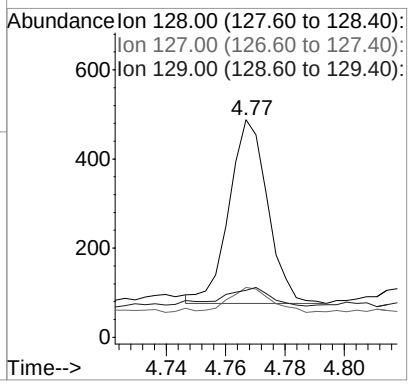
1st 06/17/19
2nd 06/17/19

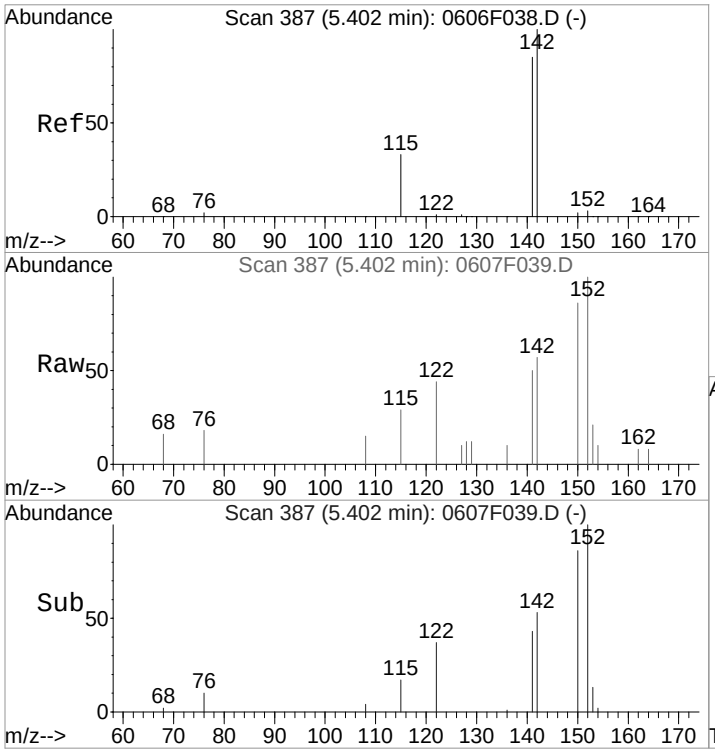


#2
Naphthalene
Concen: 0.95 ng/ml
RT: 4.77 min Scan# 200
Delta R.T. -0.01 min
Lab File: 0607F039.D
Acq: 8 Jun 2019 2:40 am

Tgt Ion:128 Resp: 372

Ion	Ratio	Lower	Upper
128	100		
127	13.3	0.0	42.3
129	7.8	0.0	30.8

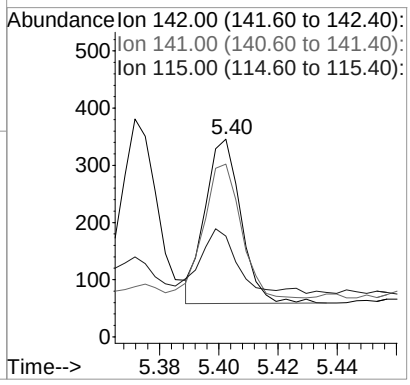


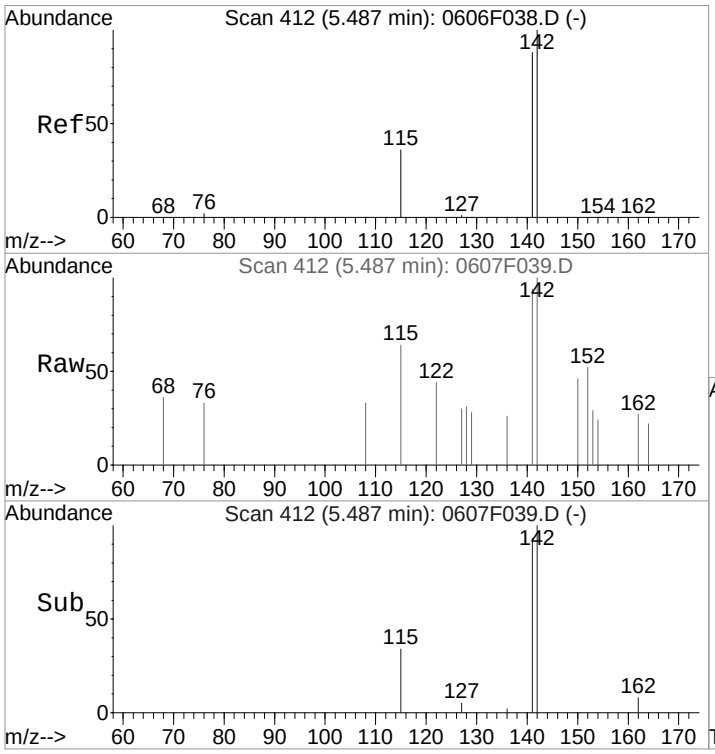


#4
2-Methylnaphthalene
Concen: 0.91 ng/ml
RT: 5.40 min Scan# 387
Delta R.T. -0.01 min
Lab File: 0607F039.D
Acq: 8 Jun 2019 2:40 am

Tgt Ion:142 Resp: 243

Ion	Ratio	Lower	Upper
142	100		
141	79.1	52.7	112.7
115	34.1	8.2	48.2

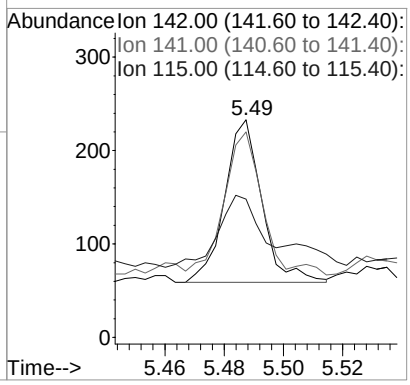


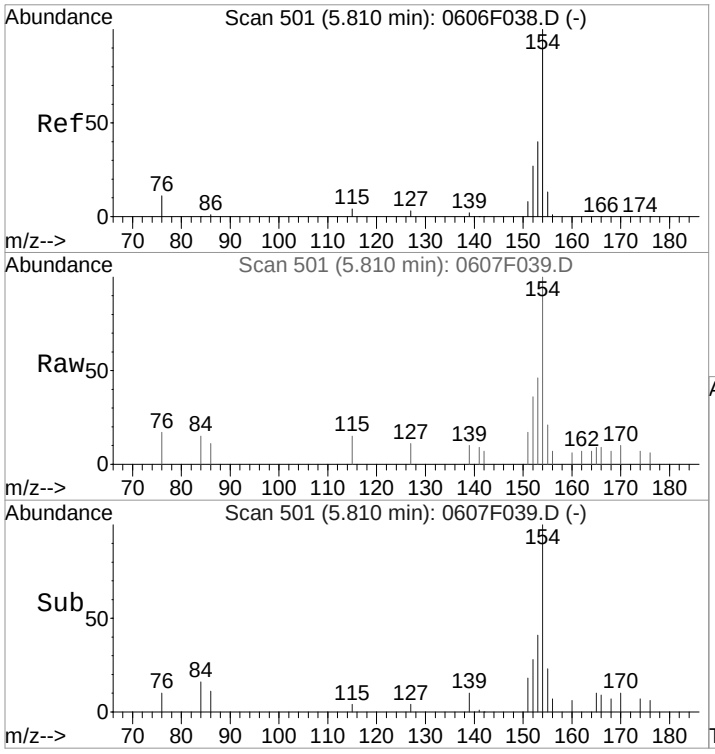


#5
1-Methylnaphthalene
Concen: 0.61 ng/ml
RT: 5.49 min Scan# 412
Delta R.T. -0.01 min
Lab File: 0607F039.D
Acq: 8 Jun 2019 2:40 am

Tgt Ion:142 Resp: 152

Ion	Ratio	Lower	Upper
142	100		
141	87.9	55.8	115.8
115	36.8	10.1	50.1

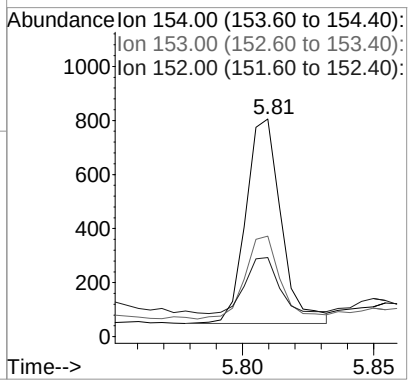




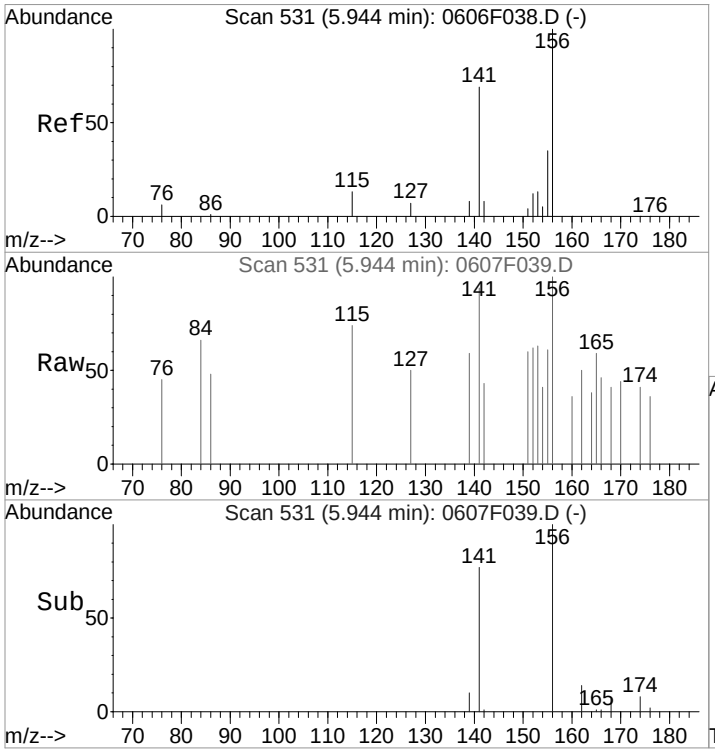
#6
Biphenyl
Concen: 2.11 ng/ml
RT: 5.81 min Scan# 501
Delta R.T. -0.01 min
Lab File: 0607F039.D
Acq: 8 Jun 2019 2:40 am

Tgt Ion:154 Resp: 709

Ion	Ratio	Lower	Upper
154	100		
153	39.8	8.2	68.2
152	26.5	6.1	46.1



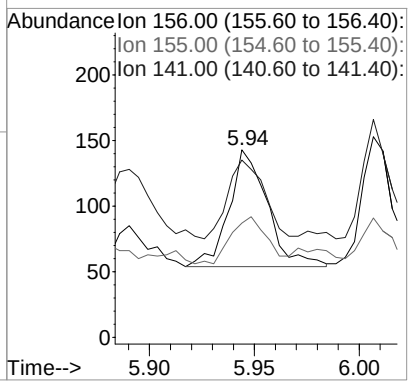
1st 06/17/19
2nd 06/17/19

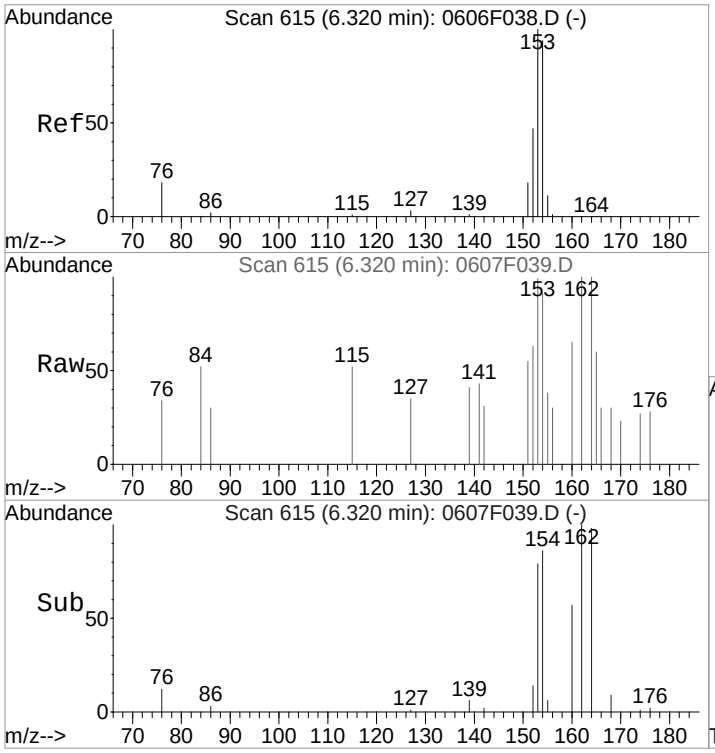


#7
2,6-Dimethylnaphthalene
Concen: 0.48 ng/ml
RT: 5.94 min Scan# 531
Delta R.T. -0.01 min
Lab File: 0607F039.D
Acq: 8 Jun 2019 2:40 am

Tgt Ion:156 Resp: 114

Ion	Ratio	Lower	Upper
156	100		
155	31.5	3.3	63.3
141	61.8	40.6	80.6

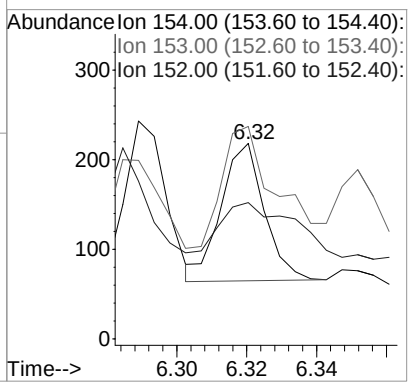




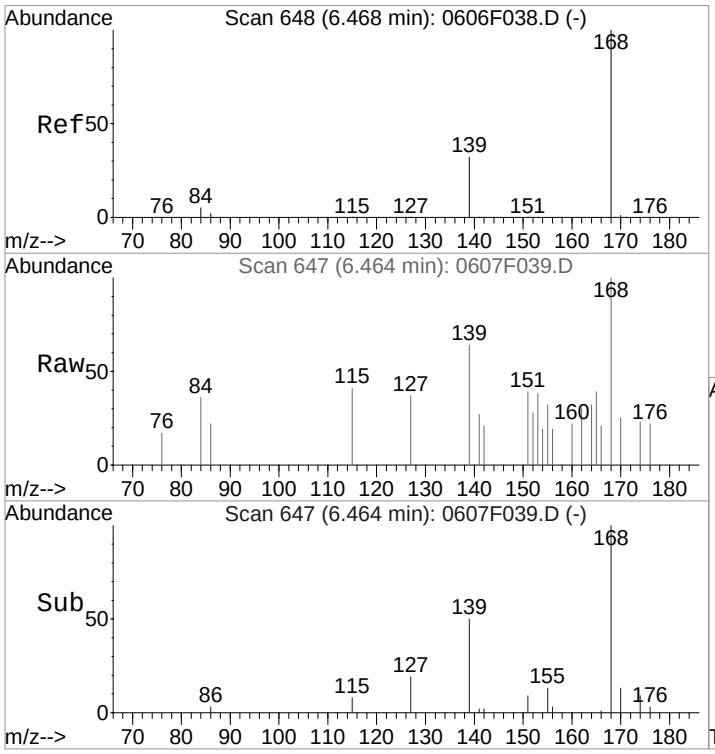
#10
Acenaphthene
Concen: 0.59 ng/ml
RT: 6.32 min Scan# 615
Delta R.T. -0.01 min
Lab File: 0607F039.D
Acq: 8 Jun 2019 2:40 am

Tgt Ion:154 Resp: 131

Ion	Ratio	Lower	Upper
154	100		
153	89.5	72.8	132.8
152	36.8	17.7	77.7



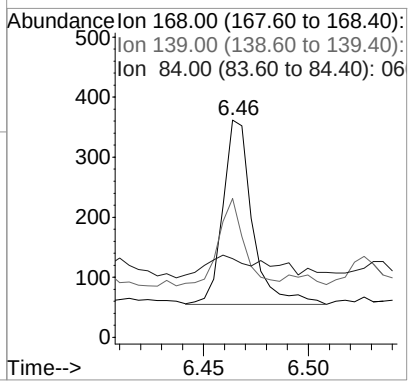
1st 06/17/19
2nd 06/17/19

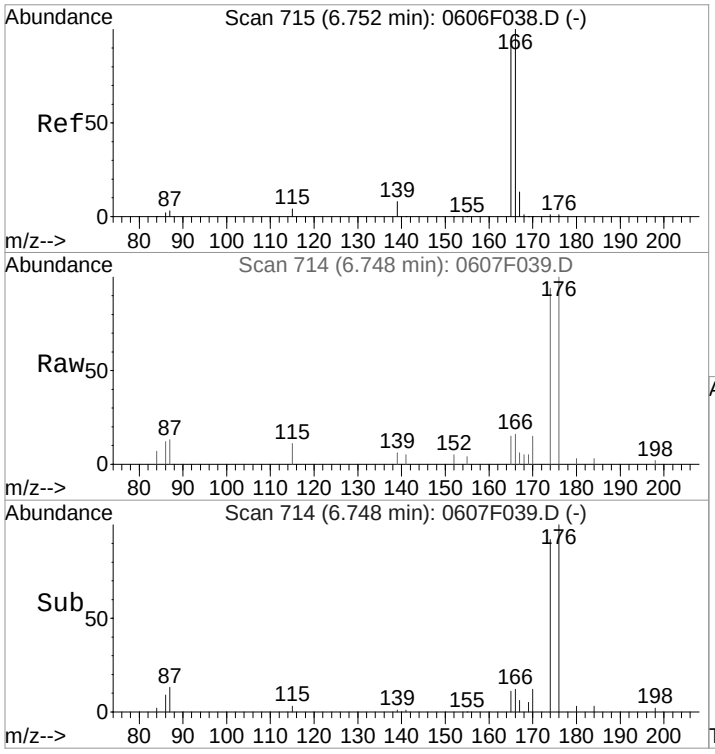


#11
Dibenzofuran
Concen: 0.86 ng/ml
RT: 6.46 min Scan# 647
Delta R.T. -0.01 min
Lab File: 0607F039.D
Acq: 8 Jun 2019 2:40 am

Tgt Ion:168 Resp: 299

Ion	Ratio	Lower	Upper
168	100		
139	46.6	0.0	54.7
84	8.8	0.0	22.9

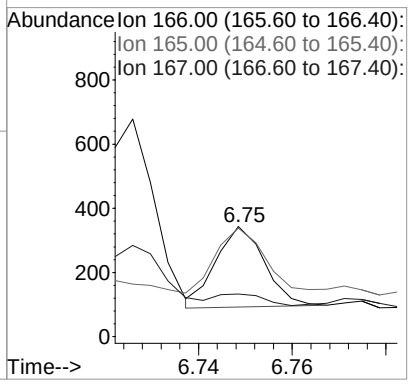


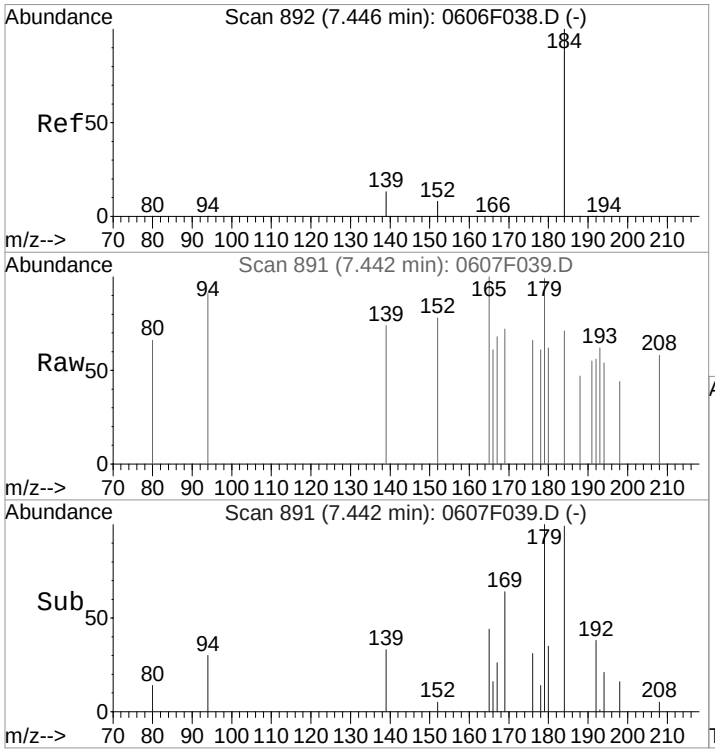


#14
Fluorene
Concen: 0.67 ng/ml
RT: 6.75 min Scan# 714
Delta R.T. -0.01 min
Lab File: 0607F039.D
Acq: 8 Jun 2019 2:40 am

Tgt Ion:166 Resp: 182

Ion	Ratio	Lower	Upper
166	100		
165	82.4	59.0	119.0
167	11.8	0.0	33.1

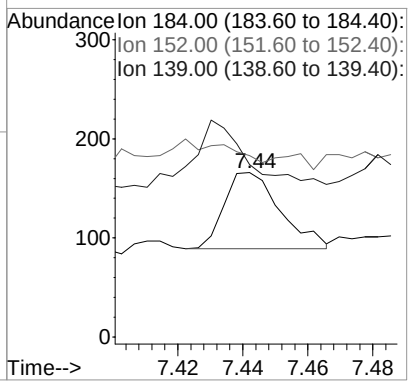


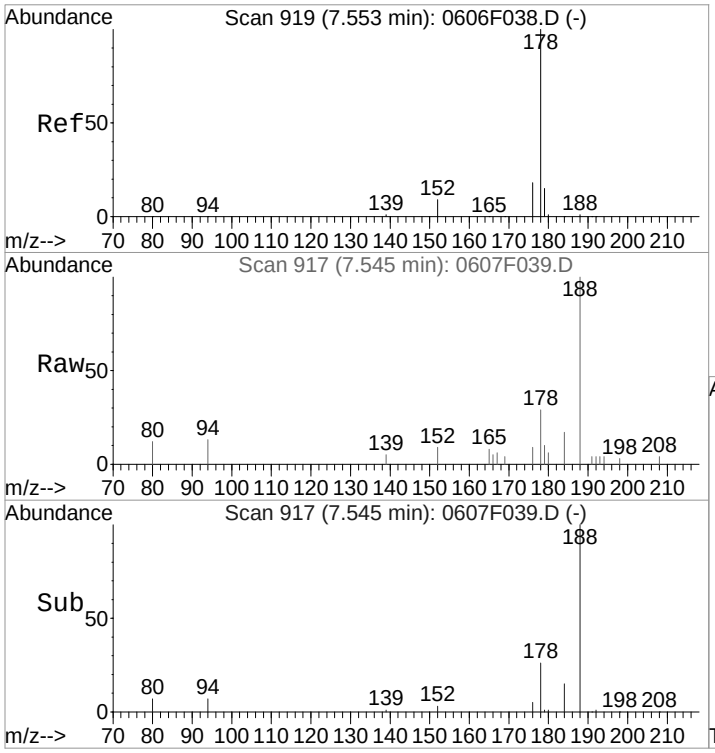


#16
Dibenzothiophene
Concen: 0.24 ng/ml
RT: 7.44 min Scan# 891
Delta R.T. -0.01 min
Lab File: 0607F039.D
Acq: 8 Jun 2019 2:40 am

Tgt Ion:184 Resp: 93

Ion	Ratio	Lower	Upper
184	100		
152	0.0	0.0	37.7
139	26.0	0.0	32.3

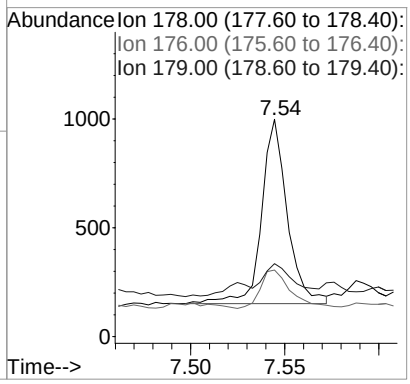


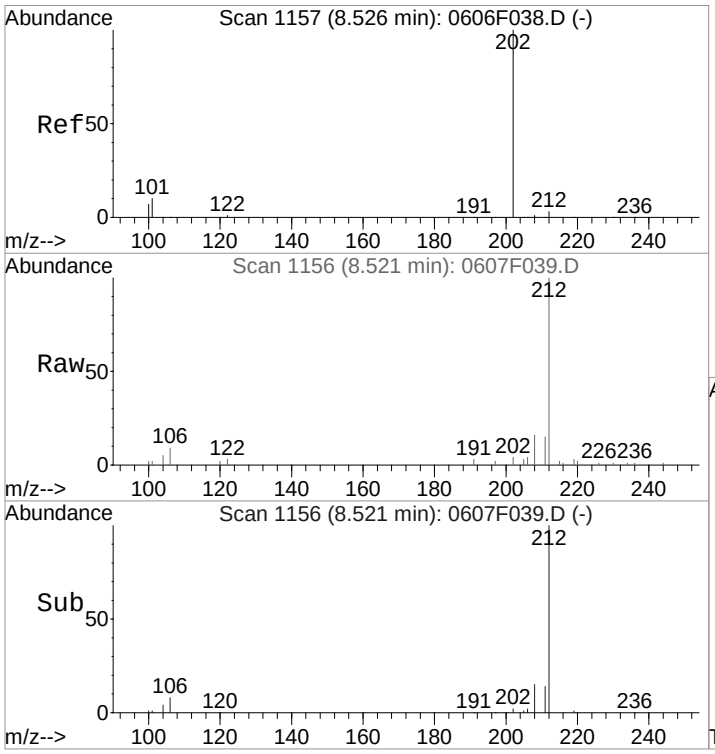


#17
Phenanthrene
Concen: 1.97 ng/ml
RT: 7.54 min Scan# 917
Delta R.T. -0.01 min
Lab File: 0607F039.D
Acq: 8 Jun 2019 2:40 am

Tgt Ion:178 Resp: 813

Ion	Ratio	Lower	Upper
178	100		
176	19.1	0.0	48.4
179	17.8	0.0	35.2

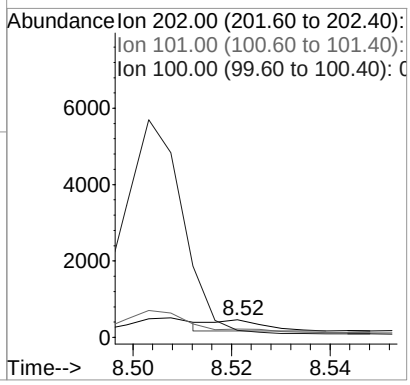


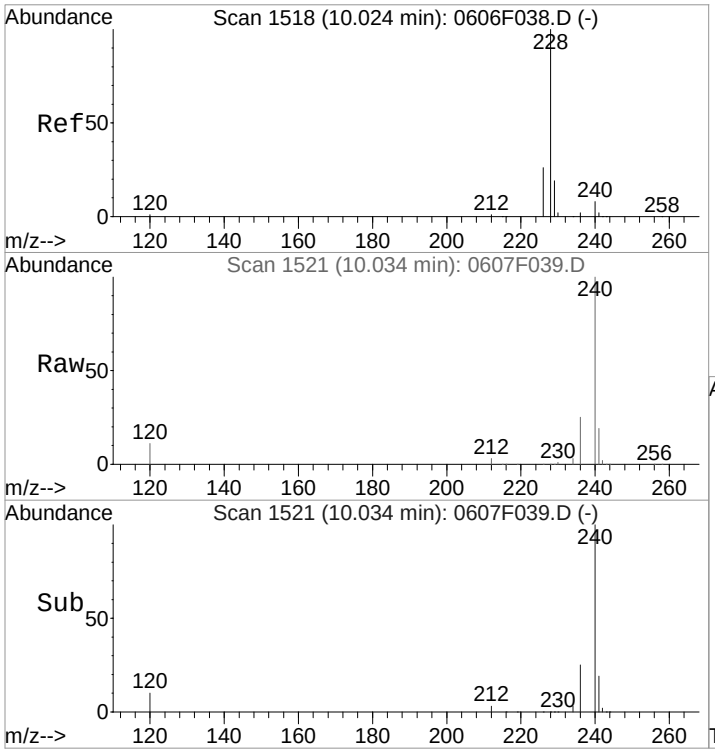


#21
Fluoranthene
Concen: 0.43 ng/ml m
RT: 8.52 min Scan# 1156
Delta R.T. -0.01 min
Lab File: 0607F039.D
Acq: 8 Jun 2019 2:40 am

Tgt Ion:202 Resp: 209

Ion	Ratio	Lower	Upper
202	100		
101	48.2	0.0	37.0#
100	40.1	0.0	24.7#

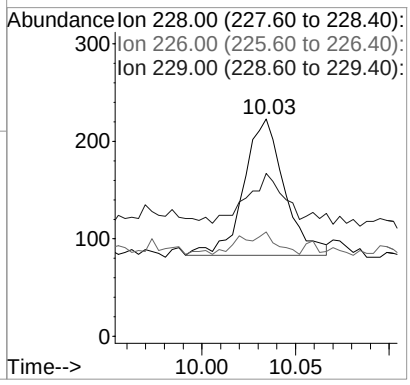




#26
Benz(a)anthracene
Concen: 0.44 ng/ml
RT: 10.03 min Scan# 1521
Delta R.T. 0.01 min
Lab File: 0607F039.D
Acq: 8 Jun 2019 2:40 am

Tgt Ion:228 Resp: 213

Ion	Ratio	Lower	Upper
228	100		
226	16.4	0.0	55.6
229	32.9	0.0	39.5



Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F039.D Vial: 35
Acq On : 8 Jun 2019 2:40 am Operator: LWeiskopf
Sample : K1905141-020 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:13:54 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	73394m	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.29	164	36215	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.52	188	68644	200.00	ng/ml	0.00
23) Chrysene-d12	10.03	240	74451	200.00	ng/ml	0.00
28) Perylene-d12	13.07	264	85653	200.00	ng/ml	0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.37	152	177930	961.36	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	96.14%		
13) Fluorene-d10	6.73	176	193586	940.39	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	94.04%		
22) Fluoranthene-d10	8.51	212	366512	911.18	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	91.12%		
25) Terphenyl-d14	8.85	244	274758	798.03	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	79.80%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	372	0.95	ng/ml	95
4) 2-Methylnaphthalene	5.40	142	243	0.91	ng/ml	94
5) 1-Methylnaphthalene	5.49	142	152	0.61	ng/ml	95
6) Biphenyl	5.81	154	709	2.11	ng/ml	98
7) 2,6-Dimethylnaphthalene	5.94	156	114	0.48	ng/ml	98
10) Acenaphthene	6.32	154	131	0.59	ng/ml	86
11) Dibenzofuran	6.46	168	299	0.86	ng/ml	59
14) Fluorene	6.75	166	182	0.67	ng/ml	93
16) Dibenzothiophene	7.44	184	93	0.24	ng/ml	70
17) Phenanthrene	7.54	178	813	1.97	ng/ml	96
21) Fluoranthene	8.52	202	209m	0.43	ng/ml	
26) Benz(a)anthracene	10.03	228	213	0.44	ng/ml	77

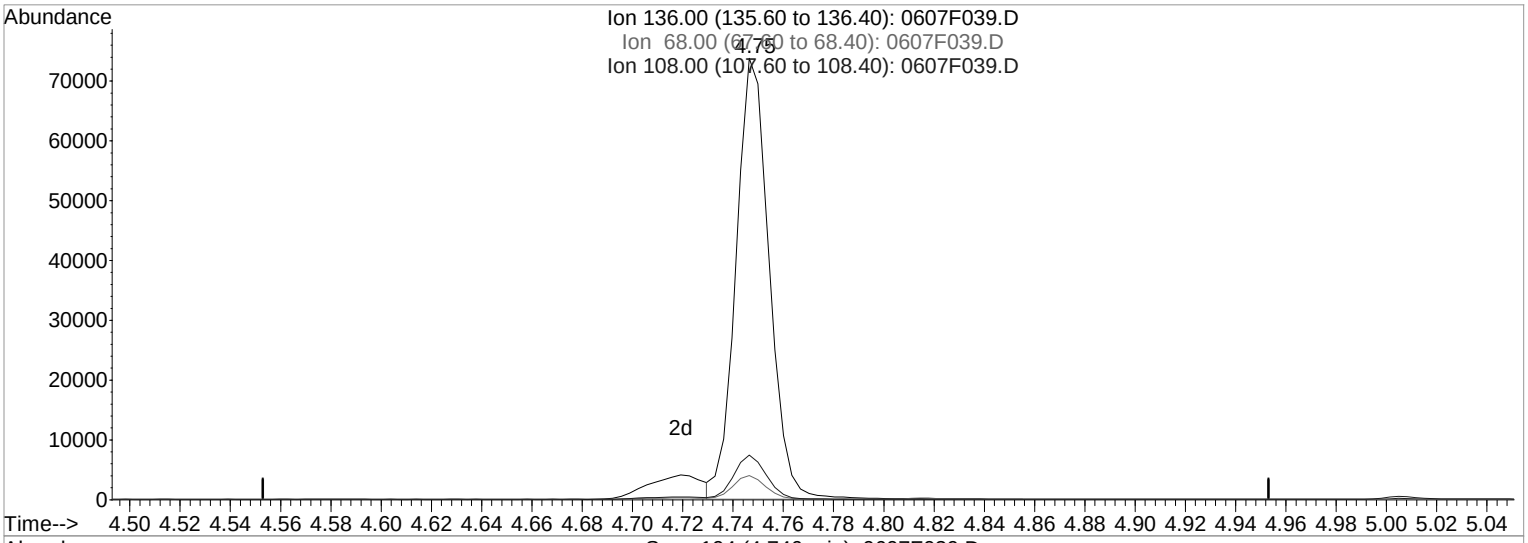
(#) = qualifier out of range (m) = manual integration

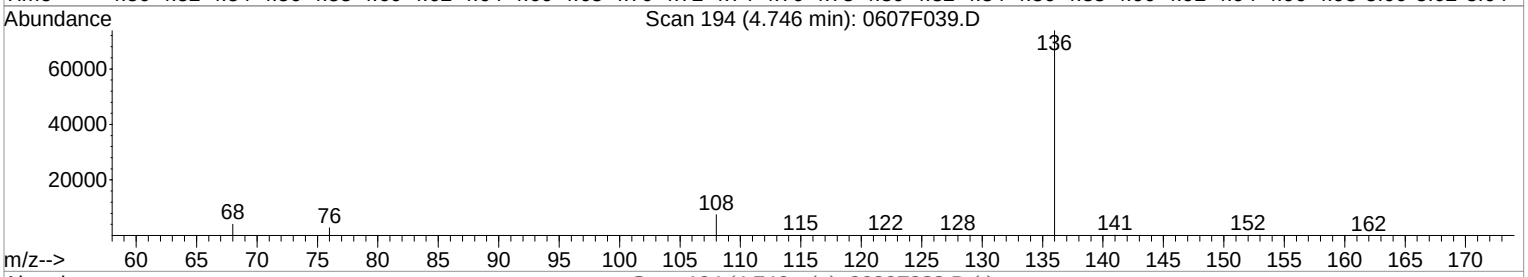
Quantitation Report (Qedit)

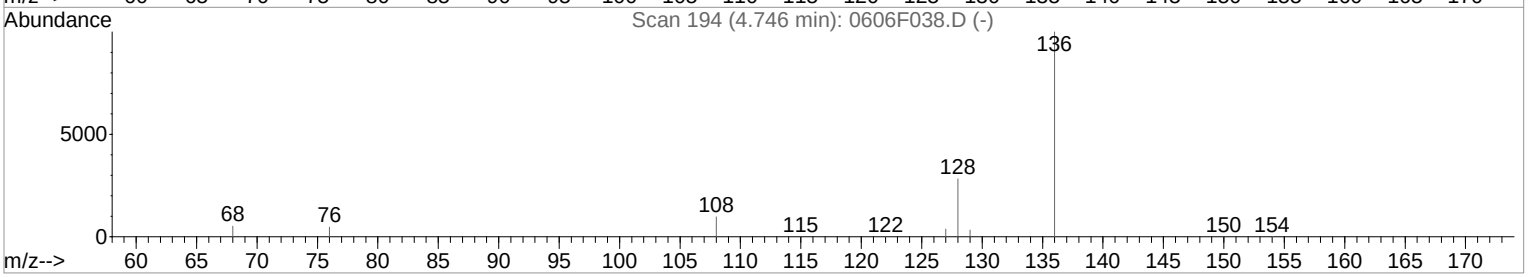
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F039.D Vial: 35
Acq On : 8 Jun 2019 2:40 am Operator: LWeiskopf
Sample : K1905141-020 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:13 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration







TIC: 0607F039.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml

response 67824

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.37
108.00	8.80	10.05
0.00	0.00	0.00

Manual Integration:

Before

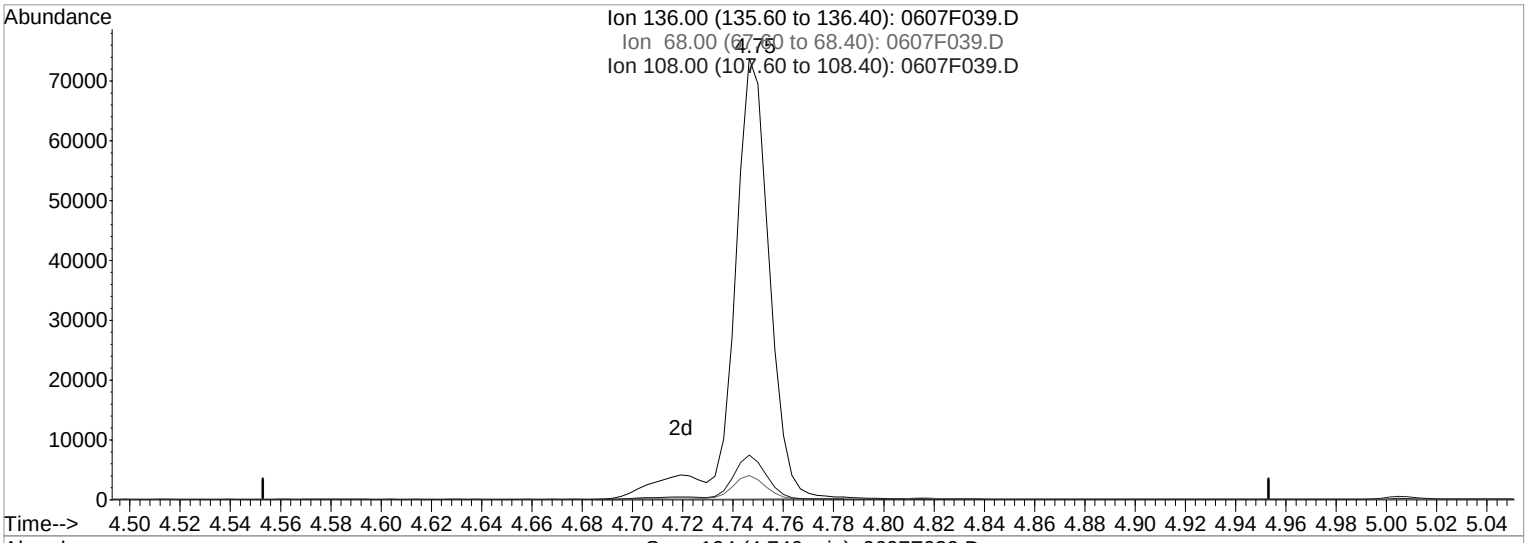
06/17/19

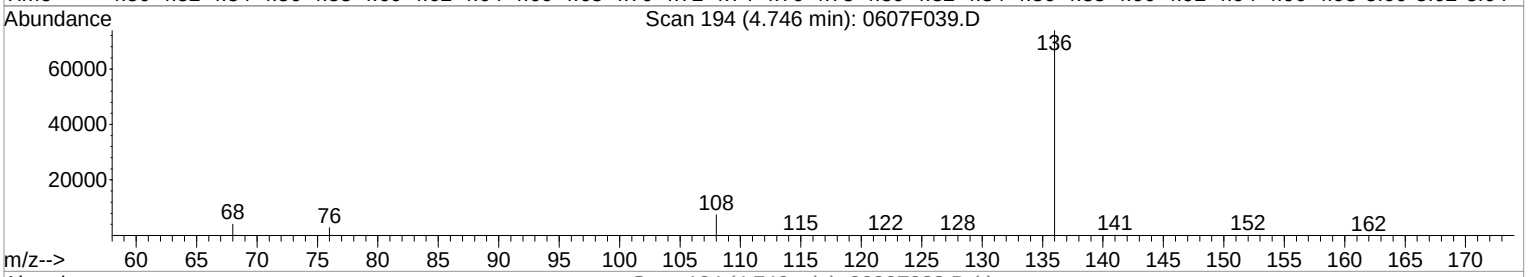
Quantitation Report (Qedit)

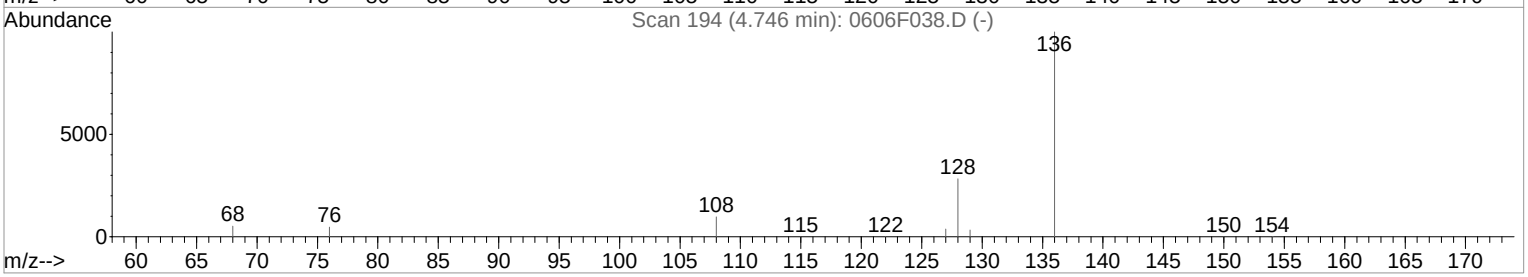
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F039.D Vial: 35
Acq On : 8 Jun 2019 2:40 am Operator: LWeiskopf
Sample : K1905141-020 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:11 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration







TIC: 0607F039.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml m

response 73394

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.47
108.00	8.80	10.13
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

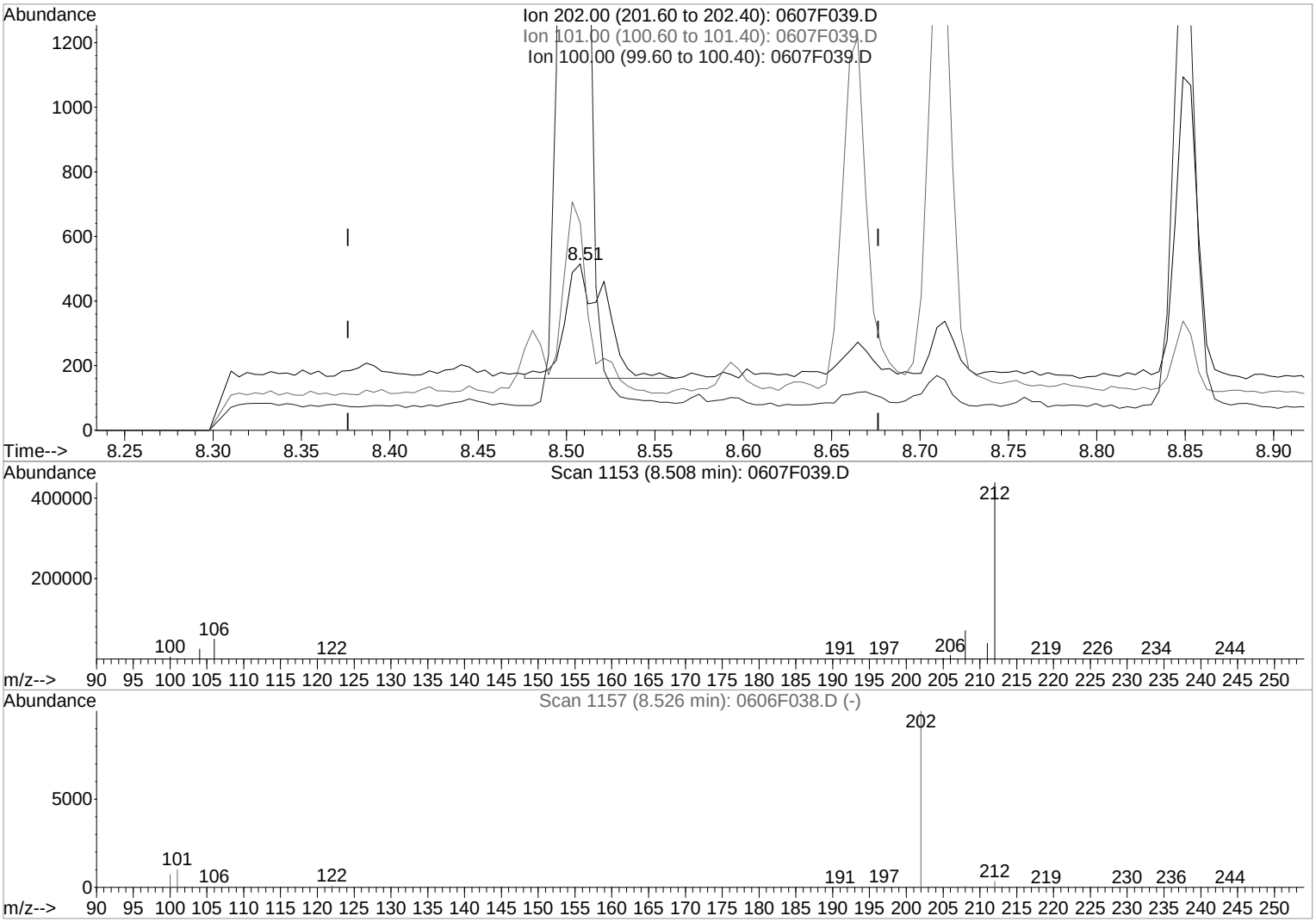
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F039.D Vial: 35
Acq On : 8 Jun 2019 2:40 am Operator: LWeiskopf
Sample : K1905141-020 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:12 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F039.D

(21) Fluoranthene (T)

8.51min 1.14ng/ml

response 556

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	146.05#
100.00	4.70	1343.79#
0.00	0.00	0.00

Manual Integration:

Before

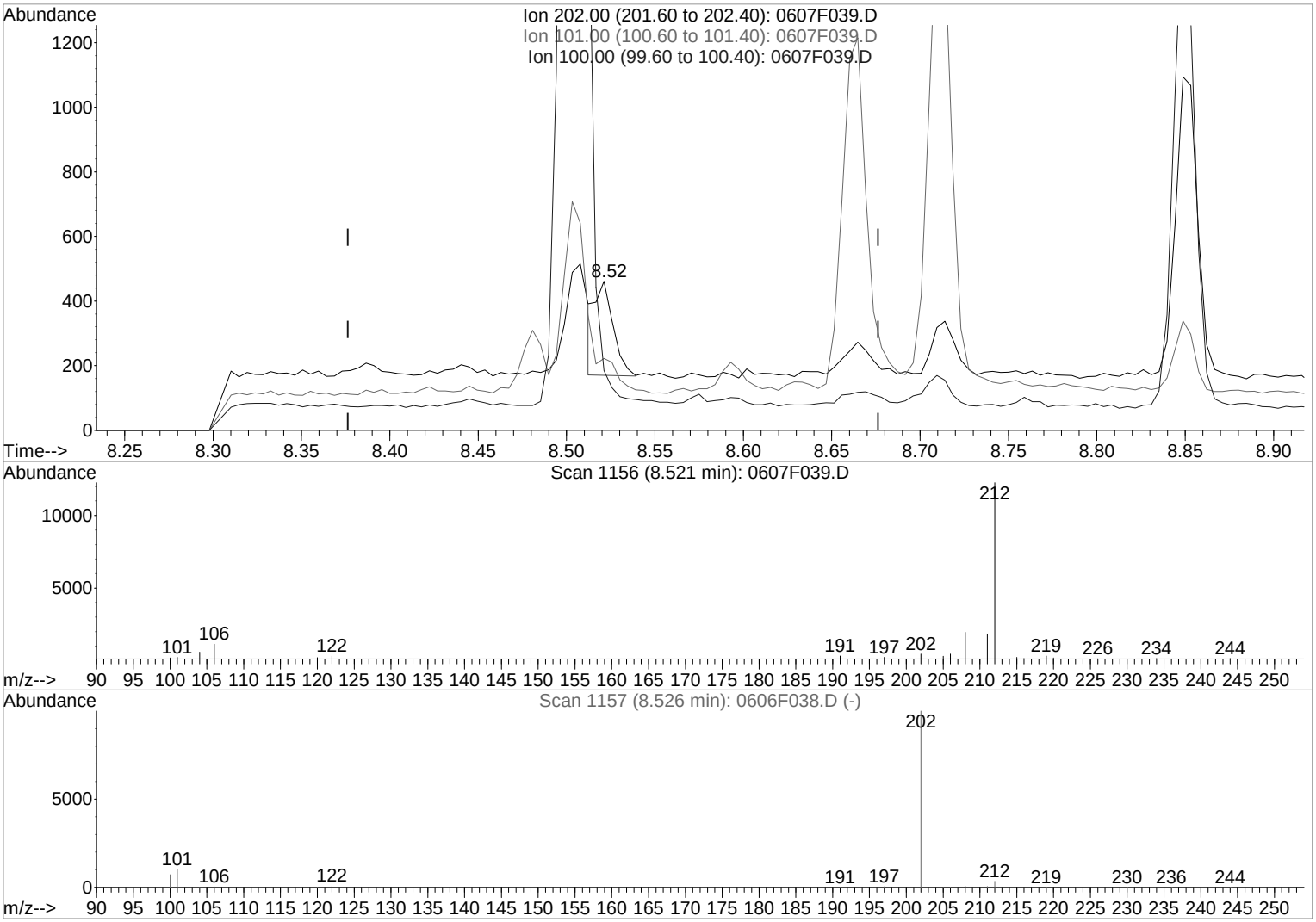
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F039.D Vial: 35
Acq On : 8 Jun 2019 2:40 am Operator: LWeiskopf
Sample : K1905141-020 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:12 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F039.D

(21) Fluoranthene (T)

8.52min 0.43ng/ml m

response 209

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	48.16#
100.00	4.70	40.13#
0.00	0.00	0.00

Manual Integration:

After

WP

06/17/19

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F040.D\
Lab ID: K1905141-021
RunType: N/A
Matrix: Water

Date Acquired: 6/8/19 03:06:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/17/19 10:31
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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F040.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 03:06:00	**Vial:**	16
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-021	**Raw Units:**	ng/mL

Bottle ID:	K1905141-021.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	638644	**Prep Lot:**	338019	**Report Group:**	K1905141
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/5/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		37805	200.00	OK
Chrysene-d12	10.03	-0.01	76075	200.00	OK
Naphthalene-d8	4.75	+0.01	75819	200.00	OK
Perylene-d12	13.07	-0.01	88295	200.00	OK
Phenanthrene-d10	7.52	-0.01	70659	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.51		374208	903.78	90	42 - 133	Y
Fluorene-d10	6.73		197698	919.97	92	42 - 131	Y
Terphenyl-d14	8.85	-0.01	236540	672.36	67	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.40		212	0.76	0.0034	J	Y
Acenaphthene	6.32		107	0.46	0.0020	J	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.03		201	0.41	0.0018	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	10.07	-0.01	65	0.14	0.00062	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	6.47		267	0.73	0.0032	J	Y
Fluoranthene	8.52	-0.01	319	0.64	0.0028	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31
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1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F040.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 03:06:00	**Vial:**	16
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-021	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.75		188	0.66	0.0029	J	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.77	+0.01	311	0.77	0.0034	J	Y
Phenanthrene	7.54	-0.01	805	1.90	0.0084	J	Y
Pyrene	8.71	-0.01	295	0.49	0.0022	J	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31

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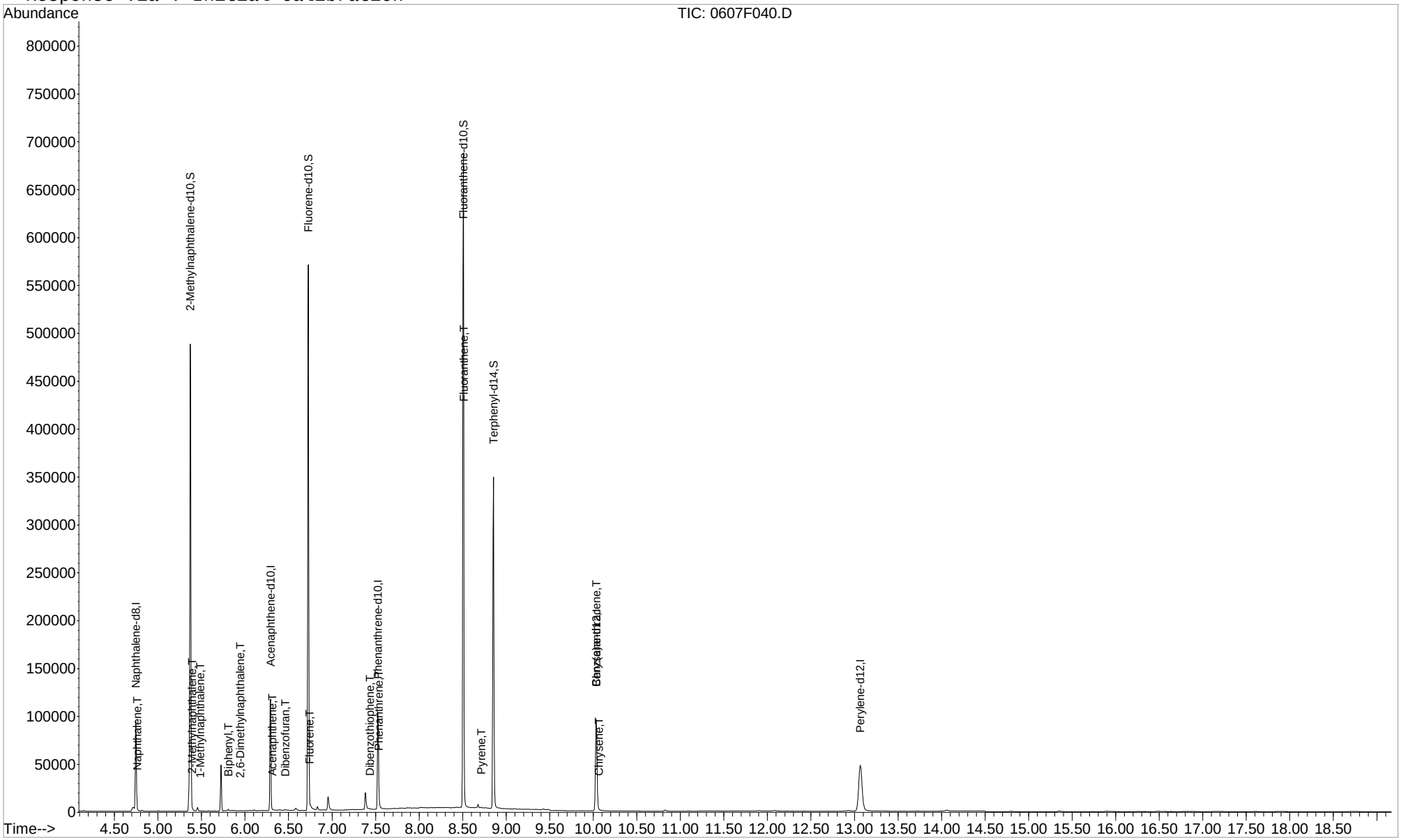
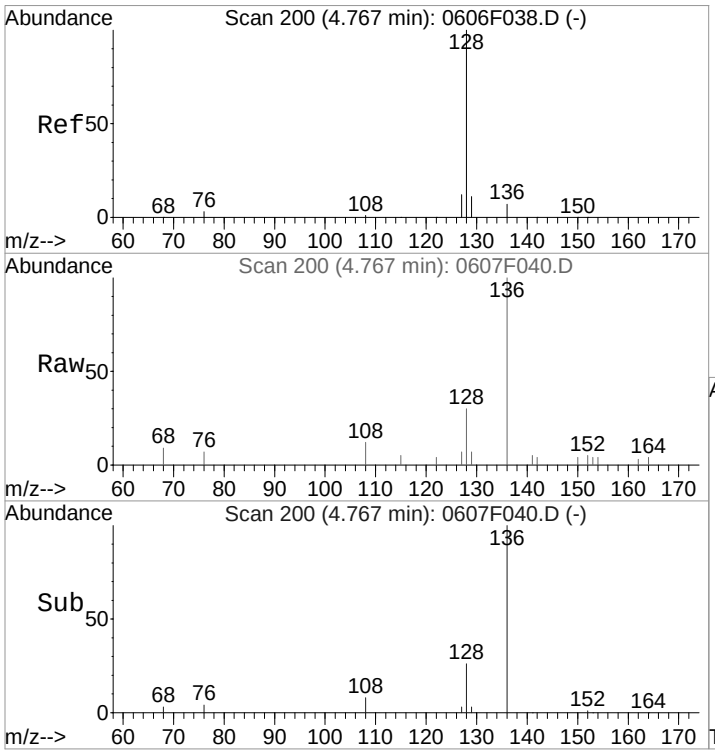
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F040.D Vial: 36
Acq On : 8 Jun 2019 3:06 am Operator: LWeiskopf
Sample : K1905141-021 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:14 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration

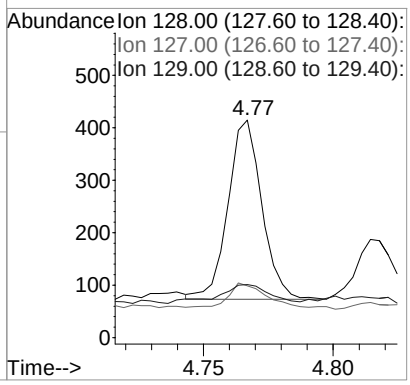


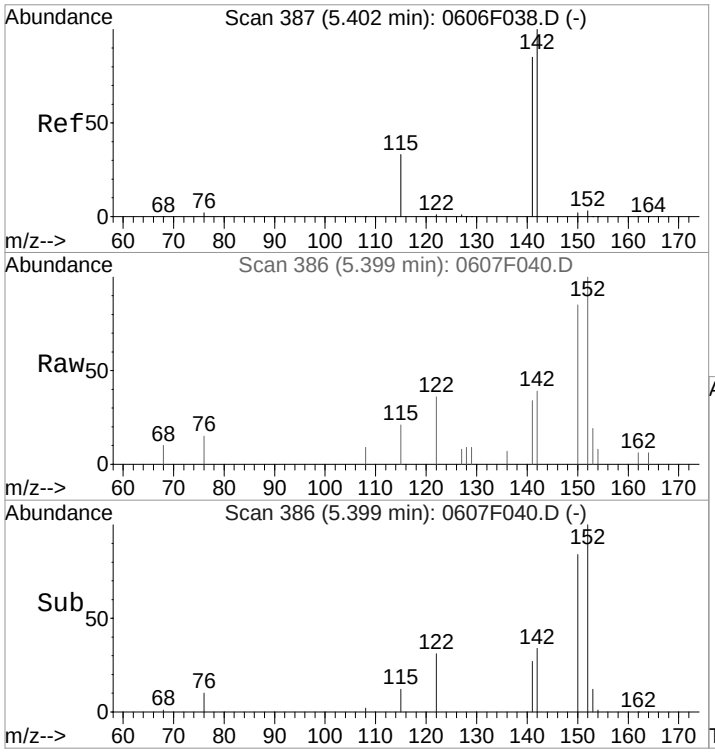


#2
Naphthalene
Concen: 0.77 ng/ml
RT: 4.77 min Scan# 200
Delta R.T. -0.01 min
Lab File: 0607F040.D
Acq: 8 Jun 2019 3:06 am

Tgt Ion:128 Resp: 311

Ion	Ratio	Lower	Upper
128	100		
127	12.0	0.0	42.3
129	7.9	0.0	30.8

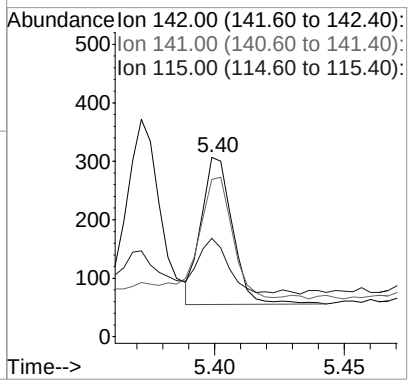


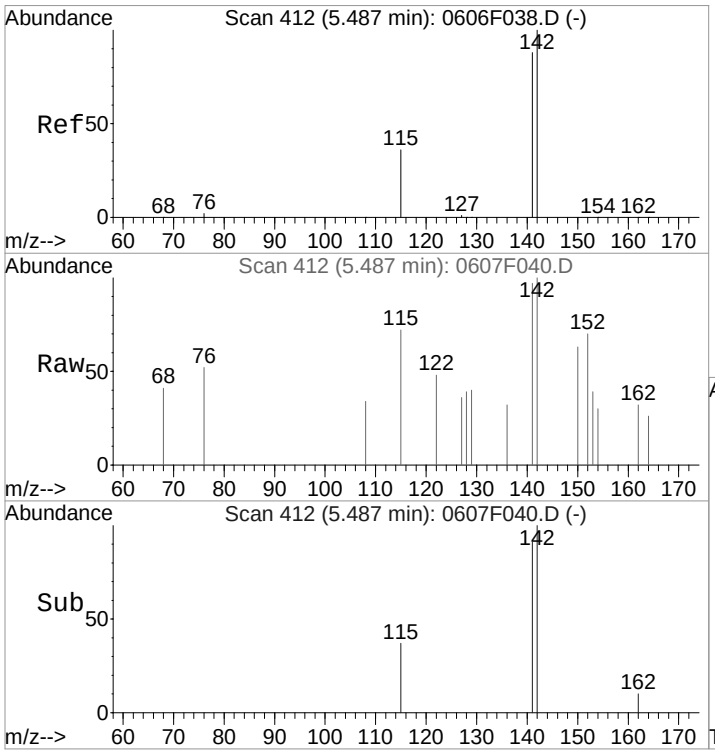


#4
2-Methylnaphthalene
Concen: 0.76 ng/ml
RT: 5.40 min Scan# 386
Delta R.T. -0.01 min
Lab File: 0607F040.D
Acq: 8 Jun 2019 3:06 am

Tgt Ion:142 Resp: 212

Ion	Ratio	Lower	Upper
142	100		
141	78.9	52.7	112.7
115	36.7	8.2	48.2

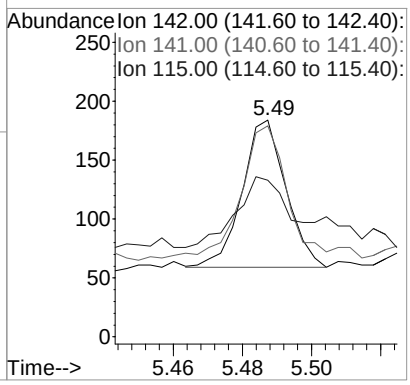


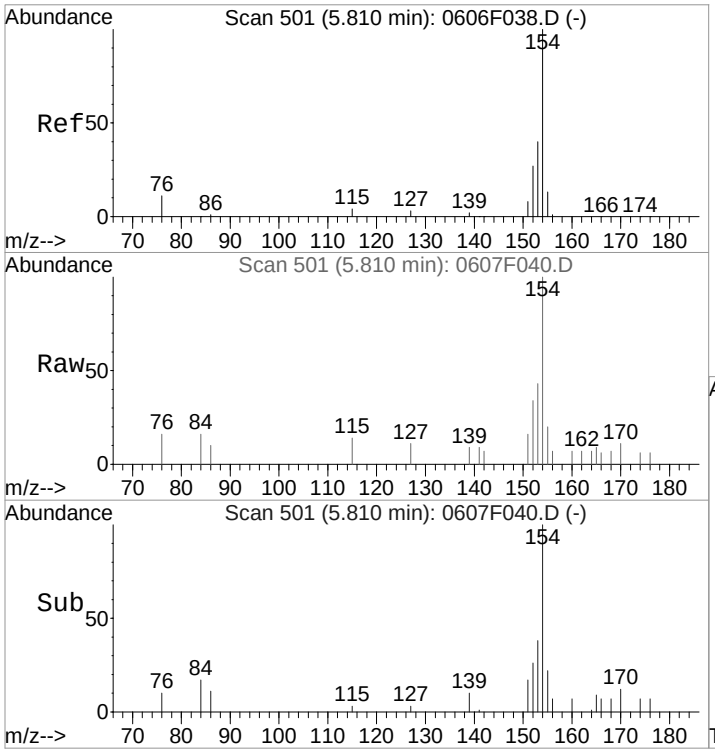


#5
1-Methylnaphthalene
Concen: 0.43 ng/ml
RT: 5.49 min Scan# 412
Delta R.T. -0.01 min
Lab File: 0607F040.D
Acq: 8 Jun 2019 3:06 am

Tgt Ion:142 Resp: 110

Ion	Ratio	Lower	Upper
142	100		
141	86.4	55.8	115.8
115	45.6	10.1	50.1

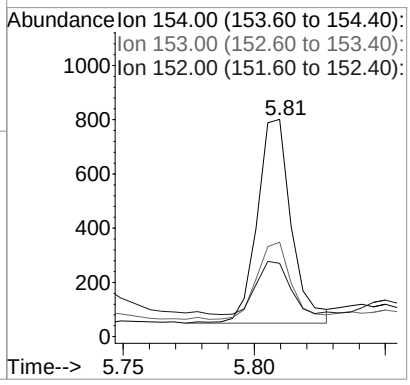


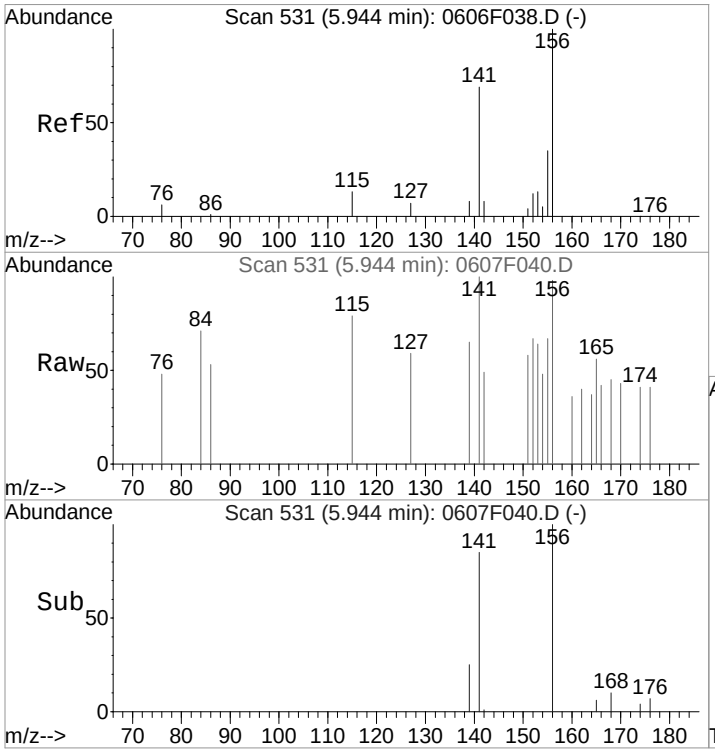


#6
Biphenyl
Concen: 1.97 ng/ml
RT: 5.81 min Scan# 501
Delta R.T. -0.01 min
Lab File: 0607F040.D
Acq: 8 Jun 2019 3:06 am

Tgt Ion:154 Resp: 683

Ion	Ratio	Lower	Upper
154	100		
153	37.8	8.2	68.2
152	24.2	6.1	46.1

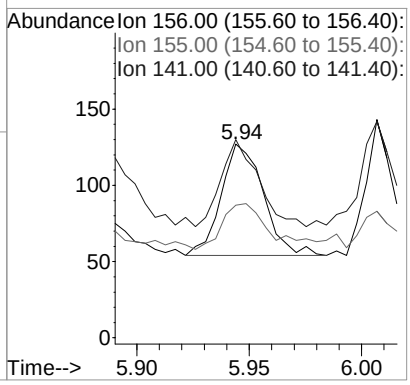


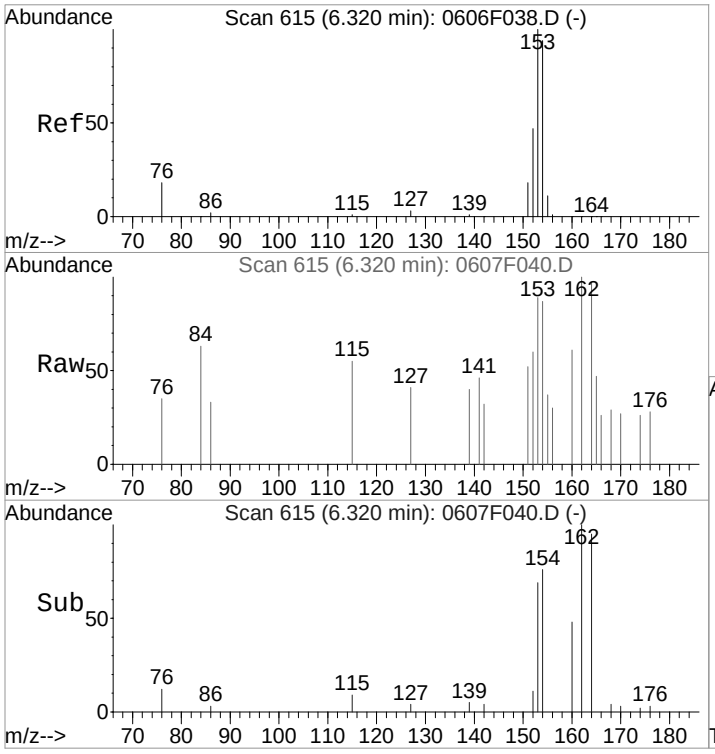


#7
2,6-Dimethylnaphthalene
Concen: 0.39 ng/ml
RT: 5.94 min Scan# 531
Delta R.T. -0.01 min
Lab File: 0607F040.D
Acq: 8 Jun 2019 3:06 am

Tgt Ion:156 Resp: 96

Ion	Ratio	Lower	Upper
156	100		
155	35.6	3.3	63.3
141	76.7	40.6	80.6

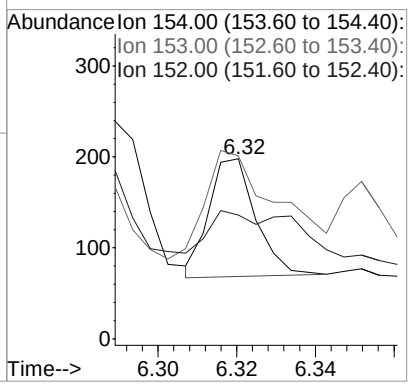


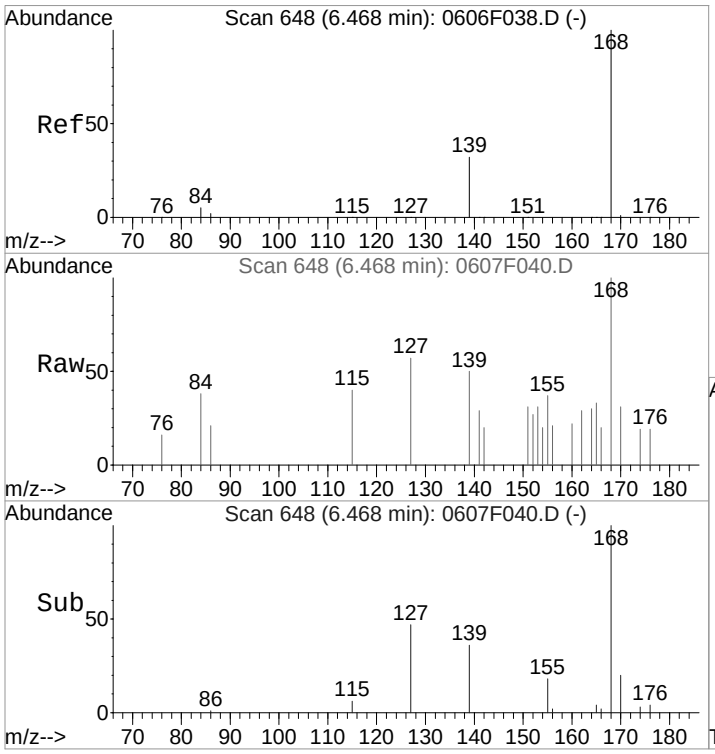


#10
Acenaphthene
Concen: 0.46 ng/ml
RT: 6.32 min Scan# 615
Delta R.T. -0.01 min
Lab File: 0607F040.D
Acq: 8 Jun 2019 3:06 am

Tgt Ion:154 Resp: 107

Ion	Ratio	Lower	Upper
154	100		
153	80.3	72.8	132.8
152	33.1	17.7	77.7

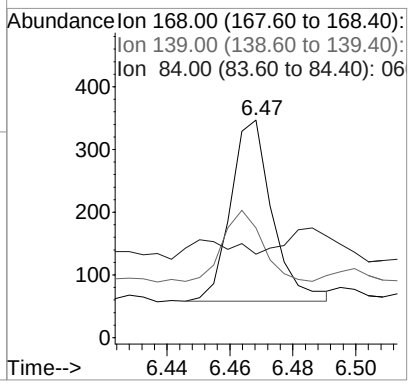


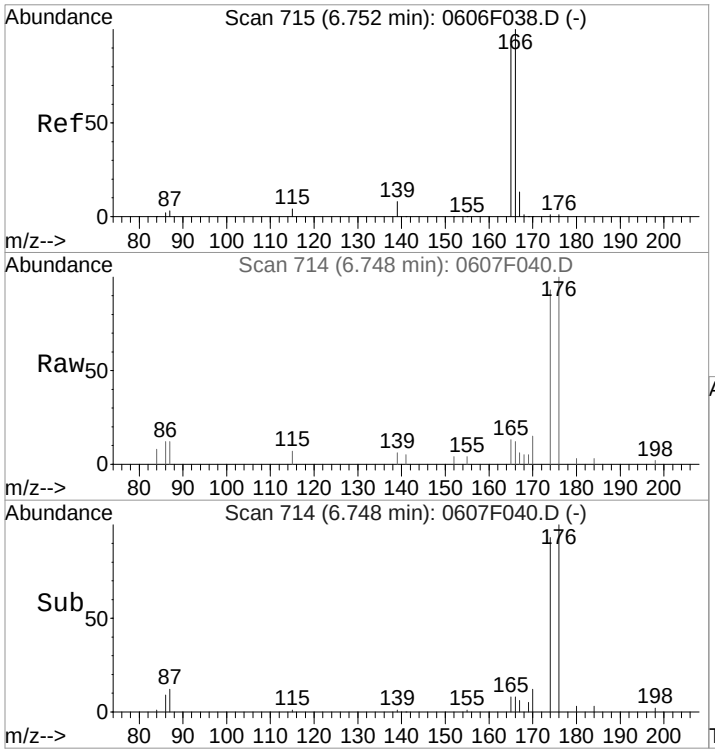


#11
Dibenzofuran
Concen: 0.73 ng/ml
RT: 6.47 min Scan# 648
Delta R.T. -0.01 min
Lab File: 0607F040.D
Acq: 8 Jun 2019 3:06 am

Tgt Ion:168 Resp: 267

Ion	Ratio	Lower	Upper
168	100		
139	29.4	0.0	54.7
84	0.0	0.0	22.9

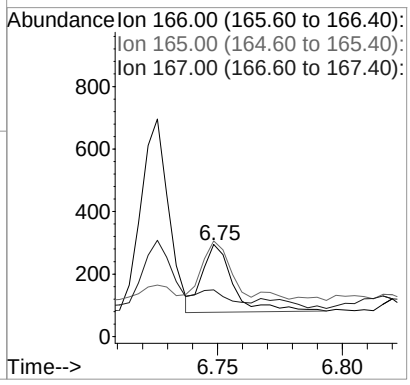


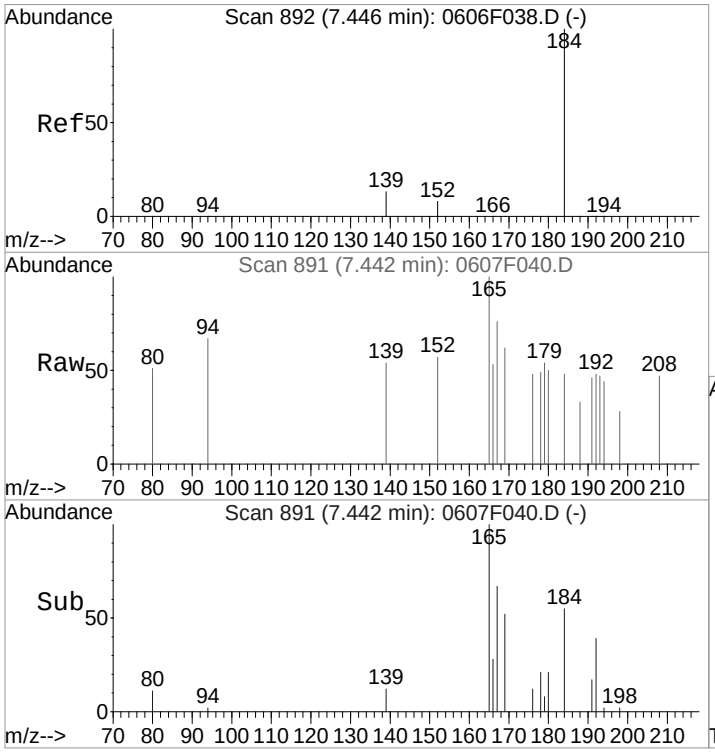


#14
Fluorene
Concen: 0.66 ng/ml
RT: 6.75 min Scan# 714
Delta R.T. -0.01 min
Lab File: 0607F040.D
Acq: 8 Jun 2019 3:06 am

Tgt Ion:166 Resp: 188

Ion	Ratio	Lower	Upper
166	100		
165	89.2	59.0	119.0
167	27.7	0.0	33.1

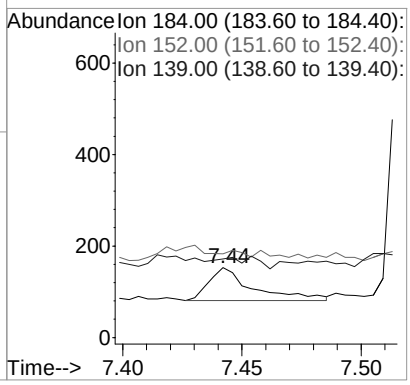


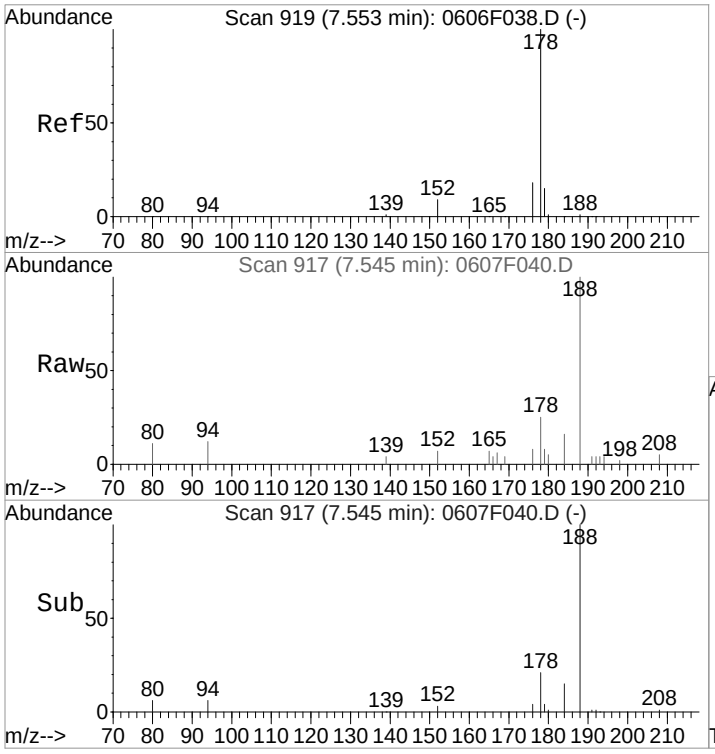


#16
Dibenzothiophene
Concen: 0.23 ng/ml
RT: 7.44 min Scan# 891
Delta R.T. -0.01 min
Lab File: 0607F040.D
Acq: 8 Jun 2019 3:06 am

Tgt Ion:184 Resp: 93

Ion	Ratio	Lower	Upper
184	100		
152	11.1	0.0	37.7
139	6.9	0.0	32.3

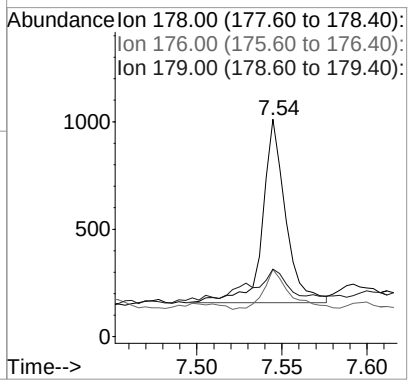




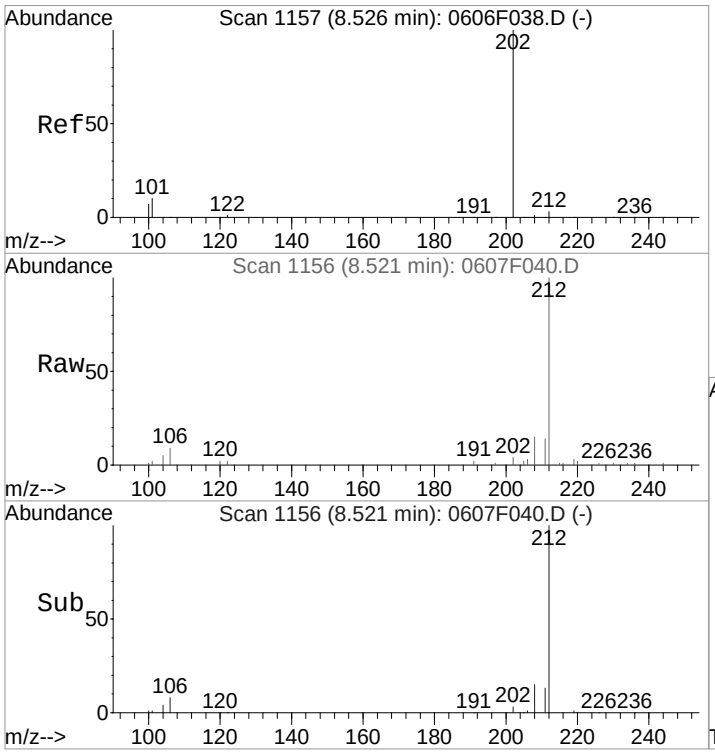
#17
Phenanthrene
Concen: 1.90 ng/ml
RT: 7.54 min Scan# 917
Delta R.T. -0.01 min
Lab File: 0607F040.D
Acq: 8 Jun 2019 3:06 am

Tgt Ion:178 Resp: 805

Ion	Ratio	Lower	Upper
178	100		
176	20.0	0.0	48.4
179	17.1	0.0	35.2



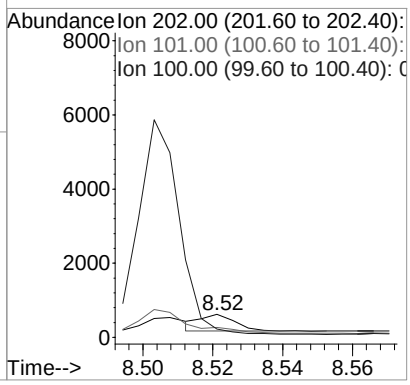
1st 06/17/19
2nd 06/17/19

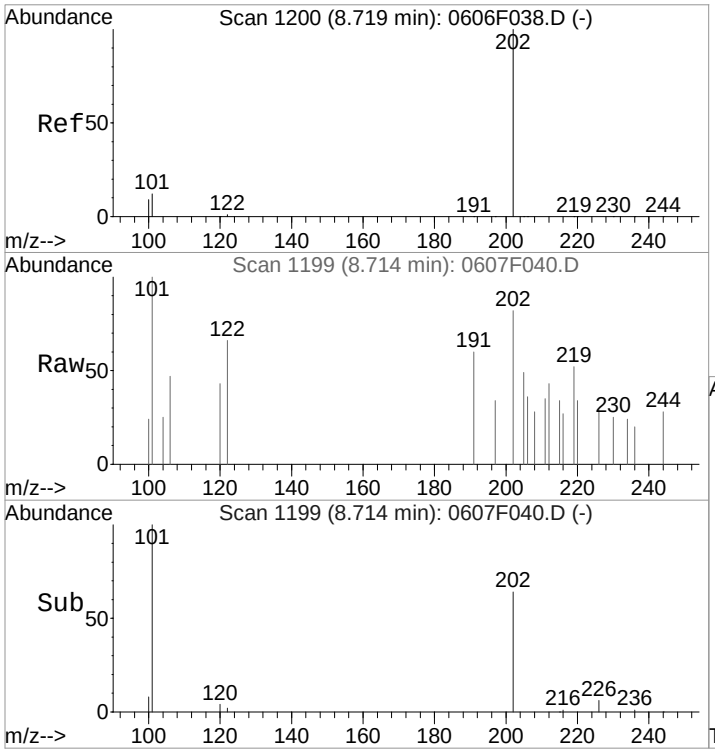


#21
Fluoranthene
Concen: 0.64 ng/ml
RT: 8.52 min Scan# 1156
Delta R.T. -0.01 min
Lab File: 0607F040.D
Acq: 8 Jun 2019 3:06 am

Tgt Ion:202 Resp: 319

Ion	Ratio	Lower	Upper
202	100		
101	34.2	0.0	37.0
100	32.7	0.0	24.7#

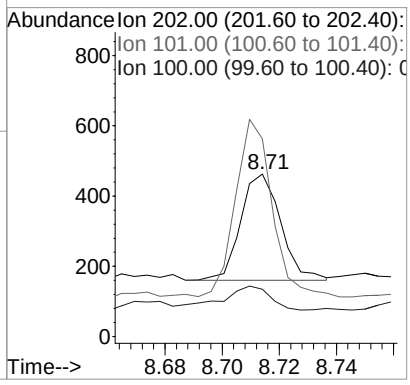


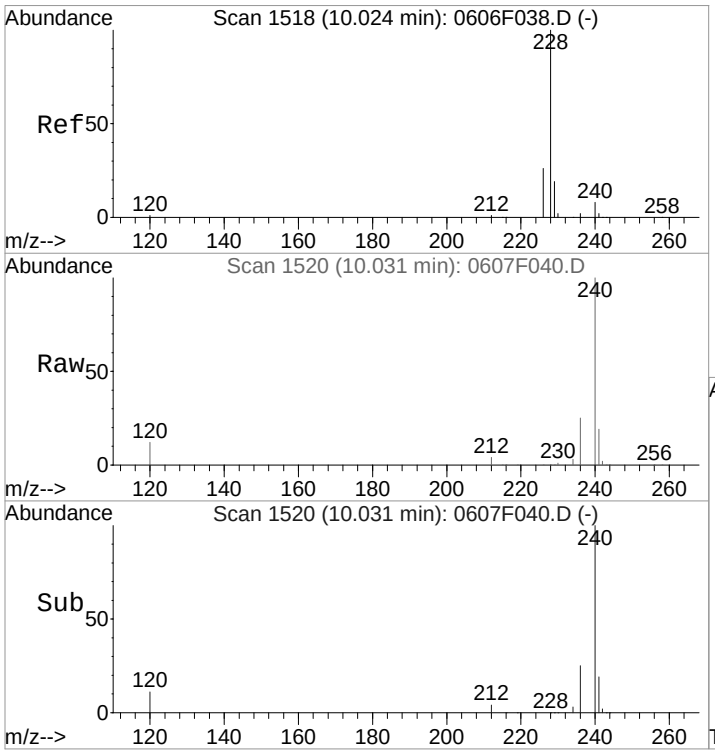


#24
Pyrene
Concen: 0.49 ng/ml
RT: 8.71 min Scan# 1199
Delta R.T. -0.01 min
Lab File: 0607F040.D
Acq: 8 Jun 2019 3:06 am

Tgt Ion:202 Resp: 295

Ion	Ratio	Lower	Upper
202	100		
101	146.2	0.0	38.8#
100	18.2	0.0	26.4

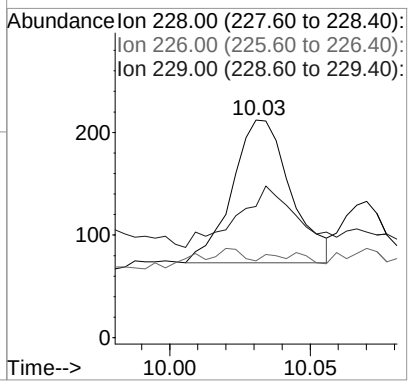


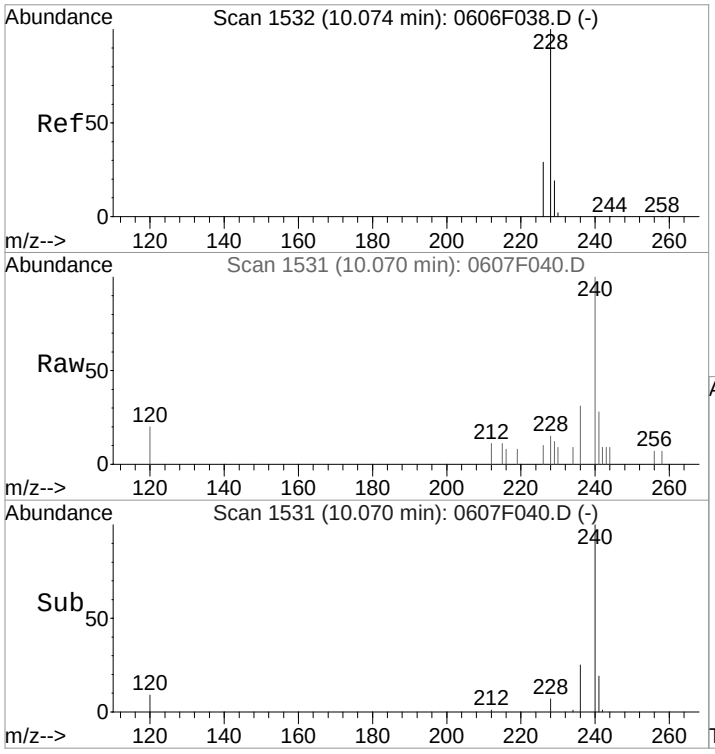


#26
Benz(a)anthracene
Concen: 0.41 ng/ml
RT: 10.03 min Scan# 1520
Delta R.T. 0.01 min
Lab File: 0607F040.D
Acq: 8 Jun 2019 3:06 am

Tgt Ion:228 Resp: 201

Ion	Ratio	Lower	Upper
228	100		
226	2.2	0.0	55.6
229	28.8	0.0	39.5

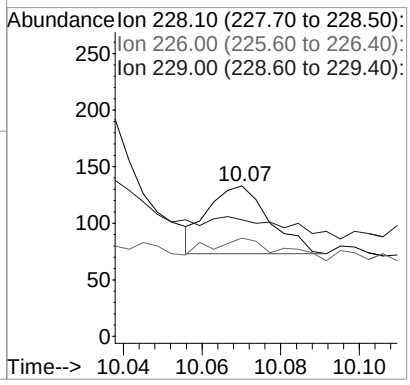




#27
Chrysene
Concen: 0.14 ng/ml
RT: 10.07 min Scan# 1531
Delta R.T. -0.00 min
Lab File: 0607F040.D
Acq: 8 Jun 2019 3:06 am

Tgt Ion:228 Resp: 65

Ion	Ratio	Lower	Upper
228	100		
226	33.3	0.0	58.2
229	16.7	0.0	39.4



Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F040.D Vial: 36
Acq On : 8 Jun 2019 3:06 am Operator: LWeiskopf
Sample : K1905141-021 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:13:56 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	75819m	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.29	164	37805	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.52	188	70659	200.00	ng/ml	0.00
23) Chrysene-d12	10.03	240	76075	200.00	ng/ml	0.00
28) Perylene-d12	13.07	264	88295	200.00	ng/ml	0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.37	152	177504	928.39	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	92.84%		
13) Fluorene-d10	6.73	176	197698	919.97	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	92.00%		
22) Fluoranthene-d10	8.51	212	374208	903.78	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	90.38%		
25) Terphenyl-d14	8.85	244	236540	672.36	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	67.24%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	311	0.77	ng/ml	96
4) 2-Methylnaphthalene	5.40	142	212	0.76	ng/ml	93
5) 1-Methylnaphthalene	5.49	142	110	0.43	ng/ml	92
6) Biphenyl	5.81	154	683	1.97	ng/ml	98
7) 2,6-Dimethylnaphthalene	5.94	156	96	0.39	ng/ml	85
10) Acenaphthene	6.32	154	107	0.46	ng/ml	78
11) Dibenzofuran	6.47	168	267	0.73	ng/ml	91
14) Fluorene	6.75	166	188	0.66	ng/ml	95
16) Dibenzothiophene	7.44	184	93	0.23	ng/ml	88
17) Phenanthrene	7.54	178	805	1.90	ng/ml	96
21) Fluoranthene	8.52	202	319	0.64	ng/ml#	19
24) Pyrene	8.71	202	295	0.49	ng/ml#	1
26) Benz(a)anthracene	10.03	228	201	0.41	ng/ml	65
27) Chrysene	10.07	228	65	0.14	ng/ml	92

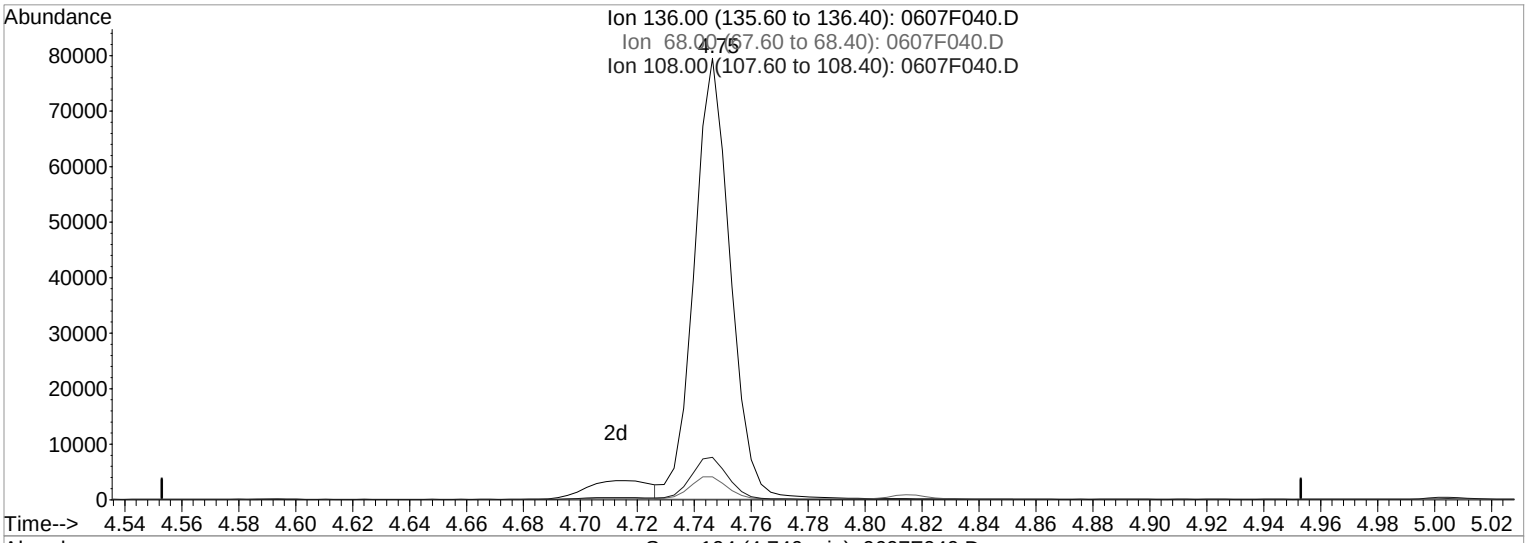
(#) = qualifier out of range (m) = manual integration

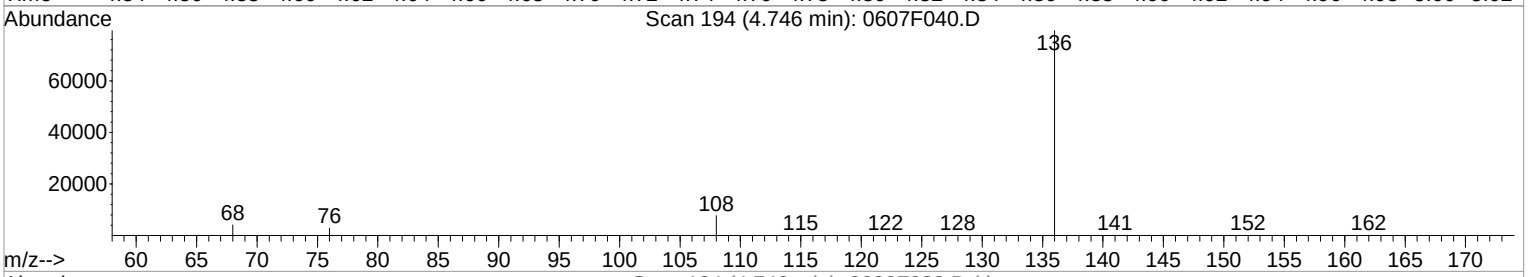
Quantitation Report (Qedit)

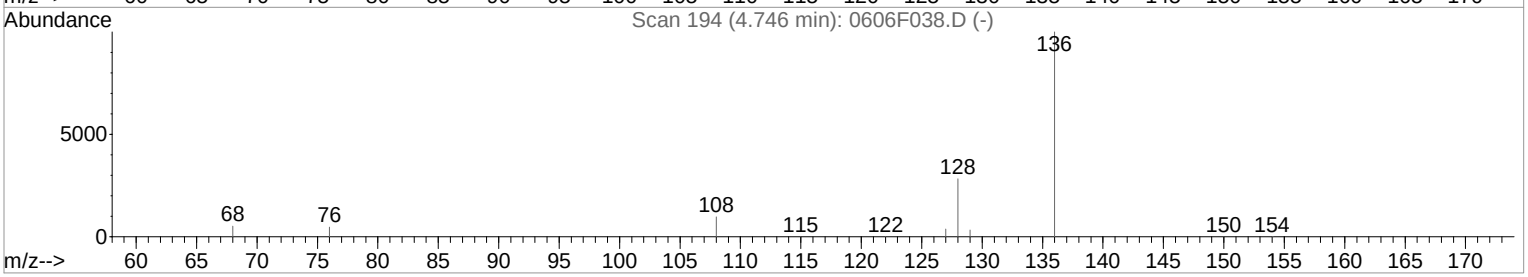
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F040.D Vial: 36
Acq On : 8 Jun 2019 3:06 am Operator: LWeiskopf
Sample : K1905141-021 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:13 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration







TIC: 0607F040.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml

response 70500

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.07
108.00	8.80	9.54
0.00	0.00	0.00

Manual Integration:

Before

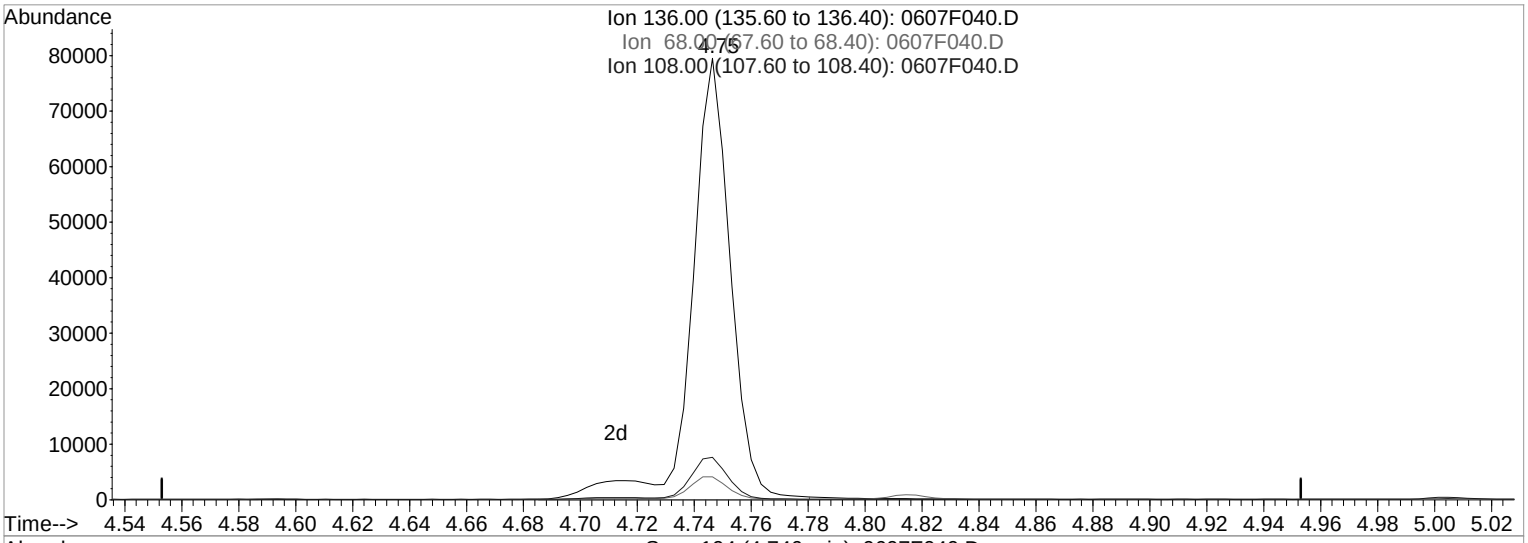
06/17/19

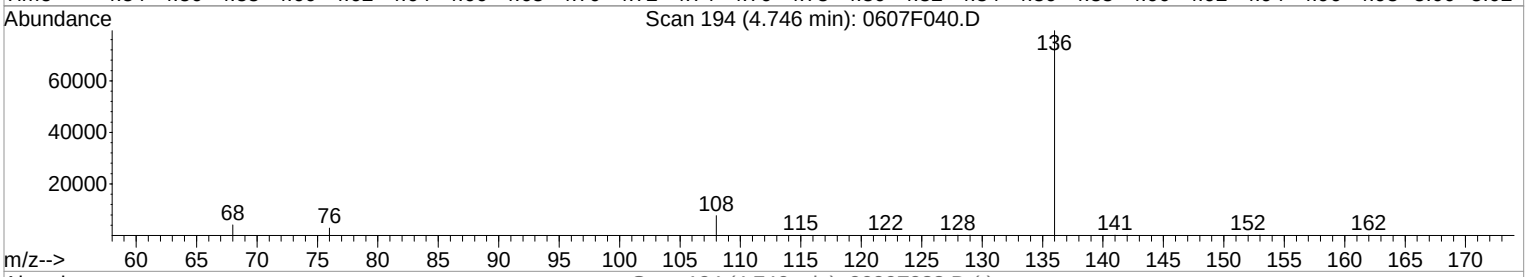
Quantitation Report (Qedit)

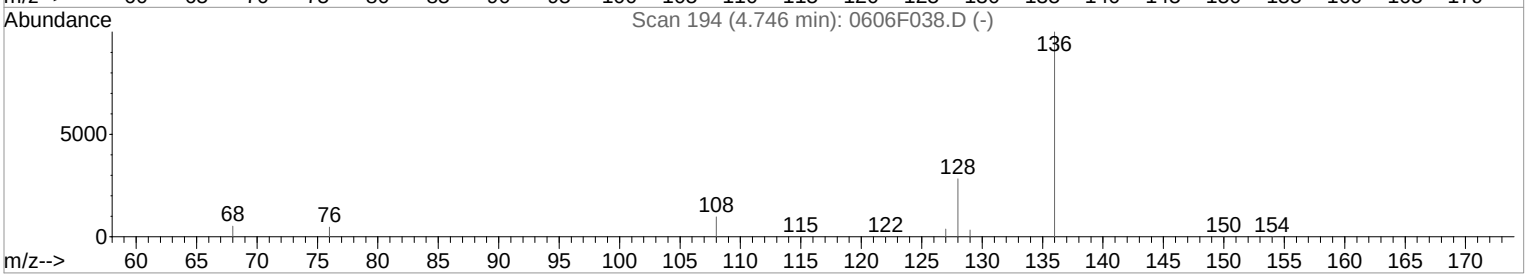
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F040.D Vial: 36
Acq On : 8 Jun 2019 3:06 am Operator: LWeiskopf
Sample : K1905141-021 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:13 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration







TIC: 0607F040.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml m

response 75819

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.17
108.00	8.80	9.60
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

06/17/19

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F041.D\
Lab ID: K1905141-028
RunType: N/A
Matrix: Water

Date Acquired: 6/8/19 03:34:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/17/19 10:31
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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F041.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 03:34:00	**Vial:**	17
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-028	**Raw Units:**	ng/mL

Bottle ID:	K1905141-028.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/1/19	**Receive Date:**	6/4/19

Analysis Lot:	638644	**Prep Lot:**	338019	**Report Group:**	K1905141
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/5/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		34389	200.00	OK
Chrysene-d12	10.03	-0.01	69756	200.00	OK
Naphthalene-d8	4.75	+0.01	67277	200.00	OK
Perylene-d12	13.07	-0.01	79559	200.00	OK
Phenanthrene-d10	7.53		65618	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.51		183316	476.76	95	42 - 133	Y
Fluorene-d10	6.73		99697	510.02	102	42 - 131	Y
Terphenyl-d14	8.85	-0.01	77351	239.79	48	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.40		249	1.01	0.0090	J	Y
Acenaphthene	6.32		116	0.55	0.0049	J	Y
Acenaphthylene	6.17		47	0.14	0.0012	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.03		198	0.44	0.0039	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	6.47		251	0.76	0.0068	J	Y
Fluoranthene	8.52	-0.01	217	0.47	0.0042	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31
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1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F041.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 03:34:00	**Vial:**	17
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-028	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.75		168	0.65	0.0058	J	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.77	+0.01	304	0.84	0.0075	J	Y
Phenanthrene	7.54	-0.01	829	2.10	0.019	J	Y
Pyrene	8.71	-0.01	150	0.27	0.0024	J	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

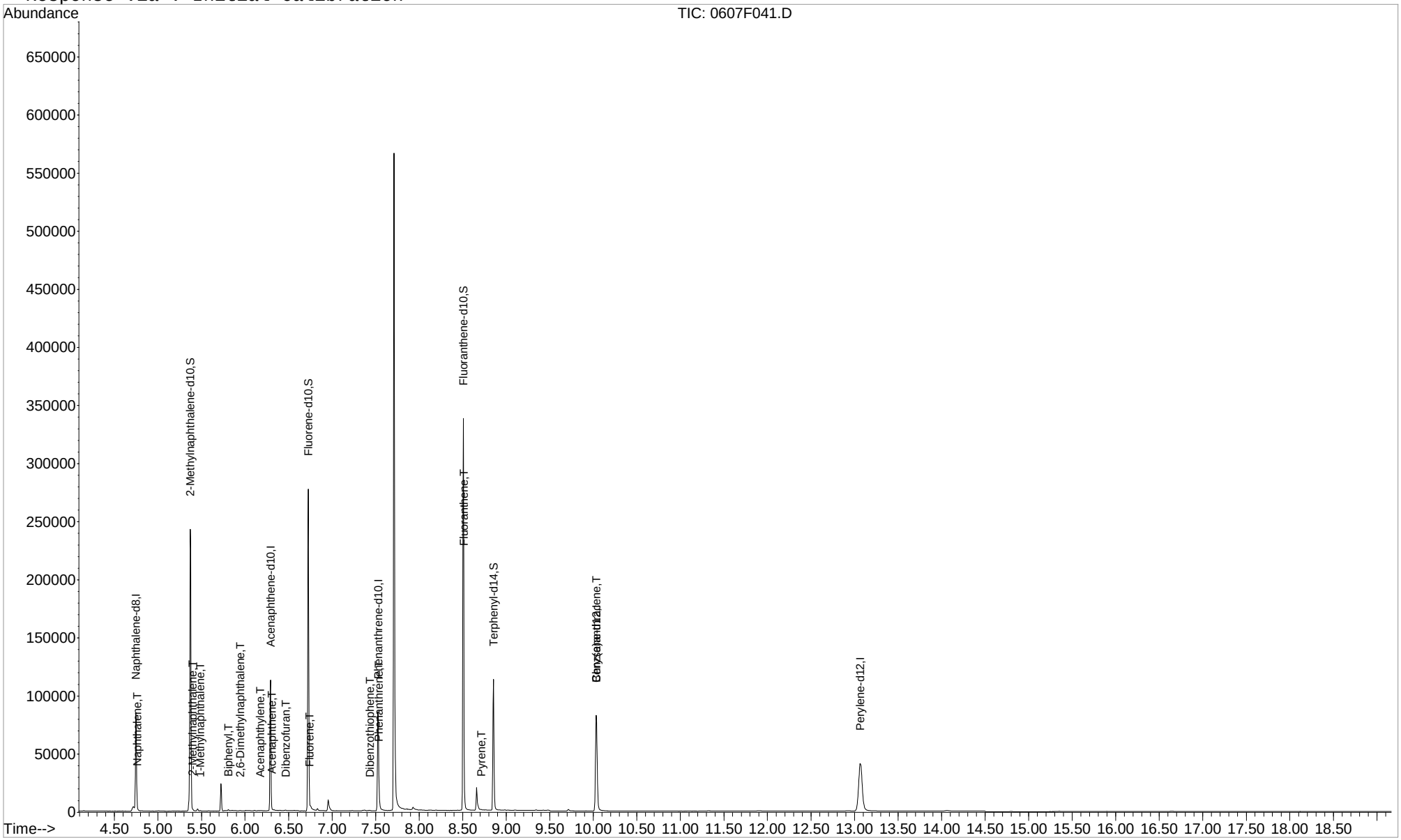
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

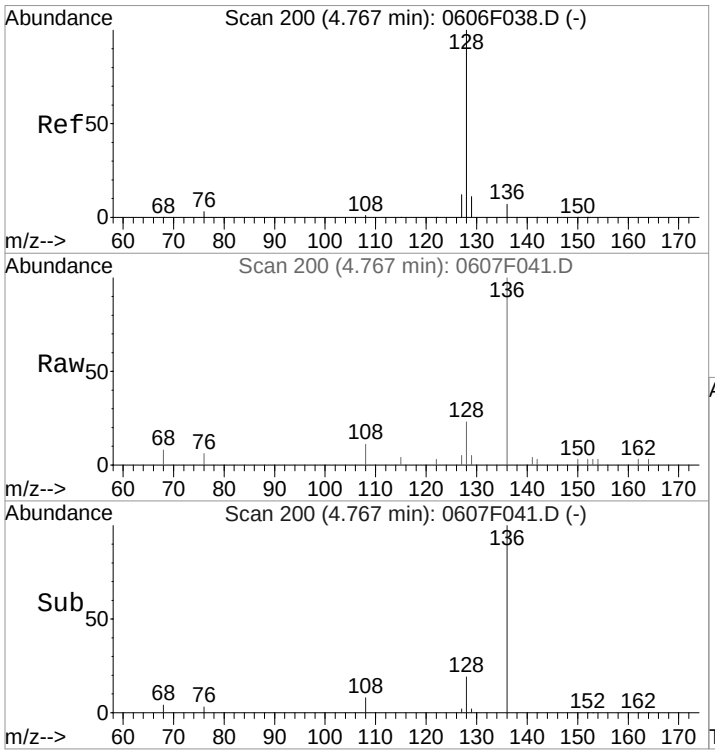
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F041.D Vial: 37
Acq On : 8 Jun 2019 3:34 am Operator: LWeiskopf
Sample : K1905141-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:16 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration

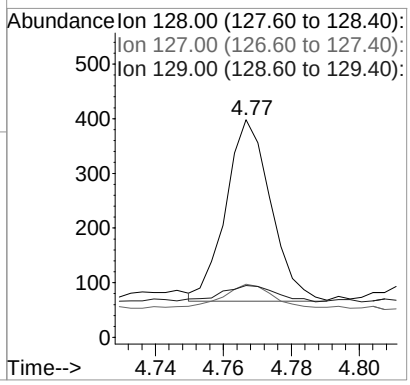


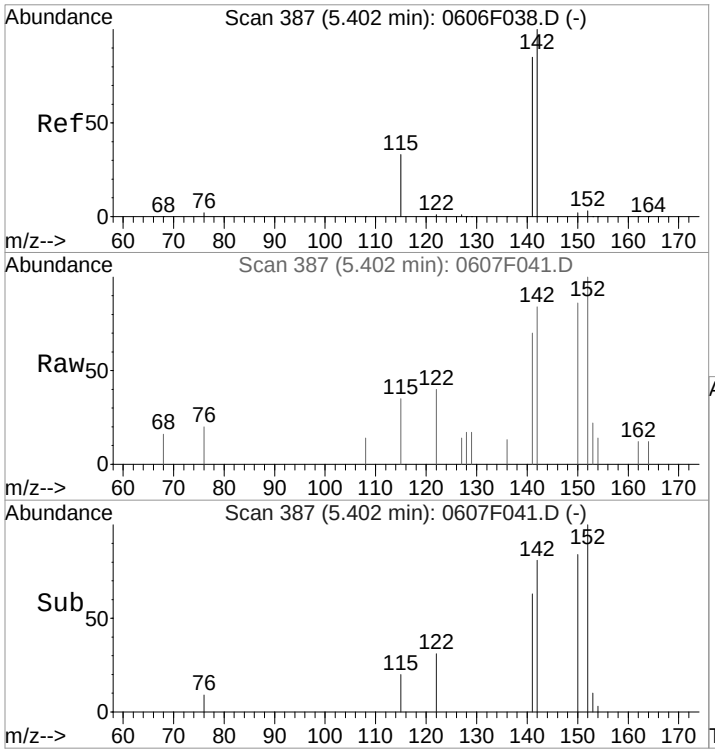


#2
Naphthalene
Concen: 0.84 ng/ml m
RT: 4.77 min Scan# 200
Delta R.T. -0.01 min
Lab File: 0607F041.D
Acq: 8 Jun 2019 3:34 am

Tgt Ion:128 Resp: 304

Ion	Ratio	Lower	Upper
128	100		
127	24.4	0.0	42.3
129	23.9	0.0	30.8

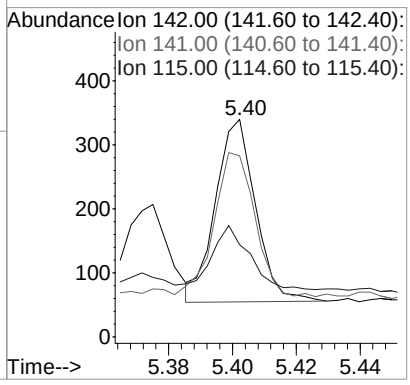


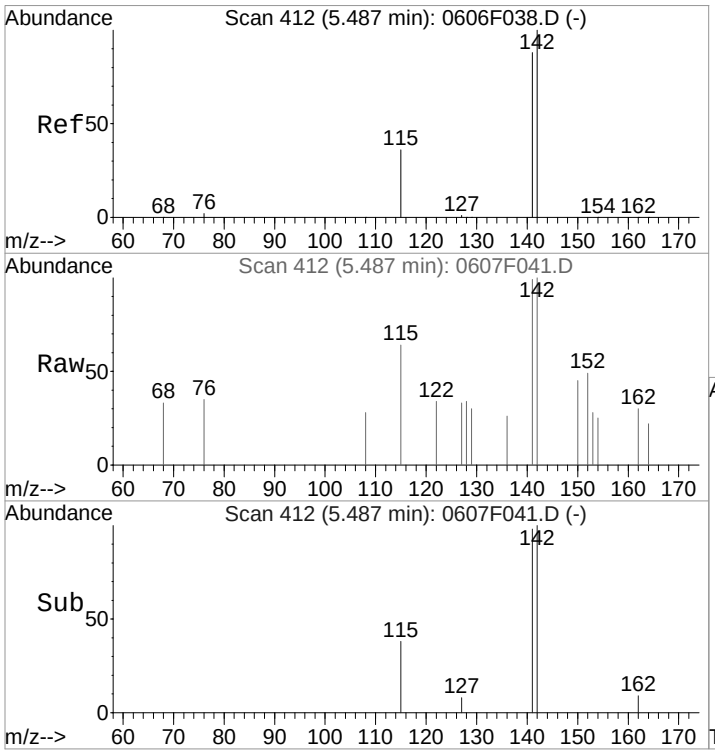


#4
2-Methylnaphthalene
Concen: 1.01 ng/ml
RT: 5.40 min Scan# 387
Delta R.T. -0.01 min
Lab File: 0607F041.D
Acq: 8 Jun 2019 3:34 am

Tgt Ion:142 Resp: 249

Ion	Ratio	Lower	Upper
142	100		
141	76.1	52.7	112.7
115	24.3	8.2	48.2

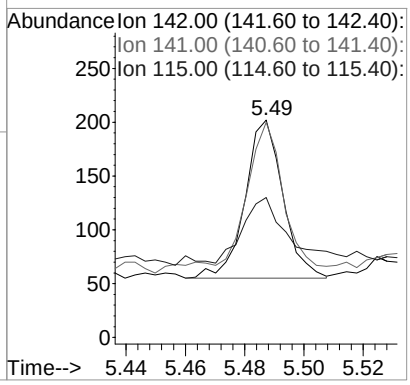


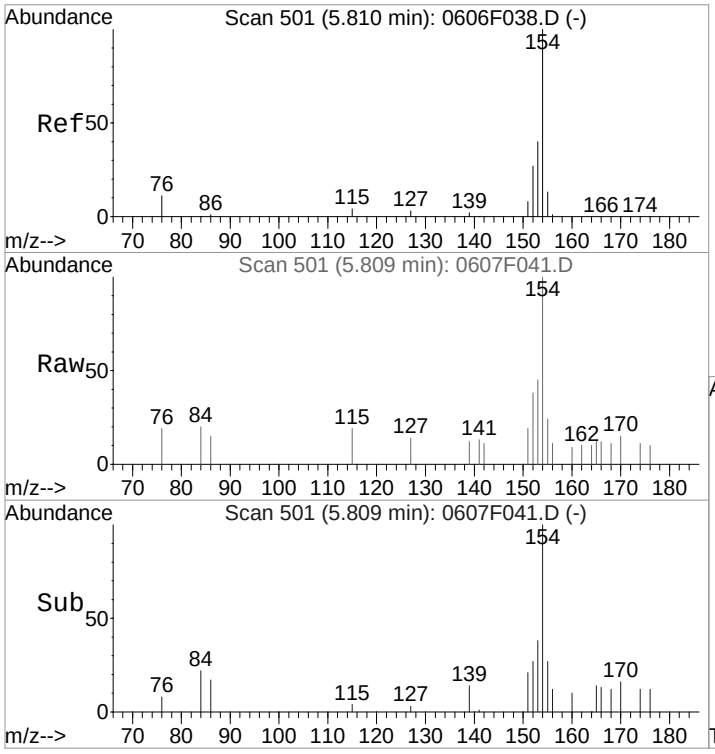


#5
1-Methylnaphthalene
Concen: 0.57 ng/ml
RT: 5.49 min Scan# 412
Delta R.T. -0.01 min
Lab File: 0607F041.D
Acq: 8 Jun 2019 3:34 am

Tgt Ion:142 Resp: 131

Ion	Ratio	Lower	Upper
142	100		
141	91.2	55.8	115.8
115	36.7	10.1	50.1

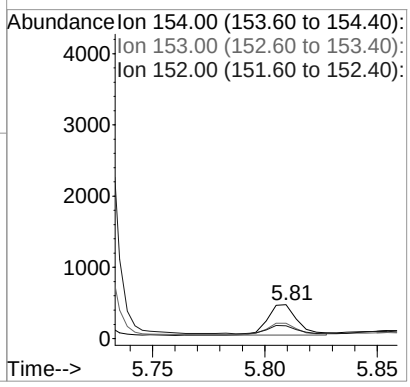


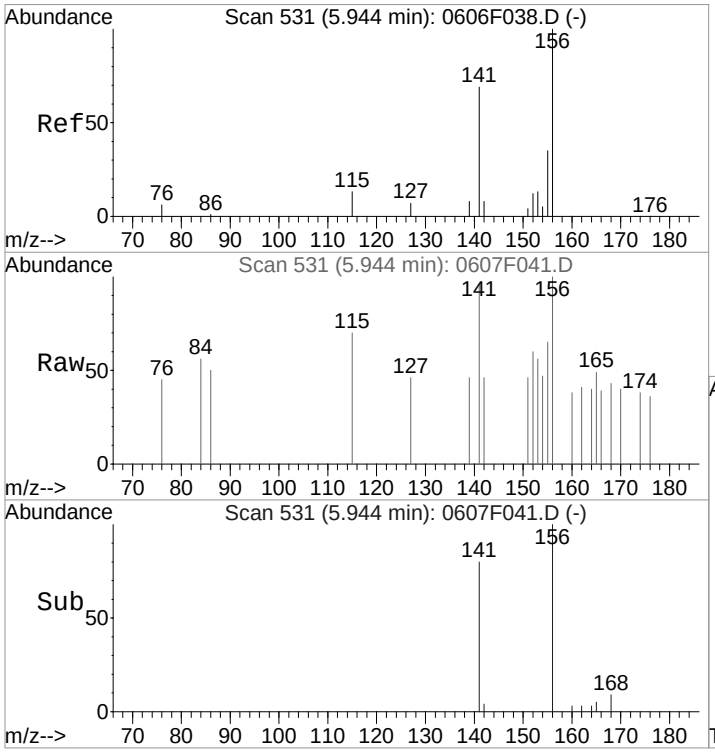


#6
Biphenyl
Concen: 1.30 ng/ml
RT: 5.81 min Scan# 501
Delta R.T. -0.01 min
Lab File: 0607F041.D
Acq: 8 Jun 2019 3:34 am

Tgt Ion:154 Resp: 402

Ion	Ratio	Lower	Upper
154	100		
153	37.2	8.2	68.2
152	24.8	6.1	46.1

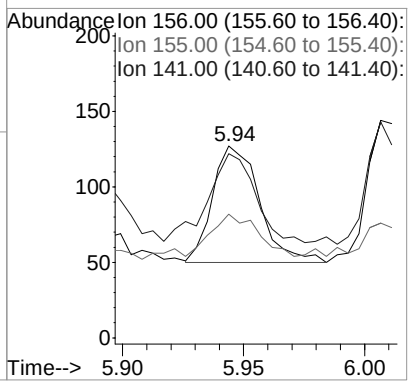


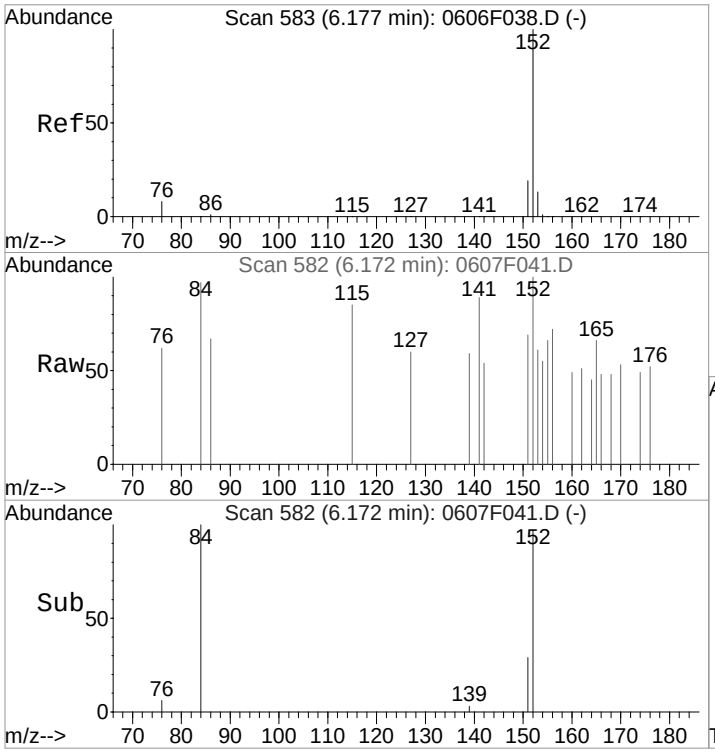


#7
2,6-Dimethylnaphthalene
Concen: 0.47 ng/ml
RT: 5.94 min Scan# 531
Delta R.T. -0.01 min
Lab File: 0607F041.D
Acq: 8 Jun 2019 3:34 am

Tgt Ion:156 Resp: 104

Ion	Ratio	Lower	Upper
156	100		
155	36.4	3.3	63.3
141	71.4	40.6	80.6

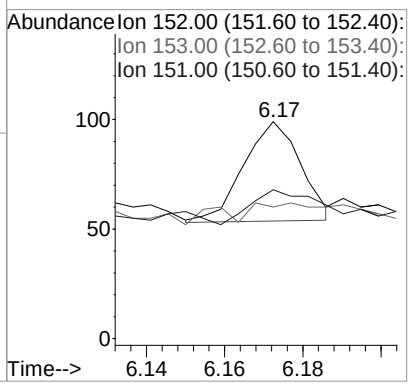


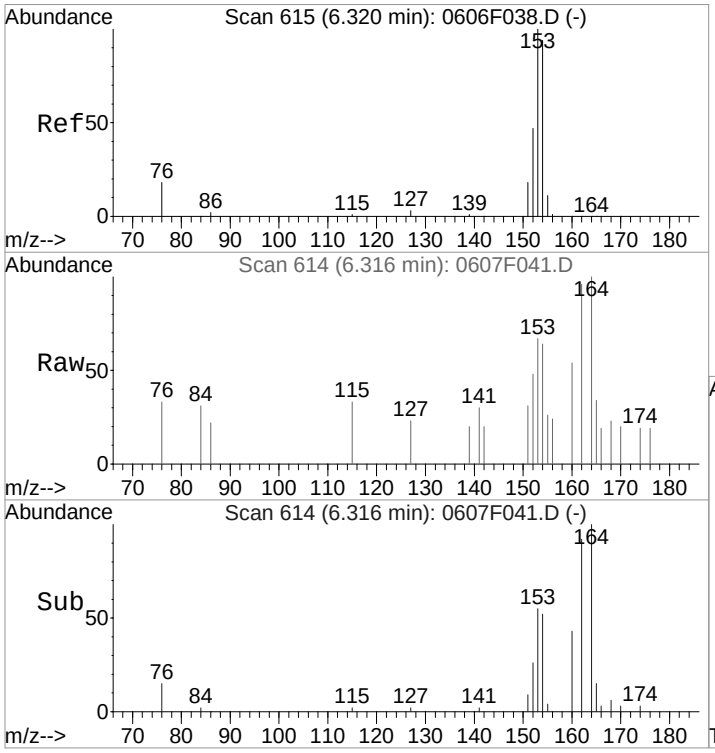


#9
Acenaphthylene
Concen: 0.14 ng/ml m
RT: 6.17 min Scan# 582
Delta R.T. -0.01 min
Lab File: 0607F041.D
Acq: 8 Jun 2019 3:34 am

Tgt Ion:152 Resp: 47

Ion	Ratio	Lower	Upper
152	100		
153	60.6	0.0	42.9#
151	68.7	0.0	38.8#

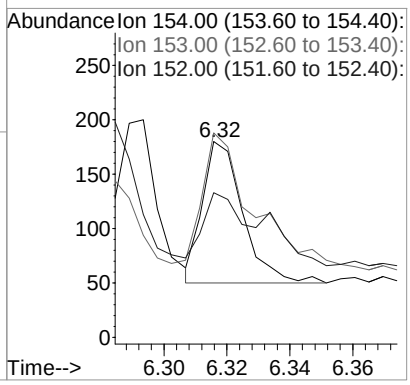


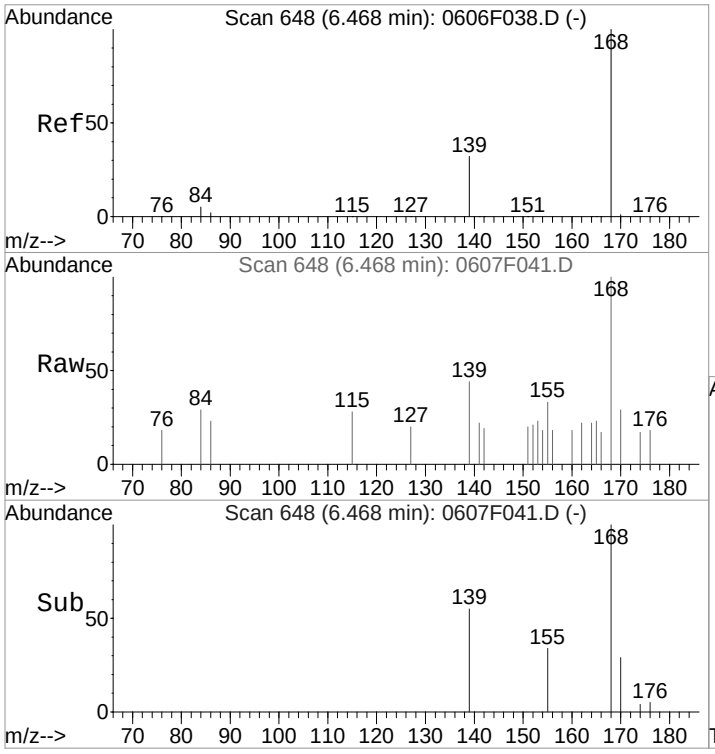


#10
Acenaphthene
Concen: 0.55 ng/ml
RT: 6.32 min Scan# 614
Delta R.T. -0.01 min
Lab File: 0607F041.D
Acq: 8 Jun 2019 3:34 am

Tgt Ion:154 Resp: 116

Ion	Ratio	Lower	Upper
154	100		
153	90.0	72.8	132.8
152	51.5	17.7	77.7

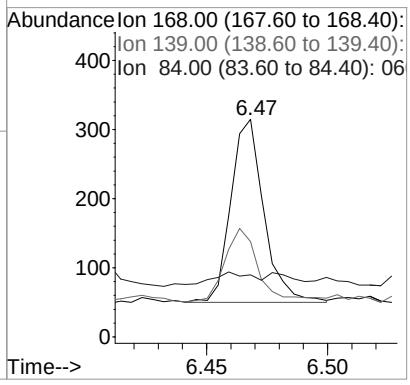


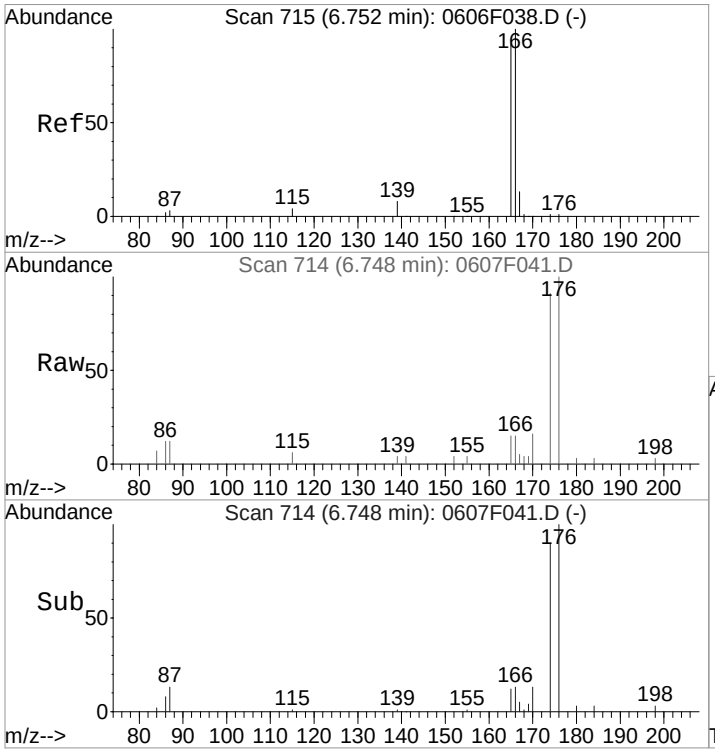


#11
Dibenzofuran
Concen: 0.76 ng/ml
RT: 6.47 min Scan# 648
Delta R.T. -0.01 min
Lab File: 0607F041.D
Acq: 8 Jun 2019 3:34 am

Tgt Ion:168 Resp: 251

Ion	Ratio	Lower	Upper
168	100		
139	32.8	0.0	54.7
84	5.3	0.0	22.9

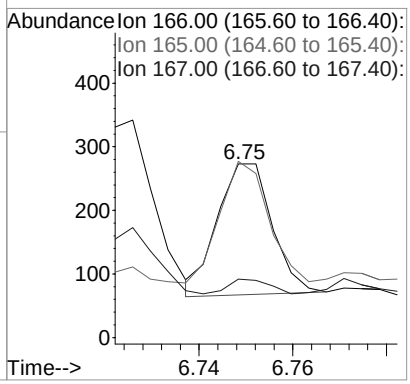


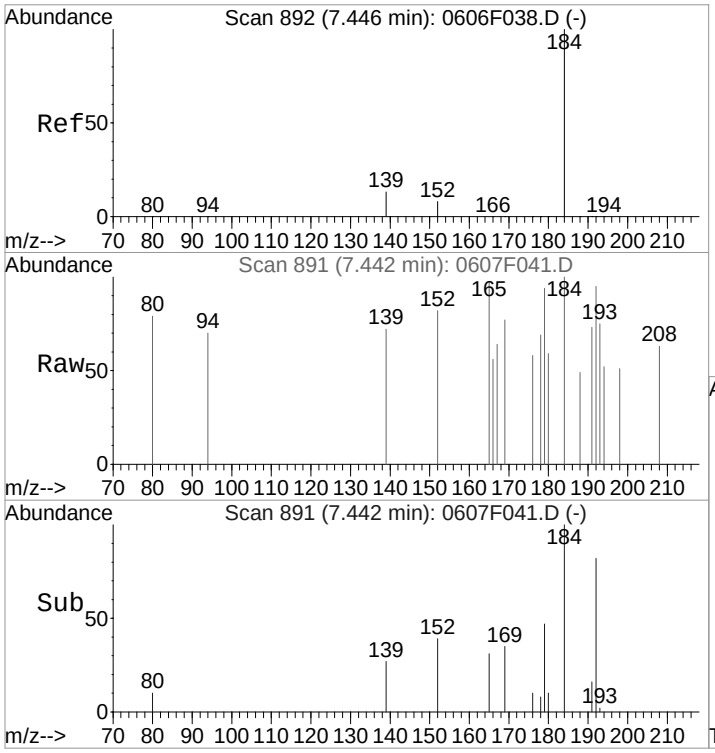


#14
Fluorene
Concen: 0.65 ng/ml
RT: 6.75 min Scan# 714
Delta R.T. -0.01 min
Lab File: 0607F041.D
Acq: 8 Jun 2019 3:34 am

Tgt Ion:166 Resp: 168

Ion	Ratio	Lower	Upper
166	100		
165	95.0	59.0	119.0
167	9.0	0.0	33.1

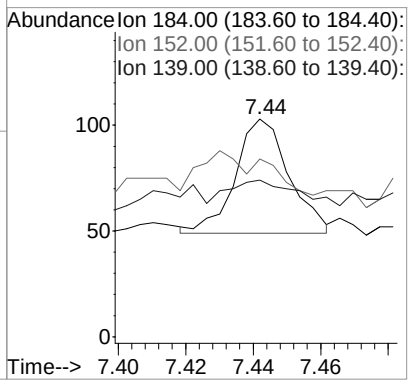




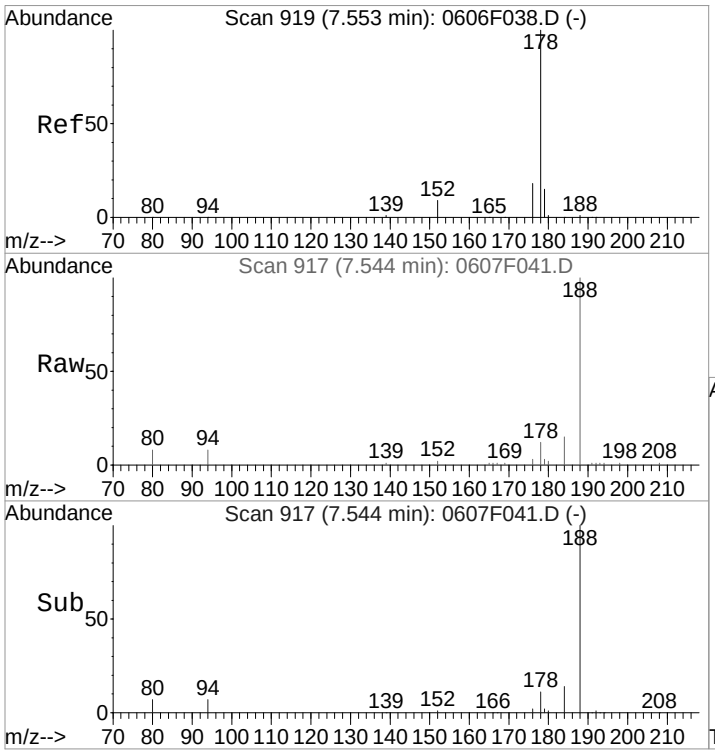
#16
Dibenzothiophene
Concen: 0.16 ng/ml m
RT: 7.44 min Scan# 891
Delta R.T. -0.01 min
Lab File: 0607F041.D
Acq: 8 Jun 2019 3:34 am

Tgt Ion:184 Resp: 60

Ion	Ratio	Lower	Upper
184	100		
152	81.6	0.0	37.7#
139	71.8	0.0	32.3#



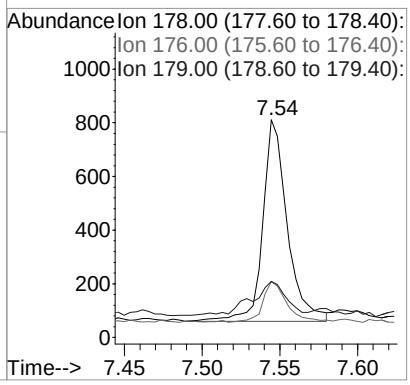
1st 06/17/19
2nd 06/17/19

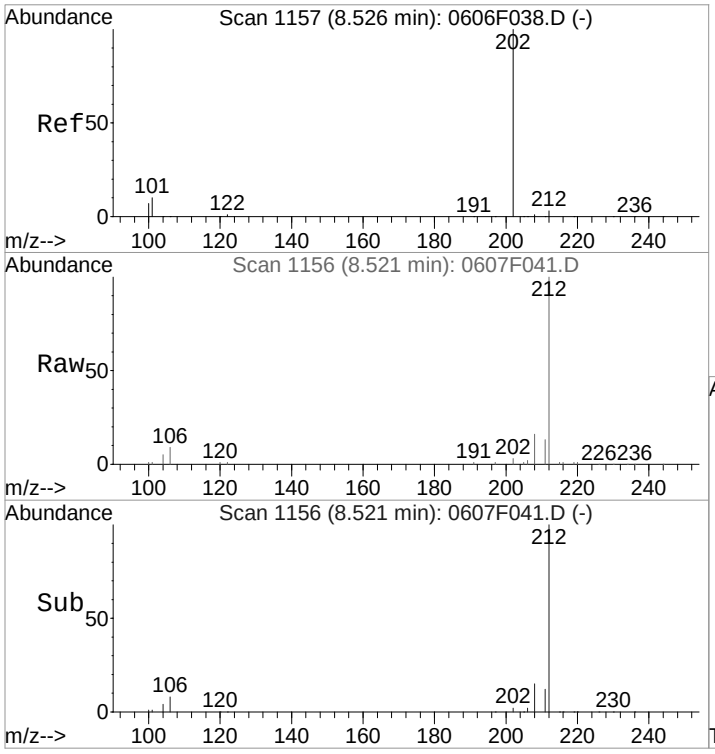


#17
Phenanthrene
Concen: 2.10 ng/ml
RT: 7.54 min Scan# 917
Delta R.T. -0.01 min
Lab File: 0607F041.D
Acq: 8 Jun 2019 3:34 am

Tgt Ion:178 Resp: 829

Ion	Ratio	Lower	Upper
178	100		
176	19.6	0.0	48.4
179	16.8	0.0	35.2

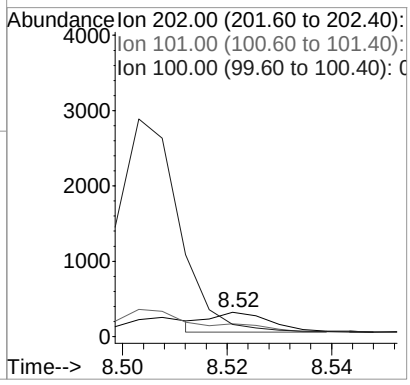


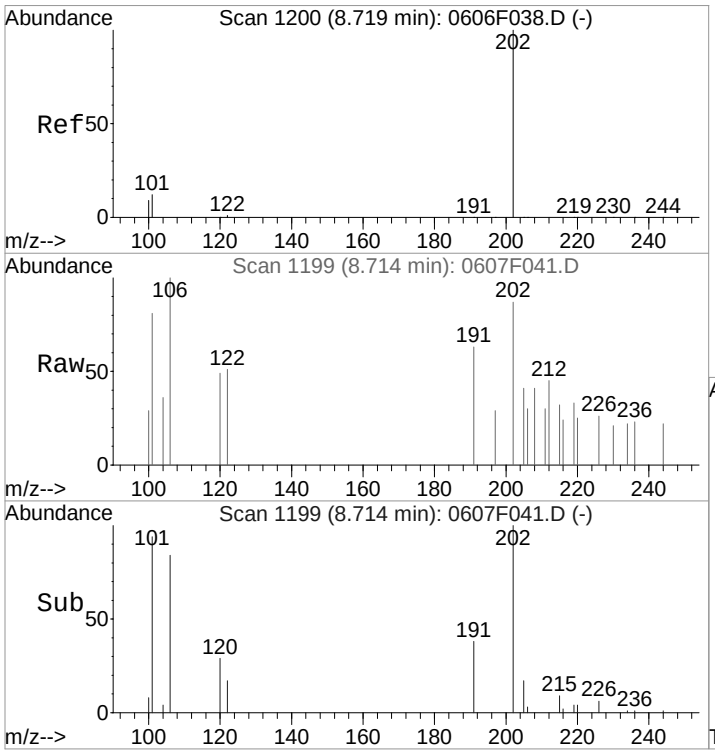


#21
Fluoranthene
Concen: 0.47 ng/ml m
RT: 8.52 min Scan# 1156
Delta R.T. -0.01 min
Lab File: 0607F041.D
Acq: 8 Jun 2019 3:34 am

Tgt Ion:202 Resp: 217

Ion	Ratio	Lower	Upper
202	100		
101	52.5	0.0	37.0#
100	50.3	0.0	24.7#

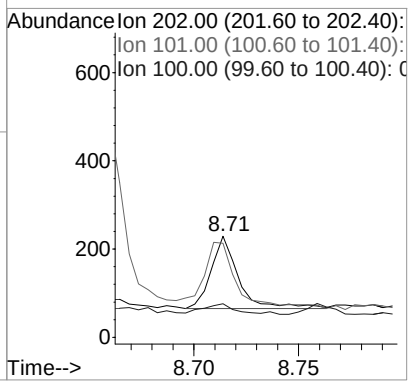


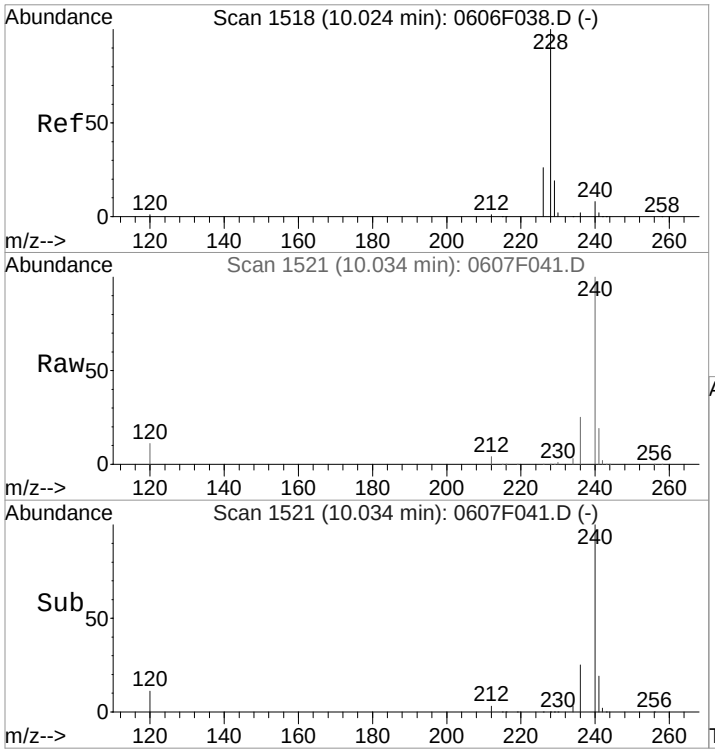


#24
Pyrene
Concen: 0.27 ng/ml
RT: 8.71 min Scan# 1199
Delta R.T. -0.01 min
Lab File: 0607F041.D
Acq: 8 Jun 2019 3:34 am

Tgt Ion:202 Resp: 150

Ion	Ratio	Lower	Upper
202	100		
101	90.2	0.0	38.8#
100	12.8	0.0	26.4

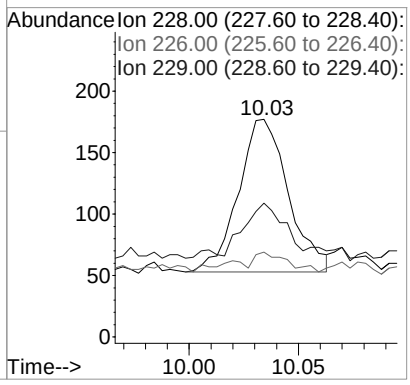




#26
Benz(a)anthracene
Concen: 0.44 ng/ml
RT: 10.03 min Scan# 1521
Delta R.T. 0.01 min
Lab File: 0607F041.D
Acq: 8 Jun 2019 3:34 am

Tgt Ion:228 Resp: 198

Ion	Ratio	Lower	Upper
228	100		
226	10.5	0.0	55.6
229	36.3	0.0	39.5



Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F041.D Vial: 37
Acq On : 8 Jun 2019 3:34 am Operator: LWeiskopf
Sample : K1905141-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:13:57 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	67277m	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.29	164	34389	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.53	188	65618	200.00	ng/ml	0.00
23) Chrysene-d12	10.03	240	69756	200.00	ng/ml	0.00
28) Perylene-d12	13.07	264	79559	200.00	ng/ml	0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.37	152	91209	537.61	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	53.76%		
13) Fluorene-d10	6.73	176	99697	510.02	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	51.00%		
22) Fluoranthene-d10	8.51	212	183316	476.76	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	47.68%		
25) Terphenyl-d14	8.85	244	77351	239.79	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	23.98%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	304m	0.84	ng/ml	
4) 2-Methylnaphthalene	5.40	142	249	1.01	ng/ml	93
5) 1-Methylnaphthalene	5.49	142	131	0.57	ng/ml	93
6) Biphenyl	5.81	154	402	1.30	ng/ml	98
7) 2,6-Dimethylnaphthalene	5.94	156	104	0.47	ng/ml	89
9) Acenaphthylene	6.17	152	47m	0.14	ng/ml	
10) Acenaphthene	6.32	154	116	0.55	ng/ml	90
11) Dibenzofuran	6.47	168	251	0.76	ng/ml	85
14) Fluorene	6.75	166	168	0.65	ng/ml	93
16) Dibenzothiophene	7.44	184	60m	0.16	ng/ml	
17) Phenanthrene	7.54	178	829	2.10	ng/ml	97
21) Fluoranthene	8.52	202	217m	0.47	ng/ml	
24) Pyrene	8.71	202	150	0.27	ng/ml#	1
26) Benz(a)anthracene	10.03	228	198	0.44	ng/ml	67

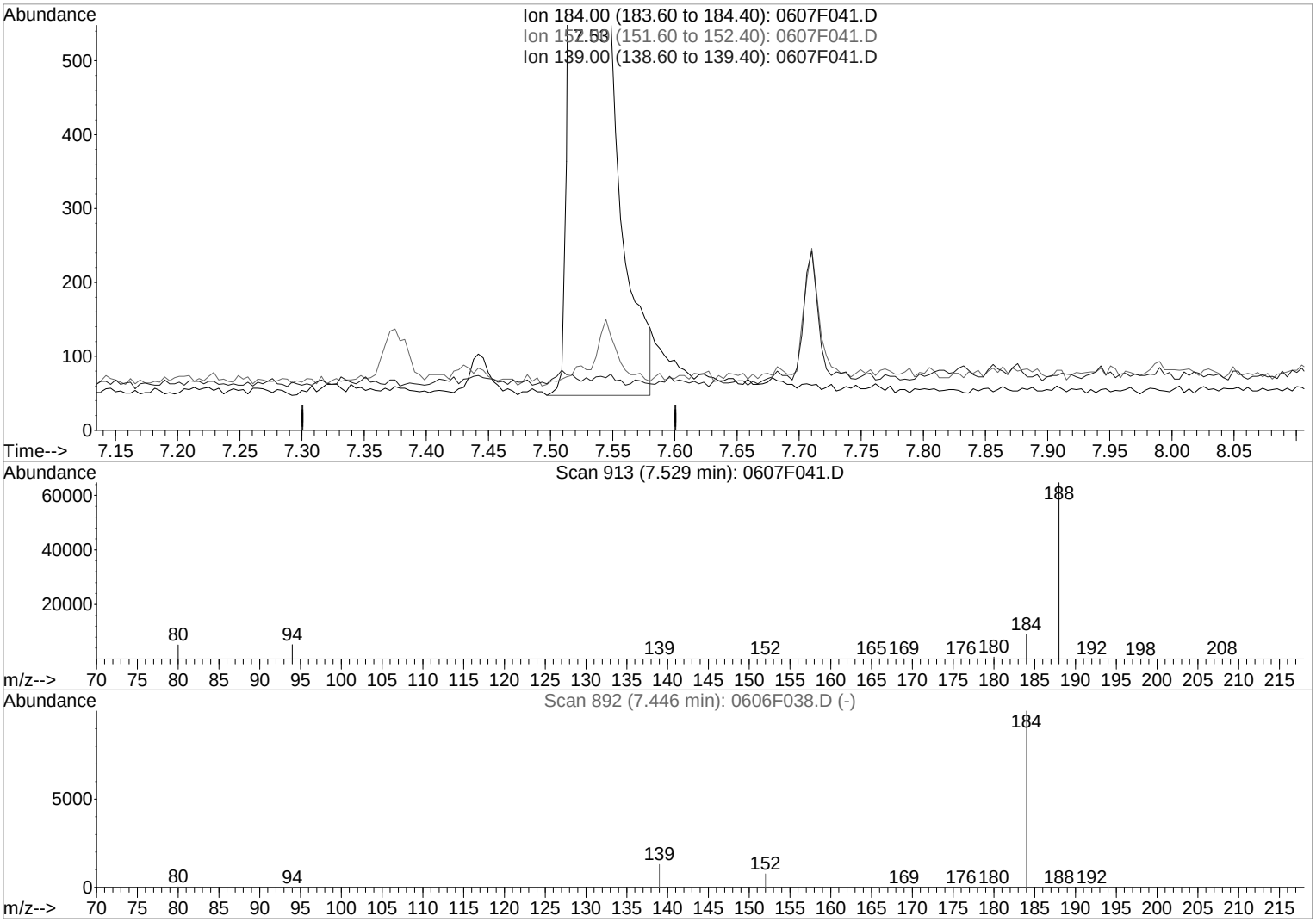
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F041.D Vial: 37
Acq On : 8 Jun 2019 3:34 am Operator: LWeiskopf
Sample : K1905141-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:15 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F041.D

(16) Dibenzothiophene (T)

7.53min 24.58ng/ml

response 9174

Ion	Exp%	Act%
184.00	100	100
152.00	7.70	0.22
139.00	12.30	0.09
0.00	0.00	0.00

Manual Integration:

Before

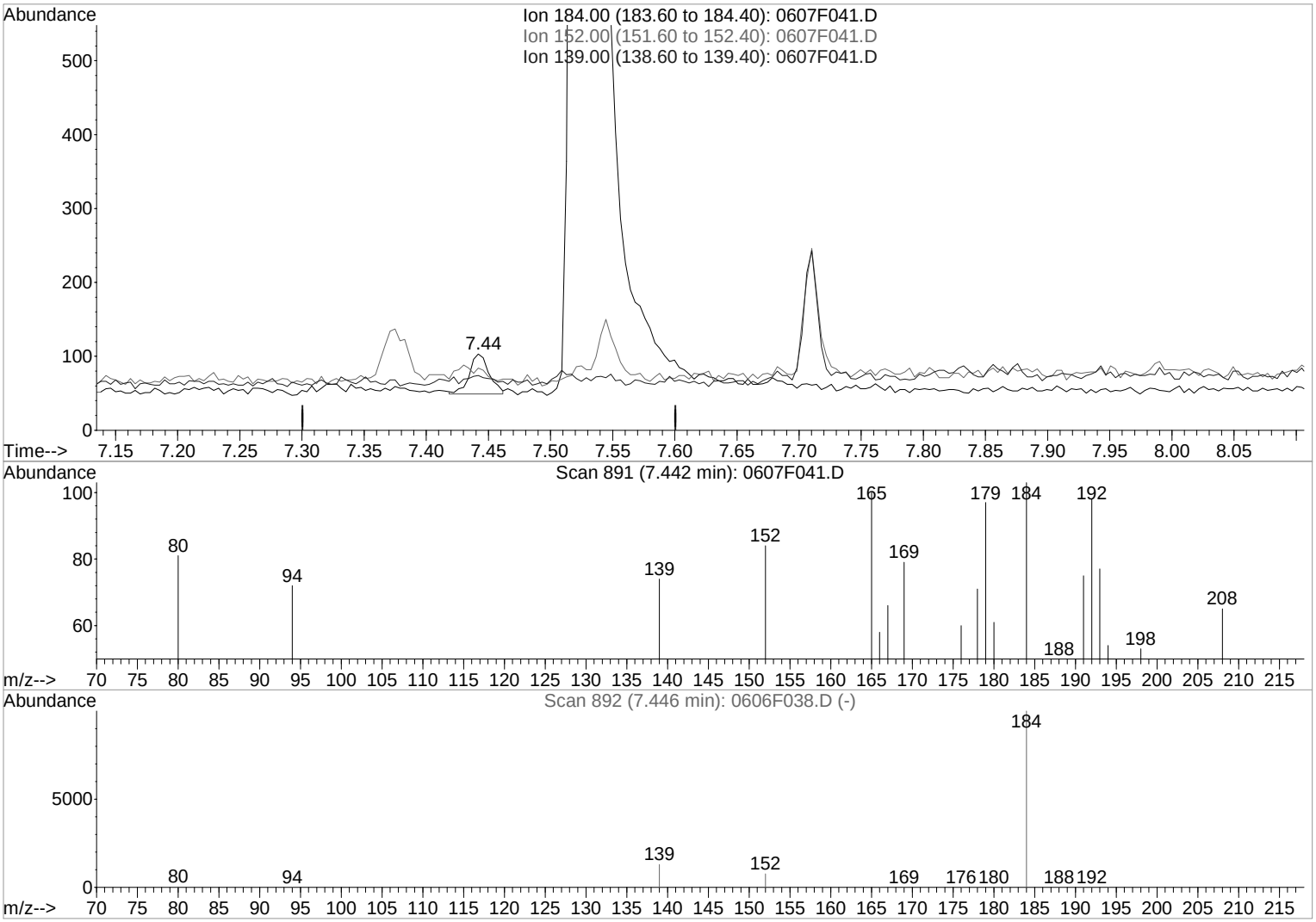
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F041.D Vial: 37
Acq On : 8 Jun 2019 3:34 am Operator: LWeiskopf
Sample : K1905141-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:15 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F041.D

(16) Dibenzothiophene (T)

7.44min 0.16ng/ml m

response 60

Ion	Exp%	Act%
184.00	100	100
152.00	7.70	81.55#
139.00	12.30	71.84#
0.00	0.00	0.00

Manual Integration:

After

WP

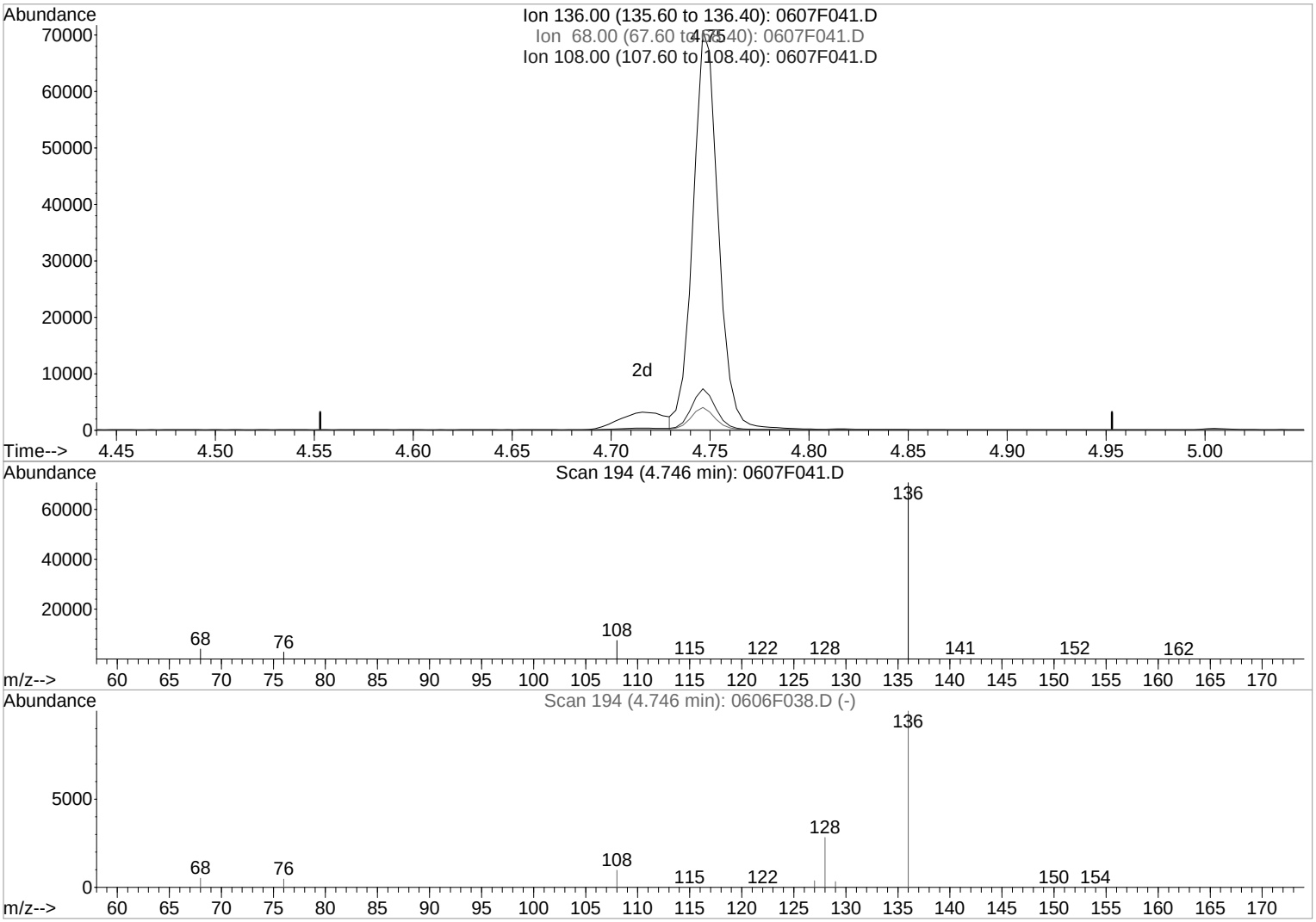
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F041.D Vial: 37
Acq On : 8 Jun 2019 3:34 am Operator: LWeiskopf
Sample : K1905141-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:13 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F041.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml

response 62835

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.58
108.00	8.80	10.33
0.00	0.00	0.00

Manual Integration:

Before

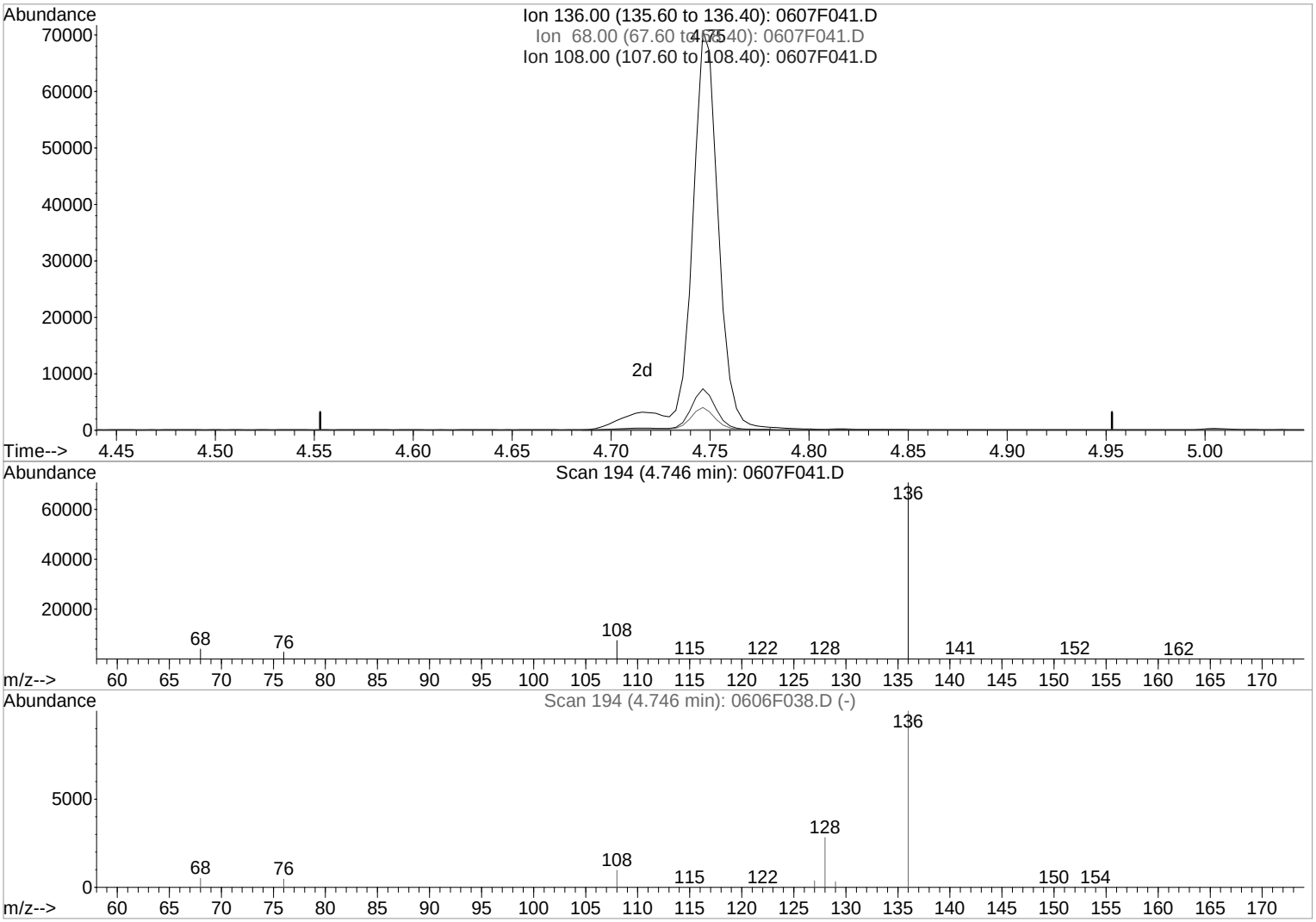
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F041.D Vial: 37
Acq On : 8 Jun 2019 3:34 am Operator: LWeiskopf
Sample : K1905141-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:14 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F041.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml m

response 67277

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.67
108.00	8.80	10.40
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

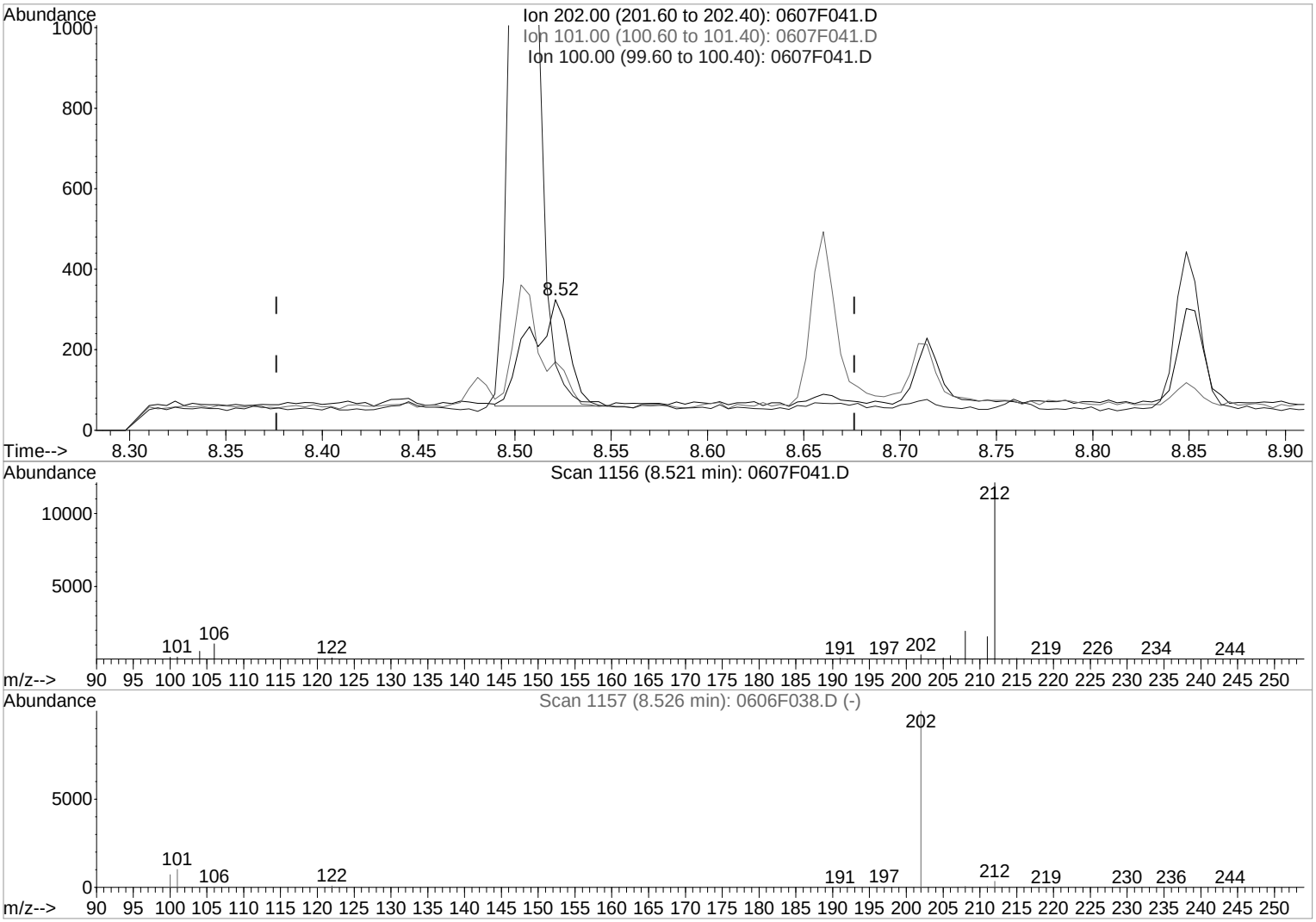
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F041.D Vial: 37
Acq On : 8 Jun 2019 3:34 am Operator: LWeiskopf
Sample : K1905141-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:15 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F041.D

(21) Fluoranthene (T)

8.52min 0.82ng/ml

response 380

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	40.91#
100.00	4.70	39.02#
0.00	0.00	0.00

Manual Integration:

Before

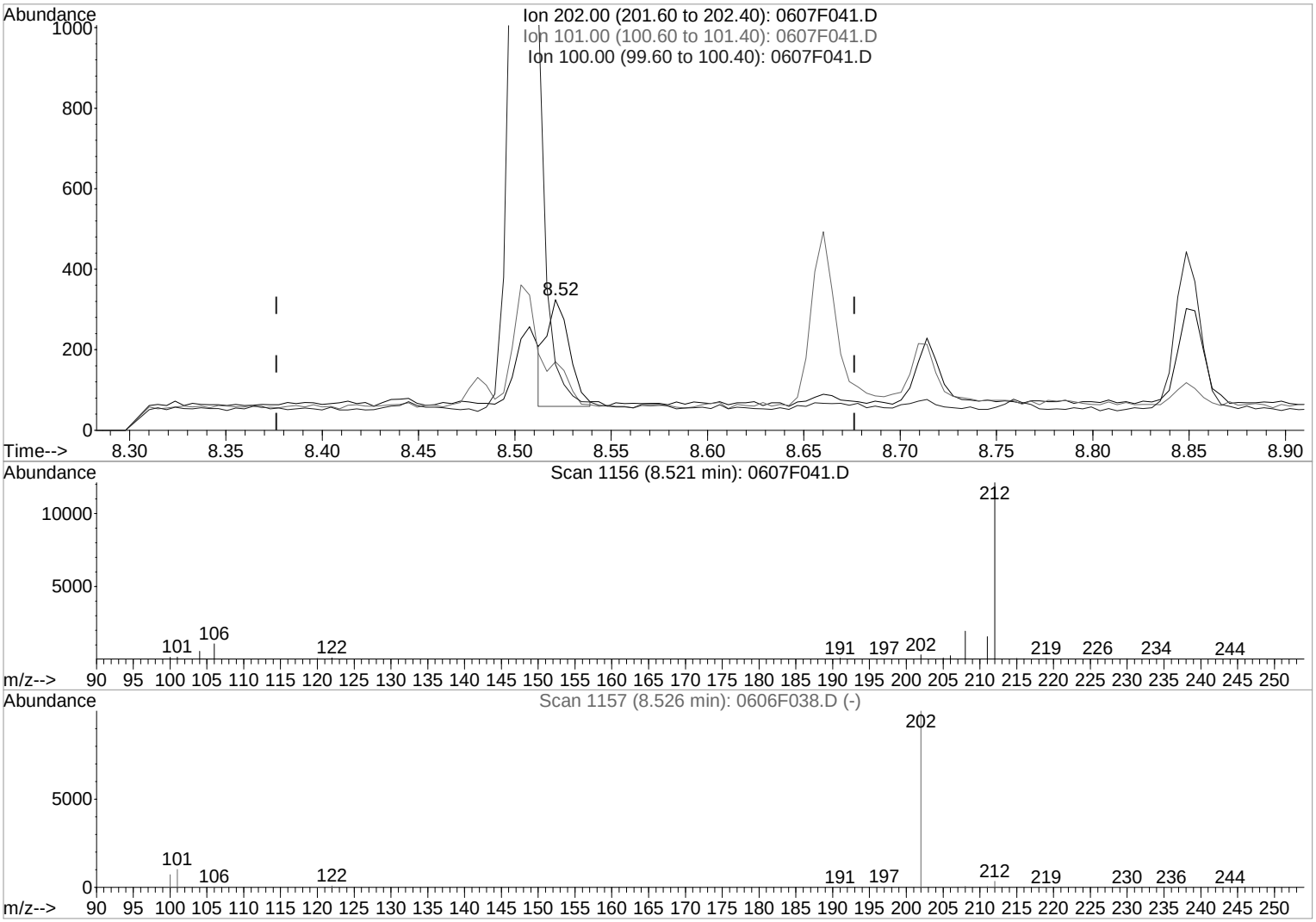
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F041.D Vial: 37
Acq On : 8 Jun 2019 3:34 am Operator: LWeiskopf
Sample : K1905141-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:16 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F041.D

(21) Fluoranthene (T)

8.52min 0.47ng/ml m

response 217

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	52.47#
100.00	4.70	50.31#
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

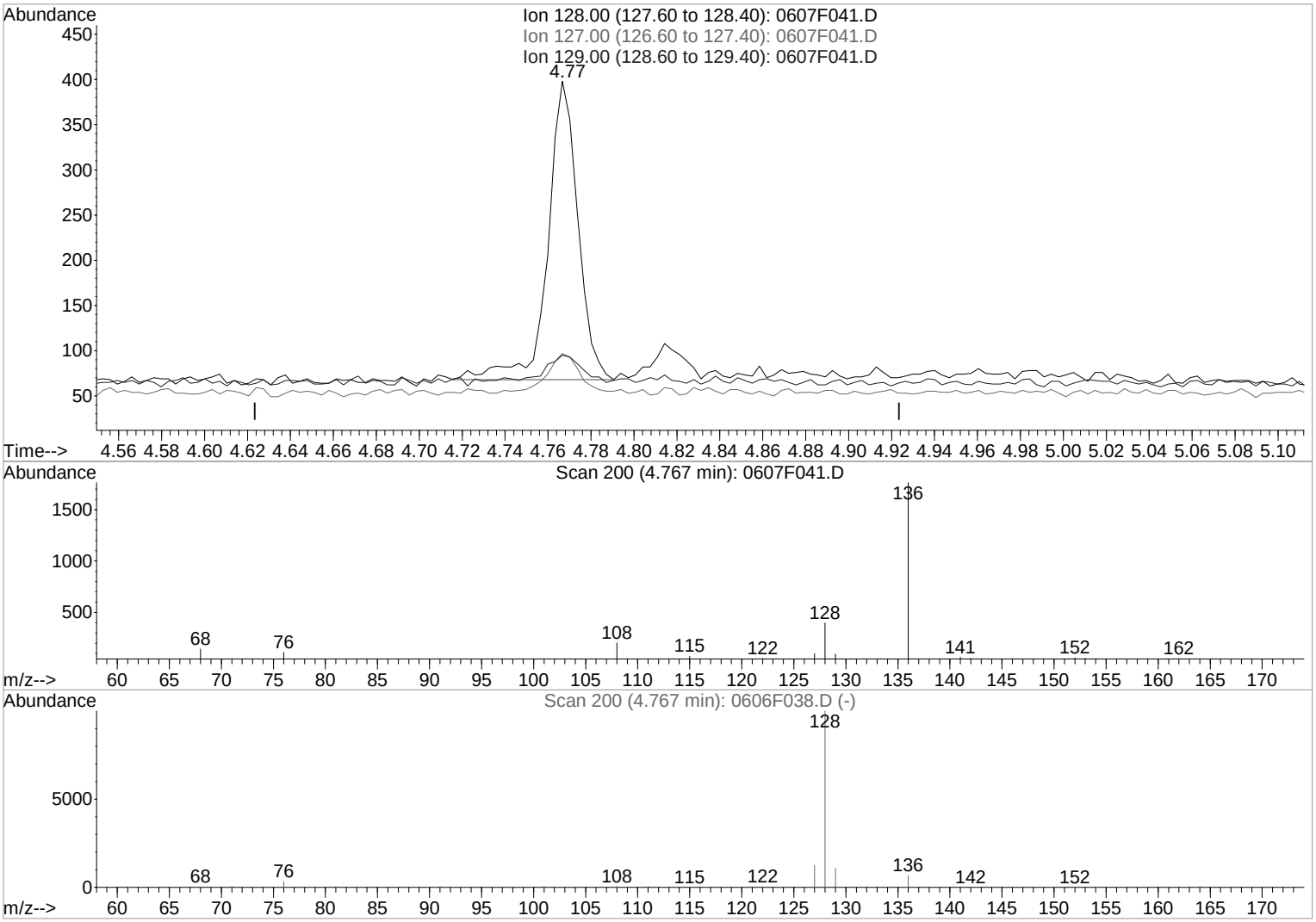
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F041.D Vial: 37
Acq On : 8 Jun 2019 3:34 am Operator: LWeiskopf
Sample : K1905141-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:14 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F041.D

(2) Naphthalene (T)

4.77min 0.89ng/ml

response 322

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	13.03
129.00	10.80	8.48
0.00	0.00	0.00

Manual Integration:

Before

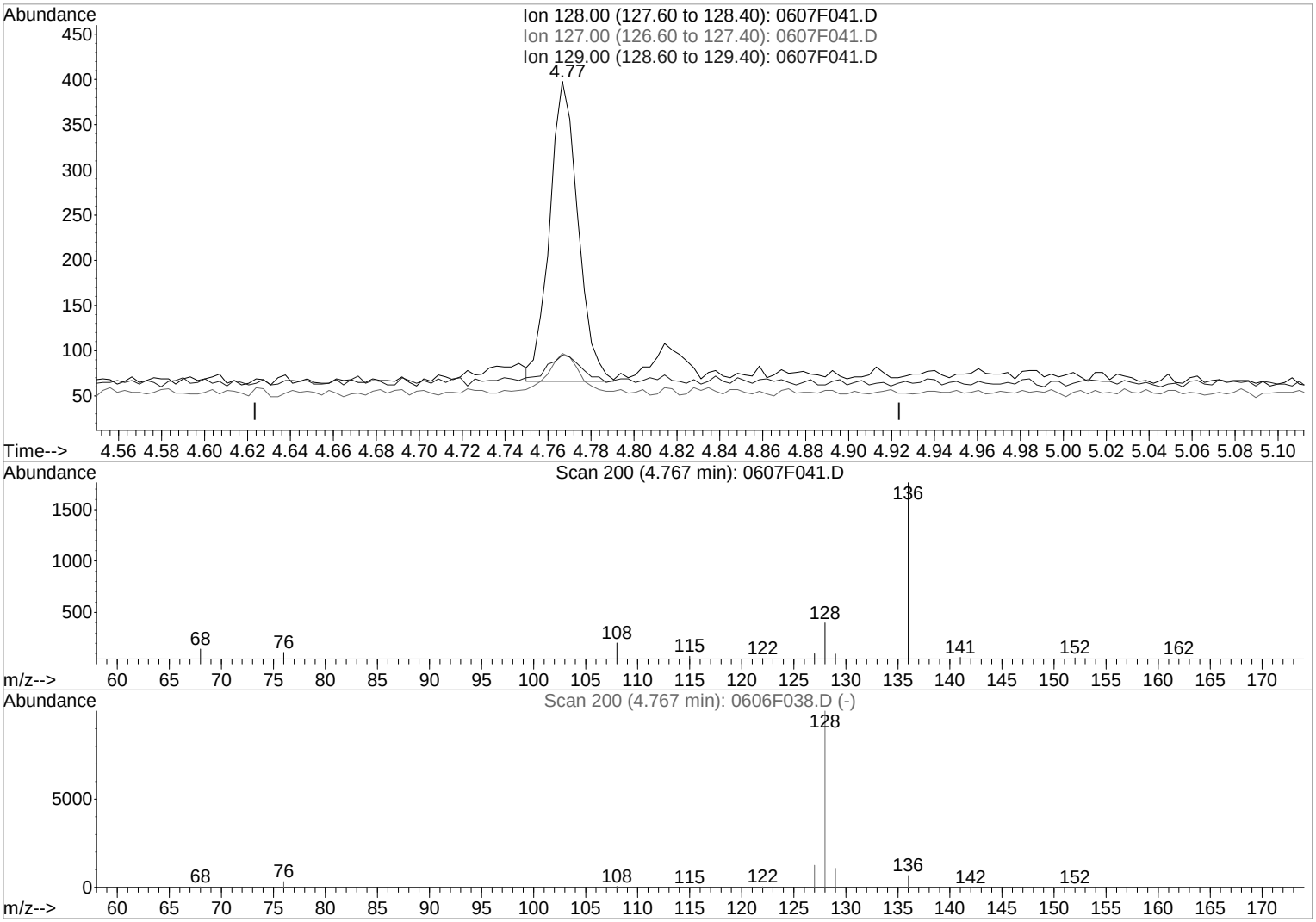
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F041.D Vial: 37
Acq On : 8 Jun 2019 3:34 am Operator: LWeiskopf
Sample : K1905141-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:14 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F041.D

(2) Naphthalene (T)

4.77min 0.84ng/ml m

response 304

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	24.37
129.00	10.80	23.87
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

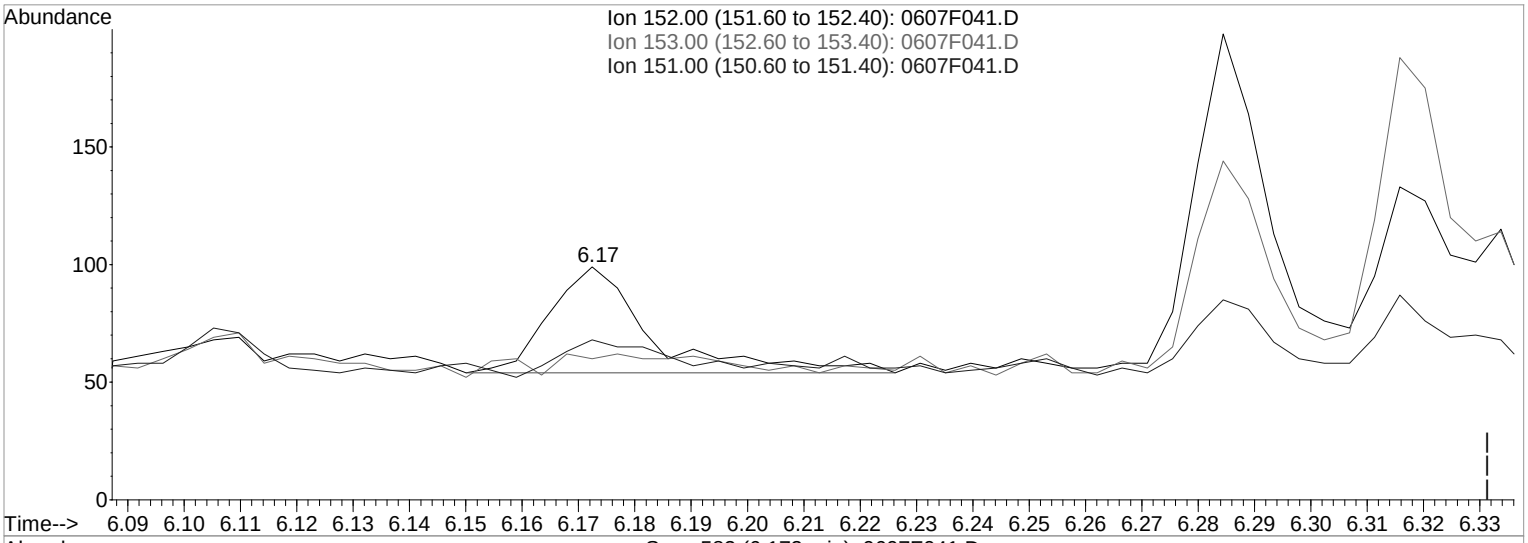
06/17/19

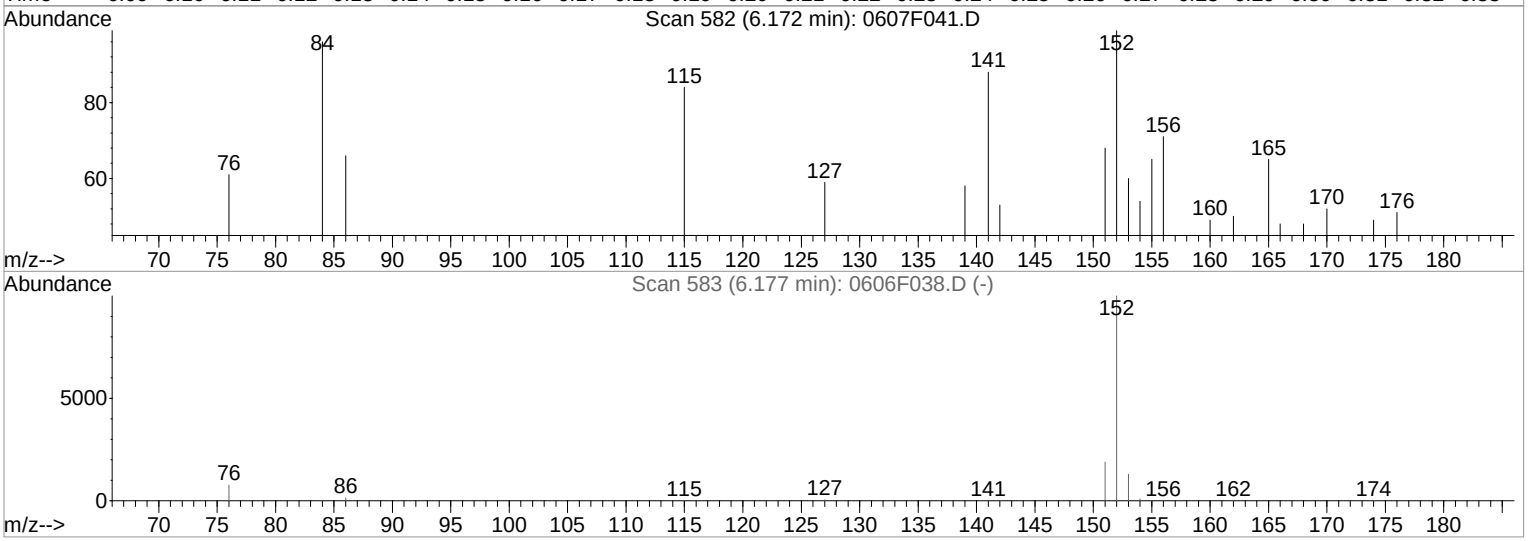
Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F041.D Vial: 37
Acq On : 8 Jun 2019 3:34 am Operator: LWeiskopf
Sample : K1905141-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:14 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration





TIC: 0607F041.D

(9) Acenaphthylene (T)

6.17min 0.16ng/ml

response 56

Ion	Exp%	Act%
152.00	100	100
153.00	12.90	17.78
151.00	18.80	26.67
0.00	0.00	0.00

Manual Integration:

Before

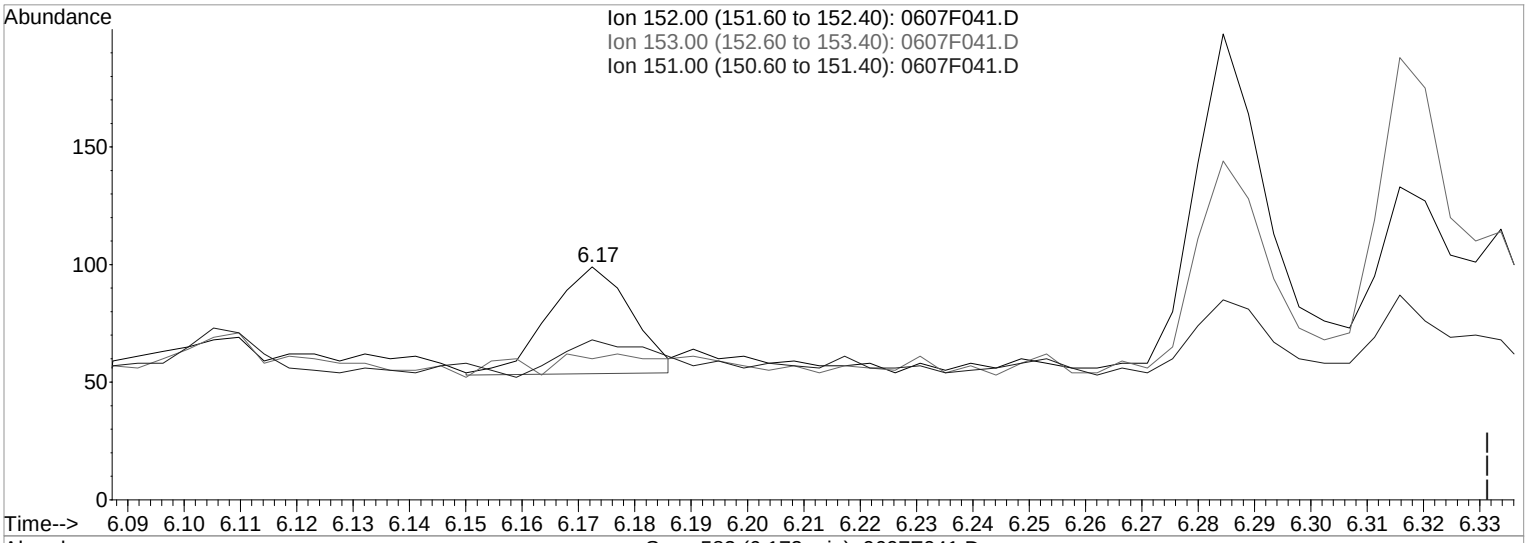
06/17/19

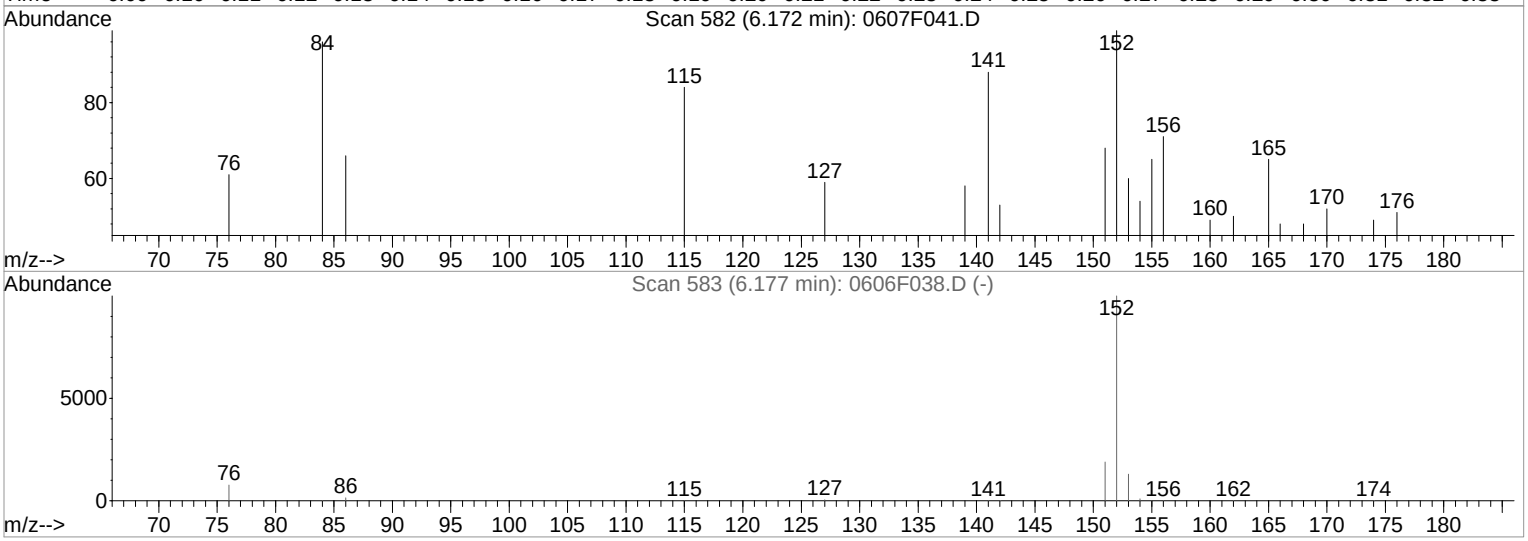
Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F041.D Vial: 37
Acq On : 8 Jun 2019 3:34 am Operator: LWeiskopf
Sample : K1905141-028 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:15 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration





TIC: 0607F041.D

(9) Acenaphthylene (T)

6.17min 0.14ng/ml m

response 47

Ion	Exp%	Act%
152.00	100	100
153.00	12.90	60.61#
151.00	18.80	68.69#
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

06/17/19

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F042.D\
Lab ID: K1905141-029
RunType: N/A
Matrix: Water

Date Acquired: 6/8/19 04:01:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/17/19 10:31
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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F042.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 04:01:00	**Vial:**	18
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-029	**Raw Units:**	ng/mL

Bottle ID:	K1905141-029.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	638644	**Prep Lot:**	338019	**Report Group:**	K1905141
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/5/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		36613	200.00	OK
Chrysene-d12	10.03	-0.01	72770	200.00	OK
Naphthalene-d8	4.75	+0.01	73149	200.00	OK
Perylene-d12	13.07	-0.01	83694	200.00	OK
Phenanthrene-d10	7.53		68570	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.51		367612	914.90	91	42 - 133	Y
Fluorene-d10	6.73		197456	948.76	95	42 - 131	Y
Terphenyl-d14	8.85	-0.01	227611	676.37	68	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.40		225	0.84	0.0037	J	Y
Acenaphthene	6.32		119	0.53	0.0024	J	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.03		207	0.44	0.0020	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	6.47		272	0.77	0.0034	J	Y
Fluoranthene	8.52	-0.01	163	0.34	0.0015	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31
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1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F042.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 04:01:00	**Vial:**	18
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905141-029	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.75		162	0.59	0.0026	J	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.77	+0.01	382	0.97	0.0043	J	Y
Phenanthrene	7.54	-0.01	761	1.85	0.0082	J	Y
Pyrene	8.71	-0.01	165	0.29	0.0013	J	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

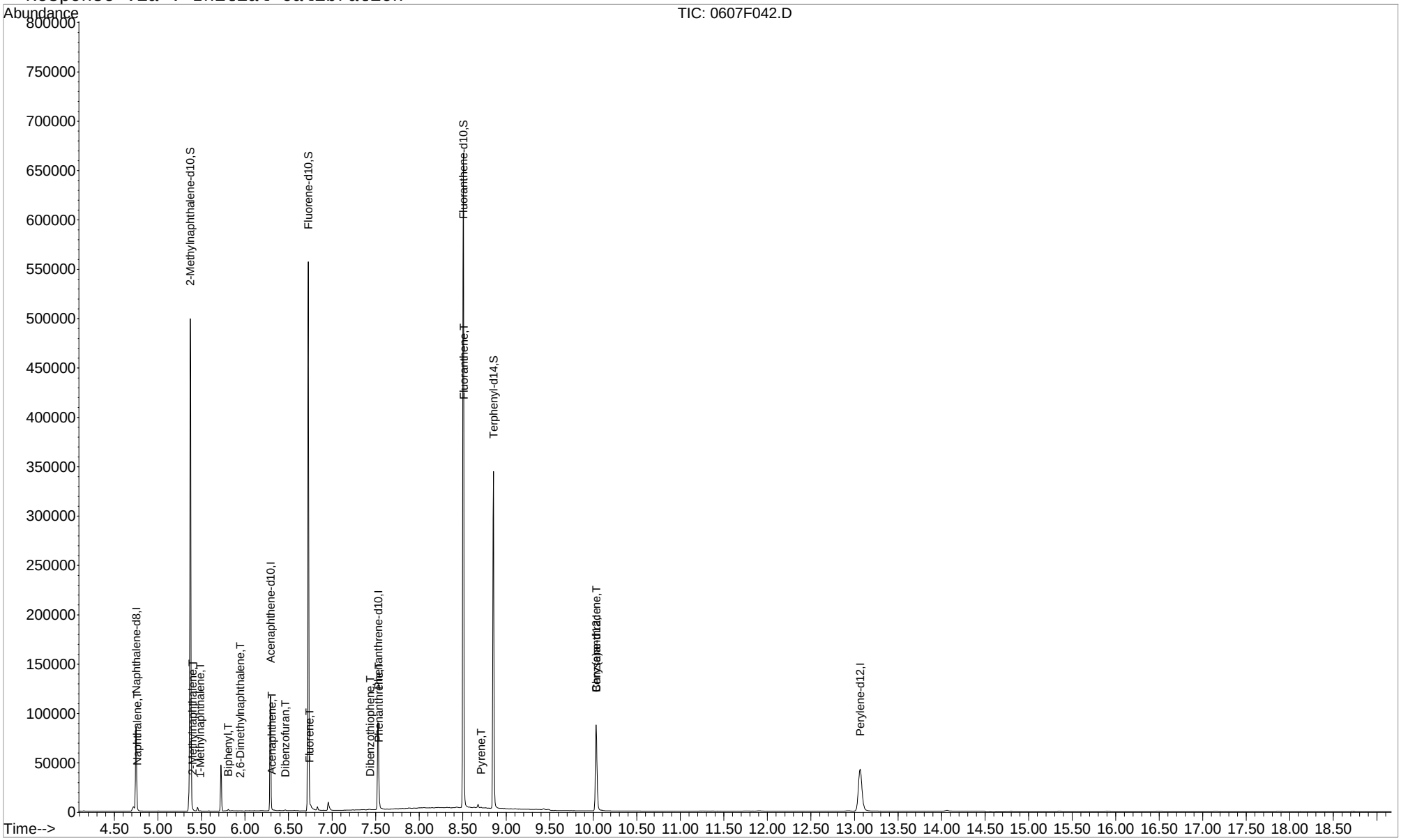
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

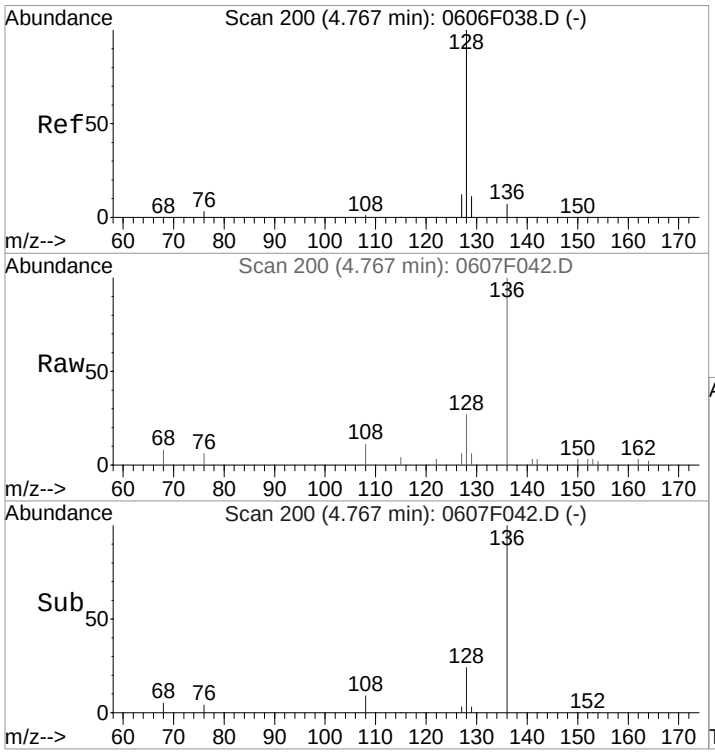
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F042.D Vial: 38
Acq On : 8 Jun 2019 4:01 am Operator: LWeiskopf
Sample : K1905141-029 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:17 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration



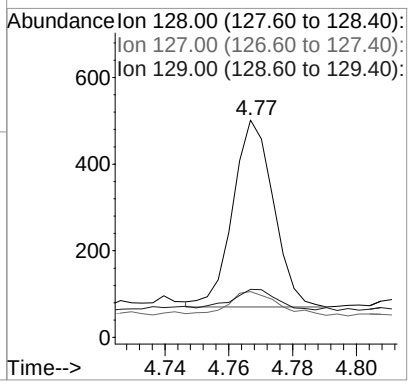
1st 06/17/19
2nd 06/17/19

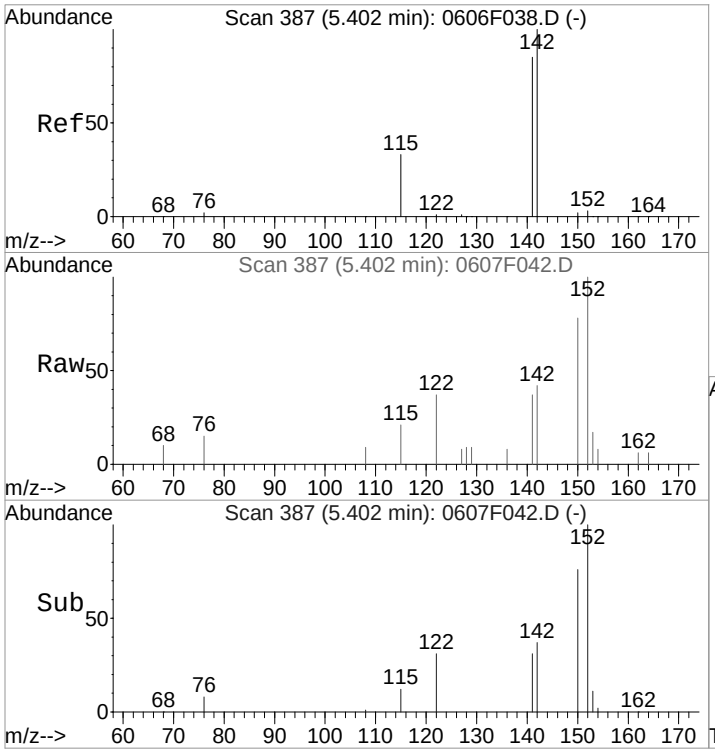


#2
Naphthalene
Concen: 0.97 ng/ml
RT: 4.77 min Scan# 200
Delta R.T. -0.01 min
Lab File: 0607F042.D
Acq: 8 Jun 2019 4:01 am

Tgt Ion:128 Resp: 382

Ion	Ratio	Lower	Upper
128	100		
127	12.7	0.0	42.3
129	9.7	0.0	30.8

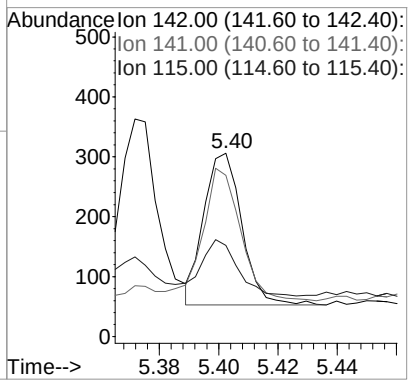


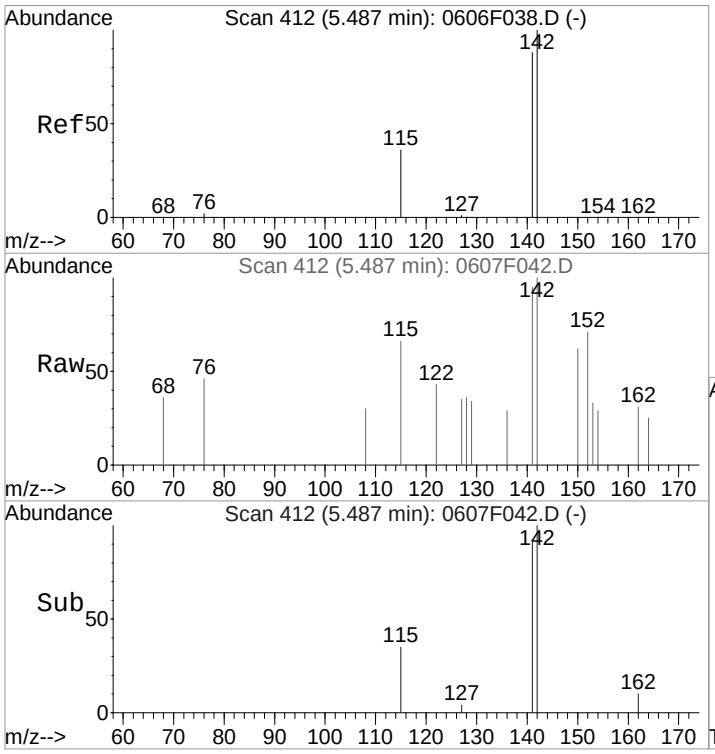


#4
2-Methylnaphthalene
Concen: 0.84 ng/ml
RT: 5.40 min Scan# 387
Delta R.T. -0.01 min
Lab File: 0607F042.D
Acq: 8 Jun 2019 4:01 am

Tgt Ion:142 Resp: 225

Ion	Ratio	Lower	Upper
142	100		
141	81.4	52.7	112.7
115	30.8	8.2	48.2

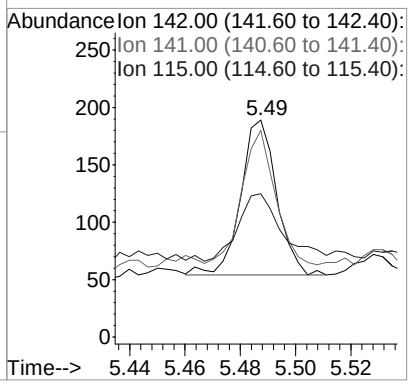


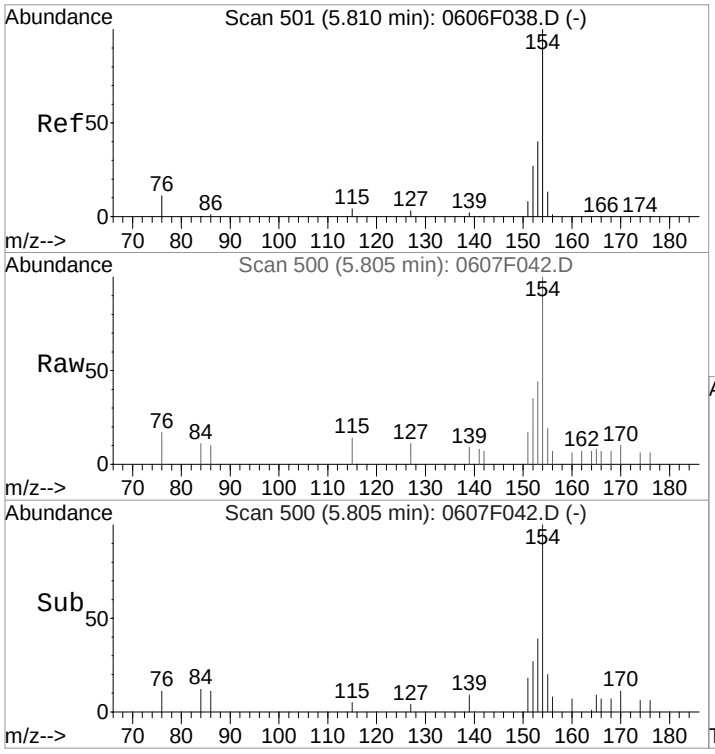


#5
1-Methylnaphthalene
Concen: 0.49 ng/ml
RT: 5.49 min Scan# 412
Delta R.T. -0.01 min
Lab File: 0607F042.D
Acq: 8 Jun 2019 4:01 am

Tgt Ion:142 Resp: 122

Ion	Ratio	Lower	Upper
142	100		
141	85.2	55.8	115.8
115	43.0	10.1	50.1

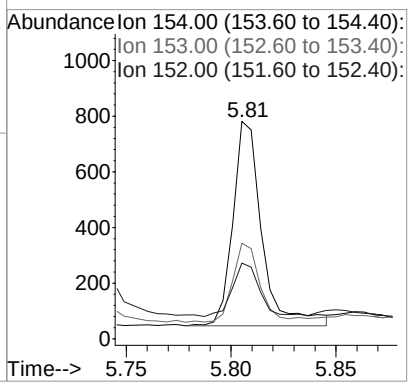


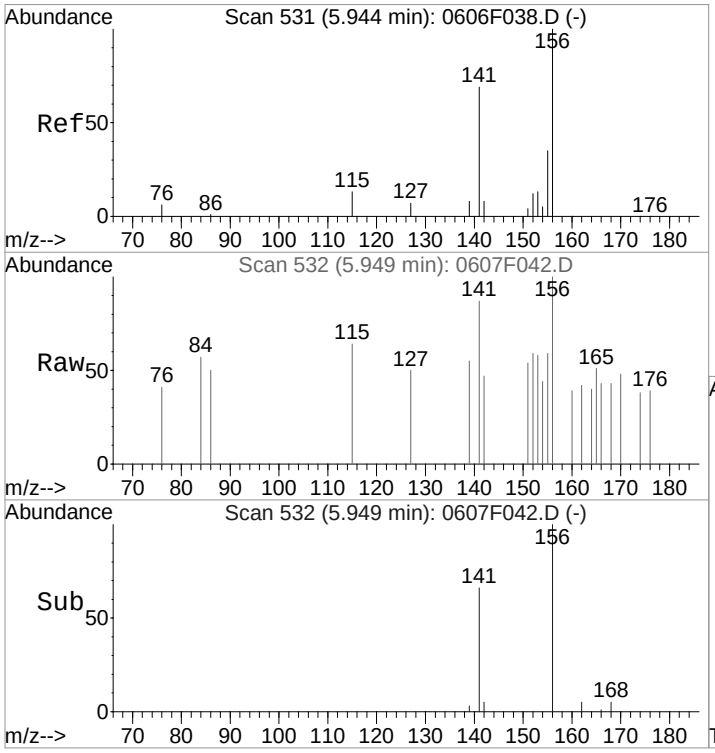


#6
Biphenyl
Concen: 2.12 ng/ml
RT: 5.81 min Scan# 500
Delta R.T. -0.01 min
Lab File: 0607F042.D
Acq: 8 Jun 2019 4:01 am

Tgt Ion:154 Resp: 710

Ion	Ratio	Lower	Upper
154	100		
153	38.6	8.2	68.2
152	25.3	6.1	46.1

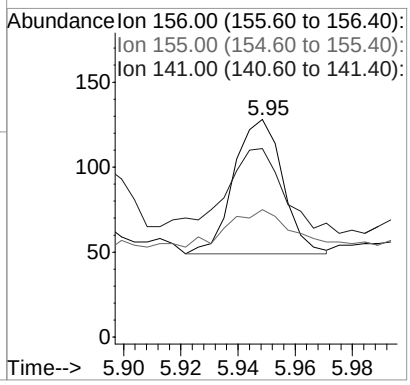


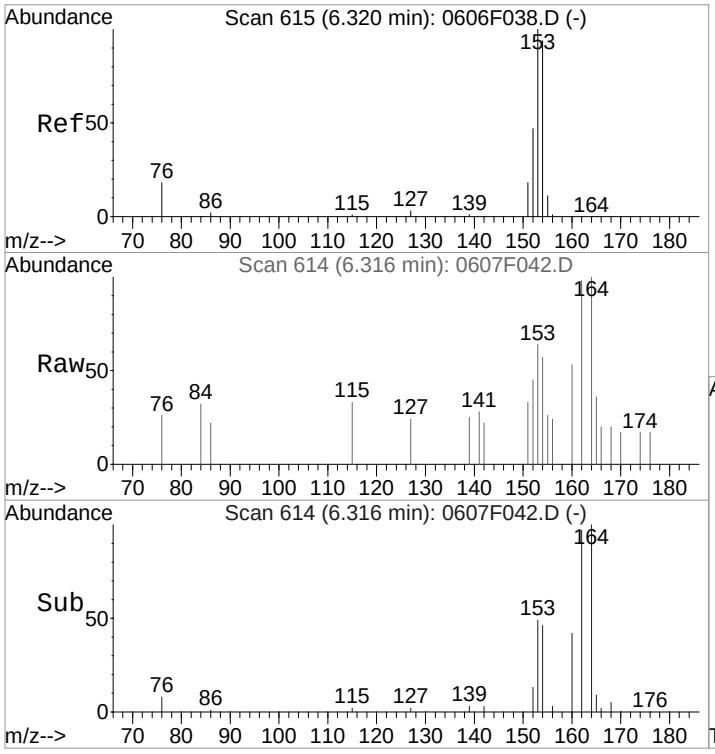


#7
2,6-Dimethylnaphthalene
Concen: 0.39 ng/ml
RT: 5.95 min Scan# 532
Delta R.T. -0.00 min
Lab File: 0607F042.D
Acq: 8 Jun 2019 4:01 am

Tgt Ion:156 Resp: 94

Ion	Ratio	Lower	Upper
156	100		
155	27.8	3.3	63.3
141	55.7	40.6	80.6

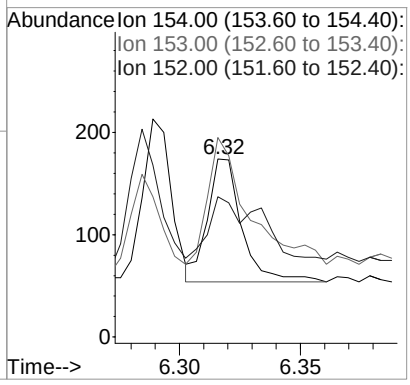




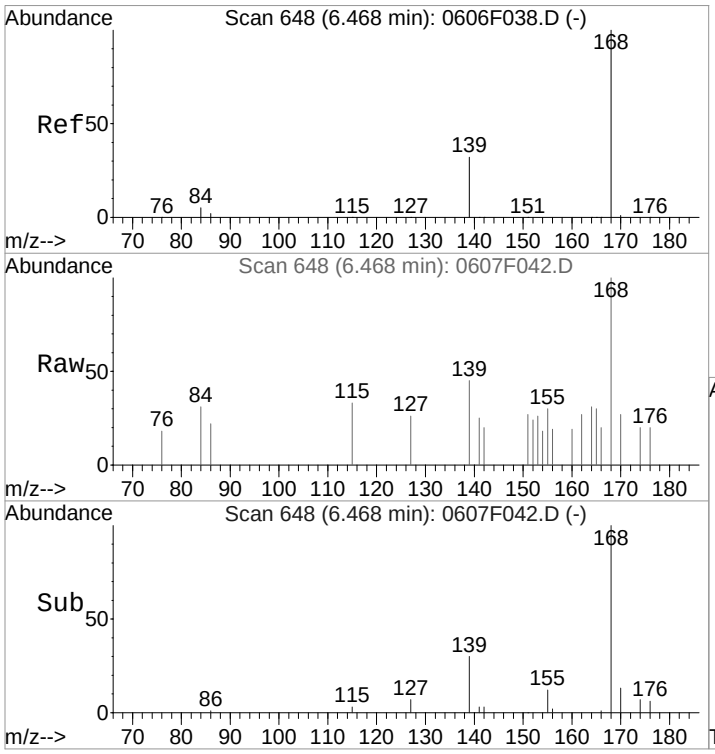
#10
Acenaphthene
Concen: 0.53 ng/ml
RT: 6.32 min Scan# 614
Delta R.T. -0.01 min
Lab File: 0607F042.D
Acq: 8 Jun 2019 4:01 am

Tgt Ion:154 Resp: 119

Ion	Ratio	Lower	Upper
154	100		
153	103.3	72.8	132.8
152	50.8	17.7	77.7



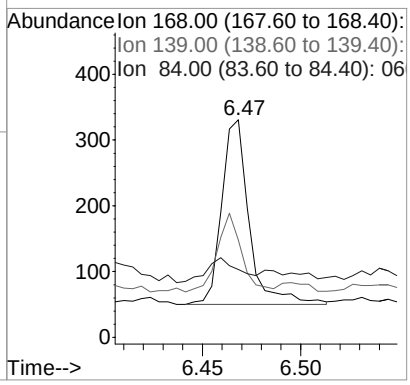
1st 06/17/19
2nd 06/17/19

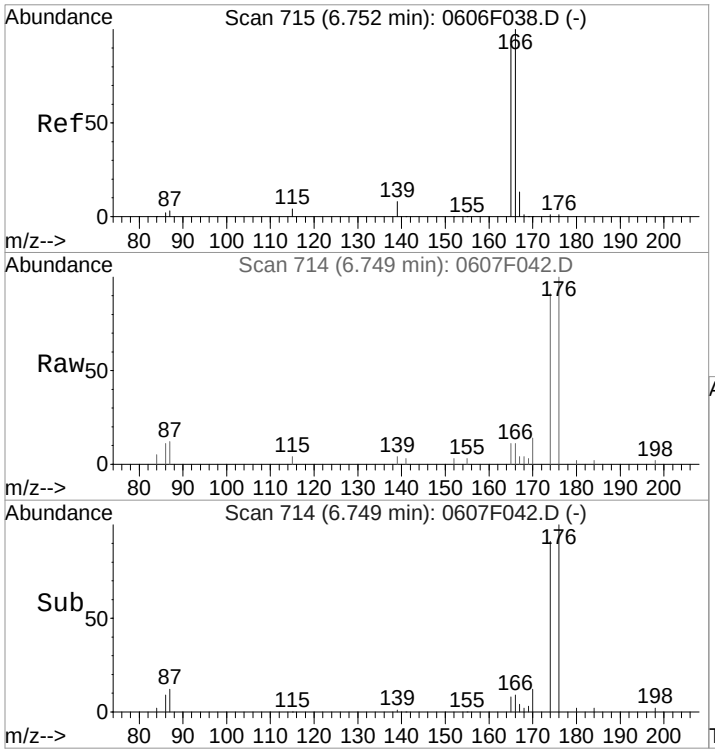


#11
Dibenzofuran
Concen: 0.77 ng/ml
RT: 6.47 min Scan# 648
Delta R.T. -0.01 min
Lab File: 0607F042.D
Acq: 8 Jun 2019 4:01 am

Tgt Ion:168 Resp: 272

Ion	Ratio	Lower	Upper
168	100		
139	28.1	0.0	54.7
84	6.4	0.0	22.9

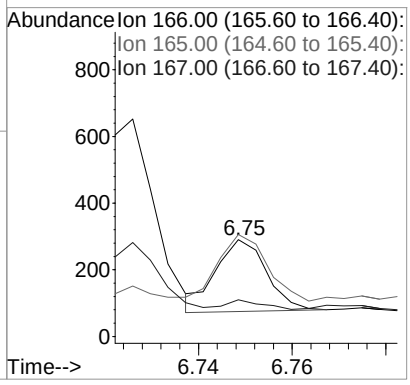


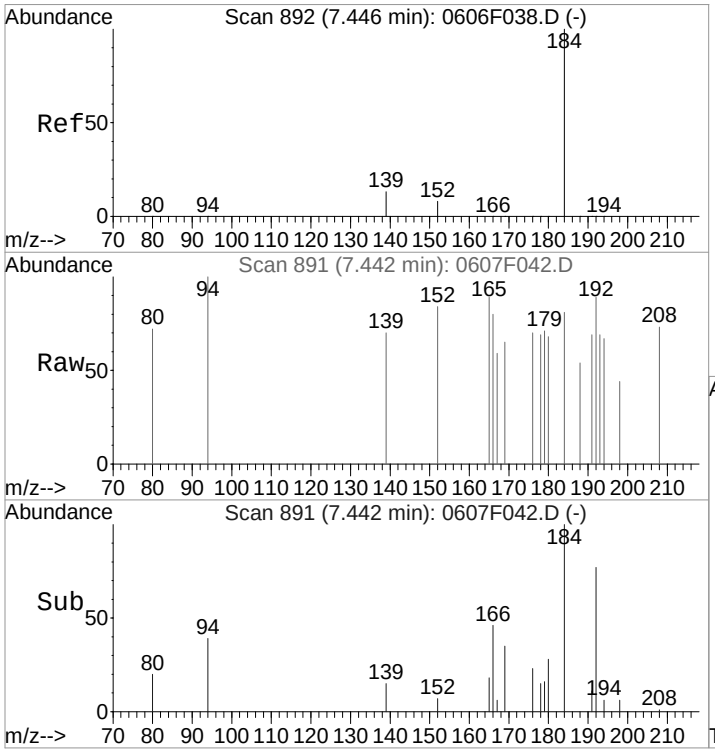


#14
Fluorene
Concen: 0.59 ng/ml
RT: 6.75 min Scan# 714
Delta R.T. -0.01 min
Lab File: 0607F042.D
Acq: 8 Jun 2019 4:01 am

Tgt Ion:166 Resp: 162

Ion	Ratio	Lower	Upper
166	100		
165	89.1	59.0	119.0
167	7.6	0.0	33.1

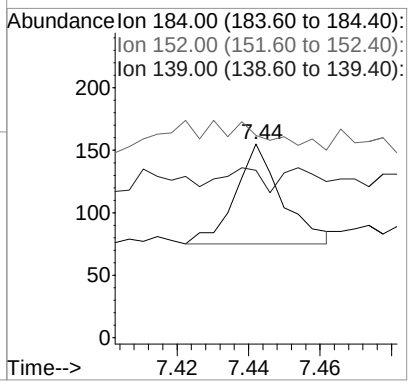


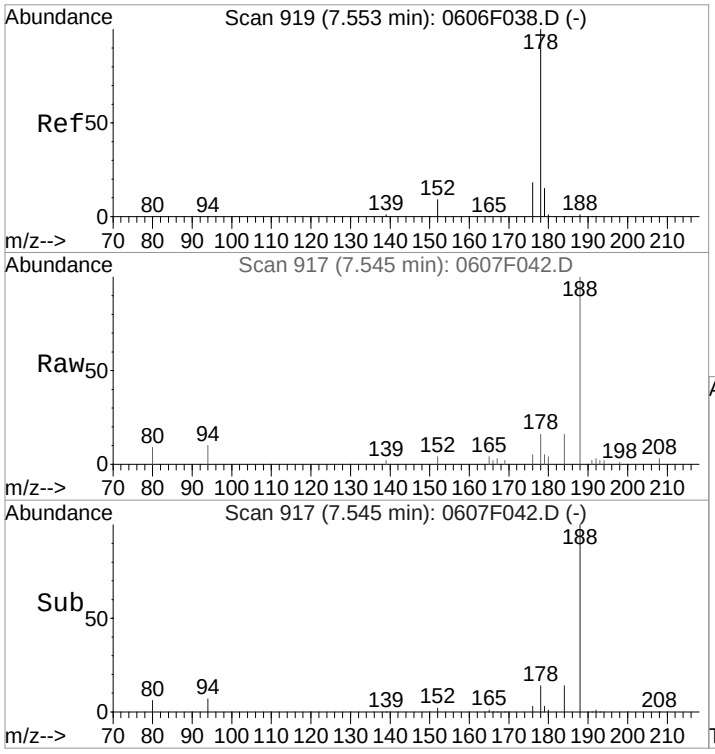


#16
Dibenzothiophene
Concen: 0.19 ng/ml
RT: 7.44 min Scan# 891
Delta R.T. -0.01 min
Lab File: 0607F042.D
Acq: 8 Jun 2019 4:01 am

Tgt Ion:184 Resp: 73

Ion	Ratio	Lower	Upper
184	100		
152	15.0	0.0	37.7
139	11.3	0.0	32.3

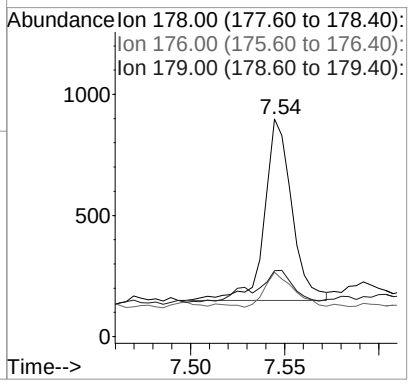


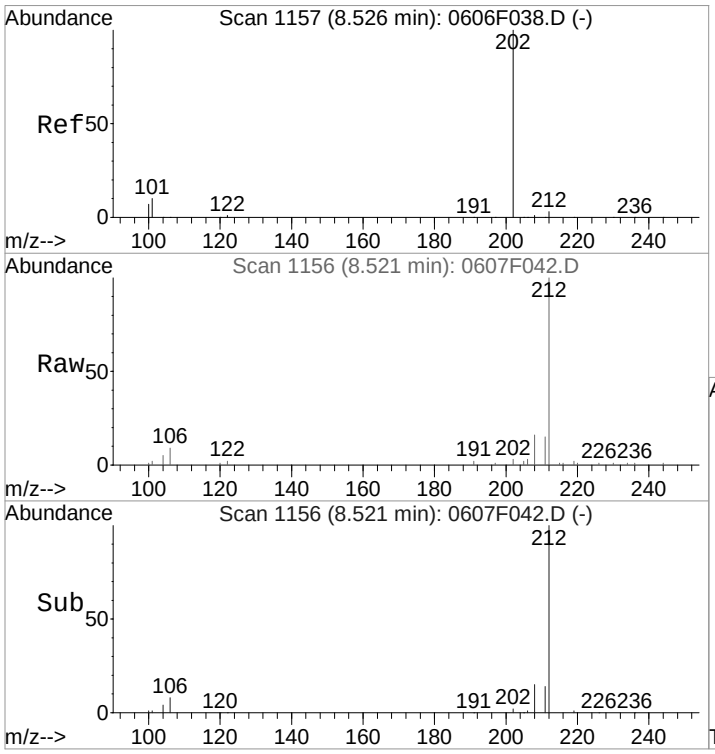


#17
Phenanthrene
Concen: 1.85 ng/ml
RT: 7.54 min Scan# 917
Delta R.T. -0.01 min
Lab File: 0607F042.D
Acq: 8 Jun 2019 4:01 am

Tgt Ion:178 Resp: 761

Ion	Ratio	Lower	Upper
178	100		
176	18.7	0.0	48.4
179	17.5	0.0	35.2

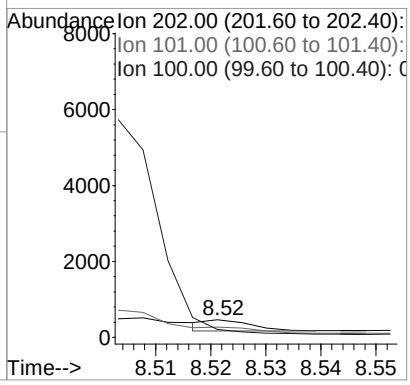


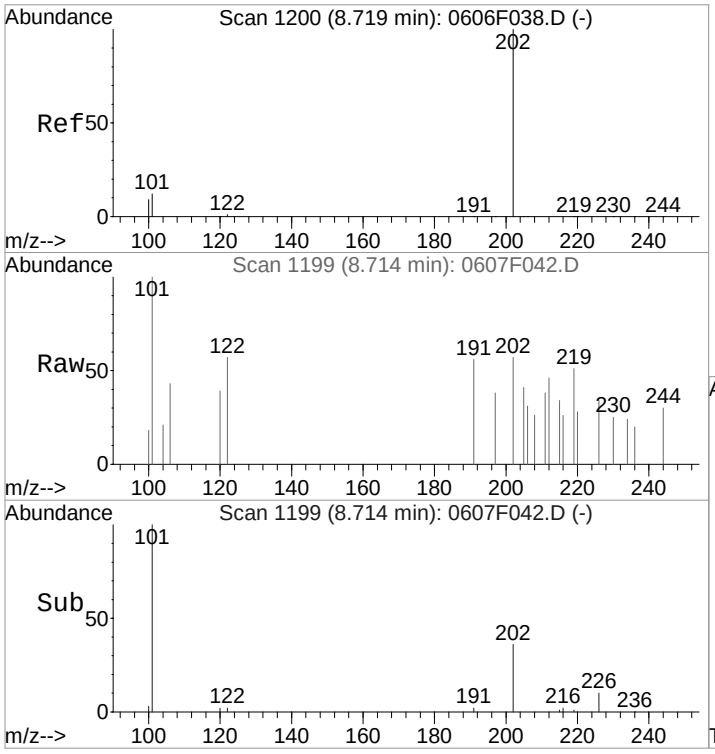


#21
Fluoranthene
Concen: 0.34 ng/ml m
RT: 8.52 min Scan# 1156
Delta R.T. -0.01 min
Lab File: 0607F042.D
Acq: 8 Jun 2019 4:01 am

Tgt Ion:202 Resp: 163

Ion	Ratio	Lower	Upper
202	100		
101	58.2	0.0	37.0#
100	45.5	0.0	24.7#

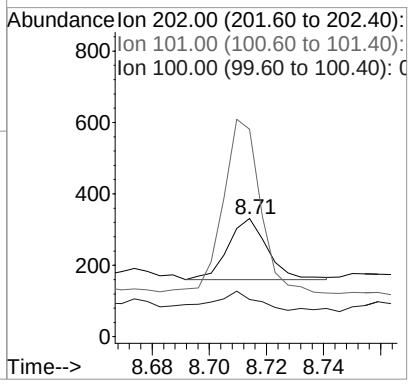


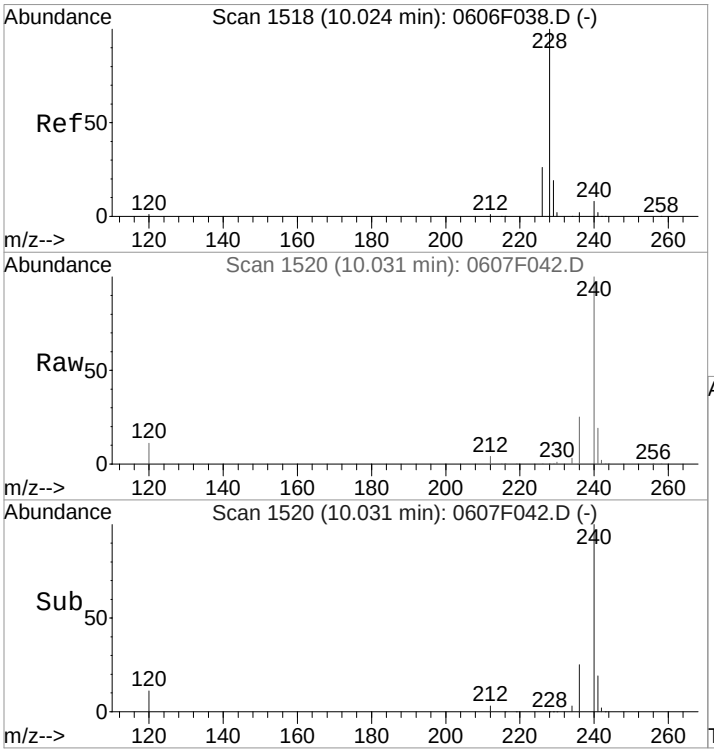


#24
Pyrene
Concen: 0.29 ng/ml
RT: 8.71 min Scan# 1199
Delta R.T. -0.01 min
Lab File: 0607F042.D
Acq: 8 Jun 2019 4:01 am

Tgt Ion:202 Resp: 165

Ion	Ratio	Lower	Upper
202	100		
101	268.4	0.0	38.8#
100	14.6	0.0	26.4

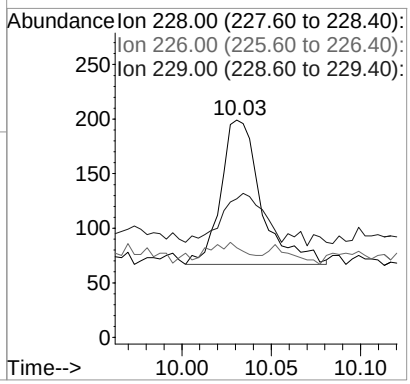




#26
Benz(a)anthracene
Concen: 0.44 ng/ml
RT: 10.03 min Scan# 1520
Delta R.T. 0.01 min
Lab File: 0607F042.D
Acq: 8 Jun 2019 4:01 am

Tgt Ion:228 Resp: 207

Ion	Ratio	Lower	Upper
228	100		
226	5.3	0.0	55.6
229	30.3	0.0	39.5



Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F042.D Vial: 38
Acq On : 8 Jun 2019 4:01 am Operator: LWeiskopf
Sample : K1905141-029 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:13:59 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	73149m	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.29	164	36613	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.53	188	68570	200.00	ng/ml	0.00
23) Chrysene-d12	10.03	240	72770	200.00	ng/ml	0.00
28) Perylene-d12	13.07	264	83694	200.00	ng/ml	0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.37	152	181604	984.50	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	98.45%		
13) Fluorene-d10	6.73	176	197456	948.76	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	94.88%		
22) Fluoranthene-d10	8.51	212	367612	914.90	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	91.49%		
25) Terphenyl-d14	8.85	244	227611	676.37	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	67.64%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	382	0.97	ng/ml	98
4) 2-Methylnaphthalene	5.40	142	225	0.84	ng/ml	98
5) 1-Methylnaphthalene	5.49	142	122	0.49	ng/ml	93
6) Biphenyl	5.81	154	710	2.12	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.95	156	94	0.39	ng/ml	92
10) Acenaphthene	6.32	154	119	0.53	ng/ml	98
11) Dibenzofuran	6.47	168	272	0.77	ng/ml	93
14) Fluorene	6.75	166	162	0.59	ng/ml	98
16) Dibenzothiophene	7.44	184	73	0.19	ng/ml	90
17) Phenanthrene	7.54	178	761	1.85	ng/ml	97
21) Fluoranthene	8.52	202	163m	0.34	ng/ml	
24) Pyrene	8.71	202	165	0.29	ng/ml#	1
26) Benz(a)anthracene	10.03	228	207	0.44	ng/ml	67

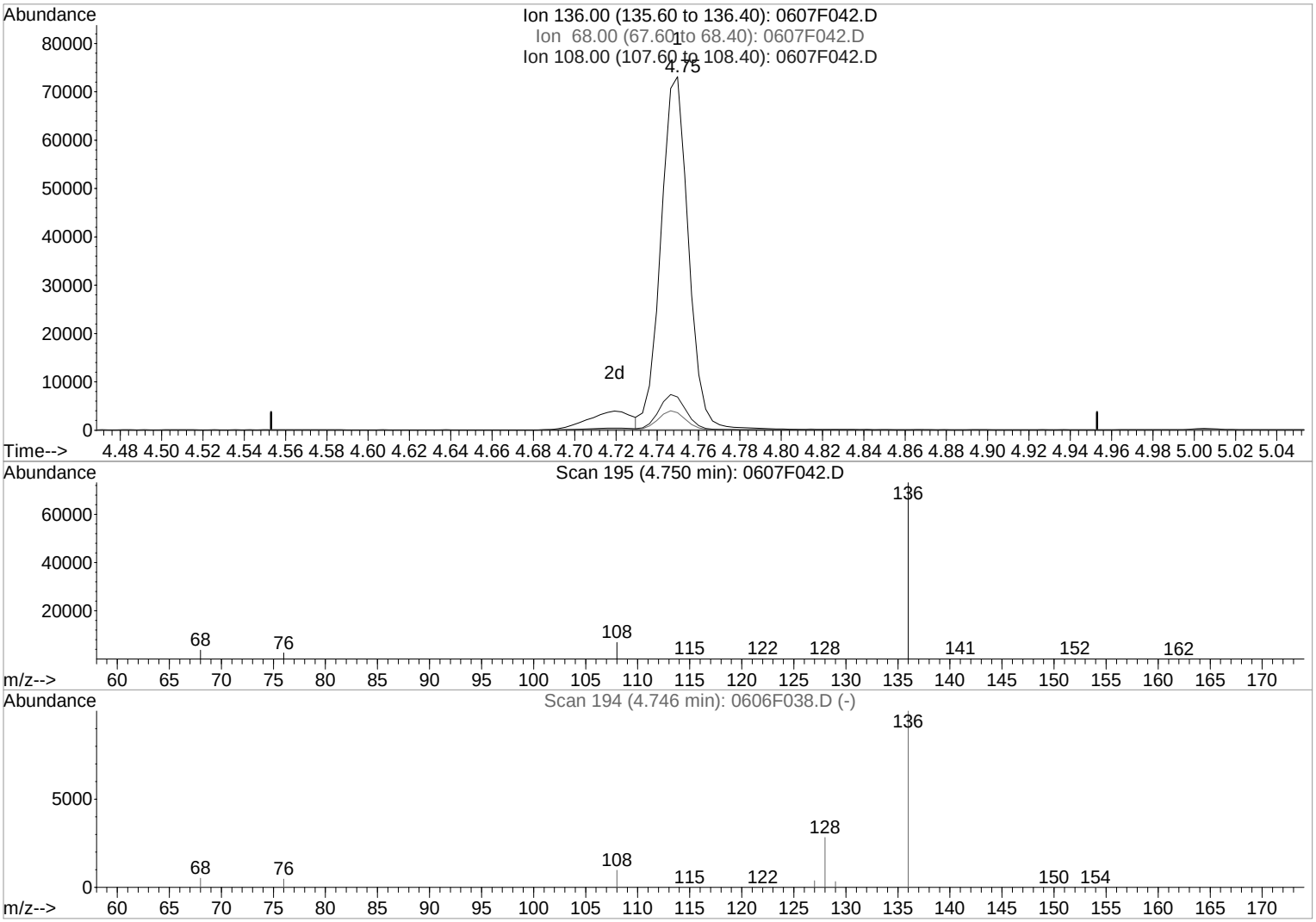
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F042.D Vial: 38
Acq On : 8 Jun 2019 4:01 am Operator: LWeiskopf
Sample : K1905141-029 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:14 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F042.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml

response 68205

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	4.90
108.00	8.80	9.32
0.00	0.00	0.00

Manual Integration:

Before

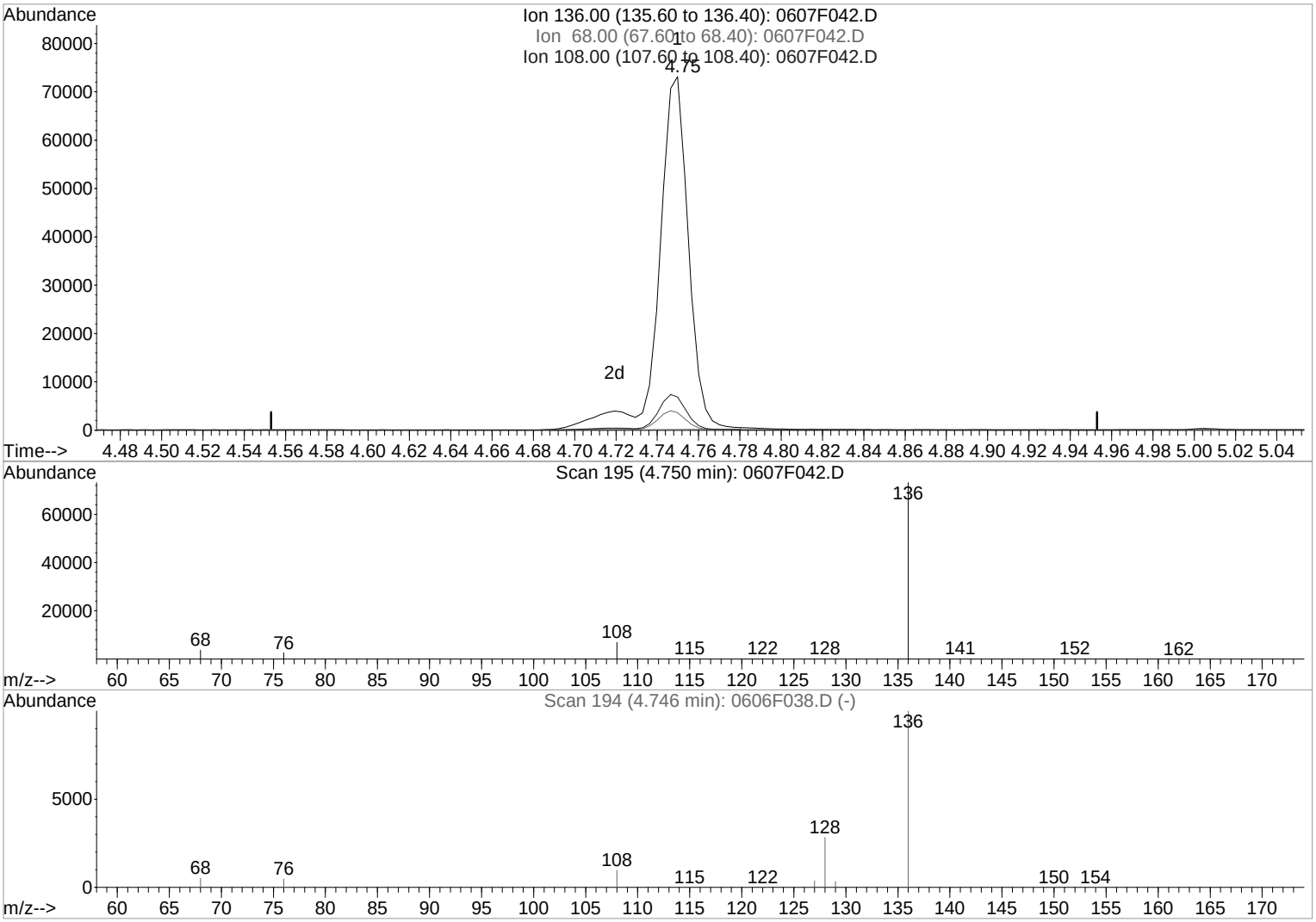
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F042.D Vial: 38
Acq On : 8 Jun 2019 4:01 am Operator: LWeiskopf
Sample : K1905141-029 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:16 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F042.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml m

response 73149

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	4.99
108.00	8.80	9.39
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

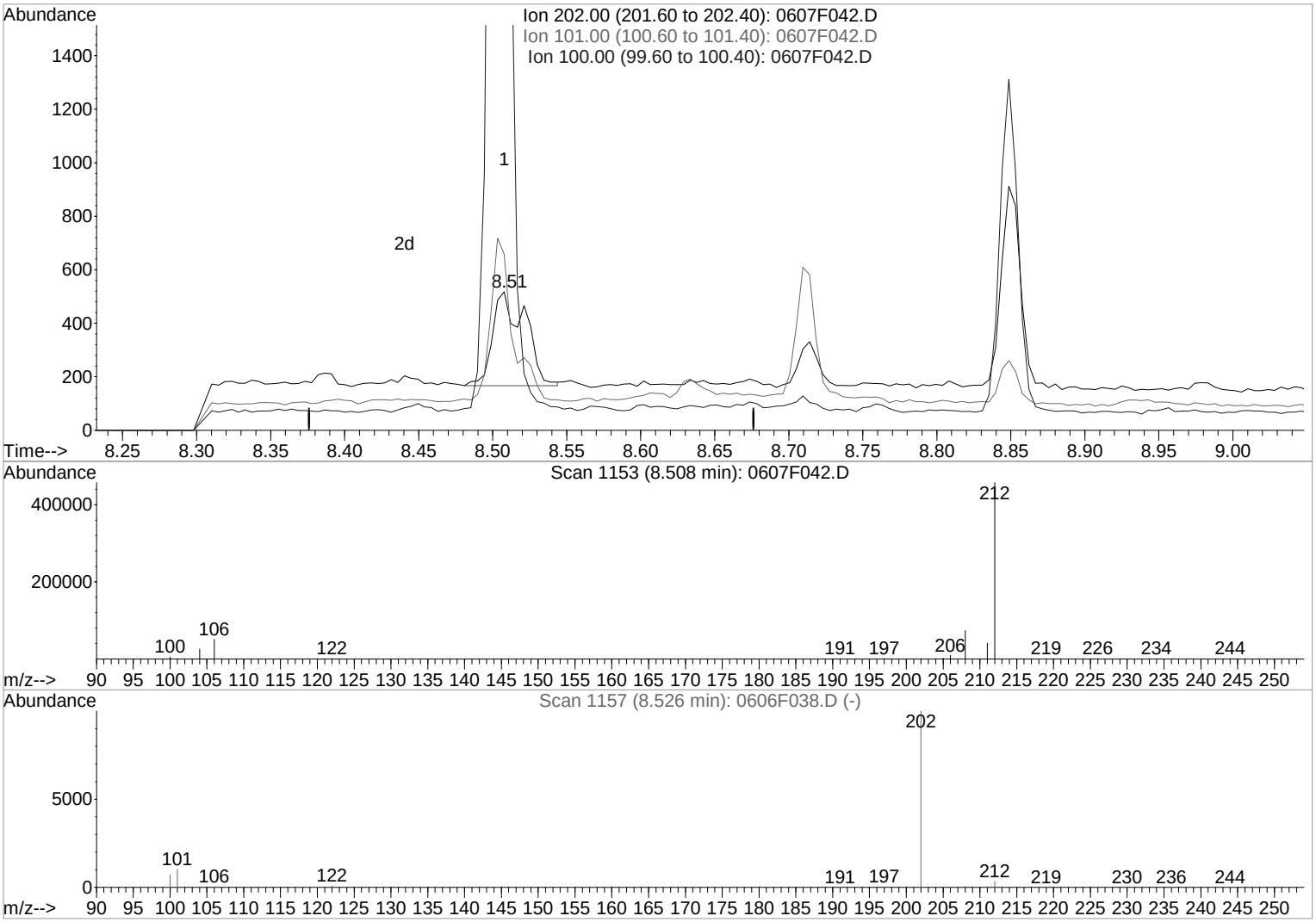
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F042.D Vial: 38
Acq On : 8 Jun 2019 4:01 am Operator: LWeiskopf
Sample : K1905141-029 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:17 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F042.D

(21) Fluoranthene (T)

8.51min 1.11ng/ml

response 538

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	154.55#
100.00	4.70	1379.55#
0.00	0.00	0.00

Manual Integration:

Before

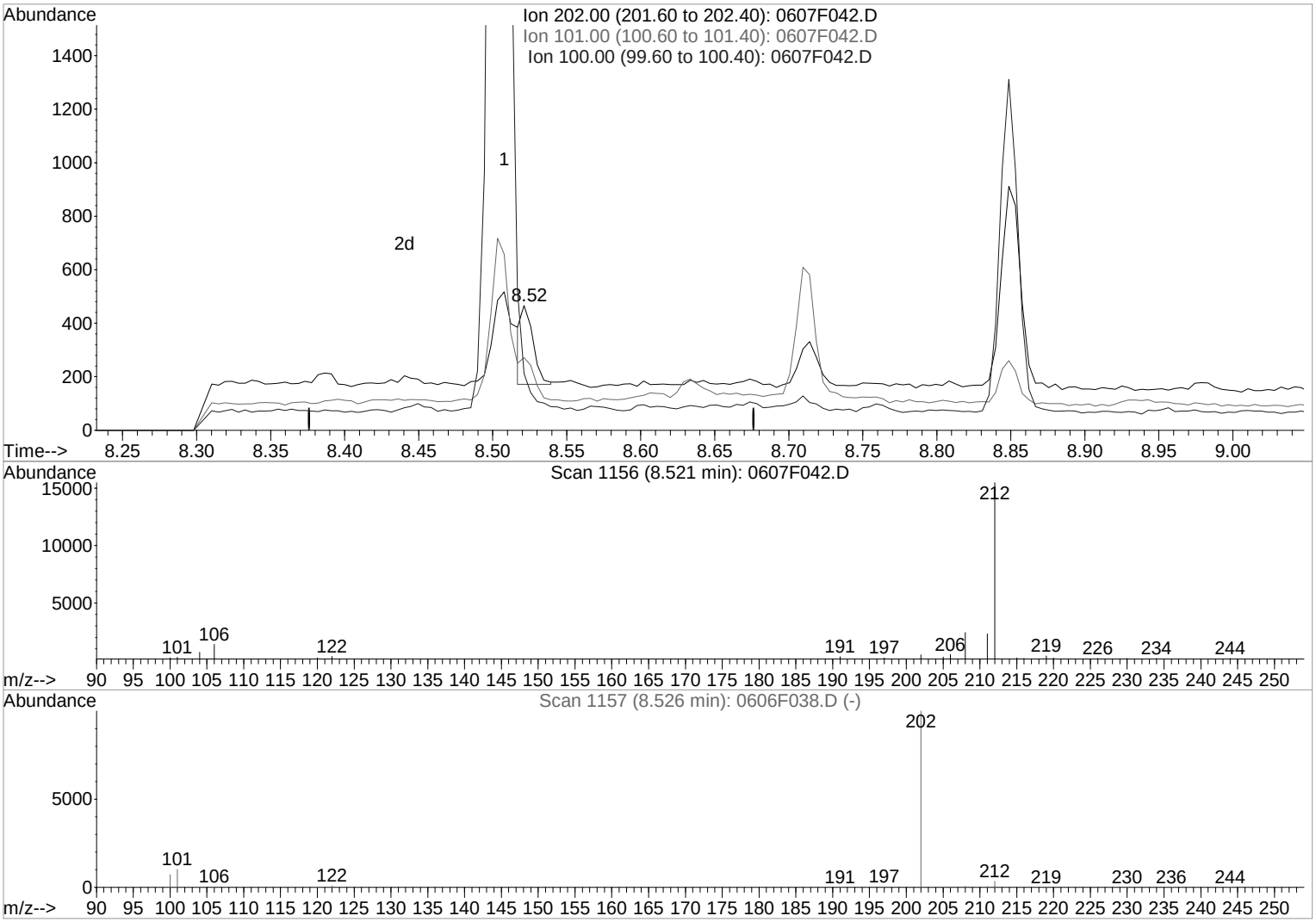
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F042.D Vial: 38
Acq On : 8 Jun 2019 4:01 am Operator: LWeiskopf
Sample : K1905141-029 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:17 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F042.D

(21) Fluoranthene (T)

8.52min 0.34ng/ml m

response 163

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	58.15#
100.00	4.70	45.49#
0.00	0.00	0.00

Manual Integration:

After

WP

06/17/19

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F033.D\
Lab ID: KQ1907688-03
RunType: MB
Matrix: Water

Date Acquired: 6/7/19 23:57:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/17/19 10:31
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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F033.D\	**Instrument:**	K-MS-14
Acqu Date:	6/7/19 23:57:00	**Vial:**	9
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1907688-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	638644	**Prep Lot:**	338019	**Report Group:**	KQ1907688
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/5/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		37449	200.00	OK
Chrysene-d12	10.04		74280	200.00	OK
Naphthalene-d8	4.75	+0.01	74479	200.00	OK
Perylene-d12	13.07	-0.01	84508	200.00	OK
Phenanthrene-d10	7.53		69657	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.51		386782	947.59	95	42 - 133	Y
Fluorene-d10	6.73		203520	956.07	96	42 - 131	Y
Terphenyl-d14	8.85	-0.01	222082	646.52	65	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.40		209	0.77	0.0034	J	Y
Acenaphthene	6.32		119	0.52	0.0023	J	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.03		211	0.44	0.0020	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	6.47		255	0.71	0.0032	J	Y
Fluoranthene	8.53		193	0.39	0.0017	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31
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1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F033.D\	**Instrument:**	K-MS-14
Acqu Date:	6/7/19 23:57:00	**Vial:**	9
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1907688-03	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.75		191	0.68	0.0030	J	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.77	+0.01	292	0.73	0.0032	J	Y
Phenanthrene	7.55		810	1.94	0.0086	J	Y
Pyrene	8.71	-0.01	155	0.26	0.0012	J	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

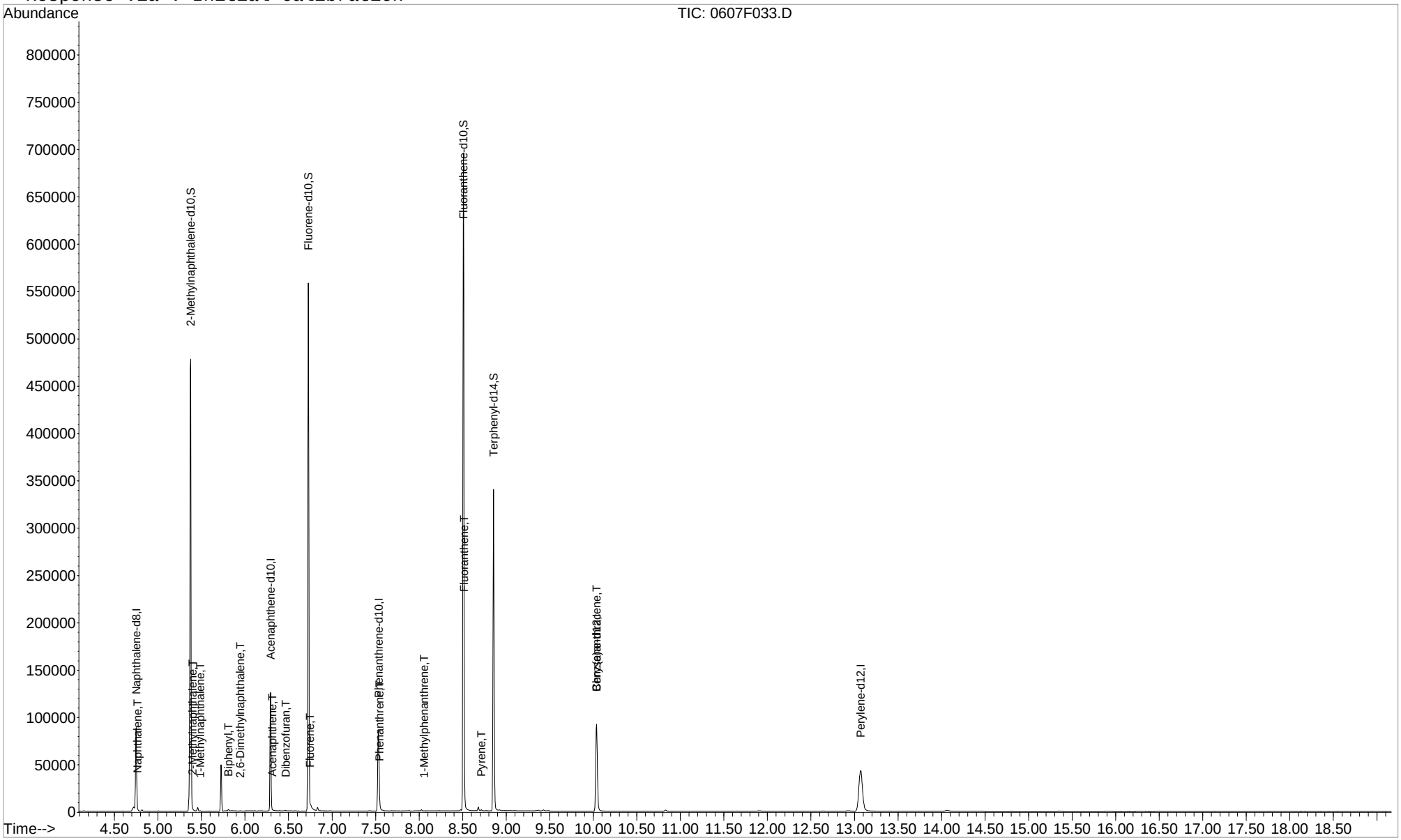
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

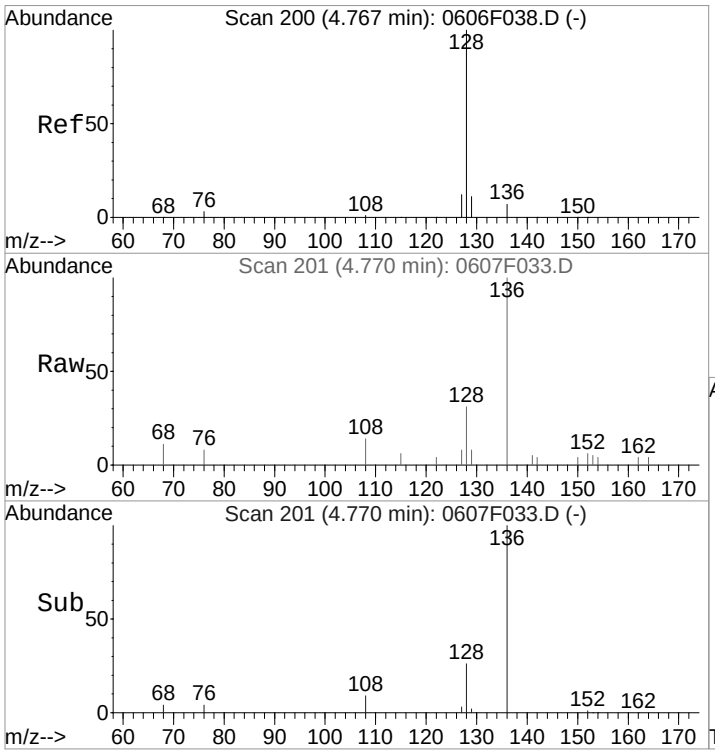
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F033.D Vial: 29
Acq On : 7 Jun 2019 11:57 pm Operator: LWeiskopf
Sample : KQ1907688-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:59 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration



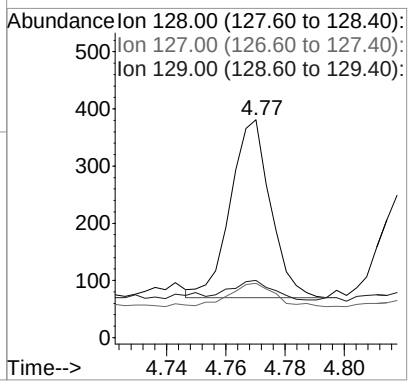
1st 06/17/19
2nd 06/17/19

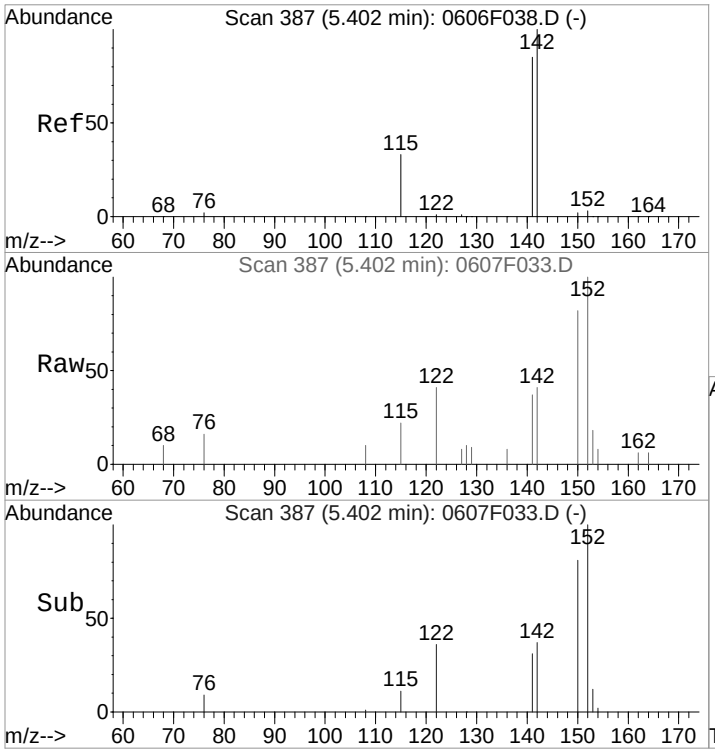


#2
Naphthalene
Concen: 0.73 ng/ml
RT: 4.77 min Scan# 201
Delta R.T. -0.00 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:128 Resp: 292

Ion	Ratio	Lower	Upper
128	100		
127	13.2	0.0	42.3
129	9.6	0.0	30.8

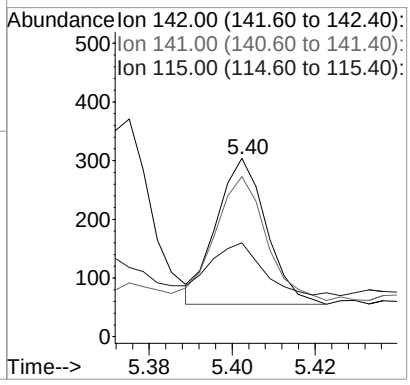




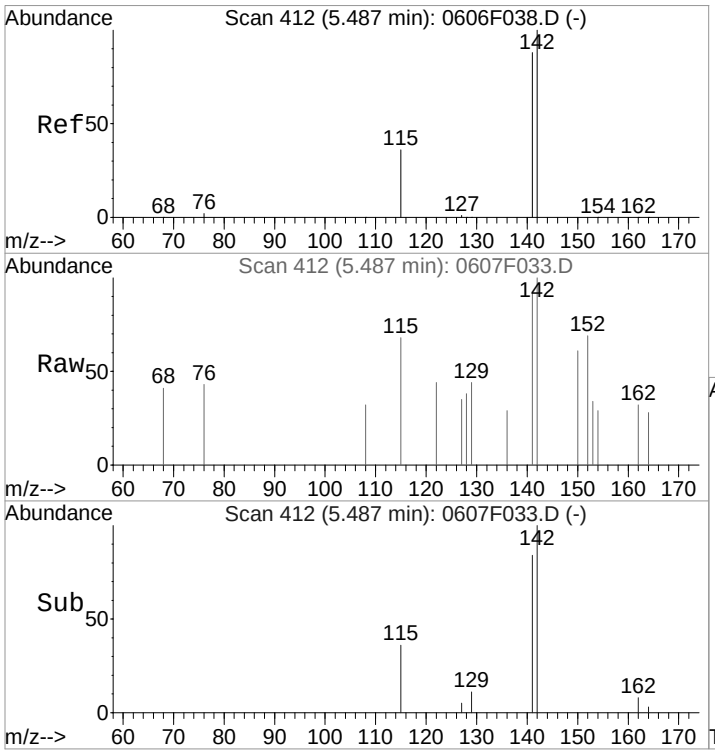
#4
2-Methylnaphthalene
Concen: 0.77 ng/ml
RT: 5.40 min Scan# 387
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:142 Resp: 209

Ion	Ratio	Lower	Upper
142	100		
141	84.7	52.7	112.7
115	34.1	8.2	48.2



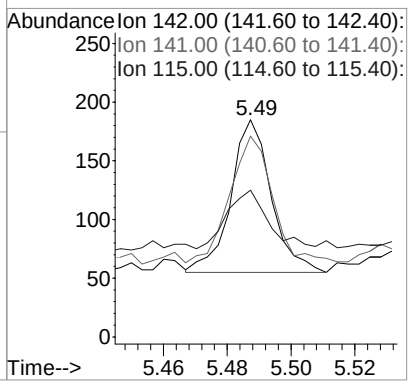
1st 06/17/19
2nd 06/17/19

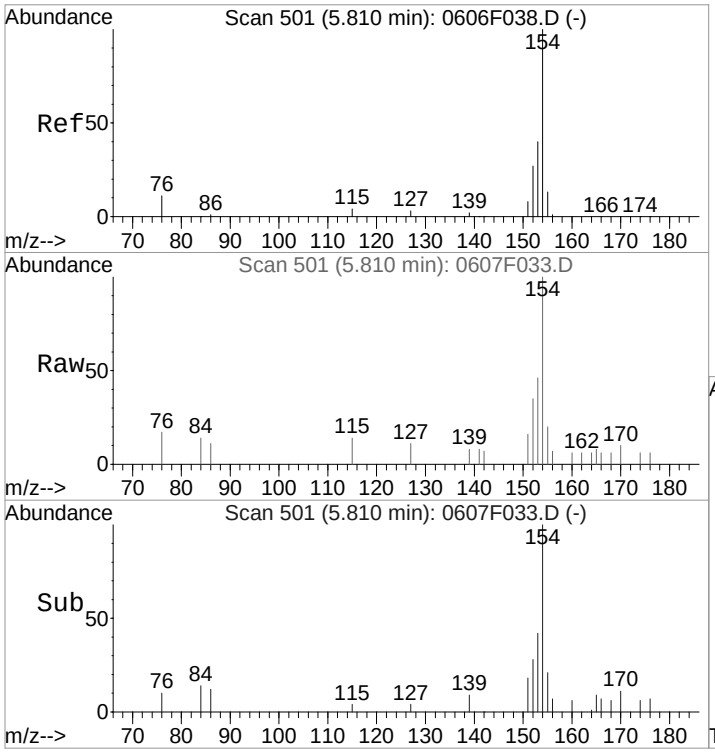


#5
1-Methylnaphthalene
Concen: 0.45 ng/ml
RT: 5.49 min Scan# 412
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:142 Resp: 114

Ion	Ratio	Lower	Upper
142	100		
141	83.1	55.8	115.8
115	35.4	10.1	50.1

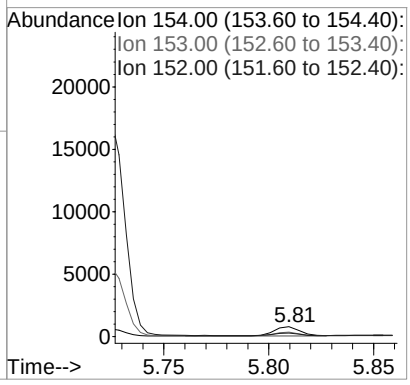




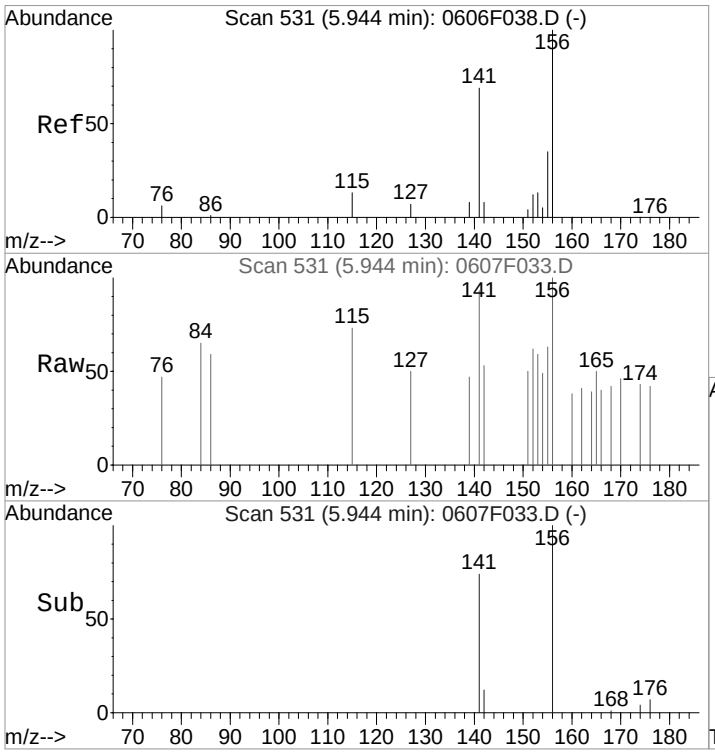
#6
Biphenyl
Concen: 1.95 ng/ml
RT: 5.81 min Scan# 501
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:154 Resp: 666

Ion	Ratio	Lower	Upper
154	100		
153	39.4	8.2	68.2
152	26.6	6.1	46.1



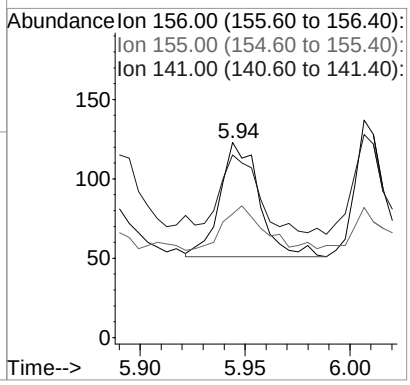
1st 06/17/19
2nd 06/17/19

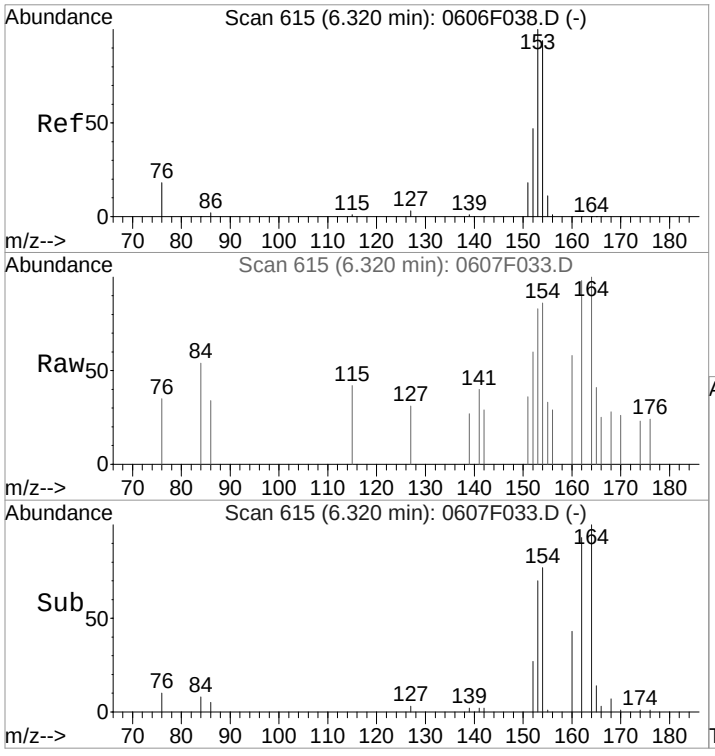


#7
2,6-Dimethylnaphthalene
Concen: 0.39 ng/ml
RT: 5.94 min Scan# 531
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:156 Resp: 94

Ion	Ratio	Lower	Upper
156	100		
155	31.9	3.3	63.3
141	69.4	40.6	80.6

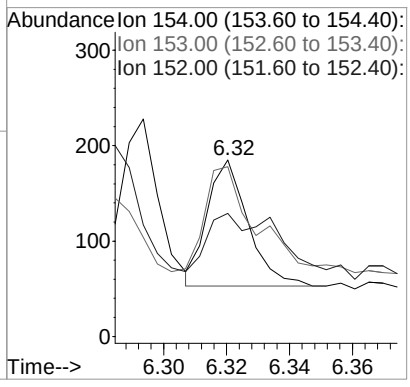




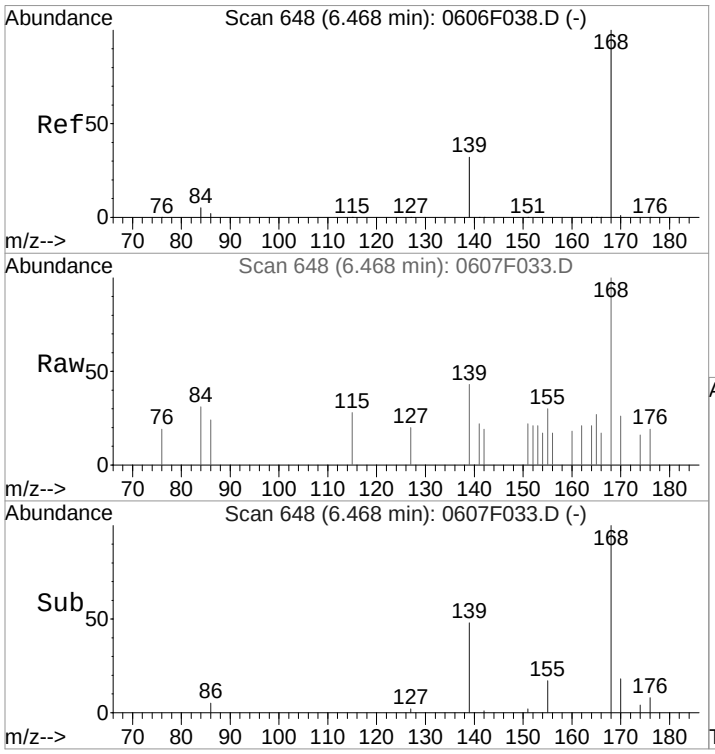
#10
Acenaphthene
Concen: 0.52 ng/ml
RT: 6.32 min Scan# 615
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:154 Resp: 119

Ion	Ratio	Lower	Upper
154	100		
153	81.1	72.8	132.8
152	46.2	17.7	77.7



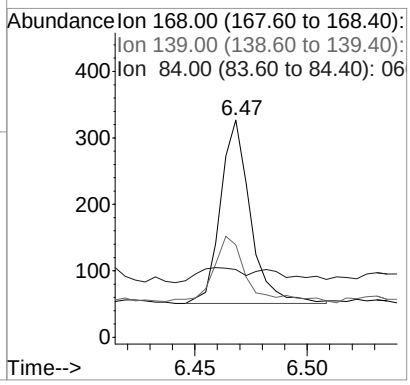
1st 06/17/19
2nd 06/17/19

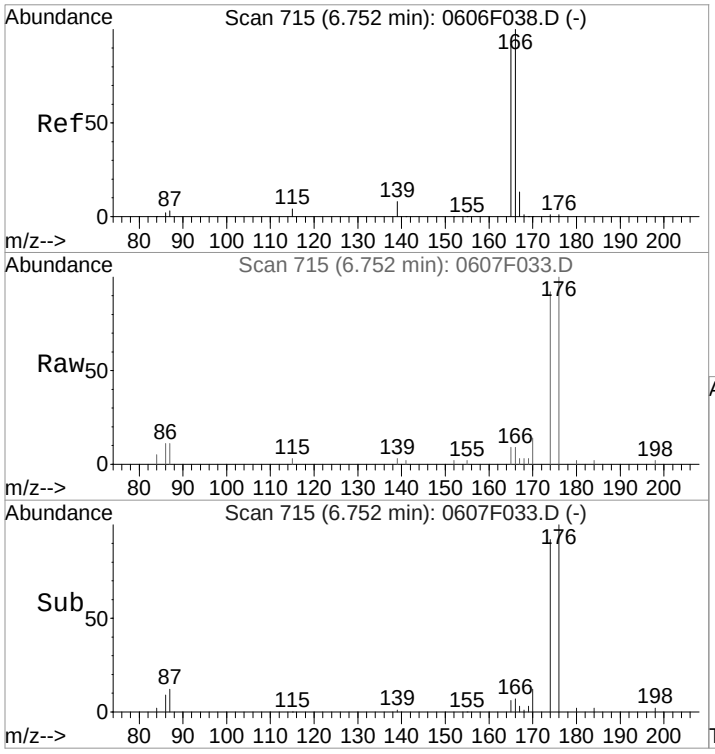


#11
Dibenzofuran
Concen: 0.71 ng/ml
RT: 6.47 min Scan# 648
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:168 Resp: 255

Ion	Ratio	Lower	Upper
168	100		
139	30.4	0.0	54.7
84	6.2	0.0	22.9

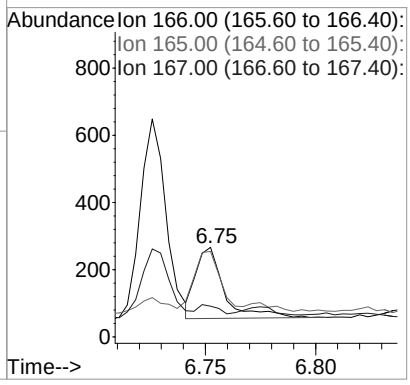


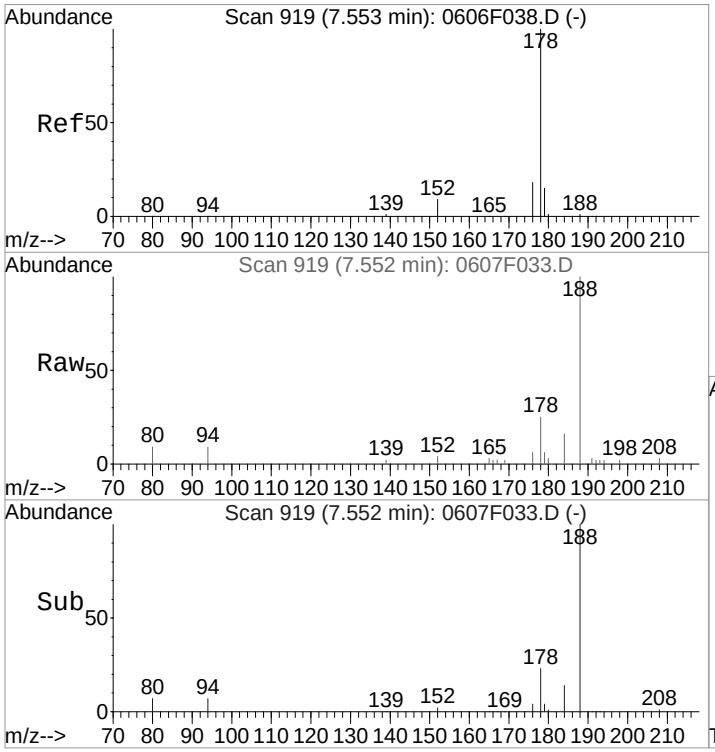


#14
Fluorene
Concen: 0.68 ng/ml
RT: 6.75 min Scan# 715
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:166 Resp: 191

Ion	Ratio	Lower	Upper
166	100		
165	85.1	59.0	119.0
167	9.6	0.0	33.1

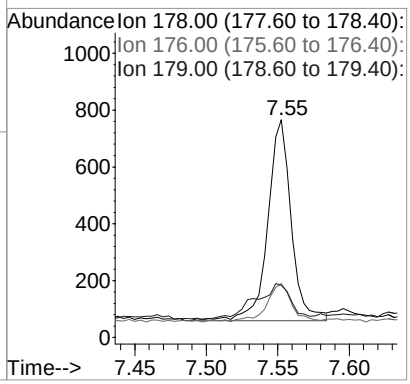


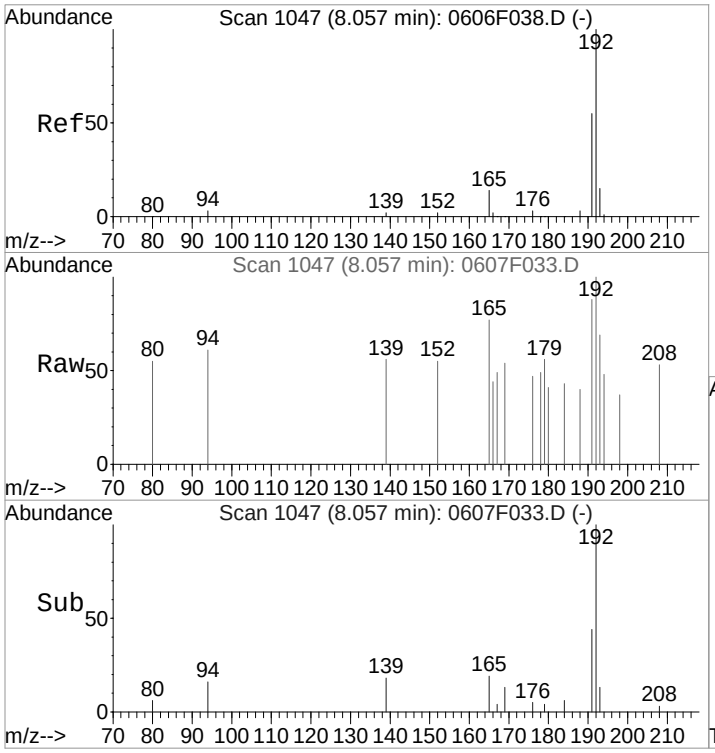


#17
Phenanthrene
Concen: 1.94 ng/ml
RT: 7.55 min Scan# 919
Delta R.T. -0.00 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:178 Resp: 810

Ion	Ratio	Lower	Upper
178	100		
176	18.2	0.0	48.4
179	16.5	0.0	35.2

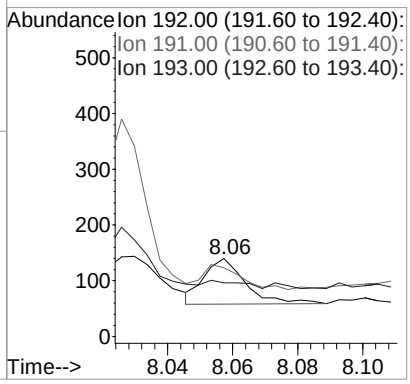


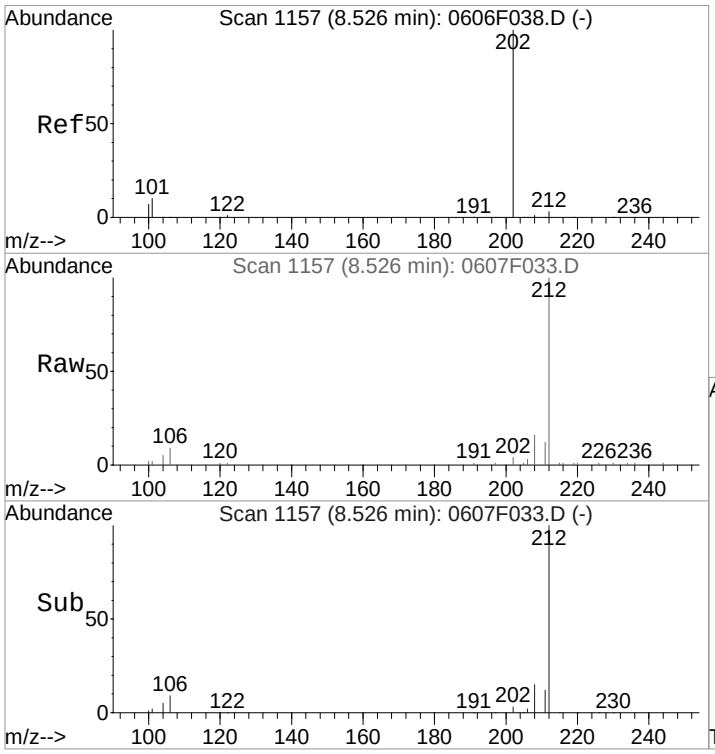


#20
1-Methylphenanthrene
Concen: 0.23 ng/ml
RT: 8.06 min Scan# 1047
Delta R.T. -0.00 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:192 Resp: 72

Ion	Ratio	Lower	Upper
192	100		
191	43.2	23.2	83.2
193	12.3	0.0	45.5

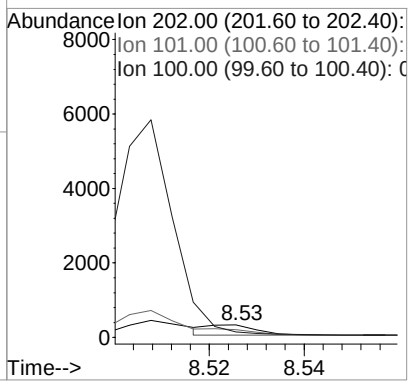


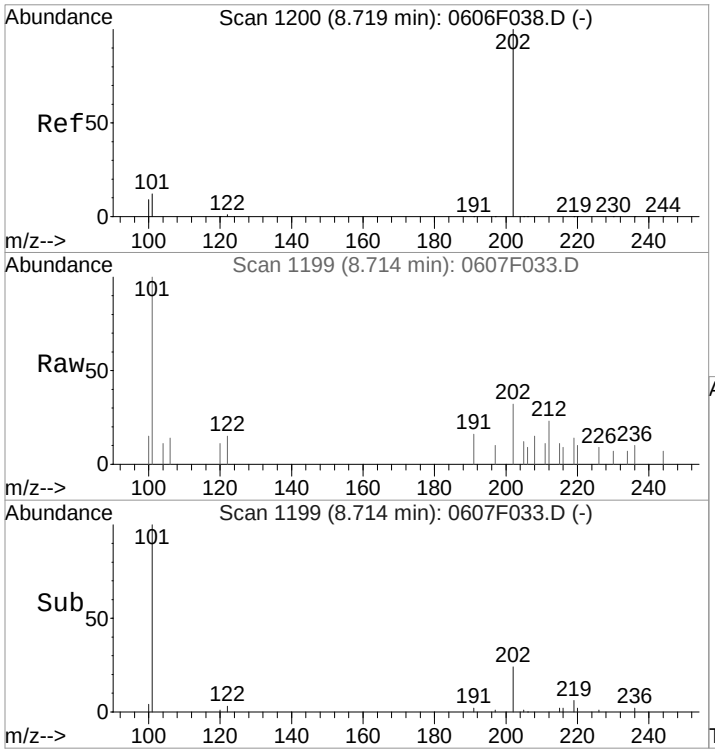


#21
Fluoranthene
Concen: 0.39 ng/ml m
RT: 8.53 min Scan# 1157
Delta R.T. -0.00 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:202 Resp: 193

Ion	Ratio	Lower	Upper
202	100		
101	62.2	0.0	37.0#
100	44.1	0.0	24.7#

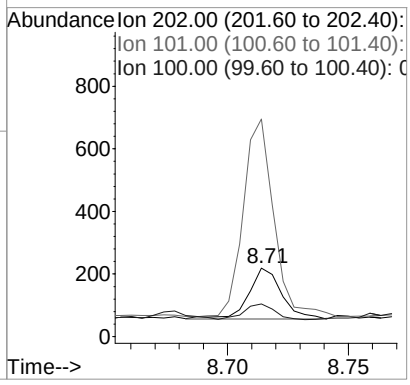


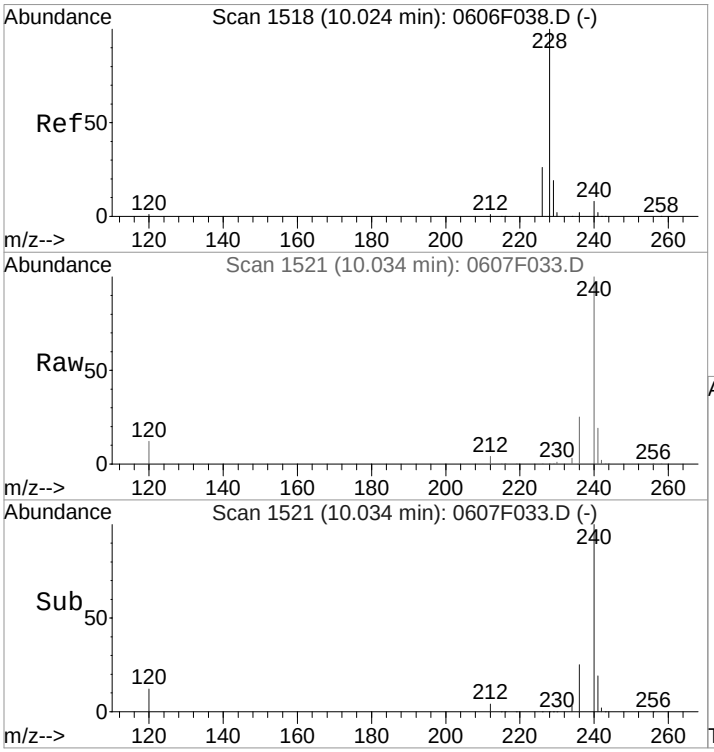


#24
Pyrene
Concen: 0.26 ng/ml
RT: 8.71 min Scan# 1199
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:202 Resp: 155

Ion	Ratio	Lower	Upper
202	100		
101	387.1	0.0	38.8#
100	28.2	0.0	26.4#

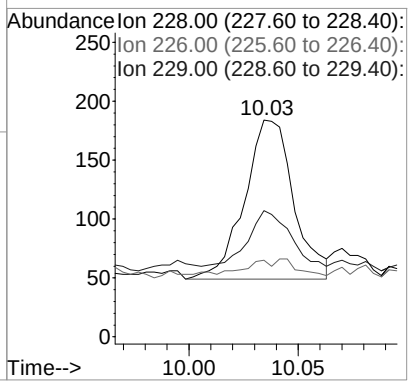




#26
Benz(a)anthracene
Concen: 0.44 ng/ml
RT: 10.03 min Scan# 1521
Delta R.T. 0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:228 Resp: 211

Ion	Ratio	Lower	Upper
228	100		
226	9.6	0.0	55.6
229	34.8	0.0	39.5



Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F033.D Vial: 29
Acq On : 7 Jun 2019 11:57 pm Operator: LWeiskopf
Sample : KQ1907688-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:13:42 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	74479m	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.29	164	37449	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.53	188	69657	200.00	ng/ml	0.00
23) Chrysene-d12	10.04	240	74280	200.00	ng/ml	0.00
28) Perylene-d12	13.07	264	84508	200.00	ng/ml	0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.38	152	180715	962.19	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	96.22%		
13) Fluorene-d10	6.73	176	203520	956.07	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	95.61%		
22) Fluoranthene-d10	8.51	212	386782	947.59	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	94.76%		
25) Terphenyl-d14	8.85	244	222082	646.52	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	64.65%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	292	0.73	ng/ml	97
4) 2-Methylnaphthalene	5.40	142	209	0.77	ng/ml	95
5) 1-Methylnaphthalene	5.49	142	114	0.45	ng/ml	95
6) Biphenyl	5.81	154	666	1.95	ng/ml	98
7) 2,6-Dimethylnaphthalene	5.94	156	94	0.39	ng/ml	92
10) Acenaphthene	6.32	154	119	0.52	ng/ml	85
11) Dibenzofuran	6.47	168	255	0.71	ng/ml	89
14) Fluorene	6.75	166	191	0.68	ng/ml	95
17) Phenanthrene	7.55	178	810	1.94	ng/ml	98
20) 1-Methylphenanthrene	8.06	192	72	0.23	ng/ml	87
21) Fluoranthene	8.53	202	193m	0.39	ng/ml	
24) Pyrene	8.71	202	155	0.26	ng/ml#	1
26) Benz(a)anthracene	10.03	228	211	0.44	ng/ml	68

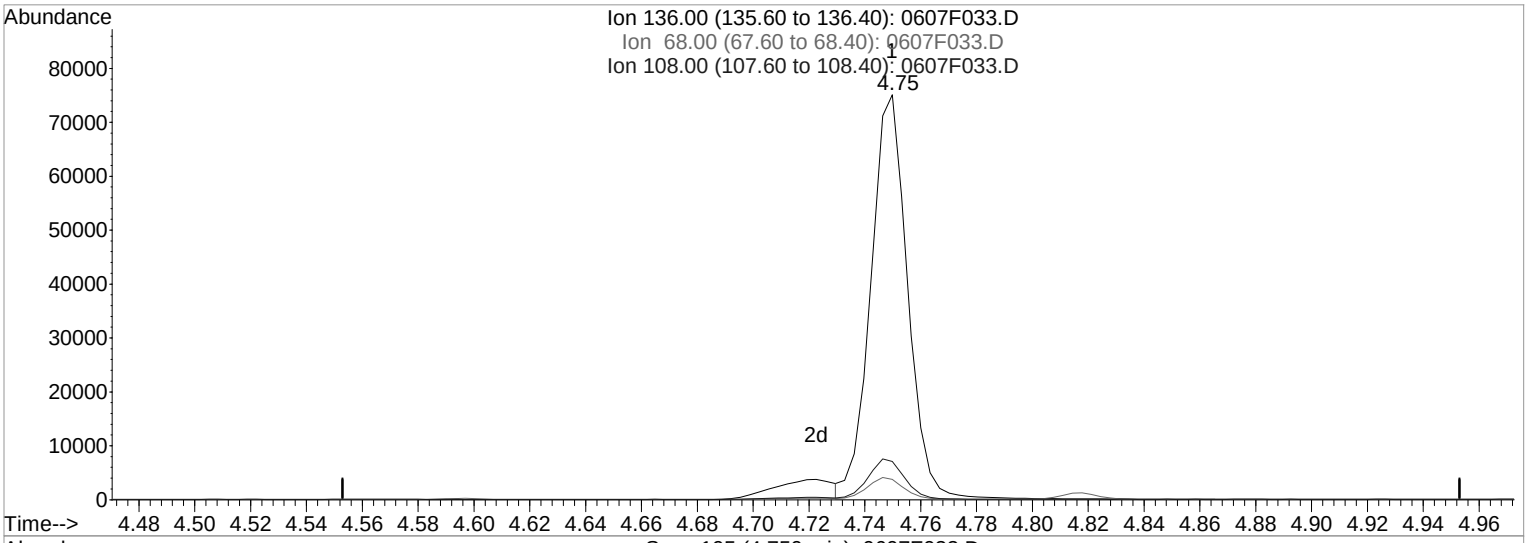
(#) = qualifier out of range (m) = manual integration

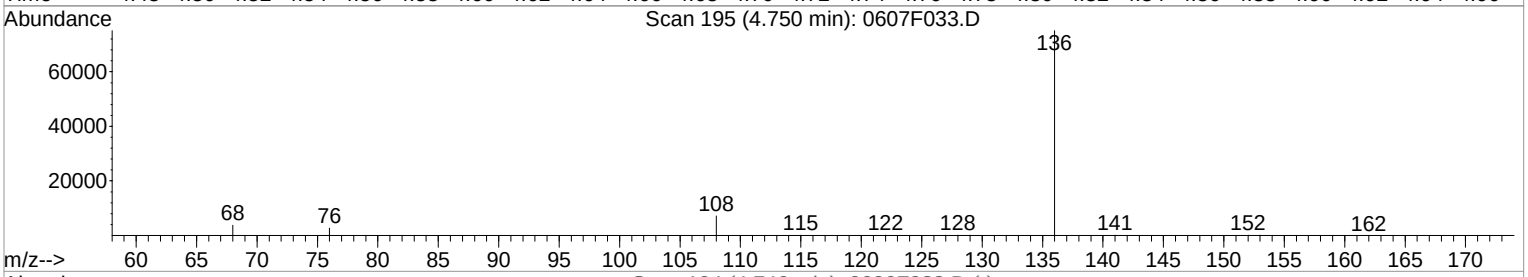
Quantitation Report (Qedit)

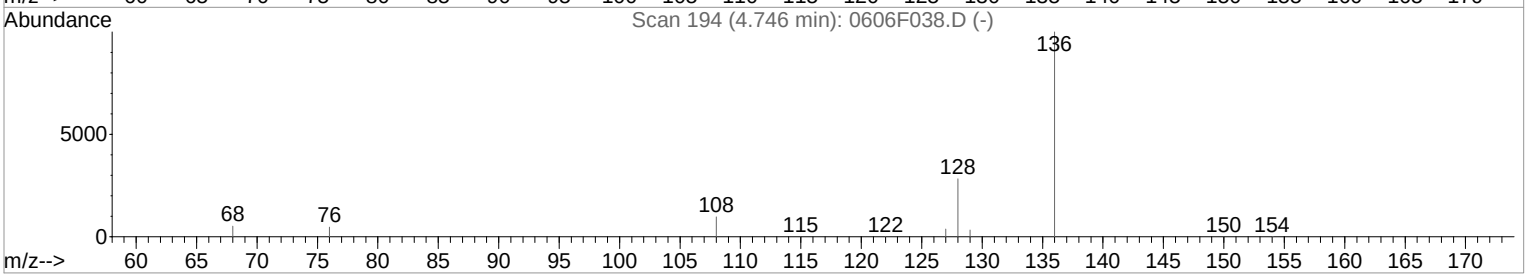
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F033.D Vial: 29
Acq On : 7 Jun 2019 11:57 pm Operator: LWeiskopf
Sample : KQ1907688-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:13 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration







TIC: 0607F033.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml

response 69069

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	4.92
108.00	8.80	9.38
0.00	0.00	0.00

Manual Integration:

Before

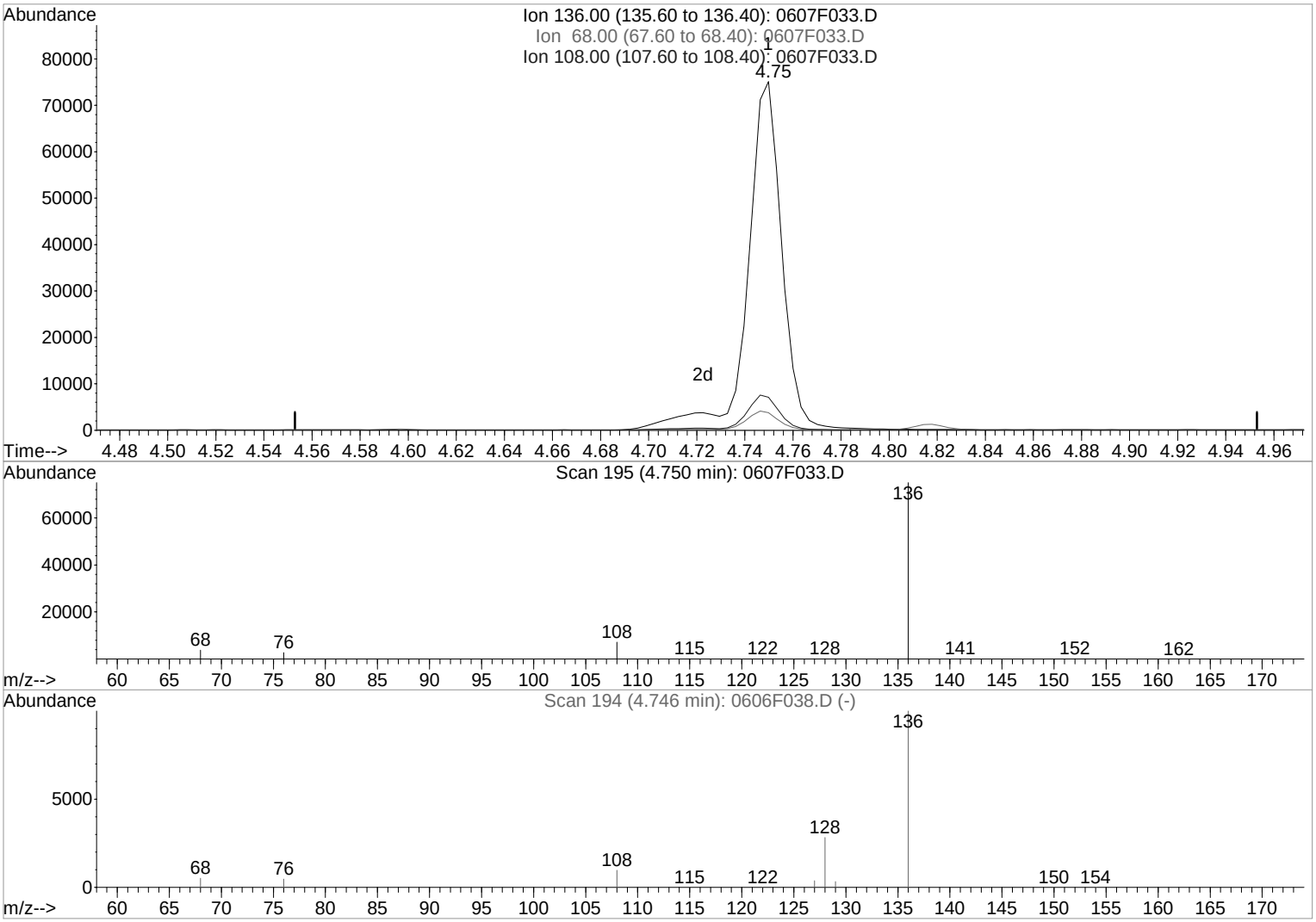
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F033.D Vial: 29
Acq On : 7 Jun 2019 11:57 pm Operator: LWeiskopf
Sample : KQ1907688-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:57 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F033.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml m

response 74479

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.02
108.00	8.80	9.45
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

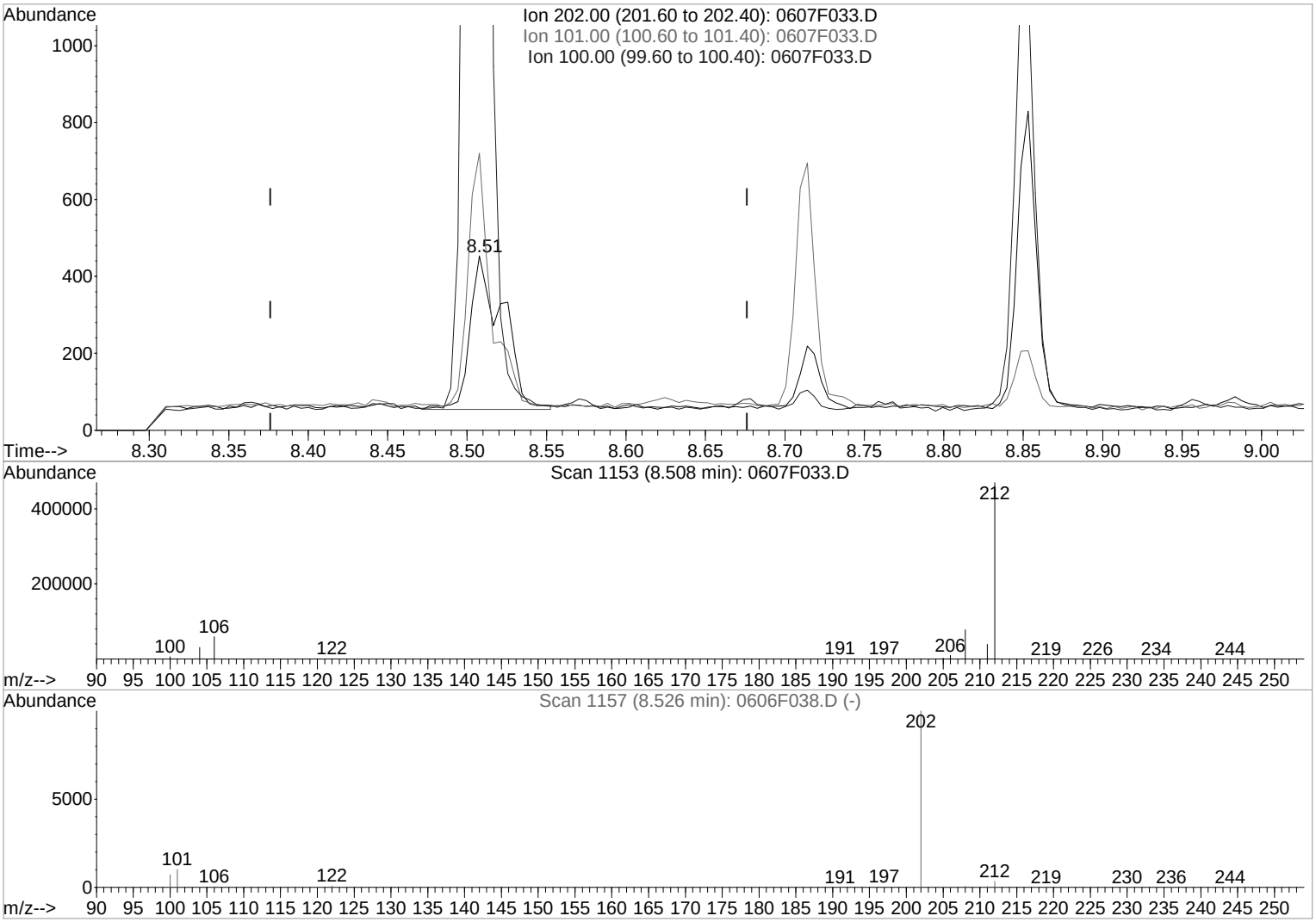
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F033.D Vial: 29
Acq On : 7 Jun 2019 11:57 pm Operator: LWeiskopf
Sample : KQ1907688-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:58 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F033.D

(21) Fluoranthene (T)

8.51min 1.17ng/ml

response 575

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	164.16#
100.00	4.70	1450.13#
0.00	0.00	0.00

Manual Integration:

Before

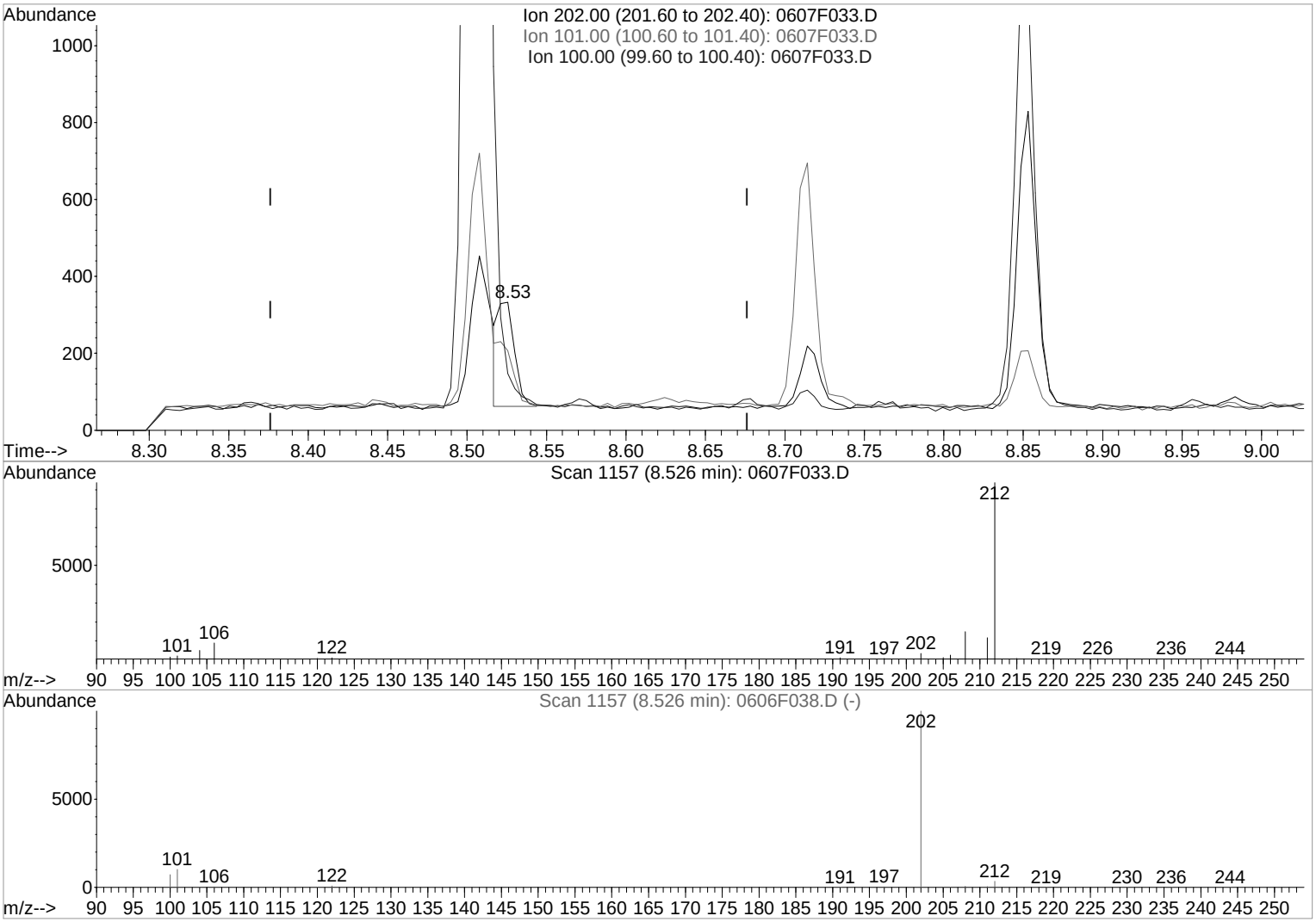
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F033.D Vial: 29
Acq On : 7 Jun 2019 11:57 pm Operator: LWeiskopf
Sample : KQ1907688-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:58 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F033.D

(21) Fluoranthene (T)

8.53min 0.39ng/ml m

response 193

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	62.16#
100.00	4.70	44.14#
0.00	0.00	0.00

Manual Integration:

After

WP

06/17/19

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F034.D\
Lab ID: KQ1907688-01
RunType: LCS
Matrix: Water

Date Acquired: 6/8/19 00:24:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/17/19 10:31
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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F034.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 00:24:00	**Vial:**	10
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1907688-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	638644	**Prep Lot:**	338019	**Report Group:**	KQ1907688
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/5/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		34903	200.00	OK
Chrysene-d12	10.04		70308	200.00	OK
Naphthalene-d8	4.75	+0.01	72667	200.00	OK
Perylene-d12	13.07	-0.01	80034	200.00	OK
Phenanthrene-d10	7.52	-0.01	63962	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.51		373043	995.30	100	42 - 133	Y
Fluorene-d10	6.73		189840	956.86	96	42 - 131	Y
Terphenyl-d14	8.85	-0.01	207873	639.35	64	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.40		142685	537.08	2.39		Y
Acenaphthene	6.32		130929	612.33	2.72		Y
Acenaphthylene	6.17		218046	619.04	2.75		Y
Anthracene	7.59	-0.01	233351	667.18	2.97		Y
Benz(a)anthracene	10.02	-0.01	281353	620.81	2.76		Y
Benzo(a)pyrene	12.90	-0.01	275661	676.55	3.01		Y
Benzo(b)fluoranthene	12.05	-0.01	314444	618.06	2.75		Y
Benzo(g,h,i)perylene	15.72	-0.01	272710	501.19	2.23		Y
Benzo(k)fluoranthene	12.12		296129	617.57	2.74		Y
Chrysene	10.07	-0.01	261890	594.81	2.64		Y
Dibenz(a,h)anthracene	15.39		252770	587.08	2.61		Y
Dibenzofuran	6.47		198469	591.63	2.63		Y
Fluoranthene	8.52	-0.01	263116	581.22	2.58		Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31
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1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F034.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 00:24:00	**Vial:**	10
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1907688-01	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.75		151286	577.67	2.57		Y
Indeno(1,2,3-cd)pyrene	15.34		246726	608.25	2.70		Y
Naphthalene	4.77	+0.01	224035	575.53	2.56		Y
Phenanthrene	7.54	-0.01	228675	594.93	2.64		Y
Pyrene	8.71	-0.01	285200	514.37	2.29		Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31

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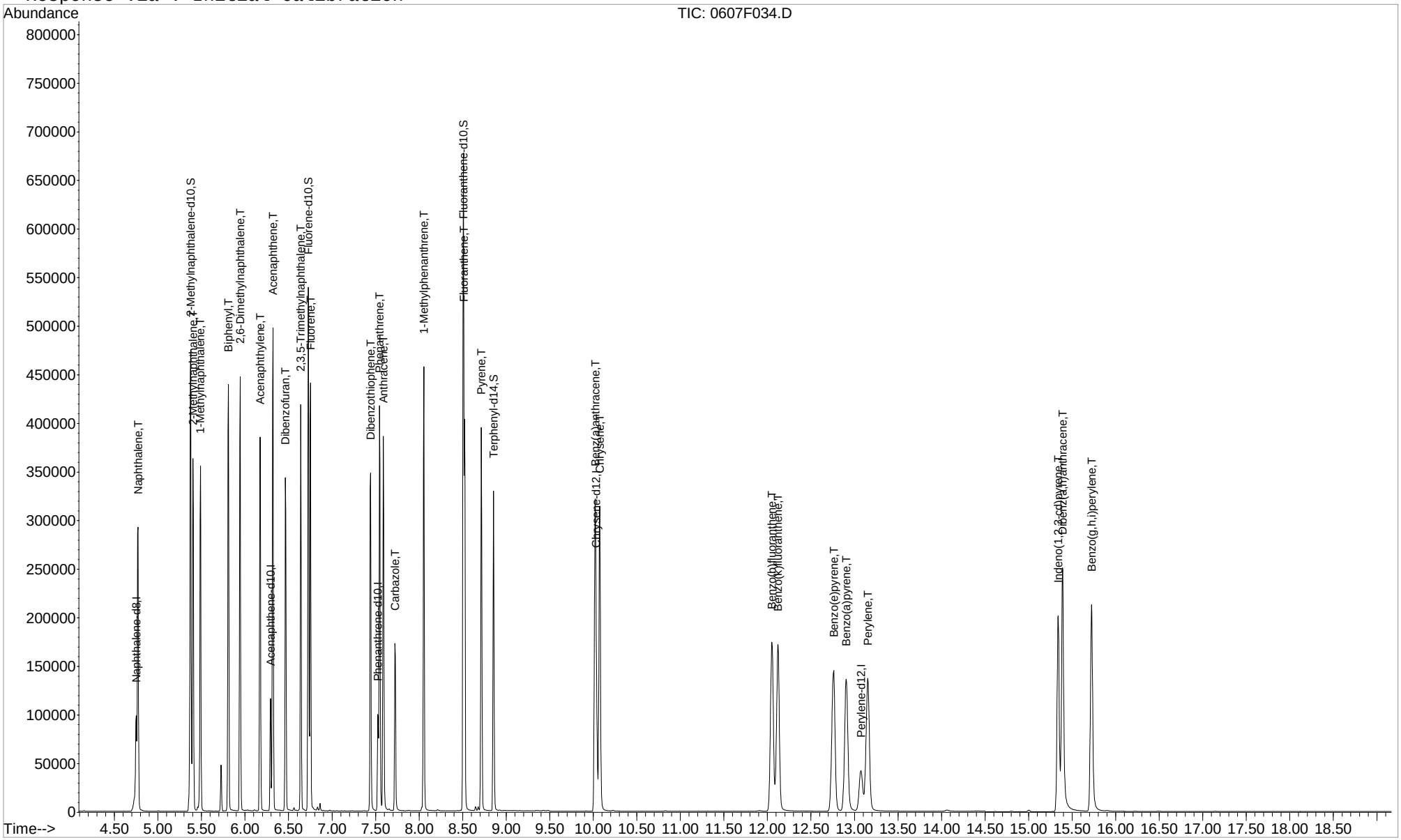
Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F034.D Vial: 30
Acq On : 8 Jun 2019 12:24 am Operator: LWeiskopf
Sample : KQ1907688-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:59 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F034.D Vial: 30
Acq On : 8 Jun 2019 12:24 am Operator: LWeiskopf
Sample : KQ1907688-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:13:44 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	72667m	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.29	164	34903	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.52	188	63962	200.00	ng/ml	0.00
23) Chrysene-d12	10.04	240	70308	200.00	ng/ml	0.00
28) Perylene-d12	13.07	264	80034	200.00	ng/ml	0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.38	152	174418	951.82	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	95.18%		
13) Fluorene-d10	6.73	176	189840	956.86	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	95.69%		
22) Fluoranthene-d10	8.51	212	373043	995.30	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	99.53%		
25) Terphenyl-d14	8.85	244	207873	639.35	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	63.93%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	224035m	575.53	ng/ml	
4) 2-Methylnaphthalene	5.40	142	142685	537.08	ng/ml	96
5) 1-Methylnaphthalene	5.49	142	133058	538.55	ng/ml	96
6) Biphenyl	5.81	154	177444	533.14	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.94	156	128039	539.00	ng/ml	97
9) Acenaphthylene	6.17	152	218046	619.04	ng/ml	99
10) Acenaphthene	6.32	154	130929	612.33	ng/ml	99
11) Dibenzofuran	6.47	168	198469	591.63	ng/ml	97
12) 2,3,5-Trimethylnaphthalene	6.64	170	137338	656.58	ng/ml	83
14) Fluorene	6.75	166	151286	577.67	ng/ml	98
16) Dibenzothiophene	7.44	184	233371	641.40	ng/ml	99
17) Phenanthrene	7.54	178	228675	594.93	ng/ml	99
18) Anthracene	7.59	178	233351	667.18	ng/ml	99
19) Carbazole	7.72	167	115140	358.76	ng/ml	99
20) 1-Methylphenanthrene	8.05	192	178137	613.81	ng/ml	99
21) Fluoranthene	8.52	202	263116	581.22	ng/ml	89
24) Pyrene	8.71	202	285200	514.37	ng/ml	91
26) Benz(a)anthracene	10.02	228	281353	620.81	ng/ml	100
27) Chrysene	10.07	228	261890	594.81	ng/ml	100
29) Benzo(b)fluoranthene	12.05	252	314444	618.06	ng/ml	98
30) Benzo(k)fluoranthene	12.12	252	296129	617.57	ng/ml	98
31) Benzo(e)pyrene	12.76	252	288480	597.38	ng/ml	97
32) Benzo(a)pyrene	12.90	252	275661	676.55	ng/ml	98
33) Perylene	13.15	252	273251	613.35	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.34	276	246726	608.25	ng/ml	97
35) Dibenz(a,h)anthracene	15.39	278	252770	587.08	ng/ml	99
36) Benzo(g,h,i)perylene	15.72	276	272710	501.19	ng/ml	97

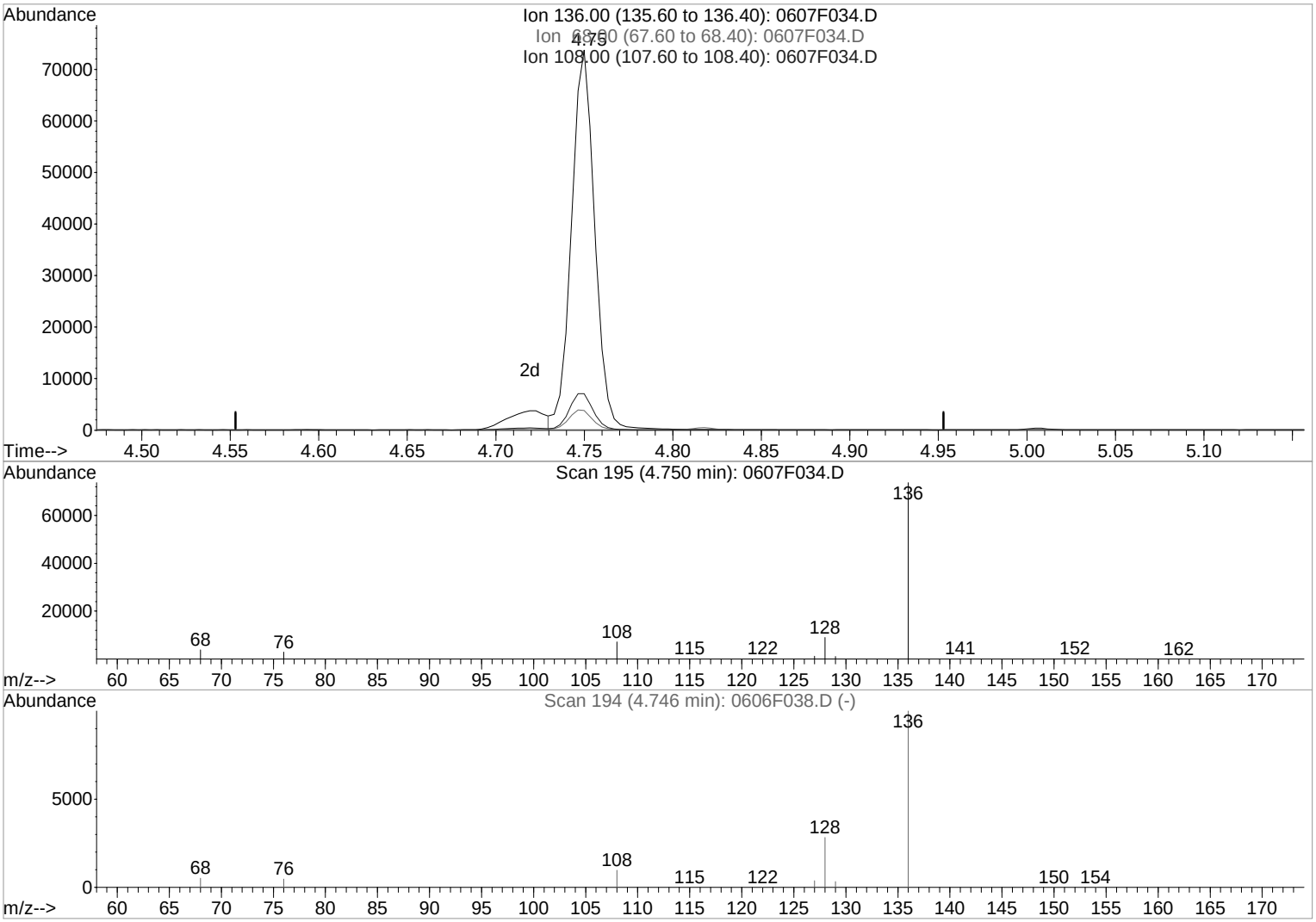
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F034.D Vial: 30
Acq On : 8 Jun 2019 12:24 am Operator: LWeiskopf
Sample : KQ1907688-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:13 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F034.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml

response 67590

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.06
108.00	8.80	9.53
0.00	0.00	0.00

Manual Integration:

Before

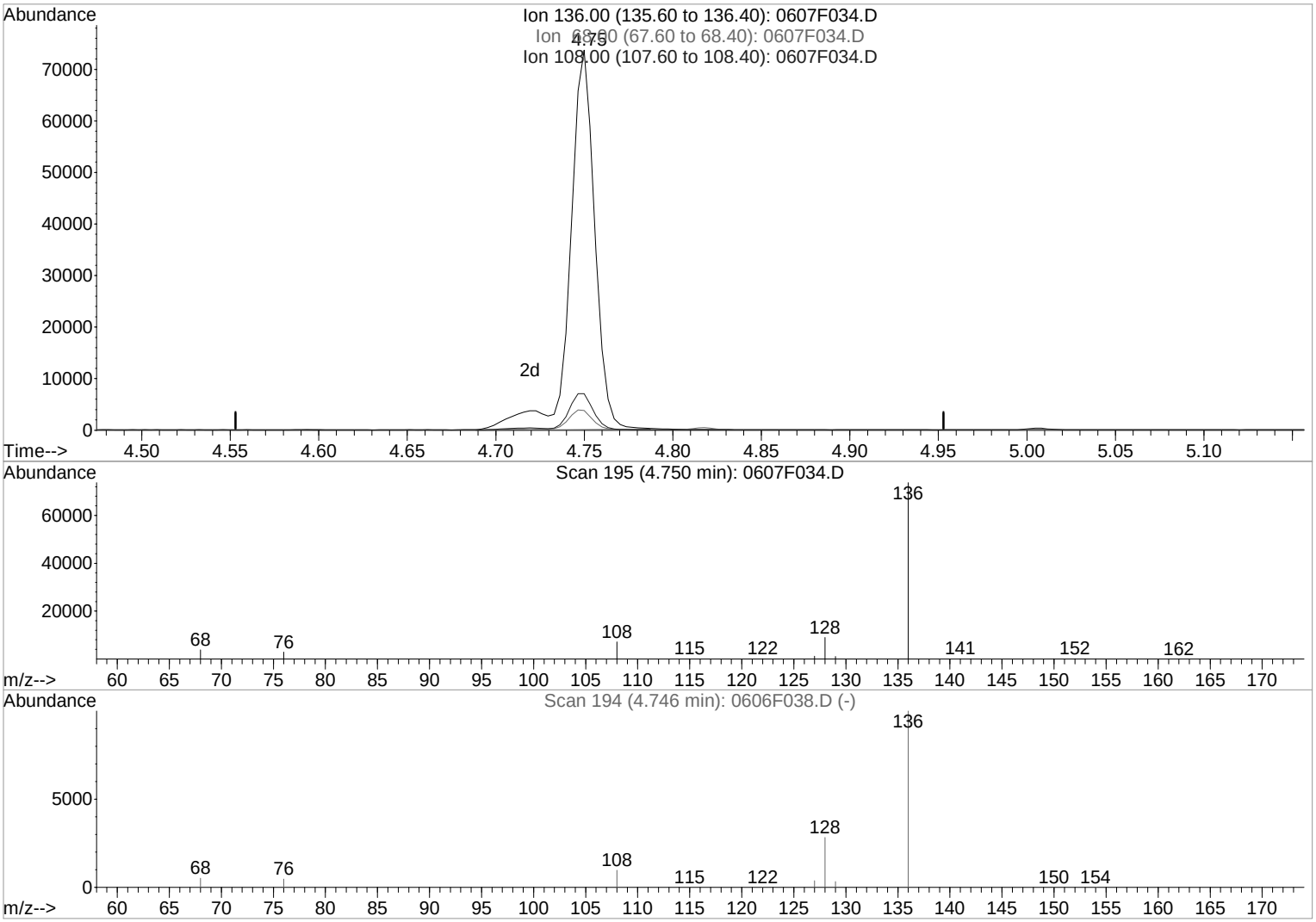
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F034.D Vial: 30
Acq On : 8 Jun 2019 12:24 am Operator: LWeiskopf
Sample : KQ1907688-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:59 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F034.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml m

response 72667

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.15
108.00	8.80	9.60
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

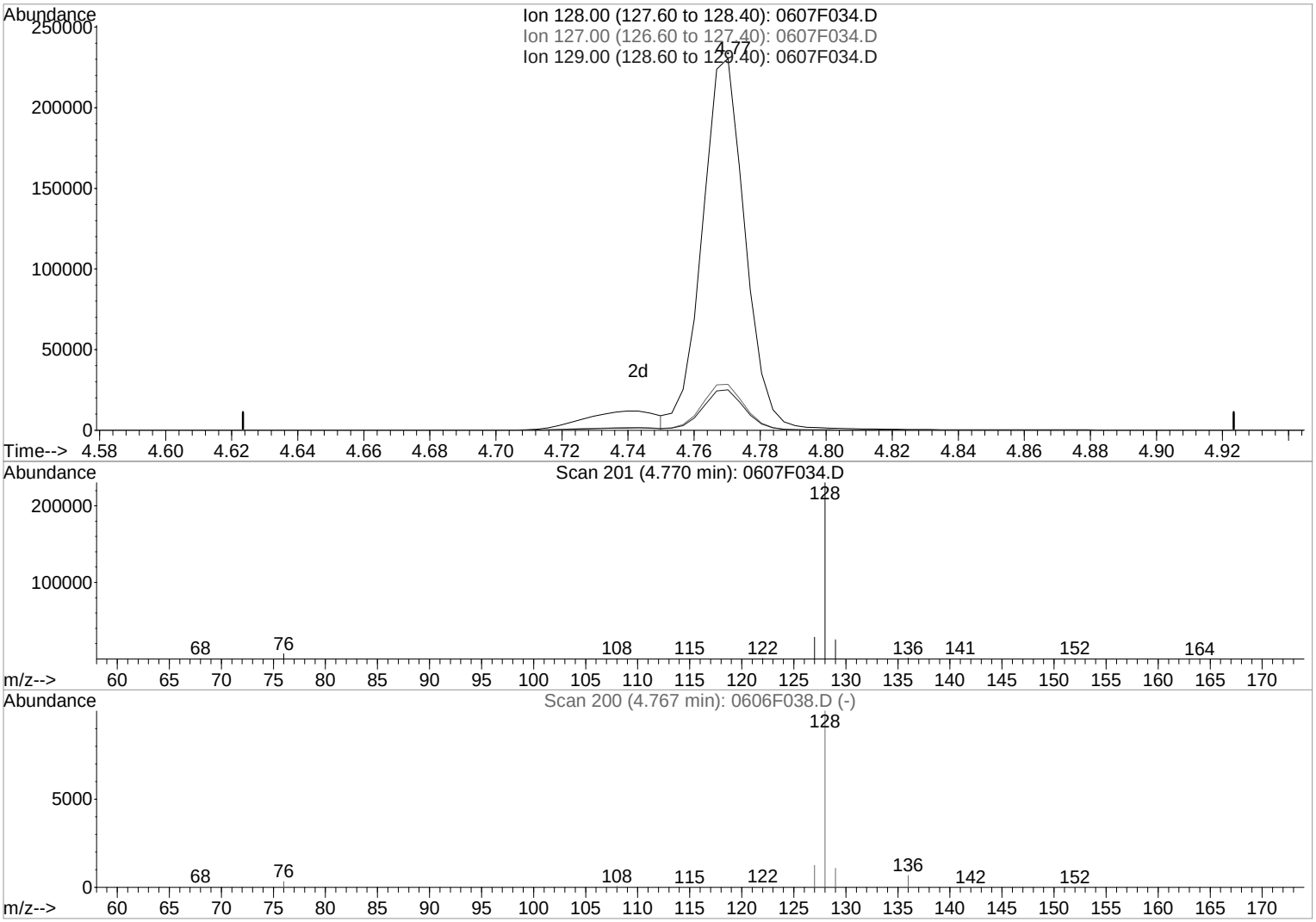
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F034.D Vial: 30
Acq On : 8 Jun 2019 12:24 am Operator: LWeiskopf
Sample : KQ1907688-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:59 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F034.D

(2) Naphthalene (T)

4.77min 536.07ng/ml

response 208677

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	12.32
129.00	10.80	10.81
0.00	0.00	0.00

Manual Integration:

Before

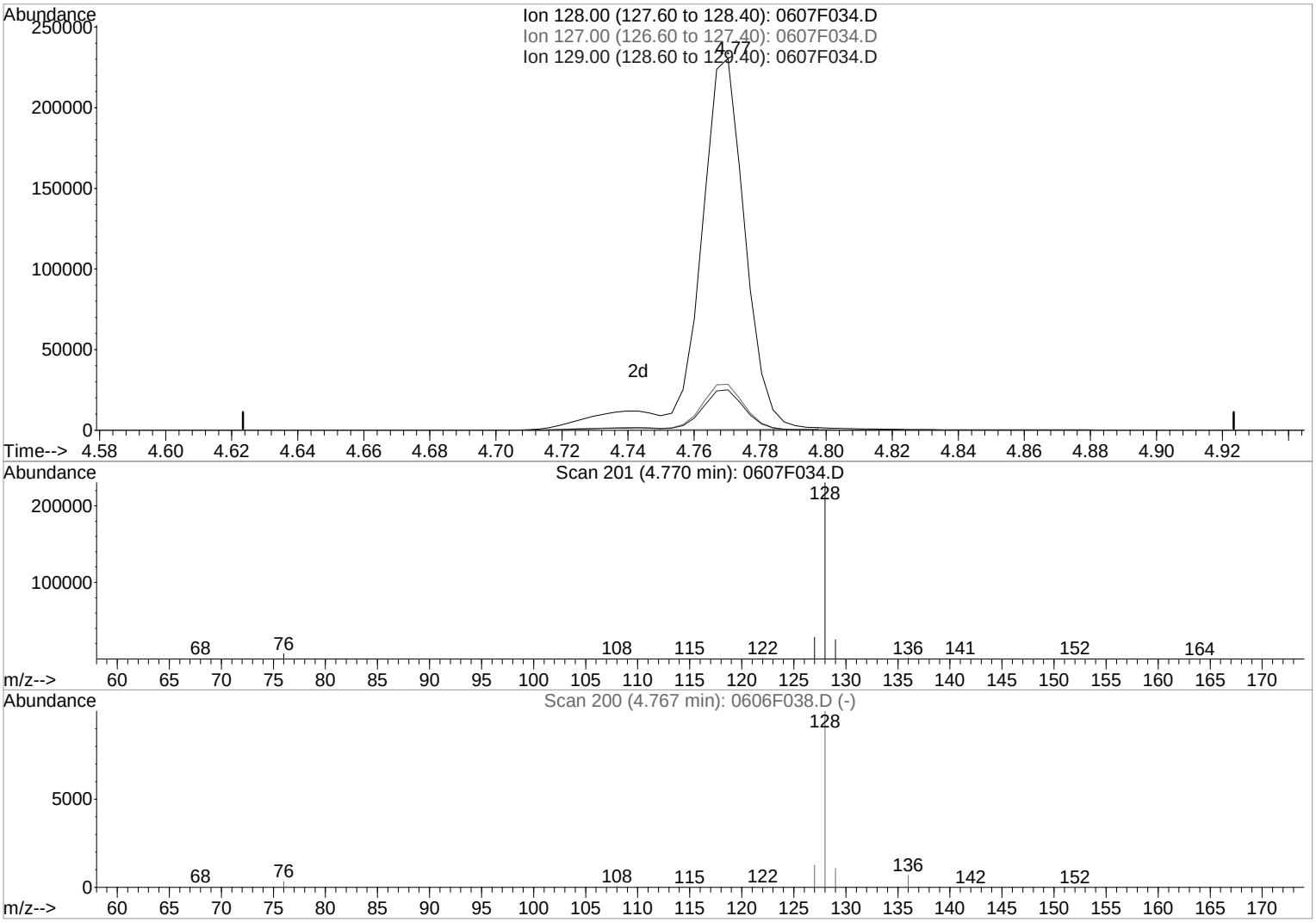
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F034.D Vial: 30
Acq On : 8 Jun 2019 12:24 am Operator: LWeiskopf
Sample : KQ1907688-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:59 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F034.D

(2) Naphthalene (T)

4.77min 575.53ng/ml m

response 224035

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	12.34
129.00	10.80	10.83
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

06/17/19

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F035.D\
Lab ID: KQ1907688-02
RunType: DLCS
Matrix: Water

Date Acquired: 6/8/19 00:51:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/17/19 10:31
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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F035.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 00:51:00	**Vial:**	11
Run Type:	DLCS	**Dilution:**	1
Lab ID:	KQ1907688-02	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	638644	**Prep Lot:**	338019	**Report Group:**	KQ1907688
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/5/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		34047	200.00	OK
Chrysene-d12	10.03	-0.01	69509	200.00	OK
Naphthalene-d8	4.75	+0.01	70913	200.00	OK
Perylene-d12	13.07	-0.01	79306	200.00	OK
Phenanthrene-d10	7.52	-0.01	63158	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.51		374660	1012.34	101	42 - 133	Y
Fluorene-d10	6.73		188586	974.43	97	42 - 131	Y
Terphenyl-d14	8.85	-0.01	233315	725.84	73	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.40		141392	545.38	2.42		Y
Acenaphthene	6.32		130087	623.69	2.77		Y
Acenaphthylene	6.17		215613	627.52	2.79		Y
Anthracene	7.59	-0.01	234097	677.83	3.01		Y
Benz(a)anthracene	10.02	-0.01	284463	634.89	2.82		Y
Benzo(a)pyrene	12.90	-0.01	280475	694.69	3.09		Y
Benzo(b)fluoranthene	12.05	-0.01	321542	637.81	2.83		Y
Benzo(g,h,i)perylene	15.72	-0.01	275530	511.02	2.27		Y
Benzo(k)fluoranthene	12.12		301006	633.50	2.82		Y
Chrysene	10.07	-0.01	266184	611.51	2.72		Y
Dibenz(a,h)anthracene	15.39		257460	603.46	2.68		Y
Dibenzofuran	6.46	-0.01	197655	604.01	2.68		Y
Fluoranthene	8.52	-0.01	265927	594.91	2.64		Y

1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F035.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 00:51:00	**Vial:**	11
Run Type:	DLCS	**Dilution:**	1
Lab ID:	KQ1907688-02	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.75		150403	588.74	2.62		Y
Indeno(1,2,3-cd)pyrene	15.34		246806	614.03	2.73		Y
Naphthalene	4.77	+0.01	221393	582.81	2.59		Y
Phenanthrene	7.54	-0.01	228825	602.90	2.68		Y
Pyrene	8.71	-0.01	289641	528.39	2.35		Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31

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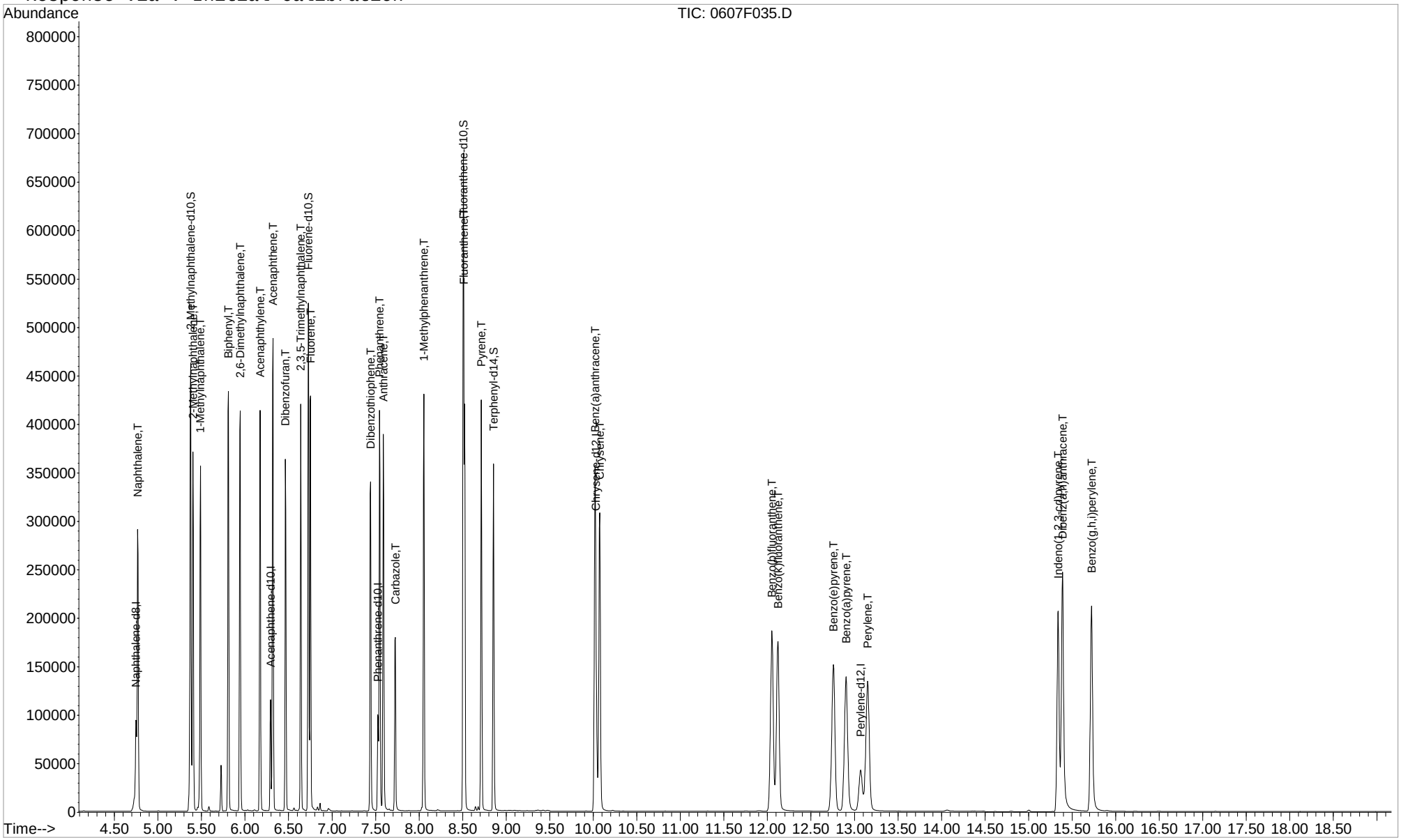
Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F035.D Vial: 31
Acq On : 8 Jun 2019 12:51 am Operator: LWeiskopf
Sample : KQ1907688-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:00 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F035.D Vial: 31
Acq On : 8 Jun 2019 12:51 am Operator: LWeiskopf
Sample : KQ1907688-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:13:46 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	70913m	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.29	164	34047	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.52	188	63158	200.00	ng/ml	0.00
23) Chrysene-d12	10.03	240	69509	200.00	ng/ml	0.00
28) Perylene-d12	13.07	264	79306	200.00	ng/ml	0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.38	152	172295	963.49	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	96.35%		
13) Fluorene-d10	6.73	176	188586	974.43	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	97.44%		
22) Fluoranthene-d10	8.51	212	374660	1012.34	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	101.23%		
25) Terphenyl-d14	8.85	244	233315	725.84	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	72.58%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	221393m	582.81	ng/ml	
4) 2-Methylnaphthalene	5.40	142	141392	545.38	ng/ml	97
5) 1-Methylnaphthalene	5.49	142	131887	547.02	ng/ml	96
6) Biphenyl	5.81	154	176170	542.41	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.94	156	126280	544.75	ng/ml	97
9) Acenaphthylene	6.17	152	215613	627.52	ng/ml	99
10) Acenaphthene	6.32	154	130087	623.69	ng/ml	99
11) Dibenzofuran	6.46	168	197655	604.01	ng/ml	72
12) 2,3,5-Trimethylnaphthalene	6.64	170	137065	671.75	ng/ml	85
14) Fluorene	6.75	166	150403	588.74	ng/ml	98
16) Dibenzothiophene	7.44	184	233189	649.06	ng/ml	99
17) Phenanthrene	7.54	178	228825	602.90	ng/ml	100
18) Anthracene	7.59	178	234097	677.83	ng/ml	99
19) Carbazole	7.73	167	116610	367.97	ng/ml	99
20) 1-Methylphenanthrene	8.05	192	179185	625.28	ng/ml	98
21) Fluoranthene	8.52	202	265927	594.91	ng/ml	89
24) Pyrene	8.71	202	289641	528.39	ng/ml	92
26) Benz(a)anthracene	10.02	228	284463	634.89	ng/ml	100
27) Chrysene	10.07	228	266184	611.51	ng/ml	100
29) Benzo(b)fluoranthene	12.05	252	321542	637.81	ng/ml	98
30) Benzo(k)fluoranthene	12.12	252	301006	633.50	ng/ml	99
31) Benzo(e)pyrene	12.76	252	294284	614.99	ng/ml	97
32) Benzo(a)pyrene	12.90	252	280475	694.69	ng/ml	98
33) Perylene	13.15	252	277948	629.62	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.34	276	246806	614.03	ng/ml	97
35) Dibenz(a,h)anthracene	15.39	278	257460	603.46	ng/ml	98
36) Benzo(g,h,i)perylene	15.72	276	275530	511.02	ng/ml	97

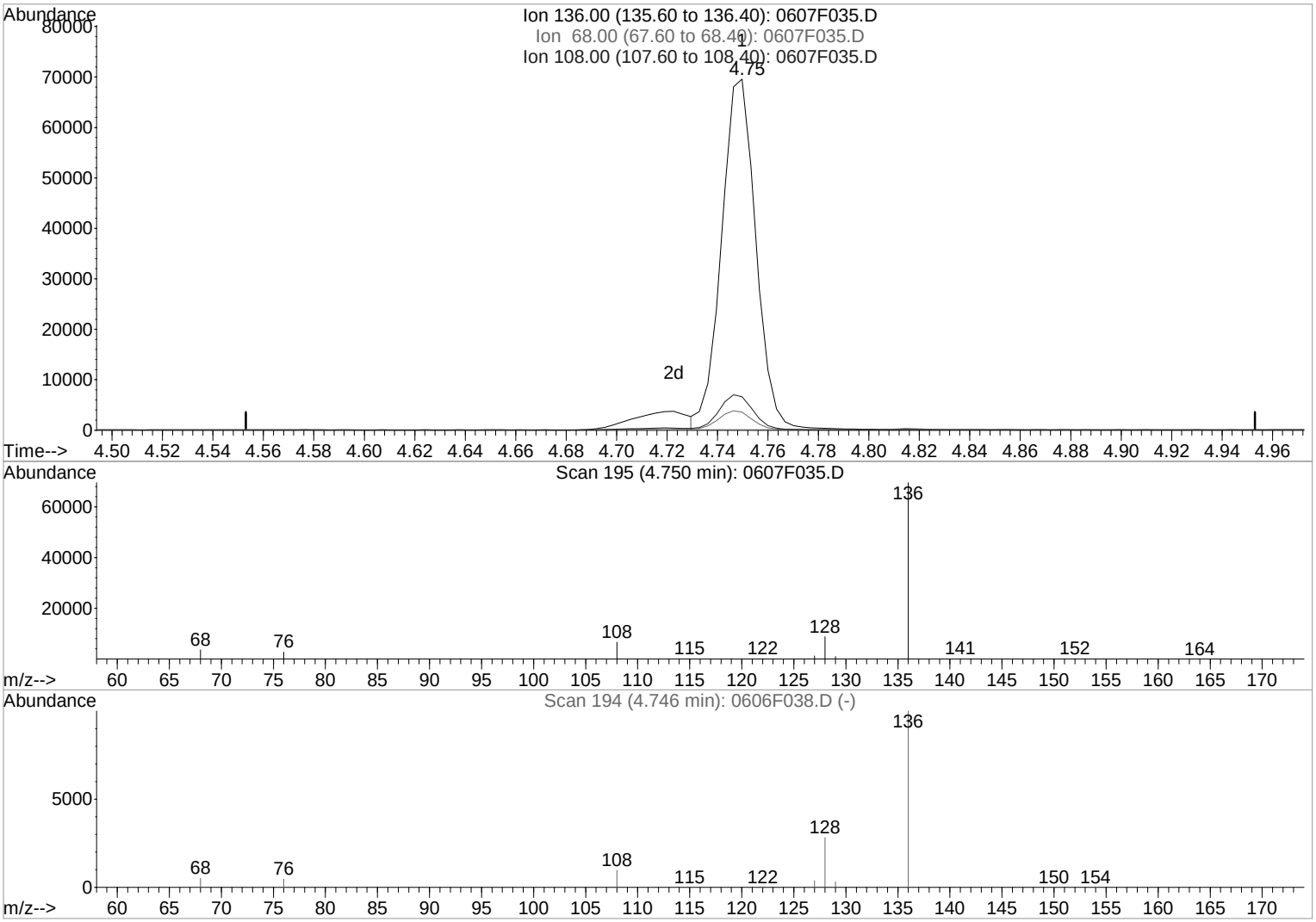
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F035.D Vial: 31
Acq On : 8 Jun 2019 12:51 am Operator: LWeiskopf
Sample : KQ1907688-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:13 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F035.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml

response 65967

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.04
108.00	8.80	9.49
0.00	0.00	0.00

Manual Integration:

Before

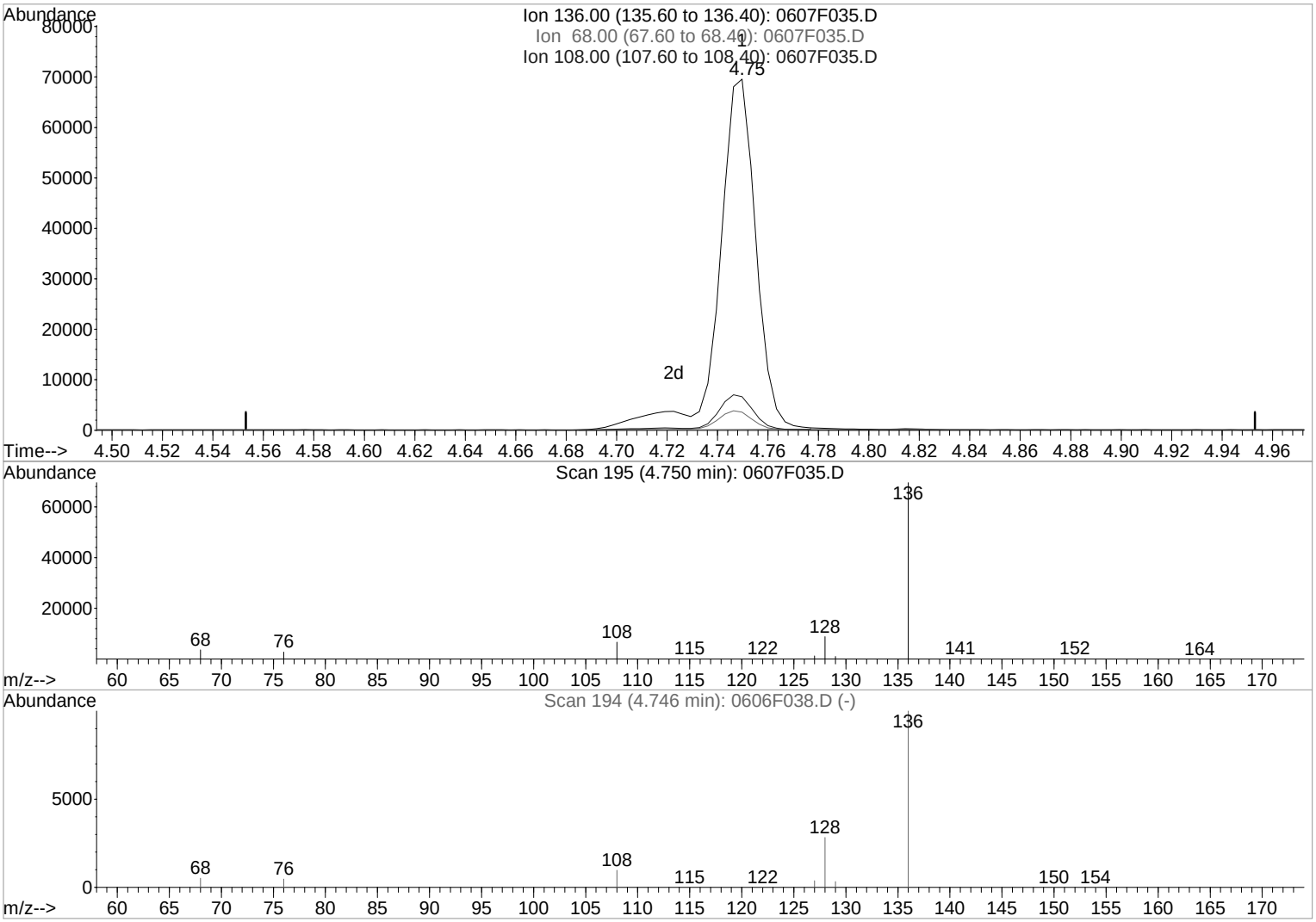
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F035.D Vial: 31
Acq On : 8 Jun 2019 12:51 am Operator: LWeiskopf
Sample : KQ1907688-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:00 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F035.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml m

response 70913

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.15
108.00	8.80	9.56
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

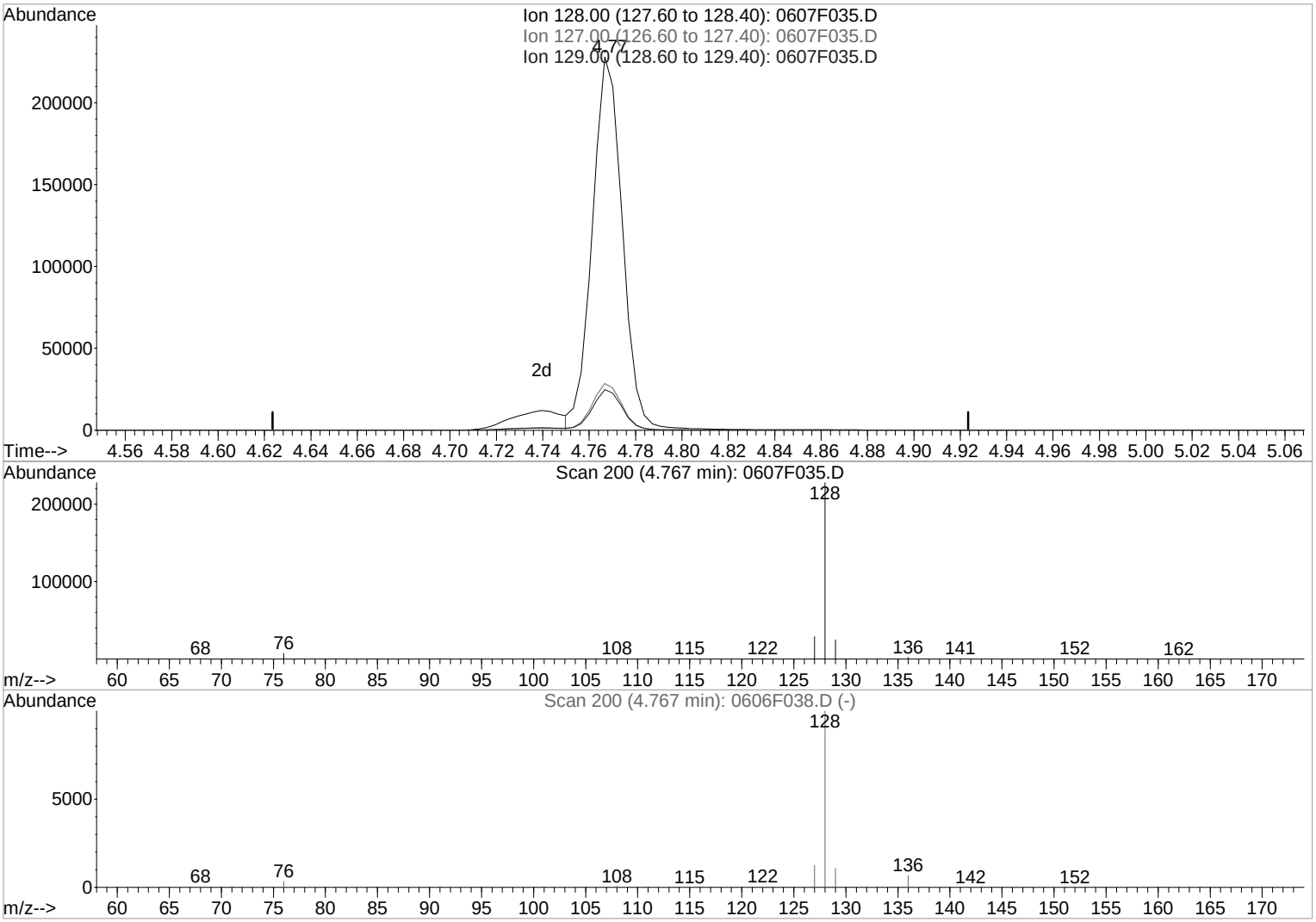
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F035.D Vial: 31
Acq On : 8 Jun 2019 12:51 am Operator: LWeiskopf
Sample : KQ1907688-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:00 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F035.D

(2) Naphthalene (T)

4.77min 541.19ng/ml

response 205583

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	12.52
129.00	10.80	10.84
0.00	0.00	0.00

Manual Integration:

Before

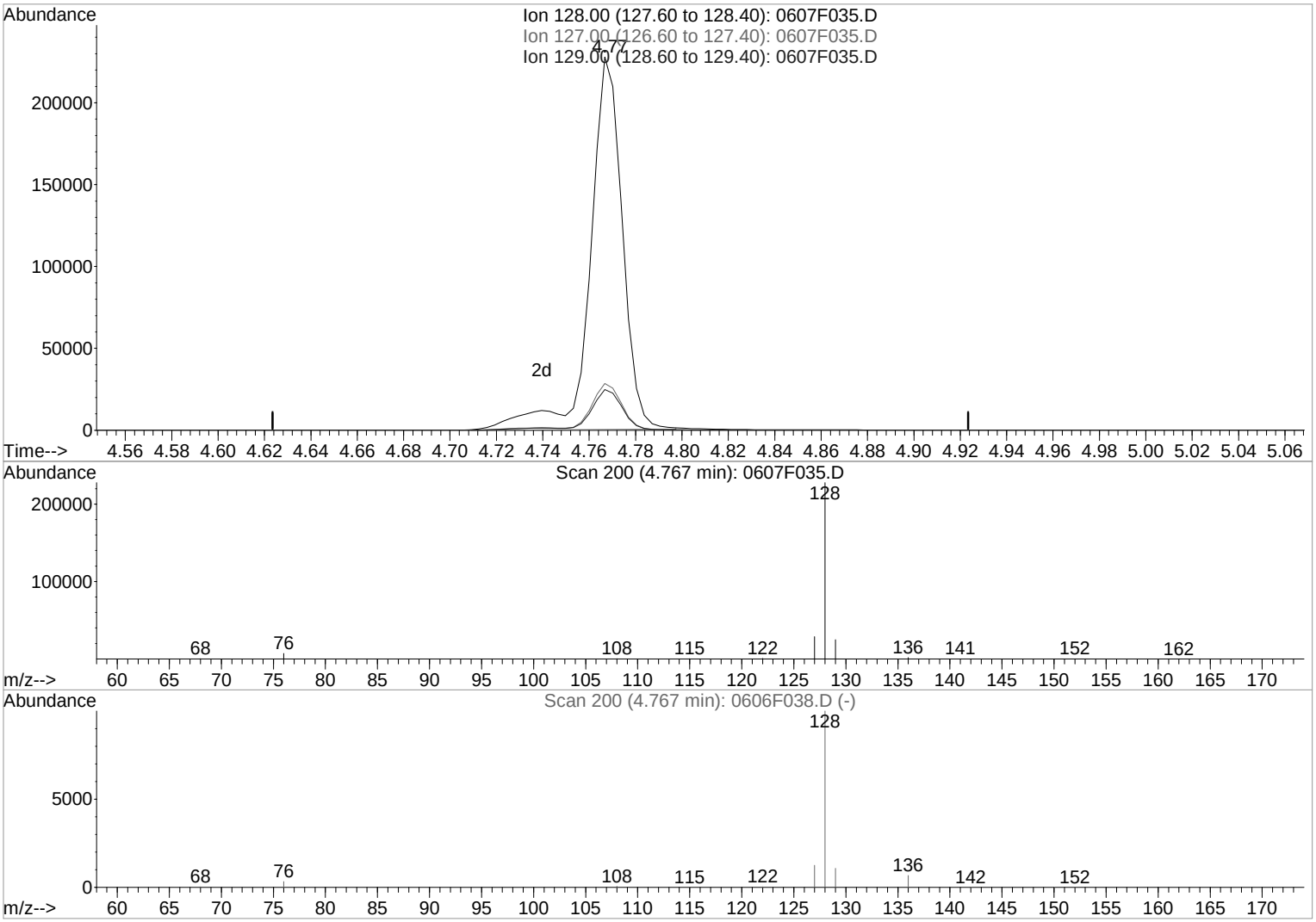
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F035.D Vial: 31
Acq On : 8 Jun 2019 12:51 am Operator: LWeiskopf
Sample : KQ1907688-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:00 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F035.D

(2) Naphthalene (T)

4.77min 582.81ng/ml m

response 221393

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	12.54
129.00	10.80	10.87
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

06/17/19

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F028.D\
Lab ID: KQ1907979-01
RunType: CCV
Matrix: Ground Water

Date Acquired: 6/7/19 21:38:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Internal Standards	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F028.D\	**Instrument:**	K-MS-14
Acqu Date:	6/7/19 21:38:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1907979-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	II	**Matrix:**	Ground Water
Prod Code:	PAH SIM	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	638644	**Prep Lot:**		**Report Group:**	KQ1907979
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		28174	200.00	OK
Chrysene-d12	10.04		64987	200.00	OK
Naphthalene-d8	4.74		58051	200.00	OK
Perylene-d12	13.08		73107	200.00	OK
Phenanthrene-d10	7.53		49385	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Fluoranthene-d10	8.51		134285	464.04	Y
Fluorene-d10	6.73		60910	380.33	Y
Terphenyl-d14	8.86		111271	370.25	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2-Methylnaphthalene	5.40		83722	394.48	Y
Acenaphthene	6.32		73002	422.96	Y
Acenaphthylene	6.17		120075	422.32	Y
Anthracene	7.60		119239	441.55	Y
Benz(a)anthracene	10.03		178831	426.90	Y
Benzo(a)pyrene	12.91		175462	471.44	Y
Benzo(b)fluoranthene	12.06		201403	433.38	Y
Benzo(g,h,i)perylene	15.73		183731	369.66	Y
Benzo(k)fluoranthene	12.12		192843	440.27	Y
Chrysene	10.08		170923	419.99	Y
Dibenz(a,h)anthracene	15.39		170124	432.57	Y
Fluoranthene	8.53		168276	481.44	Y
Fluorene	6.75		83295	394.02	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F028.D\	**Instrument:**	K-MS-14
Acqu Date:	6/7/19 21:38:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1907979-01	**Raw Units:**	ng/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Indeno(1,2,3-cd)pyrene	15.34		167403	451.80	Y
Naphthalene	4.76		127541	410.13	Y
Phenanthrene	7.55		120704	406.72	Y
Pyrene	8.72		181777	354.69	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

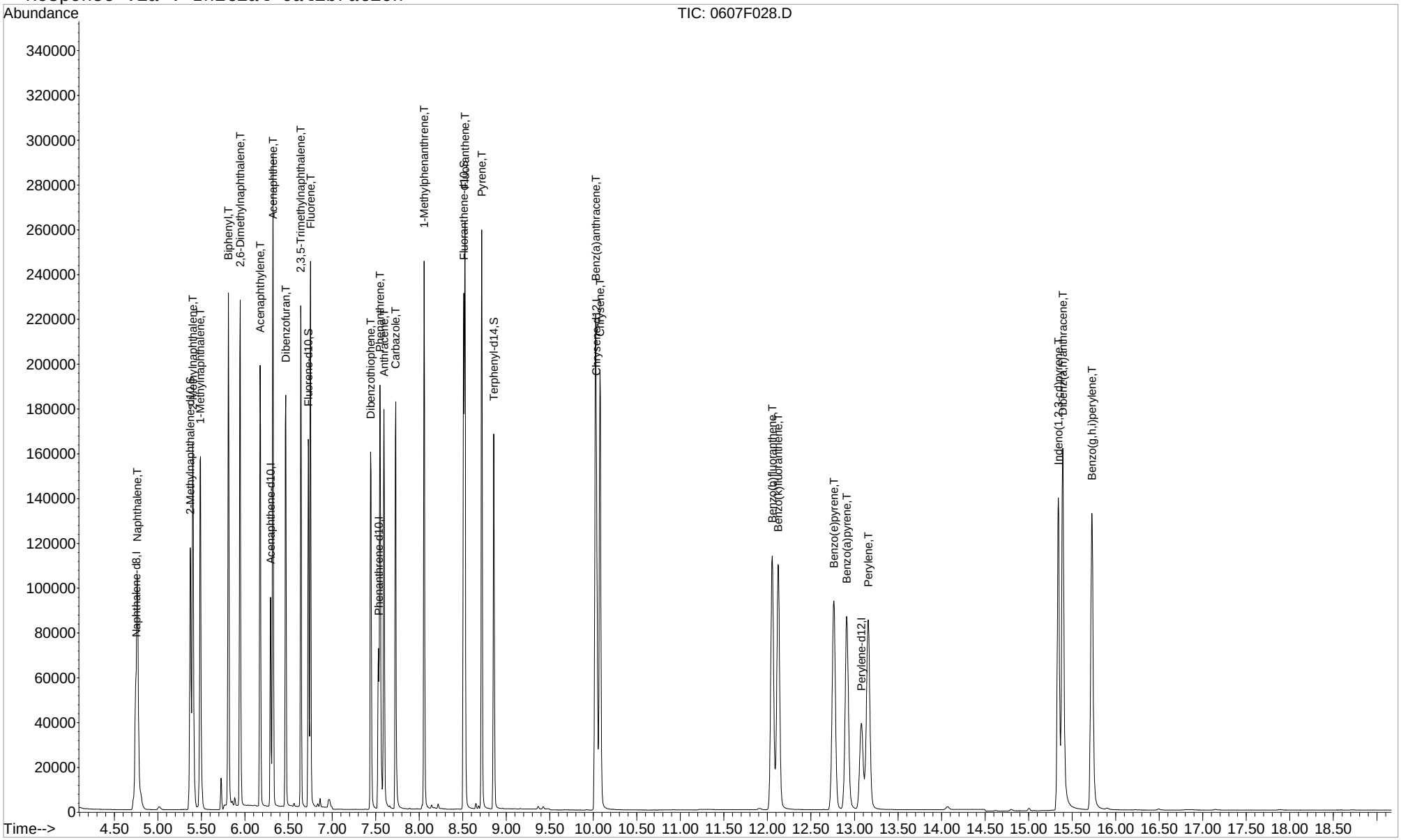
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F028.D Vial: 2
Acq On : 7 Jun 2019 9:38 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL SVM61-28A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:13 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F028.D Vial: 2
Acq On : 7 Jun 2019 9:38 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL SVM61-28A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:13:02 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.74	136	58051	200.00	ng/ml	-0.01
8) Acenaphthene-d10	6.29	164	28174	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.53	188	49385	200.00	ng/ml	0.00
23) Chrysene-d12	10.04	240	64987	200.00	ng/ml	0.00
28) Perylene-d12	13.08	264	73107	200.00	ng/ml	0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.37	152	55308	377.81	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	37.78%		
13) Fluorene-d10	6.73	176	60910	380.33	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	38.03%		
22) Fluoranthene-d10	8.51	212	134285	464.04	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	46.40%		
25) Terphenyl-d14	8.86	244	111271	370.25	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.03%		
Target Compounds						Qvalue
2) Naphthalene	4.76	128	127541	410.13	ng/ml	100
4) 2-Methylnaphthalene	5.40	142	83722	394.48	ng/ml	96
5) 1-Methylnaphthalene	5.49	142	76703	388.62	ng/ml	98
6) Biphenyl	5.81	154	99528	374.33	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.94	156	72076	379.81	ng/ml	96
9) Acenaphthylene	6.17	152	120075	422.32	ng/ml	100
10) Acenaphthene	6.32	154	73002	422.96	ng/ml	97
11) Dibenzofuran	6.47	168	108107	399.23	ng/ml	93
12) 2,3,5-Trimethylnaphthalene	6.64	170	75776	448.79	ng/ml	95
14) Fluorene	6.75	166	83295	394.02	ng/ml	98
16) Dibenzothiophene	7.44	184	122481	435.99	ng/ml	93
17) Phenanthrene	7.55	178	120704	406.72	ng/ml	100
18) Anthracene	7.60	178	119239	441.55	ng/ml	100
19) Carbazole	7.73	167	116986	472.10	ng/ml	99
20) 1-Methylphenanthrene	8.06	192	100647	449.17	ng/ml	98
21) Fluoranthene	8.53	202	168276	481.44	ng/ml	91
24) Pyrene	8.72	202	181777	354.69	ng/ml	90
26) Benz(a)anthracene	10.03	228	178831	426.90	ng/ml	100
27) Chrysene	10.08	228	170923	419.99	ng/ml	100
29) Benzo(b)fluoranthene	12.06	252	201403	433.38	ng/ml	99
30) Benzo(k)fluoranthene	12.12	252	192843	440.27	ng/ml	98
31) Benzo(e)pyrene	12.76	252	184909	419.19	ng/ml	97
32) Benzo(a)pyrene	12.91	252	175462	471.44	ng/ml	98
33) Perylene	13.16	252	172642	424.24	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.34	276	167403	451.80	ng/ml	98
35) Dibenz(a,h)anthracene	15.39	278	170124	432.57	ng/ml	99
36) Benzo(g,h,i)perylene	15.73	276	183731	369.66	ng/ml	98

(#) = qualifier out of range (m) = manual integration

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F027.D\
Lab ID: KQ1907979-04
RunType: TUNE
Matrix: Sediment

Date Acquired: 6/7/19 21:11:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Tune Ion Ratio	X	

Primary Review: _____

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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F027.D\	**Instrument:**	K-MS-14
Acqu Date:	6/7/19 21:11:00	**Vial:**	1
Run Type:	TUNE	**Dilution:**	1
Lab ID:	KQ1907979-02	**Raw Units:**	

Bottle ID:		**Tier:**	II	**Matrix:**	Ground Water
Prod Code:	PAH SIM	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	638644	**Prep Lot:**		**Report Group:**	KQ1907979
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18909

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	23.25	104640	Pass
68	69	0	2	1.79	2181	Pass
69	198	0	100	27.03	121640	Pass
70	69	0	2	0.52	631	Pass
127	198	10	80	41.99	188978	Pass
197	198	0	2	0.28	1252	Pass
198	442	30	100	35.57	450090	Pass
199	198	5	9	6.67	30033	Pass
275	198	10	60	36.03	162184	Pass
365	442	1	50	2.13	26896	Pass
441	443	0.01	100	73.34	181120	Pass
442	442	30	100	100.00	1265258	Pass
443	442	15	24	19.52	246976	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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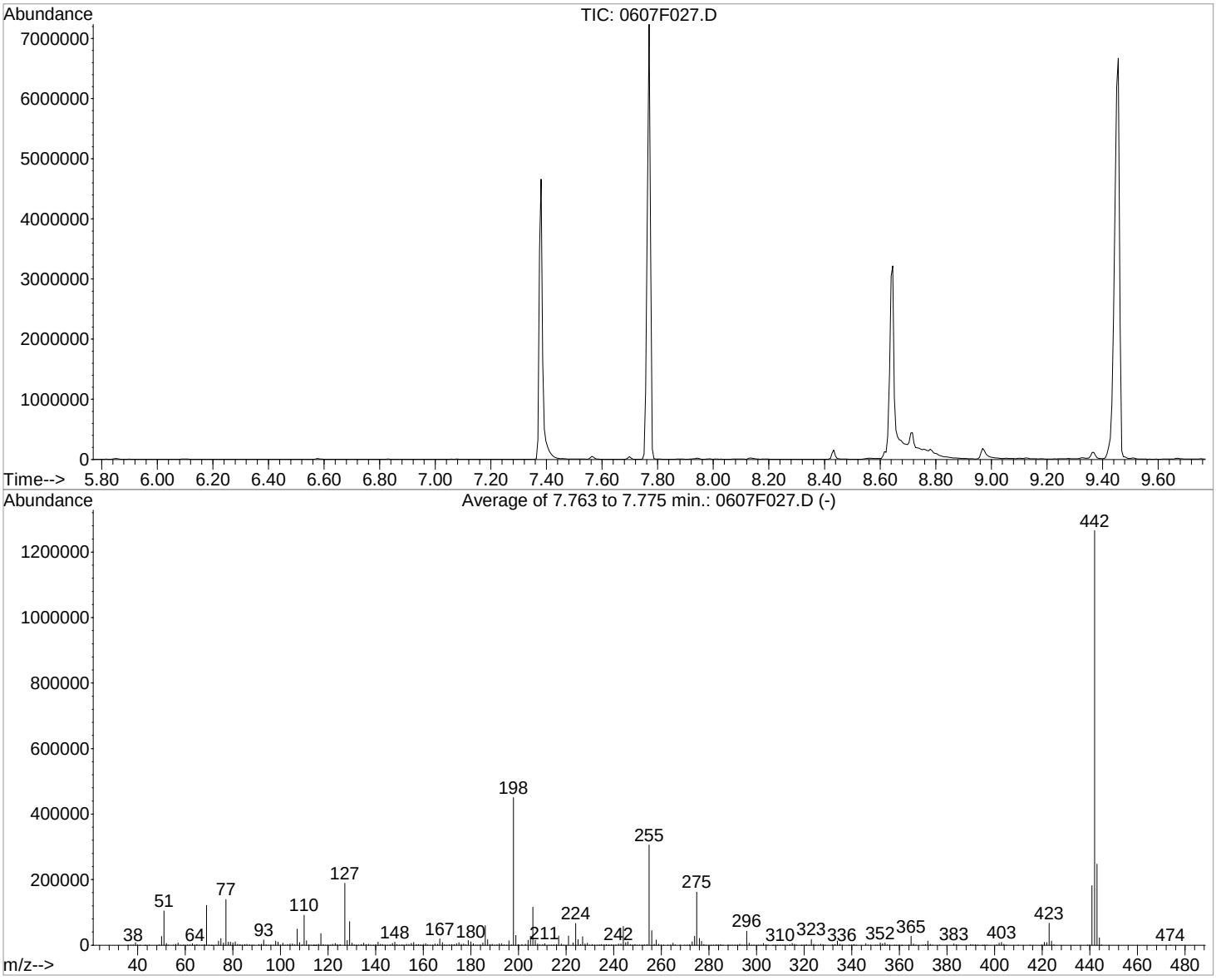
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F027.D Vial: 1
Acq On : 7 Jun 2019 9:11 pm Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix



Spectrum Information: Average of 7.763 to 7.775 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	23.2	104640	PASS
68	69	0.00	2	1.8	2181	PASS
69	198	0.00	100	27.0	121640	PASS
70	69	0.00	2	0.5	631	PASS
127	198	10	80	42.0	188978	PASS
197	198	0.00	2	0.3	1252	PASS
198	442	30	100	35.6	450090	PASS
199	198	5	9	6.7	30033	PASS
275	198	10	60	36.0	162184	PASS
365	442	1	50	2.1	26896	PASS
441	443	0.01	100	73.3	181120	PASS
442	442	30	100	100.0	1265258	PASS
443	442	15	24	19.5	246976	PASS

Average of 7.763 to 7.775 min.: 0607F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	58	51.10	104640	64.00	694	76.10	6887
37.05	425	52.10	5209	64.95	2108	77.10	139216
38.10	1286	53.00	185	65.95	284	78.10	9282
39.10	7664	55.00	473	67.05	198	79.00	9223
40.05	339	56.00	3075	68.10	2181	80.00	7078
41.00	180	57.00	7210	69.00	121640	81.00	10056
43.00	15	58.00	307	70.00	631	82.00	2520
44.90	183	59.00	53	71.00	53	83.00	2398
49.00	78	61.00	1260	72.95	739	83.90	89
49.20	492	62.05	1659	74.00	12326	85.00	1712
50.10	26879	63.00	4456	75.00	19524	85.95	2706

Average of 7.763 to 7.775 min.: 0607F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.00	1325	99.00	9621	110.00	91533	118.95	357
88.00	482	100.00	865	111.00	13385	120.00	708
88.90	274	101.00	5937	111.95	1562	121.00	288
90.95	2229	102.00	290	112.90	497	121.95	3312
92.00	2549	103.00	2038	113.80	54	123.00	5058
93.00	16203	104.00	3928	114.20	83	123.95	2268
94.00	1190	105.00	3736	114.80	52	125.00	2254
94.95	384	106.00	1260	115.05	167	127.00	188978
96.00	769	107.00	49147	116.00	2816	128.00	14200
97.05	479	108.00	7498	117.00	35175	129.00	71498
98.00	12584	109.05	1598	118.00	2418	130.00	6061

Average of 7.763 to 7.775 min.: 0607F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
130.95	1156	142.00	3132	152.95	2959	163.95	615
131.95	679	142.90	2020	154.00	2382	164.95	3535
132.80	318	143.95	550	154.95	5400	166.00	2818
133.95	2035	144.90	582	156.00	8215	166.95	18771
135.00	5791	146.00	1550	157.05	1711	168.00	7652
136.00	2210	147.00	5035	157.95	1870	168.95	1584
137.00	2810	148.00	9426	158.90	1323	169.95	731
137.90	634	148.90	1953	160.00	2952	170.95	904
138.95	438	150.00	602	161.00	4546	171.90	1717
139.95	927	151.05	1187	161.95	1359	173.00	2202
140.95	9406	151.80	762	162.95	307	174.00	4134

Average of 7.763 to 7.775 min.: 0607F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.00	7819	186.00	59936	197.00	1252	208.90	1106
176.00	2575	187.00	16972	197.90	450090	210.20	1977
176.95	3927	188.00	1758	198.90	30033	211.00	4503
177.90	1174	188.95	3320	199.95	2264	212.95	351
178.90	14124	189.95	647	201.40	2453	213.90	92
180.00	9845	190.95	1644	202.95	2936	214.90	1218
181.00	4706	191.90	4695	204.00	15288	215.95	2329
182.00	836	193.00	4887	205.00	26905	216.90	28188
182.90	453	193.95	1134	206.00	115746	217.95	3626
183.90	1166	195.05	647	207.00	14700	218.95	350
185.00	7122	196.00	13739	208.00	3650	221.00	28080

Average of 7.763 to 7.775 min.: 0607F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
222.95	6657	233.90	1579	244.00	57082	254.90	305877
224.00	66333	234.90	2060	245.00	7500	255.95	44429
225.00	16797	235.95	1258	245.90	10054	256.95	3276
226.00	1745	236.90	2215	246.90	2153	257.90	15825
226.90	25431	237.70	50	247.95	537	258.90	2544
227.90	3616	238.00	228	248.90	1927	259.90	499
228.90	5794	238.95	1083	249.90	421	260.95	521
229.90	887	239.90	797	250.85	534	262.80	139
230.95	2314	240.90	1559	251.90	544	263.85	428
231.90	420	241.95	3659	252.85	1152	264.90	6392
232.90	479	243.00	3776	254.00	2164	265.85	1018

Average of 7.763 to 7.775 min.: 0607F027.D

1st 06/17/19
2nd 06/17/19

DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
267.75	50	278.90	375	291.90	605	303.95	1558
269.85	397	280.90	75	292.90	3070	304.80	162
270.90	610	281.85	398	293.90	835	306.80	50
271.80	220	282.95	1388	294.95	871	307.90	776
271.95	627	283.90	1013	295.90	42680	308.90	411
272.90	9996	284.95	2300	296.90	5930	309.90	644
273.90	27068	285.95	441	297.85	370	311.00	70
274.90	162184	287.80	52	298.85	114	311.80	72
275.95	20906	288.85	573	300.90	655	312.85	448
276.90	11884	289.85	432	301.90	789	313.95	2396
277.90	2062	290.90	330	302.90	5460	314.90	5192

Average of 7.763 to 7.775 min.: 0607F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
315.95	3233	327.90	1691	345.90	4148	358.85	491
316.90	581	328.85	305	346.90	747	359.90	76
318.80	62	331.90	1311	347.90	64	360.90	51
319.90	135	332.90	1800	349.90	130	364.00	145
320.90	1723	333.90	12247	350.85	367	364.90	26896
321.95	895	335.00	3288	351.90	6557	365.90	3866
322.95	17715	335.90	435	352.90	4460	366.90	257
324.00	3222	338.85	296	353.90	6801	369.95	631
324.85	319	339.85	334	354.90	1312	370.90	1786
325.85	374	340.90	2203	355.90	66	371.90	12372
326.90	3153	341.90	613	358.00	65	372.95	3004

Average of 7.763 to 7.775 min.: 0607F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
373.90	363	396.85	134	422.90	66685		
376.85	319	400.85	930	423.90	12807		
382.90	3525	401.90	5763	424.90	1169		
383.90	981	402.90	8593	439.10	65		
384.80	282	403.90	3050	440.00	450		
389.90	1814	404.85	471	440.90	181120		
390.90	1359	409.90	301	442.00	1265258		
391.95	1037	414.85	422	443.00	246976		
392.90	154	419.80	75	443.95	22691		
394.80	60	420.90	8251	444.90	1296		
395.80	73	421.90	7673	473.85	140		

Injection Log

Directory: J:\MS14\DATA\042519

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0425F001.D	1.	DFTPP @ 10ug/mL | SVM60-55B		25 Apr 2019 06:19
2	2	0425F002.D	1.	IB NR		25 Apr 2019 06:48
3	2	0425F003.D	1.	IB		25 Apr 2019 07:14
4	3	0425F004.D	1.	SIM-PAH ICAL @.002 | SVM61-6A		25 Apr 2019 07:41
5	4	0425F005.D	1.	SIM-PAH ICAL @.004 | SVM61-6B		25 Apr 2019 08:08
6	5	0425F006.D	1.	SIM-PAH ICAL @.008 | SVM61-6C		25 Apr 2019 08:35
7	6	0425F007.D	1.	SIM-PAH ICAL @0.02 | SVM61-6D		25 Apr 2019 09:02
8	7	0425F008.D	1.	SIM-PAH @ 0.1 ppm | SVM61-6E		25 Apr 2019 09:29
9	8	0425F009.D	1.	SIM-PAH @ 0.2 ppm | SVM61-6F		25 Apr 2019 09:56
10	9	0425F010.D	1.	SIM-PAH @ 0.4 ppm | SVM61-6G		25 Apr 2019 10:23
11	10	0425F011.D	1.	SIM-PAH @ 1.0 ppm | SVM61-6H		25 Apr 2019 10:50
12	11	0425F012.D	1.	SIM-PAH @ 1.6 ppm | SVM61-6I		25 Apr 2019 11:18
13	12	0425F013.D	1.	SIM-PAH @ 2.0 ppm | SVM61-6J		25 Apr 2019 11:45
14	13	0425F014.D	1.	SIM-PAH ICV @ 0.4 ppm | SVM61-6K		25 Apr 2019 12:12

SIM-PAH ICAL

KC1900163 - Lims

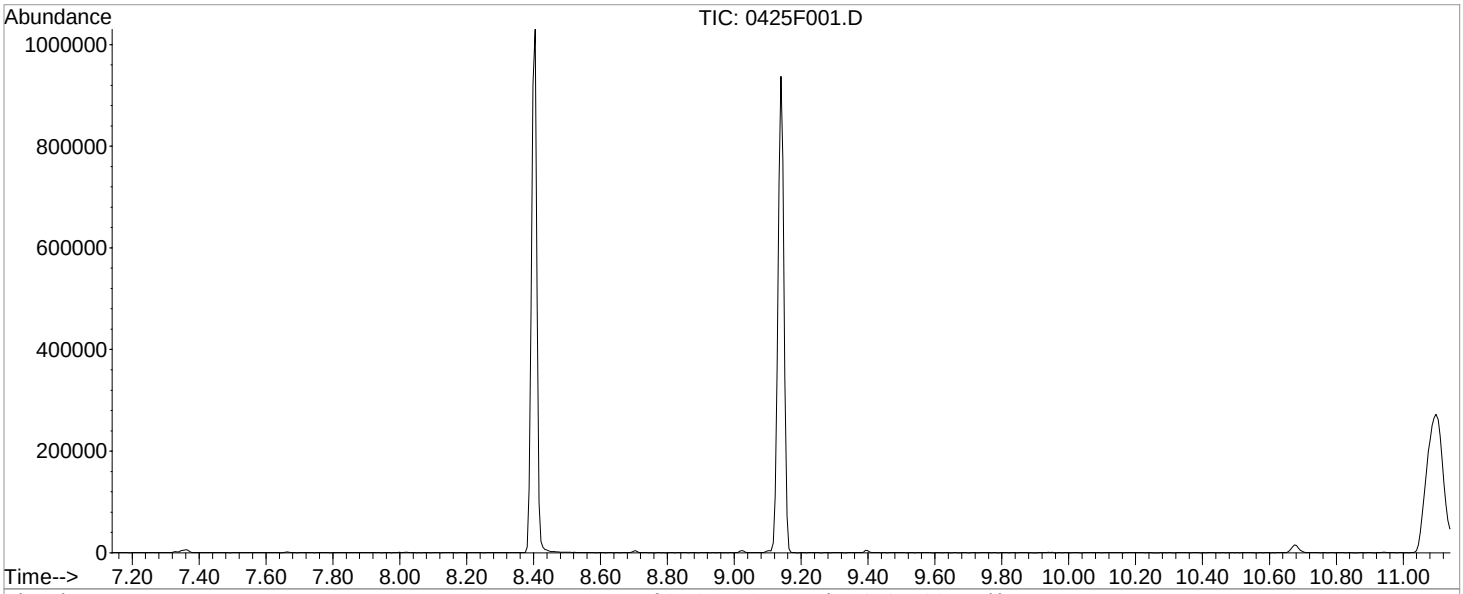
CAL16022 - Stealth

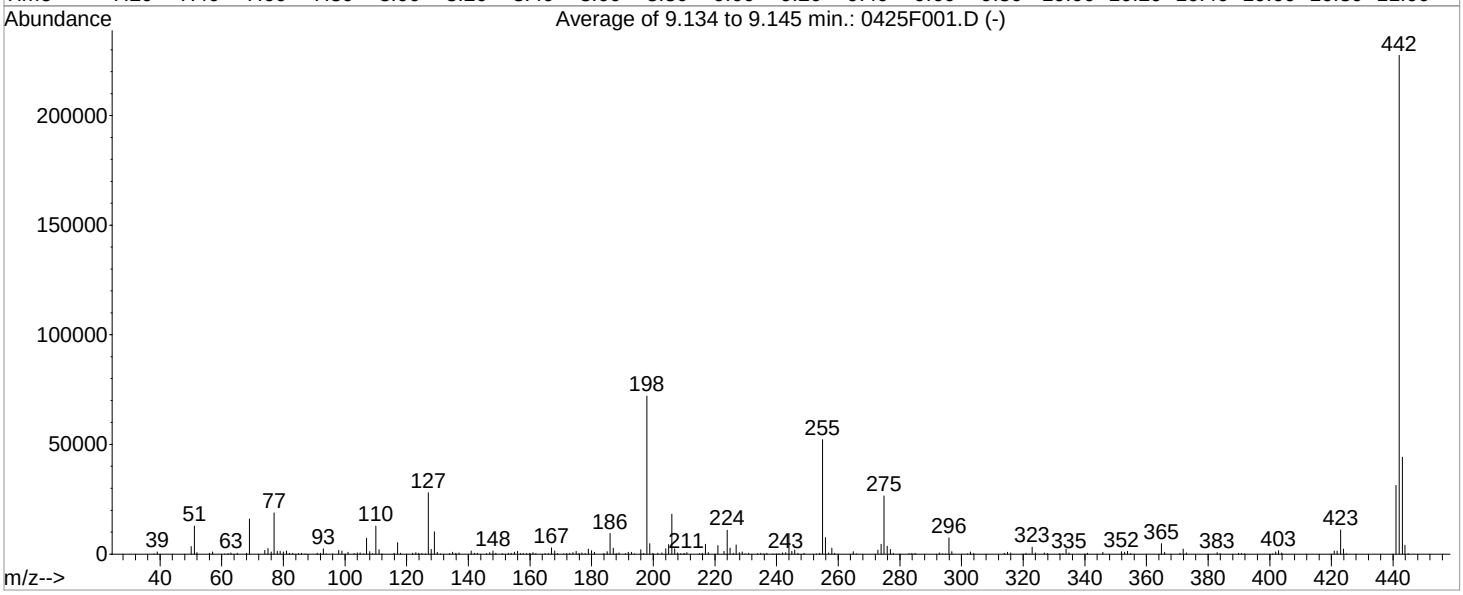
4/26/19

4/28/19

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F001.D Vial: 1
Acq On : 25 Apr 2019 6:19 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix





AutoFind: Scans 518, 519, 520; Background Corrected with Scan 511

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	17.8	12847	PASS
68	69	0.00	2	2.0	318	PASS
69	198	0.00	100	22.2	15997	PASS
70	69	0.00	2	0.0	0	PASS
127	198	10	80	38.9	28021	PASS
197	198	0.00	2	0.3	206	PASS
198	442	30	100	31.7	72026	PASS
199	198	5	9	6.6	4780	PASS
275	198	10	60	36.8	26482	PASS
365	442	1	50	2.1	4761	PASS
441	443	0.01	100	70.7	31258	PASS
442	442	30	100	100.0	227434	PASS
443	442	15	24	19.4	44224	PASS

1st 04/26/19
2nd 04/28/19

Average of 9.134 to 9.145 min.: 0425F001.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.00	122	68.05	318	82.95	350	100.95	827
39.05	936	69.00	15997	84.90	286	102.95	262
50.05	3388	74.00	1672	85.95	391	103.95	514
51.10	12847	75.00	2591	87.00	116	104.95	496
52.00	691	76.00	943	91.00	367	106.00	136
56.00	396	77.00	18708	92.00	342	107.00	7200
57.00	966	78.00	1234	93.00	2378	108.00	1092
61.00	67	79.00	1241	93.90	124	109.00	213
62.00	205	80.00	1005	96.00	51	110.00	12812
63.00	571	81.00	1391	98.00	1738	111.00	1958
65.00	307	81.95	340	99.00	1383	111.95	141

Average of 9.134 to 9.145 min.: 0425F001.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
115.95	378	129.95	886	147.95	1449	160.95	664
117.00	5120	130.95	113	148.95	335	161.90	196
117.95	363	133.90	250	150.95	181	164.90	210
121.90	421	134.90	836	152.95	417	165.90	192
122.95	681	135.95	371	153.90	350	167.00	2883
123.90	312	136.95	454	154.95	812	168.00	1394
124.95	299	140.90	1343	156.00	1230	168.95	234
126.10	53	141.95	420	156.90	258	170.90	52
127.00	28021	142.90	343	157.90	260	171.90	269
128.00	2158	145.95	233	158.90	210	172.90	357
129.00	10125	146.95	708	159.90	434	173.90	666

Average of 9.134 to 9.145 min.: 0425F001.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.00	1256	187.00	2685	198.90	4780	210.05	188
175.95	373	187.95	276	199.90	387	210.85	720
176.90	547	188.90	535	201.45	324	214.90	187
177.90	173	190.95	245	202.85	448	215.90	341
178.90	2202	191.90	748	204.00	2429	216.90	4503
179.95	1574	192.95	862	205.00	4357	217.90	614
180.90	789	193.90	119	206.00	18249	220.95	3909
183.80	62	195.95	1987	207.00	2374	222.90	1217
184.00	84	196.75	206	207.90	587	224.00	10924
185.00	1128	197.00	102	208.90	208	224.95	2772
186.00	9456	197.90	72026	209.80	73	225.95	306

Average of 9.134 to 9.145 min.: 0425F001.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

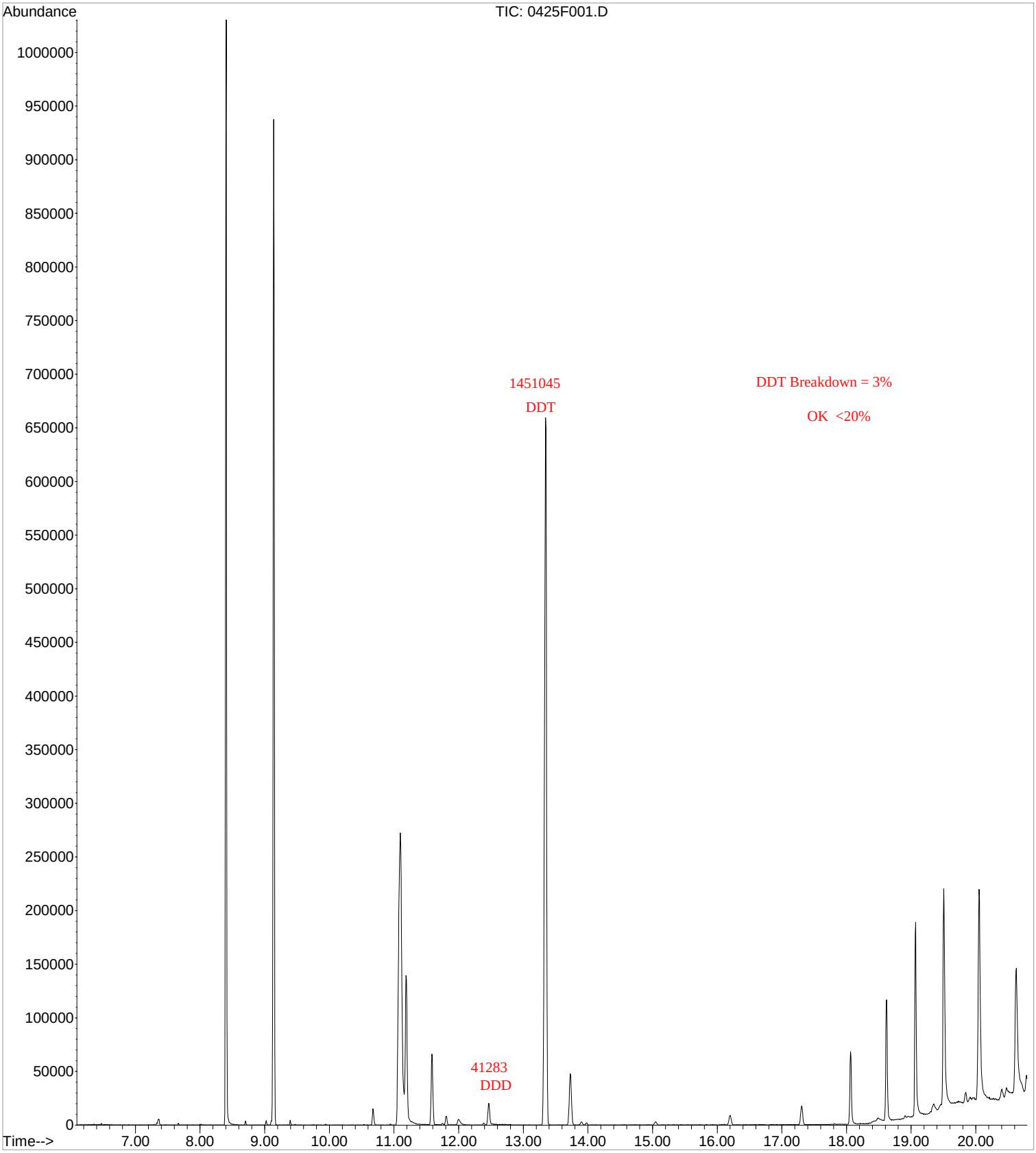
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
226.90	4202	240.85	258	255.90	7498	277.90	342
227.90	607	241.90	579	256.90	576	282.90	240
228.90	991	242.95	646	257.90	2779	283.90	179
229.80	54	244.00	9483	258.90	419	284.90	393
230.90	431	244.95	1219	264.90	1091	292.85	553
233.85	248	245.90	1763	265.90	82	293.80	51
234.90	315	246.90	347	272.90	1772	294.85	110
235.85	43	248.90	337	273.90	4437	295.90	7312
236.90	378	252.90	145	274.90	26482	296.90	1066
238.85	140	254.00	320	275.90	3587	301.90	52
239.90	50	254.90	52136	276.90	2080	302.90	960

Average of 9.134 to 9.145 min.: 0425F001.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
303.95	286	332.90	296	370.90	329	403.90	510
313.90	426	333.90	2202	371.90	2277	420.90	1449
314.90	882	334.90	580	372.95	513	421.90	1323
315.95	589	340.90	394	382.90	667	422.95	11098
320.95	325	345.85	738	383.90	189	423.90	2306
321.90	64	351.90	1137	389.85	370	424.85	148
322.95	3205	352.90	787	390.85	220	440.95	31258
323.95	554	353.90	1234	391.90	129	441.95	227434
326.85	539	354.90	244	400.90	60	443.00	44224
327.85	281	364.90	4761	401.90	1006	443.90	3983
331.85	234	365.85	753	402.90	1560	444.90	227

1st 04/26/19
2nd 04/28/19

File : J:\MS14\DATA\042519\0425F001.D
Operator : LWeiskopf
Acquired : 25 Apr 2019 6:19 am using AcqMethod SIMLOC
Instrument : MS14
Sample Name: DFTPP @ 10ug/mL | SVM60-55B
Misc Info :
Vial Number: 1

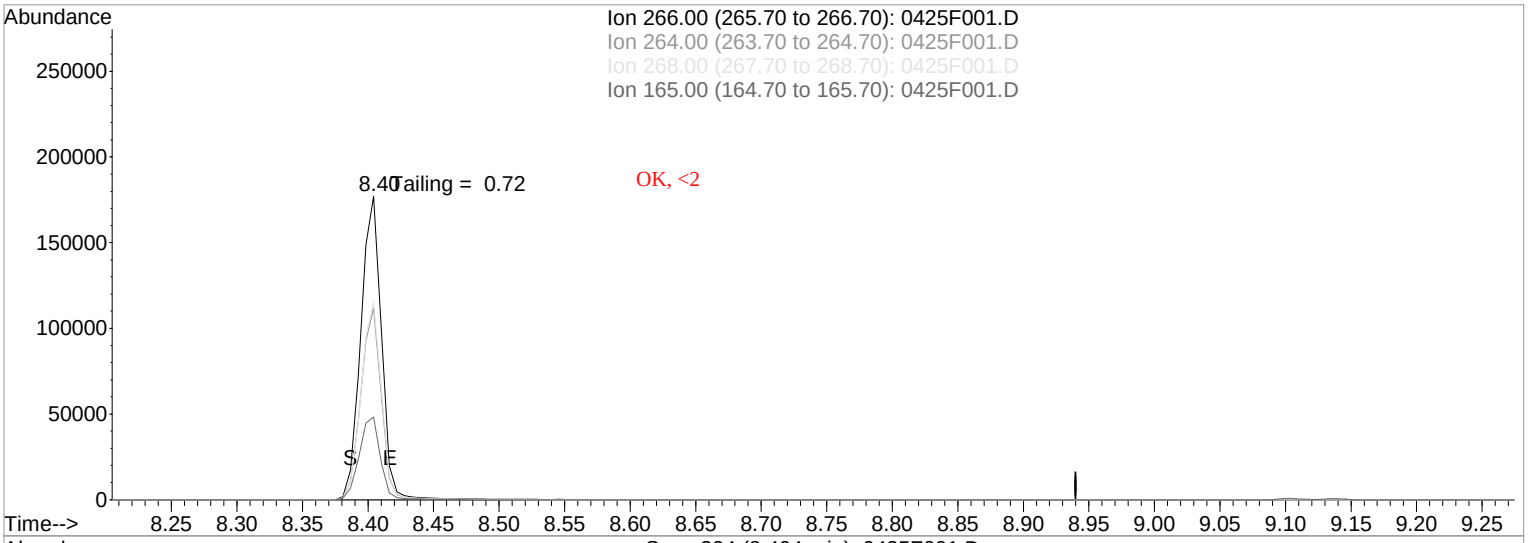


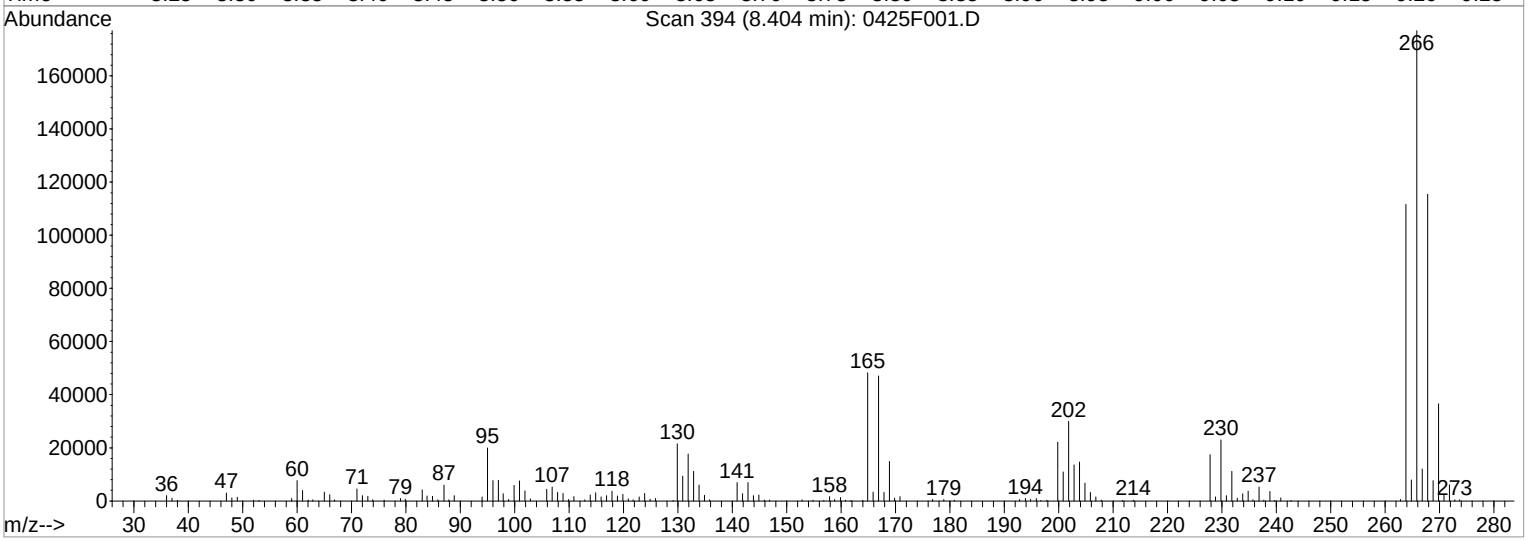
Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F001.D Vial: 1
Acq On : 25 Apr 2019 6:19 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 25 6:40 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Thu Sep 20 12:42:13 2018
Response via : Single Level Calibration





TIC: 0425F001.D

(1) Pentachlorophenol

8.40min 8.43ng/ml

response 194035

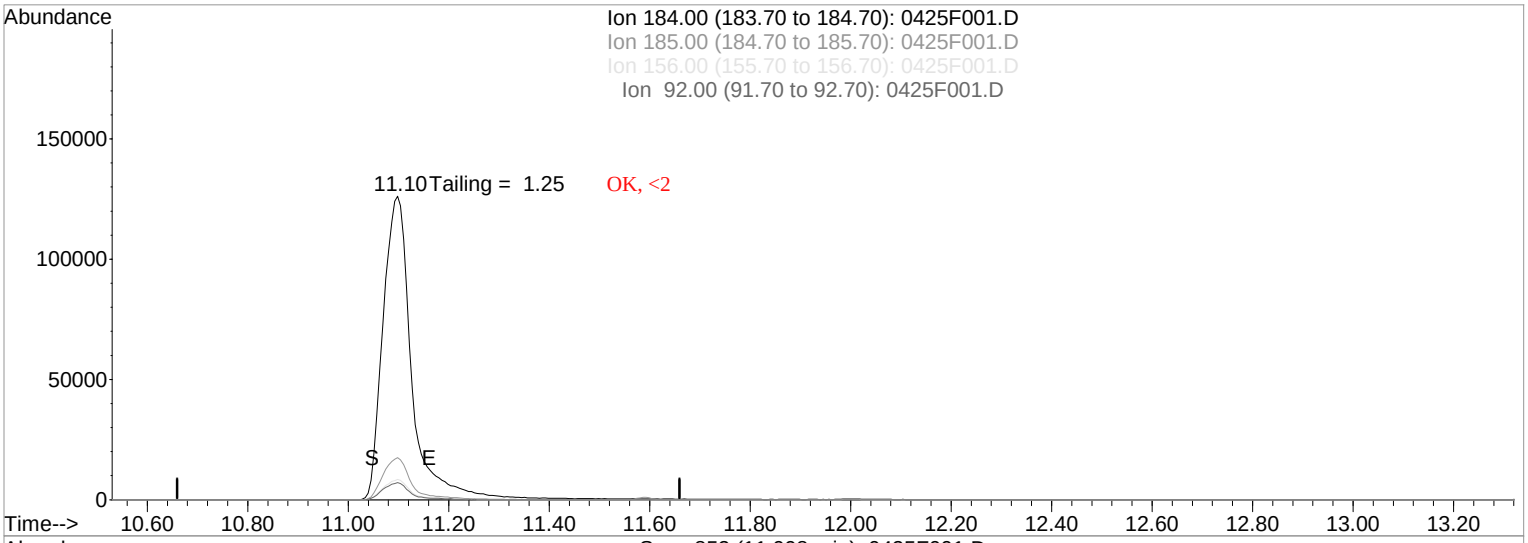
Ion	Exp%	Act%
266.00	100	100
264.00	62.30	63.01
268.00	72.30	65.24
165.00	42.00	27.23

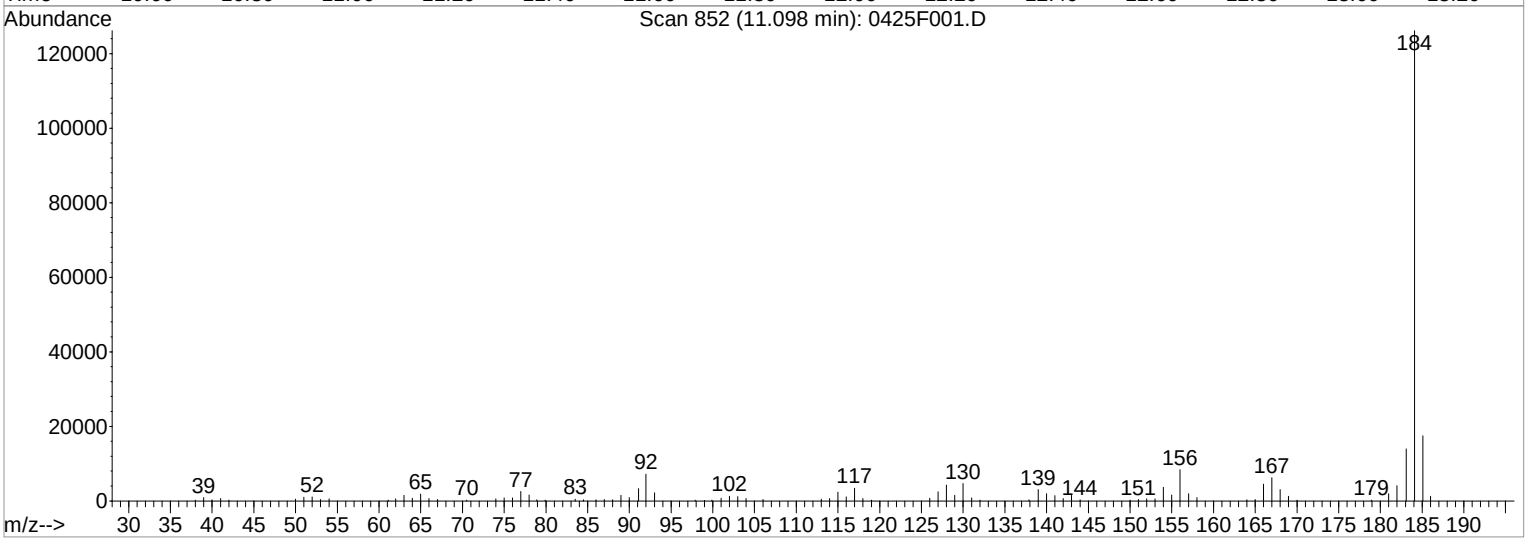
Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F001.D Vial: 1
Acq On : 25 Apr 2019 6:19 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 25 6:40 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Thu Sep 20 12:42:13 2018
Response via : Single Level Calibration





TIC: 0425F001.D

(3) Benzidine (T)

11.10min 8.75ug/ml

response 504216

Ion	Exp%	Act%
184.00	100	100
185.00	14.70	13.87
156.00	9.50	6.65
92.00	7.60	5.67

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F003.D Vial: 2
Acq On : 25 Apr 2019 7:14 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 07:34:45 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)	
1) Naphthalene-d8	4.79	136	54870	200.00	ng/ml	0.00	
8) Acenaphthene-d10	6.34	164	31240	200.00	ng/ml	0.00	
15) Phenanthrene-d10	7.57	188	66018	200.00	ng/ml	0.00	
23) Chrysene-d12	10.09	240	57307	200.00	ng/ml	0.00	
28) Perylene-d12	13.15	264	57734	200.00	ng/ml	0.00	
System Monitoring Compounds							
3) 2-Methylnaphthalene-d10	0.00	152	0	0.00	ng/ml		
Spiked Amount 1000.000			Recovery =	0.00%			
13) Fluorene-d10	6.77	176	64	0.30	ng/ml	0.00	
Spiked Amount 1000.000			Recovery =	0.03%			
22) Fluoranthene-d10	0.00	212	0	0.00	ng/ml		
Spiked Amount 1000.000			Recovery =	0.00%			
25) Terphenyl-d14	0.00	244	0	0.00	ng/ml		
Spiked Amount 1000.000			Recovery =	0.00%			
Target Compounds						Qvalue	
17) Phenanthrene	7.59	178	79	0.19	ng/ml	88	< 1/2 MRL
26) Benz(a)anthracene	10.09	228	171	0.42	ng/ml	68	< 1/2 MRL

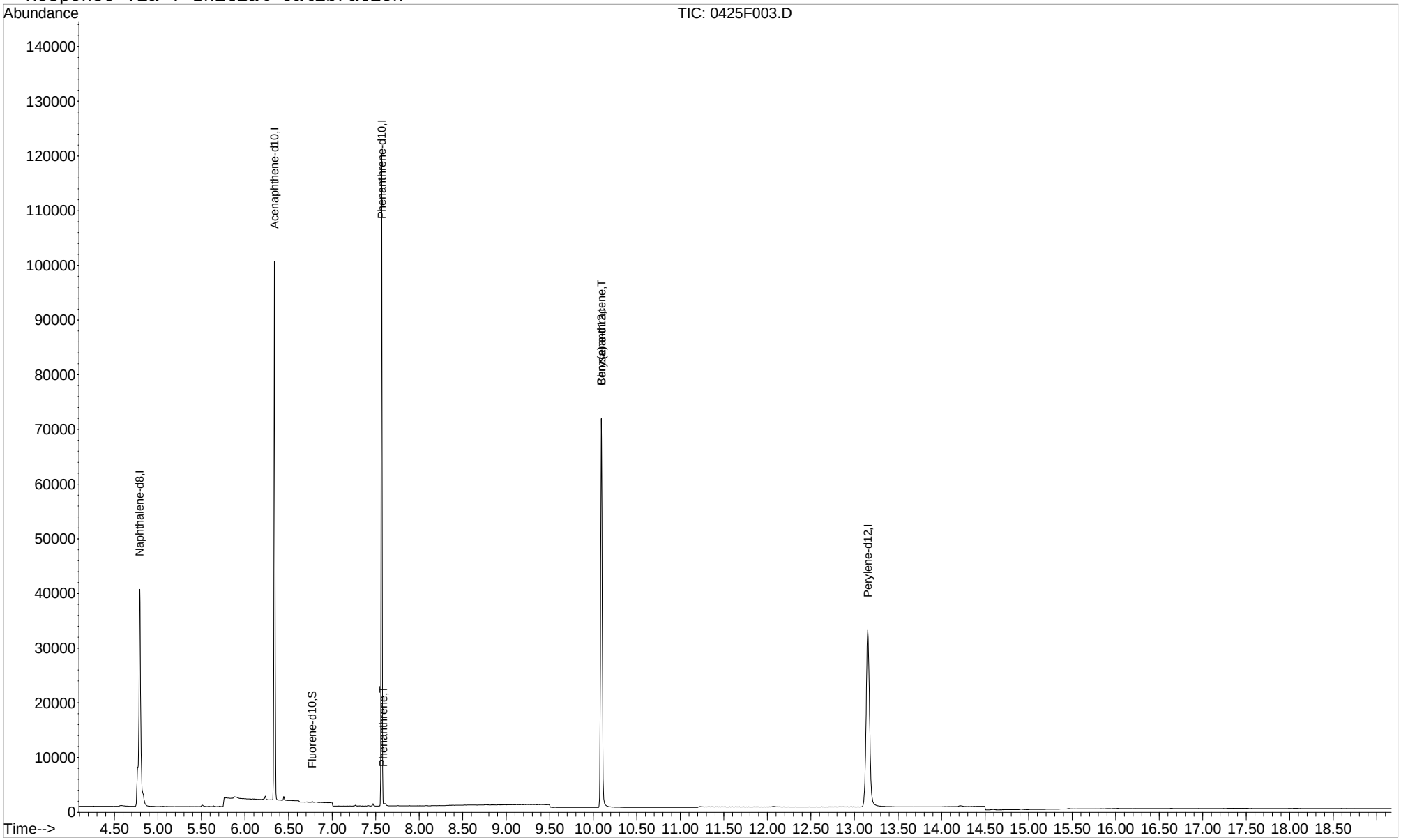
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

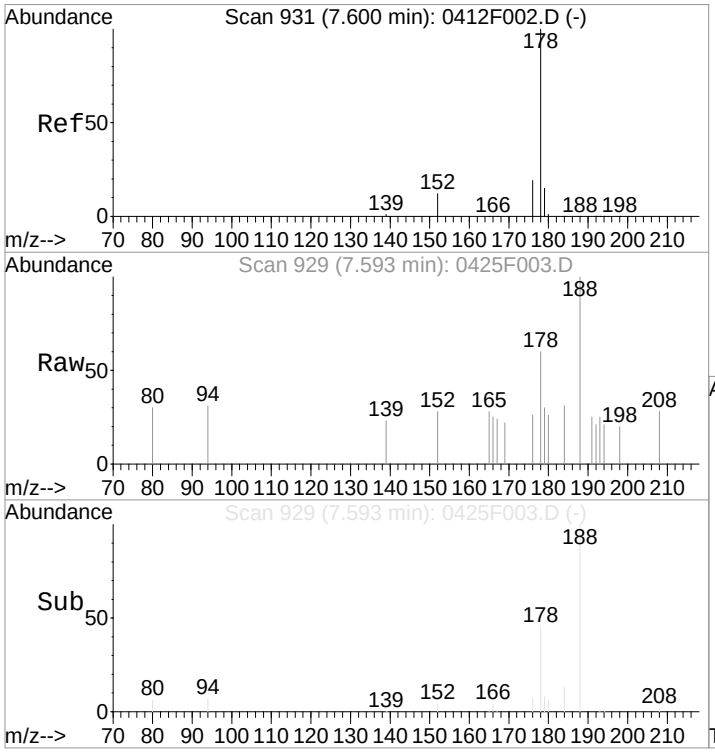
1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F003.D Vial: 2
Acq On : 25 Apr 2019 7:14 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:43 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



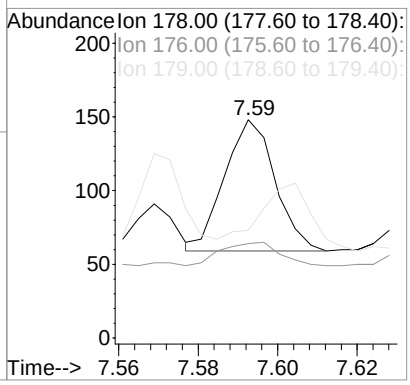
1st 04/26/19
2nd 04/28/19

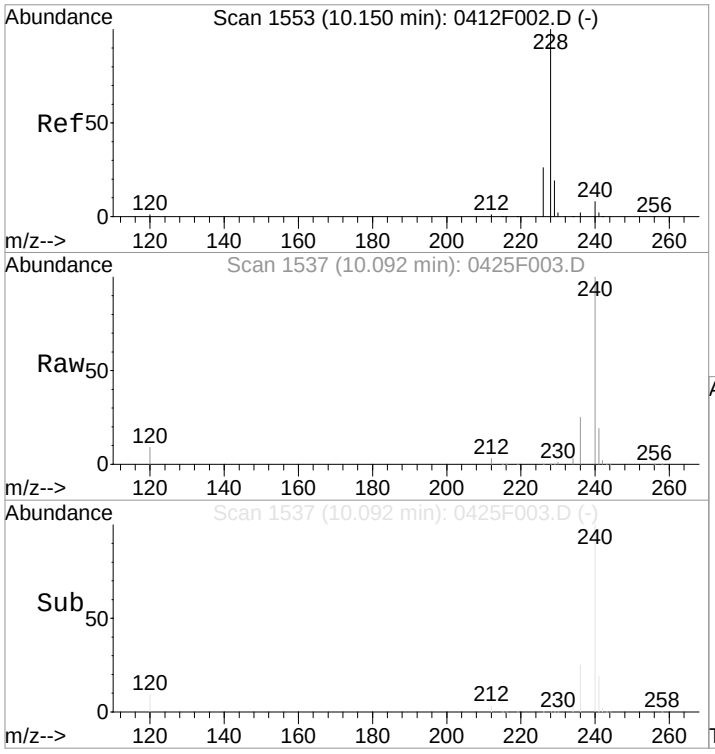


#17
Phenanthrene
Concen: 0.19 ng/ml
RT: 7.59 min Scan# 929
Delta R.T. 0.00 min
Lab File: 0425F003.D
Acq: 25 Apr 2019 7:14 am

Tgt Ion:178 Resp: 79

Ion	Ratio	Lower	Upper
178	100		
176	16.9	0.0	48.7
179	6.7	0.0	35.8

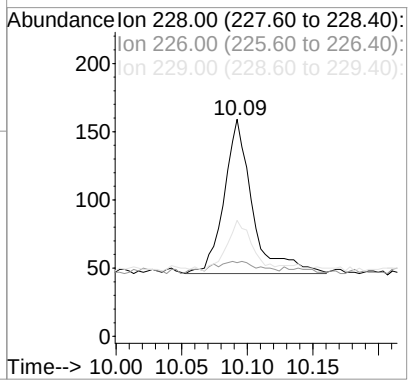




#26
Benz(a)anthracene
Concen: 0.42 ng/ml
RT: 10.09 min Scan# 1537
Delta R.T. 0.01 min
Lab File: 0425F003.D
Acq: 25 Apr 2019 7:14 am

Tgt Ion:228 Resp: 171

Ion	Ratio	Lower	Upper
228	100		
226	6.2	0.0	56.0
229	31.0	0.1	40.1



Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F004.D Vial: 3
Acq On : 25 Apr 2019 7:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002 | SVM61-6A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:34 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

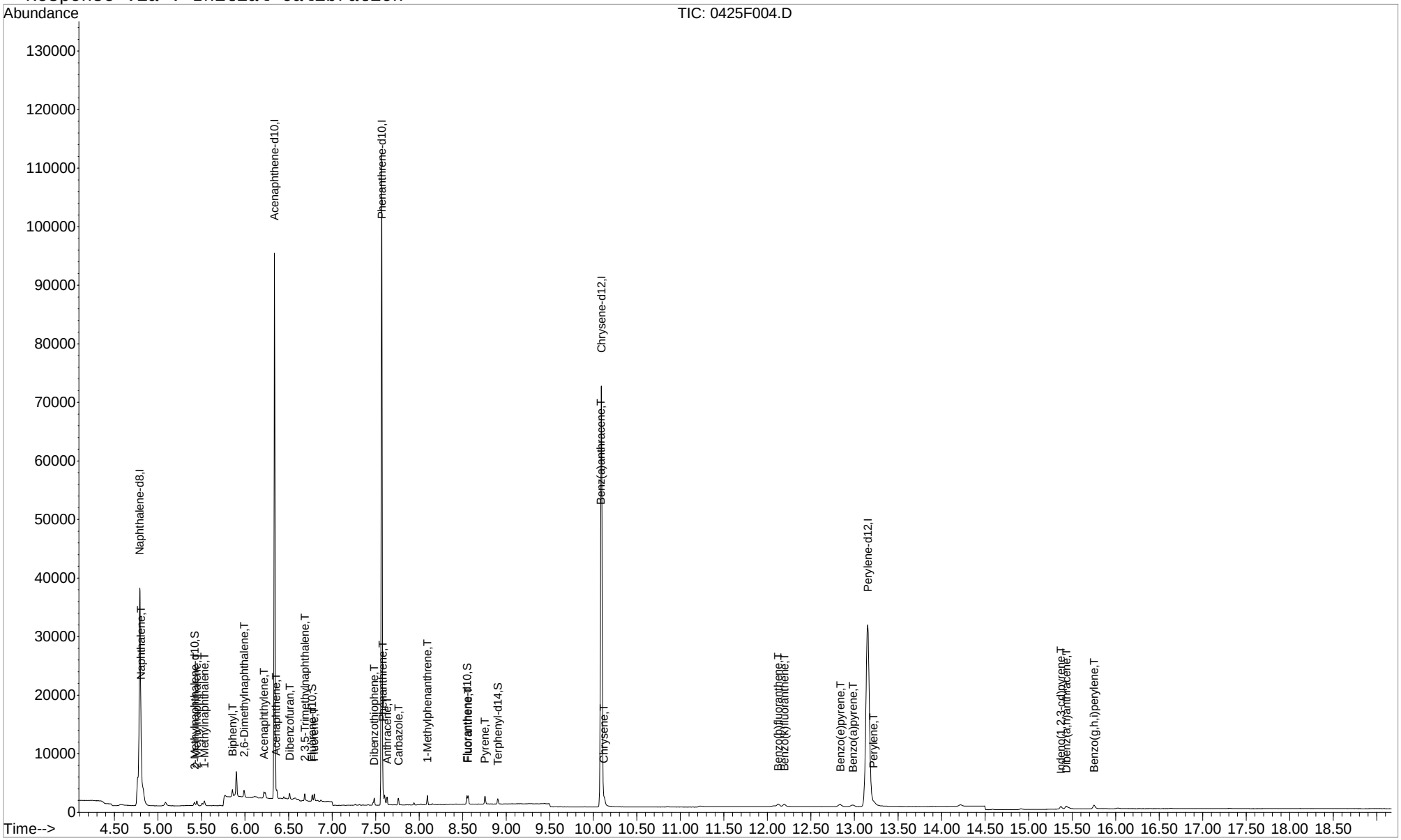
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	50907	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	28735	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	63696	200.00	ng/ml	0.00
23) Chrysene-d12	10.09	240	55468	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	58023	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	280	1.95	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.19%		
13) Fluorene-d10	6.77	176	417	2.09	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.21%		
22) Fluoranthene-d10	8.55	212	761	2.04	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.20%		
25) Terphenyl-d14	8.90	244	605	2.47	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.25%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	542	1.90	ng/ml	96
4) 2-Methylnaphthalene	5.45	142	409	2.29	ng/ml	99
5) 1-Methylnaphthalene	5.53	142	404	2.34	ng/ml	95
6) Biphenyl	5.85	154	554	2.39	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.99	156	400	2.45	ng/ml	95
9) Acenaphthylene	6.22	152	676	1.90	ng/ml	99
10) Acenaphthene	6.37	154	377	1.85	ng/ml	97
11) Dibenzofuran	6.51	168	626	1.91	ng/ml	97
12) 2,3,5-Trimethylnaphthalene	6.69	170	379	1.96	ng/ml	87
14) Fluorene	6.79	166	525	2.00	ng/ml	100
16) Dibenzothiophene	7.49	184	762	1.83	ng/ml	98
17) Phenanthrene	7.59	178	901	2.22	ng/ml	98
18) Anthracene	7.63	178	729	1.87	ng/ml	99
19) Carbazole	7.76	167	658	1.84	ng/ml	99
20) 1-Methylphenanthrene	8.09	192	614	2.04	ng/ml	98
21) Fluoranthene	8.56	202	941	2.03	ng/ml	99
24) Pyrene	8.76	202	971	2.32	ng/ml	96
26) Benz(a)anthracene	10.08	228	819	2.06	ng/ml	99
27) Chrysene	10.13	228	704	1.95	ng/ml	99
29) Benzo(b)fluoranthene	12.12	252	780	2.02	ng/ml	98
30) Benzo(k)fluoranthene	12.19	252	665	1.82	ng/ml	98
31) Benzo(e)pyrene	12.84	252	737	2.03	ng/ml	98
32) Benzo(a)pyrene	12.98	252	574	1.58	ng/ml	99
33) Perylene	13.22	252	653	1.89	ng/ml	96
34) Indeno(1,2,3-cd)pyrene	15.37	276	588	1.70	ng/ml	97
35) Dibenz(a,h)anthracene	15.43	278	645m	2.00	ng/ml	
36) Benzo(g,h,i)perylene	15.75	276	911	2.33	ng/ml	99

(#) = qualifier out of range (m) = manual integration

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F004.D Vial: 3
Acq On : 25 Apr 2019 7:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002 | SVM61-6A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:47 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration

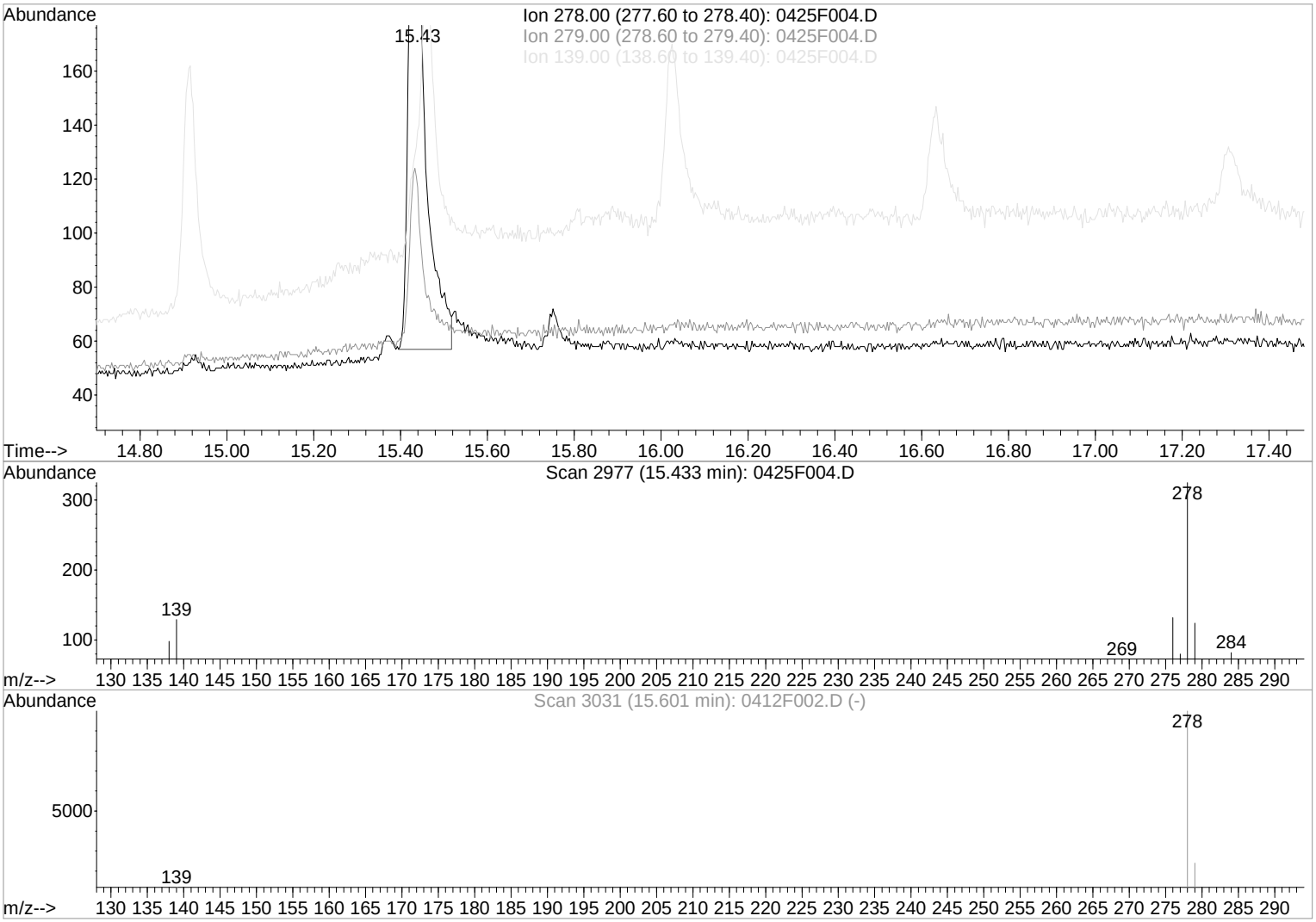


Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F004.D Vial: 3
Acq On : 25 Apr 2019 7:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002 | SVM61-6A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Multiple Level Calibration



TIC: 0425F004.D

(35) Dibenz(a,h)anthracene (T)

15.43min 1.79ng/ml

response 576

Ion	Exp%	Act%
278.00	100	100
279.00	24.40	23.88
139.00	11.50	13.43
0.00	0.00	0.00

Manual Integration:

Before

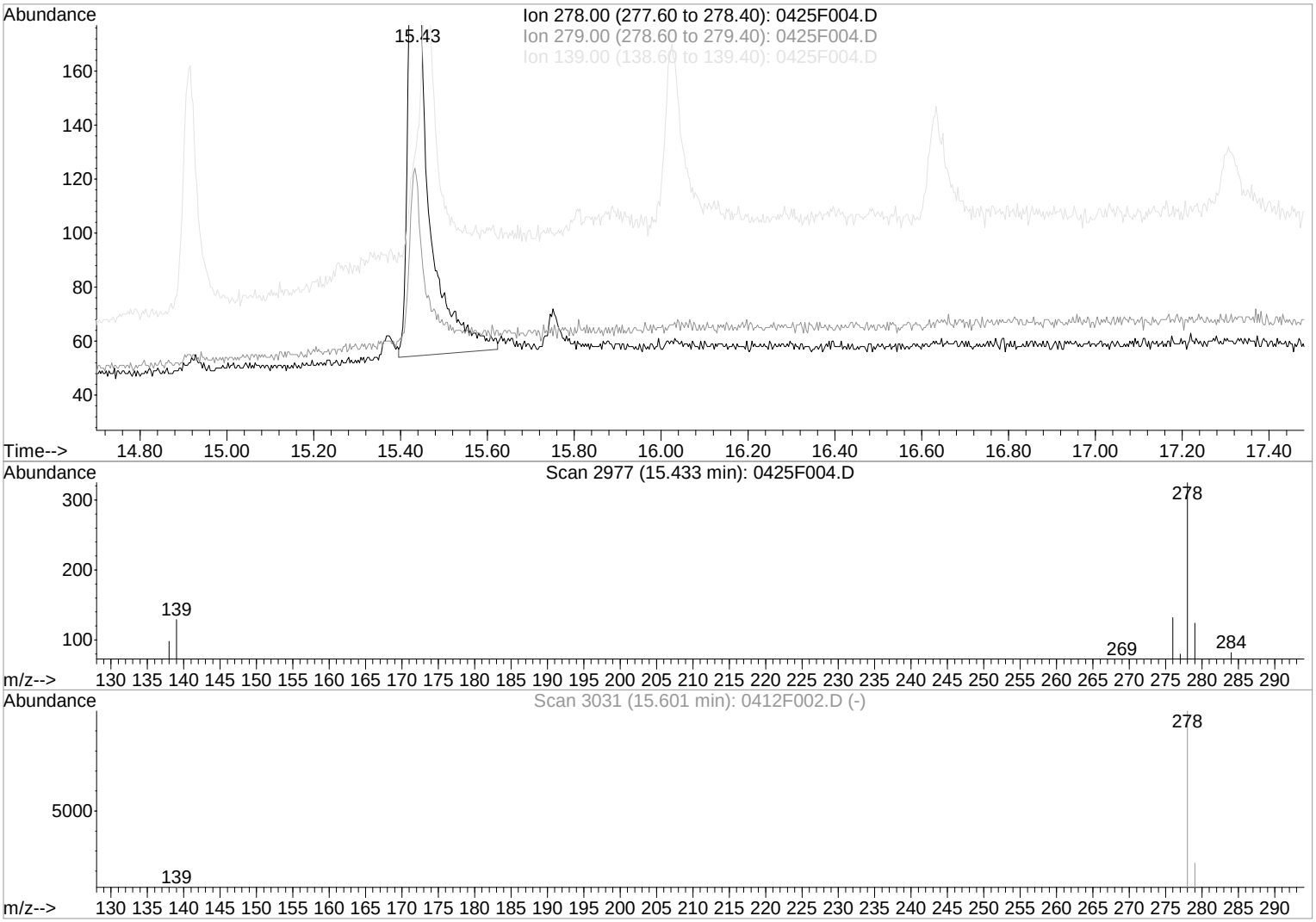
04/26/19

Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F004.D Vial: 3
Acq On : 25 Apr 2019 7:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002 | SVM61-6A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:47 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Multiple Level Calibration



TIC: 0425F004.D

(35) Dibenz(a,h)anthracene (T)

15.43min 2.00ng/ml m

response 645

Ion	Exp%	Act%
278.00	100	100
279.00	24.40	38.15
139.00	11.50	39.69#
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

04/26/19

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F005.D Vial: 4
Acq On : 25 Apr 2019 8:08 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004 | SVM61-6B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:34 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	54125	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	30466	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	65732	200.00	ng/ml	0.00
23) Chrysene-d12	10.09	240	56943	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	60344	200.00	ng/ml	-0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	597	3.91	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.39%		
13) Fluorene-d10	6.77	176	792	3.75	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.38%		
22) Fluoranthene-d10	8.55	212	1507	3.92	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.39%		
25) Terphenyl-d14	8.90	244	1153	4.59	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.46%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	1234	4.06	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	864	4.54	ng/ml	100
5) 1-Methylnaphthalene	5.53	142	802	4.38	ng/ml	99
6) Biphenyl	5.85	154	1098m	4.46	ng/ml	
7) 2,6-Dimethylnaphthalene	5.99	156	772	4.45	ng/ml	96
9) Acenaphthylene	6.22	152	1354	3.58	ng/ml	97
10) Acenaphthene	6.37	154	800	3.71	ng/ml	100
11) Dibenzofuran	6.51	168	1268	3.64	ng/ml	98
12) 2,3,5-Trimethylnaphthalene	6.68	170	777	3.78	ng/ml	86
14) Fluorene	6.79	166	1015	3.64	ng/ml	98
16) Dibenzothiophene	7.49	184	1557	3.63	ng/ml	99
17) Phenanthrene	7.59	178	1771	4.23	ng/ml	100
18) Anthracene	7.63	178	1499	3.73	ng/ml	99
19) Carbazole	7.76	167	1315	3.57	ng/ml	99
20) 1-Methylphenanthrene	8.09	192	1195	3.85	ng/ml	99
21) Fluoranthene	8.56	202	1864	3.90	ng/ml	98
24) Pyrene	8.75	202	1904	4.43	ng/ml	97
26) Benz(a)anthracene	10.08	228	1492	3.65	ng/ml	98
27) Chrysene	10.13	228	1463	3.94	ng/ml	100
29) Benzo(b)fluoranthene	12.12	252	1527	3.80	ng/ml	98
30) Benzo(k)fluoranthene	12.19	252	1369	3.60	ng/ml	99
31) Benzo(e)pyrene	12.83	252	1438	3.81	ng/ml	99
32) Benzo(a)pyrene	12.98	252	1130	2.99	ng/ml	99
33) Perylene	13.22	252	1326	3.70	ng/ml	99
34) Indeno(1,2,3-cd)pyrene	15.37	276	1201	3.34	ng/ml	100
35) Dibenz(a,h)anthracene	15.43	278	1187	3.54	ng/ml	98
36) Benzo(g,h,i)perylene	15.75	276	1838	4.51	ng/ml	98

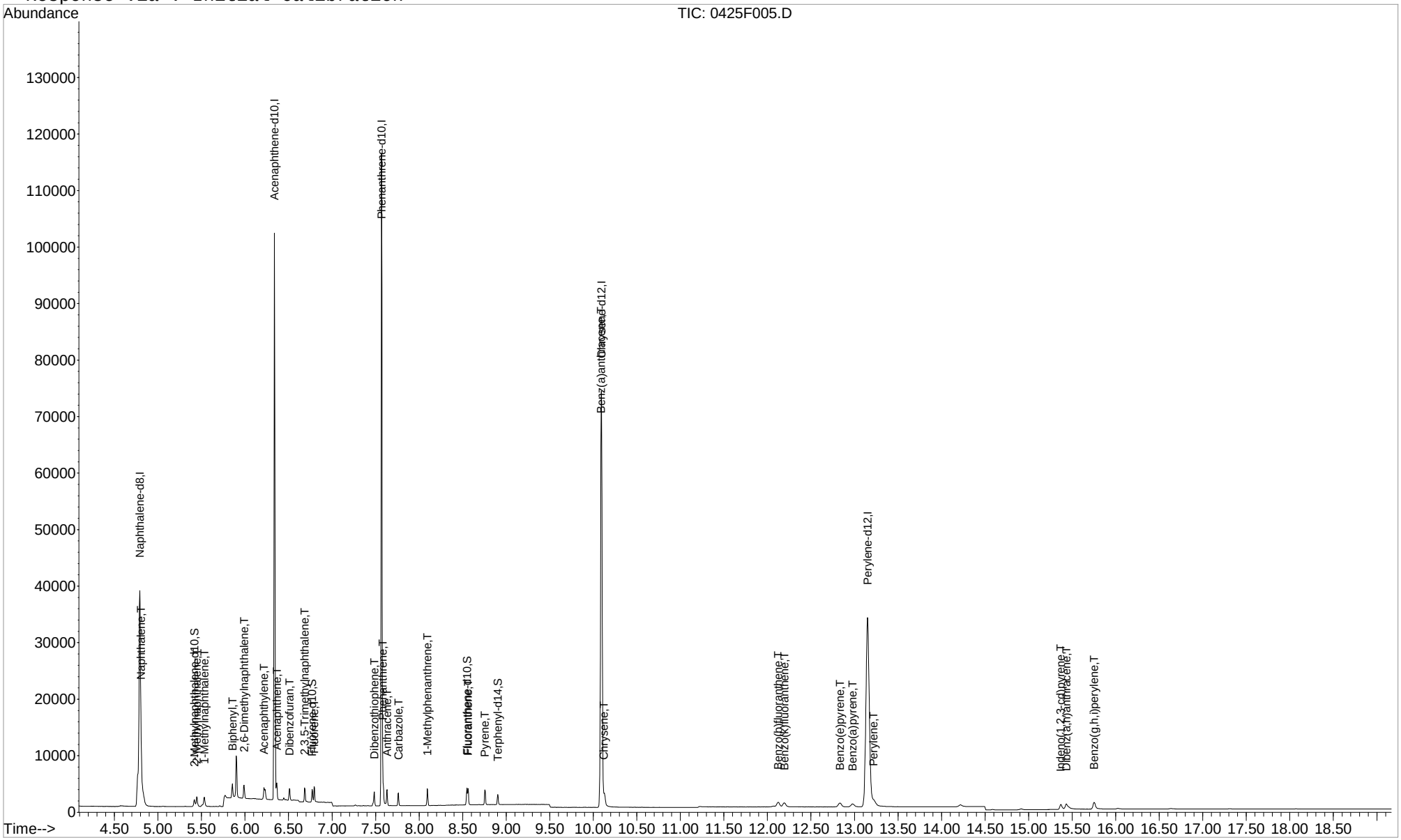
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F005.D Vial: 4
Acq On : 25 Apr 2019 8:08 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004 | SVM61-6B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:48 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration

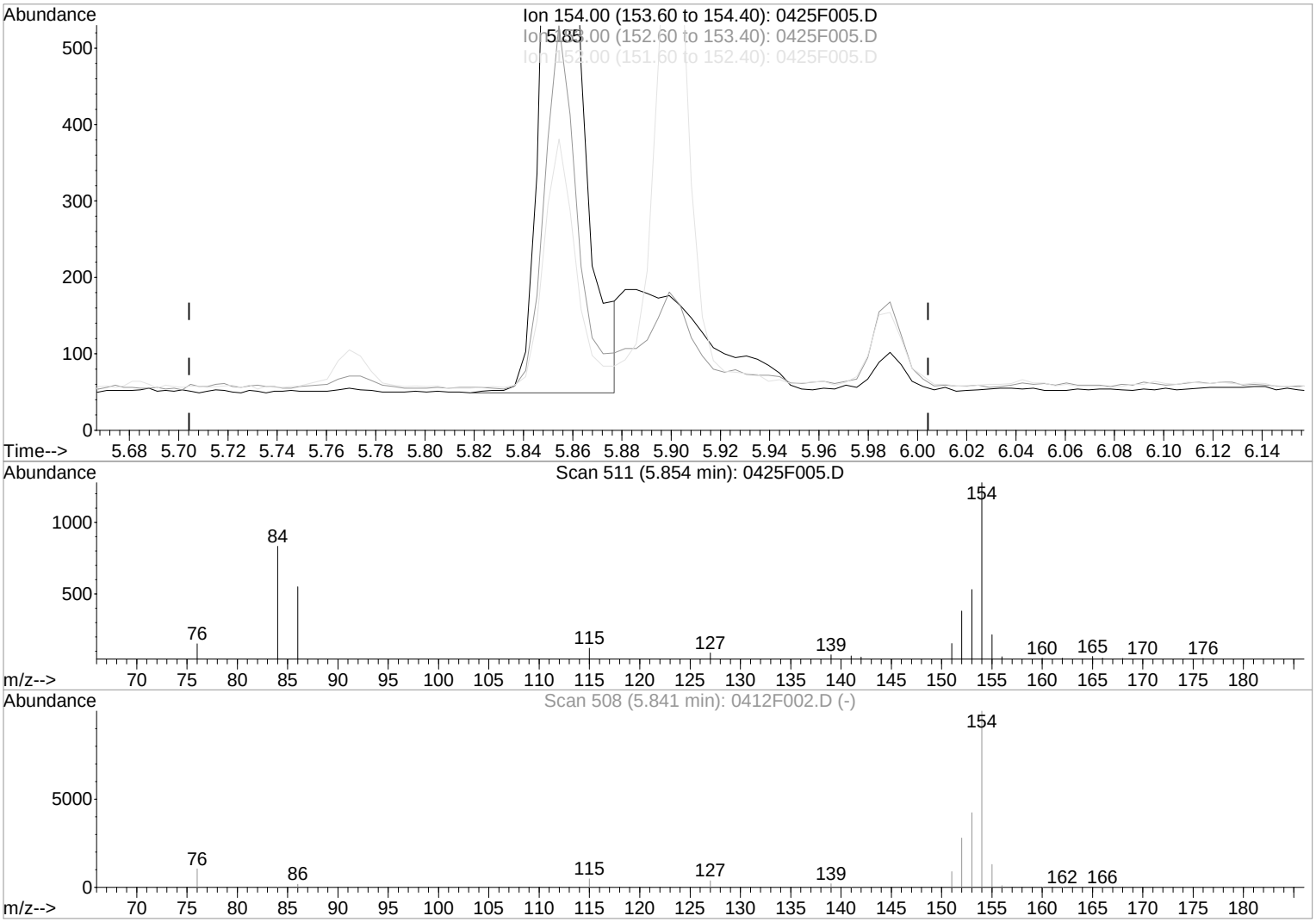


Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F005.D Vial: 4
Acq On : 25 Apr 2019 8:08 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004 | SVM61-6B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Multiple Level Calibration



TIC: 0425F005.D

(6) Biphenyl (T)

5.85min 4.58ng/ml

response 1129

Ion	Exp%	Act%
154.00	100	100
153.00	38.20	38.65
152.00	26.10	26.53
0.00	0.00	0.00

Manual Integration:

Before

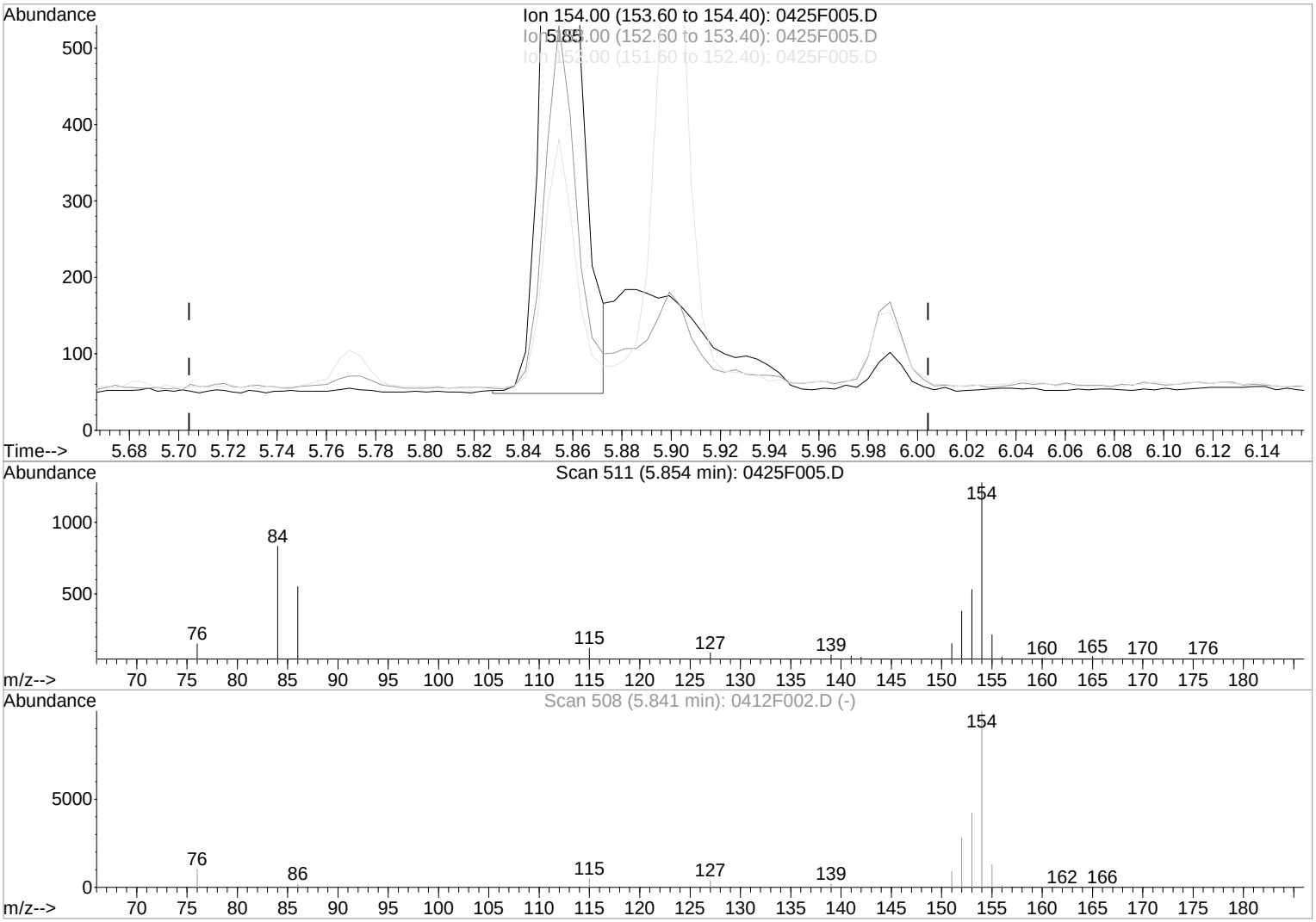
04/26/19

Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F005.D Vial: 4
Acq On : 25 Apr 2019 8:08 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004 | SVM61-6B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:48 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Multiple Level Calibration



TIC: 0425F005.D

(6) Biphenyl (T)

5.85min 4.46ng/ml m

response 1098

Ion	Exp%	Act%
154.00	100	100
153.00	38.20	41.55
152.00	26.10	29.81
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

04/26/19

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F006.D Vial: 5
Acq On : 25 Apr 2019 8:35 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008 | SVM61-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:35 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	53141	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	30045	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	65315	200.00	ng/ml	0.00
23) Chrysene-d12	10.09	240	55658	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	58101	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	1126	7.51	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.75%		
13) Fluorene-d10	6.77	176	1478	7.10	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.71%		
22) Fluoranthene-d10	8.55	212	2915	7.62	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.76%		
25) Terphenyl-d14	8.90	244	2231	9.09	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.91%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	2352	7.88	ng/ml	99
4) 2-Methylnaphthalene	5.45	142	1675	8.97	ng/ml	100
5) 1-Methylnaphthalene	5.53	142	1552	8.63	ng/ml	99
6) Biphenyl	5.85	154	2116m	8.75	ng/ml	
7) 2,6-Dimethylnaphthalene	5.99	156	1497	8.79	ng/ml	100
9) Acenaphthylene	6.22	152	2498	6.70	ng/ml	99
10) Acenaphthene	6.37	154	1523	7.16	ng/ml	99
11) Dibenzofuran	6.51	168	2423	7.06	ng/ml	98
12) 2,3,5-Trimethylnaphthalene	6.69	170	1494	7.37	ng/ml	84
14) Fluorene	6.79	166	1888	6.87	ng/ml	99
16) Dibenzothiophene	7.48	184	3020	7.09	ng/ml	94
17) Phenanthrene	7.59	178	3280	7.89	ng/ml	99
18) Anthracene	7.63	178	2907	7.28	ng/ml	99
19) Carbazole	7.76	167	2524	6.89	ng/ml	99
20) 1-Methylphenanthrene	8.09	192	2313	7.49	ng/ml	98
21) Fluoranthene	8.56	202	3656	7.70	ng/ml	98
24) Pyrene	8.76	202	3736	8.90	ng/ml	97
26) Benz(a)anthracene	10.08	228	2722	6.82	ng/ml	100
27) Chrysene	10.13	228	2785	7.67	ng/ml	99
29) Benzo(b)fluoranthene	12.13	252	2835	7.32	ng/ml	98
30) Benzo(k)fluoranthene	12.19	252	2684	7.33	ng/ml	100
31) Benzo(e)pyrene	12.83	252	2762	7.60	ng/ml	99
32) Benzo(a)pyrene	12.98	252	2155	5.92	ng/ml	100
33) Perylene	13.22	252	2522	7.30	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.37	276	2200	6.35	ng/ml	99
35) Dibenz(a,h)anthracene	15.43	278	2277	7.05	ng/ml	99
36) Benzo(g,h,i)perylene	15.75	276	3488	8.90	ng/ml	100

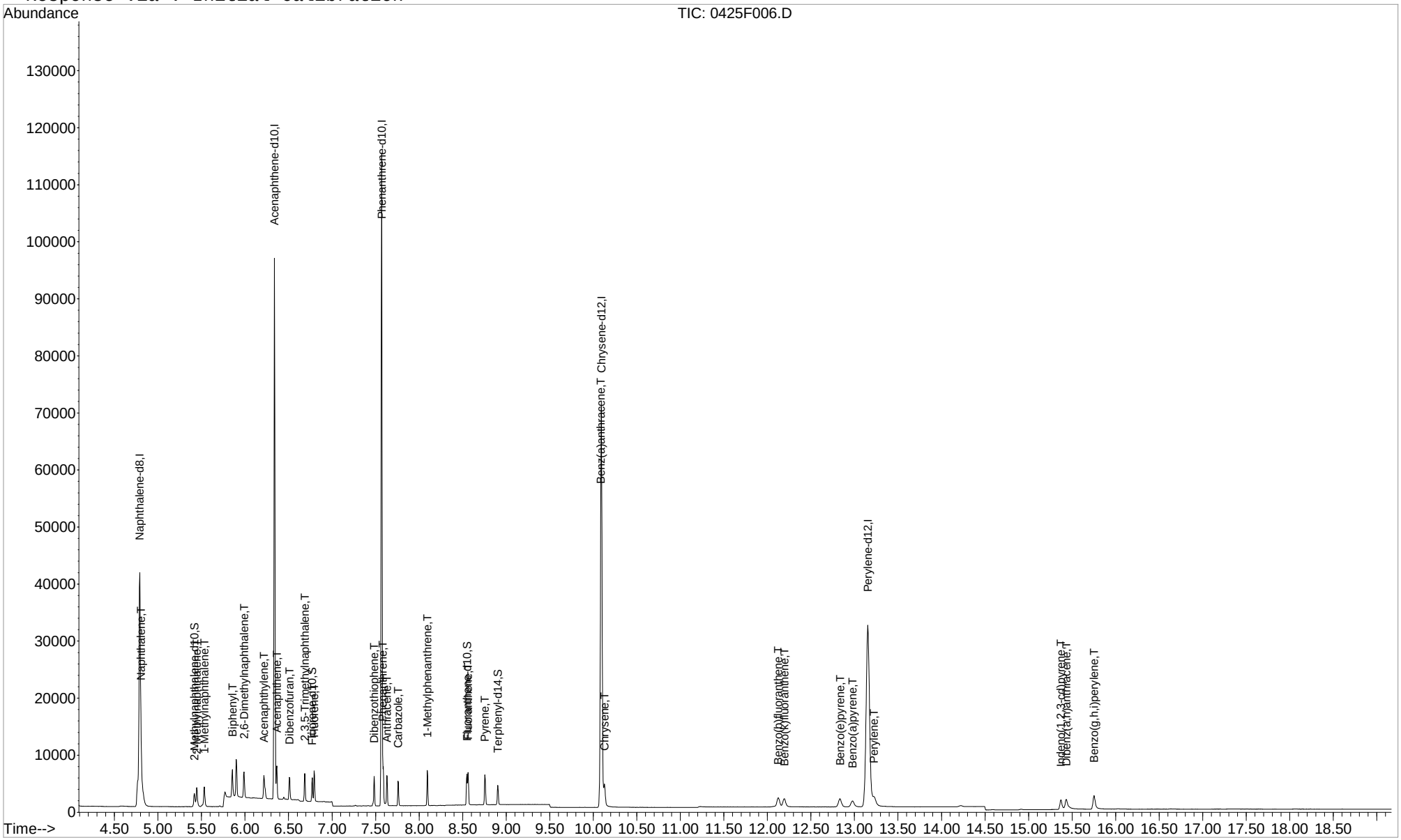
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F006.D Vial: 5
Acq On : 25 Apr 2019 8:35 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008 | SVM61-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:49 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration

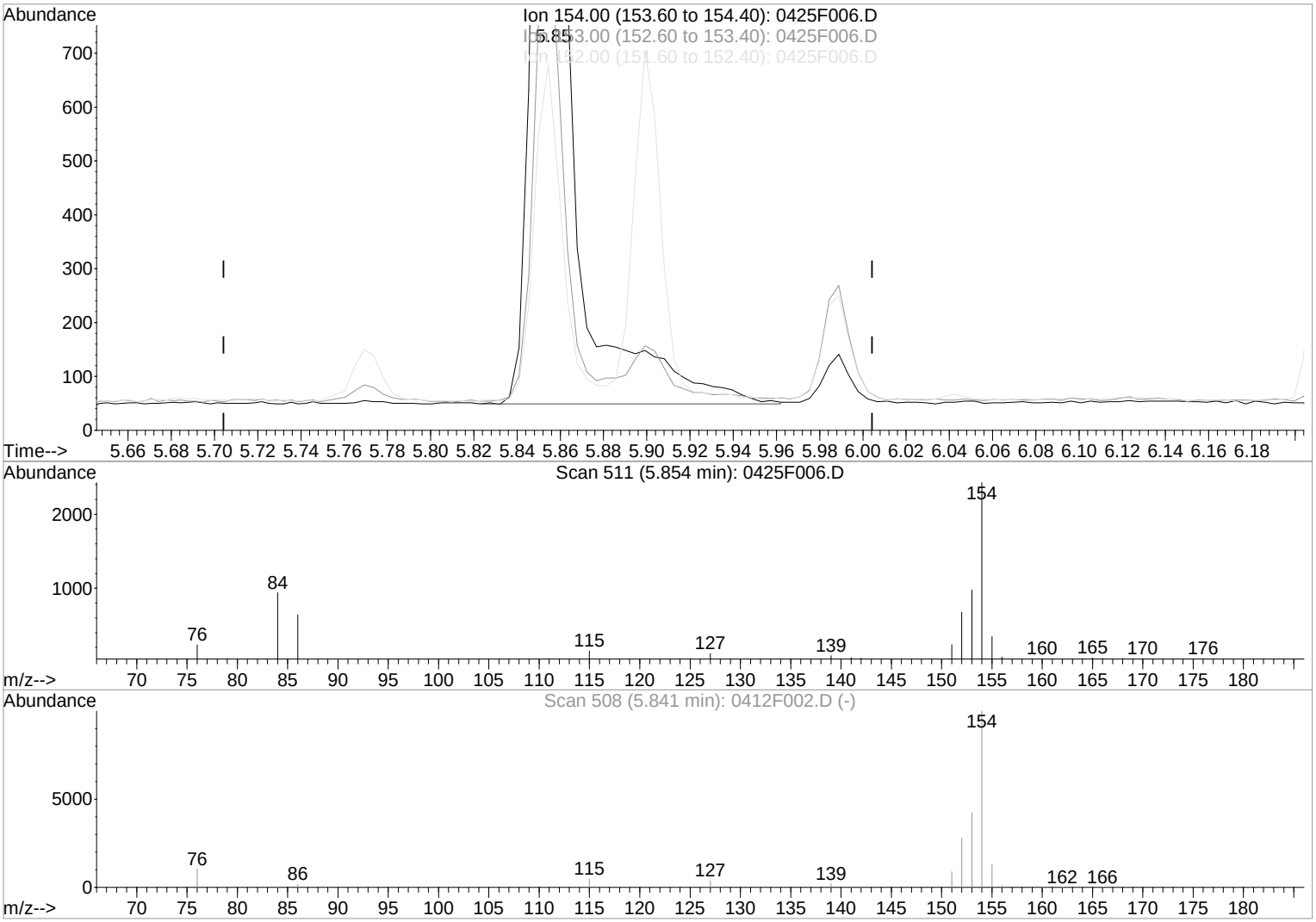


Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F006.D Vial: 5
Acq On : 25 Apr 2019 8:35 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008 | SVM61-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Multiple Level Calibration



TIC: 0425F006.D

(6) Biphenyl (T)

5.85min 9.80ng/ml

response 2371

Ion	Exp%	Act%
154.00	100	100
153.00	38.20	38.67
152.00	26.10	26.19
0.00	0.00	0.00

Manual Integration:

Before

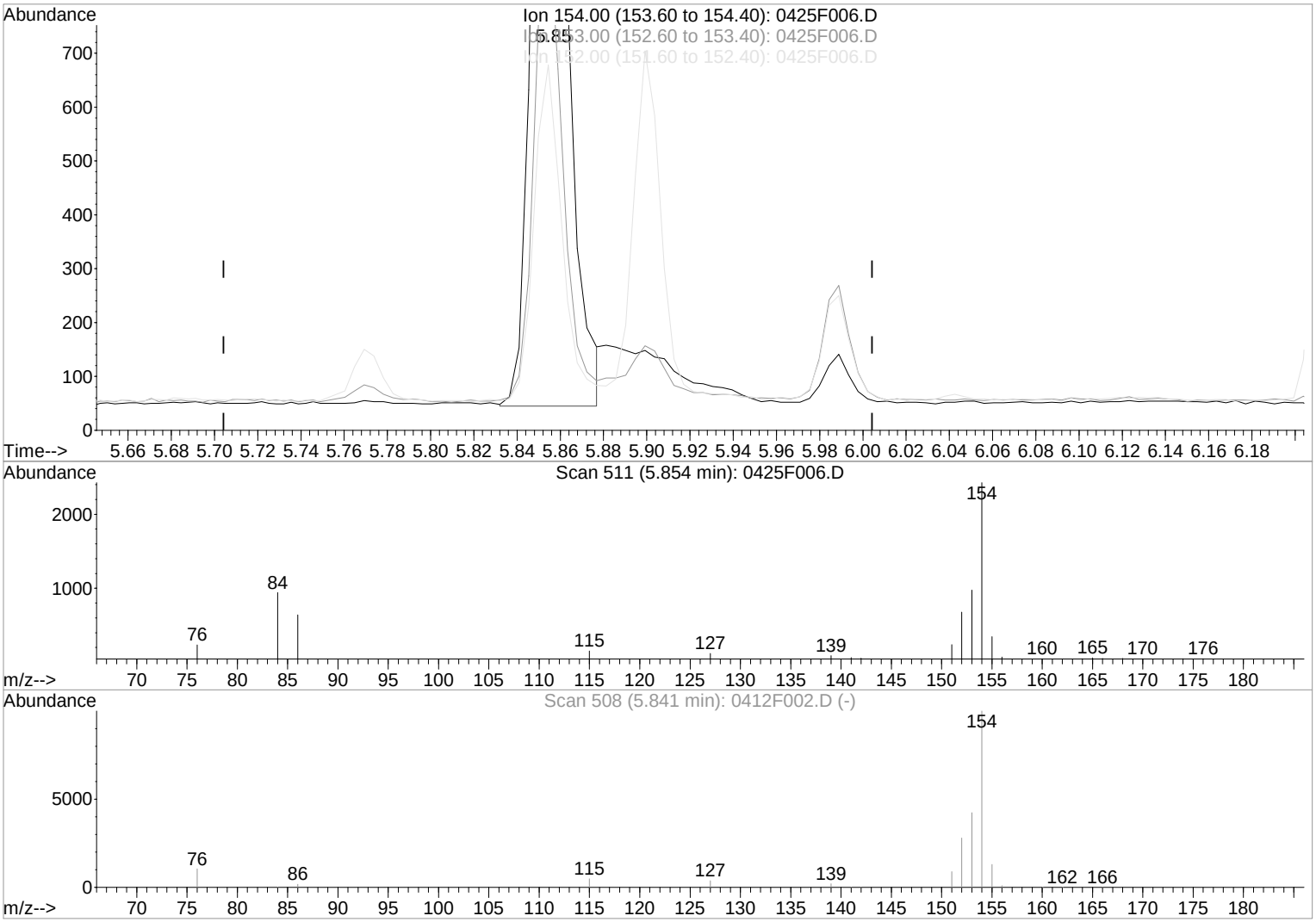
04/26/19

Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F006.D Vial: 5
Acq On : 25 Apr 2019 8:35 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008 | SVM61-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:49 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Multiple Level Calibration



TIC: 0425F006.D

(6) Biphenyl (T)

5.85min 8.75ng/ml m

response 2116

Ion	Exp%	Act%
154.00	100	100
153.00	38.20	40.12
152.00	26.10	27.92
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

04/26/19

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F007.D Vial: 6
Acq On : 25 Apr 2019 9:02 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02 | SVM61-6D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:35 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	52904	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	29541	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	64104	200.00	ng/ml	0.00
23) Chrysene-d12	10.09	240	55187	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	56915	200.00	ng/ml	-0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	2778	18.62	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	1.86%		
13) Fluorene-d10	6.77	176	3574	17.46	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	1.75%		
22) Fluoranthene-d10	8.55	212	7401	19.72	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	1.97%		
25) Terphenyl-d14	8.90	244	5535	22.74	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	2.27%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	5863	19.73	ng/ml	99
4) 2-Methylnaphthalene	5.45	142	4130	22.22	ng/ml	99
5) 1-Methylnaphthalene	5.53	142	3854	21.52	ng/ml	99
6) Biphenyl	5.85	154	5387	22.38	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.99	156	3697	21.80	ng/ml	99
9) Acenaphthylene	6.22	152	5936	16.19	ng/ml	99
10) Acenaphthene	6.37	154	3782	18.08	ng/ml	99
11) Dibenzofuran	6.51	168	6001	17.79	ng/ml	99
12) 2,3,5-Trimethylnaphthalene	6.69	170	3700	18.57	ng/ml	84
14) Fluorene	6.79	166	4665	17.26	ng/ml	98
16) Dibenzothiophene	7.49	184	7472	17.87	ng/ml	99
17) Phenanthrene	7.59	178	8063	19.75	ng/ml	99
18) Anthracene	7.63	178	7227	18.45	ng/ml	100
19) Carbazole	7.76	167	6216	17.29	ng/ml	100
20) 1-Methylphenanthrene	8.09	192	5814	19.18	ng/ml	99
21) Fluoranthene	8.56	202	9272	19.89	ng/ml	98
24) Pyrene	8.76	202	9447	22.70	ng/ml	96
26) Benz(a)anthracene	10.08	228	6574	16.60	ng/ml	99
27) Chrysene	10.13	228	7119	19.78	ng/ml	99
29) Benzo(b)fluoranthene	12.12	252	6977	18.39	ng/ml	99
30) Benzo(k)fluoranthene	12.19	252	6707	18.69	ng/ml	100
31) Benzo(e)pyrene	12.83	252	6977	19.61	ng/ml	100
32) Benzo(a)pyrene	12.98	252	5528	15.50	ng/ml	99
33) Perylene	13.22	252	6331	18.72	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.37	276	5661	16.69	ng/ml	99
35) Dibenz(a,h)anthracene	15.43	278	5850	18.50	ng/ml	99
36) Benzo(g,h,i)perylene	15.75	276	8777	22.85	ng/ml	100

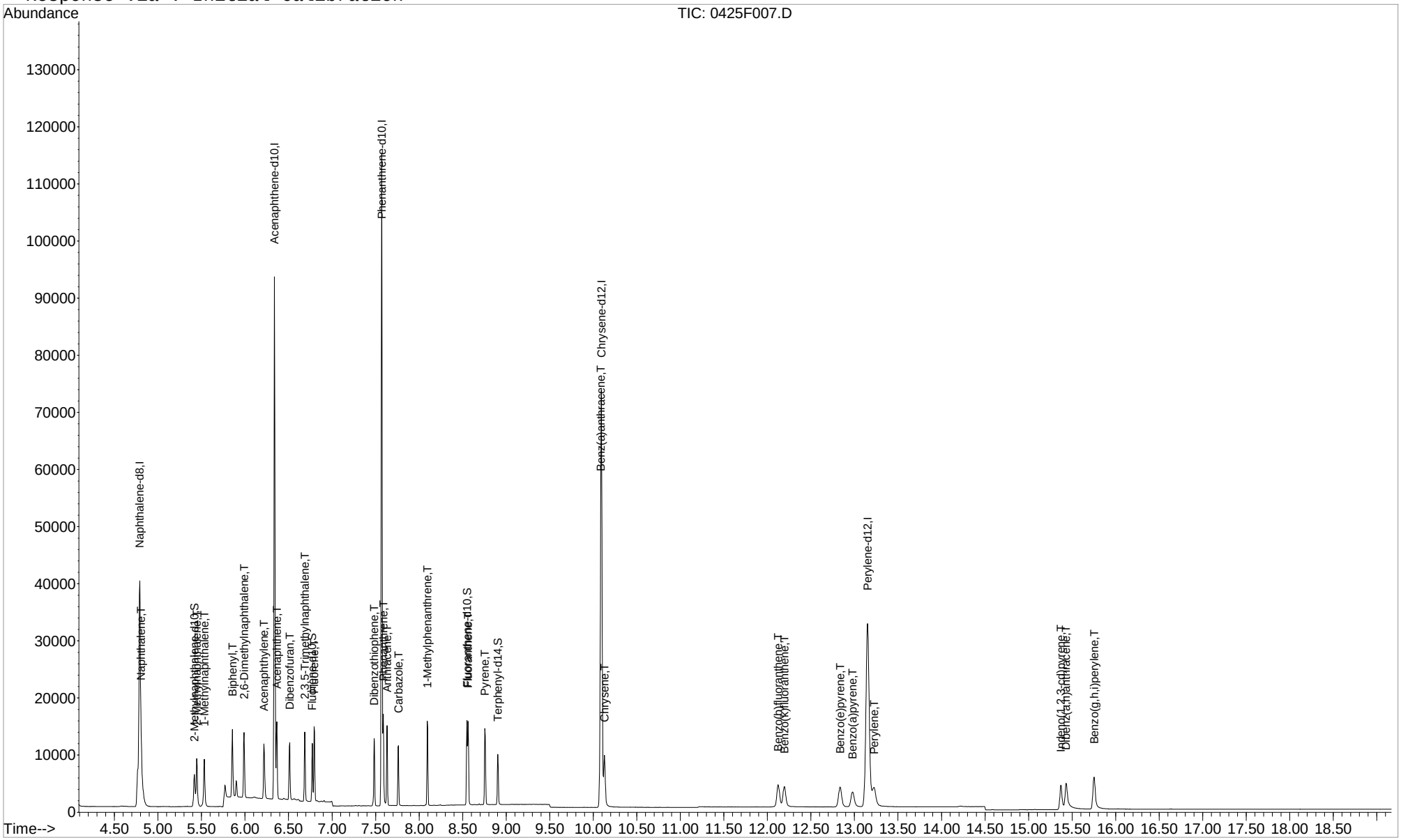
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F007.D Vial: 6
Acq On : 25 Apr 2019 9:02 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02 | SVM61-6D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F008.D Vial: 7
Acq On : 25 Apr 2019 9:29 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.1 ppm | SVM61-6E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:36 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	52077	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	28320	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	60372	200.00	ng/ml	0.00
23) Chrysene-d12	10.09	240	57184	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	62289	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	13451	91.60	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	9.16%		
13) Fluorene-d10	6.77	176	16579	84.50	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	8.45%		
22) Fluoranthene-d10	8.55	212	36951	104.54	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	10.45%		
25) Terphenyl-d14	8.90	244	27913	110.66	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	11.07%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	28363	96.96	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	19994	109.27	ng/ml	99
5) 1-Methylnaphthalene	5.53	142	18358	104.12	ng/ml	98
6) Biphenyl	5.85	154	24620	103.89	ng/ml	98
7) 2,6-Dimethylnaphthalene	5.99	156	17521	104.95	ng/ml	98
9) Acenaphthylene	6.22	152	28251	80.36	ng/ml	99
10) Acenaphthene	6.37	154	17941	89.46	ng/ml	99
11) Dibenzofuran	6.51	168	27866	86.16	ng/ml	100
12) 2,3,5-Trimethylnaphthalene	6.69	170	17418	91.21	ng/ml	99
14) Fluorene	6.79	166	21789	84.08	ng/ml	99
16) Dibenzothiophene	7.49	184	35593	90.40	ng/ml	99
17) Phenanthrene	7.59	178	37532	97.63	ng/ml	99
18) Anthracene	7.63	178	34979	94.82	ng/ml	99
19) Carbazole	7.76	167	31184	92.12	ng/ml	99
20) 1-Methylphenanthrene	8.10	192	28704	100.56	ng/ml	99
21) Fluoranthene	8.56	202	46164	105.15	ng/ml	97
24) Pyrene	8.76	202	47257	109.61	ng/ml	98
26) Benz(a)anthracene	10.08	228	34859	84.95	ng/ml	99
27) Chrysene	10.13	228	36719	98.46	ng/ml	99
29) Benzo(b)fluoranthene	12.13	252	40343	97.14	ng/ml	100
30) Benzo(k)fluoranthene	12.20	252	40023	101.91	ng/ml	100
31) Benzo(e)pyrene	12.83	252	39052	100.28	ng/ml	100
32) Benzo(a)pyrene	12.98	252	31982	81.94	ng/ml	100
33) Perylene	13.23	252	35113	94.84	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.37	276	33350	89.84	ng/ml	99
35) Dibenz(a,h)anthracene	15.43	278	35312	102.02	ng/ml	99
36) Benzo(g,h,i)perylene	15.75	276	45128	107.35	ng/ml	99

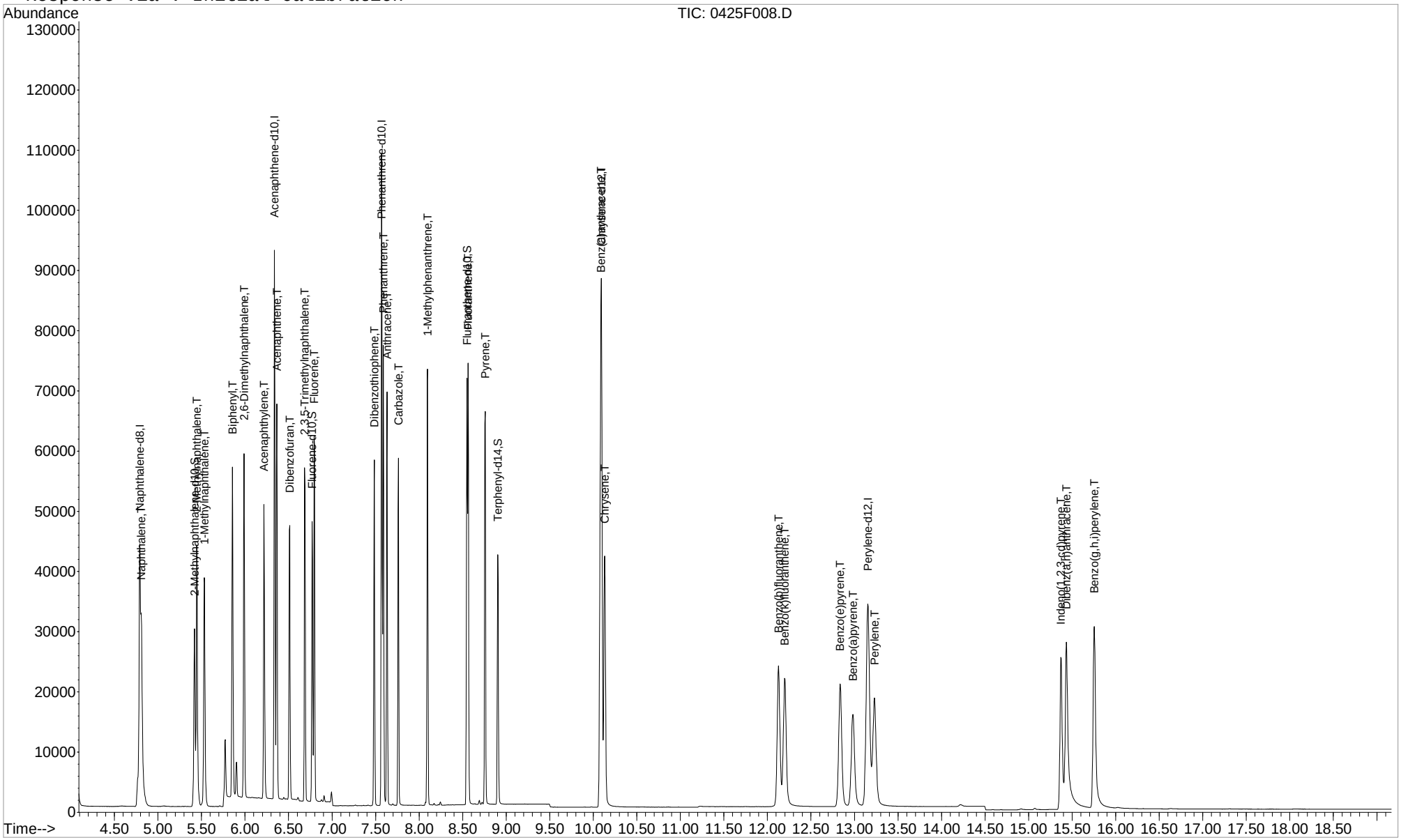
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F008.D Vial: 7
Acq On : 25 Apr 2019 9:29 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.1 ppm | SVM61-6E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F009.D Vial: 8
Acq On : 25 Apr 2019 9:56 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.2 ppm | SVM61-6F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:36 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	52598	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	27959	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	58942	200.00	ng/ml	0.00
23) Chrysene-d12	10.09	240	58645	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	66668	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	26298	177.31	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	17.73%		
13) Fluorene-d10	6.77	176	31609	163.18	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	16.32%		
22) Fluoranthene-d10	8.55	212	72703	210.68	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	21.07%		
25) Terphenyl-d14	8.90	244	55511	214.59	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	21.46%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	55622	188.27	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	38725	209.54	ng/ml	99
5) 1-Methylnaphthalene	5.53	142	35325	198.36	ng/ml	99
6) Biphenyl	5.85	154	47137	196.93	ng/ml	100
7) 2,6-Dimethylnaphthalene	5.99	156	33740	200.11	ng/ml	99
9) Acenaphthylene	6.22	152	55161	158.94	ng/ml	99
10) Acenaphthene	6.37	154	34439	173.95	ng/ml	99
11) Dibenzofuran	6.51	168	53058	166.18	ng/ml	99
12) 2,3,5-Trimethylnaphthalene	6.69	170	33625	178.35	ng/ml	86
14) Fluorene	6.79	166	41693	162.96	ng/ml	98
16) Dibenzothiophene	7.48	184	68305	177.69	ng/ml	94
17) Phenanthrene	7.59	178	71054	189.32	ng/ml	98
18) Anthracene	7.63	178	67620	187.75	ng/ml	99
19) Carbazole	7.76	167	61132	184.97	ng/ml	99
20) 1-Methylphenanthrene	8.09	192	55883	200.52	ng/ml	100
21) Fluoranthene	8.56	202	89742	209.37	ng/ml	98
24) Pyrene	8.76	202	92444	209.07	ng/ml	98
26) Benz(a)anthracene	10.08	228	72979	173.41	ng/ml	99
27) Chrysene	10.13	228	73554	192.32	ng/ml	98
29) Benzo(b)fluoranthene	12.13	252	84633	190.40	ng/ml	99
30) Benzo(k)fluoranthene	12.20	252	82395	196.03	ng/ml	99
31) Benzo(e)pyrene	12.84	252	80264	192.57	ng/ml	99
32) Benzo(a)pyrene	12.98	252	68458	163.88	ng/ml	100
33) Perylene	13.23	252	74901	189.02	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.37	276	68202	171.66	ng/ml	99
35) Dibenz(a,h)anthracene	15.43	278	73855	199.36	ng/ml	99
36) Benzo(g,h,i)perylene	15.75	276	90633	201.43	ng/ml	99

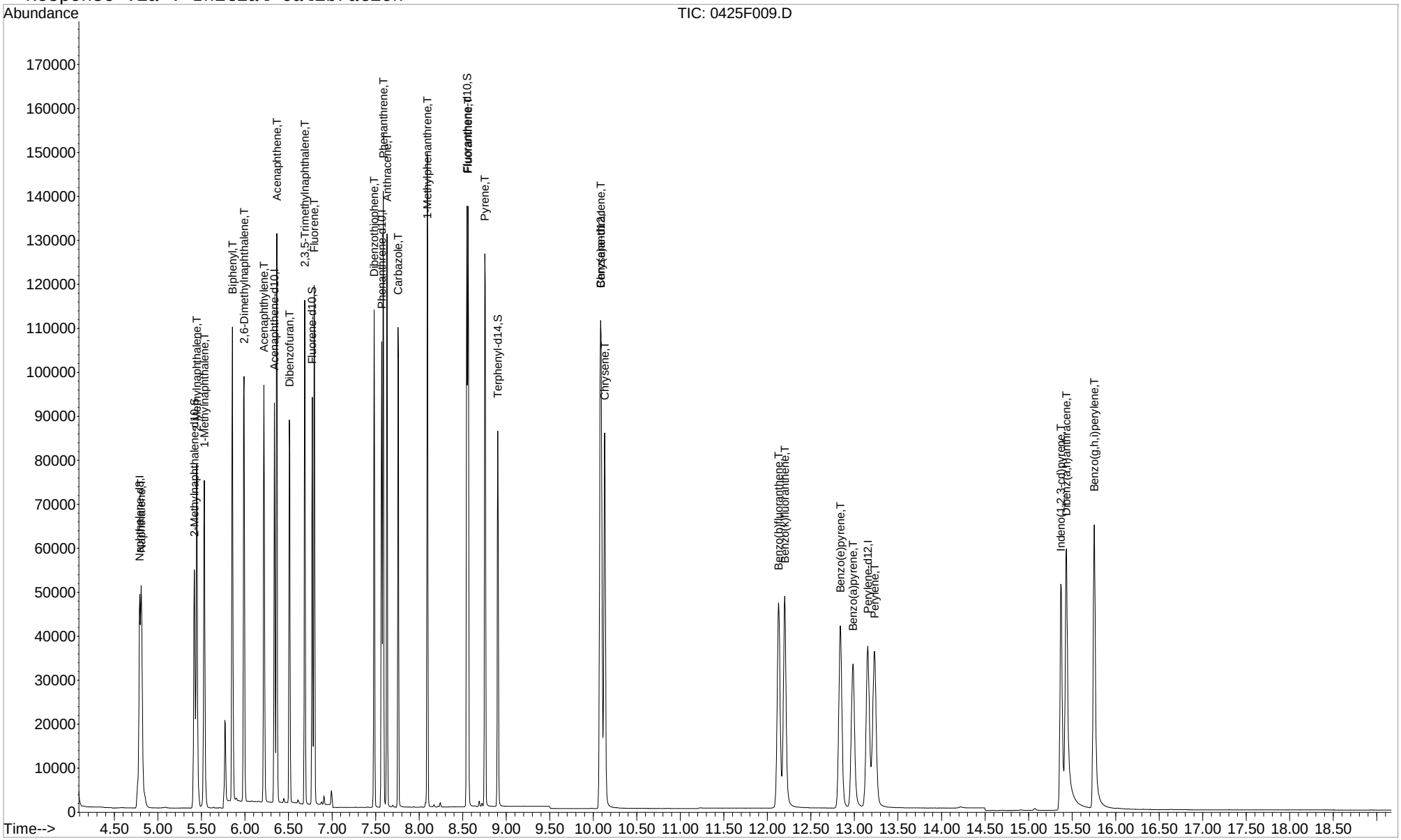
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F009.D Vial: 8
Acq On : 25 Apr 2019 9:56 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.2 ppm | SVM61-6F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F010.D Vial: 9
Acq On : 25 Apr 2019 10:23 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.4 ppm | SVM61-6G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:37 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

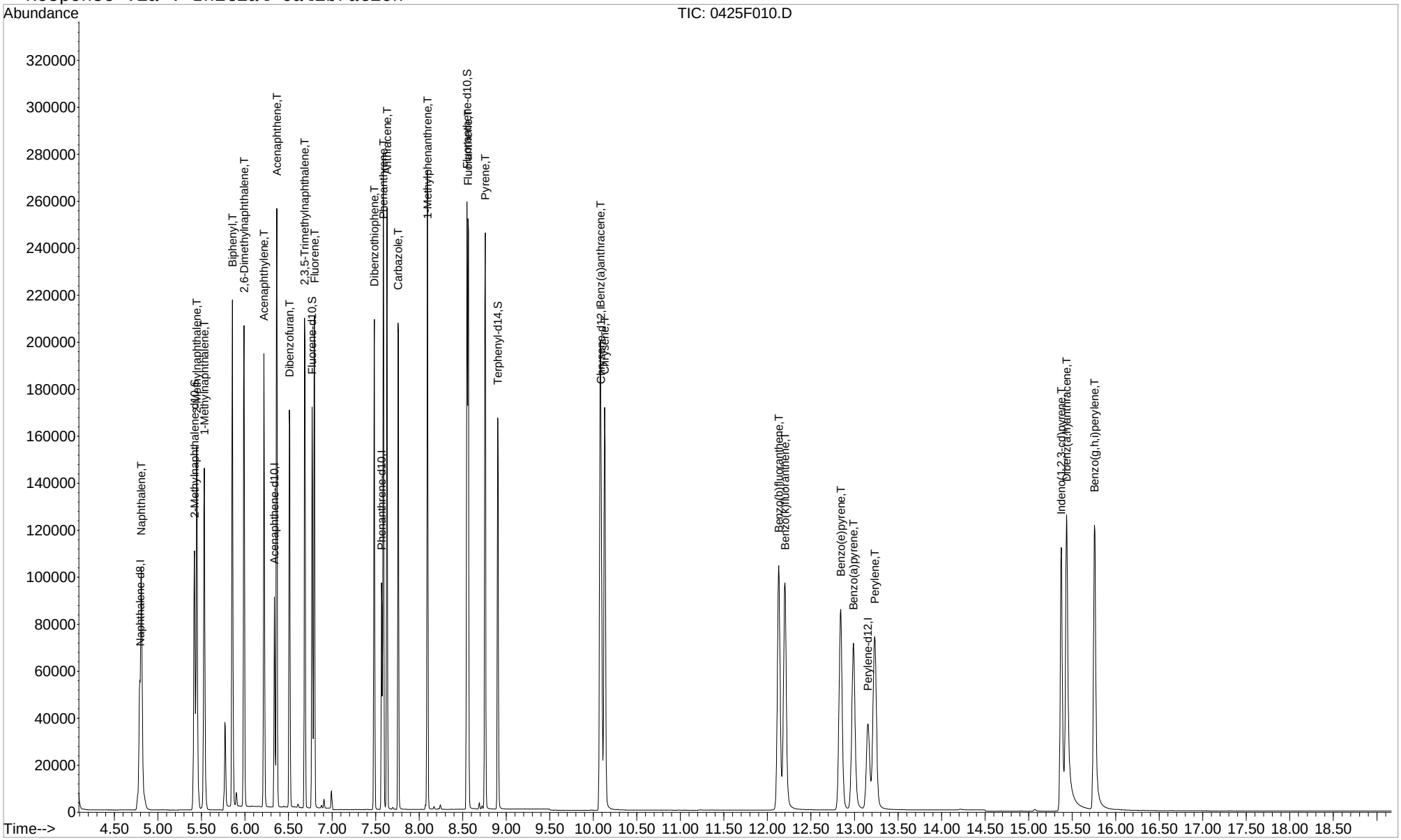
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	52797	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	27229	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	56937	200.00	ng/ml	0.00
23) Chrysene-d12	10.10	240	57657	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	67486	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	52484	352.53	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	35.25%		
13) Fluorene-d10	6.77	176	61653	326.81	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	32.68%		
22) Fluoranthene-d10	8.55	212	141660	424.96	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	42.50%		
25) Terphenyl-d14	8.90	244	109054	428.79	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	42.88%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	113118	381.43	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	76254	411.06	ng/ml	99
5) 1-Methylnaphthalene	5.53	142	69218	387.22	ng/ml	99
6) Biphenyl	5.85	154	91691	381.63	ng/ml	100
7) 2,6-Dimethylnaphthalene	5.99	156	66156	390.89	ng/ml	99
9) Acenaphthylene	6.22	152	108533	321.10	ng/ml	99
10) Acenaphthene	6.37	154	67190	348.47	ng/ml	99
11) Dibenzofuran	6.51	168	103070	331.47	ng/ml	100
12) 2,3,5-Trimethylnaphthalene	6.69	170	65929	359.06	ng/ml	98
14) Fluorene	6.80	166	79815	320.32	ng/ml	99
16) Dibenzothiophene	7.49	184	131848	355.07	ng/ml	100
17) Phenanthrene	7.59	178	134953	372.24	ng/ml	99
18) Anthracene	7.63	178	128937	370.60	ng/ml	99
19) Carbazole	7.76	167	119750	375.10	ng/ml	99
20) 1-Methylphenanthrene	8.10	192	109031	405.01	ng/ml	99
21) Fluoranthene	8.57	202	171257	413.61	ng/ml	99
24) Pyrene	8.76	202	180789	415.88	ng/ml	99
26) Benz(a)anthracene	10.08	228	151724	366.70	ng/ml	99
27) Chrysene	10.13	228	146003	388.30	ng/ml	99
29) Benzo(b)fluoranthene	12.13	252	179639	399.23	ng/ml	99
30) Benzo(k)fluoranthene	12.20	252	173956	408.85	ng/ml	99
31) Benzo(e)pyrene	12.84	252	167188	396.26	ng/ml	99
32) Benzo(a)pyrene	12.99	252	146941	347.49	ng/ml	99
33) Perylene	13.23	252	155887	388.63	ng/ml	99
34) Indeno(1,2,3-cd)pyrene	15.37	276	140438	349.19	ng/ml	99
35) Dibenz(a,h)anthracene	15.44	278	152372	406.32	ng/ml	99
36) Benzo(g,h,i)perylene	15.76	276	170975	375.39	ng/ml	99

(#) = qualifier out of range (m) = manual integration

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F010.D Vial: 9
Acq On : 25 Apr 2019 10:23 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.4 ppm | SVM61-6G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F011.D Vial: 10
Acq On : 25 Apr 2019 10:50 am Operator: LWeiskopf
Sample : SIM-PAH @ 1.0 ppm | SVM61-6H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:37 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	51821	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	26135	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	53541	200.00	ng/ml	0.00
23) Chrysene-d12	10.10	240	55823	200.00	ng/ml	0.00
28) Perylene-d12	13.16	264	69172	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	121191	829.37	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	82.94%		
13) Fluorene-d10	6.77	176	137775	760.90	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	76.09%		
22) Fluoranthene-d10	8.55	212	316126	1008.49	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	100.85%		
25) Terphenyl-d14	8.91	244	235444	956.16	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	95.62%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	267477	918.92	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	169863	932.91	ng/ml	99
5) 1-Methylnaphthalene	5.53	142	156376	891.28	ng/ml	98
6) Biphenyl	5.85	154	206128	874.09	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.99	156	150415	905.47	ng/ml	98
9) Acenaphthylene	6.22	152	249748	769.82	ng/ml	99
10) Acenaphthene	6.37	154	151613	819.23	ng/ml	99
11) Dibenzofuran	6.51	168	232417	778.74	ng/ml	96
12) 2,3,5-Trimethylnaphthalene	6.69	170	147771	838.47	ng/ml	97
14) Fluorene	6.80	166	176158	736.56	ng/ml	99
16) Dibenzothiophene	7.49	184	295413	846.01	ng/ml	100
17) Phenanthrene	7.59	178	291073	853.79	ng/ml	100
18) Anthracene	7.63	178	277355	847.76	ng/ml	99
19) Carbazole	7.76	167	269991	899.35	ng/ml	99
20) 1-Methylphenanthrene	8.10	192	237898	939.76	ng/ml	99
21) Fluoranthene	8.57	202	364087	935.09	ng/ml	100
24) Pyrene	8.76	202	401217	953.27	ng/ml	100
26) Benz(a)anthracene	10.08	228	364584	910.11	ng/ml	100
27) Chrysene	10.13	228	341504	938.08	ng/ml	100
29) Benzo(b)fluoranthene	12.14	252	439475	952.88	ng/ml	100
30) Benzo(k)fluoranthene	12.21	252	416933	956.04	ng/ml	100
31) Benzo(e)pyrene	12.85	252	407810	943.01	ng/ml	99
32) Benzo(a)pyrene	13.00	252	371809	857.84	ng/ml	99
33) Perylene	13.24	252	385669	938.06	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.38	276	353328	857.11	ng/ml	99
35) Dibenz(a,h)anthracene	15.44	278	381549	992.66	ng/ml	99
36) Benzo(g,h,i)perylene	15.76	276	403051	863.36	ng/ml	99

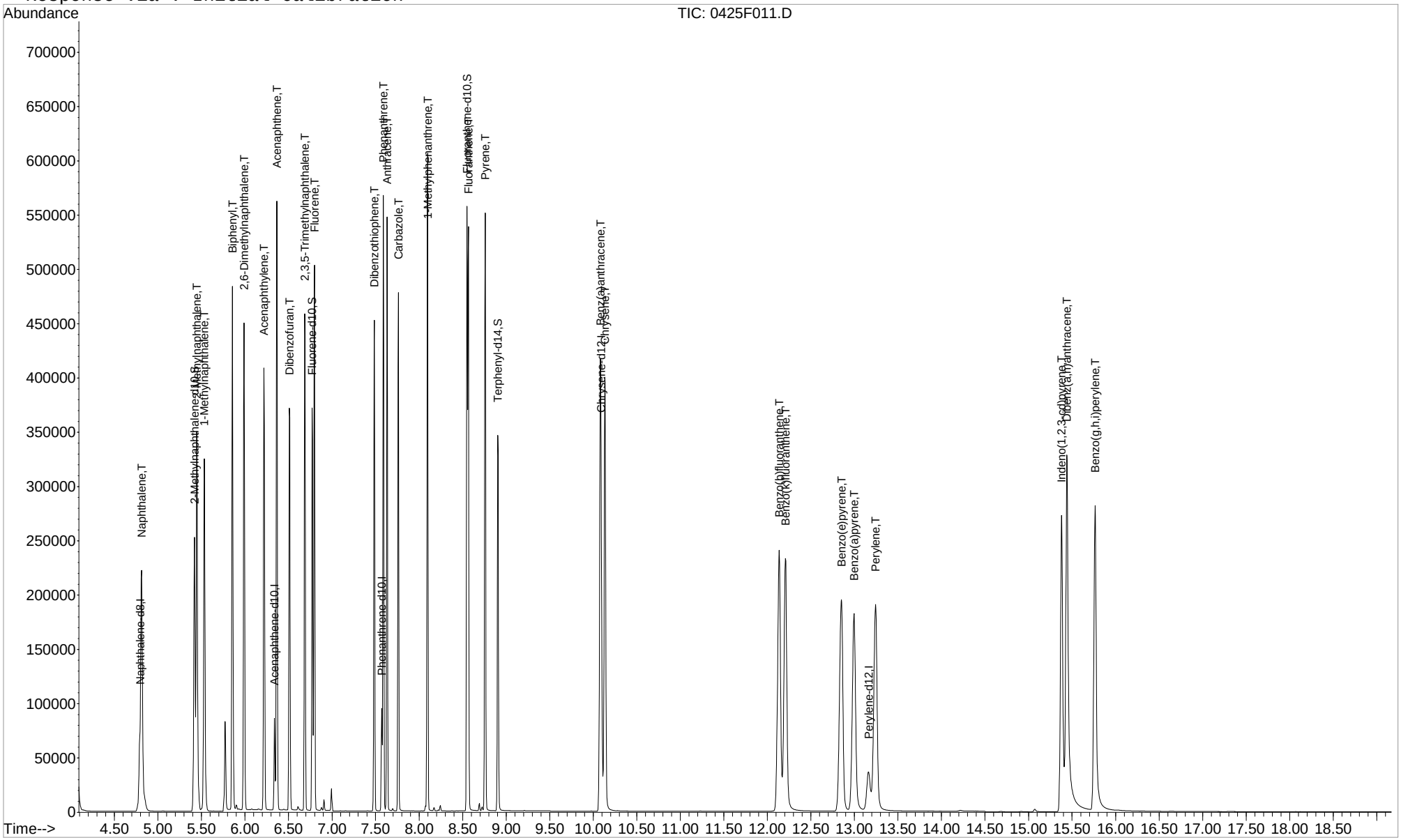
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F011.D Vial: 10
Acq On : 25 Apr 2019 10:50 am Operator: LWeiskopf
Sample : SIM-PAH @ 1.0 ppm | SVM61-6H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F012.D Vial: 11
Acq On : 25 Apr 2019 11:18 am Operator: LWeiskopf
Sample : SIM-PAH @ 1.6 ppm | SVM61-6I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:38 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	49722	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	25274	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	51649	200.00	ng/ml	0.00
23) Chrysene-d12	10.10	240	52617	200.00	ng/ml	0.00
28) Perylene-d12	13.17	264	66126	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	182083	1298.69	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 129.87%			
13) Fluorene-d10	6.78	176	206207	1177.63	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 117.76%			
22) Fluoranthene-d10	8.55	212	469619	1553.03	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 155.30%			
25) Terphenyl-d14	8.91	244	344341	1483.61	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 148.36%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	410427	1469.55	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	254187	1454.97	ng/ml	98
5) 1-Methylnaphthalene	5.53	142	235283	1397.62	ng/ml	100
6) Biphenyl	5.85	154	310020	1370.15	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.99	156	222944	1398.74	ng/ml	93
9) Acenaphthylene	6.22	152	375671	1197.41	ng/ml	99
10) Acenaphthene	6.37	154	225456	1259.74	ng/ml	98
11) Dibenzofuran	6.51	168	346618	1200.95	ng/ml	93
12) 2,3,5-Trimethylnaphthalene	6.69	170	218056	1279.42	ng/ml	90
14) Fluorene	6.80	166	260795	1127.60	ng/ml	100
16) Dibenzothiophene	7.49	184	437517	1298.87	ng/ml	96
17) Phenanthrene	7.59	178	427175	1298.91	ng/ml	99
18) Anthracene	7.63	178	409817	1298.53	ng/ml	99
19) Carbazole	7.76	167	407318	1406.50	ng/ml	98
20) 1-Methylphenanthrene	8.10	192	349865	1432.68	ng/ml	100
21) Fluoranthene	8.57	202	529010	1408.43	ng/ml	98
24) Pyrene	8.76	202	588478	1483.38	ng/ml	98
26) Benz(a)anthracene	10.08	228	556226	1473.11	ng/ml	100
27) Chrysene	10.14	228	512902	1494.74	ng/ml	99
29) Benzo(b)fluoranthene	12.14	252	674434	1529.69	ng/ml	100
30) Benzo(k)fluoranthene	12.22	252	635788	1525.03	ng/ml	100
31) Benzo(e)pyrene	12.86	252	626402	1515.20	ng/ml	100
32) Benzo(a)pyrene	13.01	252	578964	1397.31	ng/ml	100
33) Perylene	13.26	252	591804	1505.74	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.38	276	543910	1380.21	ng/ml	100
35) Dibenz(a,h)anthracene	15.45	278	584730	1591.35	ng/ml	100
36) Benzo(g,h,i)perylene	15.77	276	595807	1335.04	ng/ml	99

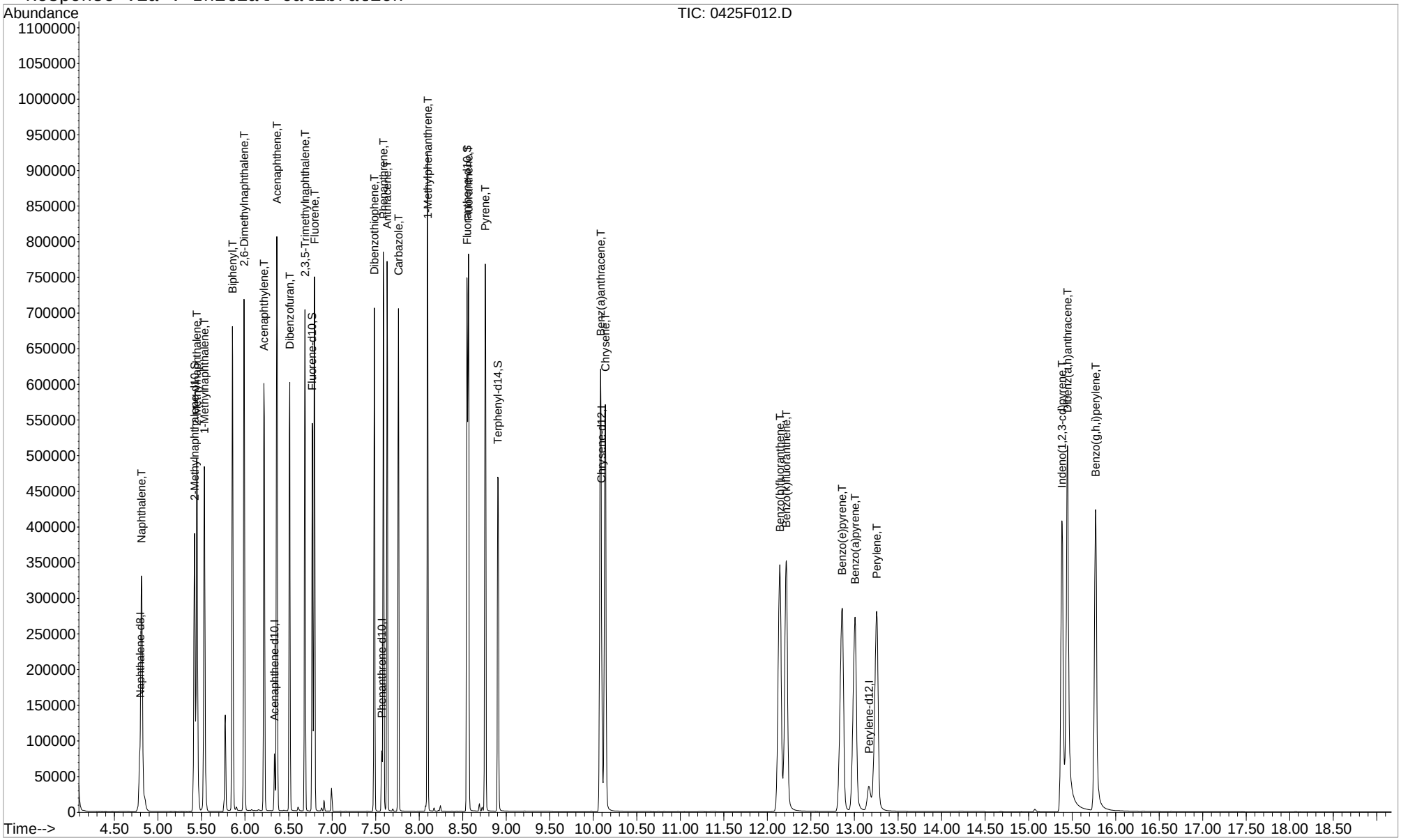
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F012.D Vial: 11
Acq On : 25 Apr 2019 11:18 am Operator: LWeiskopf
Sample : SIM-PAH @ 1.6 ppm | SVM61-6I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F013.D Vial: 12
Acq On : 25 Apr 2019 11:45 am Operator: LWeiskopf
Sample : SIM-PAH @ 2.0 ppm | SVM61-6J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:38 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

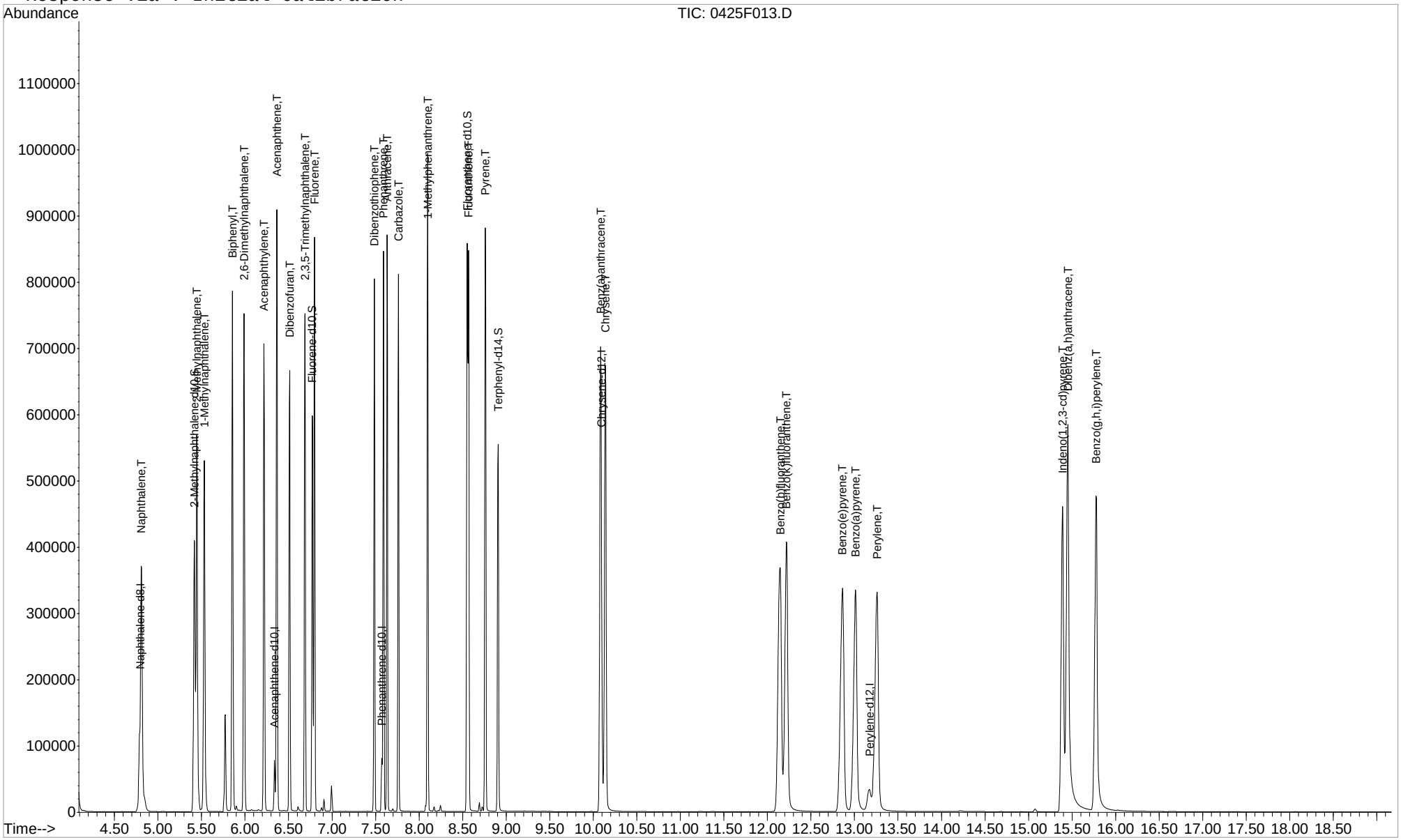
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	47115	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	24493	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	49479	200.00	ng/ml	0.00
23) Chrysene-d12	10.10	240	50459	200.00	ng/ml	0.00
28) Perylene-d12	13.17	264	65463	200.00	ng/ml	0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	211106	1589.00	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 158.90%			
13) Fluorene-d10	6.77	176	241158	1421.15	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 142.12%			
22) Fluoranthene-d10	8.55	212	538923	1860.39	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 186.04%			
25) Terphenyl-d14	8.91	244	391763	1760.12	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 176.01%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	476951	1802.24	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	292496	1766.89	ng/ml	98
5) 1-Methylnaphthalene	5.53	142	273101	1712.03	ng/ml	98
6) Biphenyl	5.85	154	357649	1668.11	ng/ml	98
7) 2,6-Dimethylnaphthalene	5.99	156	261080	1728.64	ng/ml	94
9) Acenaphthylene	6.22	152	438569	1442.47	ng/ml	99
10) Acenaphthene	6.37	154	262536	1513.69	ng/ml	99
11) Dibenzofuran	6.51	168	407653	1457.45	ng/ml	92
12) 2,3,5-Trimethylnaphthalene	6.69	170	255565	1547.32	ng/ml	91
14) Fluorene	6.80	166	301337	1344.43	ng/ml	100
16) Dibenzothiophene	7.49	184	502985	1558.71	ng/ml	96
17) Phenanthrene	7.59	178	489191	1552.72	ng/ml	100
18) Anthracene	7.63	178	467812	1547.30	ng/ml	99
19) Carbazole	7.76	167	470095	1694.47	ng/ml	98
20) 1-Methylphenanthrene	8.10	192	404493	1729.03	ng/ml	100
21) Fluoranthene	8.57	202	602678	1674.94	ng/ml	97
24) Pyrene	8.76	202	669929	1760.92	ng/ml	98
26) Benz(a)anthracene	10.09	228	648162	1790.01	ng/ml	99
27) Chrysene	10.14	228	597084	1814.49	ng/ml	99
29) Benzo(b)fluoranthene	12.15	252	796673	1825.24	ng/ml	100
30) Benzo(k)fluoranthene	12.22	252	753980	1826.85	ng/ml	100
31) Benzo(e)pyrene	12.86	252	740940	1810.41	ng/ml	100
32) Benzo(a)pyrene	13.01	252	684675	1669.18	ng/ml	100
33) Perylene	13.26	252	701484	1802.88	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.39	276	656343	1682.38	ng/ml	100
35) Dibenz(a,h)anthracene	15.45	278	705342	1939.03	ng/ml	100
36) Benzo(g,h,i)perylene	15.78	276	716461	1621.65	ng/ml	99

(#) = qualifier out of range (m) = manual integration

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F013.D Vial: 12
Acq On : 25 Apr 2019 11:45 am Operator: LWeiskopf
Sample : SIM-PAH @ 2.0 ppm | SVM61-6J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F014.D Vial: 13
Acq On : 25 Apr 2019 12:12 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @ 0.4 ppm | SVM61-6K Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 09:56:41 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Apr 26 09:56:22 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	48476	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	25790	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	53453	200.00	ng/ml	0.00
23) Chrysene-d12	10.10	240	56347	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	63447	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	47794	390.97	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	39.10%		
13) Fluorene-d10	6.77	176	59327	404.69	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	40.47%		
22) Fluoranthene-d10	8.55	212	136358	435.34	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	43.53%		
25) Terphenyl-d14	8.91	244	105998	406.79	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	40.68%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	97291	374.66	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	63774	359.85	ng/ml	100
5) 1-Methylnaphthalene	5.53	142	57690	350.03	ng/ml	100
6) Biphenyl	5.85	154	80770	363.78	ng/ml	100
7) 2,6-Dimethylnaphthalene	5.99	156	58779	370.92	ng/ml	99
9) Acenaphthylene	6.22	152	100241	385.15	ng/ml	100
10) Acenaphthene	6.37	154	57239	362.29	ng/ml	100
11) Dibenzofuran	6.51	168	80947	326.56	ng/ml	98
12) 2,3,5-Trimethylnaphthalene	6.69	170	57270	370.54	ng/ml	97
14) Fluorene	6.80	166	70827	366.01	ng/ml	100
16) Dibenzothiophene	7.49	184	115772	380.75	ng/ml	100
17) Phenanthrene	7.59	178	116089	361.40	ng/ml	100
18) Anthracene	7.63	178	118393	405.05	ng/ml	99
19) Carbazole	7.76	167	106746	398.00	ng/ml	99
20) 1-Methylphenanthrene	8.10	192	97088	400.31	ng/ml	100
21) Fluoranthene	8.57	202	155987	412.32	ng/ml	99
24) Pyrene	8.76	202	157375	354.16	ng/ml	100
26) Benz(a)anthracene	10.08	228	137286	377.98	ng/ml	100
27) Chrysene	10.13	228	128726	364.80	ng/ml	100
29) Benzo(b)fluoranthene	12.13	252	156178	387.23	ng/ml	100
30) Benzo(k)fluoranthene	12.20	252	155109	408.04	ng/ml	100
31) Benzo(e)pyrene	12.84	252	140496	367.00	ng/ml	100
32) Benzo(a)pyrene	12.99	252	133377	412.93	ng/ml	100
33) Perylene	13.23	252	140699	398.38	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.38	276	130373	405.43	ng/ml	99
35) Dibenz(a,h)anthracene	15.44	278	131536	385.37	ng/ml	100
36) Benzo(g,h,i)perylene	15.76	276	143055	331.64	ng/ml	100

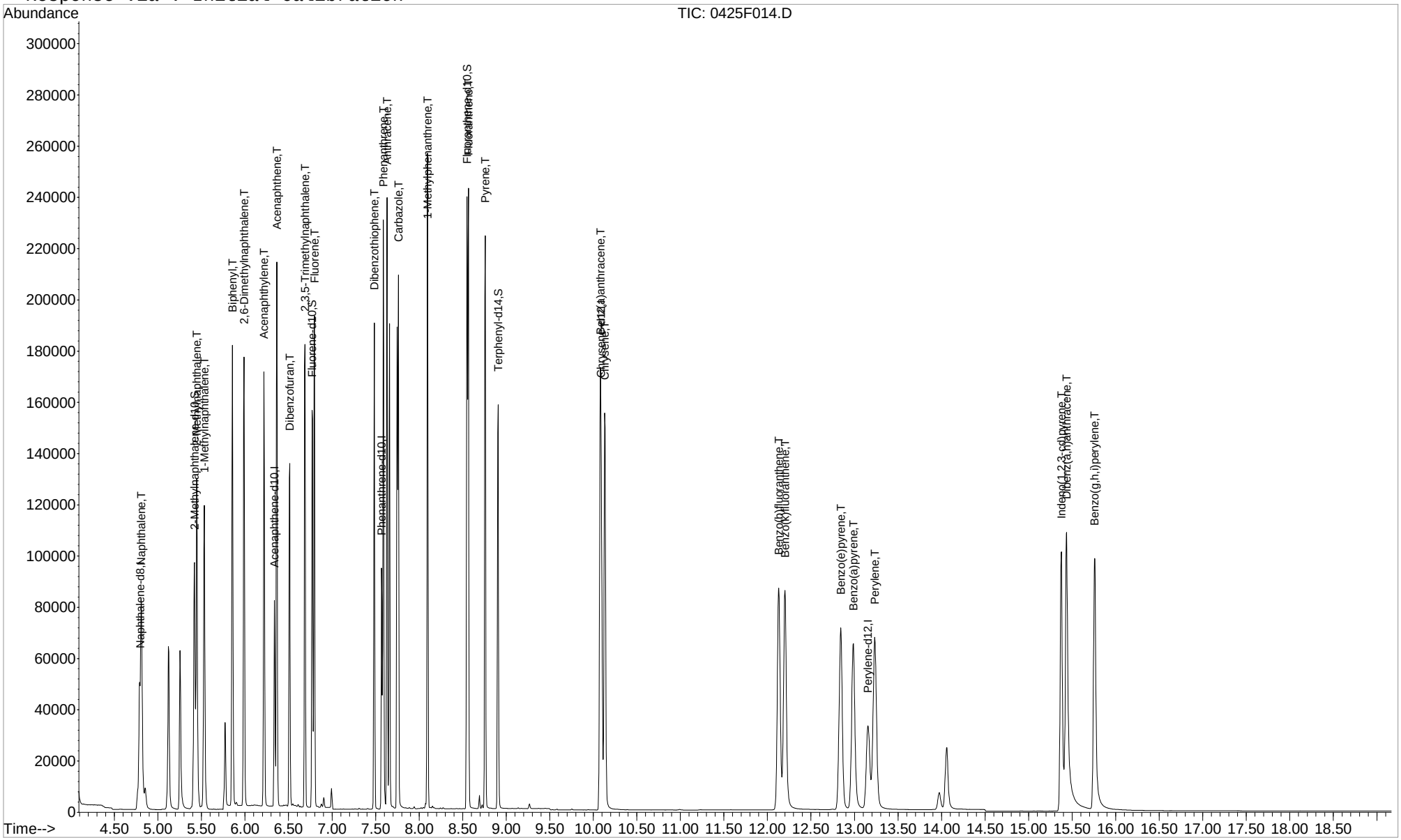
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F014.D Vial: 13
Acq On : 25 Apr 2019 12:12 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @ 0.4 ppm | SVM61-6K Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:56 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Apr 26 09:56:22 2019
Response via : Initial Calibration



Injection Log

Directory: J:\MS14\DATA\060719

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0607F001.D	1.	DFTPP @ 10ug/mL | SVM60-55B		7 Jun 2019 09:10
2	2	0607F002.D	1.	SIM-PAH CCV @ 0.4ug/mL SVM61-28A		7 Jun 2019 09:38
3	3	0607F003.D	1.	KQ1907578-4 MB		7 Jun 2019 10:05
4	4	0607F004.D	1.	KQ1907578-3 LCS		7 Jun 2019 10:33
5	5	0607F005.D	1.	K1905016-029MS		7 Jun 2019 11:00
6	6	0607F006.D	1.	K1905016-029DMS		7 Jun 2019 11:28
7	7	0607F007.D	1.	K1905016-029		7 Jun 2019 11:56
8	8	0607F008.D	1.	K1905016-026		7 Jun 2019 12:24
9	9	0607F009.D	1.	K1905016-028		7 Jun 2019 12:52
10	10	0607F010.D	1.	K1905016-021		7 Jun 2019 13:19
11	11	0607F011.D	1.	K1905016-031		7 Jun 2019 13:47
12	12	0607F012.D	1.	K1905016-032		7 Jun 2019 14:14
13	13	0607F013.D	1.	K1905016-033		7 Jun 2019 14:42
14	14	0607F014.D	1.	K1905016-034		7 Jun 2019 15:10
15	15	0607F015.D	1.	K1905016-030		7 Jun 2019 15:38
16	16	0607F016.D	1.	K1905014-005		7 Jun 2019 16:05
17	17	0607F017.D	1.	K1905016-027		7 Jun 2019 16:33
18	18	0607F018.D	1.	K1905016-035		7 Jun 2019 17:00
19	19	0607F019.D	1.	K1905016-036		7 Jun 2019 17:28
20	20	0607F020.D	1.	K1905016-037		7 Jun 2019 17:56
21	21	0607F021.D	1.	K1905016-038		7 Jun 2019 18:24
22	22	0607F022.D	1.	K1905016-039		7 Jun 2019 18:52
23	23	0607F023.D	1.	K1905016-040		7 Jun 2019 19:20
24	24	0607F024.D	1.	K1905016-004DMS SE		7 Jun 2019 19:47
25	100	0607F025.D	1.	DCM		7 Jun 2019 20:15
26	100	0607F026.D	1	DCM		7 Jun 2019 20:43
27	1	0607F027.D	1.	DFTPP @ 10ug/mL | SVM60-55B		7 Jun 2019 21:11
28	2	0607F028.D	1.	SIM-PAH CCV @ 0.4ug/mL SVM61-28A		7 Jun 2019 21:38
29	25	0607F029.D	1.	KQ1907801-3 MB		7 Jun 2019 22:06
30	26	0607F030.D	1.	K1905213-002		7 Jun 2019 22:35
31	27	0607F031.D	1.	KQ1907801-1 LCS		7 Jun 2019 23:02
32	28	0607F032.D	1.	KQ1907801-2 DLCS		7 Jun 2019 23:29
33	29	0607F033.D	1.	KQ1907688-3 MB		7 Jun 2019 23:57
34	30	0607F034.D	1.	KQ1907688-1 LCS		8 Jun 2019 00:24
35	31	0607F035.D	1.	KQ1907688-2 DLCS		8 Jun 2019 00:51
36	32	0607F036.D	1.	K1905141-003		8 Jun 2019 01:18
37	33	0607F037.D	1.	K1905141-005		8 Jun 2019 01:45
38	34	0607F038.D	1.	K1905141-015		8 Jun 2019 02:13
39	35	0607F039.D	1.	K1905141-020		8 Jun 2019 02:40
40	36	0607F040.D	1.	K1905141-021		8 Jun 2019 03:06
41	37	0607F041.D	1.	K1905141-028		8 Jun 2019 03:34
42	38	0607F042.D	1.	K1905141-029		8 Jun 2019 04:01
43	39	0607F043.D	1.	K1905144-001		8 Jun 2019 04:29
44	40	0607F044.D	1.	K1905144-002		8 Jun 2019 04:56
45	41	0607F045.D	1.	KQ1907599-4 MB		8 Jun 2019 05:24
46	42	0607F046.D	1.	KQ1907599-3 LCS		8 Jun 2019 05:52
47	43	0607F047.D	1.	K1904704-002MS		8 Jun 2019 06:20
48	44	0607F048.D	1.	K1904704-002DMS		8 Jun 2019 06:48
49	45	0607F049.D	1.	K1904704-002		8 Jun 2019 07:16
50	46	0607F050.D	1.	K1904704-001		8 Jun 2019 07:43

*LIMS # 638644
KC1900163
JUN 17 2019
6/17/19

ALS Environmental
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F : +1 360 636 1068
www.alsglobal.com

June 19, 2019

Analytical Report for Service Request No: K1905144

Randy Pratt
JH Baxter & Company
85 N Baxter Rd
Eugene, OR 97402

RE: Arlington Landfill Wells / Landfill Program

Dear Randy,

Enclosed are the results of the sample(s) submitted to our laboratory June 04, 2019
For your reference, these analyses have been assigned our service request number **K1905144.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3350. You may also contact me via email at Kelley.Lovejoy@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

for Kelley Lovejoy
Project Manager

ALS Environmental
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Acronyms
Qualifiers
State Certifications, Accreditations, And Licenses
Case Narrative
Chain of Custody
Chlorinated Phenolics
Polycyclic Aromatic Hydrocarbons
Raw Data
- Chlorinated Phenolics
- Polycyclic Aromatic Hydrocarbons byGC/MS SIM

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: JH Baxter & Company
Project: Arlington Landfill Wells
Sample Matrix: Water

Service Request: K1905144
Date Received: 06/04/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Two water samples were received for analysis at ALS Environmental on 06/04/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

No significant anomalies were noted with this analysis.

Semivoa GC:

Method 8151A Modified, Chlorinated Phenolics 06/12/2019: 4-Bromo-2,6-dichlorophenol is failing on one column for Continuing Calibratrion Verification (CCV) KQ1908184-03. The analyte will be reported from the passing column. No further corrective action is required.

Approved by Noe D. Dan Date 06/19/2019

Chain of Custody

ALS Environmental—Kelso Laboratory
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www.alsglobal.com

ALS
1317 South 13th, Kelso, WA 98626 (360) 577-7222 FAX (360) 636-1068

SR# K1905144

0H	7D	28D	180D	7D

PAGE _____ OF _____

Project Name: ____JH Baxter - Arlington_____ Project Number: _____

Project Manager: _____ Company: _____JH Baxter _____

Company/Address: _____85 N Baxter Rd_____ Phone: __541-689-3801____

City, State, Zip: _____Eugene, OR 97402_____ FAX: __541-689-0769_____

Sampler's Signature: _____

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	SM 4500-H+ B / Ph	8270 D / PAH SIM	120.1 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	SM 2540 C TDS	8151 A Modified/PCP only	REMARKS
					Analysis Requested														
BXS-1	6/2/19	1116		water	3		X											X	Site investigation
~~BXS-2~~				water	3		X											X	Site investigation
BXS-5	6/2/19	1200		water	3		X											X	Site investigation

TURNAROUND REQUIREMENTS

_____ 24 hr _____ 48 hr _____ 5 day

__X__ Standard (21 days)

_____ Provide FAX Preliminary Results

Requested Report Date:_____

REPORT REQUIREMENTS

_____ I. Routine Report: Results, Method Blank, Surrogate, as required

__X__ II. Report Dup., MS, MSD as required

_____ III. Data Validation Report (includes raw data)

_____ IV. CLP Deliverable Report

_____ V. EDD

Comments/Special Instructions:

PAH samples have 2 - 500ml amber bottles

BXS 1&2 quarterly for PCP AND PAH'S

BXS-5 duplicate of BXS 1 or 2

Questions? - Please Call Randy Pratt @ GSI Water Solutions 971-200-8512

Invoice Information

P.O. # _____

Bill to: JH Baxter & Co

San Mateo CA,94402

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Matt	Signature:	Signature:	Signature:
Printed Name: MATT HOUSER	Printed Name: Naomi Pedersen	Printed Name:	Printed Name:
Firm: JH Baxter	Firm: ALS	Firm:	Firm:
Date/Time: 6/3/19 1300	Date/Time: 6.4.19 9:30	Date/Time:	Date/Time:

PC KL

Cooler Receipt and Preservation Form

Client JH Baxter Service Request *K19* 05144

Received: 6.4.19 Opened: 6.4.19 By: NP Unloaded: 6.4.19 By: NP

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____

   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID (NA)	Tracking Number NA	File
1.2	1.2	7.4	7.6	0.2	397		4808 3230 2658	
-0.3	-0.5	2.4	2.2	-0.2	386		4808 3230 2647	

4. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA Y N

   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: Temp blank not indicative of sample temp, it was between the insert & bubble wrap away from it ~~Missing BXS-2~~ 3 samples

Chlorinated Phenolics

ALS Environmental—Kelso Laboratory
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Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19 11:16
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	BXS-1	**Units:**	ug/L
Lab Code:	K1905144-001	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**50**	0.50	0.071	1	06/12/19 14:01	6/6/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	111	55 - 130	06/12/19 14:01	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19 12:00
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	BXS-5	**Units:**	ug/L
Lab Code:	K1905144-002	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	**50**	0.50	0.071	1	06/12/19 14:19	6/6/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	105	55 - 130	06/12/19 14:19	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KQ1907798-04	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/12/19 13:26	6/6/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	117	55 - 130	06/12/19 13:26	

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905144
Date Collected: 06/02/19 11:16
Date Received: 6/4/19

Sample Name: BXS-1
Lab Code: K1905144-001

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	50	64	25		1	06/12/19 14:01

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905144
Date Collected: 06/02/19 12:00
Date Received: 6/4/19

Sample Name: BXS-5
Lab Code: K1905144-002

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	50	67	29		1	06/12/19 14:19

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905144
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: KQ1907798-03

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	6.46	8.94	32		1	06/12/19 13:43

Client: JH Baxter & Company **Service Request:** K1905144
Project: Arlington Landfill Wells/Landfill Program
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Chlorinated Phenolics

Analysis Method: 8151A Modified
Extraction Method: Method

Sample Name	Lab Code	4-Bromo-2,6-dichlorophenol 55-130
BXS-1	K1905144-001	111
BXS-5	K1905144-002	105
Method Blank	KQ1907798-04	117
Lab Control Sample	KQ1907798-03	111

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19
Sample Matrix:	Water	**Date Extracted:**	06/06/19

Lab Control Sample Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Units:**	ug/L
Prep Method:	Method	**Basis:**	NA
		Analysis Lot:	639031

Lab Control Sample
KQ1907798-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Pentachlorophenol (PCP)	6.46	10.0	65	42-110

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19 13:26
Sample Matrix:	Water	**Date Extracted:**	06/06/19

Method Blank Summary
Chlorinated Phenolics

Sample Name:	Method Blank	**Instrument ID:**	K-GC-28
Lab Code:	KQ1907798-04	**File ID:**	J:\GC28\Data\061219\0612F016.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	639031
Prep Method:	Method	**Extraction Lot:**	338124

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1907798-03	J:\GC28\Data\061219\0612F017.D\	06/12/19 13:43
BXS-1	K1905144-001	J:\GC28\Data\061219\0612F018.D\	06/12/19 14:01
BXS-5	K1905144-002	J:\GC28\Data\061219\0612F019.D\	06/12/19 14:19

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19 13:43
Sample Matrix:	Water	**Date Extracted:**	06/06/19

Lab Control Sample Summary
Chlorinated Phenolics

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-28
Lab Code:	KQ1907798-03	**File ID:**	J:\GC28\Data\061219\0612F017.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	639031
Prep Method:	Method	**Extraction Lot:**	338124

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1907798-04	J:\GC28\Data\061219\0612F016.D\	06/12/19 13:26
BXS-1	K1905144-001	J:\GC28\Data\061219\0612F018.D\	06/12/19 14:01
BXS-5	K1905144-002	J:\GC28\Data\061219\0612F019.D\	06/12/19 14:19

Client: JH Baxter & Company
Project: Arlington Landfill Wells

Service Request: K1905144
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-1701

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Analyte

4-Bromo-2,6-dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	10	2.500	4.672E5	02	5.000	4.356E5	03	10.000	4.141E5
04	25.000	3.754E5	05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5
08	500.000	2.979E5	09	1000.000	2.755E5						

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	10	2.375	6.451E5	02	4.750	5.978E5	03	9.501	5.654E5
04	23.752	5.208E5	05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5
08	475.030	3.936E5	09	950.060	3.695E5						

Client: JH Baxter & Company
Project: Arlington Landfill Wells

Service Request: K1905144
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-1701

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
4-Bromo-2,6-dichlorophenol	SURR	Quadratic	COD	0.9994	≥0.99	3.824E5	
Pentachlorophenol (PCP)	TRG	Quadratic	COD	0.9990	≥0.99	5.2E5	

Client: JH Baxter & Company **Service Request:** K1905144
Project: Arlington Landfill Wells **Calibration Date:** 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-35
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Analyte

4-Bromo-2,6-dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	10	2.500	3.934E5	02	5.000	3.777E5	03	10.000	4.048E5
04	25.000	4.138E5	05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5
08	500.000	4.395E5	09	1000.000	4.542E5						

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	10	2.375	7.52E5	02	4.750	6.912E5	03	9.501	6.875E5
04	23.752	6.474E5	05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5
08	475.030	6.37E5	09	950.060	6.573E5						

Client: JH Baxter & Company
Project: Arlington Landfill Wells

Service Request: K1905144
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-35

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
4-Bromo-2,6-dichlorophenol	SURR	Average RF	% RSD	6.0	≤20	4.216E5	
Pentachlorophenol (PCP)	TRG	Average RF	% RSD	9.6	≤20	6.805E5	

Client: JH Baxter & Company **Service Request:** K1905144
Project: Arlington Landfill Wells **Calibration Date:** 2/28/2019

Initial Calibration Verification Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-1701
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900082-11	PENTA01-95D ICV	J:\GC28\Data\022819CAL\0228F016.D	02/28/2019 12:00

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	55.3	5.2E5	5.35E5	16.43	±20	Quadratic

Client: JH Baxter & Company **Service Request:** K1905144
Project: Arlington Landfill Wells **Calibration Date:** 2/28/2019

Initial Calibration Verification Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-35
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900082-11	PENTA01-95D ICV	J:\GC28\Data\022819CAL\0228F016.D	02/28/2019 12:00

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	48.8	6.805E5	6.996E5	2.80	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19 12:50

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061219\0612F014.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	639031
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	41.6	6.805E5	5.957E5	-12.5	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	41.7	4.216E5	3.514E5	-16.7	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19 12:50

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061219\0612F014.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	639031
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	56.2	5.2E5	5.433E5	NA	18.3	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	55.8	3.824E5	3.841E5	NA	11.5	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19 17:00

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061219\0612F028.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	639031
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	38.5	6.805E5	5.509E5	-19.0	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	38.6	4.216E5	3.251E5	-22.9*	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19 17:00

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061219\0612F028.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	639031
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	56.9	5.2E5	5.498E5	NA	19.8	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	56.9	3.824E5	3.921E5	NA	13.9	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19 22:37

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061219\0612F047.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	639031
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	40.8	6.805E5	5.847E5	-14.1	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	41.7	4.216E5	3.52E5	-16.5	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19 22:37

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061219\0612F047.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	639031
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	53.4	5.2E5	5.17E5	NA	12.4	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	53.7	3.824E5	3.703E5	NA	7.4	±20	Quadratic

Client: JH Baxter & Company **Service Request:**K1905144
Project: Arlington Landfill Wells/Landfill Program

Analysis Run Log
Chlorinated Phenolics

Analysis Method: **Analysis Lot:**639031
Instrument ID:K-GC-28

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\GC28\Data\061219\0612F003.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	09:37:00	
J:\GC28\Data\061219\0612F004.D\	Continuing Calibration Blank	KQ1908184-06	6/12/2019	09:55:00	
J:\GC28\Data\061219\0612F005.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	10:12:00	
J:\GC28\Data\061219\0612F006.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	10:30:00	
J:\GC28\Data\061219\0612F007.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	10:47:00	
J:\GC28\Data\061219\0612F008.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	11:05:00	
J:\GC28\Data\061219\0612F009.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	11:22:00	
J:\GC28\Data\061219\0612F010.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	11:40:00	
J:\GC28\Data\061219\0612F011.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	11:57:00	
J:\GC28\Data\061219\0612F012.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	12:15:00	
J:\GC28\Data\061219\0612F013.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	12:33:00	
J:\GC28\Data\061219\0612F014.D\	Continuing Calibration Verification	KQ1908184-02	6/12/2019	12:50:00	
J:\GC28\Data\061219\0612F015.D\	Continuing Calibration Blank	KQ1908184-07	6/12/2019	13:08:00	
J:\GC28\Data\061219\0612F016.D\	Method Blank	KQ1907798-04	6/12/2019	13:26:00	
J:\GC28\Data\061219\0612F017.D\	Lab Control Sample	KQ1907798-03	6/12/2019	13:43:00	
J:\GC28\Data\061219\0612F018.D\	BXS-1	K1905144-001	6/12/2019	14:01:00	
J:\GC28\Data\061219\0612F019.D\	BXS-5	K1905144-002	6/12/2019	14:19:00	
J:\GC28\Data\061219\0612F020.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	14:37:00	
J:\GC28\Data\061219\0612F021.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	14:55:00	
J:\GC28\Data\061219\0612F023.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	15:30:00	
J:\GC28\Data\061219\0612F024.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	15:48:00	
J:\GC28\Data\061219\0612F025.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	16:06:00	
J:\GC28\Data\061219\0612F026.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	16:24:00	
J:\GC28\Data\061219\0612F027.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	16:42:00	
J:\GC28\Data\061219\0612F028.D\	Continuing Calibration Verification	KQ1908184-03	6/12/2019	17:00:00	
J:\GC28\Data\061219\0612F029.D\	Continuing Calibration Blank	KQ1908184-08	6/12/2019	17:18:00	
J:\GC28\Data\061219\0612F030.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	17:36:00	
J:\GC28\Data\061219\0612F031.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	17:54:00	
J:\GC28\Data\061219\0612F032.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	18:12:00	
J:\GC28\Data\061219\0612F033.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	18:30:00	
J:\GC28\Data\061219\0612F034.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	18:47:00	
J:\GC28\Data\061219\0612F035.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	19:05:00	
J:\GC28\Data\061219\0612F036.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	19:23:00	
J:\GC28\Data\061219\0612F037.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	19:41:00	
J:\GC28\Data\061219\0612F038.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	19:59:00	
J:\GC28\Data\061219\0612F039.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	20:16:00	
J:\GC28\Data\061219\0612F040.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	20:34:00	
J:\GC28\Data\061219\0612F041.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	20:52:00	
J:\GC28\Data\061219\0612F042.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	21:09:00	
J:\GC28\Data\061219\0612F043.D\	Continuing Calibration Blank	KQ1908184-09	6/12/2019	21:27:00	
J:\GC28\Data\061219\0612F044.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	21:45:00	
J:\GC28\Data\061219\0612F045.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	22:02:00	
J:\GC28\Data\061219\0612F046.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	22:20:00	
J:\GC28\Data\061219\0612F047.D\	Continuing Calibration Verification	KQ1908184-05	6/12/2019	22:37:00	
J:\GC28\Data\061219\0612F048.D\	Continuing Calibration Blank	KQ1908184-10	6/12/2019	22:55:00	

Prep Summary Report

Client: JH Baxter & Company **Service Request:**K1905144
Project: Arlington Landfill Wells/Landfill Program
Sample Matrix: Water

Chlorinated Phenolics

Prep Method: Method **Extraction Lot:** 338124
Analytical Method: 8151A Modified **Extraction Date:** 06/06/19 08:53

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
BXS-1	K1905144-001	6/2/19	6/4/19	5 mL	1 mL	
BXS-5	K1905144-002	6/2/19	6/4/19	5 mL	1 mL	
Lab Control Sample	KQ1907798-03LCS	NA	NA	5 mL	1 mL	
Method Blank	KQ1907798-04MB	NA	NA	5 mL	1 mL	

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19 11:16
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	BXS-1	**Units:**	ug/L
Lab Code:	K1905144-001	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0053**	**J**	0.020	0.0013	1	06/08/19 04:29	6/5/19	
Acenaphthene	**0.0042**	**J**	0.020	0.0012	1	06/08/19 04:29	6/5/19	
Acenaphthylene	ND	U	0.020	0.0011	1	06/08/19 04:29	6/5/19	
Anthracene	ND	U	0.020	0.00082	1	06/08/19 04:29	6/5/19	
Benz(a)anthracene	**0.0020**	**J**	0.020	0.00097	1	06/08/19 04:29	6/5/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	06/08/19 04:29	6/5/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	06/08/19 04:29	6/5/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	06/08/19 04:29	6/5/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	06/08/19 04:29	6/5/19	
Chrysene	ND	U	0.020	0.00076	1	06/08/19 04:29	6/5/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	06/08/19 04:29	6/5/19	
Dibenzofuran	**0.0046**	**J**	0.020	0.00096	1	06/08/19 04:29	6/5/19	
Fluoranthene	**0.0022**	**J**	0.020	0.00082	1	06/08/19 04:29	6/5/19	
Fluorene	**0.0032**	**J**	0.020	0.0011	1	06/08/19 04:29	6/5/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	06/08/19 04:29	6/5/19	
Naphthalene	**0.0046**	**J**	0.020	0.0014	1	06/08/19 04:29	6/5/19	
Phenanthrene	**0.0092**	**J**	0.020	0.0011	1	06/08/19 04:29	6/5/19	
Pyrene	**0.0014**	**J**	0.020	0.0010	1	06/08/19 04:29	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	101	42 - 133	06/08/19 04:29	
Fluorene-d10	102	42 - 131	06/08/19 04:29	
Terphenyl-d14	79	32 - 129	06/08/19 04:29	

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Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19 12:00
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	BXS-5	**Units:**	ug/L
Lab Code:	K1905144-002	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0049**	**J**	0.020	0.0013	1	06/08/19 04:56	6/5/19	
Acenaphthene	**0.0033**	**J**	0.020	0.0012	1	06/08/19 04:56	6/5/19	
Acenaphthylene	ND	U	0.020	0.0011	1	06/08/19 04:56	6/5/19	
Anthracene	ND	U	0.020	0.00082	1	06/08/19 04:56	6/5/19	
Benz(a)anthracene	**0.0019**	**J**	0.020	0.00097	1	06/08/19 04:56	6/5/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	06/08/19 04:56	6/5/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	06/08/19 04:56	6/5/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	06/08/19 04:56	6/5/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	06/08/19 04:56	6/5/19	
Chrysene	ND	U	0.020	0.00076	1	06/08/19 04:56	6/5/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	06/08/19 04:56	6/5/19	
Dibenzofuran	**0.0040**	**J**	0.020	0.00096	1	06/08/19 04:56	6/5/19	
Fluoranthene	ND	U	0.020	0.00082	1	06/08/19 04:56	6/5/19	
Fluorene	**0.0028**	**J**	0.020	0.0011	1	06/08/19 04:56	6/5/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	06/08/19 04:56	6/5/19	
Naphthalene	**0.0040**	**J**	0.020	0.0014	1	06/08/19 04:56	6/5/19	
Phenanthrene	**0.0099**	**J**	0.020	0.0011	1	06/08/19 04:56	6/5/19	
Pyrene	ND	U	0.020	0.0010	1	06/08/19 04:56	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	94	42 - 133	06/08/19 04:56	
Fluorene-d10	94	42 - 131	06/08/19 04:56	
Terphenyl-d14	74	32 - 129	06/08/19 04:56	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KQ1907688-03	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0034**	**J**	0.020	0.0013	1	06/07/19 23:57	6/5/19	
Acenaphthene	**0.0023**	**J**	0.020	0.0012	1	06/07/19 23:57	6/5/19	
Acenaphthylene	ND	U	0.020	0.0011	1	06/07/19 23:57	6/5/19	
Anthracene	ND	U	0.020	0.00082	1	06/07/19 23:57	6/5/19	
Benz(a)anthracene	**0.0020**	**J**	0.020	0.00097	1	06/07/19 23:57	6/5/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	06/07/19 23:57	6/5/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	06/07/19 23:57	6/5/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	06/07/19 23:57	6/5/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	06/07/19 23:57	6/5/19	
Chrysene	ND	U	0.020	0.00076	1	06/07/19 23:57	6/5/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	06/07/19 23:57	6/5/19	
Dibenzofuran	**0.0032**	**J**	0.020	0.00096	1	06/07/19 23:57	6/5/19	
Fluoranthene	**0.0017**	**J**	0.020	0.00082	1	06/07/19 23:57	6/5/19	
Fluorene	**0.0030**	**J**	0.020	0.0011	1	06/07/19 23:57	6/5/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	06/07/19 23:57	6/5/19	
Naphthalene	**0.0032**	**J**	0.020	0.0014	1	06/07/19 23:57	6/5/19	
Phenanthrene	**0.0086**	**J**	0.020	0.0011	1	06/07/19 23:57	6/5/19	
Pyrene	**0.0012**	**J**	0.020	0.0010	1	06/07/19 23:57	6/5/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	95	42 - 133	06/07/19 23:57	
Fluorene-d10	96	42 - 131	06/07/19 23:57	
Terphenyl-d14	65	32 - 129	06/07/19 23:57	

Client: JH Baxter & Company **Service Request:** K1905144

Project: Arlington Landfill Wells/Landfill Program

Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D

Extraction Method: EPA 3511

Sample Name	Lab Code	Fluoranthene-d10 42-133	Fluorene-d10 42-131	Terphenyl-d14 32-129
BXS-1	K1905144-001	101	102	79
BXS-5	K1905144-002	94	94	74
Method Blank	KQ1907688-03	95	96	65
Lab Control Sample	KQ1907688-01	100	96	64
Duplicate Lab Control Sample	KQ1907688-02	101	97	73

Client: JH Baxter & Company **Service Request:** K1905144
Project: Arlington Landfill Wells/Landfill Program **Date Analyzed:** 06/07/19 21:38

Internal Standard Area and RT SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\060719\0607F028.D\ **Lab Code:** KQ1907979-01
Instrument ID: K-MS-14 **Analysis Lot:** 638644
Analysis Method: 8270D **Signal ID:** 1

		Acenaphthene-d10		Chrysene-d12		Naphthalene-d8	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Result ==>	28,174	6.29	64,987	10.04	58,051	4.74
	Upper Limit ==>	56,348	6.79	129,974	10.54	116,102	5.24
	Lower Limit ==>	14,087	5.79	32,494	9.54	29,026	4.24
Associated Analyses							
Method Blank	KQ1907688-03	37449	6.29	74280	10.04	74479	4.75
Lab Control Sample	KQ1907688-01	34903	6.29	70308	10.04	72667	4.75
Duplicate Lab Control Sample	KQ1907688-02	34047	6.29	69509	10.03	70913	4.75
BXS-1	K1905144-001	34310	6.29	69412	10.03	69152	4.75
BXS-5	K1905144-002	35899	6.29	71606	10.03	72582	4.75

Client: JH Baxter & Company **Service Request:**K1905144
Project: Arlington Landfill Wells/Landfill Program **Date Analyzed:**06/07/19 21:38

Internal Standard Area and RT SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\060719\0607F028.D\ **Lab Code:**KQ1907979-01
Instrument ID: K-MS-14 **Analysis Lot:**638644
Analysis Method: 8270D **Signal ID:**1

		Perylene-d12		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**
	Result ==>	73,107	13.08	49,385	7.53
	Upper Limit ==>	146,214	13.58	98,770	8.03
	Lower Limit ==>	36,554	12.58	24,693	7.03
Associated Analyses					
Method Blank	KQ1907688-03	84508	13.07	69657	7.53
Lab Control Sample	KQ1907688-01	80034	13.07	63962	7.52
Duplicate Lab Control Sample	KQ1907688-02	79306	13.07	63158	7.52
BXS-1	K1905144-001	79010	13.06	63032	7.52
BXS-5	K1905144-002	81202	13.06	65387	7.53

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/08/19
Sample Matrix:	Water	**Date Extracted:**	06/05/19

Duplicate Lab Control Sample Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method:	8270D	**Units:**	ug/L
Prep Method:	EPA 3511	**Basis:**	NA
		Analysis Lot:	638644

	Lab Control Sample KQ1907688-01			Duplicate Lab Control Sample KQ1907688-02					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
2-Methylnaphthalene	2.39	2.78	86	2.42	2.78	87	48-120	2	30
Acenaphthene	2.72	2.78	98	2.77	2.78	100	63-121	2	30
Acenaphthylene	2.75	2.78	99	2.79	2.78	100	58-124	1	30
Anthracene	2.97	2.78	107	3.01	2.78	108	68-127	2	30
Benz(a)anthracene	2.76	2.78	99	2.82	2.78	102	74-124	2	30
Benzo(a)pyrene	3.01	2.78	108	3.09	2.78	111	75-131	3	30
Benzo(b)fluoranthene	2.75	2.78	99	2.83	2.78	102	73-136	3	30
Benzo(g,h,i)perylene	2.23	2.78	80	2.27	2.78	82	63-127	2	30
Benzo(k)fluoranthene	2.74	2.78	99	2.82	2.78	101	74-134	3	30
Chrysene	2.64	2.78	95	2.72	2.78	98	74-132	3	30
Dibenz(a,h)anthracene	2.61	2.78	94	2.68	2.78	97	59-135	3	30
Dibenzofuran	2.63	2.78	95	2.68	2.78	97	56-132	2	30
Fluoranthene	2.58	2.78	93	2.64	2.78	95	70-127	2	30
Fluorene	2.57	2.78	92	2.62	2.78	94	68-121	2	30
Indeno(1,2,3-cd)pyrene	2.70	2.78	97	2.73	2.78	98	63-136	<1	30
Naphthalene	2.56	2.78	92	2.59	2.78	93	52-115	1	30
Phenanthrene	2.64	2.78	95	2.68	2.78	96	64-126	1	30
Pyrene	2.29	2.78	82	2.35	2.78	85	72-127	3	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/07/19 23:57
Sample Matrix:	Water	**Date Extracted:**	06/05/19

Method Blank Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Sample Name:	Method Blank	**Instrument ID:**	K-MS-14
Lab Code:	KQ1907688-03	**File ID:**	J:\MS14\DATA\060719\0607F033.D\
Analysis Method:	8270D	**Analysis Lot:**	638644
Prep Method:	EPA 3511	**Extraction Lot:**	338019

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1907688-01	J:\MS14\DATA\060719\0607F034.D\	06/08/19 00:24
Duplicate Lab Control Sample	KQ1907688-02	J:\MS14\DATA\060719\0607F035.D\	06/08/19 00:51
BXS-1	K1905144-001	J:\MS14\DATA\060719\0607F043.D\	06/08/19 04:29
BXS-5	K1905144-002	J:\MS14\DATA\060719\0607F044.D\	06/08/19 04:56

Client:	JH Baxter & Company	**Service Request:**	K1905144
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/08/19 00:24
Sample Matrix:	Water	**Date Extracted:**	06/05/19

Lab Control Sample Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Sample Name:	Lab Control Sample	**Instrument ID:**	K-MS-14
Lab Code:	KQ1907688-01	**File ID:**	J:\MS14\DATA\060719\0607F034.D\
Analysis Method:	8270D	**Analysis Lot:**	638644
Prep Method:	EPA 3511	**Extraction Lot:**	338019

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1907688-03	J:\MS14\DATA\060719\0607F033.D\	06/07/19 23:57
Duplicate Lab Control Sample	KQ1907688-02	J:\MS14\DATA\060719\0607F035.D\	06/08/19 00:51
BXS-1	K1905144-001	J:\MS14\DATA\060719\0607F043.D\	06/08/19 04:29
BXS-5	K1905144-002	J:\MS14\DATA\060719\0607F044.D\	06/08/19 04:56

Client: JH Baxter & Company **Service Request:**K1905144
Project: Arlington Landfill Wells/Landfill Program **Date Analyzed:**06/07/19 21:11

Tune Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\060719\0607F027.D\ **Analytical Method:** 8270D
Instrument ID: K-MS-14 **Analysis Lot:** 638644

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	23.25	104640	Pass
68	69	0	2	1.79	2181	Pass
69	198	0	100	27.03	121640	Pass
70	69	0	2	0.52	631	Pass
127	198	10	80	41.99	188978	Pass
197	198	0	2	0.28	1252	Pass
198	442	30	100	35.57	450090	Pass
199	198	5	9	6.67	30033	Pass
275	198	10	60	36.03	162184	Pass
365	442	1	50	2.13	26896	Pass
441	443	0.01	100	73.34	181120	Pass
442	442	30	100	100.00	1265258	Pass
443	442	15	24	19.52	246976	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	KQ1907979-01	J:\MS14\DATA\060719\0607F028.D\	06/07/19 21:38	
Method Blank	KQ1907688-03	J:\MS14\DATA\060719\0607F033.D\	06/07/19 23:57	
Lab Control Sample	KQ1907688-01	J:\MS14\DATA\060719\0607F034.D\	06/08/19 00:24	
Duplicate Lab Control Sample	KQ1907688-02	J:\MS14\DATA\060719\0607F035.D\	06/08/19 00:51	
BXS-1	K1905144-001	J:\MS14\DATA\060719\0607F043.D\	06/08/19 04:29	
BXS-5	K1905144-002	J:\MS14\DATA\060719\0607F044.D\	06/08/19 04:56	

Client: JH Baxter & Company **Service Request:** K1905144
Project: Arlington Landfill Wells **Calibration Date:** 4/25/2019

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900163 **Signal ID:** 1
Instrument ID: K-MS-14

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900163-01	SIM-PAH ICAL @.002 | SVM61-6A	J:\MS14\DATA\042519\0425F004.D	04/25/2019 07:41
02	KC1900163-02	SIM-PAH ICAL @.004 | SVM61-6B	J:\MS14\DATA\042519\0425F005.D	04/25/2019 08:08
03	KC1900163-03	SIM-PAH ICAL @.008 | SVM61-6C	J:\MS14\DATA\042519\0425F006.D	04/25/2019 08:35
04	KC1900163-04	SIM-PAH ICAL @0.02 | SVM61-6D	J:\MS14\DATA\042519\0425F007.D	04/25/2019 09:02
05	KC1900163-05	SIM-PAH @ 0.1 ppm | SVM61-6E	J:\MS14\DATA\042519\0425F008.D	04/25/2019 09:29
06	KC1900163-06	SIM-PAH @ 0.2 ppm | SVM61-6F	J:\MS14\DATA\042519\0425F009.D	04/25/2019 09:56
07	KC1900163-07	SIM-PAH @ 0.4 ppm | SVM61-6G	J:\MS14\DATA\042519\0425F010.D	04/25/2019 10:23
08	KC1900163-08	SIM-PAH @ 1.0 ppm | SVM61-6H	J:\MS14\DATA\042519\0425F011.D	04/25/2019 10:50
09	KC1900163-09	SIM-PAH @ 1.6 ppm | SVM61-6I	J:\MS14\DATA\042519\0425F012.D	04/25/2019 11:18
10	KC1900163-10	SIM-PAH @ 2.0 ppm | SVM61-6J	J:\MS14\DATA\042519\0425F013.D	04/25/2019 11:45

Analyte

2-Methylnaphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	0.8034	02	4.000	0.7982	03	8.000	0.788	04	20.000	0.7807
05	100.000	0.7679	06	200.000	0.7362	07	400.000	0.7221	08	1000.000	0.6556
09	1600.000	0.639	10	2000.000	0.6208						

Acenaphthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.312	02	4.000	1.313	03	8.000	1.267	04	20.000	1.28
05	100.000	1.267	06	200.000	1.232	07	400.000	1.234	08	1000.000	1.16
09	1600.000	1.115	10	2000.000	1.072						

Acenaphthylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	2.353	02	4.000	2.222	03	8.000	2.079	04	20.000	2.009
05	100.000	1.995	06	200.000	1.973	07	400.000	1.993	08	1000.000	1.911
09	1600.000	1.858	10	2000.000	1.791						

Anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.144	02	4.000	1.14	03	8.000	1.113	04	20.000	1.127
05	100.000	1.159	06	200.000	1.147	07	400.000	1.132	08	1000.000	1.036
09	1600.000	0.9918	10	2000.000	0.9455						

Benz(a)anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.477	02	4.000	1.31	03	8.000	1.223	04	20.000	1.191
05	100.000	1.219	06	200.000	1.244	07	400.000	1.316	08	1000.000	1.306
09	1600.000	1.321	10	2000.000	1.285						

Benzo(a)pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	0.9893	02	4.000	0.9363	03	8.000	0.9273	04	20.000	0.9713
05	100.000	1.027	06	200.000	1.027	07	400.000	1.089	08	1000.000	1.075

Client: JH Baxter & Company **Service Request:** K1905144
Project: Arlington Landfill Wells **Calibration Date:** 4/25/2019

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900163 **Signal ID:** 1
Instrument ID: K-MS-14

Analyte

Benzo(a)pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	1600.000	1.094	10	2000.000	1.046						

Benzo(b)fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.344	02	4.000	1.265	03	8.000	1.22	04	20.000	1.226
05	100.000	1.295	06	200.000	1.269	07	400.000	1.331	08	1000.000	1.271
09	1600.000	1.275	10	2000.000	1.217						

Benzo(g,h,i)perylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.57	02	4.000	1.523	03	8.000	1.501	04	20.000	1.542
05	100.000	1.449	06	200.000	1.359	07	400.000	1.267	08	1000.000	1.165
09	1600.000	1.126	10	2000.000	1.094						

Benzo(k)fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.146	02	4.000	1.134	03	8.000	1.155	04	20.000	1.178
05	100.000	1.285	06	200.000	1.236	07	400.000	1.289	08	1000.000	1.205
09	1600.000	1.202	10	2000.000	1.152						

Chrysene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.269	02	4.000	1.285	03	8.000	1.251	04	20.000	1.29
05	100.000	1.284	06	200.000	1.254	07	400.000	1.266	08	1000.000	1.224
09	1600.000	1.218	10	2000.000	1.183						

Dibenz(a,h)anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.112	02	4.000	0.9835	03	8.000	0.9798	04	20.000	1.028
05	100.000	1.134	06	200.000	1.108	07	400.000	1.129	08	1000.000	1.103
09	1600.000	1.105	10	2000.000	1.077						

Dibenzofuran

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	2.179	02	4.000	2.081	03	8.000	2.016	04	20.000	2.031
05	100.000	1.968	06	200.000	1.898	07	400.000	1.893	08	1000.000	1.779
09	1600.000	1.714	10	2000.000	1.664						

Fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.477	02	4.000	1.418	03	8.000	1.399	04	20.000	1.446
05	100.000	1.529	06	200.000	1.523	07	400.000	1.504	08	1000.000	1.36
09	1600.000	1.28	10	2000.000	1.218						

Fluoranthene-d10

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.195	02	4.000	1.146	03	8.000	1.116	04	20.000	1.155

Client: JH Baxter & Company **Service Request:** K1905144
Project: Arlington Landfill Wells **Calibration Date:** 4/25/2019

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900163 **Signal ID:** 1
Instrument ID: K-MS-14

Analyte

Fluoranthene-d10

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	100.000	1.224	06	200.000	1.233	07	400.000	1.244	08	1000.000	1.181
09	1600.000	1.137	10	2000.000	1.089						

Fluorene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.827	02	4.000	1.666	03	8.000	1.571	04	20.000	1.579
05	100.000	1.539	06	200.000	1.491	07	400.000	1.466	08	1000.000	1.348
09	1600.000	1.29	10	2000.000	1.23						

Fluorene-d10

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	1.3	03	8.000	1.23	04	20.000	1.21	05	100.000	1.171
06	200.000	1.131	07	400.000	1.132	08	1000.000	1.054	09	1600.000	1.02
10	2000.000	0.9846									

Indeno(1,2,3-cd)pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.013	02	4.000	0.9951	03	8.000	0.9466	04	20.000	0.9946
05	100.000	1.071	06	200.000	1.023	07	400.000	1.04	08	1000.000	1.022
09	1600.000	1.028	10	2000.000	1.003						

Naphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.065	02	4.000	1.14	03	8.000	1.106	04	20.000	1.108
05	100.000	1.089	06	200.000	1.057	07	400.000	1.071	08	1000.000	1.032
09	1600.000	1.032	10	2000.000	1.012						

Phenanthrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.415	02	4.000	1.347	03	8.000	1.255	04	20.000	1.258
05	100.000	1.243	06	200.000	1.205	07	400.000	1.185	08	1000.000	1.087
09	1600.000	1.034	10	2000.000	0.9887						

Pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	1.751	02	4.000	1.672	03	8.000	1.678	04	20.000	1.712
05	100.000	1.653	06	200.000	1.576	07	400.000	1.568	08	1000.000	1.437
09	1600.000	1.398	10	2000.000	1.328						

Terphenyl-d14

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	4.000	1.012	03	8.000	1.002	04	20.000	1.003	05	100.000	0.9763
06	200.000	0.9466	07	400.000	0.9457	08	1000.000	0.8435	09	1600.000	0.818
10	2000.000	0.7764									

Client: JH Baxter & Company **Service Request:** K1905144
Project: Arlington Landfill Wells **Calibration Date:** 4/25/2019

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900163 **Signal ID:** 1
Instrument ID: K-MS-14

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
2-Methylnaphthalene	TRG	Average RF	% RSD	9.5	≤20	0.7312	0.40
Acenaphthene	TRG	Average RF	% RSD	6.8	≤20	1.225	0.90
Acenaphthylene	TRG	Average RF	% RSD	8.2	≤20	2.018	0.90
Anthracene	TRG	Average RF	% RSD	6.8	≤20	1.094	0.70
Benz(a)anthracene	TRG	Average RF	% RSD	6.3	≤20	1.289	0.80
Benzo(a)pyrene	TRG	Average RF	% RSD	5.9	≤20	1.018	0.70
Benzo(b)fluoranthene	TRG	Average RF	% RSD	3.4	≤20	1.271	0.70
Benzo(g,h,i)perylene	TRG	Average RF	% RSD	13.5	≤20	1.36	0.50
Benzo(k)fluoranthene	TRG	Average RF	% RSD	4.7	≤20	1.198	0.70
Chrysene	TRG	Average RF	% RSD	2.8	≤20	1.252	0.70
Dibenz(a,h)anthracene	TRG	Average RF	% RSD	5.4	≤20	1.076	0.40
Dibenzofuran	TRG	Average RF	% RSD	8.6	≤20	1.922	0.80
Fluoranthene	TRG	Average RF	% RSD	7.4	≤20	1.416	0.60
Fluoranthene-d10	SURR	Average RF	% RSD	4.5	≤20	1.172	0.01
Fluorene	TRG	Average RF	% RSD	11.9	≤20	1.501	0.90
Fluorene-d10	SURR	Average RF	% RSD	9.1	≤20	1.137	0.01
Indeno(1,2,3-cd)pyrene	TRG	Average RF	% RSD	3.2	≤20	1.014	0.50
Naphthalene	TRG	Average RF	% RSD	3.7	≤20	1.071	0.70
Phenanthrene	TRG	Average RF	% RSD	11.1	≤20	1.202	0.70
Pyrene	TRG	Average RF	% RSD	9.1	≤20	1.577	0.60
Terphenyl-d14	SURR	Average RF	% RSD	9.6	≤20	0.9249	0.01

Client: JH Baxter & Company **Service Request:** K1905144
Project: Arlington Landfill Wells **Calibration Date:** 4/25/2019

Initial Calibration Verification Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900163 **Signal ID:** 1
Instrument ID: K-MS-14

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900163-11	SIM-PAH ICV @ 0.4 ppm | SVM61-6K	J:\MS14\DATA\042519\0425F014.D	04/25/2019 12:12

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
2-Methylnaphthalene	400	360	7.312E-1	6.578E-1	-10.038	±30	Average RF
Acenaphthene	400	362	1.225E0	1.11E0	-9.427	±30	Average RF
Acenaphthylene	400	385	2.018E0	1.943E0	-3.713	±30	Average RF
Anthracene	400	405	1.094E0	1.107E0	1.26	±30	Average RF
Benz(a)anthracene	400	378	1.289E0	1.218E0	-5.506	±30	Average RF
Benzo(a)pyrene	400	413	1.018E0	1.051E0	3.23	±30	Average RF
Benzo(b)fluoranthene	400	387	1.271E0	1.231E0	-3.192	±30	Average RF
Benzo(g,h,i)perylene	400	332	1.36E0	1.127E0	-17.089	±30	Average RF
Benzo(k)fluoranthene	400	408	1.198E0	1.222E0	2.01	±30	Average RF
Chrysene	400	365	1.252E0	1.142E0	-8.799	±30	Average RF
Dibenz(a,h)anthracene	400	385	1.076E0	1.037E0	-3.657	±30	Average RF
Dibenzofuran	400	327	1.922E0	1.569E0	-18.359	±30	Average RF
Fluoranthene	400	412	1.416E0	1.459E0	3.08	±30	Average RF
Fluorene	400	366	1.501E0	1.373E0	-8.498	±30	Average RF
Indeno(1,2,3-cd)pyrene	400	405	1.014E0	1.027E0	1.36	±30	Average RF
Naphthalene	400	375	1.071E0	1.003E0	-6.336	±30	Average RF
Phenanthrene	400	361	1.202E0	1.086E0	-9.649	±30	Average RF
Pyrene	400	354	1.577E0	1.396E0	-11.461	±30	Average RF

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Fluoranthene-d10	400	435	1.172E0	1.275E0	8.84	±30	Average RF
Fluorene-d10	400	405	1.137E0	1.15E0	1.17	±30	Average RF
Terphenyl-d14	400	407	9.249E-1	9.406E-1	1.70	±30	Average RF

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
Service Request: K1905144
Date Analyzed: 06/07/19 21:38

Continuing Calibration Verification (CCV) Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
File ID: J:\MS14\DATA\060719\0607F028.D\
Signal ID: 1
Calibration Date: 4/25/2019
Calibration ID: KC1900163
Analysis Lot: 638644
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2-Methylnaphthalene	400	394	0.7312	0.7211	-1.4	NA	±20	Average RF
Acenaphthene	400	423	1.2252	1.2956	5.7	NA	±20	Average RF
Acenaphthylene	400	422	2.0183	2.131	5.6	NA	±20	Average RF
Anthracene	400	442	1.0936	1.2072	10.4	NA	±20	Average RF
Benz(a)anthracene	400	427	1.2892	1.3759	6.7	NA	±20	Average RF
Benzo(a)pyrene	400	471	1.0182	1.2	17.9	NA	±20	Average RF
Benzo(b)fluoranthene	400	433	1.2714	1.3775	8.3	NA	±20	Average RF
Benzo(g,h,i)perylene	400	370	1.3597	1.2566	-7.6	NA	±20	Average RF
Benzo(k)fluoranthene	400	440	1.1983	1.3189	10.1	NA	±20	Average RF
Chrysene	400	420	1.2525	1.3151	5.0	NA	±20	Average RF
Dibenz(a,h)anthracene	400	433	1.0759	1.1635	8.1	NA	±20	Average RF
Dibenzofuran	400	399	1.9223	1.9186	-0.2	NA	±20	Average RF
Fluoranthene	400	481	1.4155	1.7037	20.4	NA	±20	Average RF
Fluorene	400	394	1.5007	1.4782	-1.5	NA	±20	Average RF
Indeno(1,2,3-cd)pyrene	400	452	1.0136	1.1449	13.0	NA	±20	Average RF
Naphthalene	400	410	1.0714	1.0985	2.5	NA	±20	Average RF
Phenanthrene	400	407	1.2019	1.2221	1.7	NA	±20	Average RF
Pyrene	400	355	1.5772	1.3986	-11.3	NA	±20	Average RF

Client: JH Baxter & Company **Service Request:**K1905144
Project: Arlington Landfill Wells/Landfill Program

Analysis Run Log
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: **Analysis Lot:**638644
Instrument ID:K-MS-14

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\MS14\DATA\060719\0607F027.D\	ZZZZZZZ	ZZZZZZZ	6/7/2019	21:11:00	
J:\MS14\DATA\060719\0607F027.D\	ZZZZZZZ	ZZZZZZZ	6/7/2019	21:11:00	
J:\MS14\DATA\060719\0607F028.D\	ZZZZZZZ	ZZZZZZZ	6/7/2019	21:38:00	
J:\MS14\DATA\060719\0607F028.D\	Continuing Calibration Verification	KQ1907979-01	6/7/2019	21:38:00	
J:\MS14\DATA\060719\0607F029.D\	ZZZZZZZ	ZZZZZZZ	6/7/2019	22:06:00	
J:\MS14\DATA\060719\0607F030.D\	ZZZZZZZ	ZZZZZZZ	6/7/2019	22:35:00	
J:\MS14\DATA\060719\0607F031.D\	ZZZZZZZ	ZZZZZZZ	6/7/2019	23:02:00	
J:\MS14\DATA\060719\0607F032.D\	ZZZZZZZ	ZZZZZZZ	6/7/2019	23:29:00	
J:\MS14\DATA\060719\0607F033.D\	Method Blank	KQ1907688-03	6/7/2019	23:57:00	
J:\MS14\DATA\060719\0607F034.D\	Lab Control Sample	KQ1907688-01	6/8/2019	00:24:00	
J:\MS14\DATA\060719\0607F035.D\	Duplicate Lab Control Sample	KQ1907688-02	6/8/2019	00:51:00	
J:\MS14\DATA\060719\0607F036.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	01:18:00	
J:\MS14\DATA\060719\0607F037.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	01:45:00	
J:\MS14\DATA\060719\0607F038.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	02:13:00	
J:\MS14\DATA\060719\0607F039.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	02:40:00	
J:\MS14\DATA\060719\0607F040.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	03:06:00	
J:\MS14\DATA\060719\0607F041.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	03:34:00	
J:\MS14\DATA\060719\0607F042.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	04:01:00	
J:\MS14\DATA\060719\0607F043.D\	BXS-1	K1905144-001	6/8/2019	04:29:00	
J:\MS14\DATA\060719\0607F044.D\	BXS-5	K1905144-002	6/8/2019	04:56:00	
J:\MS14\DATA\060719\0607F045.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	05:24:00	
J:\MS14\DATA\060719\0607F046.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	05:52:00	
J:\MS14\DATA\060719\0607F047.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	06:20:00	
J:\MS14\DATA\060719\0607F048.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	06:48:00	
J:\MS14\DATA\060719\0607F049.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	07:16:00	
J:\MS14\DATA\060719\0607F050.D\	ZZZZZZZ	ZZZZZZZ	6/8/2019	07:43:00	

Prep Summary Report

Client: JH Baxter & Company **Service Request:**K1905144
Project: Arlington Landfill Wells/Landfill Program
Sample Matrix: Water

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Prep Method: EPA 3511 **Extraction Lot:** 338019
Analytical Method: 8270D **Extraction Date:** 06/05/19 10:03

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
BXS-1	K1905144-001	6/2/19	6/4/19	450 mL	2 mL	
BXS-5	K1905144-002	6/2/19	6/4/19	450 mL	2 mL	
Lab Control Sample	KQ1907688-01LCS	NA	NA	450 mL	2 mL	
Duplicate Lab Control Sample	KQ1907688-02DLCS	NA	NA	450 mL	2 mL	
Method Blank	KQ1907688-03MB	NA	NA	450 mL	2 mL	

Raw Data

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Chlorinated Phenolics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 338124
Team: Semivoa GC/WVANDERHOFF
Number of Copies to make: 3

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method

Status: Prepped
Prep Date/Time: 6/6/19 08:53

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1905144-001	BXS-1	.03	8151A Modified/PCP		Water	5mL	1.00mL	
2	K1905144-002	BXS-5	.03	8151A Modified/PCP		Water	5mL	1.00mL	
3	K1905145-003	EW COMPOSITE	.01	8151A Modified/PCP		Water	5mL	1.00mL	
4	K1905213-001	ADS A	.01	8151A Modified/PCP		Ground Water	5mL	1.00mL	
5	K1905213-002	ADS B	.01	8151A Modified/PCP		Ground Water	5mL	1.00mL	
6	K1905213-003	ADS C	.01	8151A Modified/PCP		Ground Water	5mL	1.00mL	
7	K1905213-004	INFLUENT	.01	8151A Modified/PCP		Ground Water	5mL	1.00mL	
8	KQ1907798-01	K1905213-004 MS	.01	8151A Modified/PCP		Liquid	5mL	1.00mL	
9	KQ1907798-02	K1905213-004 DMS	.01	8151A Modified/PCP		Liquid	5mL	1.00mL	
10	KQ1907798-03	LCS		8151A Modified/PCP		Liquid	5mL	1.00mL	
11	KQ1907798-04	MB		8151A Modified/PCP		Liquid	5mL	1.00mL	

Spiking Solutions

Name: 8151M Penta Matrix Spike Inventory ID 197895 Logbook Ref: Penta01-95L Expires On: 09/20/2019

KQ1907798-01 100.00µL KQ1907798-02 100.00µL KQ1907798-03 100.00µL

Name: 8151M Penta Surrogate Inventory ID 199349 Logbook Ref: Penta01-97J Expires On: 11/13/2019

K1905144-001 100.00µL K1905144-002 100.00µL K1905145-003 100.00µL K1905213-001 100.00µL K1905213-002 100.00µL K1905213-003 100.00µL
K1905213-004 100.00µL KQ1907798-01 100.00µL KQ1907798-02 100.00µL KQ1907798-03 100.00µL KQ1907798-04 100.00µL

Preparation Steps

Step:	Extraction	Step:	Final Volume
Started:	6/6/19 08:53	Started:	6/6/19 12:04
Finished:	6/11/19 15:12	Finished:	6/6/19 12:32
By:	WVANDERHOFF	By:	WVANDERHOFF
Comments		Comments	Times Are messed up*** Derivitization start 13:09

Comments: _____

Reviewed By: MC Date: 6-13-19

Page 57 of 373

Preparation Information Benchsheet

Prep Run#: 338124
Team: Semivoa GC/WVANDERHOFF

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method

Status: Prepped
Prep Date/Time: 6/6/19 08:53

Chain of Custody

Relinquished By:		Date:	6-11-19	Extracts Examined
Received By:		Date:	6-12-19	Yes (circled) No

Preparation Information Benchsheet

Prep Run#: 338124
Team: Semivoa GC/WVANDERHOFF
Number of Copies to make: 3

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method [redacted]

Status: Draft
Prep Date/Time: 6/6/19 08:53 AM

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. ml.	pH	Int. Vol ml.	Final Vol ml.	Surr Amt uk	Spike Amt uk
1	**K1905144-001**	BXS-1	.03	✓	8151A Modified / PCP	Water	5	<2		1	100	–
2	**K1905144-002**	BXS-5	.03	✓	8151A Modified / PCP	Water	5	<2		1		–
3	**K1905145-003**	EW COMPOSITE	.01	–	8151A Modified / PCP	Water	5	<2		1		–
4	**K1905213-001**	ADS A	.01	✓	8151A Modified / PCP	Ground Water	5	<2		1		–
5	**K1905213-002**	ADS B	.01	✓	8151A Modified / PCP	Ground Water	5	<2		1		–
6	**K1905213-003**	ADS C	.01	✓	8151A Modified / PCP	Ground Water	5	<2		1		–
7	**K1905213-004**	INFLUENT	.01	✓	8151A Modified / PCP	Ground Water	5	<2		1		✓
8	**KQ1907798-01**	K1905213-004 MS	.01	✓	8151A Modified / PCP	Liquid	5	<2		1		100
9	**KQ1907798-02**	K1905213-004 DMS	.01	✓	8151A Modified / PCP	Liquid	5	<2		1		
10	**KQ1907798-03**	LCS	—		8151A Modified / PCP	Liquid	5	<2		1		–
11	**KQ1907798-04**	MB	—		8151A Modified / PCP	Liquid	5	<2		1		–

Comments:

Surrogate ID: 199,349-Penta01-97J 199,349-Penta01-97J 199,349-Penta01-97J 199,349-Penta01-97J 199,34
500ppb 100uk xp. 11-13-19 epp #2B

Spike ID: 197,895-Penta01-95L 199,349-Penta01-97J 197,895-Penta01-95L 199,349-Penta01-97J 197,89
500ppb 100uk xp. 9-20-19 epp. #2B

Witnessed By: [signature] 6/6/19

Analyst: WEV

Assisted By:

Additional Prep Information for Method 8151M

Chlorinated Phenols "PCPs" in Water

Service Request # K1905144, 5145, 5213 [redacted] **Work Group #** KQ1907799

1:1 Sulfuric Acid Lot # 7121159 Ethyl Ether Lot # DW176-US

Extraction Start (time/date/initial): 12:14 6-6-19 WS

Extraction Stop (time/date/initial): 12:32 6-6-19 WS

Storage Location (overnight): 25R Acidified Sulfate Lot # DZ03-87B

N-Evap (time/date/initial): 11:51 6-11-19 WS N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Derivatization Start (time/date/initial): 13:09 6/11/19 BW

Derivatization Stop (time/date/initial): 13:56 6-11-19 WS

Diazomethane Lot # DZ03-41B Methanol Lot # DN615

Solvent Exchange to Iso-Octane (time/date/initial): 13:56 6-11-19 WS

Iso-Octane Lot # DM 121 N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Pipette (1 mL) Lot # 28517645

Vial: red Vial Storage: peeled

Additional Comments:

Bench Sheet Review Check List

- ☐ Hold times met (if no, reason:)
- ☐ Prep date, time, method, department, product code correct in stealth
- ☐ Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
- ☐ Weights/Volumes and units correct on raw and final bench sheets
- ☐ Sample IDs have been checked - bottle numbers appended if required
- ☐ Names present for: started by, completed by, relinquished by, and witnessed by. Training circled.
- ☐ Extract storage recorded
- ☐ Additional prep sheet completely filled out (NA or line out blanks)
- ☐ All clean-ups have been noted on additional prep sheet
- ☐ Signed service request with Form V, if applicable, has been attached

1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F018.D\
Lab ID: K1905144-001
RunType: N/A
Matrix: Water

Date Acquired: 6/12/19 14:01:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - Rtx-35	4-Bromo-2,6-dichlorophenol	-23		20	RO

Primary Review: _____

Printed: 6/13/19 11:45
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Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F018.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 14:01:00	**Vial:**	34
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905144-001	**Raw Units:**	ug/L

Bottle ID:	K1905144-001.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639031	**Prep Lot:**	338124	**Report Group:**	K1905144
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.65	19182194	17080357	55.693	40.515^{CCV}	111	81	111	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15	5.61	137210263	169708839	321.228	249.384	64	50	**50**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F018.D Vial: 14
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 2:01 pm Operator: MC
Sample : K1905144-001 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 14:14:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.028	4.654	19182194	17080357	55.693	40.515	#
		Target Compounds							
1)		3,4-Dichl...	0.000	3.754	0	34240	N.D.	1.578	#
2)		3,5-Dichl...	3.372	4.001	7728	14218	0.023	0.365	#
3)		2,4,6-Tri...	0.000	4.211	0	113902	N.D. d	0.279	
5)		2,4,5-Tri...	4.175	0.000	799375	0	4.860	N.D. d	#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d	
7)	M	2,3,5,6-T...	4.478	5.028	4685166	4514034	10.169	7.477	#
8)	M	2,3,4,5-T...	0.000	5.424	0	154082	N.D. d	0.370	
9)	M	Pentachlo...	5.152	5.608	137.2E6	169.7E6	321.228	249.384	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

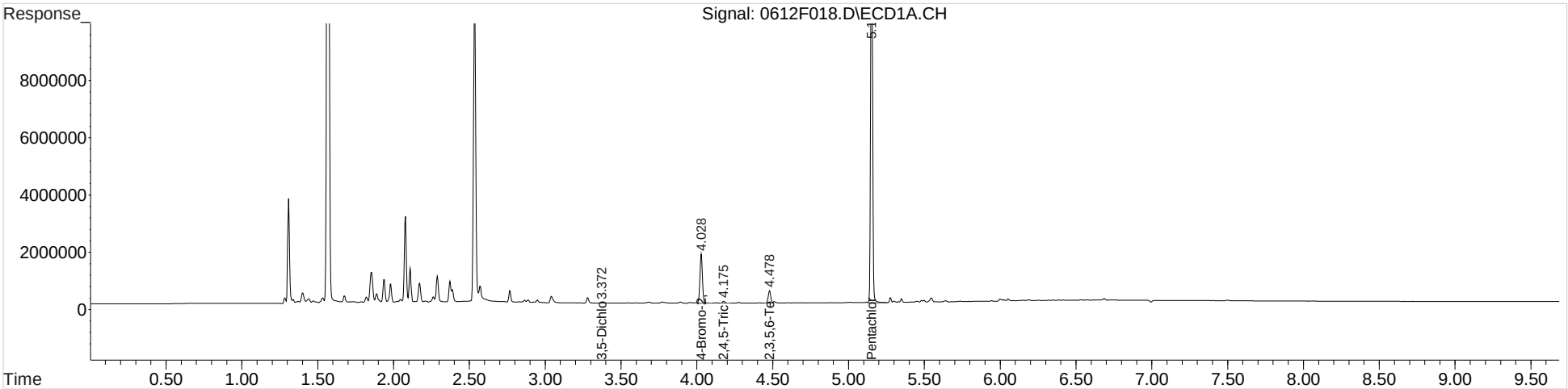
1st MC 06/13/19
2nd TP 06/14/19

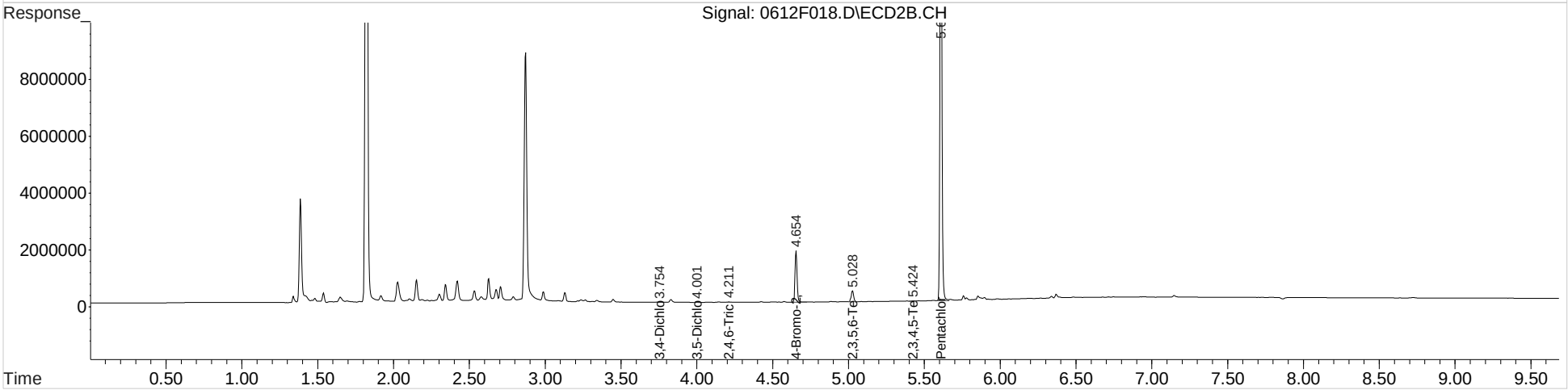
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F018.D Vial: 14
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 2:01 pm Operator: MC
Sample : K1905144-001 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 14:14:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F019.D\
Lab ID: K1905144-002
RunType: N/A
Matrix: Water

Date Acquired: 6/12/19 14:19:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - Rtx-35	4-Bromo-2,6-dichlorophenol	-23		20	RO

Primary Review: _____

Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F019.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 14:19:00	**Vial:**	35
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905144-002	**Raw Units:**	ug/L

Bottle ID:	K1905144-002.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639031	**Prep Lot:**	338124	**Report Group:**	K1905144
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.65	18166507	15974235	52.664	37.891 CCV	105	76	105	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15	5.61	143064581	170960176	336.121	251.223	67	50	**50**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F019.D Vial: 15
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 2:19 pm Operator: MC
Sample : K1905144-002 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 14:31:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.030	4.653	18166507	15974235	52.664	37.891 #
		Target Compounds						
1)		3,4-Dichl...	0.000	3.713	0	2900	N.D.	0.134 #
2)		3,5-Dichl...	3.373	4.003	30550	8914	2.070	0.029 #
3)		2,4,6-Tri...	0.000	4.209	0	129554	N.D. d	0.317
5)		2,4,5-Tri...	4.177	0.000	857970	0	5.284	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	4.480	5.026	4982858	4637455	10.857	7.681 #
8)	M	2,3,4,5-T...	0.000	5.426	0	145944	N.D. d	0.351
9)	M	Pentachlo...	5.153	5.609	143.1E6	171.0E6	336.121	251.223 #
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

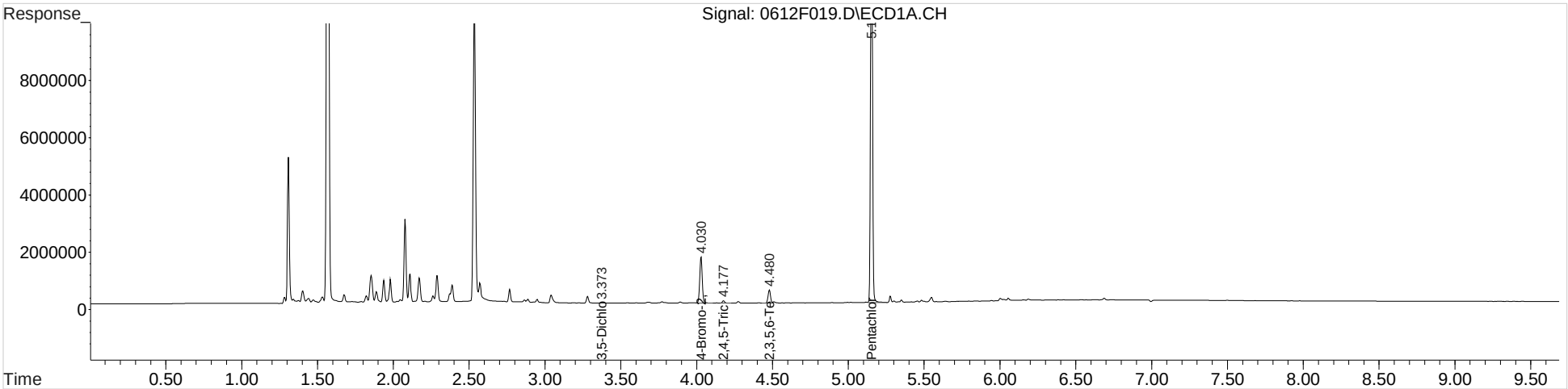
1st MC 06/13/19
2nd TP 06/14/19

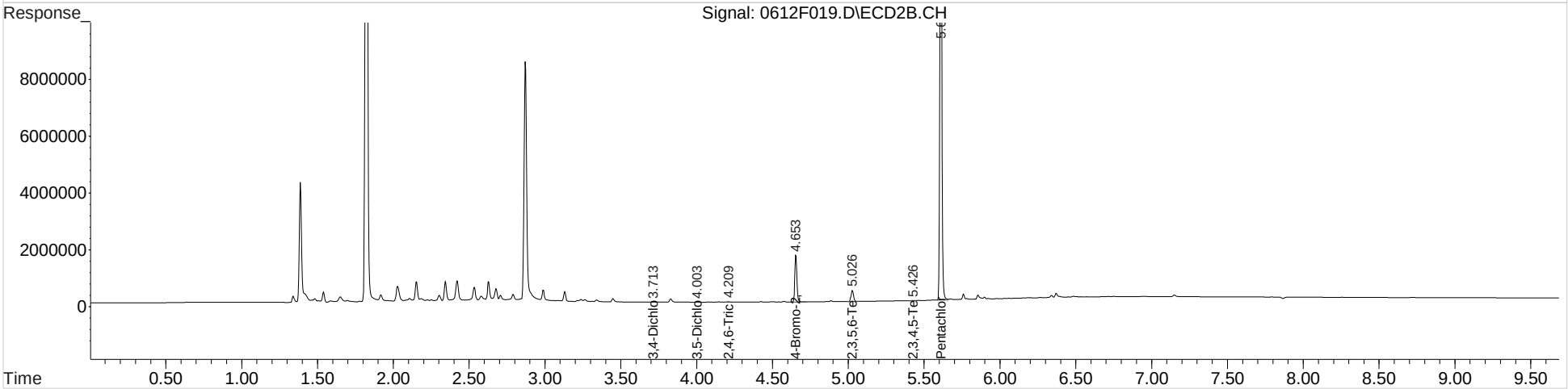
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F019.D Vial: 15
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 2:19 pm Operator: MC
Sample : K1905144-002 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 14:31:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F016.D\
Lab ID: KQ1907798-04
RunType: MB
Matrix: Ground Water

Date Acquired: 6/12/19 13:26:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - Rtx-35	4-Bromo-2,6-dichlorophenol	-23		20	RO

Primary Review: _____

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Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F016.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 13:26:00	**Vial:**	44
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1907798-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	II	**Matrix:**	Ground Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**	338124	**Report Group:**	KQ1907798
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.65	20055344	17959168	58.300	42.600^{CCV}	117	85	117	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.59 $^{-0.02}$	0	9985	0.000	0.015	0U	0.0030U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 1:26 pm Operator: MC
Sample : KQ1907798-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:41:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.026	4.652	20055344	17959168	58.300	42.600 #
	Target Compounds						
1)	3,4-Dichl...	0.000	3.752	0	37378	N.D.	1.723 #
2)	3,5-Dichl...	3.343	3.995	24584	14266	1.534	0.368 #
3)	2,4,6-Tri...	0.000	4.209	0	73964	N.D. d	0.181
5)	2,4,5-Tri...	4.176	0.000	713713	0	4.241	N.D. d#
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	0.000	5.012	0	271181	N.D. d	0.449
8) M	2,3,4,5-T...	0.000	5.375f	0	12244	N.D. d	0.029
9) M	Pentachlo...	0.000	5.585	0	9985	N.D. d	0.015
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

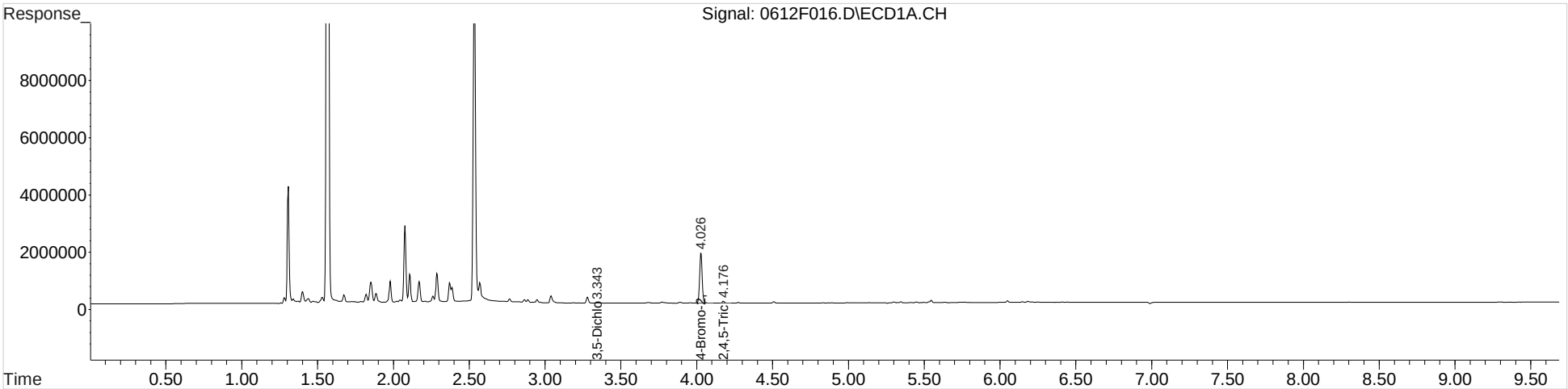
1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 1:26 pm Operator: MC
Sample : KQ1907798-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:41:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F017.D\
Lab ID: KQ1907798-03
RunType: LCS
Matrix: Ground Water

Date Acquired: 6/12/19 13:43:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - Rtx-35	4-Bromo-2,6-dichlorophenol	-23		20	RO

Primary Review: _____

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Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F017.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 13:43:00	**Vial:**	43
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1907798-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	II	**Matrix:**	Ground Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**	338124	**Report Group:**	KQ1907798
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.65	19058086	17048588	55.323	40.440[CCV]	111	81	111	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15	5.61	20673717	21980398	44.712	32.300	8.94	6.46	**6.46**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F017.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 1:43 pm Operator: MC
Sample : KQ1907798-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:58:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.028	4.654	19058086	17048588	55.323	40.440	#
		Target Compounds							
1)		3,4-Dichl...	0.000	3.744	0	543401	N.D.	25.050	#
2)		3,5-Dichl...	3.362	3.998	28980	232708	1.929	14.408	#
3)		2,4,6-Tri...	3.475	4.211	11351641	11619438	36.598	28.466	
5)		2,4,5-Tri...	4.198	4.721	5656827	4907382	41.370	27.325	#
6)		3,4,5-Tri...	4.228	4.784	4426548	4346233	30.374	25.271	
7)	M	2,3,5,6-T...	4.475	5.018	17583281	19530407	40.658	32.349	
8)	M	2,3,4,5-T...	5.015	5.421	12276635	12568897	40.121	30.220	
9)	M	Pentachlo...	5.152	5.608	20673717	21980398	44.712	32.300	#
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

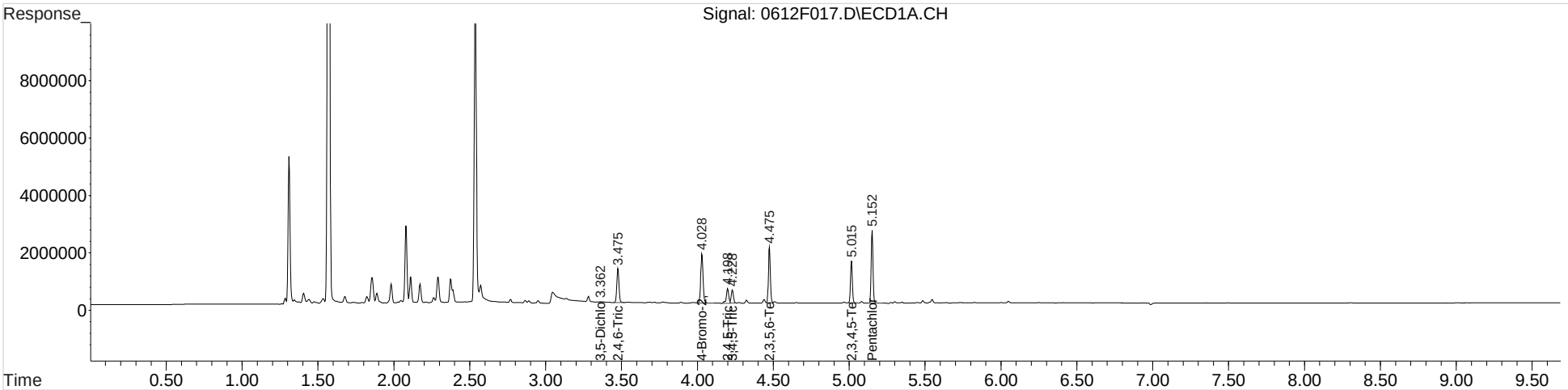
1st MC 06/13/19
2nd TP 06/14/19

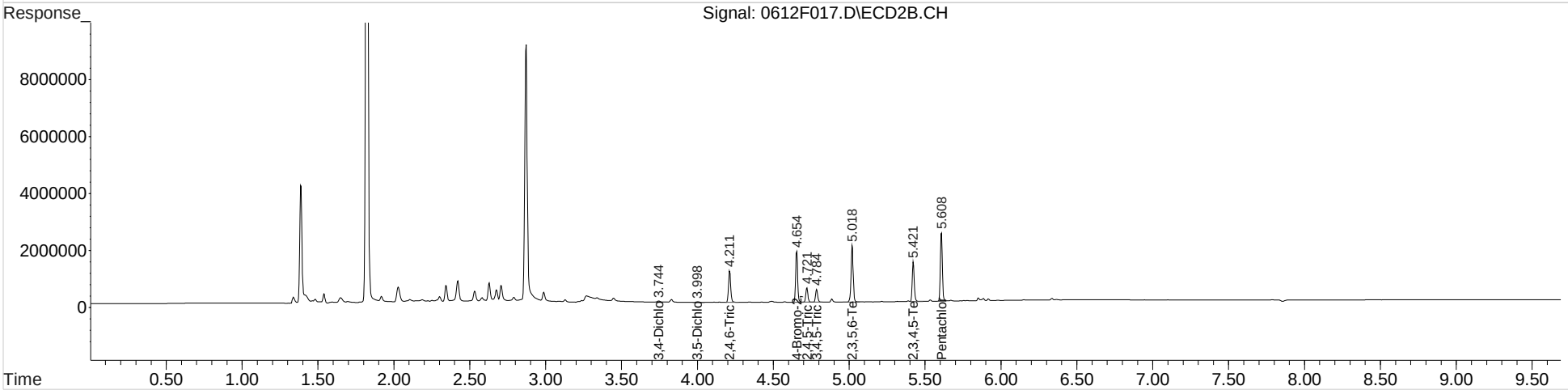
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F017.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 1:43 pm Operator: MC
Sample : KQ1907798-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:58:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F004.D\
Lab ID: KQ1908184-06
RunType: CCB
Matrix: Water

Date Acquired: 6/12/19 09:55:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F004.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 09:55:00	**Vial:**	6
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908184-06	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	0.00	0	0	0.000	0.000				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.59	0	352281	0.000	0.518	0U	0.10J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 9:55 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 11:53:30 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D. d	N.D.
		Target Compounds						
1)		3,4-Dichl...	0.000	3.762f	0	52437	N.D.	2.417 #
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
3)		2,4,6-Tri...	0.000	4.248f	0	3030	N.D. d	0.007
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.032	0	99091	N.D. d	0.164
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	5.592	0	352281	N.D. d	0.518
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

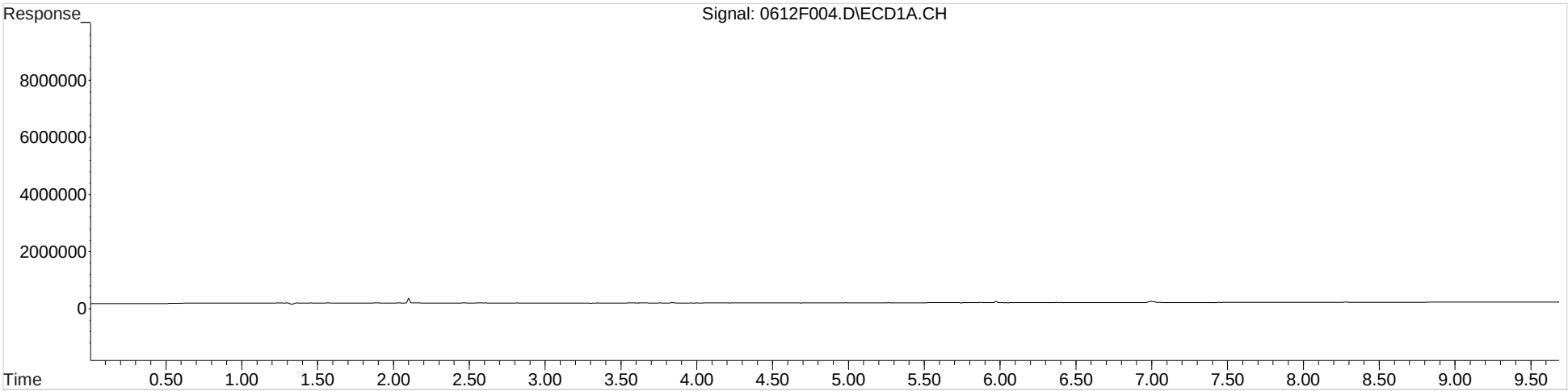
1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 9:55 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 11:53:30 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F015.D\
Lab ID: KQ1908184-07
RunType: CCB
Matrix: Water

Date Acquired: 6/12/19 13:08:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - Rtx-35	4-Bromo-2,6-dichlorophenol	-23		20	RO

Primary Review: _____

Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F015.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 13:08:00	**Vial:**	7
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908184-07	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.67 +0.02	0	4616	0.000	0.011 CCV				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.60 -0.01	0	337452	0.000	0.496	0U	0.099J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F015.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 1:08 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:41:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.666	0	4616	N.D. d	0.011
		Target Compounds						
1)		3,4-Dichl...	0.000	3.740	0	24638	N.D.	1.136 #
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.013	0	4680	N.D. d	0.008
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	5.600	0	337452	N.D. d	0.496
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

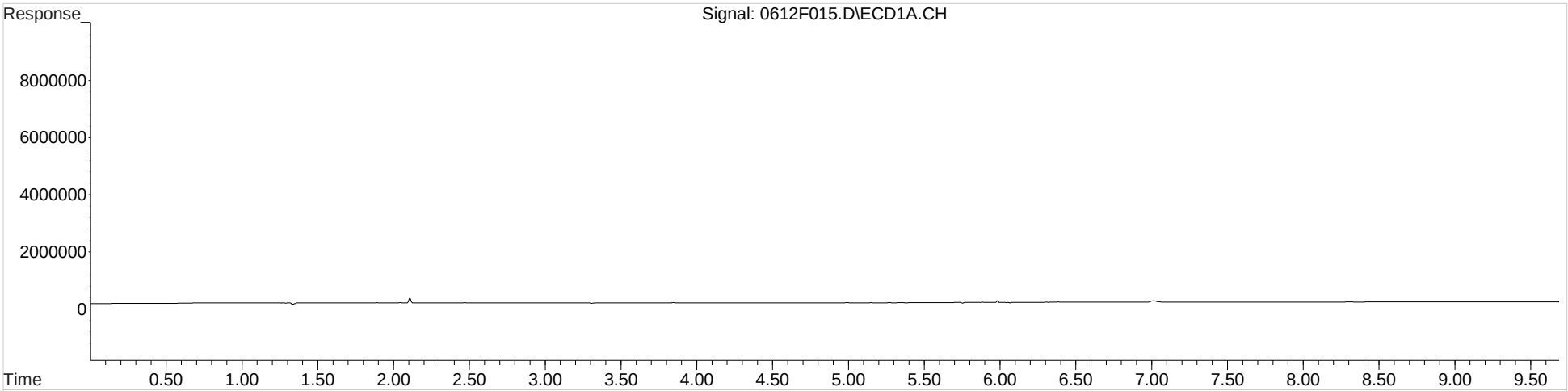
1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F015.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 1:08 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:41:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F029.D\
Lab ID: KQ1908184-08
RunType: CCB
Matrix: Water

Date Acquired: 6/12/19 17:18:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - Rtx-35	4-Bromo-2,6-dichlorophenol	-23		20	RO

Primary Review: _____

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Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F029.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 17:18:00	**Vial:**	8
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908184-08	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	0.00	0	0	0.000	0.000 CCV				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.35 U	Y
3,5-Dichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.65 U	Y
2,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.16 U	Y
2,4,6-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.042 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.15 U	Y
2,3,4,5-Tetrachlorophenol	0.00	5.40 -0.02	0	3795	0.000	0.009	0U	0.0018U	0.042 U	Y
2,3,5,6-Tetrachlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.032 U	Y
Pentachlorophenol (PCP)	0.00	5.61	0	41874	0.000	0.062	0U	0.012U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F029.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:18 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D.	N.D.
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D.
8)	M	2,3,4,5-T...	0.000	5.399	0	3795	N.D. d	0.009
9)	M	Pentachlo...	0.000	5.609	0	41874	N.D. d	0.062
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

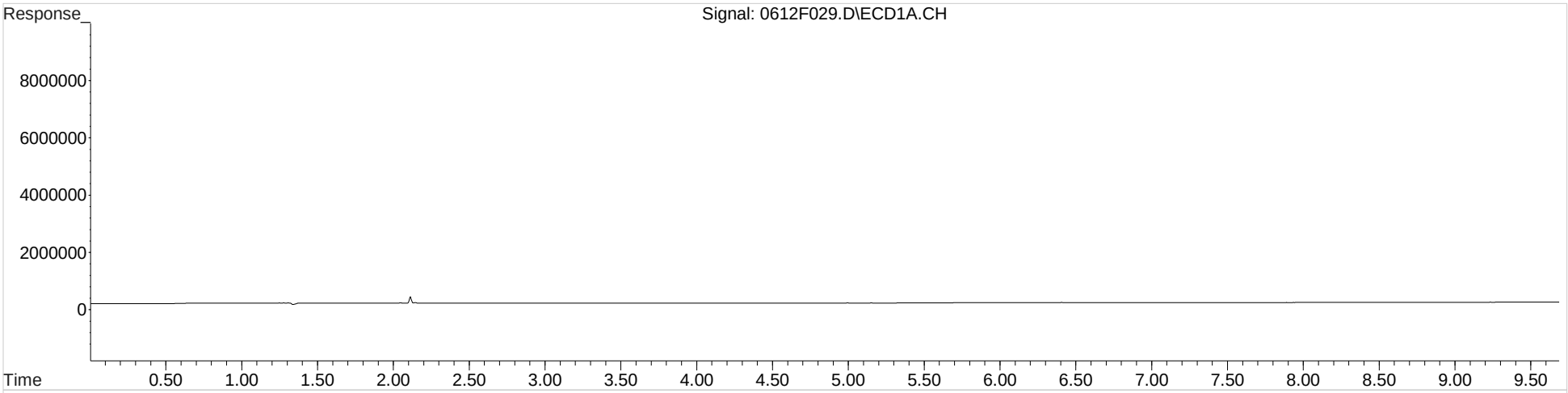
1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F029.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:18 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F043.D\
Lab ID: KQ1908184-09
RunType: CCB
Matrix: Water

Date Acquired: 6/12/19 21:27:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F043.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 21:27:00	**Vial:**	9
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908184-09	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.66 +0.01	0	50366	0.000	0.119				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	3.09 -0.04	0.00	40196	0	1.978	0.000	0.40J	0U	0.35 U	Y
3,5-Dichlorophenol	3.35 -0.02	3.94 -0.05	38702	12197	2.804	0.237	0.56U	0.047U	0.65 U	Y
2,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.16 U	Y
2,4,6-Trichlorophenol	0.00	4.23 +0.02	0	26026	0.000	0.064	0U	0.013U	0.042 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.15 U	Y
2,3,4,5-Tetrachlorophenol	0.00	5.41 -0.01	0	97502	0.000	0.234	0U	0.047J	0.042 U	Y
2,3,5,6-Tetrachlorophenol	0.00	5.00 -0.02	0	54490	0.000	0.090	0U	0.018U	0.032 U	Y
Pentachlorophenol (PCP)	0.00	5.59 -0.01	0	28313	0.000	0.042	0U	0.0084U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F043.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 9:27 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:49:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	0.000	4.663	0	50366	N.D. d	0.119
	Target Compounds						
1)	3,4-Dichl...	3.094f	0.000	40196	0	1.978	N.D. #
2)	3,5-Dichl...	3.350	3.943f	38702	12197	2.804	0.237 #
3)	2,4,6-Tri...	0.000	4.230f	0	26026	N.D. d	0.064
5)	2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	0.000	5.000	0	54490	N.D. d	0.090
8) M	2,3,4,5-T...	0.000	5.413	0	97502	N.D. d	0.234
9) M	Pentachlo...	0.000	5.593	0	28313	N.D. d	0.042
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

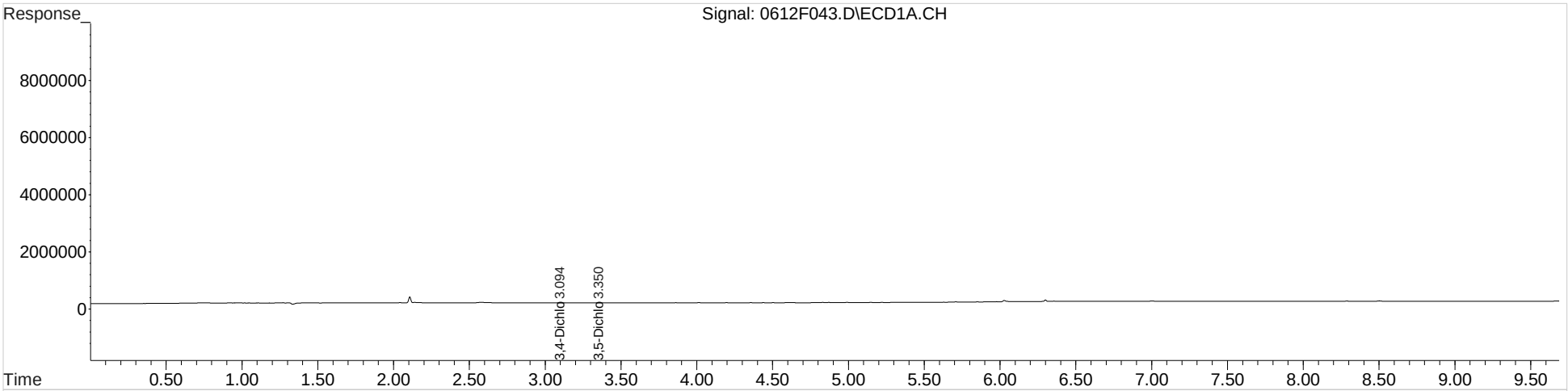
1st MC 06/13/19
2nd TP 06/14/19

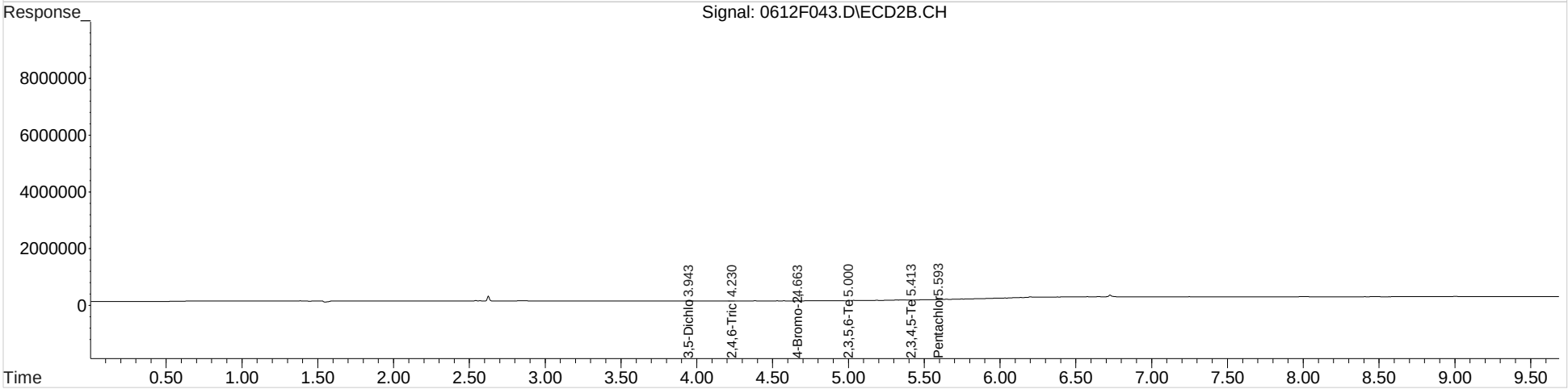
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F043.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 9:27 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:49:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F048.D\
Lab ID: KQ1908184-10
RunType: CCB
Matrix: Water

Date Acquired: 6/12/19 22:55:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F048.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 22:55:00	**Vial:**	10
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908184-10	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.64 -0.01	0	4830	0.000	0.011				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.35 U	Y
3,5-Dichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.65 U	Y
2,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.16 U	Y
2,4,6-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.042 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.15 U	Y
2,3,4,5-Tetrachlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.042 U	Y
2,3,5,6-Tetrachlorophenol	0.00	5.00 -0.01	0	5937	0.000	0.010	0U	0.0020U	0.032 U	Y
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F048.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:55 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:54:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.636	0	4830	N.D. d	0.011
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D.	N.D.
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.000	0	5937	N.D. d	0.010
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

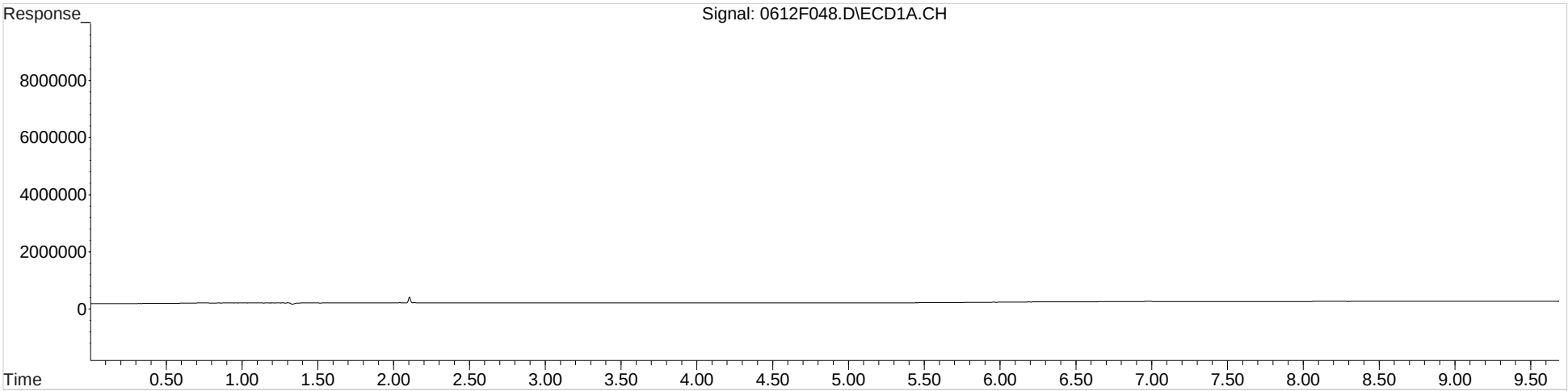
1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F048.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:55 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:54:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F014.D\
Lab ID: KQ1908184-02
RunType: CCV
Matrix: Water

Date Acquired: 6/12/19 12:50:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F014.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 12:50:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908184-02	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.65	19205134	17568633	55.762	41.673			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.15	5.61	25808860	28296167	56.195	41.581	56.2	41.6	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F014.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 12:50 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:40:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.027	4.650	19205134	17568633	55.762	41.673 #
		Target Compounds						
1)		3,4-Dichl...	3.134	3.740	808064	978982	52.926	45.130
2)		3,5-Dichl...	3.374	3.993	491744	634979	46.103m	41.303
3)		2,4,6-Tri...	3.471	4.210	16303776	16781828	53.587	41.113
5)		2,4,5-Tri...	4.197	4.720	7186574	7533711	53.518	42.542
6)		3,4,5-Tri...	4.227	4.783	7216712	7200518	51.146	42.497
7)	M	2,3,5,6-T...	4.471	5.017	23075022	25218337	54.081	41.770
8)	M	2,3,4,5-T...	5.014	5.420	15918542	16699781	53.003	40.152
9)	M	Pentachlo...	5.151	5.607	25808860	28296167	56.195	41.581 #
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

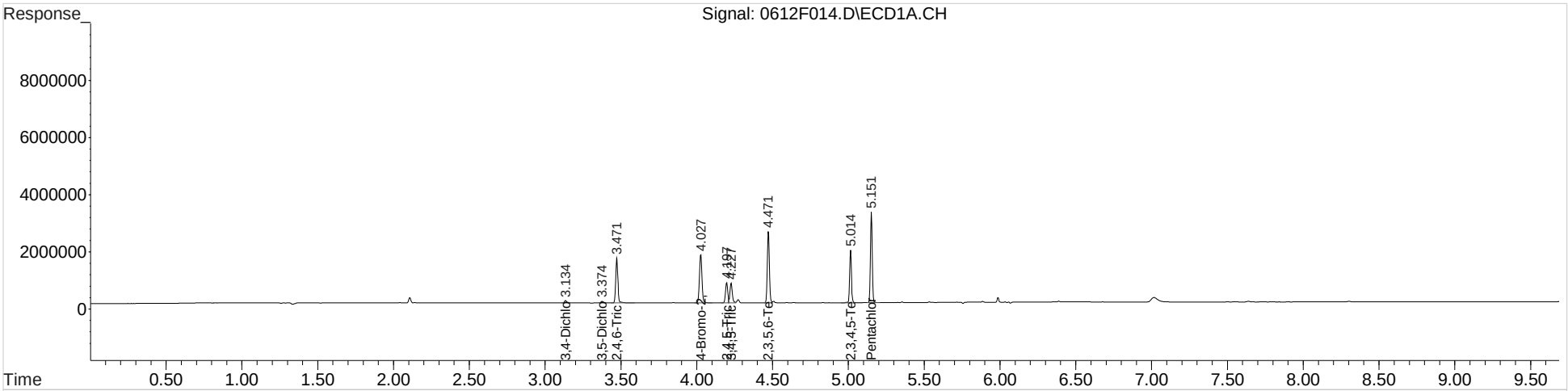
1st MC 06/13/19
2nd TP 06/14/19

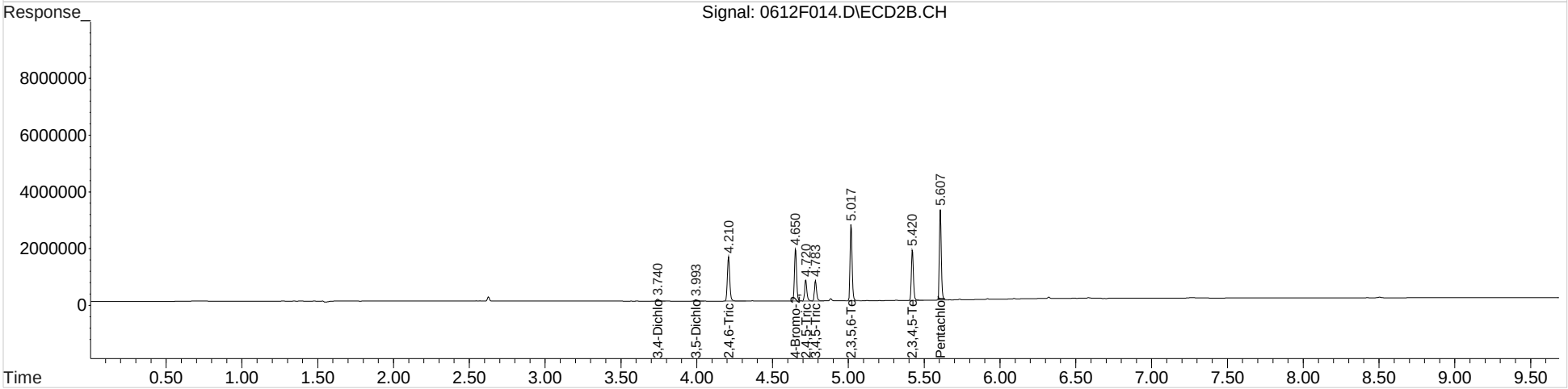
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F014.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 12:50 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:40:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





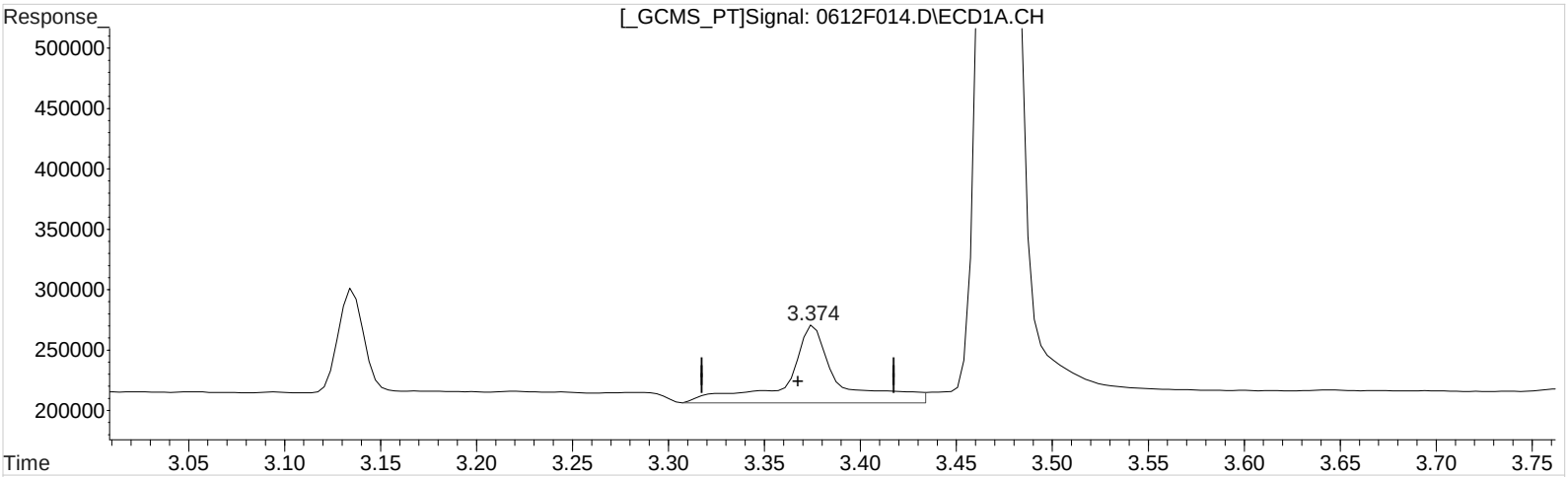
Quantitation Report (Qedit)

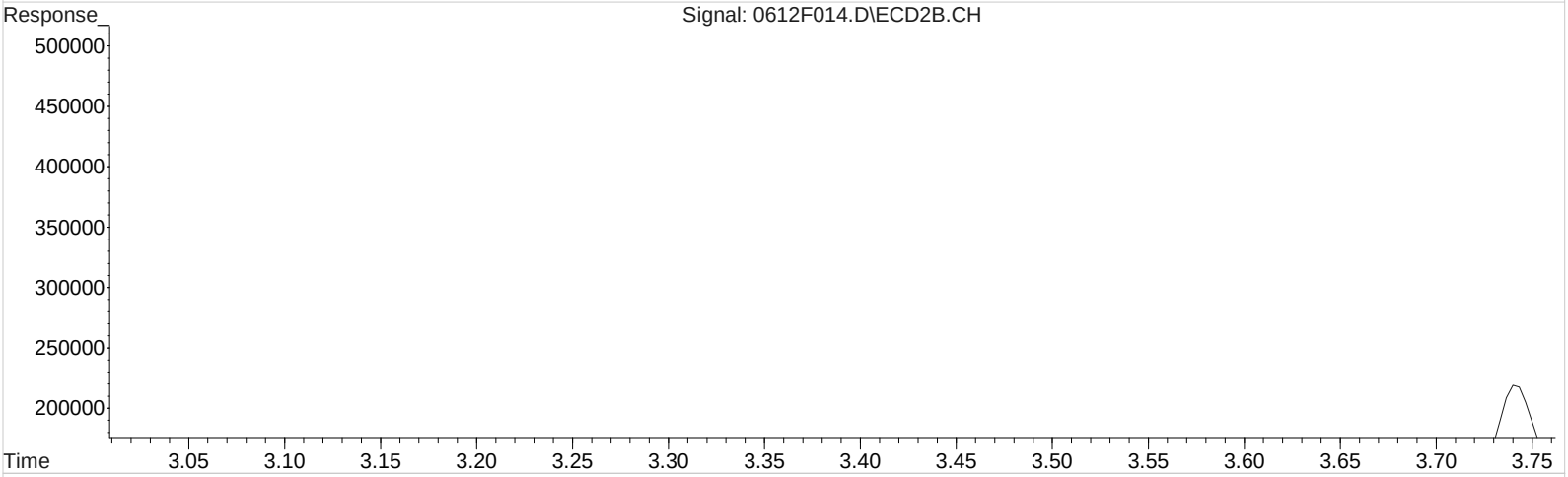
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F014.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 12:50 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:39:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.374min 125.762 ug/L

response 1182064

Manual Integration:

Before

06/12/19

(2) 3,5-Dichlorophenol #2

3.993min 41.303 ug/L

response 634979

(+) = Expected Retention Time

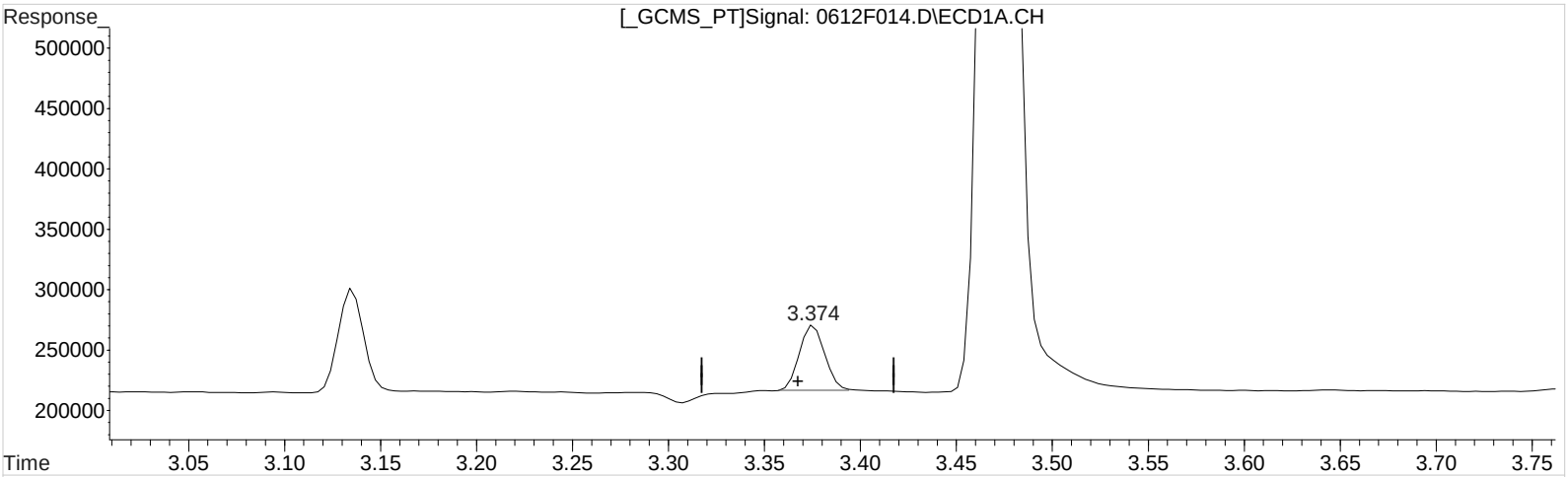
Quantitation Report (Qedit)

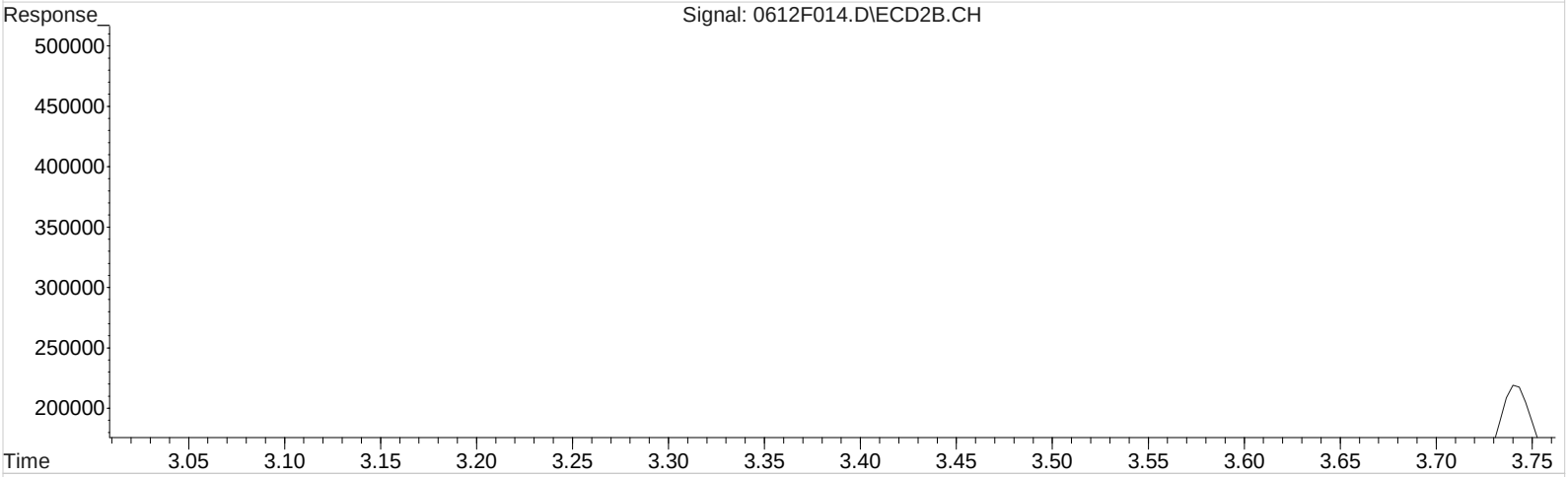
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F014.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 12:50 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:39:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.374min 46.103 ug/L m

response 491744

Manual Integration:

After

Baseline/Shoulder

06/12/19

(2) 3,5-Dichlorophenol #2

3.993min 41.303 ug/L

response 634979

(+) = Expected Retention Time

1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F028.D\
Lab ID: KQ1908184-03
RunType: CCV
Matrix: Water

Date Acquired: 6/12/19 17:00:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F028.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 17:00:00	**Vial:**	3
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908184-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.66	19602746	16253579	56.948	38.554 RO			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
3,4-Dichlorophenol	3.14	3.75	824338	838501	54.067	38.654	54.1	38.7	Y
3,5-Dichlorophenol	3.38	4.00	566386	608717	53.784	39.503	53.8	39.5	Y
2,4,5-Trichlorophenol	4.20	4.72	7412494	7109769	55.341	40.073	55.3	40.1	Y
2,4,6-Trichlorophenol	3.48	4.22	16579017	15680612	54.546	38.415	54.5	38.4	Y
3,4,5-Trichlorophenol	4.23	4.79	7572356	6819577	53.873	40.184	53.9	40.2	Y
2,3,4,5-Tetrachlorophenol	5.02	5.42	15491268	15656856	51.475	37.645	51.5	37.6	Y
2,3,5,6-Tetrachlorophenol	4.48	5.02	23554944	23463807	55.268	38.864	55.3	38.9	Y
Pentachlorophenol (PCP)	5.15	5.61	26115942	26168171	56.883	38.454	56.9	38.5	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:40:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.033	4.656	19602746	16253579	56.948	38.554	#
		Target Compounds							
1)		3,4-Dichl...	3.140	3.749	824338	838501	54.067m	38.654	#
2)		3,5-Dichl...	3.380	4.002	566386	608717	53.784m	39.503	#
3)		2,4,6-Tri...	3.476	4.216	16579017	15680612	54.546	38.415	#
5)		2,4,5-Tri...	4.200	4.722	7412494	7109769	55.341	40.073	#
6)		3,4,5-Tri...	4.233	4.789	7572356	6819577	53.873	40.184	#
7)	M	2,3,5,6-T...	4.476	5.022	23554944	23463807	55.268	38.864	#
8)	M	2,3,4,5-T...	5.016	5.422	15491268	15656856	51.475m	37.645	#
9)	M	Pentachlo...	5.153	5.606	26115942	26168171	56.883m	38.454	#
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

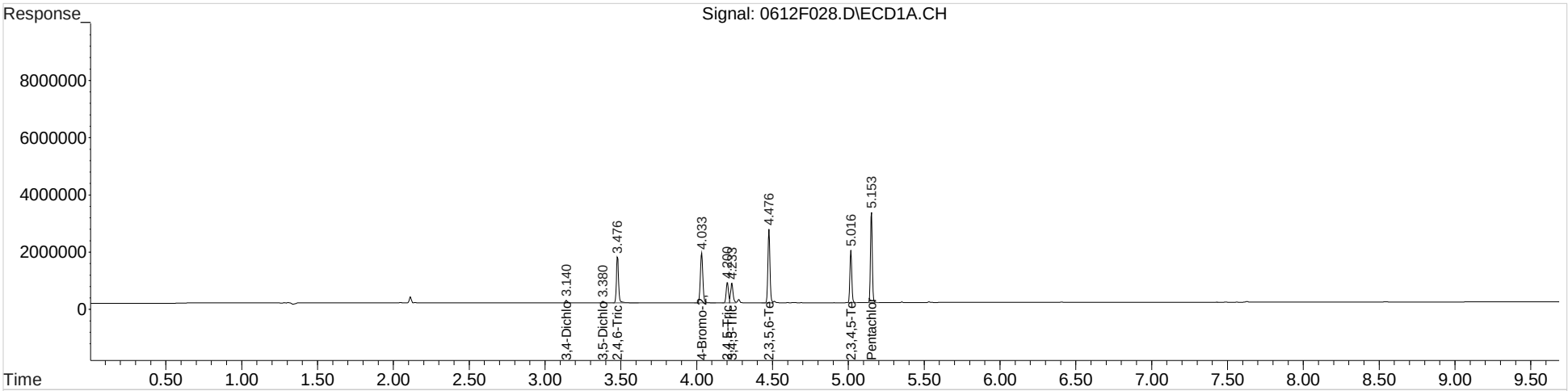
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

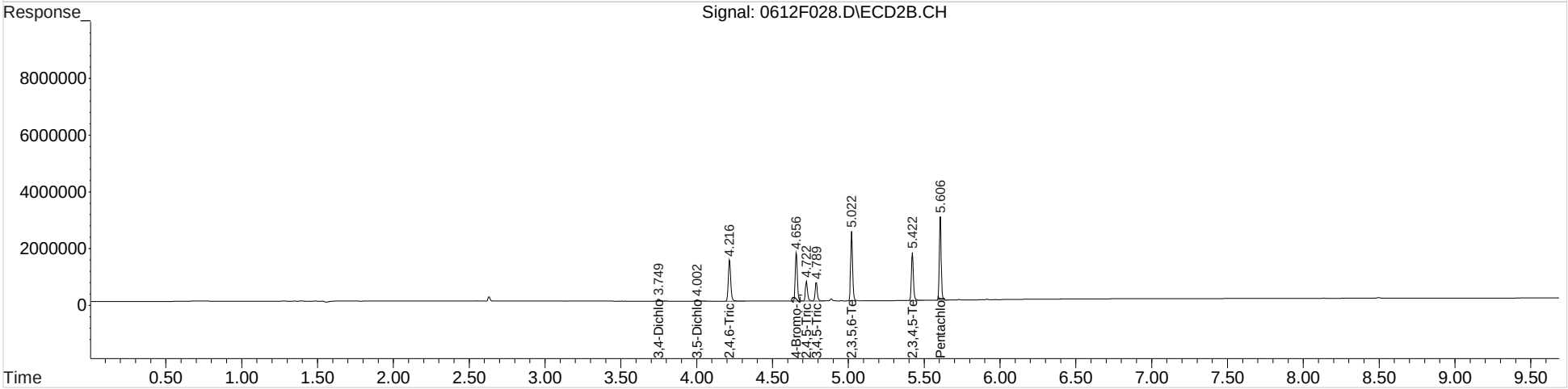
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:40:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





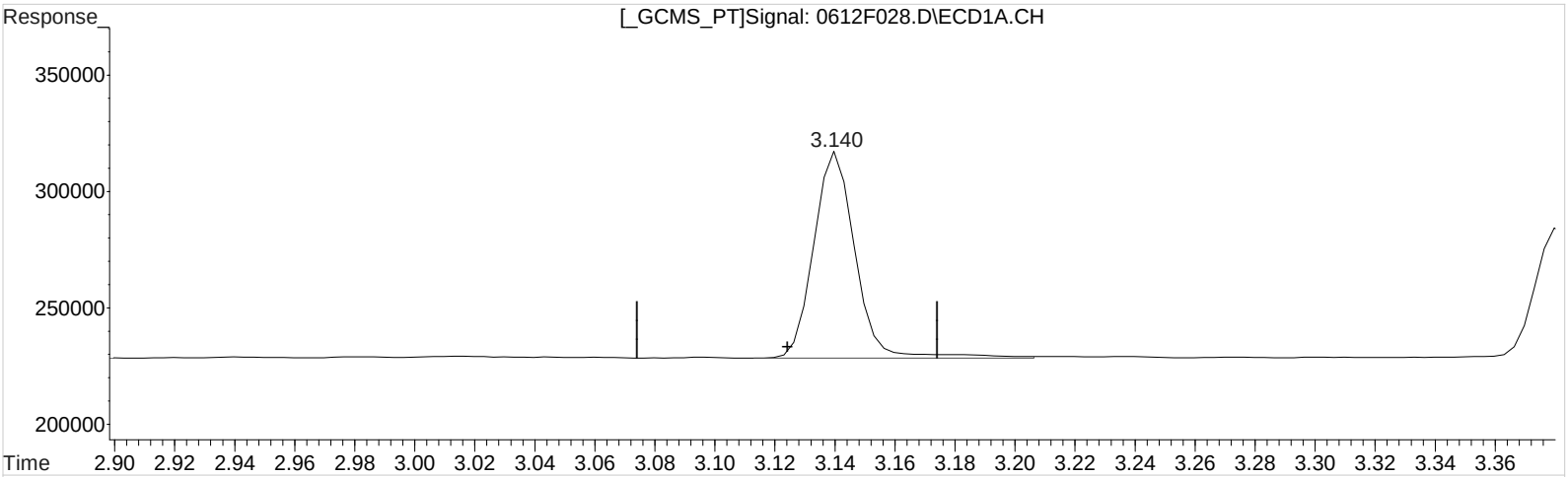
Quantitation Report (Qedit)

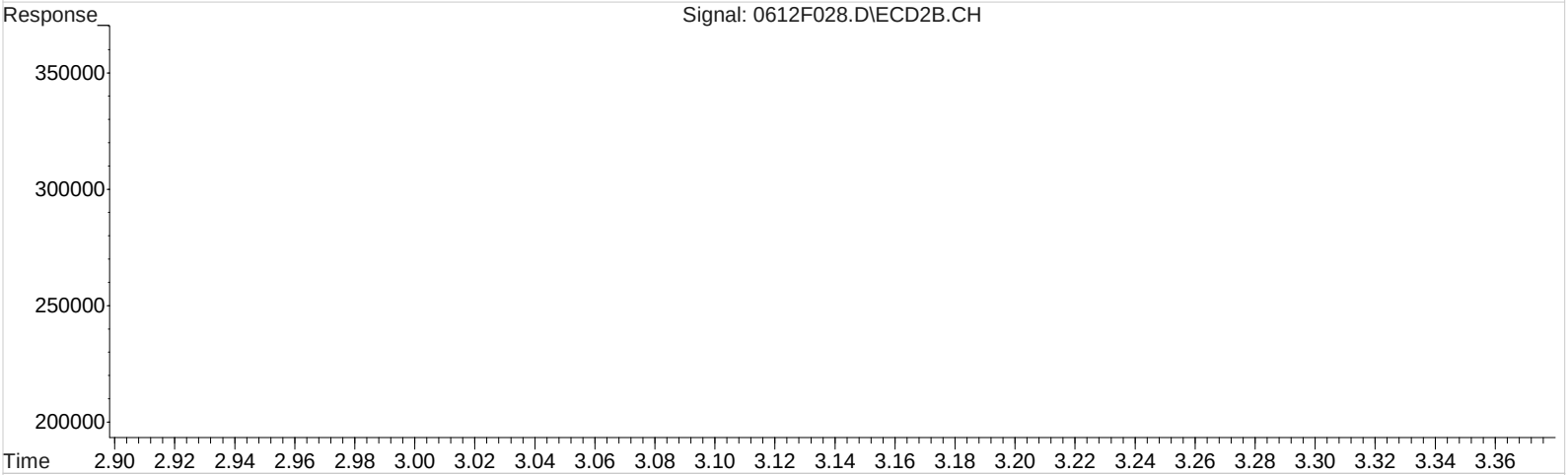
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.140min 56.354 ug/L

response 856844

Manual Integration:

Before

06/13/19

(1) 3,4-Dichlorophenol #2

3.749min 38.654 ug/L

response 838501

(+) = Expected Retention Time

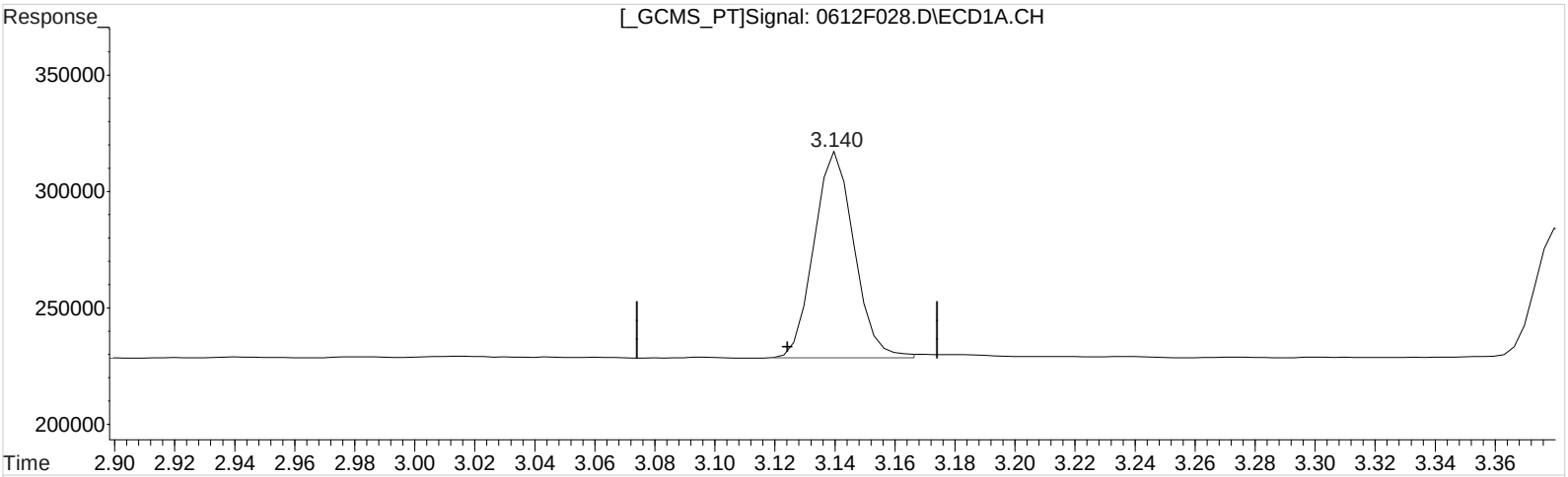
Quantitation Report (Qedit)

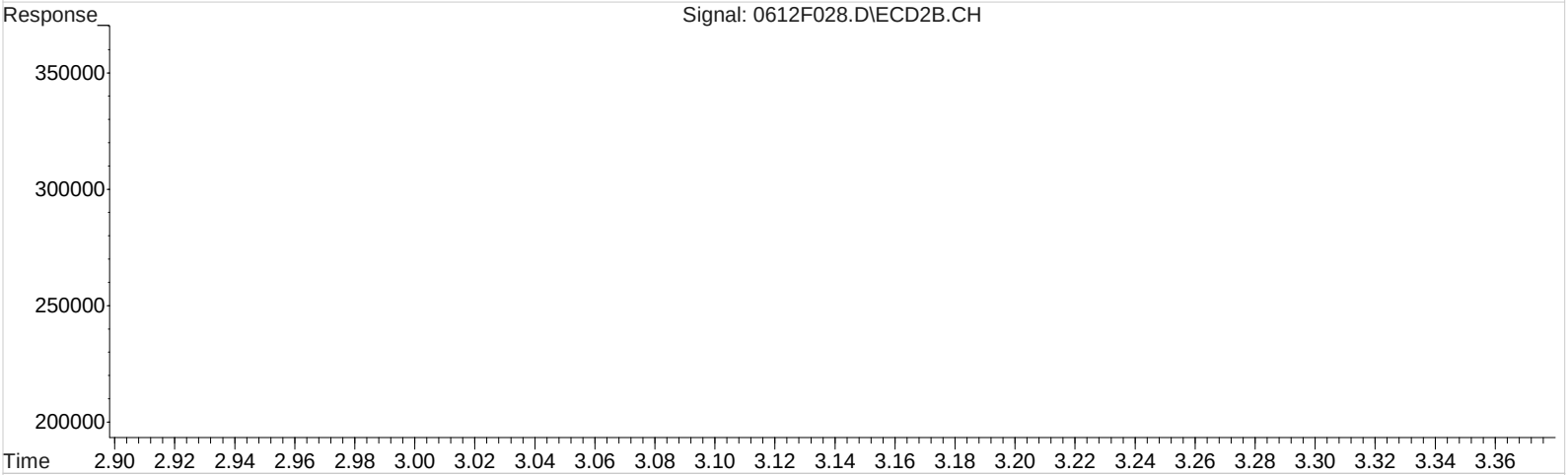
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.140min 54.067 ug/L m

response 824338

Manual Integration:

After

Baseline/Shoulder

06/13/19

(1) 3,4-Dichlorophenol #2

3.749min 38.654 ug/L

response 838501

(+) = Expected Retention Time

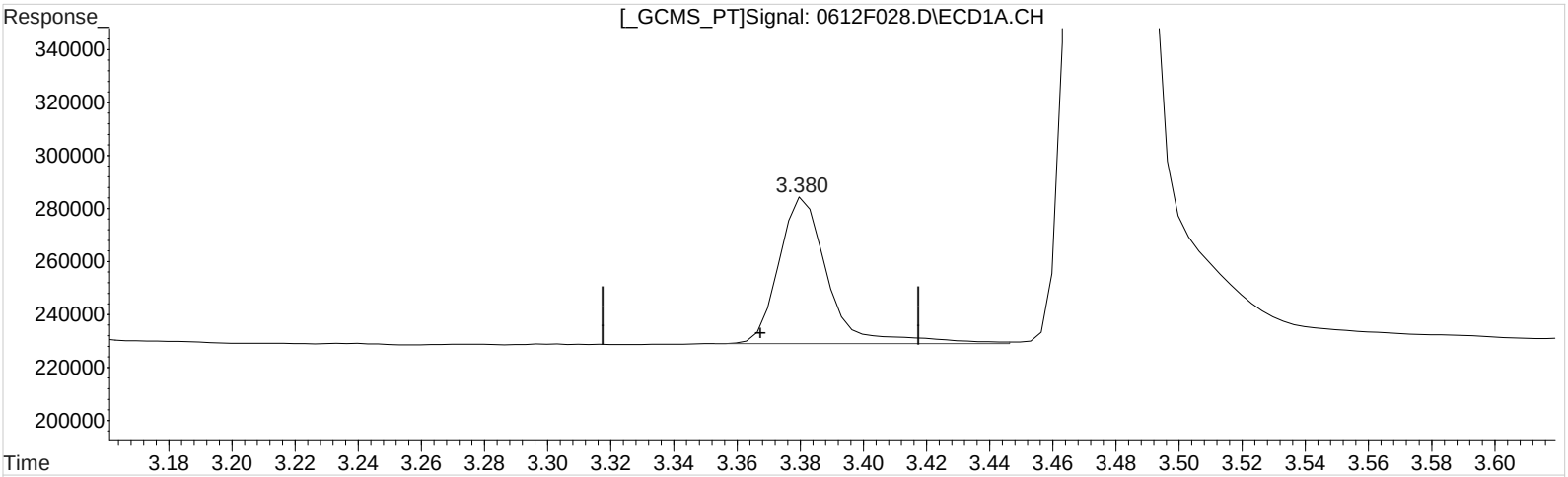
Quantitation Report (Qedit)

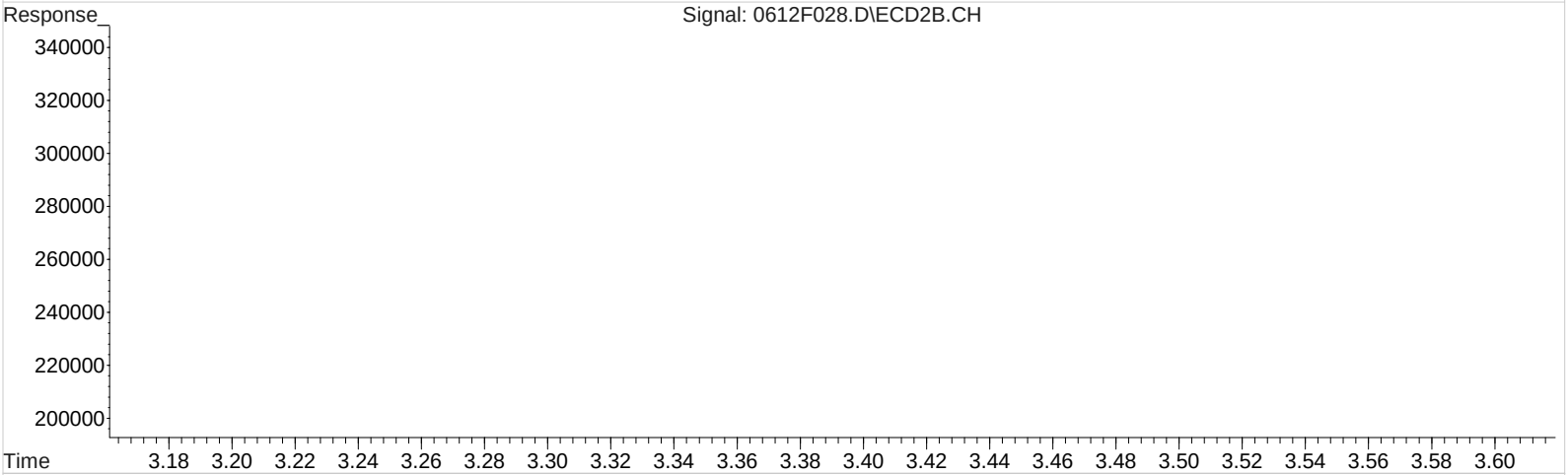
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 56.893 ug/L

response 596112

Manual Integration:

Before

06/13/19

(2) 3,5-Dichlorophenol #2

4.002min 39.503 ug/L

response 608717

(+) = Expected Retention Time

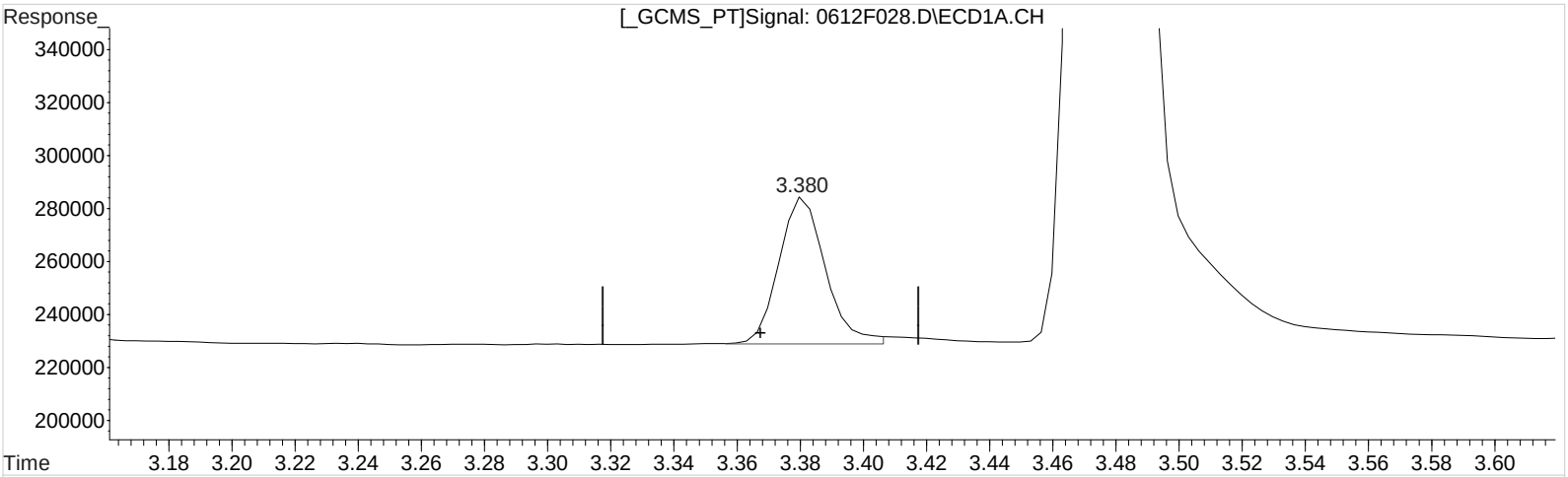
Quantitation Report (Qedit)

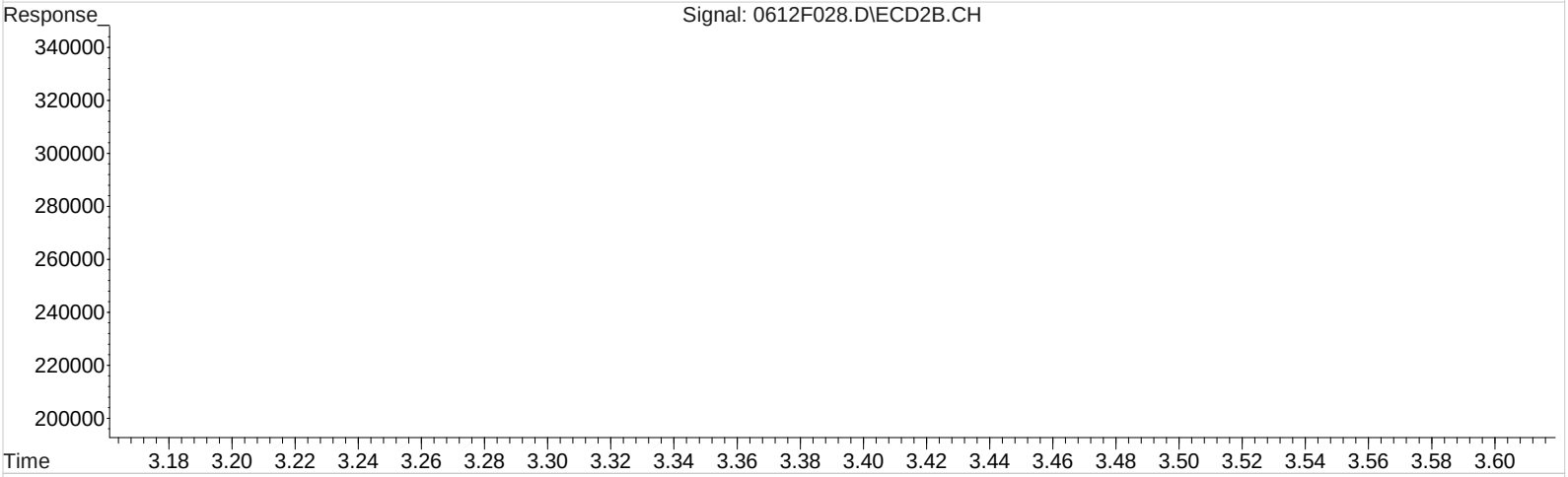
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 53.784 ug/L m

response 566386

Manual Integration:

After

Baseline/Shoulder

06/13/19

(2) 3,5-Dichlorophenol #2

4.002min 39.503 ug/L

response 608717

(+) = Expected Retention Time

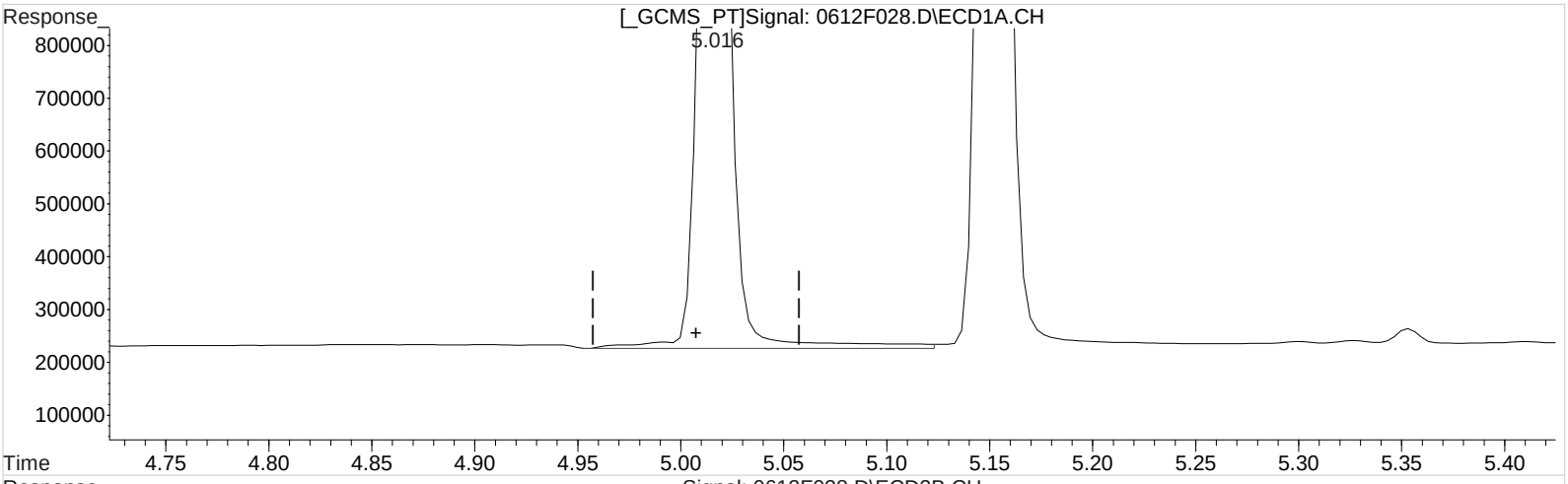
Quantitation Report (Qedit)

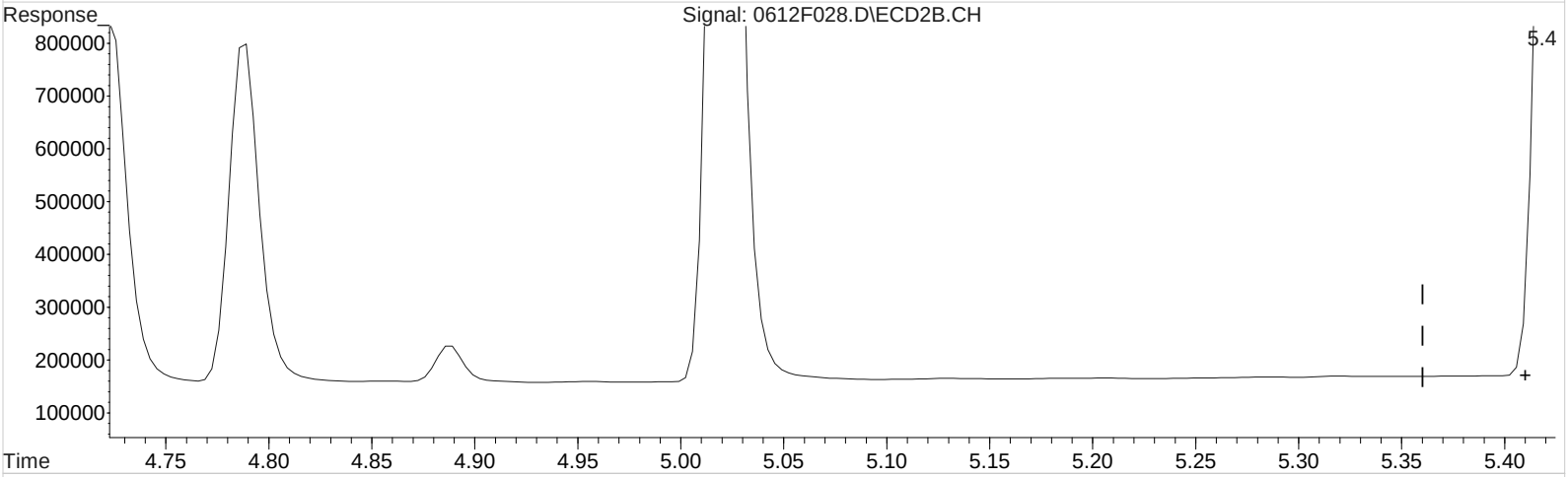
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.016min 54.650 ug/L

response 16377734

Manual Integration:

Before

06/13/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.422min 37.645 ug/L

response 15656856

(+) = Expected Retention Time

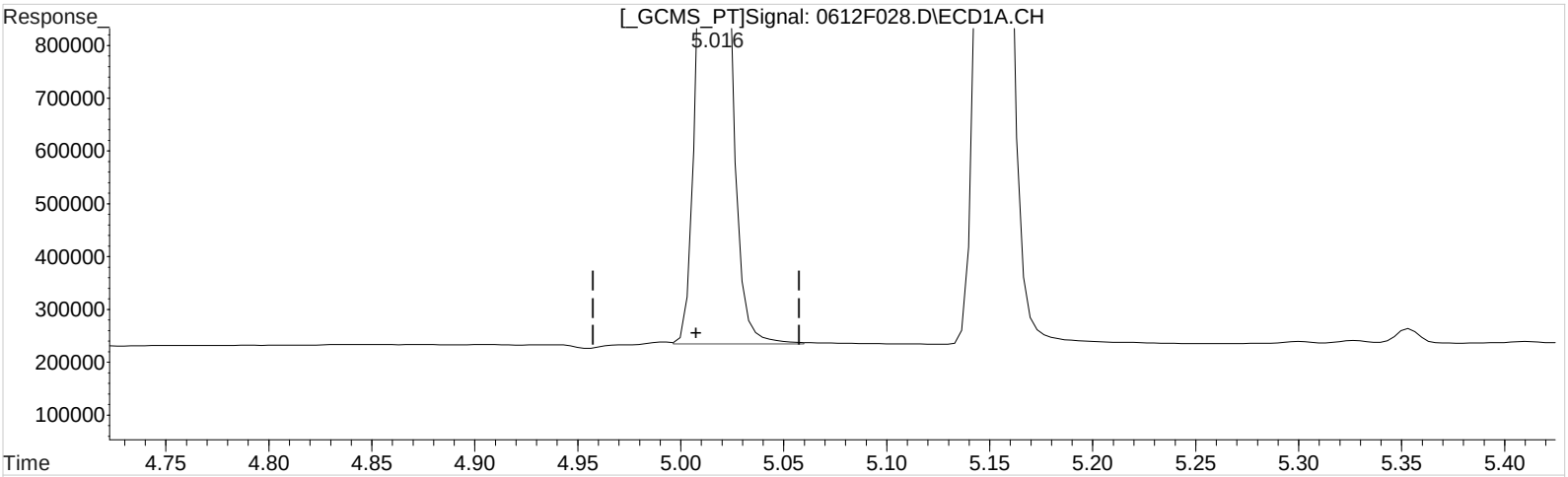
Quantitation Report (Qedit)

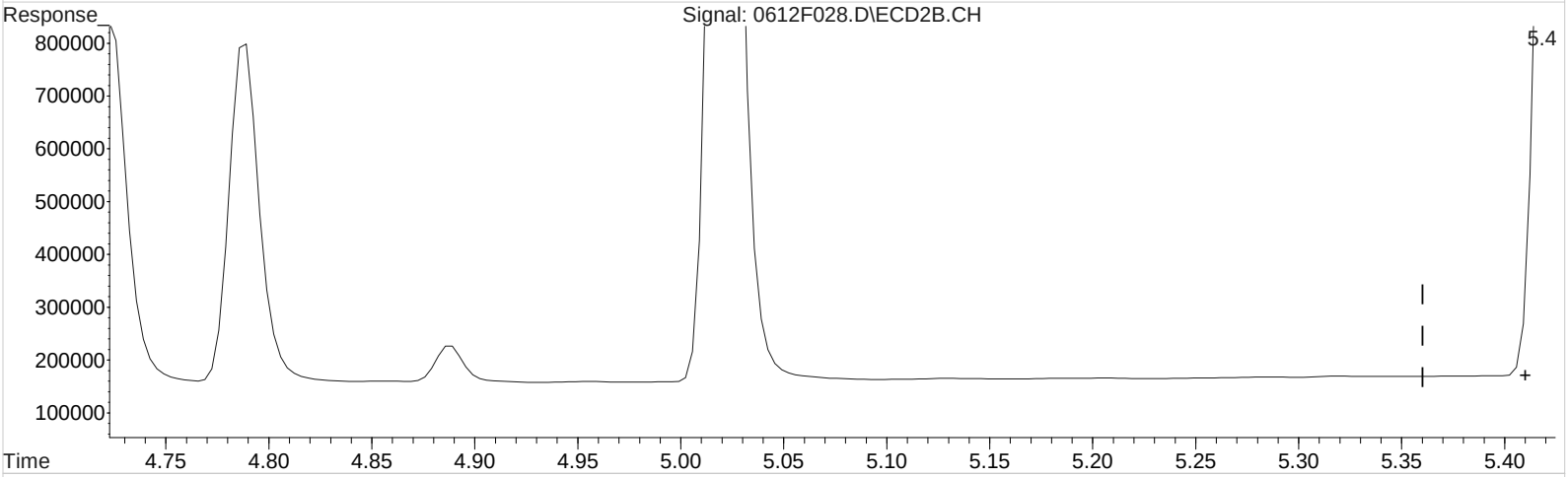
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.016min 51.475 ug/L m

response 15491268

Manual Integration:

After

Baseline/Shoulder

06/13/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.422min 37.645 ug/L

response 15656856

(+) = Expected Retention Time

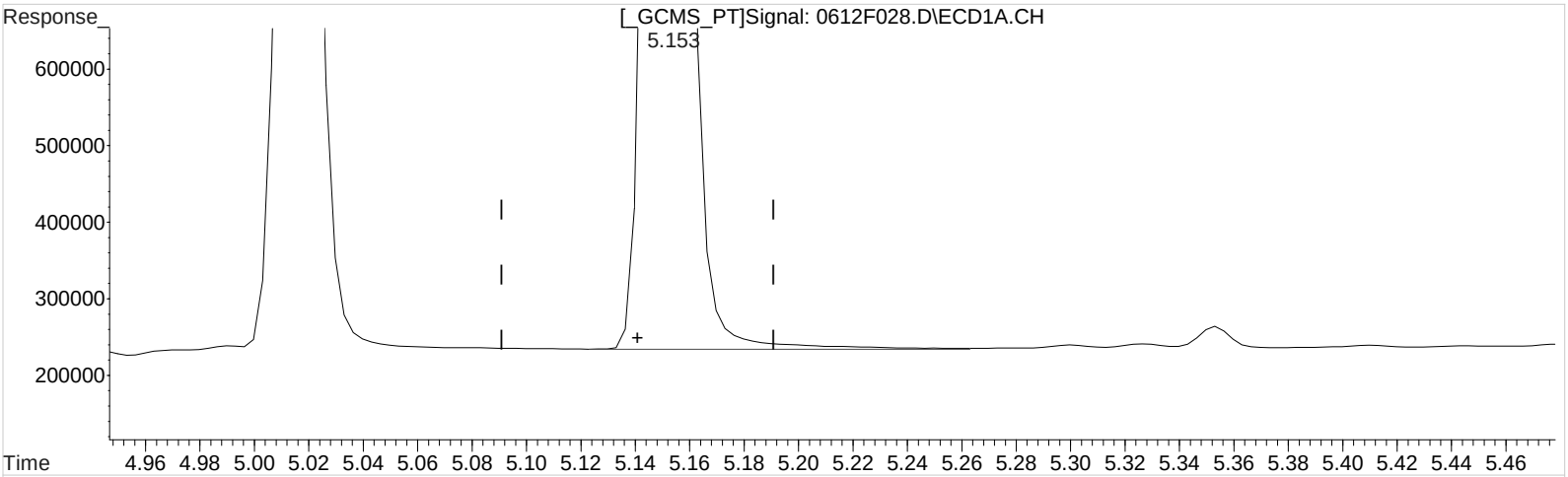
Quantitation Report (Qedit)

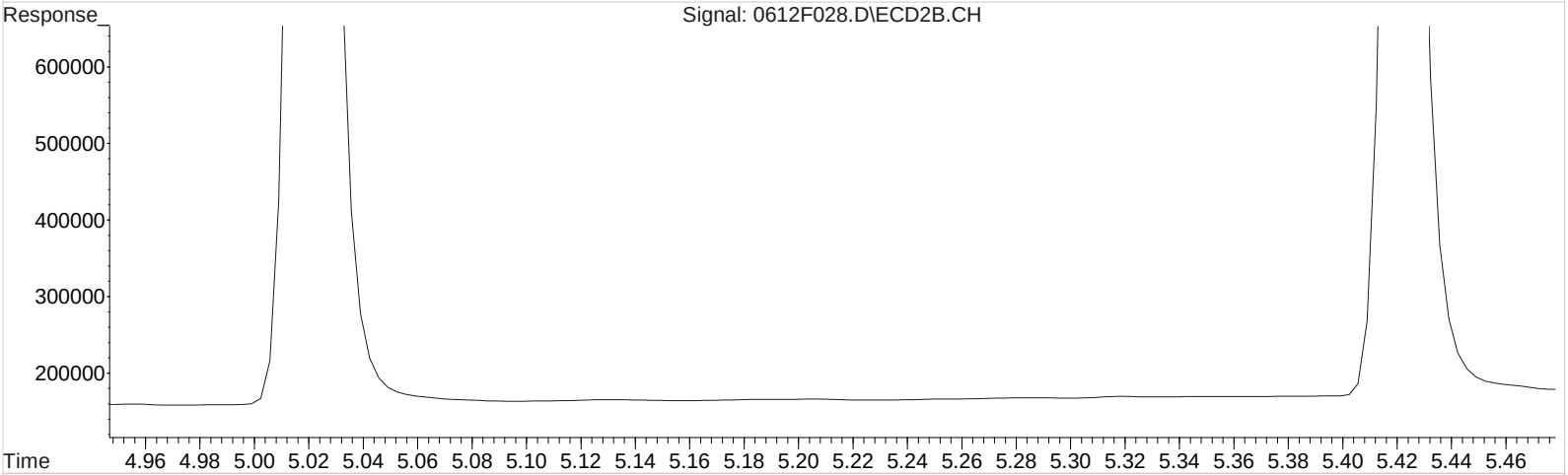
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:01 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.153min 57.115 ug/L

response 26219208

Manual Integration:

Before

06/13/19

(9) Pentachlorophenol #2 (M)

5.606min 38.454 ug/L

response 26168171

(+) = Expected Retention Time

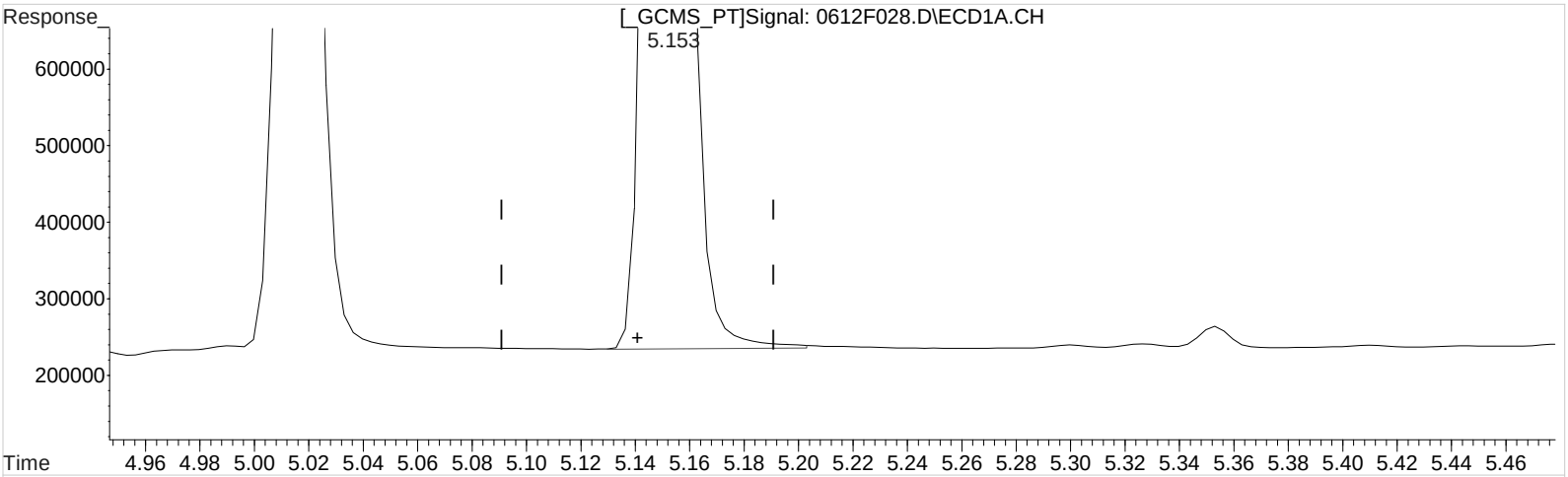
Quantitation Report (Qedit)

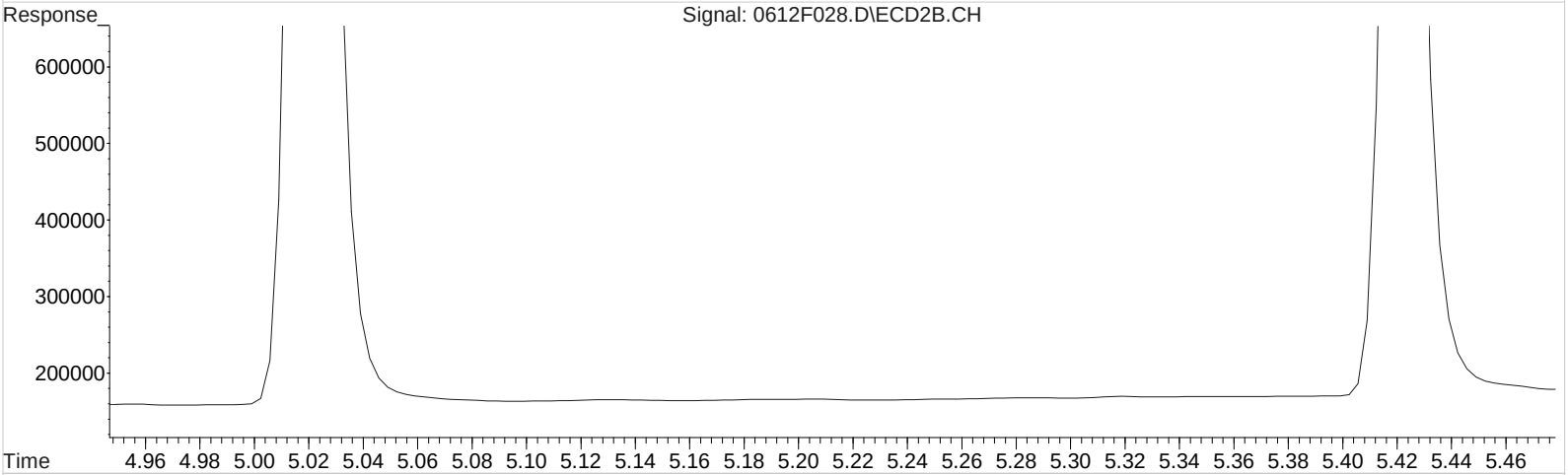
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:01 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.153min 56.883 ug/L m

response 26115942

Manual Integration:

After

Baseline/Shoulder

06/13/19

(9) Pentachlorophenol #2 (M)

5.606min 38.454 ug/L

response 26168171

(+) = Expected Retention Time

1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F047.D\
Lab ID: KQ1908184-05
RunType: CCV
Matrix: Water

Date Acquired: 6/12/19 22:37:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Printed: 6/13/19 11:45
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Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F047.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 22:37:00	**Vial:**	5
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908184-05	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18514495	17599300	53.702	41.746			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
3,4-Dichlorophenol	3.13	3.74	796964	881444	52.150	40.634	52.2	40.6	Y
3,5-Dichlorophenol	3.37	3.99	511968	643092	48.167	41.861	48.2	41.9	Y
2,4,5-Trichlorophenol	4.19	4.72	6881606	7469595	51.069	42.168	51.1	42.2	Y
2,4,6-Trichlorophenol	3.47	4.21	15136318	16824524	49.538	41.218	49.5	41.2	Y
3,4,5-Trichlorophenol	4.23	4.78	6879323	7150154	48.576	42.191	48.6	42.2	Y
2,3,4,5-Tetrachlorophenol	5.01	5.41	14251746	16418826	47.068	39.477	47.1	39.5	Y
2,3,5,6-Tetrachlorophenol	4.47	5.01	21876425	24978546	51.128	41.373	51.1	41.4	Y
Pentachlorophenol (PCP)	5.14	5.59	24556090	27775094	53.388	40.815	53.4	40.8	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/13/19 11:45
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F047.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:37 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:51:00 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.023	4.649	18514495	17599300	53.702	41.746
		Target Compounds						
1)		3,4-Dichl...	3.133	3.739	796964	881444	52.150	40.634
2)		3,5-Dichl...	3.373	3.989	511968	643092	48.167m	41.861
3)		2,4,6-Tri...	3.470	4.206	15136318	16824524	49.538	41.218
5)		2,4,5-Tri...	4.193	4.716	6881606	7469595	51.069	42.168
6)		3,4,5-Tri...	4.227	4.779	6879323	7150154	48.576	42.191
7)	M	2,3,5,6-T...	4.470	5.013	21876425	24978546	51.128	41.373
8)	M	2,3,4,5-T...	5.010	5.413	14251746	16418826	47.068m	39.477
9)	M	Pentachlo...	5.143	5.593	24556090	27775094	53.388	40.815
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F047.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:37 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
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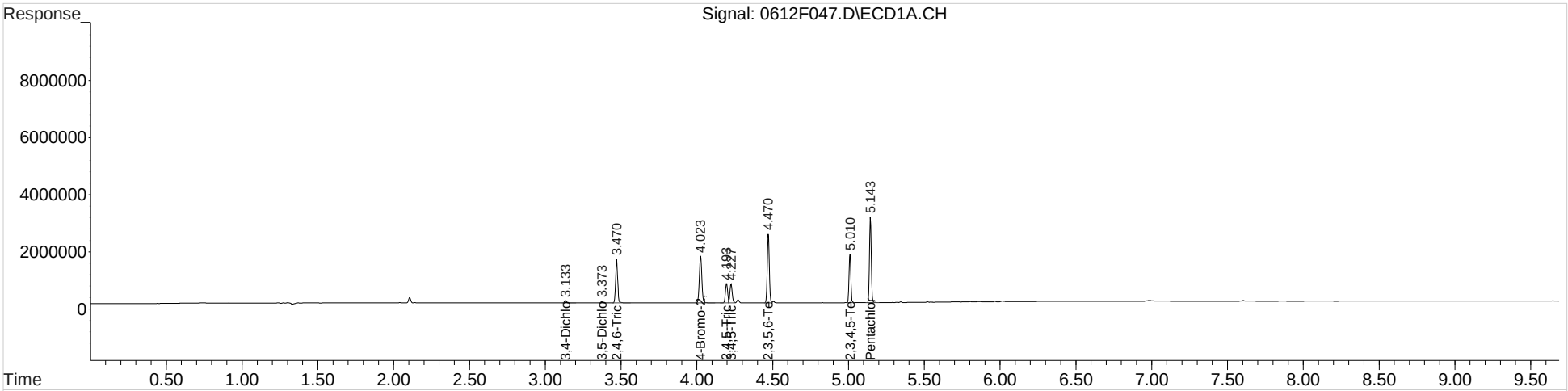
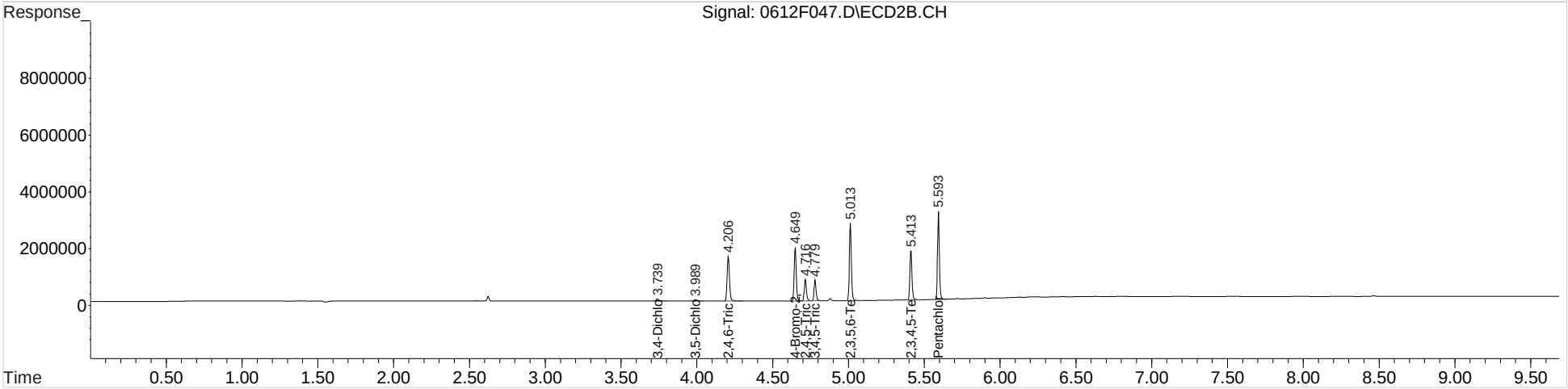
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:51:00 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



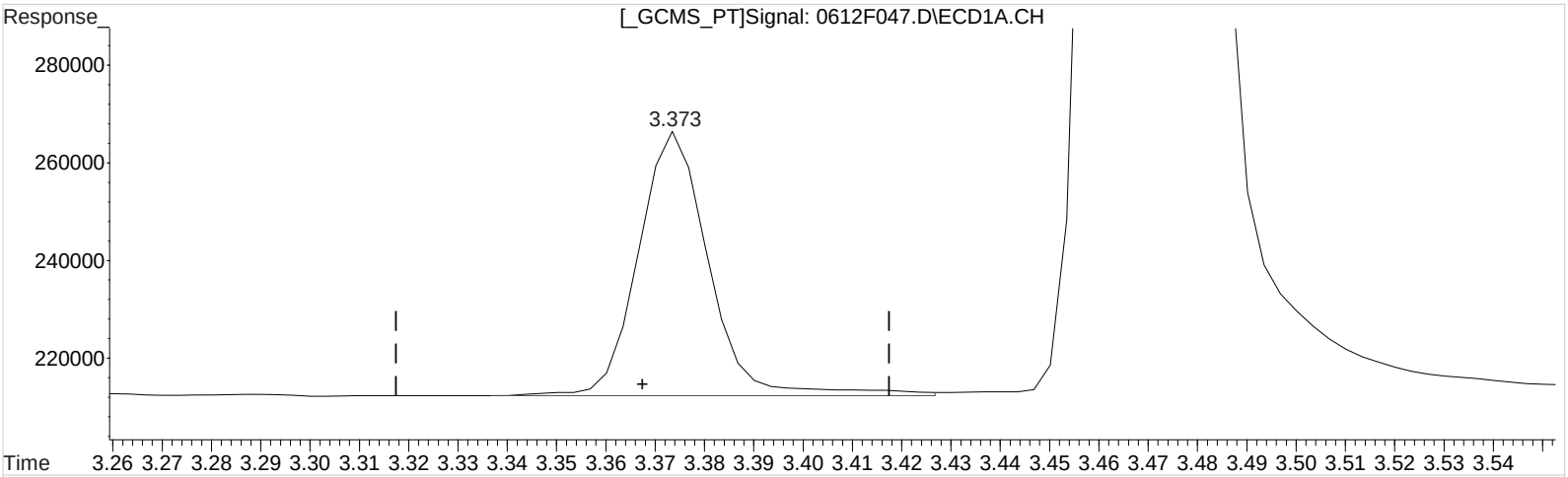


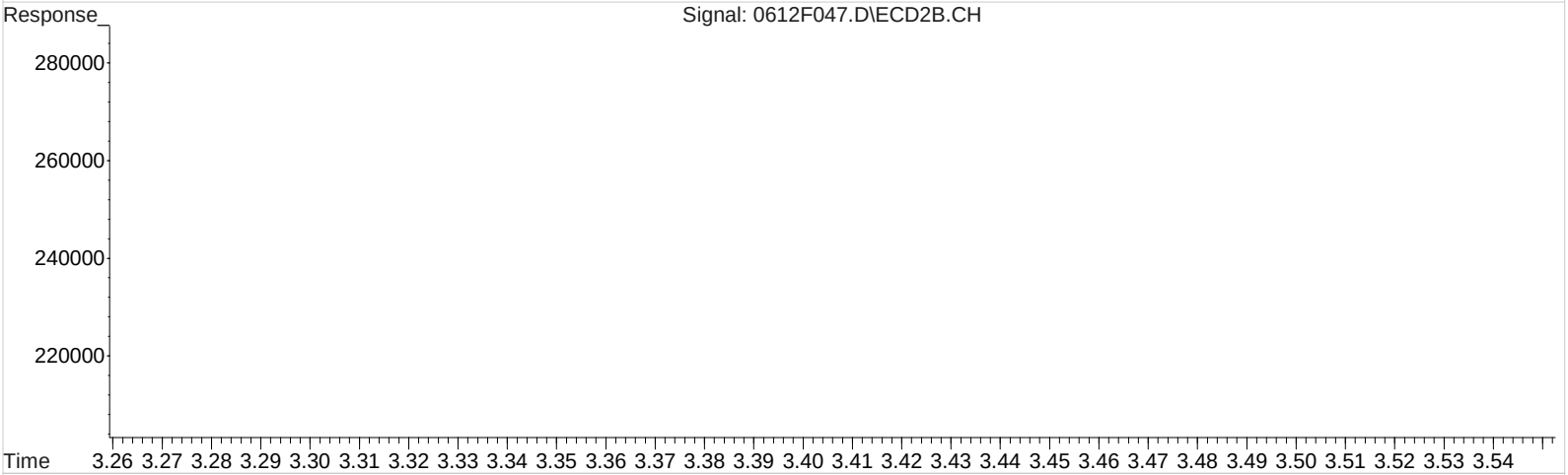
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F047.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:37 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 07:49:44 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.373min 50.826 ug/L

response 537848

Manual Integration:

Before

06/13/19

(2) 3,5-Dichlorophenol #2

3.989min 41.861 ug/L

response 643092

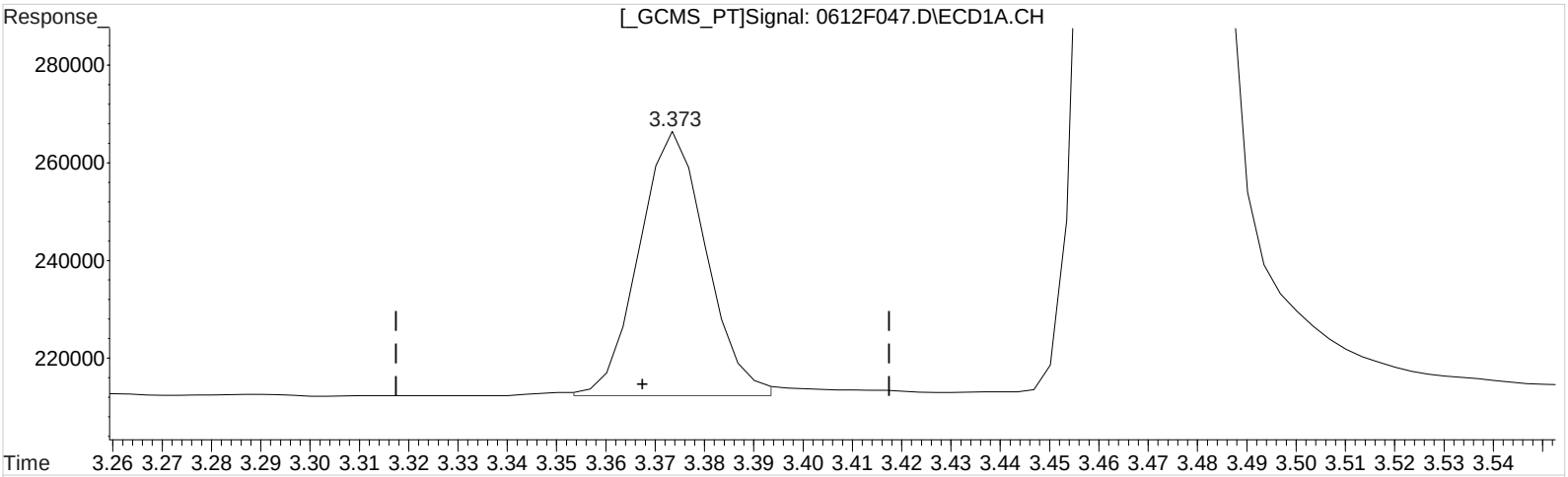
(+) = Expected Retention Time

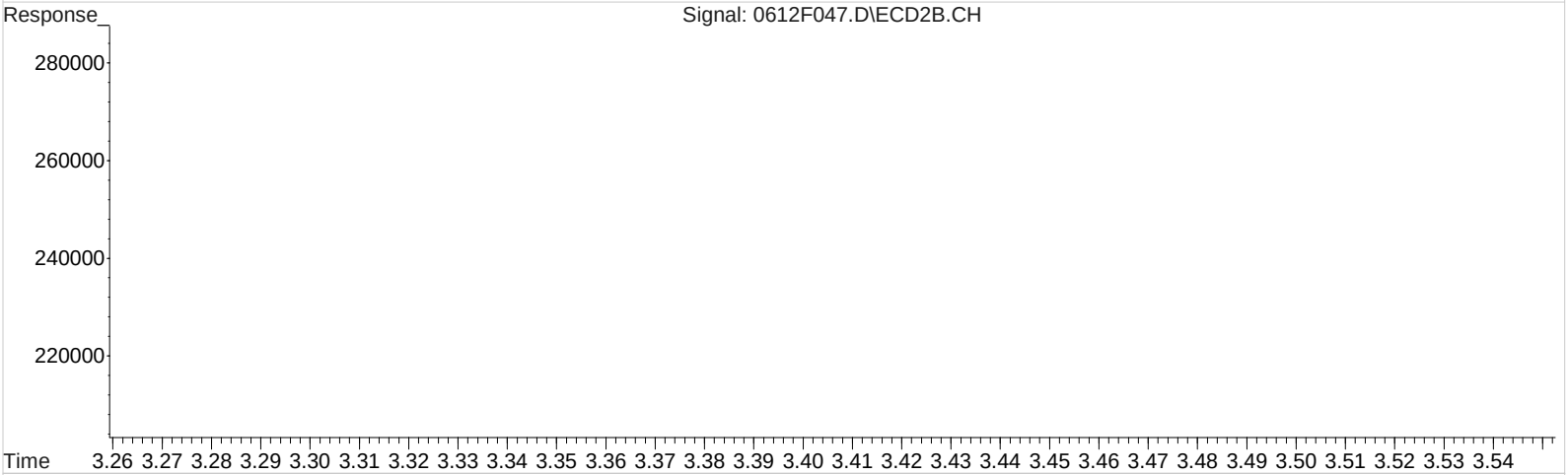
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F047.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:37 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 07:49:44 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.373min 48.167 ug/L m

response 511968

Manual Integration:

After

Baseline/Shoulder

06/13/19

(2) 3,5-Dichlorophenol #2

3.989min 41.861 ug/L

response 643092

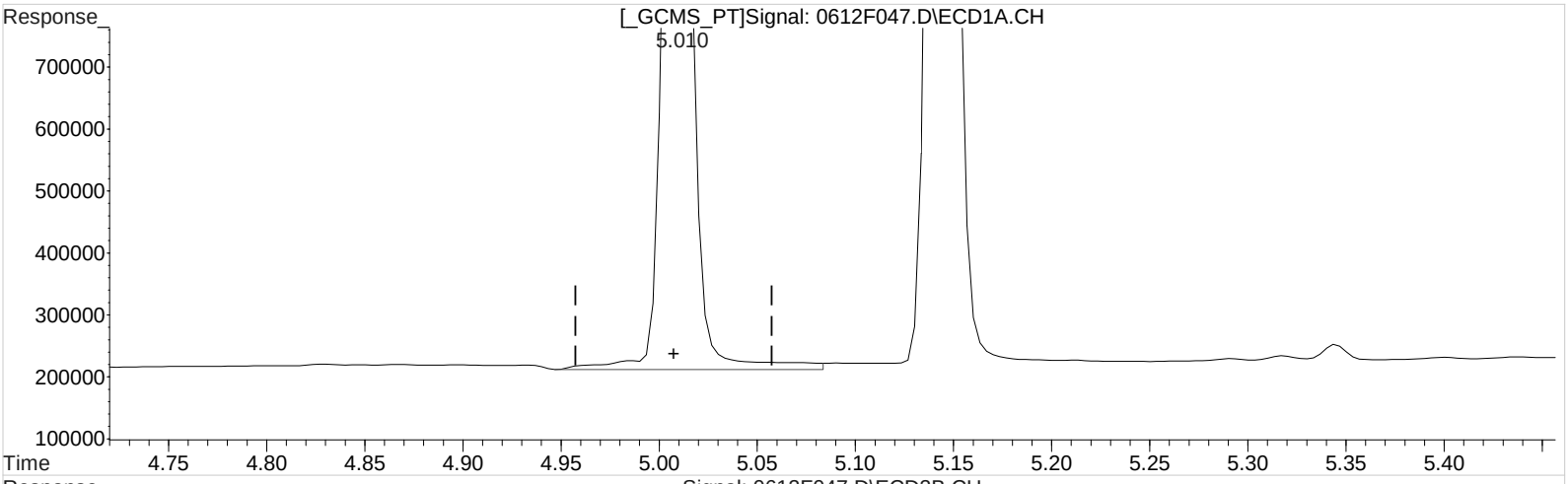
(+) = Expected Retention Time

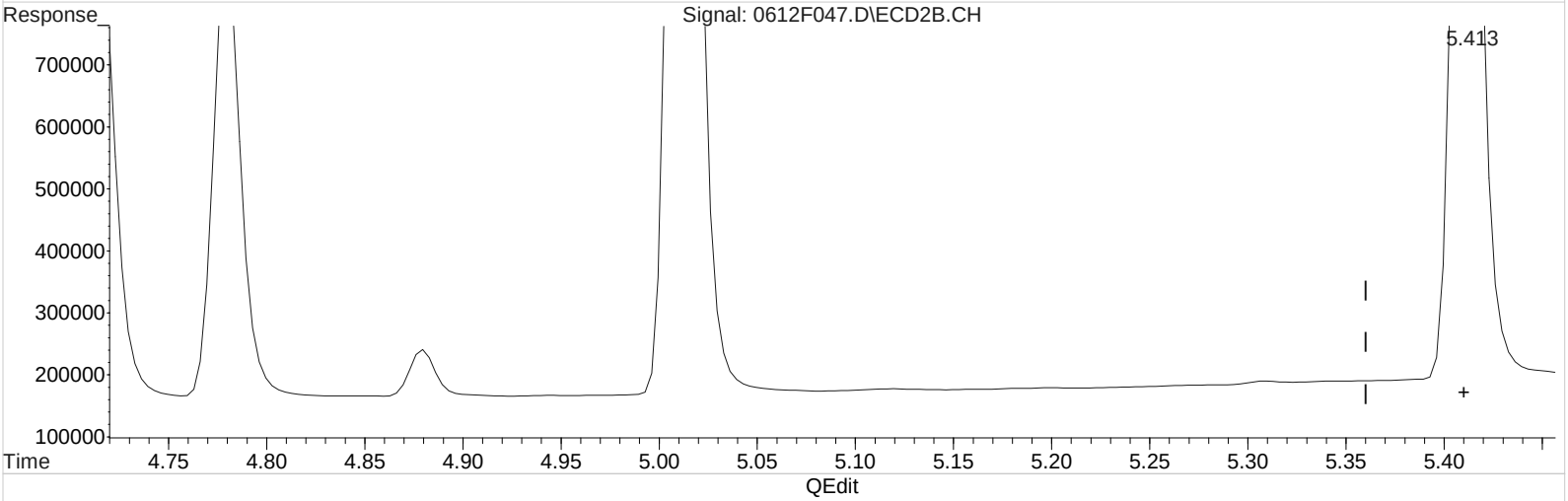
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F047.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:37 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 07:49:44 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.010min 50.001 ug/L

response 15078004

Manual Integration:

Before

06/13/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.413min 39.477 ug/L

response 16418826

(+) = Expected Retention Time

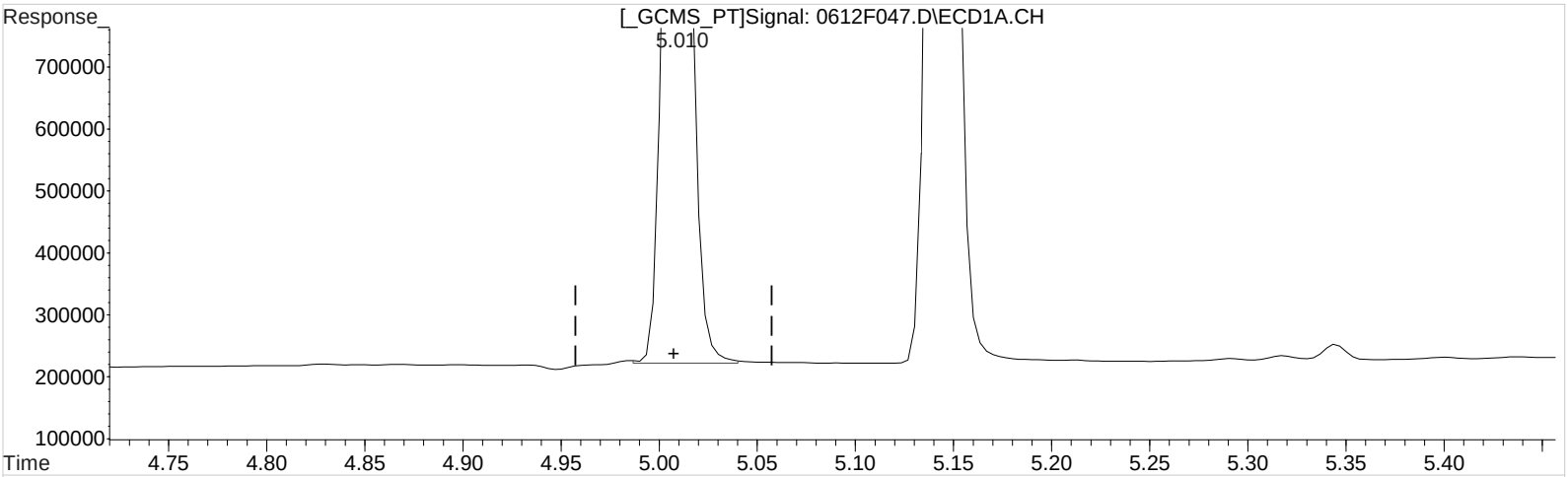
Quantitation Report (Qedit)

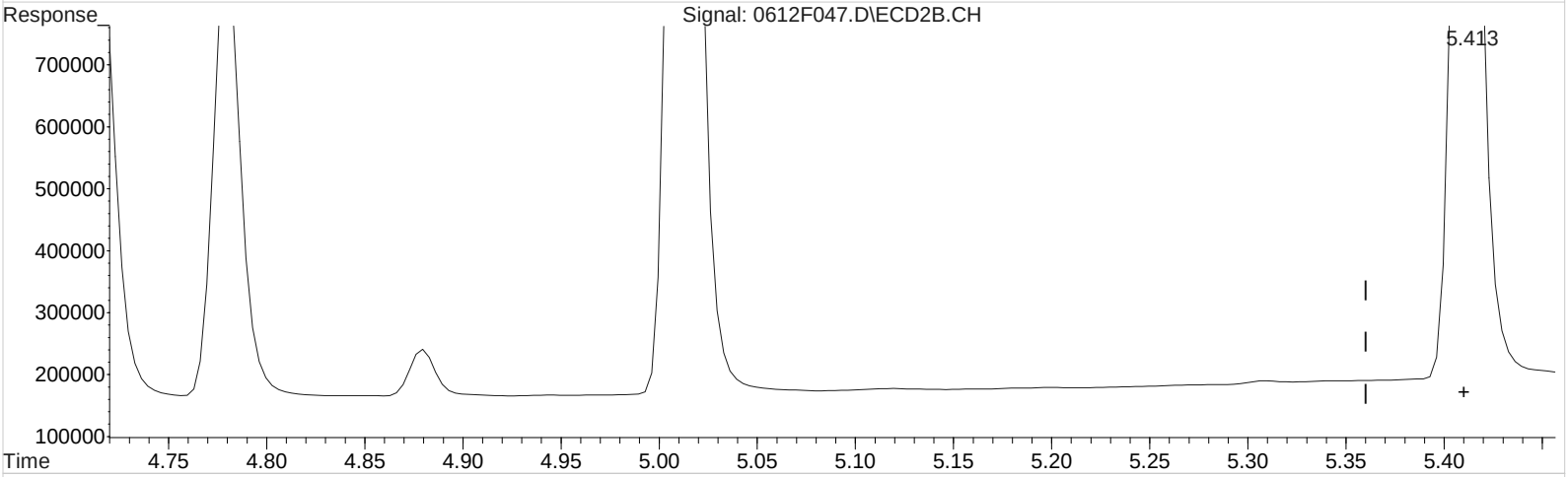
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F047.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:37 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 07:49:44 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.010min 47.068 ug/L m

response 14251746

Manual Integration:

After

Baseline/Shoulder

06/13/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.413min 39.477 ug/L

response 16418826

(+) = Expected Retention Time

Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\022819CAL\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0228F001	PENTHOT2	PRIMER
2	IB	100	0228F002	PENTHOT2	PRIMER
3	ICAL	1	0228F003	PENTHOT2	IB
4	ICAL	2	0228F004	PENTHOT2	PENTA01-94T 1.0
5	ICAL	NR 3	0228F005	PENTHOT2	PENTA01-94S 2.5 - bad injection
6	ICAL	4	0228F006	PENTHOT2	PENTA01-94R 5.0
7	ICAL	5	0228F007	PENTHOT2	PENTA01-94Q 10
8	ICAL	6	0228F008	PENTHOT2	PENTA01-94P 25
9	ICAL	7	0228F009	PENTHOT2	PENTA01-94O 50
10	ICAL	8	0228F010	PENTHOT2	PENTA01-94N 100
11	ICAL	9	0228F011	PENTHOT2	PENTA01-94M 250
12	ICAL	10	0228F012	PENTHOT2	PENTA01-95G 500
13	ICAL	11	0228F013	PENTHOT2	PENTA01-95H 1000
14	ICAL	3	0228F014	PENTHOT2	PENTA01-94S 2.5 ok
15	IB	1	0228F015	PENTHOT2	IB
16	ICAL	12	0228F016	PENTHOT2	PENTA01-95D ICV

KC1900082
2/28/19

Last Modified: Thu Feb 28 10:29:05 2019 Page: 1

ALS-Kelso
Initial Calibration Checklist GC

Method: 8151M
ICAL ID or Date: KC000082
Instrument: GC28

Primary	Secondary	
☑	☑	The new ICAL is saved with a unique ID.
☑	☑	ICAL was performed continuously (i.e. not interrupted by maintenance event).
☑	☐	All analytes in blank are < ½ MRL.
☑	☑	ICAL contains minimum number of concentrations.
☑	☑	No internal levels excluded for any analytes.
☑	☑	Retention times updated using a midpoint of the calibration. Secondary reviewer double check peak IDs.
☑	☑	Calibration files quantitated with new method.
☑	☑	Check integrations. Primary reviewer must check all integrations electronically. Secondary reviewer will check low point and high point electronically.
☑	☑	ICAL files added to calibration table.
☑	☑	The average RF or COD meets method criteria for all analytes.
☑	☑	ICV is quantitated against new ICAL.
☑	☑	ICV meets method criteria.
☑	☐	Linked in ~~Stealth~~ UMS to an appropriate method. An appropriate method will be one that contains all analytes that were analyzed.
☑	☑	All calibration reports included: ICAL SUMMARY, ICAL DETAILED, ICV SUMMARY.
☑	☑	Enviroquant/Target responses match those in Stealth.
☑	☑	All quant reports and manual integrations initialed and dated.

Data packet should be in the following order: Sequence log, Calibration Review, Stealth ICAL reports, and quant reports.

Primary: _____ Date: 2/28/19

Secondary: _____ Date: 2/28/19

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -87.82 X² + 4.342E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	6.732E5	02	5.000	5.679E5	03	10.000	5.372E5	04	25.000	4.948E5
05	50.000	4.691E5	06	100.000	4.496E5	07	250.000	4.103E5	08	500.000	3.739E5
09	1000.000	3.511E5	10	2.500	6.128E5						

2,3,4,5-Tetrachlorophenol — **Quadratic** — **1/X** — **COD = 0.9997** — **Y= -268.7 X² + 3.077E5 X + 3.627E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	02	4.715	3.979E5	03	9.431	3.696E5	04	23.577	3.259E5
05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5	10	2.358	4.756E5

2,3,5,6-Tetrachlorophenol — **Quadratic** — **1/X** — **COD = 0.9997** — **Y= -316.9 X² + 4.391E5 X + 2.523E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	02	4.715	5.28E5	03	9.431	4.935E5	04	23.577	4.478E5
05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5	10	2.358	5.749E5

2,4,5-Trichlorophenol — **Quadratic** — **1/X** — **COD = 0.9991** — **Y= -146.2 X² + 1.398E5 X + 1.234E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	02	4.669	1.8E5	03	9.338	1.735E5	04	23.345	1.484E5
05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5	10	2.334	2.006E5

2,4,6-Trichlorophenol — **Quadratic** — **1/X** — **COD = 0.9995** — **Y= -245.7 X² + 3.136E5 X + 2.021E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	02	4.669	3.846E5	03	9.338	3.638E5	04	23.345	3.225E5
05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5	10	2.334	4.078E5

3,4,5-Trichlorophenol — **Quadratic** — **1/X** — **COD = 0.9991** — **Y= -166.3 X² + 1.479E5 X + 8.837E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	02	4.669	1.823E5	03	9.338	1.696E5	04	23.345	1.515E5
05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5	10	2.334	1.988E5

3,4-Dichlorophenol — **Quadratic** — **1/X** — **COD = 1.0000** — **Y= -15.47 X² + 1.592E4 X + 8.759E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.529E4	02	4.605	1.749E4	03	9.209	1.718E4	04	23.023	1.584E4
05	46.046	1.558E4	06	92.091	1.446E4	07	230.230	1.241E4	10	2.302	1.966E4

3,5-Dichlorophenol — **Quadratic** — **1/X** — **COD = 0.9982** — **Y= -14.62 X² + 1.118E4 X + 7.47E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	1.798E4	02	4.605	1.407E4	03	9.209	1.255E4	04	23.023	1.076E4
05	46.046	1.147E4	06	92.091	9.36E3	07	230.230	7.904E3	10	2.302	1.374E4

Pentachlorophenol (PCP) — **Quadratic** — **1/X** — **COD = 0.9990** — **Y= -97.29 X² + 4.57E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	02	4.750	5.978E5	03	9.501	5.654E5	04	23.752	5.208E5
05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5	08	475.030	3.936E5
09	950.060	3.695E5	10	2.375	6.451E5						

4-Bromo-2,6-dichlorophenol — **Quadratic** — **1/X** — **COD = 0.9994** — **Y= -70.25 X² + 3.43E5 X + 2.985E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	02	5.000	4.356E5	03	10.000	4.141E5	04	25.000	3.754E5
05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5	08	500.000	2.979E5
09	1000.000	2.755E5	10	2.500	4.672E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.555	**-44.5**	02	5.000	5.55	11.0	03	10.000	11.4	14.0
04	25.000	27.6	10.6	05	50.000	53.6	7.2	06	100.000	105	4.8
07	250.000	248	-0.9	08	500.000	475	-5.0	09	1000.000	1020	1.6
10	2.500	2.53	1.4								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.770	-18.3	02	4.715	4.94	4.7	03	9.431	10.2	8.6
04	23.577	24.3	3.1	05	47.153	46.9	-0.6	06	94.307	91.6	-2.8
07	235.770	237	0.6	10	2.358	2.47	4.8				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.738	-21.7	02	4.715	5.11	8.5	03	9.431	10.1	7.1
04	23.577	23.9	1.3	05	47.153	47.4	0.6	06	94.307	91.5	-3.0
07	235.770	237	0.5	10	2.358	2.52	6.8				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.634	**-32.1**	02	4.669	5.16	10.4	03	9.338	10.8	15.9
04	23.345	24.5	5.1	05	46.690	46.1	-1.2	06	93.379	88.6	-5.1
07	233.450	236	1.2	10	2.334	2.47	6.0				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.732	-21.6	02	4.669	5.10	9.3	03	9.338	10.3	10.0
04	23.345	23.8	2.0	05	46.690	47.3	1.2	06	93.379	89.5	-4.1
07	233.450	235	0.8	10	2.334	2.39	2.6				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.655	-29.8	02	4.669	5.19	11.1	03	9.338	10.2	9.6
04	23.345	24.0	2.7	05	46.690	47.4	1.5	06	93.379	88.5	-5.2
07	233.450	236	1.2	10	2.334	2.55	9.2				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.914	-0.8	02	4.605	4.53	-1.6	03	9.209	9.47	2.9
04	23.023	22.9	-0.7	05	46.046	46.6	1.3	06	92.091	91.2	-1.0
07	230.230	231	0.2	10	2.302	2.30	-0.2				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.814	-11.6	02	4.605	5.16	12.1	03	9.209	9.80	6.4
04	23.023	22.1	-3.9	05	46.046	49.8	8.2	06	92.091	86.2	-6.4
07	230.230	233	1.3	10	2.302	2.17	-5.8				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	0.527	**-44.5**	02	4.750	5.27	11.0	03	9.501	10.8	14.0
04	23.752	26.3	10.6	05	47.503	50.9	7.2	06	95.006	99.5	4.8
07	237.520	235	-0.9	08	475.030	452	-5.0	09	950.060	966	1.6
10	2.375	2.41	1.4								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.643	**-35.7**	02	5.000	5.49	9.7	03	10.000	11.2	12.3
04	25.000	26.6	6.5	05	50.000	53.3	6.6	06	100.000	102	1.6
07	250.000	251	0.2	08	500.000	481	-3.9	09	1000.000	1010	1.2
10	2.500	2.54	1.5								

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D\0228F004c.d	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D\0228F006c.d	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D\0228F007c.d	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D\0228F008c.d	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D\0228F009c.d	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D\0228F010c.d	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D\0228F011c.d	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D\0228F012c.d	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D\0228F013c.d	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D\0228F014c.d	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Average RF**		**RSD = 9.583**	**Average RF = 6.462E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	7.909E5	02	5.000	6.542E5	03	10.000	6.532E5	04	25.000	6.151E5
05	50.000	6.083E5	06	100.000	5.984E5	07	250.000	5.996E5	08	500.000	6.052E5
09	1000.000	6.245E5	10	2.500	7.13E5						

2,3,4,5-Tetrachlorophenol	**Average RF**		**RSD = 12.29**	**Average RF = 4.159E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	02	4.715	4.353E5	03	9.431	4.108E5	04	23.577	3.904E5
05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5	10	2.358	4.73E5

2,3,5,6-Tetrachlorophenol	**Average RF**		**RSD = 6.587**	**Average RF = 6.037E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	02	4.715	5.882E5	03	9.431	6.075E5	04	23.577	5.816E5
05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5	10	2.358	6.377E5

2,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -73.44 X² + 1.777E5 X + 1.058E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	02	4.669	2.059E5	03	9.338	2.015E5	04	23.345	1.829E5
05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5	10	2.334	2.293E5

2,4,6-Trichlorophenol	**Average RF**		**RSD = 4.634**	**Average RF = 4.082E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	02	4.669	4.004E5	03	9.338	4.124E5	04	23.345	3.941E5
05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5	10	2.334	4.267E5

3,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9998**	**Y= -63.92 X² + 1.7E5 X + 9.004E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	02	4.669	1.919E5	03	9.338	1.89E5	04	23.345	1.732E5
05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5	10	2.334	2.115E5

3,4-Dichlorophenol	**Average RF**		**RSD = 10.82**	**Average RF = 2.169E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.356E4	02	4.605	2.28E4	03	9.209	2.378E4	04	23.023	2.153E4
05	46.046	2.119E4	06	92.091	1.915E4	07	230.230	1.751E4	10	2.302	2.4E4

3,5-Dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9996**	**Y= -14.71 X² + 1.578E4 X + 8.463E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.299E4	02	4.605	1.798E4	03	9.209	1.82E4	04	23.023	1.612E4
05	46.046	1.537E4	06	92.091	1.408E4	07	230.230	1.249E4	10	2.302	1.928E4

Pentachlorophenol (PCP)	**Average RF**		**RSD = 9.573**	**Average RF = 6.805E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	02	4.750	6.912E5	03	9.501	6.875E5	04	23.752	6.474E5
05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5	08	475.030	6.37E5
09	950.060	6.573E5	10	2.375	7.52E5						

4-Bromo-2,6-dichlorophenol	**Average RF**		**RSD = 5.968**	**Average RF = 4.216E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	02	5.000	3.777E5	03	10.000	4.048E5	04	25.000	4.138E5
05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5	08	500.000	4.395E5
09	1000.000	4.542E5	10	2.500	3.934E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.22	22.4	02	5.000	5.06	1.2	03	10.000	10.1	1.1
04	25.000	23.8	-4.8	05	50.000	47.1	-5.9	06	100.000	92.6	-7.4
07	250.000	232	-7.2	08	500.000	468	-6.4	09	1000.000	966	-3.4
10	2.500	2.76	10.3								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.14	21.2	02	4.715	4.93	4.7	03	9.431	9.31	-1.2
04	23.577	22.1	-6.1	05	47.153	43.3	-8.3	06	94.307	83.5	-11.5
07	235.770	206	-12.5	10	2.358	2.68	13.7				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.07	13.6	02	4.715	4.59	-2.6	03	9.431	9.49	0.6
04	23.577	22.7	-3.7	05	47.153	45.9	-2.6	06	94.307	89.1	-5.6
07	235.770	223	-5.4	10	2.358	2.49	5.6				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.799	-14.5	02	4.669	4.82	3.3	03	9.338	10.0	7.4
04	23.345	23.7	1.3	05	46.690	47.3	1.3	06	93.379	90.7	-2.9
07	233.450	234	0.4	10	2.334	2.42	3.6				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	1.01	8.7	02	4.669	4.58	-1.9	03	9.338	9.43	1.0
04	23.345	22.5	-3.5	05	46.690	46.6	-0.2	06	93.379	89.0	-4.7
07	233.450	224	-4.0	10	2.334	2.44	4.5				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.846	-9.5	02	4.669	4.75	1.7	03	9.338	9.88	5.9
04	23.345	23.5	0.5	05	46.690	47.5	1.7	06	93.379	91.1	-2.4
07	233.450	234	0.3	10	2.334	2.38	1.8				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	1.00	8.6	02	4.605	4.84	5.1	03	9.209	10.1	9.6
04	23.023	22.9	-0.7	05	46.046	45.0	-2.3	06	92.091	81.3	-11.7
07	230.230	186	-19.3	10	2.302	2.55	10.6				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.806	-12.4	02	4.605	4.73	2.8	03	9.209	10.2	10.6
04	23.023	23.5	2.1	05	46.046	46.3	0.6	06	92.091	89.0	-3.3
07	230.230	232	0.7	10	2.302	2.28	-0.9				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	1.16	22.2	02	4.750	4.82	1.6	03	9.501	9.60	1.0
04	23.752	22.6	-4.9	05	47.503	44.7	-5.9	06	95.006	87.9	-7.4
07	237.520	220	-7.3	08	475.030	445	-6.4	09	950.060	918	-3.4
10	2.375	2.62	10.5								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.975	-2.5	02	5.000	4.48	-10.4	03	10.000	9.60	-4.0
04	25.000	24.5	-1.8	05	50.000	52.4	4.9	06	100.000	103	3.0
07	250.000	264	5.5	08	500.000	521	4.2	09	1000.000	1080	7.7
10	2.500	2.33	-6.7								

Initial Calibration Verification Summary Report

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-1701

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Quadratic	50	58.215	ug/L	16.4	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.125	ug/L	6.3	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.742	ug/L	7.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.950	ug/L	7.0	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	47.208	ug/L	1.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.502	ug/L	6.0	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	50.405	ug/L	9.5	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	54.814	ug/L	19.0	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Quadratic	47.5030	55.309	ug/L	16.4	<= 20

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-35

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Average RF	50	51.424	ug/L	2.8	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	46.743	ug/L	-0.9	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	47.890	ug/L	1.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	50.676	ug/L	8.5	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Average RF	46.69	46.729	ug/L	0.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	48.393	ug/L	3.6	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Average RF	46.0460	46.475	ug/L	0.9	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	48.925	ug/L	6.3	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Average RF	47.5030	48.834	ug/L	2.8	<= 20

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:01 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:03:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.712	0	59380	N.D. d	0.137
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
2)		3,5-Dichl...	0.000	4.125f	0	25046	N.D.	1.520 #
3)		2,4,6-Tri...	0.000	4.292	0	32648	N.D. d	0.078
5)		2,4,5-Tri...	0.000	4.802	0	42050	N.D. d	0.210
6)		3,4,5-Tri...	0.000	4.832	0	55519	N.D. d	0.296
7)	M	2,3,5,6-T...	0.000	5.088	0	70520	N.D. d	0.114
8)	M	2,3,4,5-T...	0.000	5.452	0	131834	N.D. d	0.319
9)	M	Pentachlo...	0.000	5.685f	0	269600	N.D. d	0.392
10)		Pentachlo...	0.000	5.685f	0	269600	N.D. d	0.413

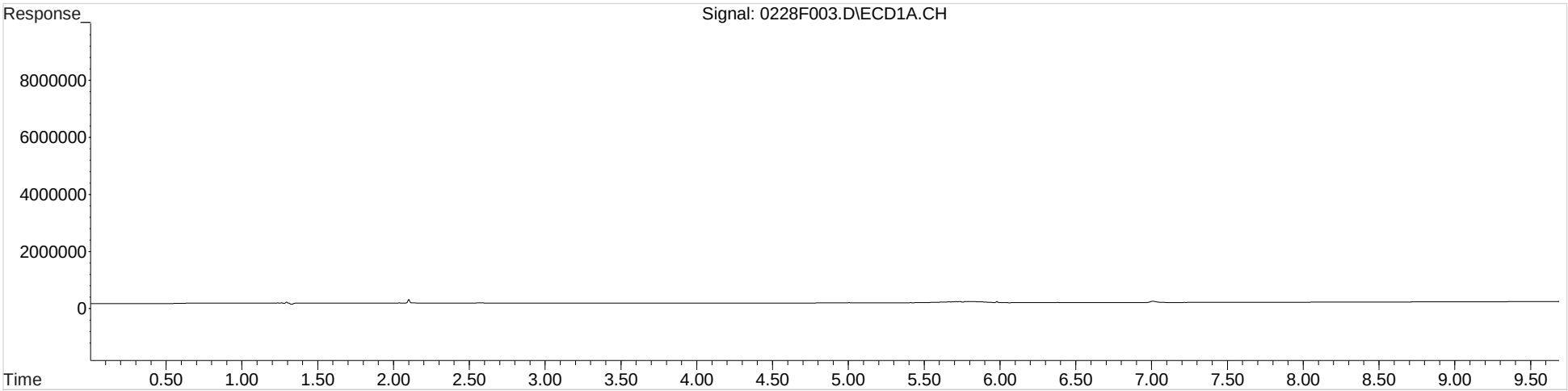
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:01 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:03:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.027	4.714	519128	410904	0.637	0.945 #
		Target Compounds						
1)		3,4-Dichl...	3.137	3.824	23293	21701	0.801m	0.982m
2)		3,5-Dichl...	3.377	4.084	16564	21176	1.036m	1.285m
3)		2,4,6-Tri...	3.473	4.284	431646	414230	0.802	0.993
5)		2,4,5-Tri...	4.200	4.778	211915	247658	0.739	1.239 #
6)		3,4,5-Tri...	4.230	4.844	185206	233780	0.709m	1.245 #
7)	M	2,3,5,6-T...	4.473	5.071	576226	646609	1.211m	1.048m
8)	M	2,3,4,5-T...	5.013	5.468	599618	475513	0.771	1.152m#
9)	M	Pentachlo...	5.150	5.648	673174	789810	0.493	1.149m#
10)		Pentachlo...	5.150	5.648	673174	790854	0.519	1.211m#

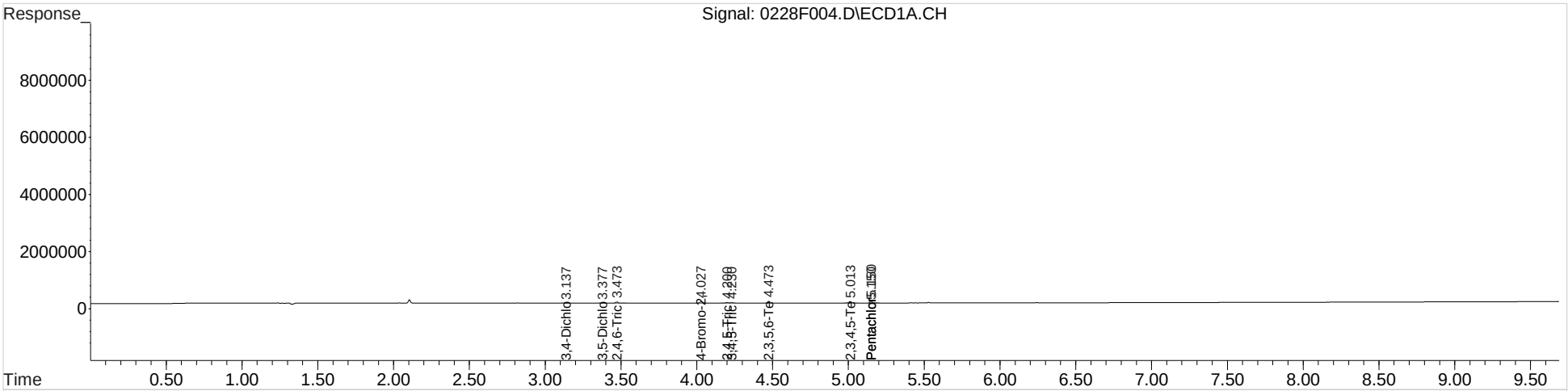
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

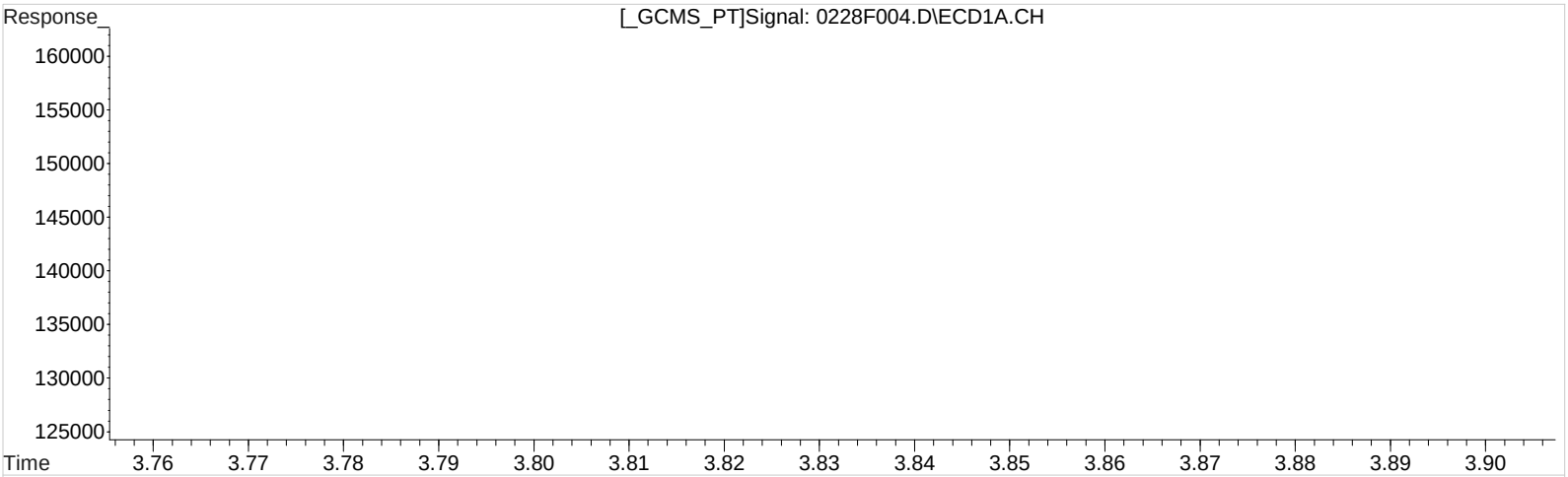


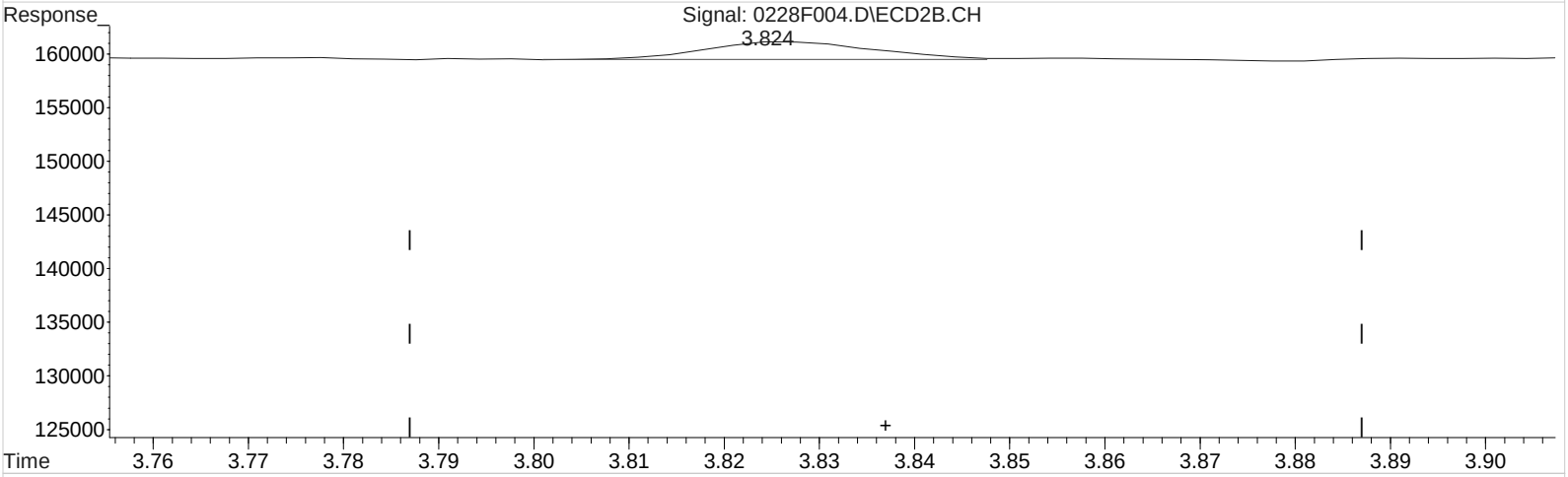
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.924 ug/L

response 20420

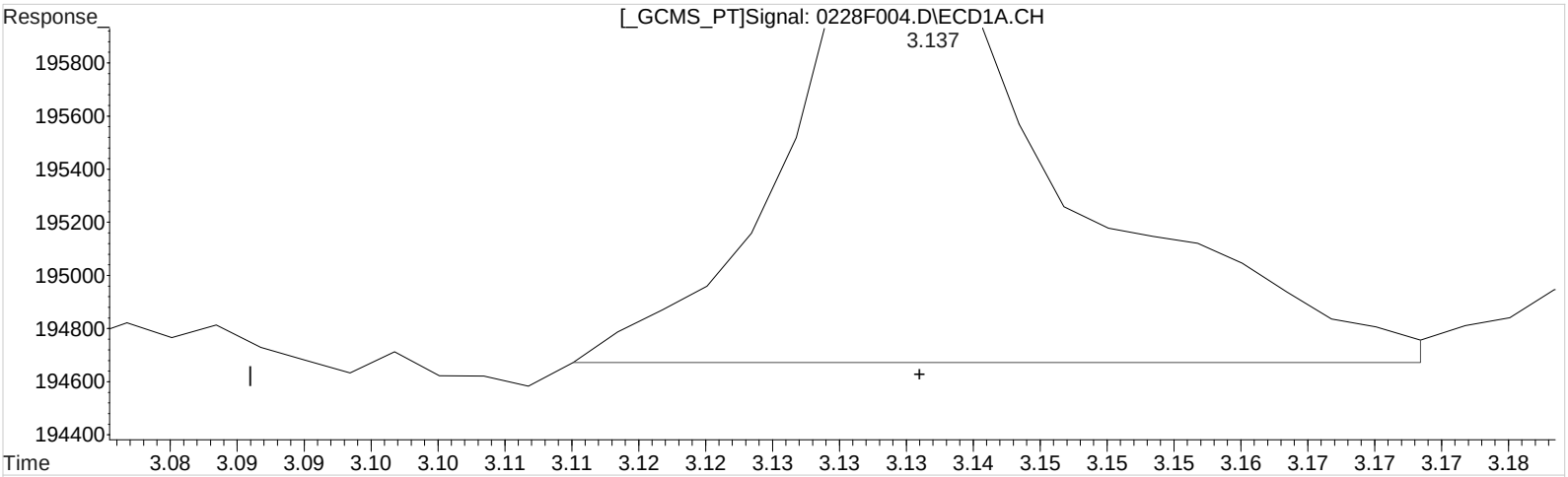
(+) = Expected Retention Time

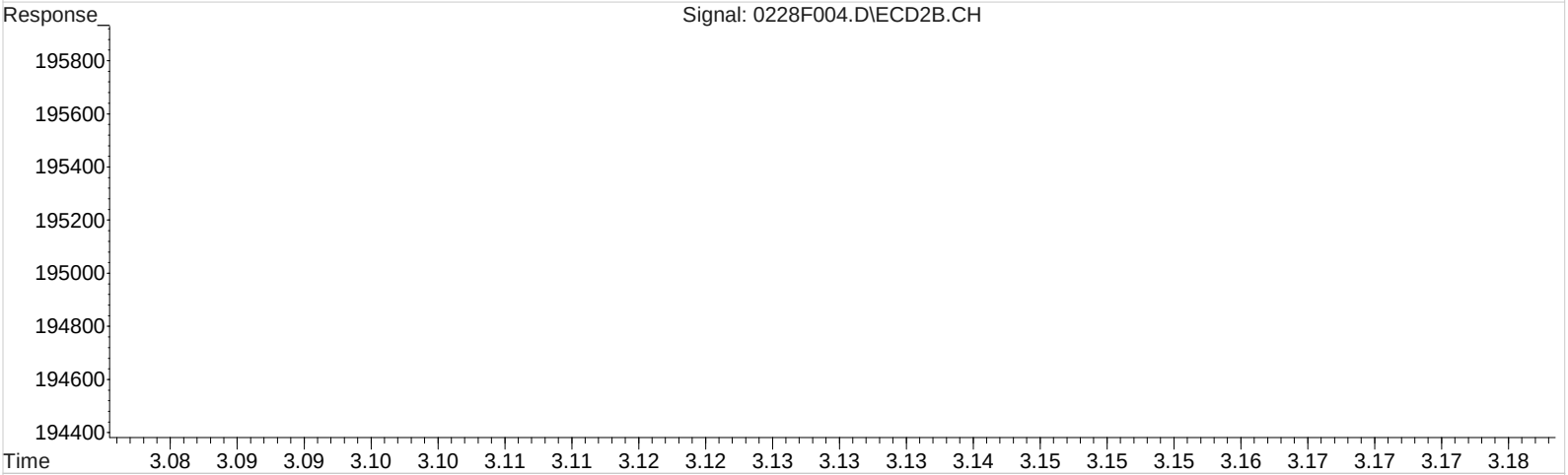
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

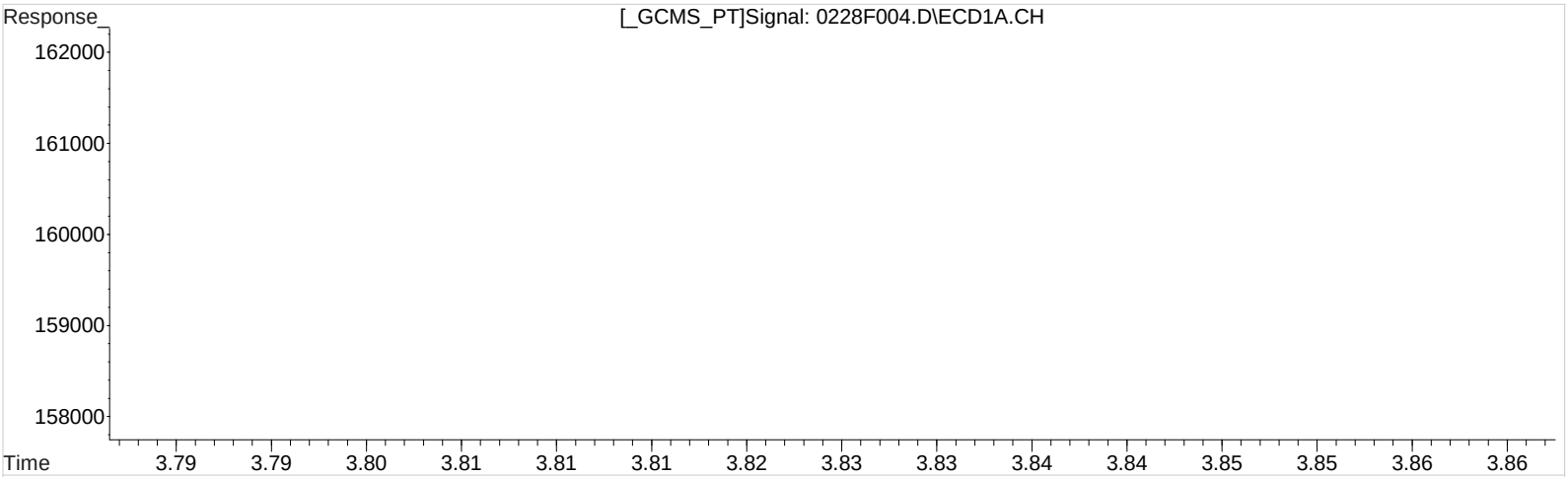
Quantitation Report (Qedit)

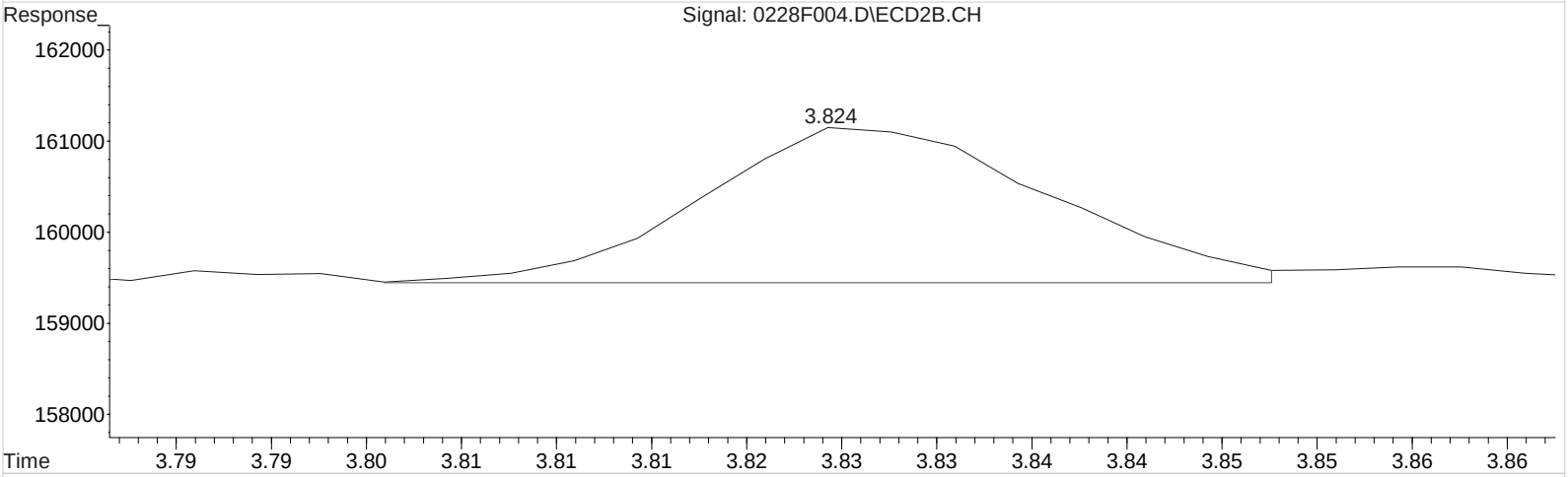
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

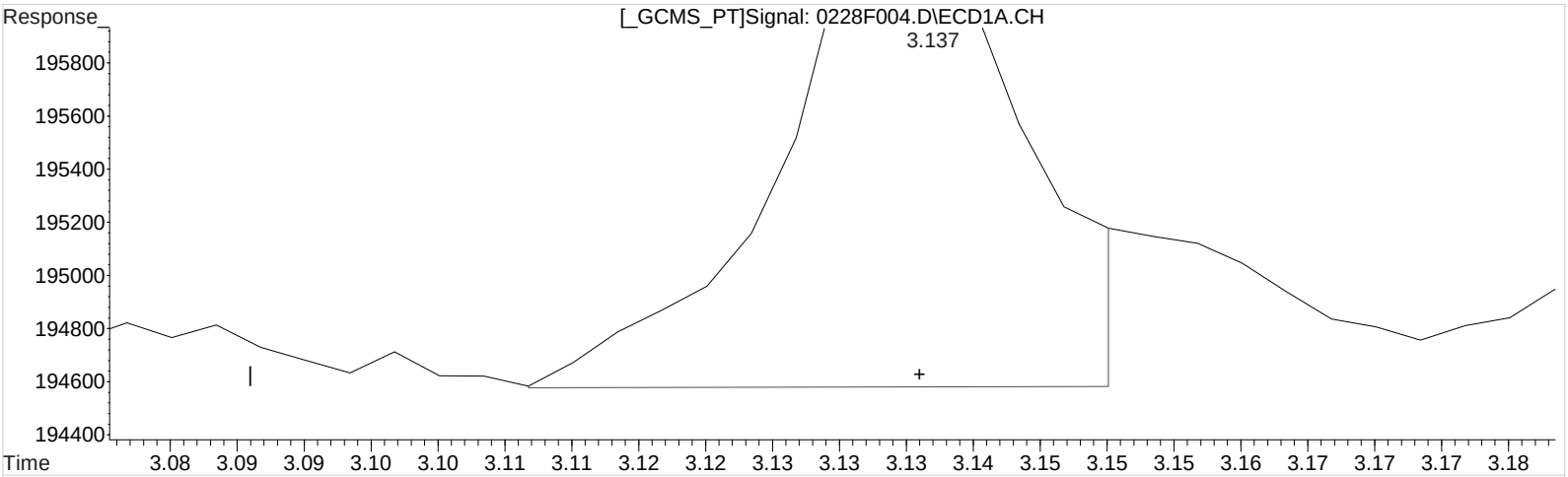
Quantitation Report (Qedit)

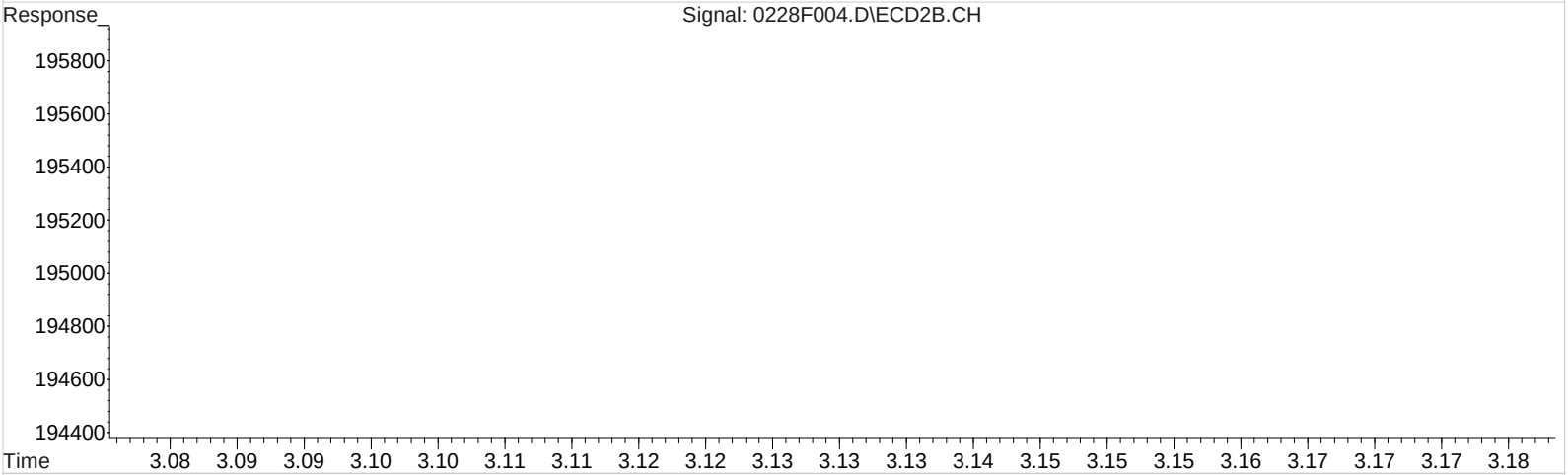
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.801 ug/L m

response 23293

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

Manual Integration:

After

Baseline/Shoulder

02/28/19

(+) = Expected Retention Time

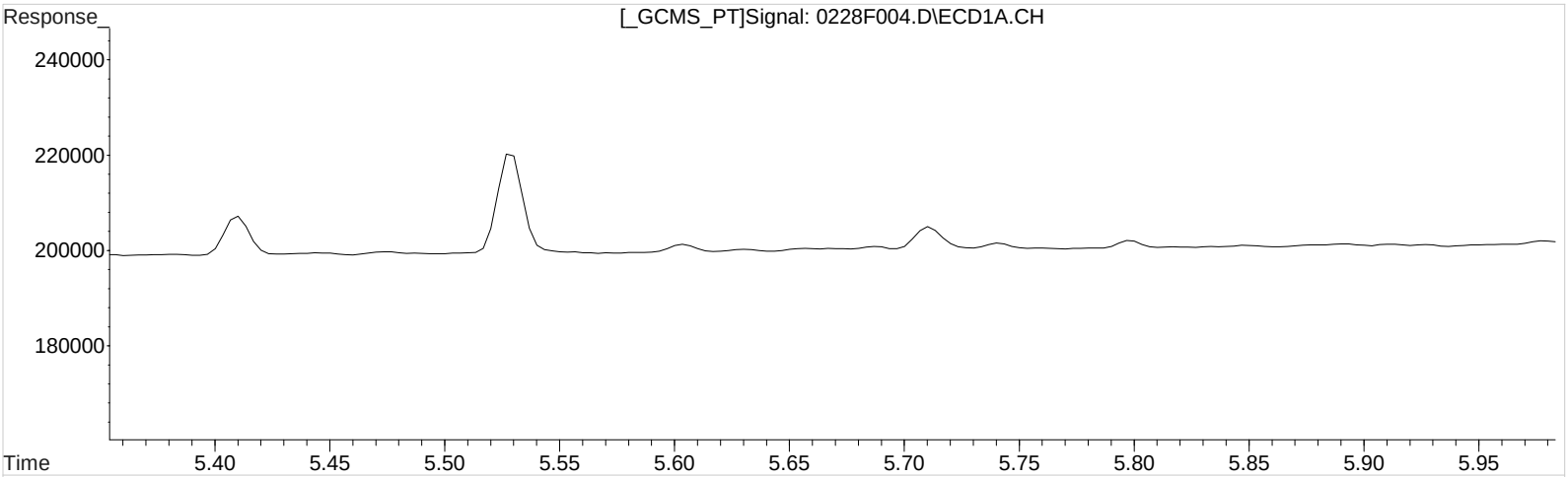
Quantitation Report (Qedit)

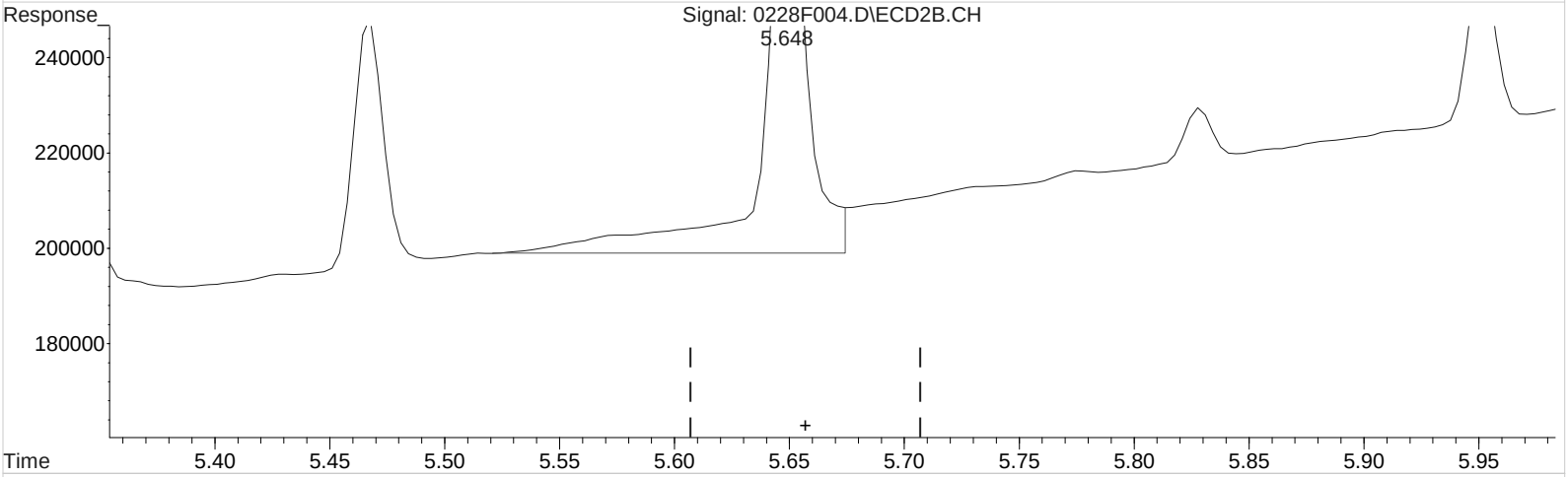
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.150min 0.519 ug/L

response 673174

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.648min 1.879 ug/L

response 1226970

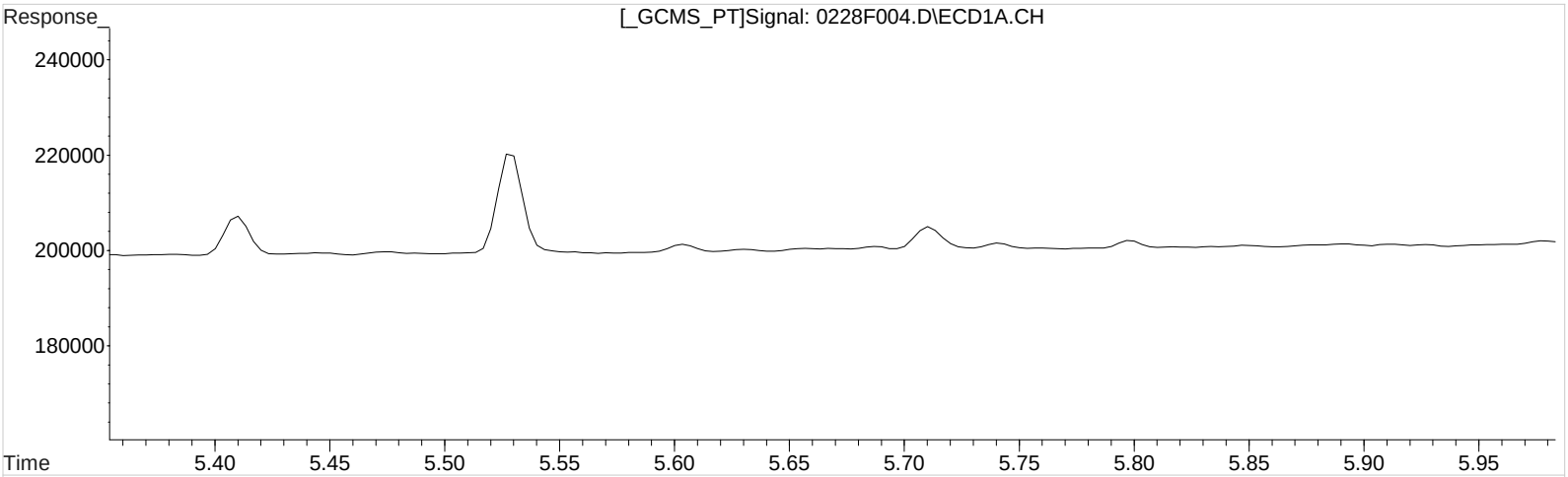
(+) = Expected Retention Time

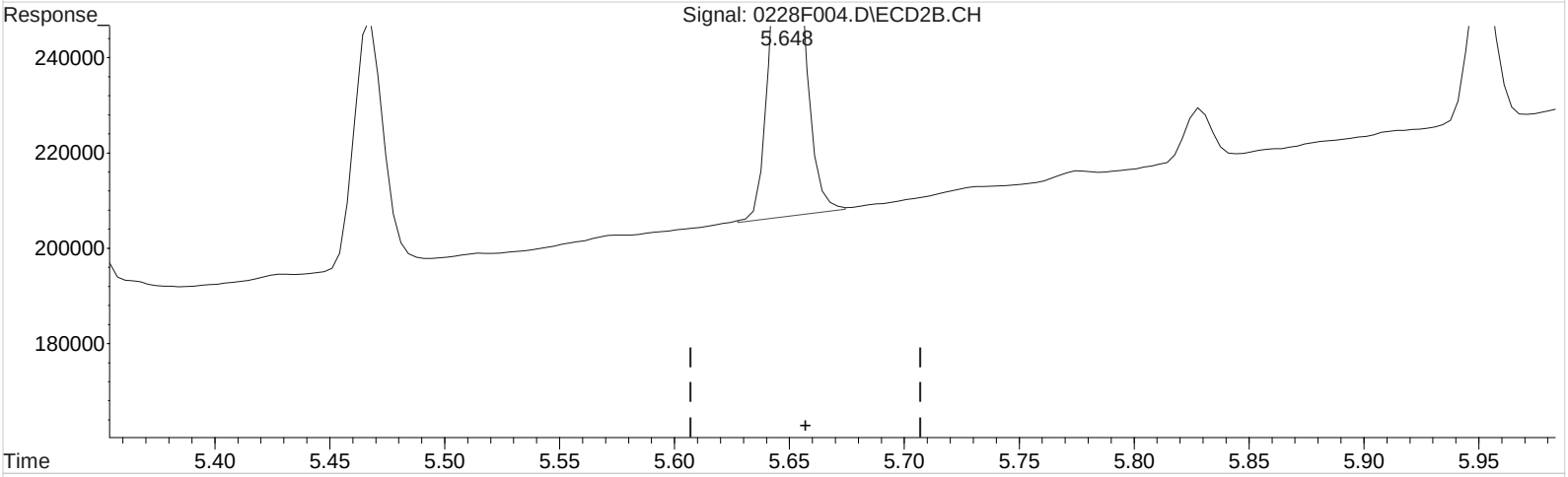
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.150min 0.519 ug/L

response 673174

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.648min 1.211 ug/L m

response 790854

(+) = Expected Retention Time

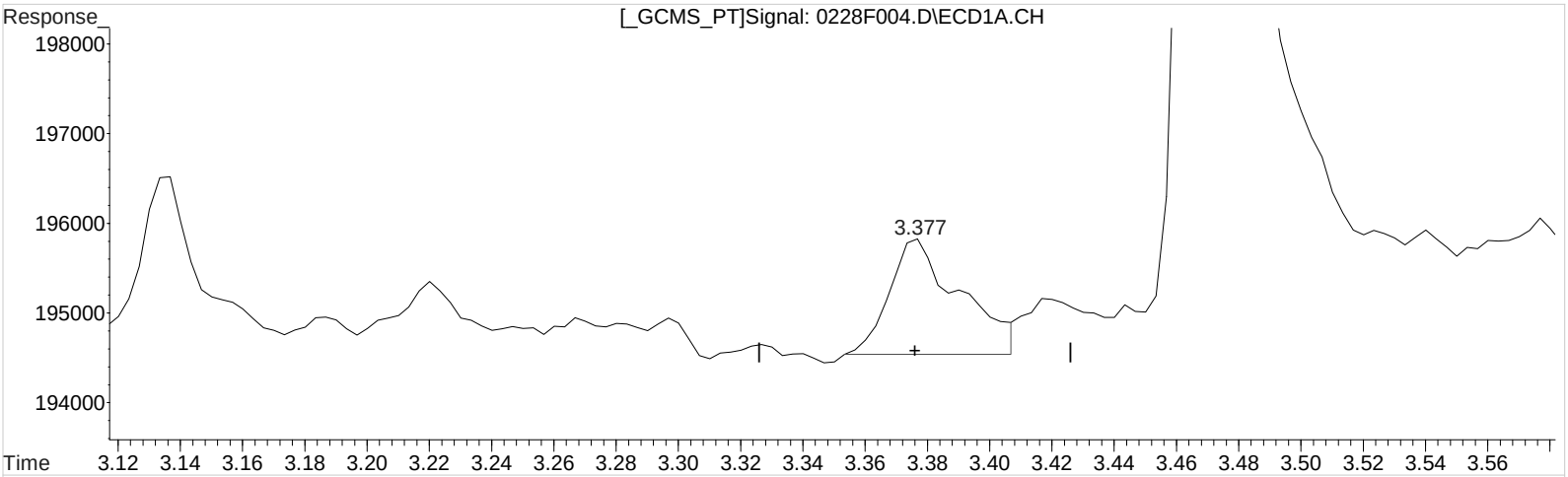
Quantitation Report (Qedit)

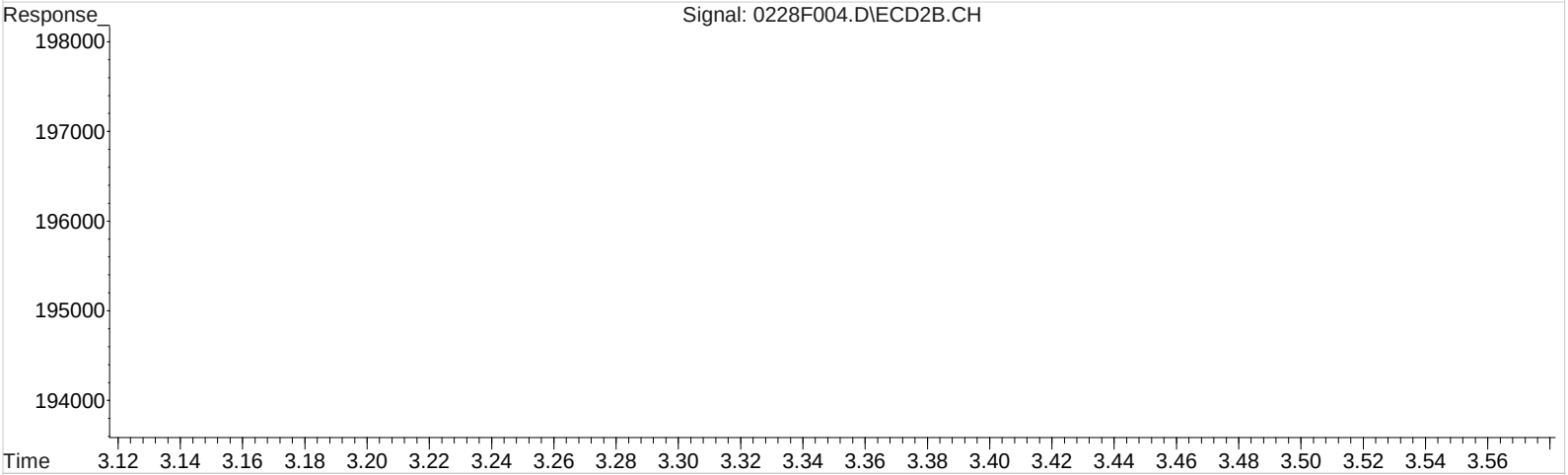
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.388 ug/L

response 20270

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

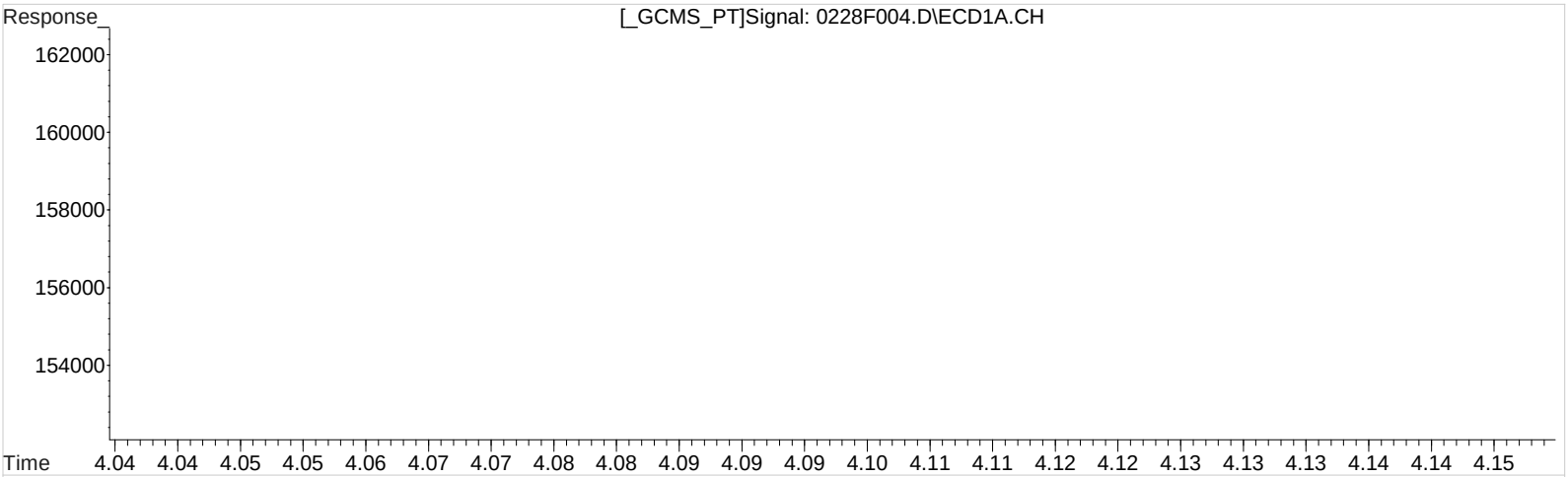
(+) = Expected Retention Time

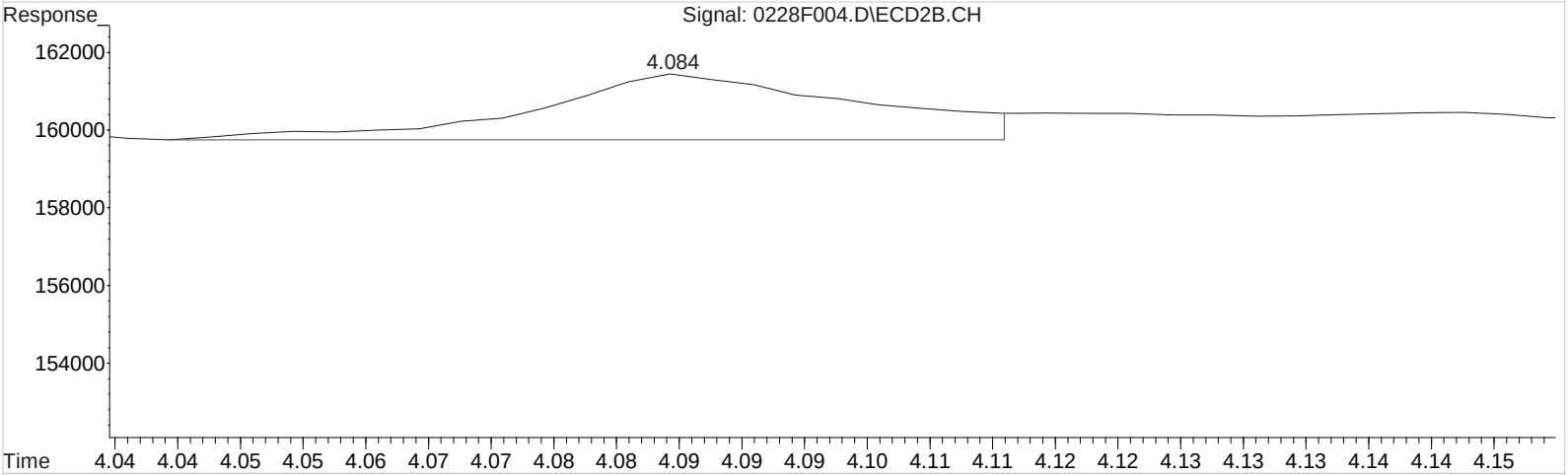
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

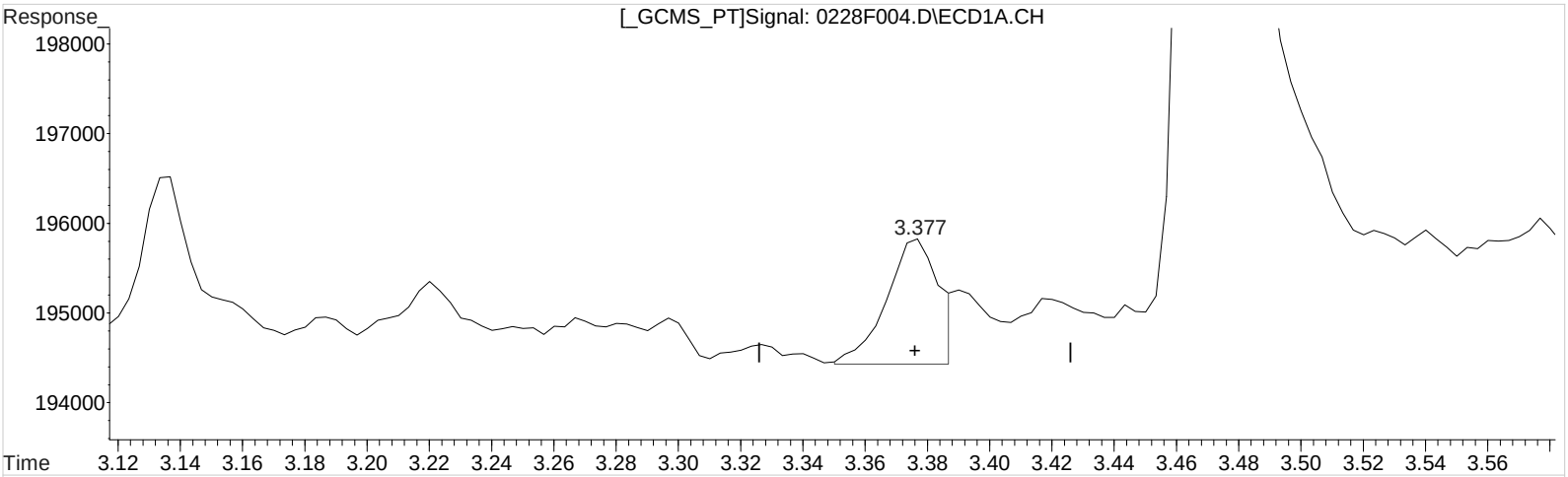
Quantitation Report (Qedit)

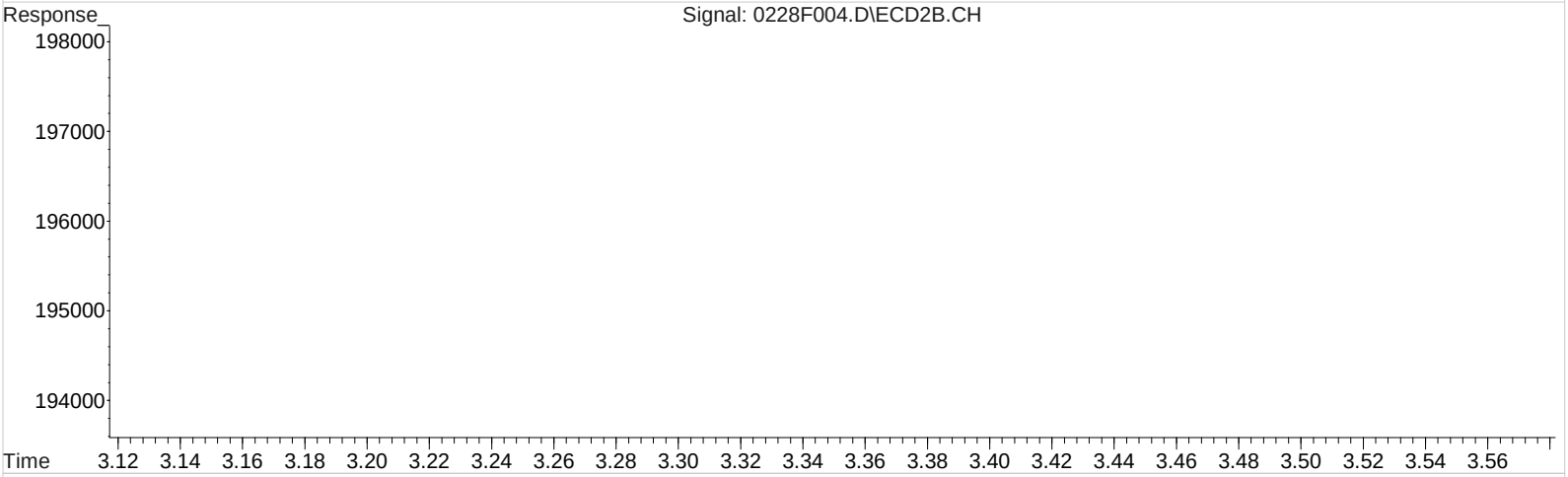
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

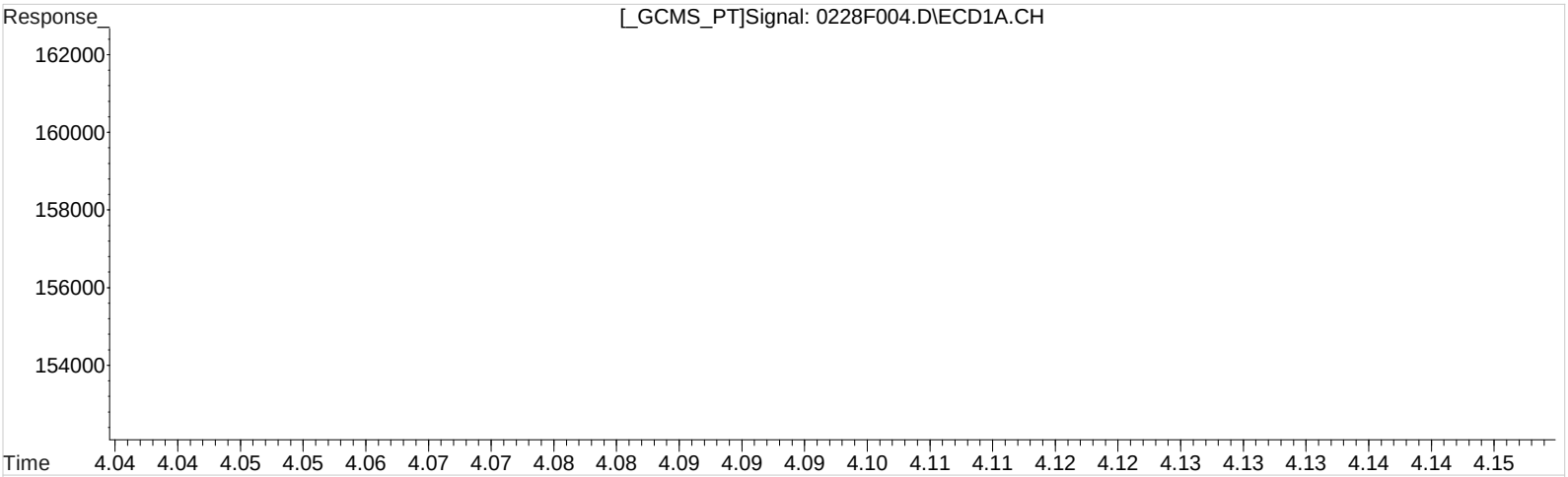
(+) = Expected Retention Time

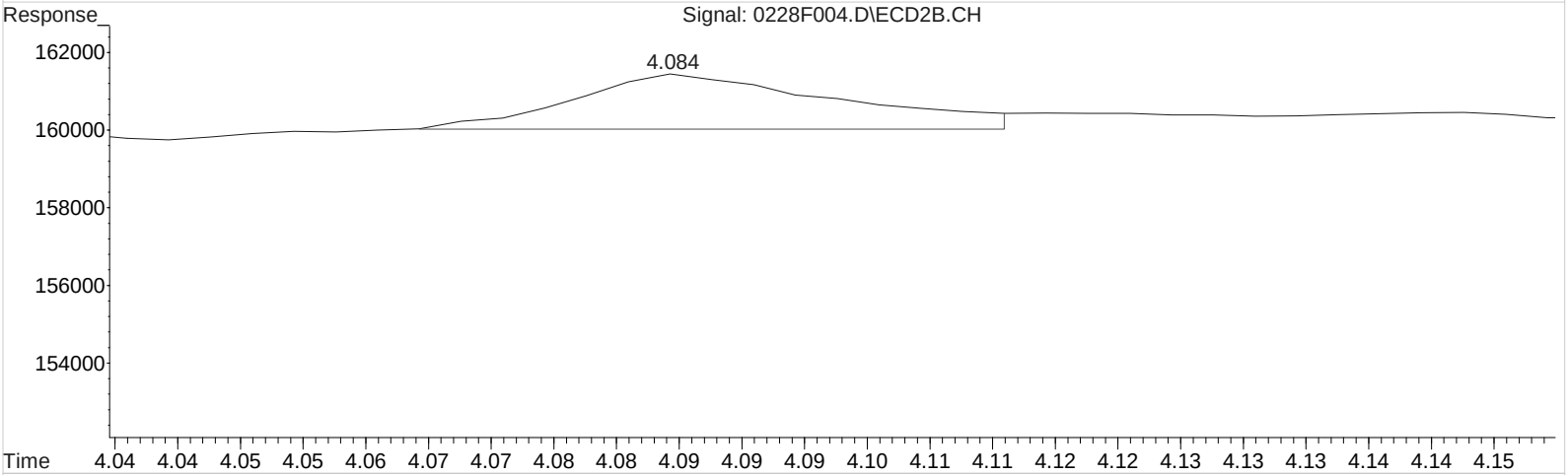
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.285 ug/L m

response 21176

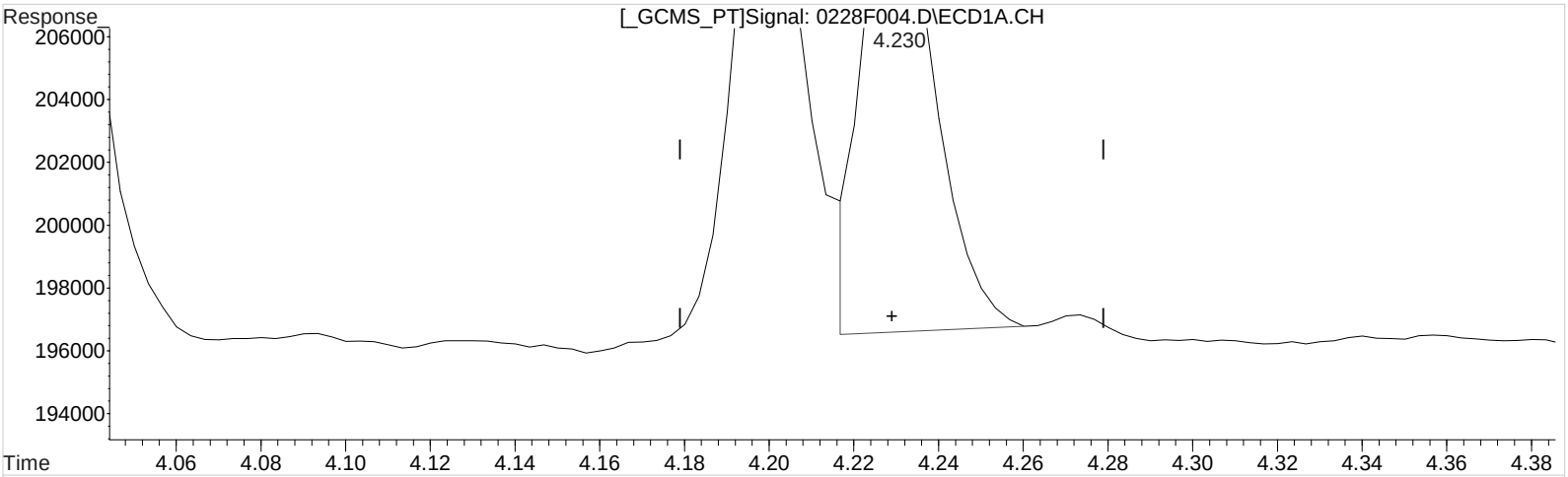
(+) = Expected Retention Time

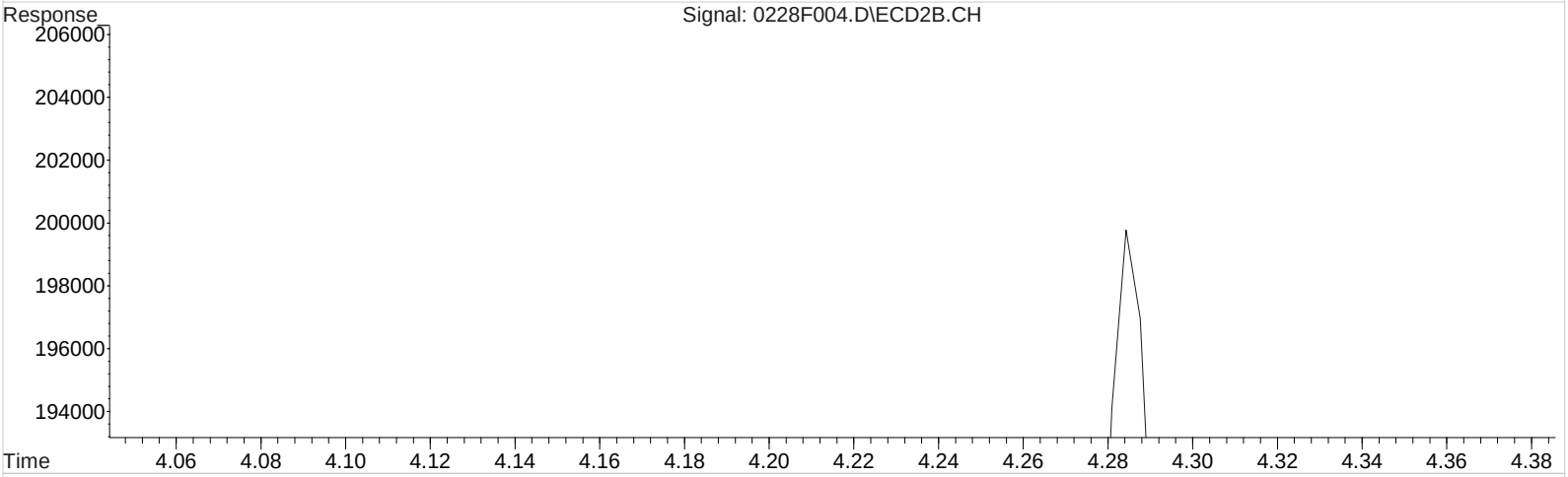
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.230min 0.644 ug/L

response 175885

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.844min 1.245 ug/L

response 233780

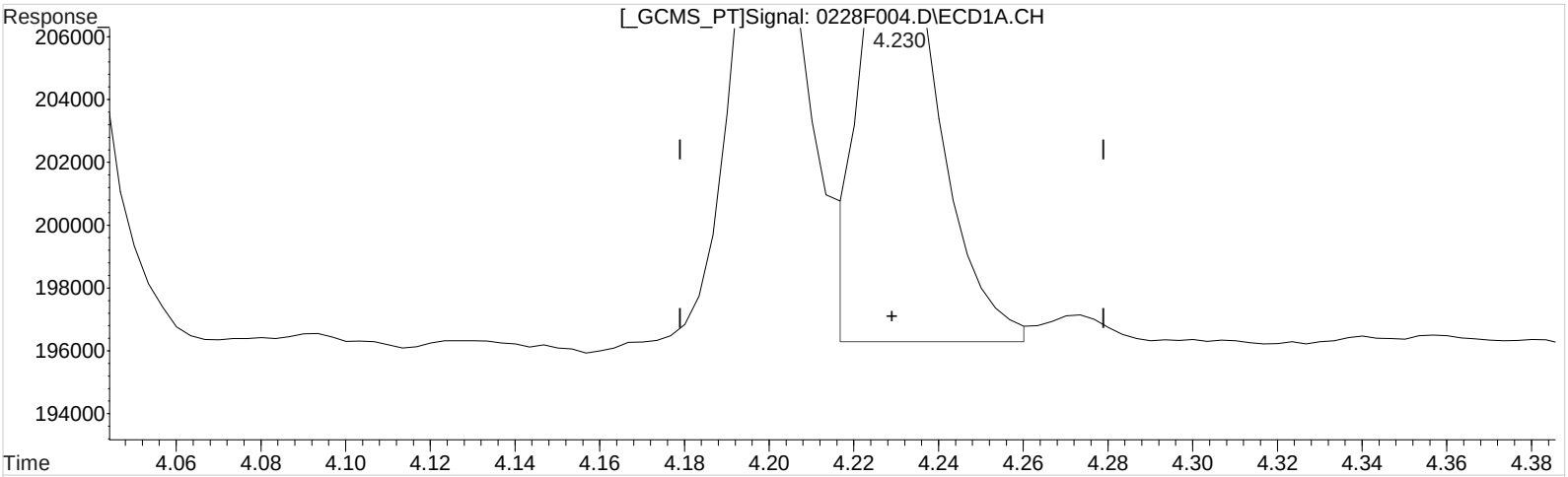
(+) = Expected Retention Time

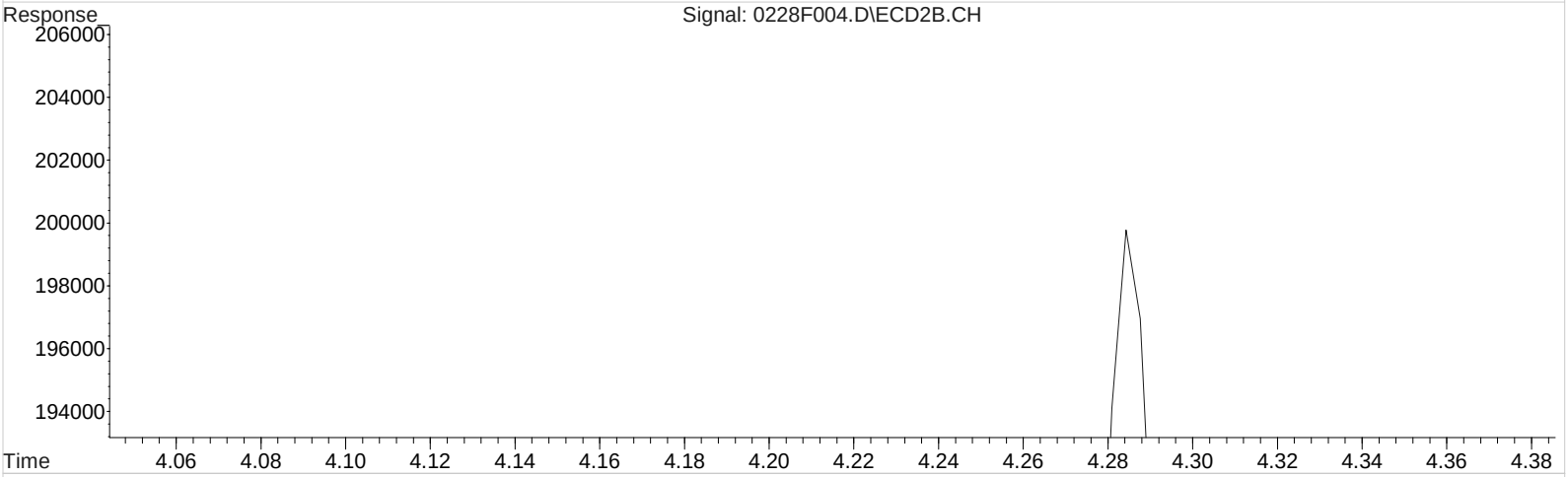
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.230min 0.709 ug/L m

response 185206

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.844min 1.245 ug/L

response 233780

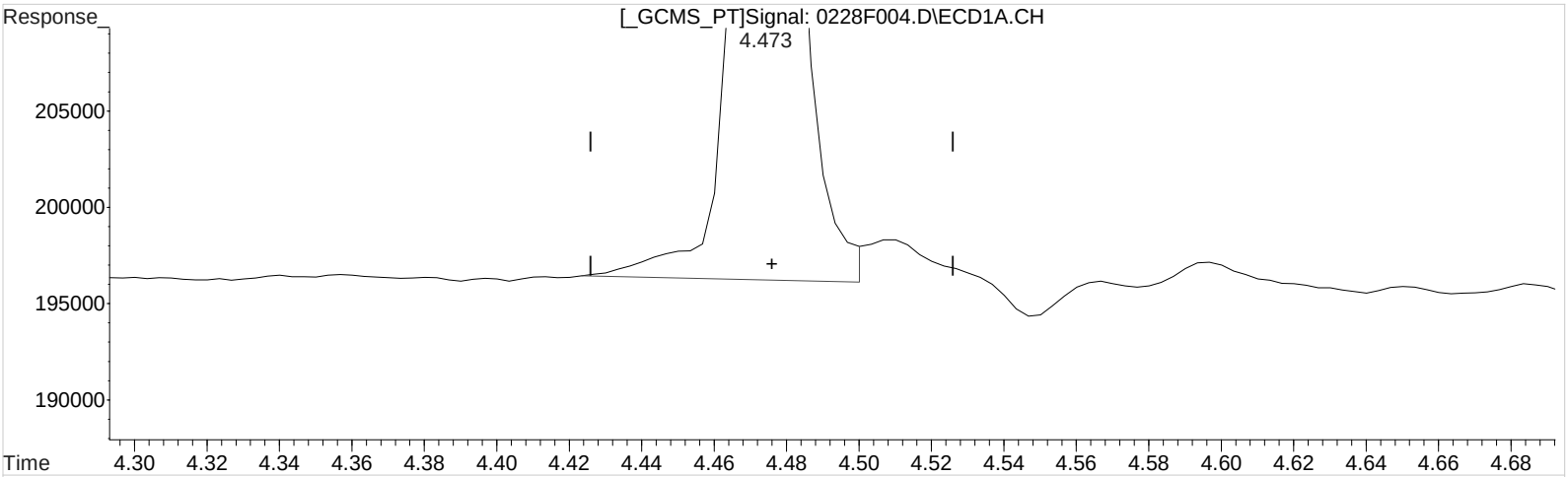
(+) = Expected Retention Time

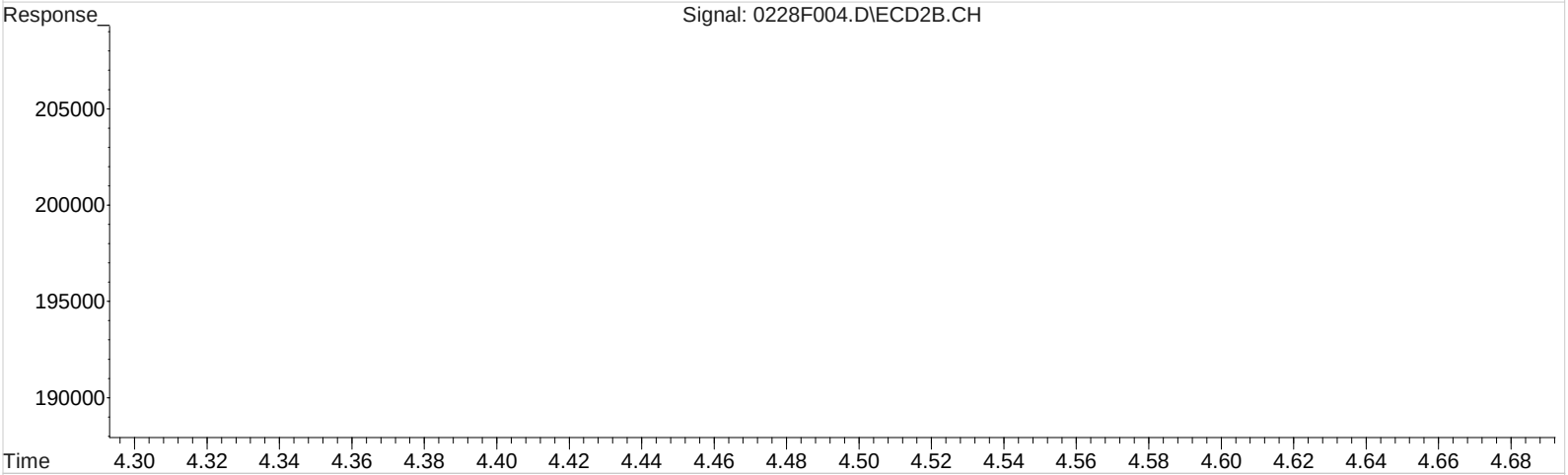
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.319 ug/L

response 627943

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

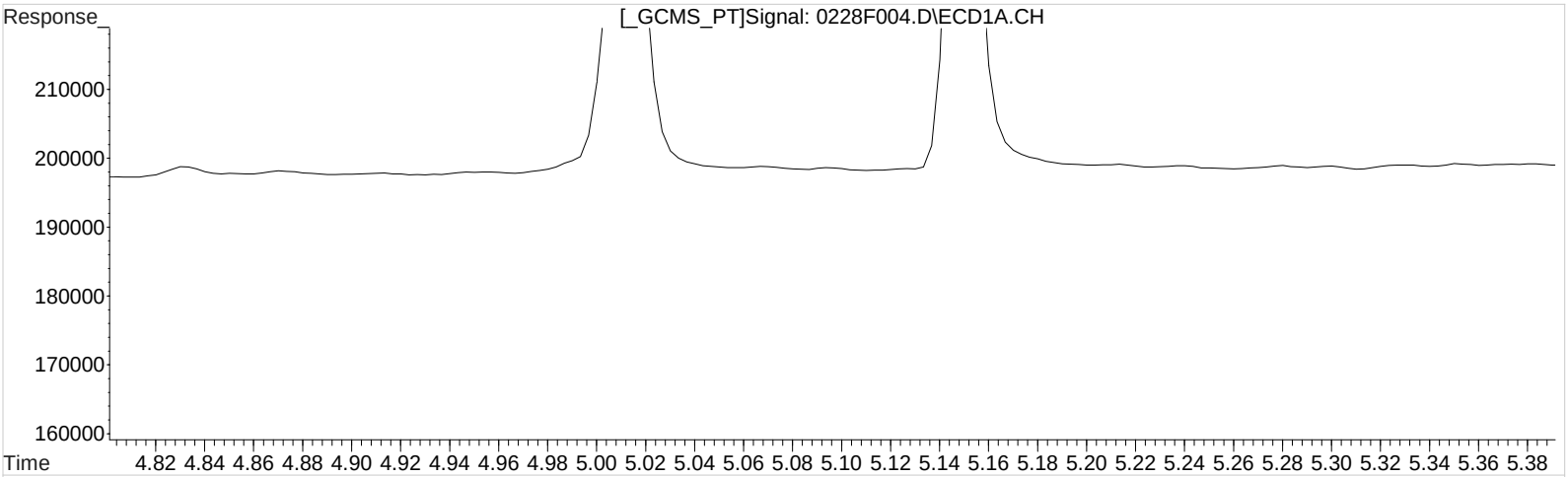
(+) = Expected Retention Time

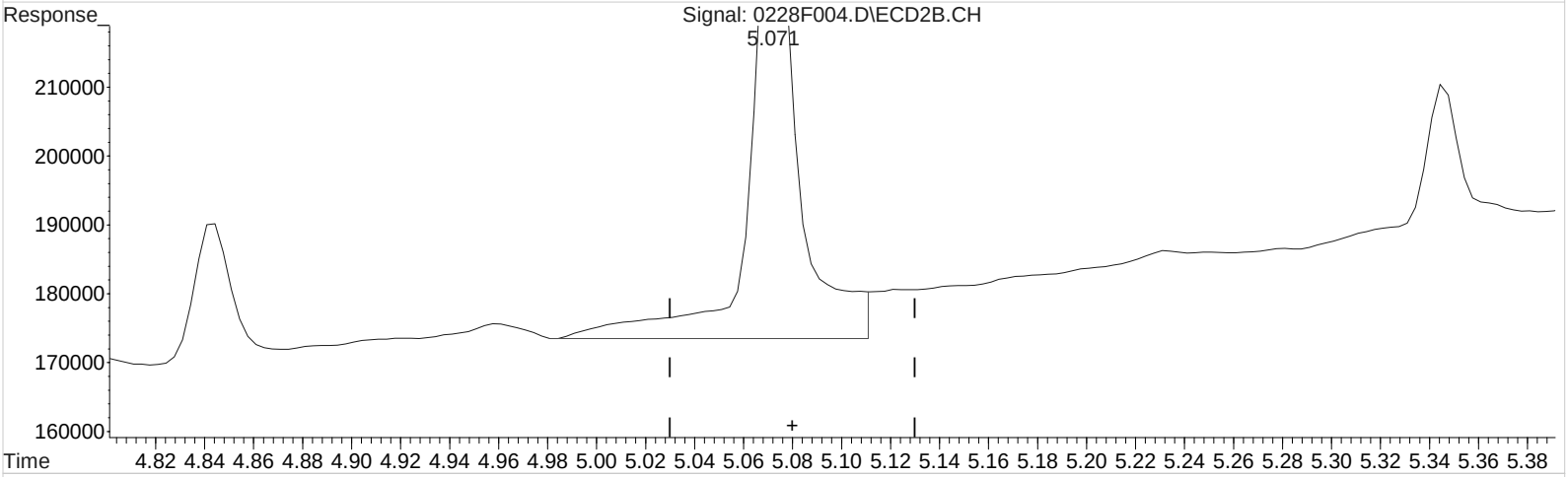
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

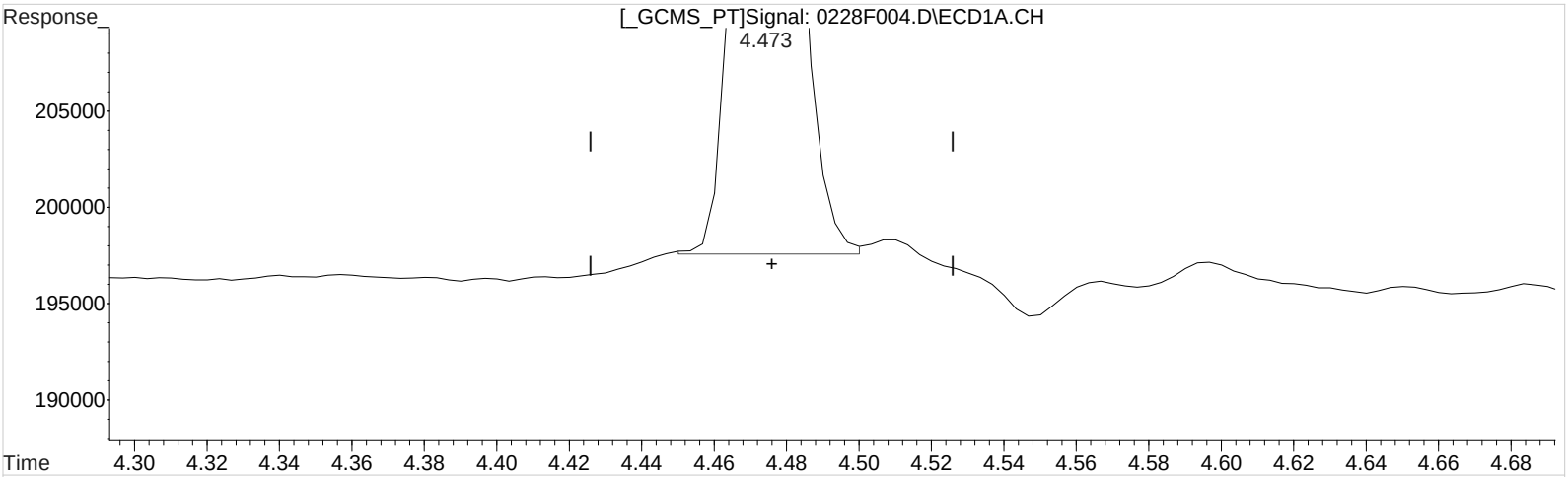
(+) = Expected Retention Time

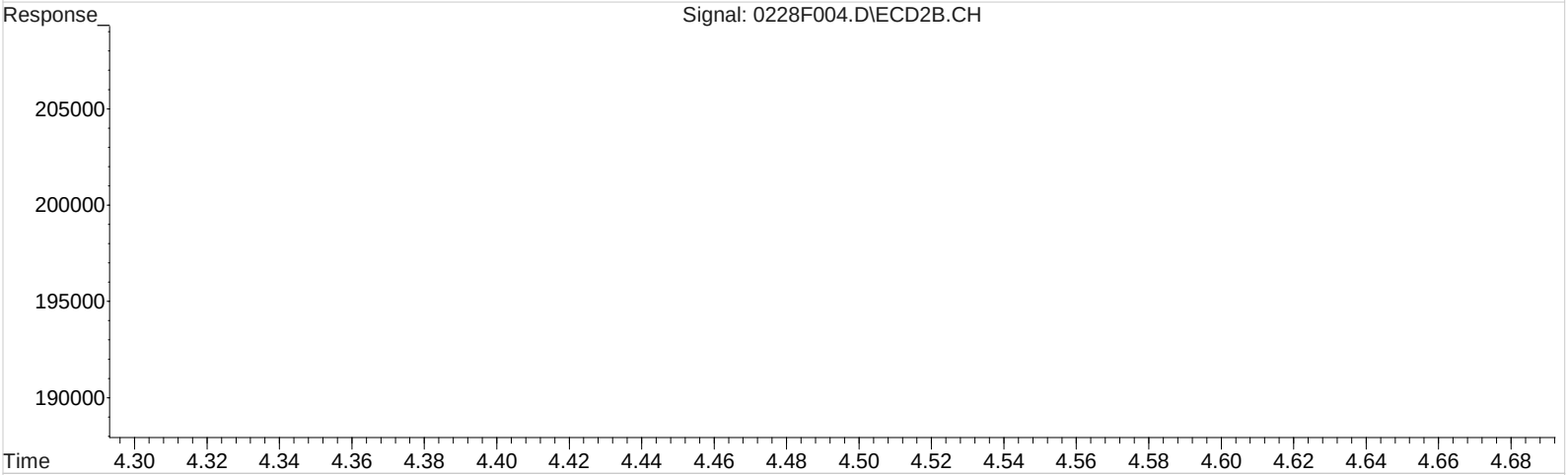
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

(+) = Expected Retention Time

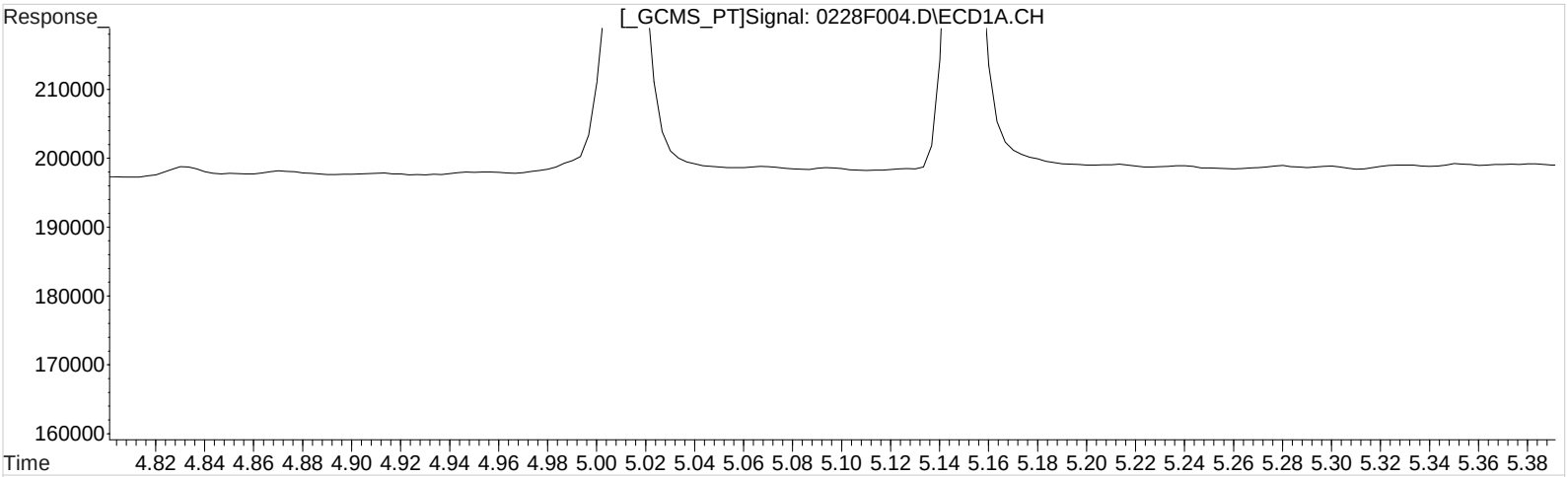
Quantitation Report (Qedit)

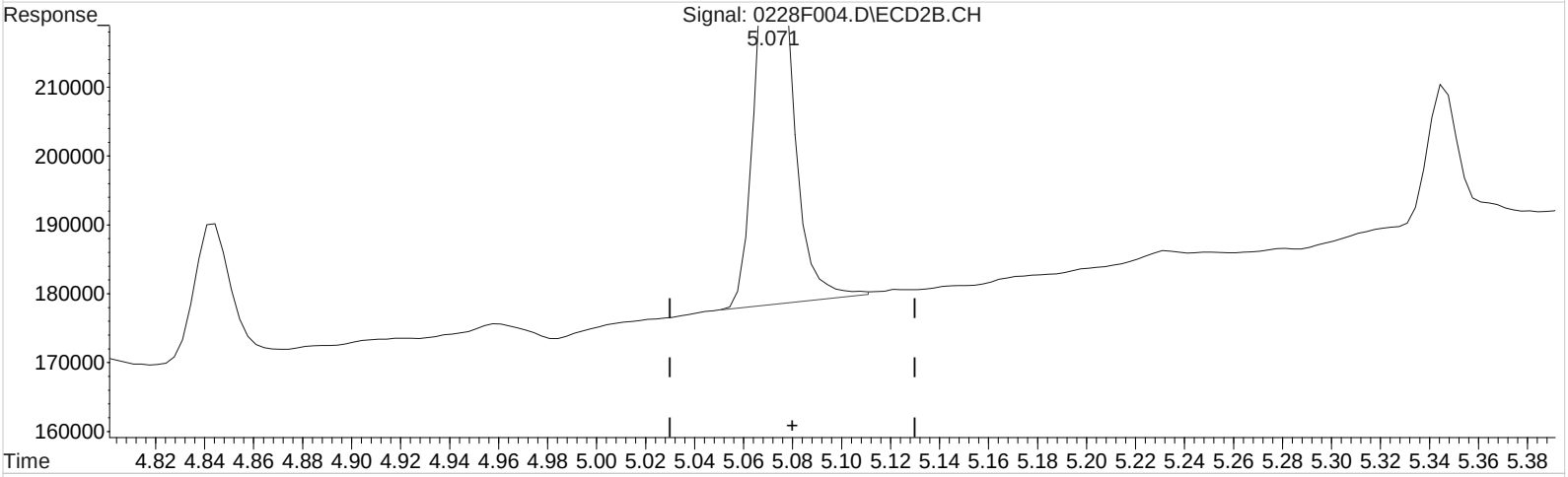
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.048 ug/L m

response 646609

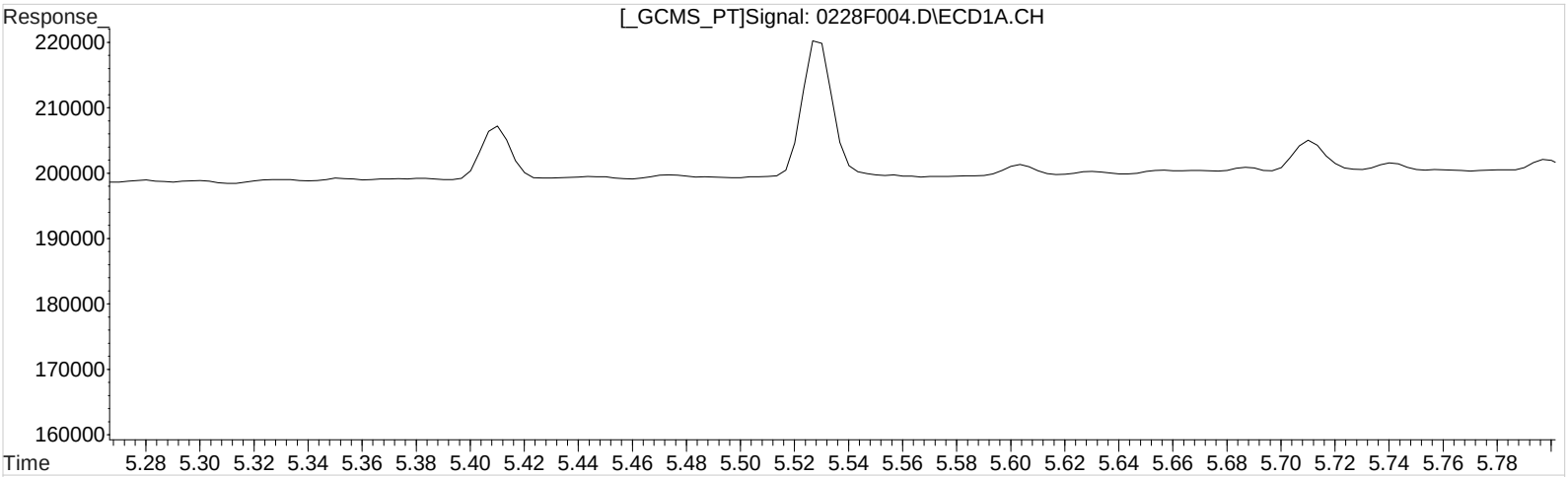
(+) = Expected Retention Time

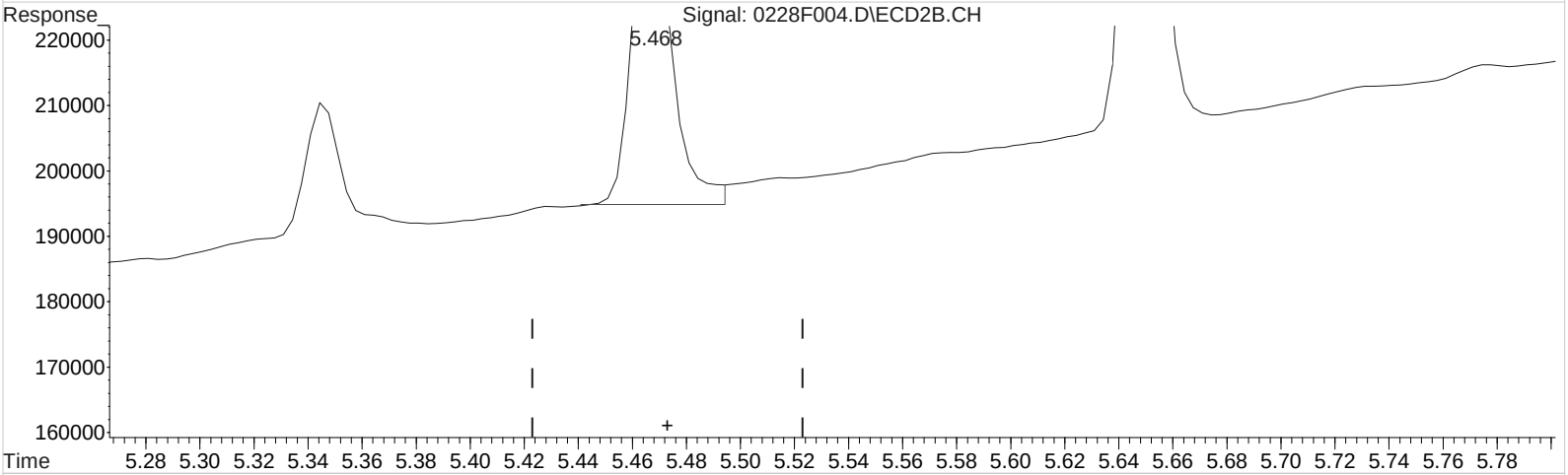
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.013min 0.771 ug/L

response 599618

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.468min 1.232 ug/L

response 508652

(+) = Expected Retention Time

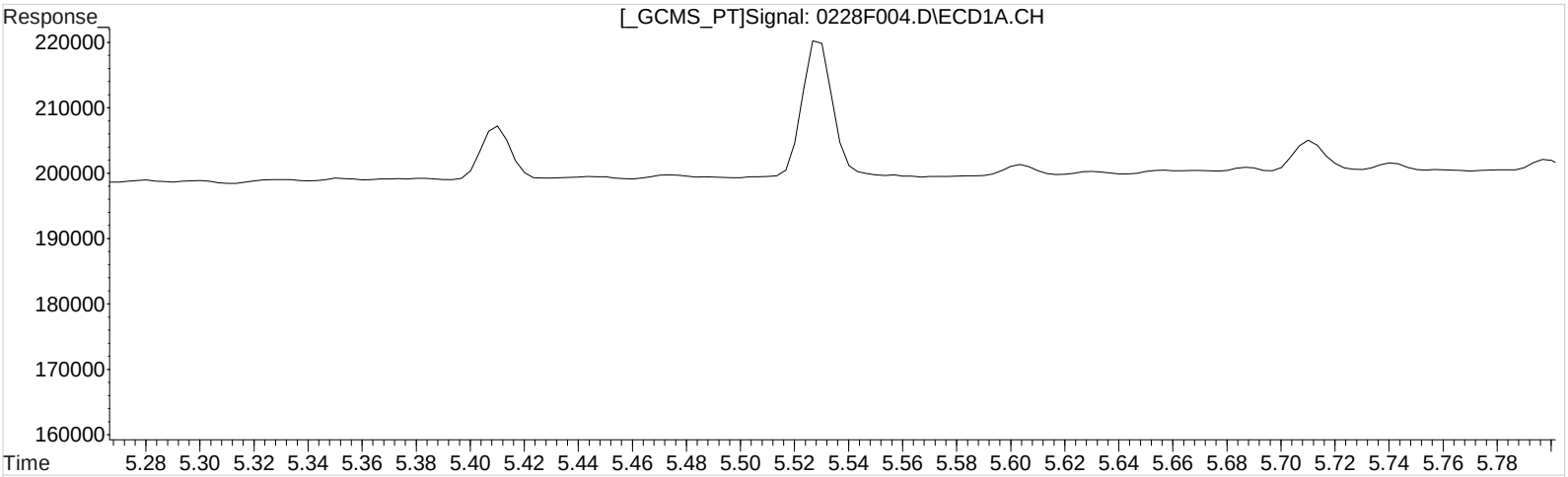
Quantitation Report (Qedit)

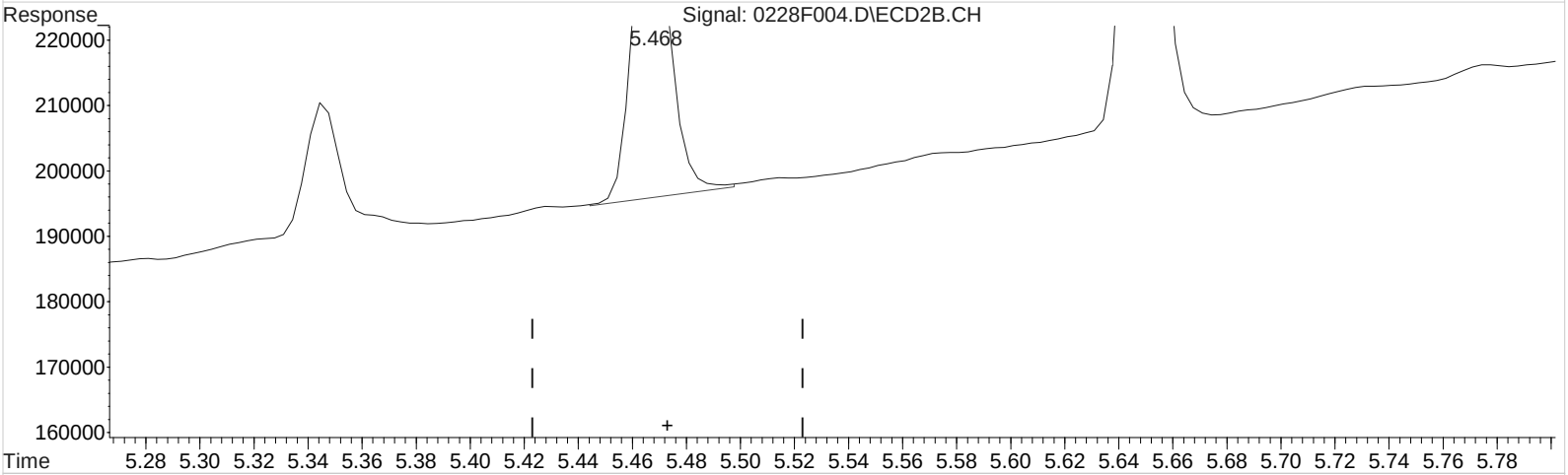
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.013min 0.771 ug/L

response 599618

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.468min 1.152 ug/L m

response 475513

(+) = Expected Retention Time

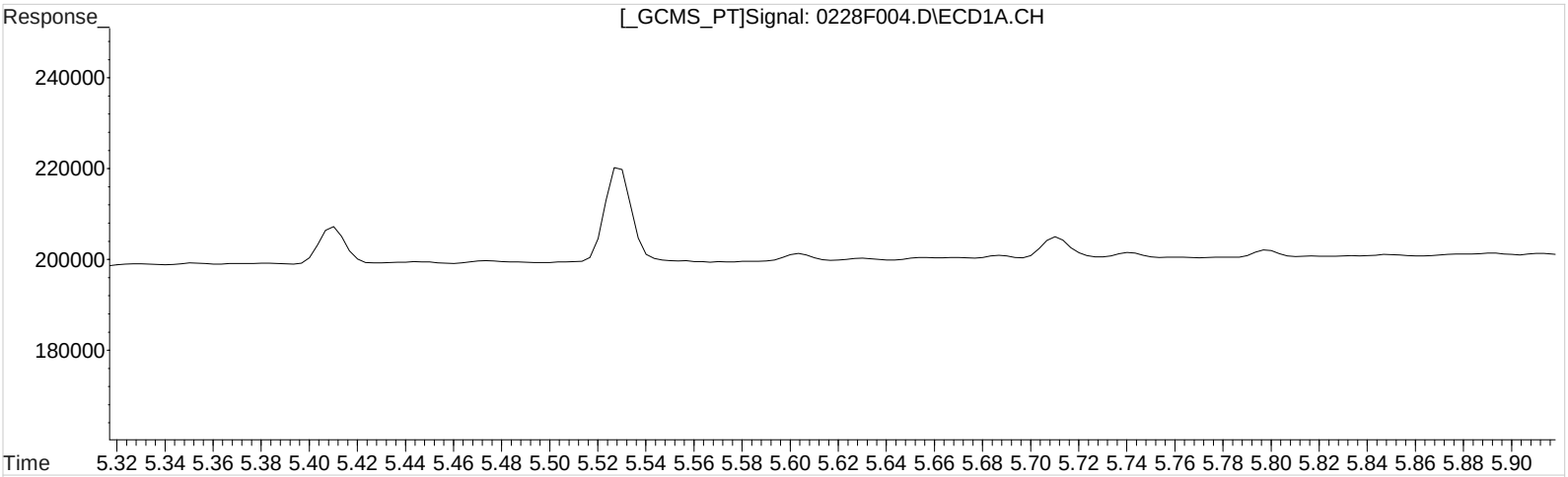
Quantitation Report (Qedit)

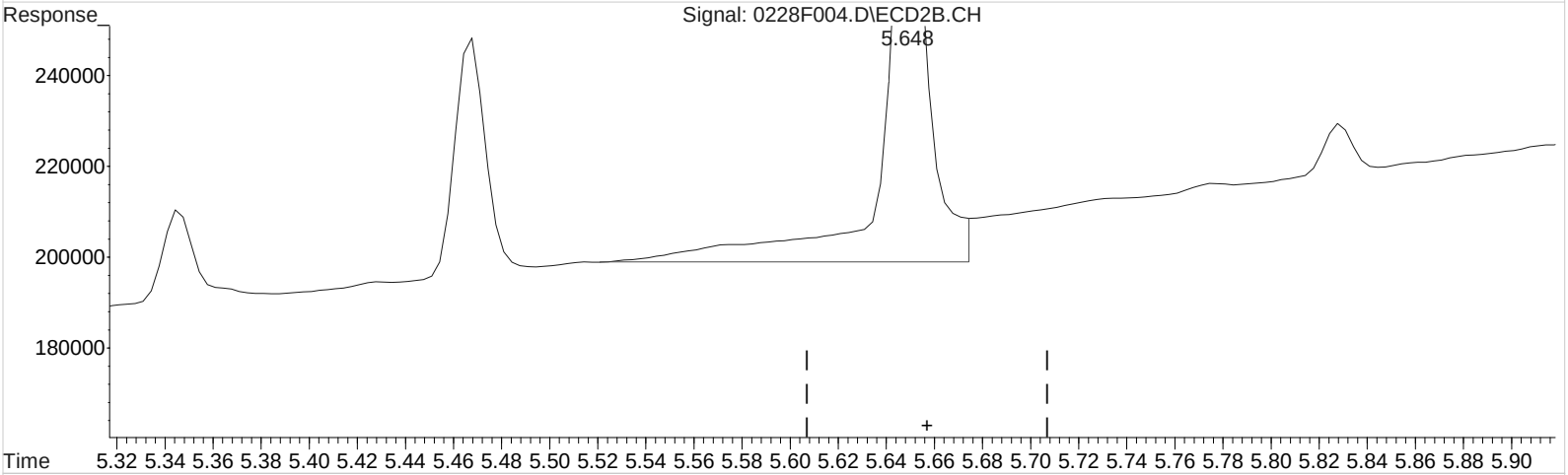
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.150min 0.493 ug/L

response 673174

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.648min 1.785 ug/L

response 1226970

(+) = Expected Retention Time

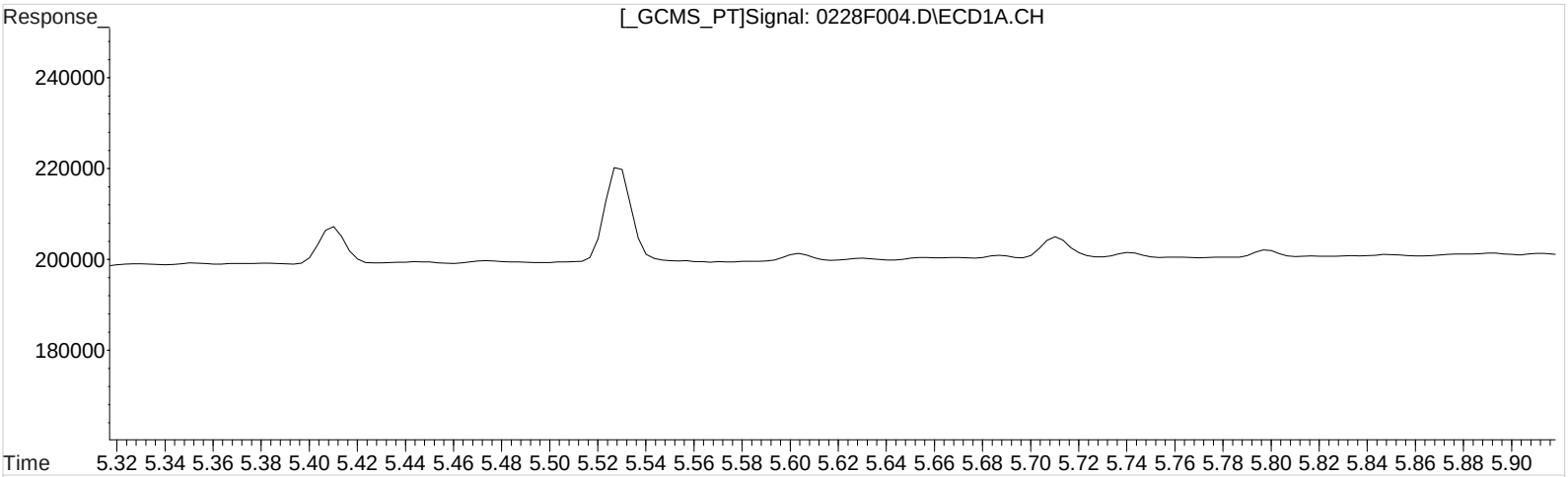
Quantitation Report (Qedit)

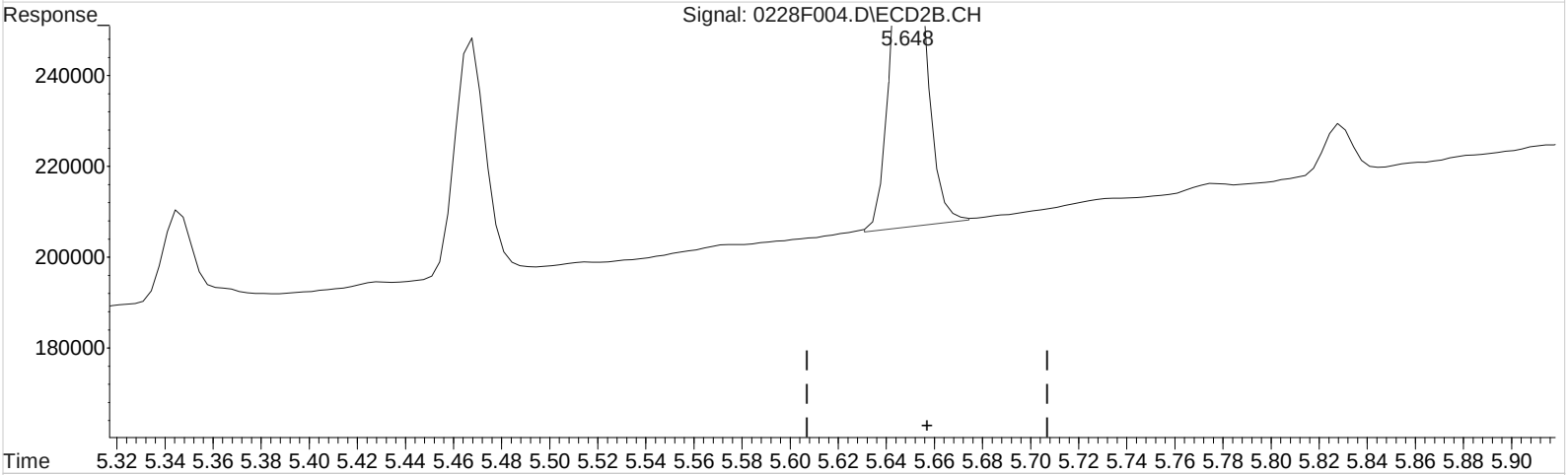
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.150min 0.493 ug/L

response 673174

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.648min 1.149 ug/L m

response 789810

(+) = Expected Retention Time

1st JMS 02/28/19

2nd MC 02/28/19

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28

Column Name: Rtx-1701

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -87.82 X² + 4.342E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	6.732E5	02	5.000	5.679E5	03	10.000	5.372E5	04	25.000	4.948E5
05	50.000	4.691E5	06	100.000	4.496E5	07	250.000	4.103E5	08	500.000	3.739E5
09	1000.000	3.511E5	10	2.500	6.128E5						

2,3,4,5-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -268.7 X² + 3.077E5 X + 3.627E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	02	4.715	3.979E5	03	9.431	3.696E5	04	23.577	3.259E5
05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5	10	2.358	4.756E5

2,3,5,6-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -316.9 X² + 4.391E5 X + 2.523E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	02	4.715	5.28E5	03	9.431	4.935E5	04	23.577	4.478E5
05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5	10	2.358	5.749E5

2,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -146.2 X² + 1.398E5 X + 1.234E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	02	4.669	1.8E5	03	9.338	1.735E5	04	23.345	1.484E5
05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5	10	2.334	2.006E5

2,4,6-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9995**	**Y= -245.7 X² + 3.136E5 X + 2.021E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	02	4.669	3.846E5	03	9.338	3.638E5	04	23.345	3.225E5
05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5	10	2.334	4.078E5

3,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -166.3 X² + 1.479E5 X + 8.837E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	02	4.669	1.823E5	03	9.338	1.696E5	04	23.345	1.515E5
05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5	10	2.334	1.988E5

3,4-Dichlorophenol	**Quadratic**	**1/X**	**COD = 1.0000**	**Y= -15.47 X² + 1.592E4 X + 8.759E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.529E4	02	4.605	1.749E4	03	9.209	1.718E4	04	23.023	1.584E4
05	46.046	1.558E4	06	92.091	1.446E4	07	230.230	1.241E4	10	2.302	1.966E4

3,5-Dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9982**	**Y= -14.62 X² + 1.118E4 X + 7.47E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	1.798E4	02	4.605	1.407E4	03	9.209	1.255E4	04	23.023	1.076E4
05	46.046	1.147E4	06	92.091	9.36E3	07	230.230	7.904E3	10	2.302	1.374E4

Pentachlorophenol (PCP)	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -97.29 X² + 4.57E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	02	4.750	5.978E5	03	9.501	5.654E5	04	23.752	5.208E5
05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5	08	475.030	3.936E5
09	950.060	3.695E5	10	2.375	6.451E5						

4-Bromo-2,6-dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9994**	**Y= -70.25 X² + 3.43E5 X + 2.985E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	02	5.000	4.356E5	03	10.000	4.141E5	04	25.000	3.754E5
05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5	08	500.000	2.979E5
09	1000.000	2.755E5	10	2.500	4.672E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.555	**-44.5**	02	5.000	5.55	11.0	03	10.000	11.4	14.0
04	25.000	27.6	10.6	05	50.000	53.6	7.2	06	100.000	105	4.8
07	250.000	248	-0.9	08	500.000	475	-5.0	09	1000.000	1020	1.6
10	2.500	2.53	1.4								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.770	-18.3	02	4.715	4.94	4.7	03	9.431	10.2	8.6
04	23.577	24.3	3.1	05	47.153	46.9	-0.6	06	94.307	91.6	-2.8
07	235.770	237	0.6	10	2.358	2.47	4.8				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.738	-21.7	02	4.715	5.11	8.5	03	9.431	10.1	7.1
04	23.577	23.9	1.3	05	47.153	47.4	0.6	06	94.307	91.5	-3.0
07	235.770	237	0.5	10	2.358	2.52	6.8				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.634	**-32.1**	02	4.669	5.16	10.4	03	9.338	10.8	15.9
04	23.345	24.5	5.1	05	46.690	46.1	-1.2	06	93.379	88.6	-5.1
07	233.450	236	1.2	10	2.334	2.47	6.0				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.732	-21.6	02	4.669	5.10	9.3	03	9.338	10.3	10.0
04	23.345	23.8	2.0	05	46.690	47.3	1.2	06	93.379	89.5	-4.1
07	233.450	235	0.8	10	2.334	2.39	2.6				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.655	-29.8	02	4.669	5.19	11.1	03	9.338	10.2	9.6
04	23.345	24.0	2.7	05	46.690	47.4	1.5	06	93.379	88.5	-5.2
07	233.450	236	1.2	10	2.334	2.55	9.2				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.914	-0.8	02	4.605	4.53	-1.6	03	9.209	9.47	2.9
04	23.023	22.9	-0.7	05	46.046	46.6	1.3	06	92.091	91.2	-1.0
07	230.230	231	0.2	10	2.302	2.30	-0.2				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.814	-11.6	02	4.605	5.16	12.1	03	9.209	9.80	6.4
04	23.023	22.1	-3.9	05	46.046	49.8	8.2	06	92.091	86.2	-6.4
07	230.230	233	1.3	10	2.302	2.17	-5.8				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	0.527	**-44.5**	02	4.750	5.27	11.0	03	9.501	10.8	14.0
04	23.752	26.3	10.6	05	47.503	50.9	7.2	06	95.006	99.5	4.8
07	237.520	235	-0.9	08	475.030	452	-5.0	09	950.060	966	1.6
10	2.375	2.41	1.4								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.643	**-35.7**	02	5.000	5.49	9.7	03	10.000	11.2	12.3
04	25.000	26.6	6.5	05	50.000	53.3	6.6	06	100.000	102	1.6
07	250.000	251	0.2	08	500.000	481	-3.9	09	1000.000	1010	1.2
10	2.500	2.54	1.5								

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D\0228F004c.d	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D\0228F006c.d	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D\0228F007c.d	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D\0228F008c.d	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D\0228F009c.d	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D\0228F010c.d	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D\0228F011c.d	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D\0228F012c.d	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D\0228F013c.d	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D\0228F014c.d	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte	Curve Fit	Weighting

2,3,4,5,6-Pentachloroanisole

Average RF **RSD = 9.583** **Average RF = 6.462E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	7.909E5	02	5.000	6.542E5	03	10.000	6.532E5	04	25.000	6.151E5
05	50.000	6.083E5	06	100.000	5.984E5	07	250.000	5.996E5	08	500.000	6.052E5
09	1000.000	6.245E5	10	2.500	7.13E5						

2,3,4,5-Tetrachlorophenol

Average RF **RSD = 12.29** **Average RF = 4.159E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	02	4.715	4.353E5	03	9.431	4.108E5	04	23.577	3.904E5
05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5	10	2.358	4.73E5

2,3,5,6-Tetrachlorophenol

Average RF **RSD = 6.587** **Average RF = 6.037E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	02	4.715	5.882E5	03	9.431	6.075E5	04	23.577	5.816E5
05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5	10	2.358	6.377E5

2,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9997** **Y= -73.44 X² + 1.777E5 X + 1.058E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	02	4.669	2.059E5	03	9.338	2.015E5	04	23.345	1.829E5
05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5	10	2.334	2.293E5

2,4,6-Trichlorophenol

Average RF **RSD = 4.634** **Average RF = 4.082E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	02	4.669	4.004E5	03	9.338	4.124E5	04	23.345	3.941E5
05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5	10	2.334	4.267E5

3,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9998** **Y= -63.92 X² + 1.7E5 X + 9.004E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	02	4.669	1.919E5	03	9.338	1.89E5	04	23.345	1.732E5
05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5	10	2.334	2.115E5

3,4-Dichlorophenol

Average RF **RSD = 10.82** **Average RF = 2.169E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.356E4	02	4.605	2.28E4	03	9.209	2.378E4	04	23.023	2.153E4
05	46.046	2.119E4	06	92.091	1.915E4	07	230.230	1.751E4	10	2.302	2.4E4

3,5-Dichlorophenol

Quadratic **1/X** **COD = 0.9996** **Y= -14.71 X² + 1.578E4 X + 8.463E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.299E4	02	4.605	1.798E4	03	9.209	1.82E4	04	23.023	1.612E4
05	46.046	1.537E4	06	92.091	1.408E4	07	230.230	1.249E4	10	2.302	1.928E4

Pentachlorophenol (PCP)

Average RF **RSD = 9.573** **Average RF = 6.805E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	02	4.750	6.912E5	03	9.501	6.875E5	04	23.752	6.474E5
05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5	08	475.030	6.37E5
09	950.060	6.573E5	10	2.375	7.52E5						

4-Bromo-2,6-dichlorophenol

Average RF **RSD = 5.968** **Average RF = 4.216E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	02	5.000	3.777E5	03	10.000	4.048E5	04	25.000	4.138E5
05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5	08	500.000	4.395E5
09	1000.000	4.542E5	10	2.500	3.934E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.22	22.4	02	5.000	5.06	1.2	03	10.000	10.1	1.1
04	25.000	23.8	-4.8	05	50.000	47.1	-5.9	06	100.000	92.6	-7.4
07	250.000	232	-7.2	08	500.000	468	-6.4	09	1000.000	966	-3.4
10	2.500	2.76	10.3								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.14	21.2	02	4.715	4.93	4.7	03	9.431	9.31	-1.2
04	23.577	22.1	-6.1	05	47.153	43.3	-8.3	06	94.307	83.5	-11.5
07	235.770	206	-12.5	10	2.358	2.68	13.7				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.07	13.6	02	4.715	4.59	-2.6	03	9.431	9.49	0.6
04	23.577	22.7	-3.7	05	47.153	45.9	-2.6	06	94.307	89.1	-5.6
07	235.770	223	-5.4	10	2.358	2.49	5.6				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.799	-14.5	02	4.669	4.82	3.3	03	9.338	10.0	7.4
04	23.345	23.7	1.3	05	46.690	47.3	1.3	06	93.379	90.7	-2.9
07	233.450	234	0.4	10	2.334	2.42	3.6				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	1.01	8.7	02	4.669	4.58	-1.9	03	9.338	9.43	1.0
04	23.345	22.5	-3.5	05	46.690	46.6	-0.2	06	93.379	89.0	-4.7
07	233.450	224	-4.0	10	2.334	2.44	4.5				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.846	-9.5	02	4.669	4.75	1.7	03	9.338	9.88	5.9
04	23.345	23.5	0.5	05	46.690	47.5	1.7	06	93.379	91.1	-2.4
07	233.450	234	0.3	10	2.334	2.38	1.8				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	1.00	8.6	02	4.605	4.84	5.1	03	9.209	10.1	9.6
04	23.023	22.9	-0.7	05	46.046	45.0	-2.3	06	92.091	81.3	-11.7
07	230.230	186	-19.3	10	2.302	2.55	10.6				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.806	-12.4	02	4.605	4.73	2.8	03	9.209	10.2	10.6
04	23.023	23.5	2.1	05	46.046	46.3	0.6	06	92.091	89.0	-3.3
07	230.230	232	0.7	10	2.302	2.28	-0.9				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	1.16	22.2	02	4.750	4.82	1.6	03	9.501	9.60	1.0
04	23.752	22.6	-4.9	05	47.503	44.7	-5.9	06	95.006	87.9	-7.4
07	237.520	220	-7.3	08	475.030	445	-6.4	09	950.060	918	-3.4
10	2.375	2.62	10.5								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.975	-2.5	02	5.000	4.48	-10.4	03	10.000	9.60	-4.0
04	25.000	24.5	-1.8	05	50.000	52.4	4.9	06	100.000	103	3.0
07	250.000	264	5.5	08	500.000	521	4.2	09	1000.000	1080	7.7
10	2.500	2.33	-6.7								

Initial Calibration Verification Summary Report

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-1701

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Quadratic	50	58.215	ug/L	16.4	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.125	ug/L	6.3	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.742	ug/L	7.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.950	ug/L	7.0	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	47.208	ug/L	1.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.502	ug/L	6.0	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	50.405	ug/L	9.5	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	54.814	ug/L	19.0	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Quadratic	47.5030	55.309	ug/L	16.4	<= 20

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-35

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Average RF	50	51.424	ug/L	2.8	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	46.743	ug/L	-0.9	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	47.890	ug/L	1.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	50.676	ug/L	8.5	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Average RF	46.69	46.729	ug/L	0.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	48.393	ug/L	3.6	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Average RF	46.0460	46.475	ug/L	0.9	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	48.925	ug/L	6.3	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Average RF	47.5030	48.834	ug/L	2.8	<= 20

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:10:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.031	4.715	2177979	1888328	5.516	4.344
		Target Compounds						
1)		3,4-Dichl...	3.138	3.832	80562	104986	4.505m	4.752
2)		3,5-Dichl...	3.378	4.089	64800	82809	5.639m	5.025
3)		2,4,6-Tri...	3.474	4.289	1795636	1869642	5.068	4.483
5)		2,4,5-Tri...	4.201	4.782	840314	961190	5.239	4.809
6)		3,4,5-Tri...	4.231	4.845	851278	896194	5.313	4.774
7)	M	2,3,5,6-T...	4.478	5.075	2489684	2773207	5.230	4.493m
8)	M	2,3,4,5-T...	5.014	5.469	1875877	2052365	4.930m	4.970
9)	M	Pentachlo...	5.151	5.649	2839370	3283089	5.309	4.775m
10)		Pentachlo...	5.151	5.649	2839370	3271189	5.588	5.010m

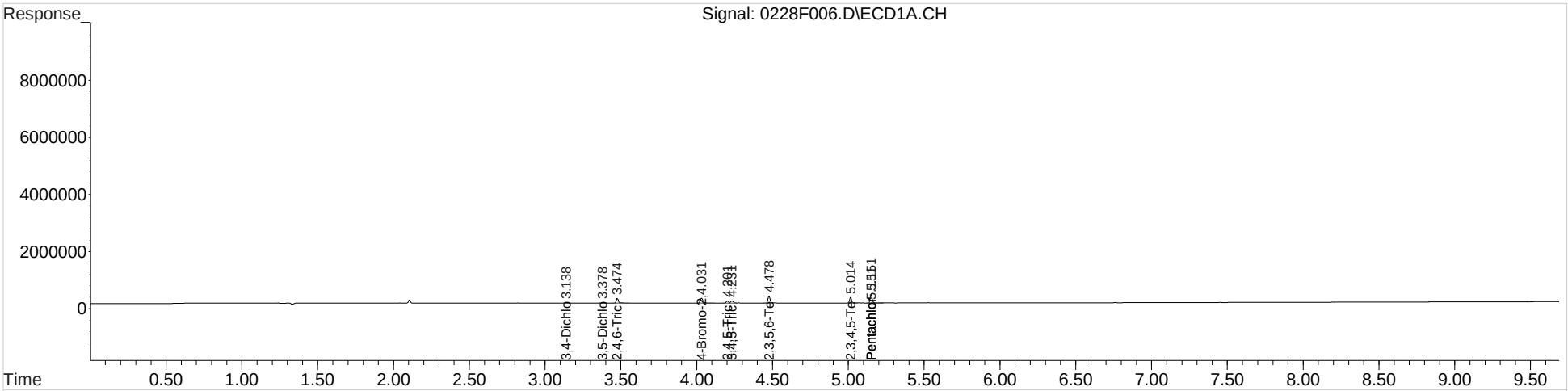
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:10:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



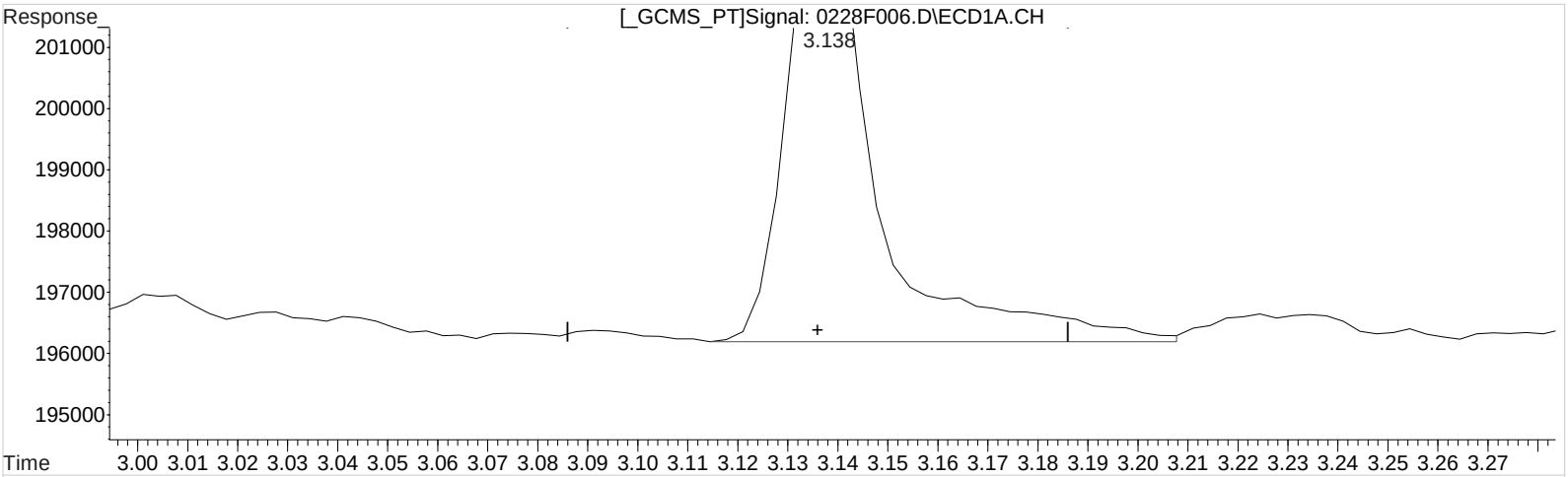
Quantitation Report (Qedit)

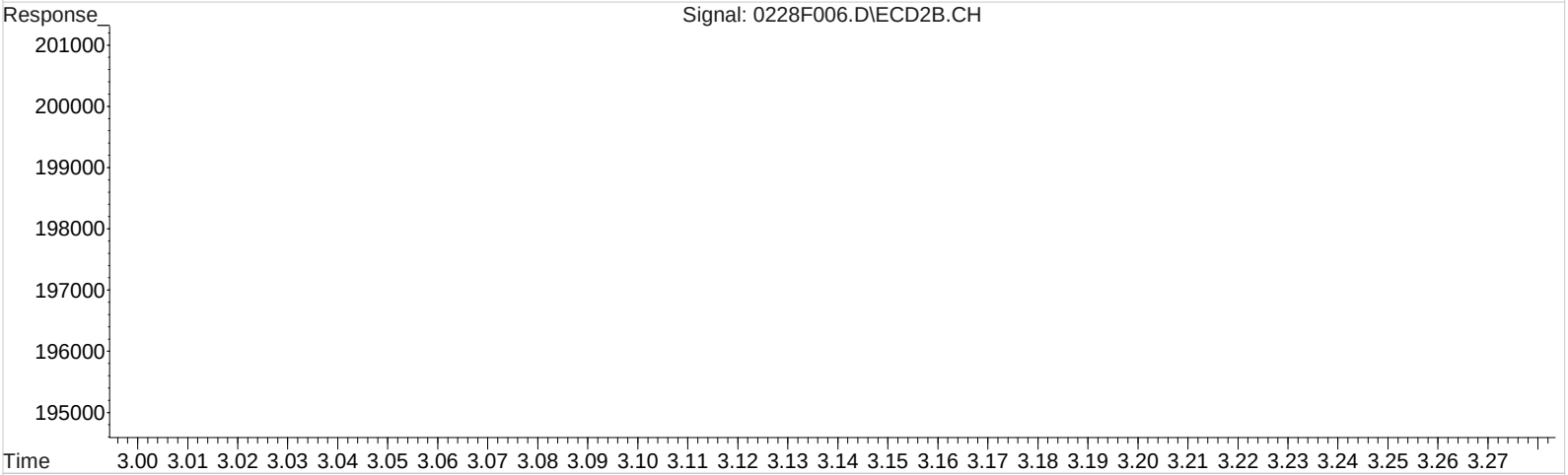
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.138min 5.274 ug/L

response 92393

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.832min 4.752 ug/L

response 104986

(+) = Expected Retention Time

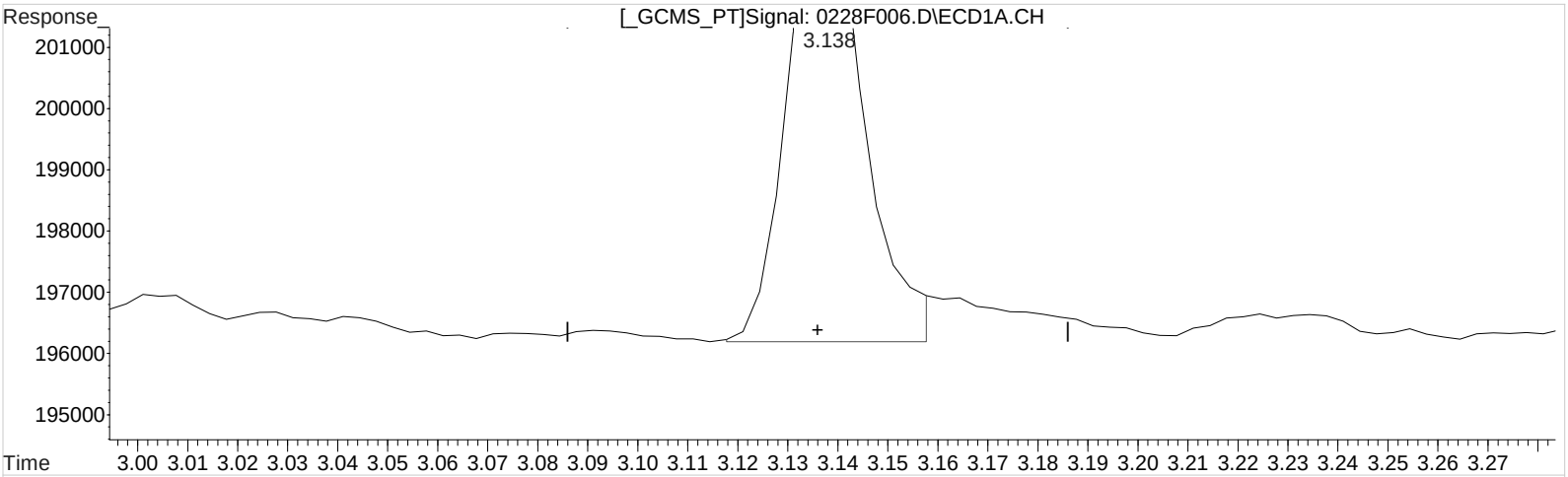
Quantitation Report (Qedit)

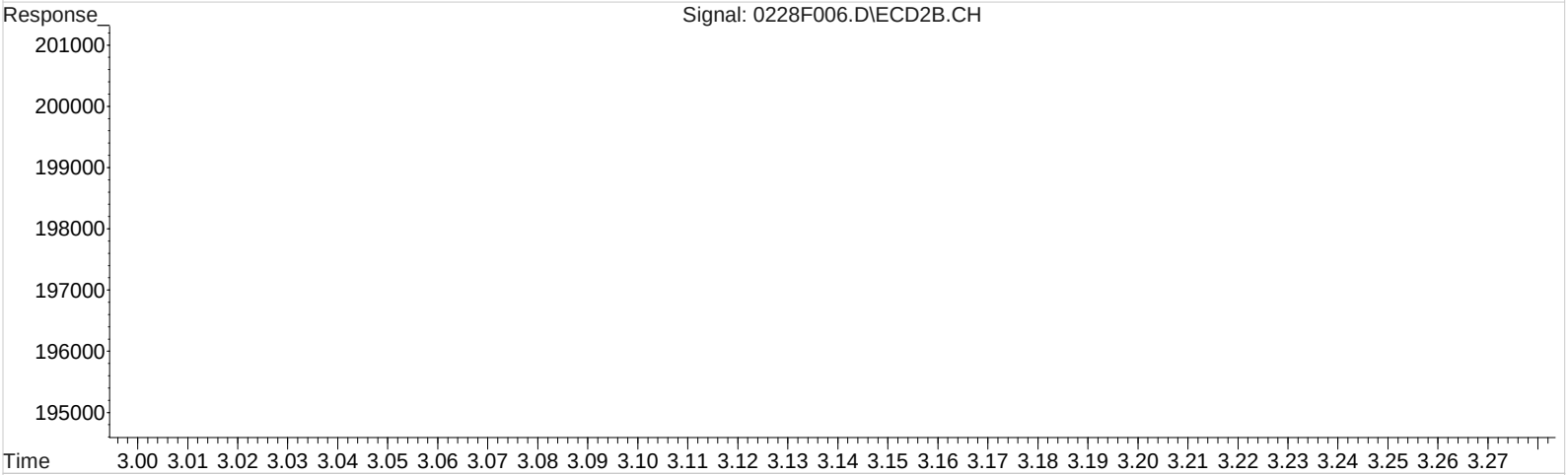
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.138min 4.505 ug/L m

response 80562

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.832min 4.752 ug/L

response 104986

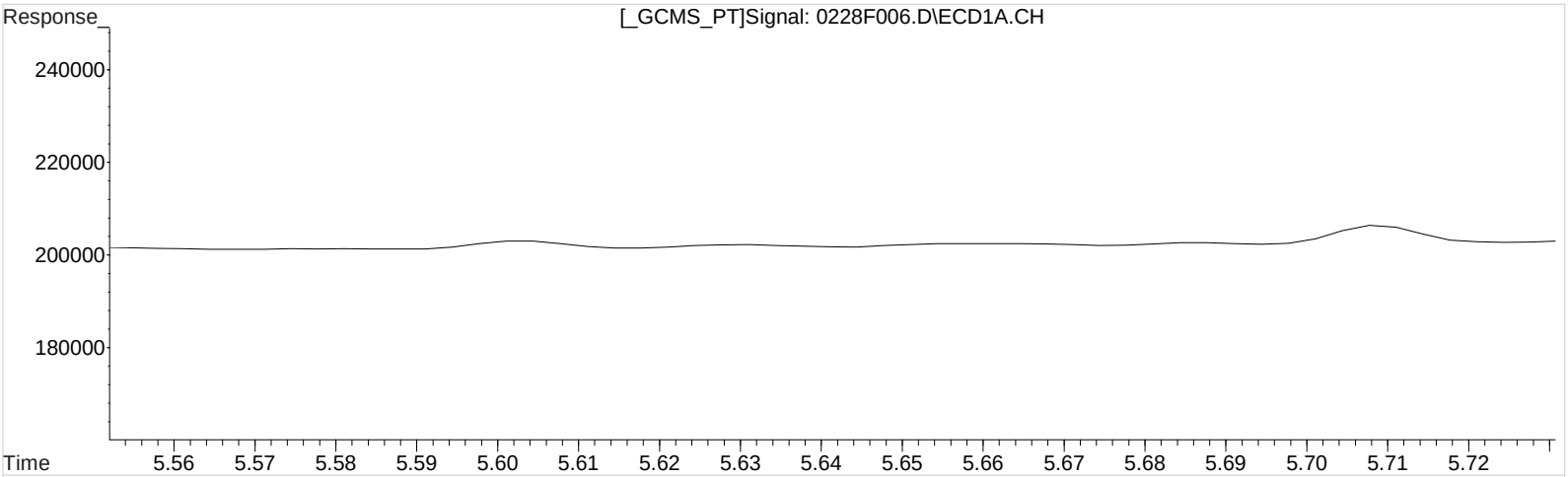
(+) = Expected Retention Time

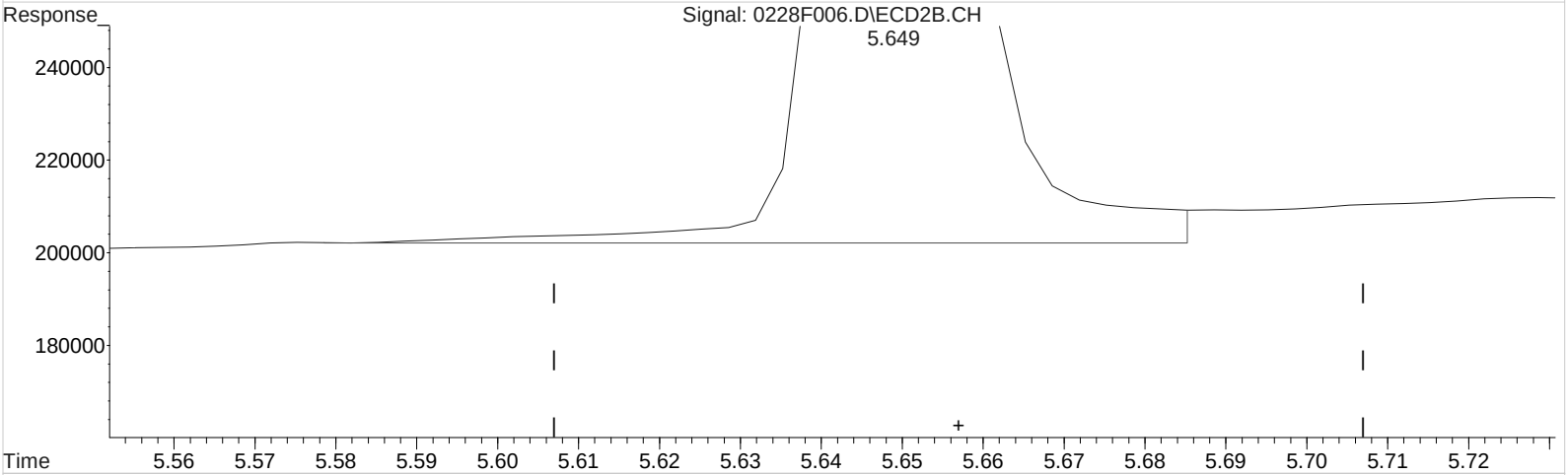
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.151min 5.588 ug/L

response 2839370

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.649min 5.332 ug/L

response 3480960

(+) = Expected Retention Time

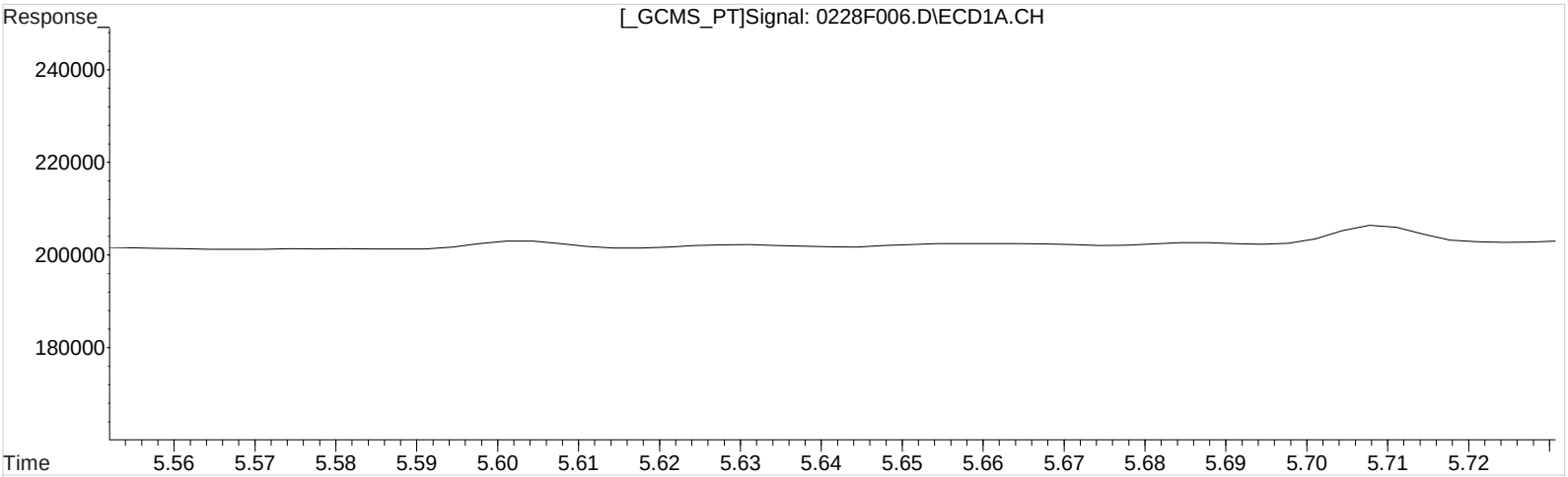
Quantitation Report (Qedit)

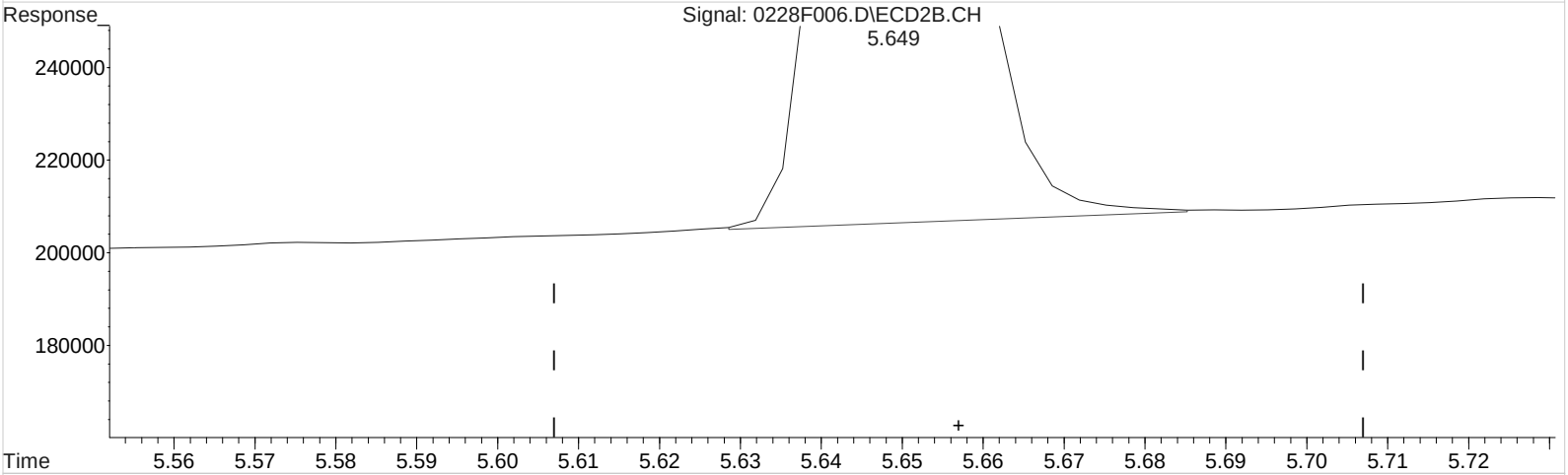
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.151min 5.588 ug/L

response 2839370

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.649min 5.010 ug/L m

response 3271189

(+) = Expected Retention Time

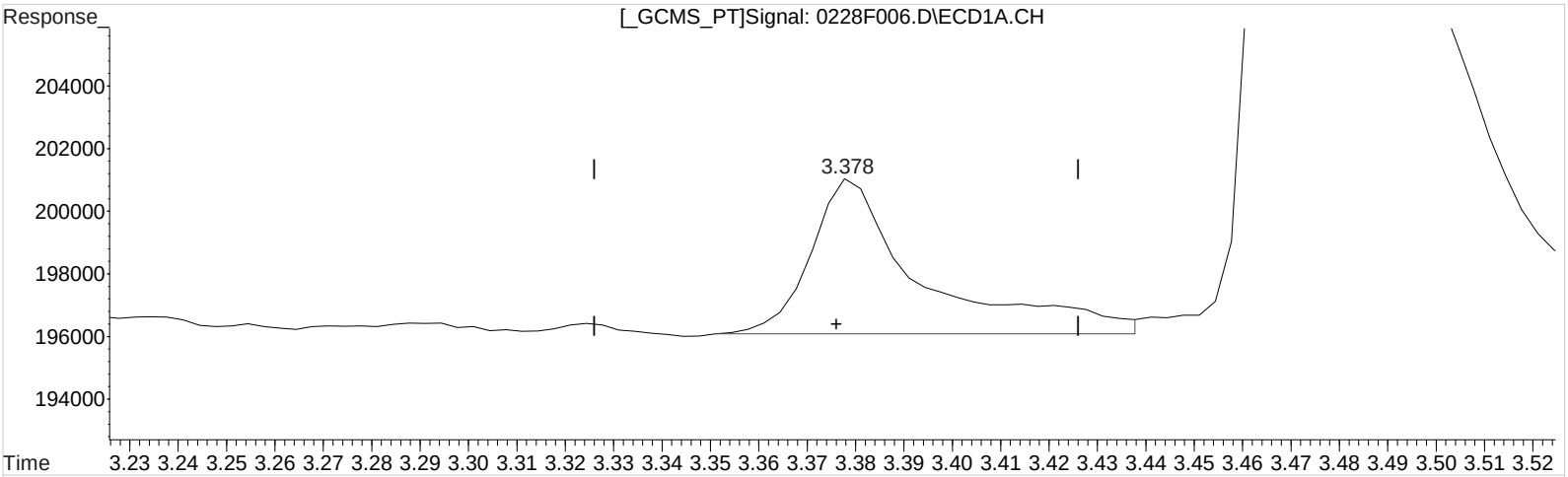
Quantitation Report (Qedit)

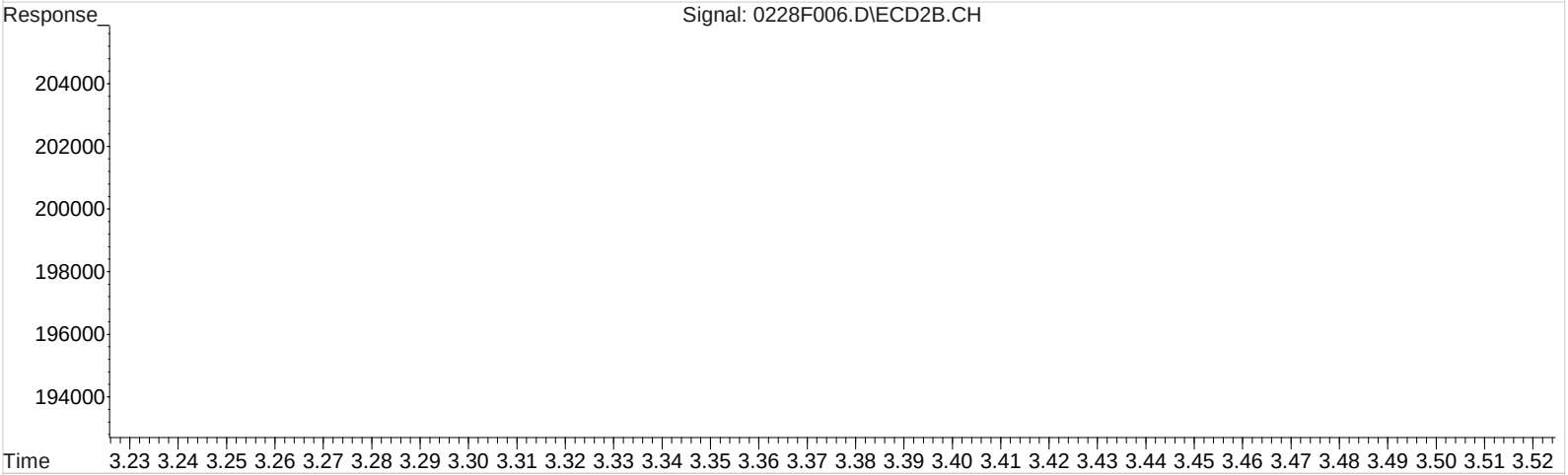
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 6.986 ug/L

response 78818

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 5.025 ug/L

response 82809

(+) = Expected Retention Time

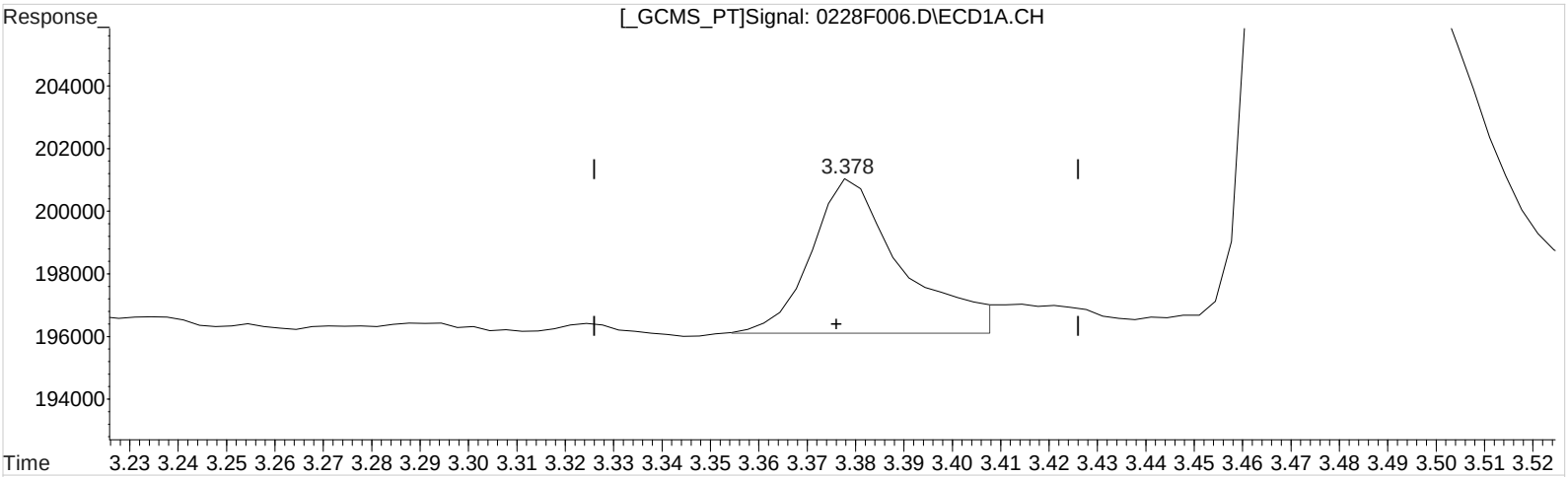
Quantitation Report (Qedit)

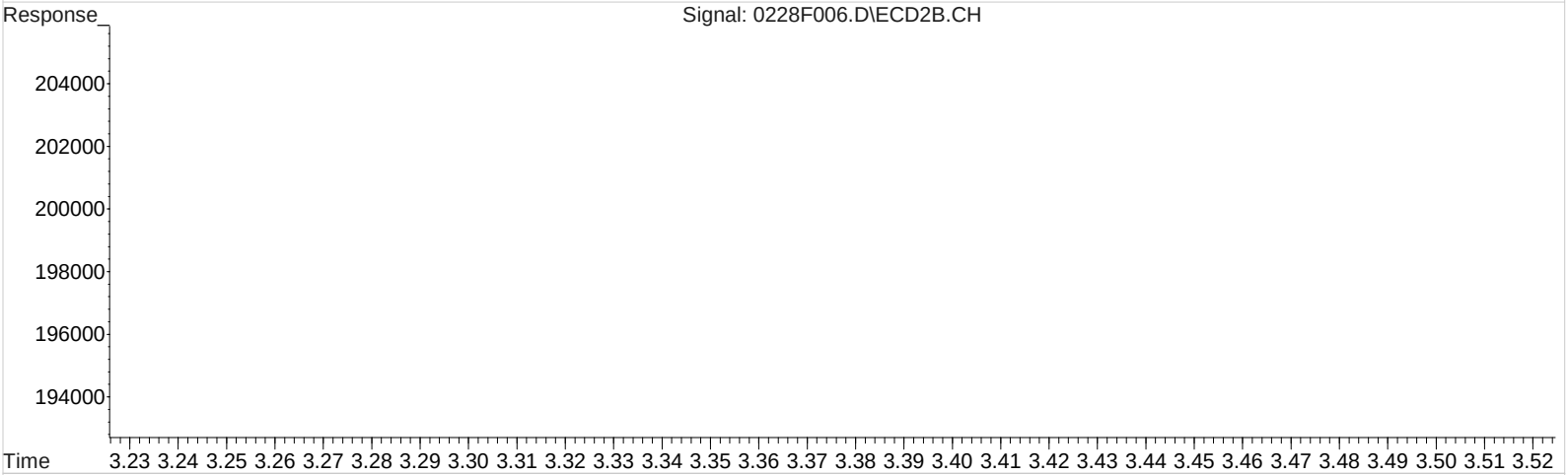
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 5.639 ug/L m

response 64800

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 5.025 ug/L

response 82809

(+) = Expected Retention Time

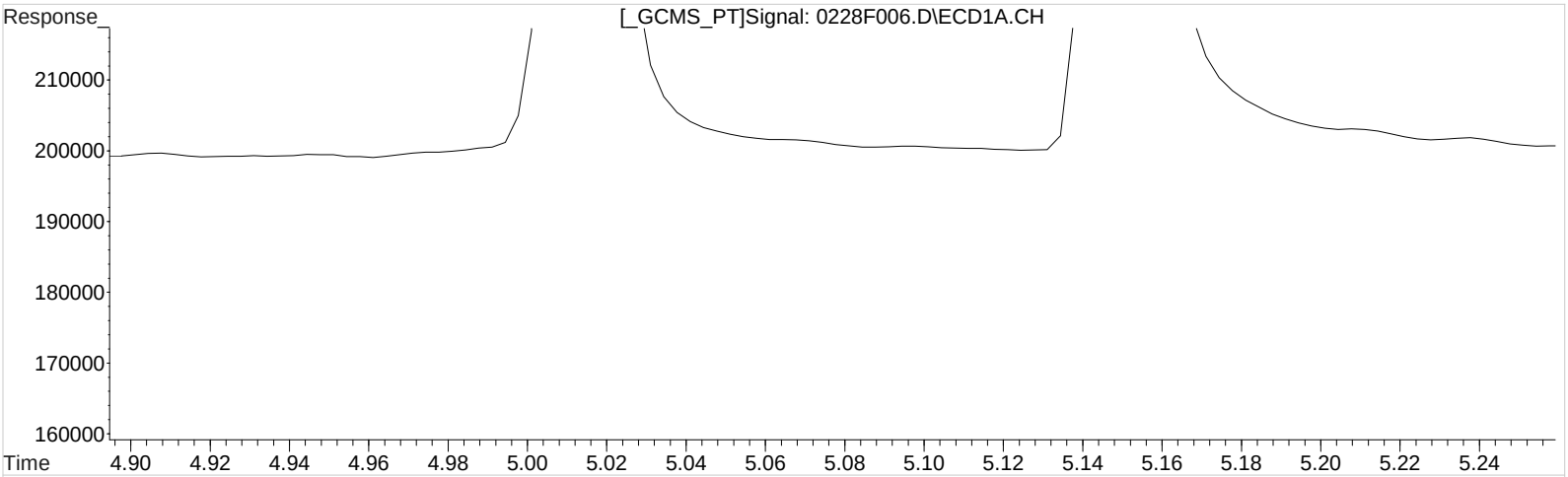
Quantitation Report (Qedit)

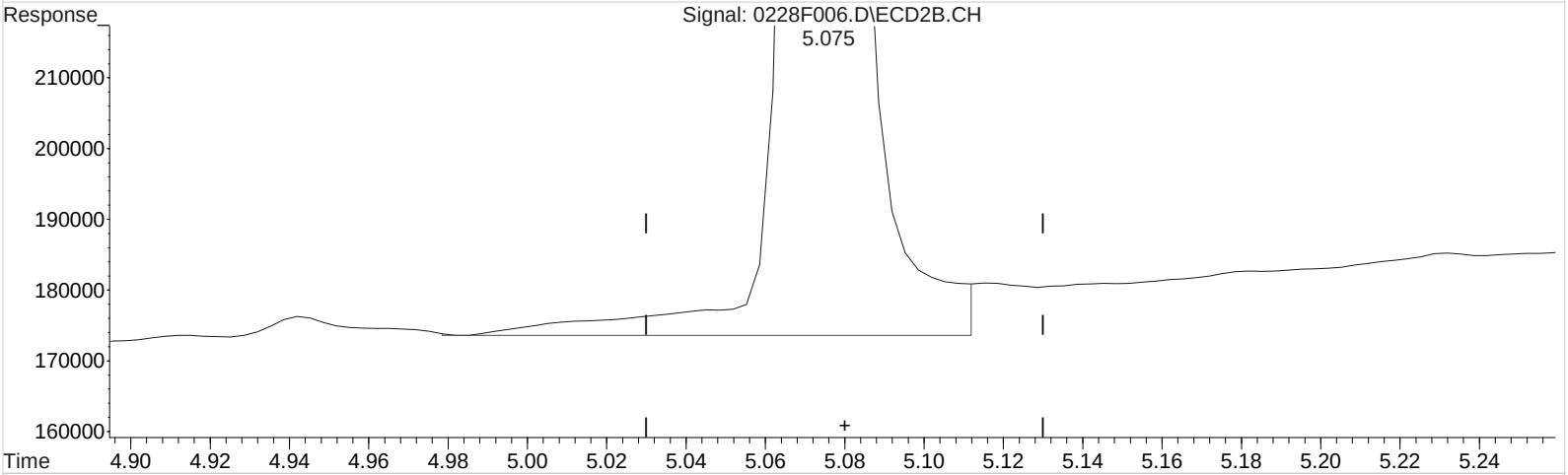
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 5.230 ug/L

response 2489684

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.075min 4.942 ug/L

response 3050029

(+) = Expected Retention Time

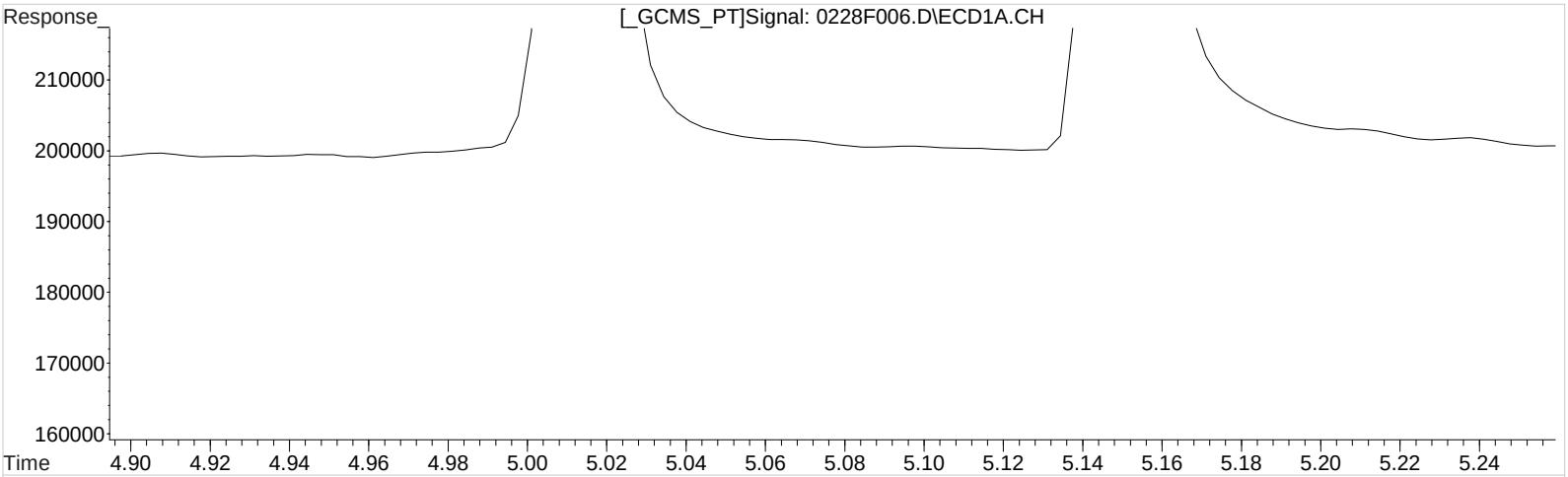
Quantitation Report (Qedit)

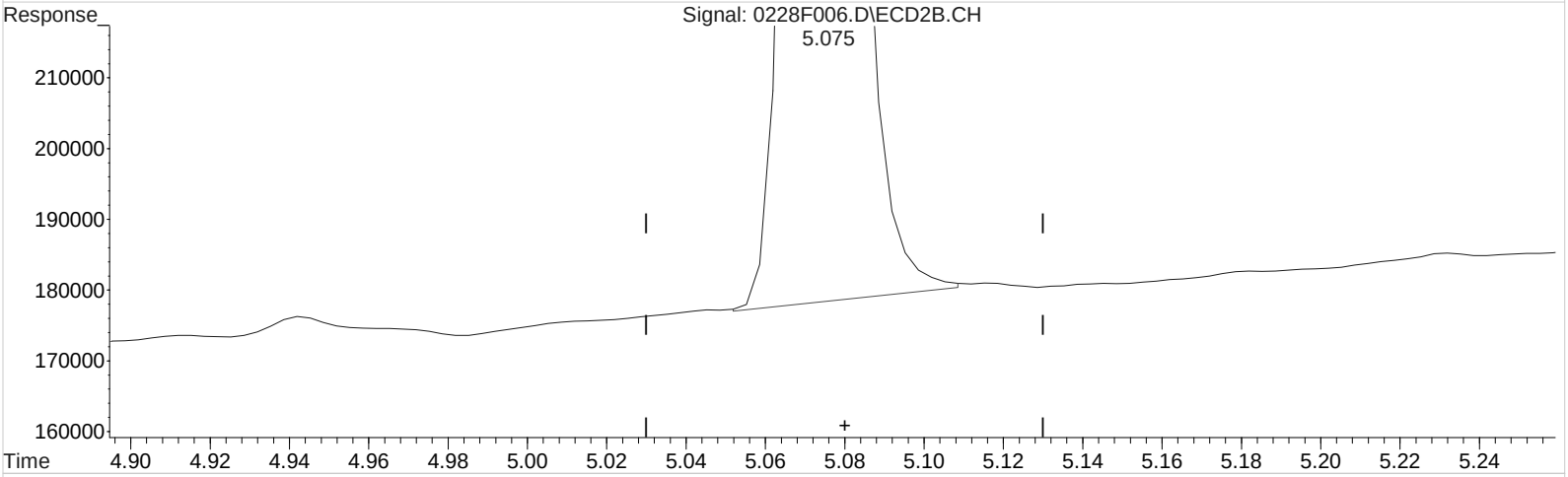
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 5.230 ug/L

response 2489684

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.075min 4.493 ug/L m

response 2773207

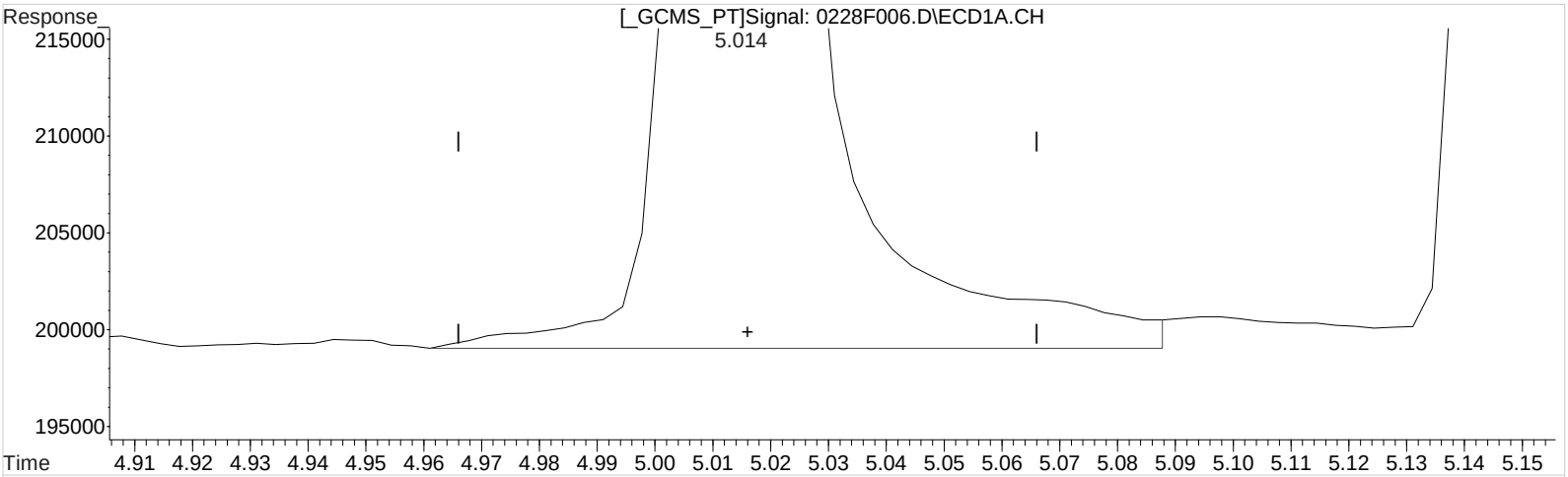
(+) = Expected Retention Time

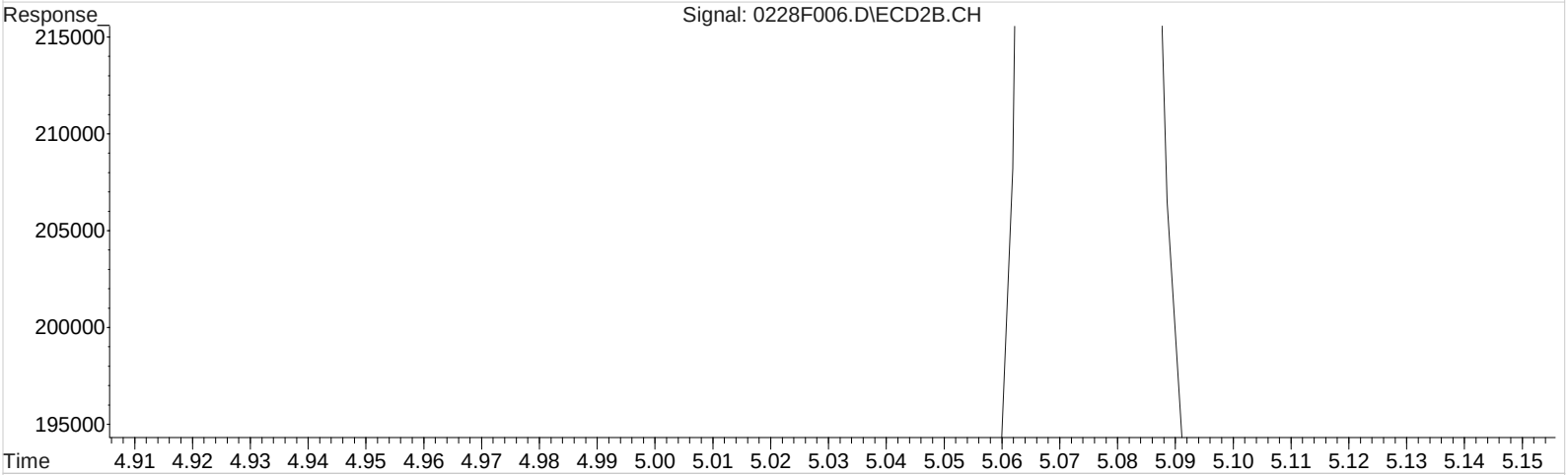
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.014min 5.252 ug/L

response 1974382

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.469min 4.970 ug/L

response 2052365

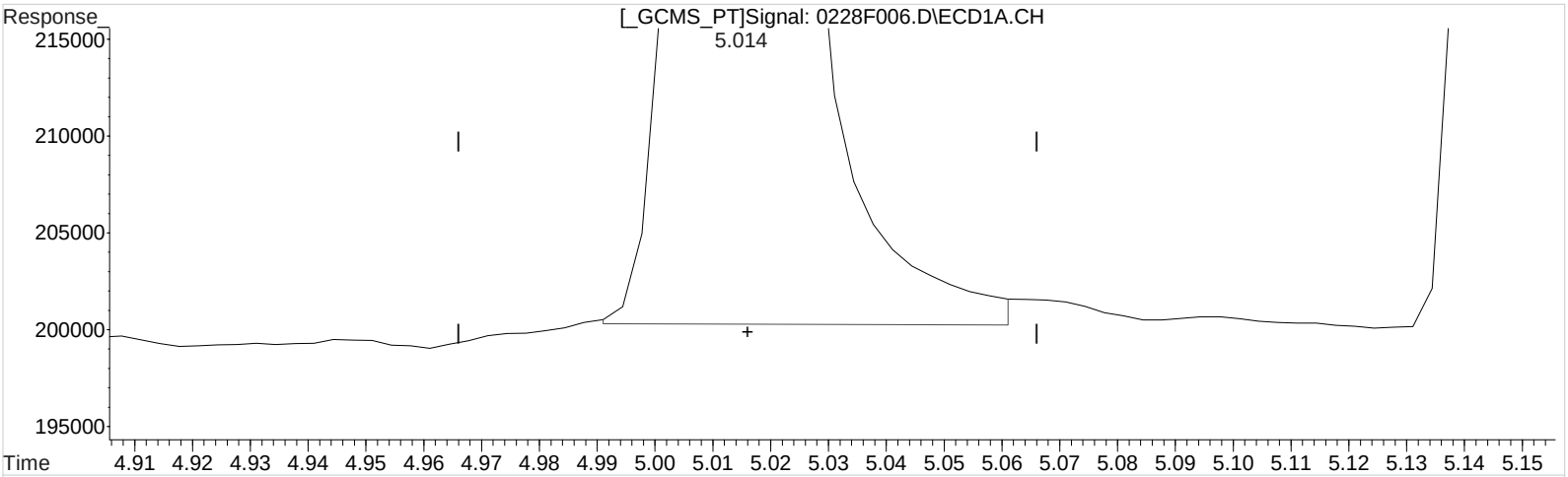
(+) = Expected Retention Time

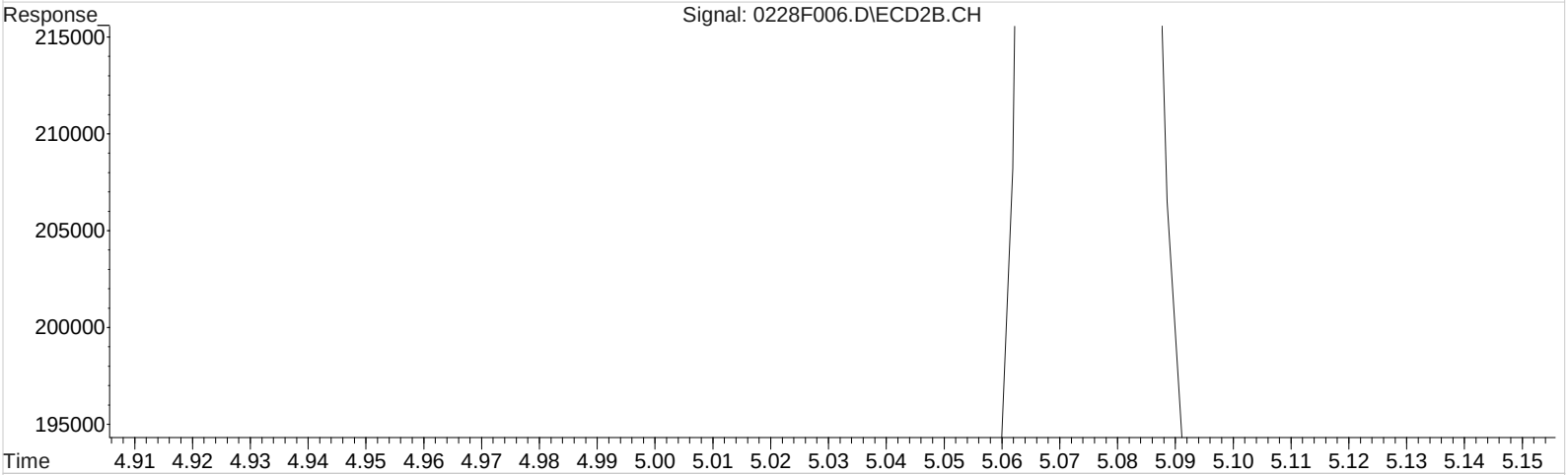
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.014min 4.930 ug/L m

response 1875877

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.469min 4.970 ug/L

response 2052365

(+) = Expected Retention Time

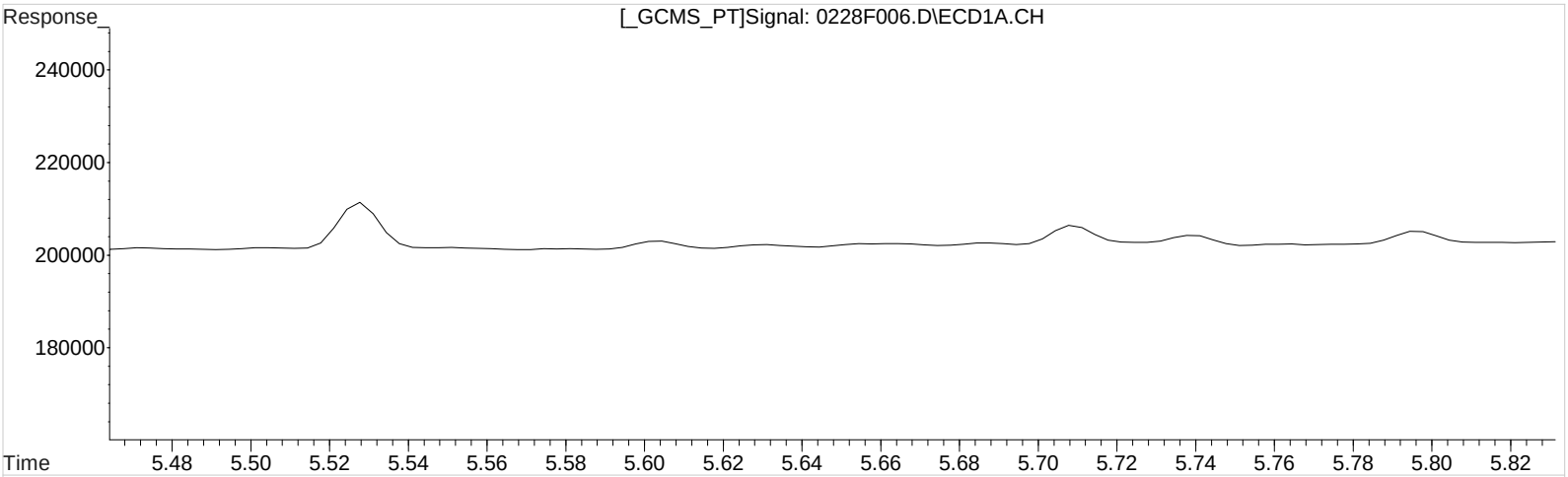
Quantitation Report (Qedit)

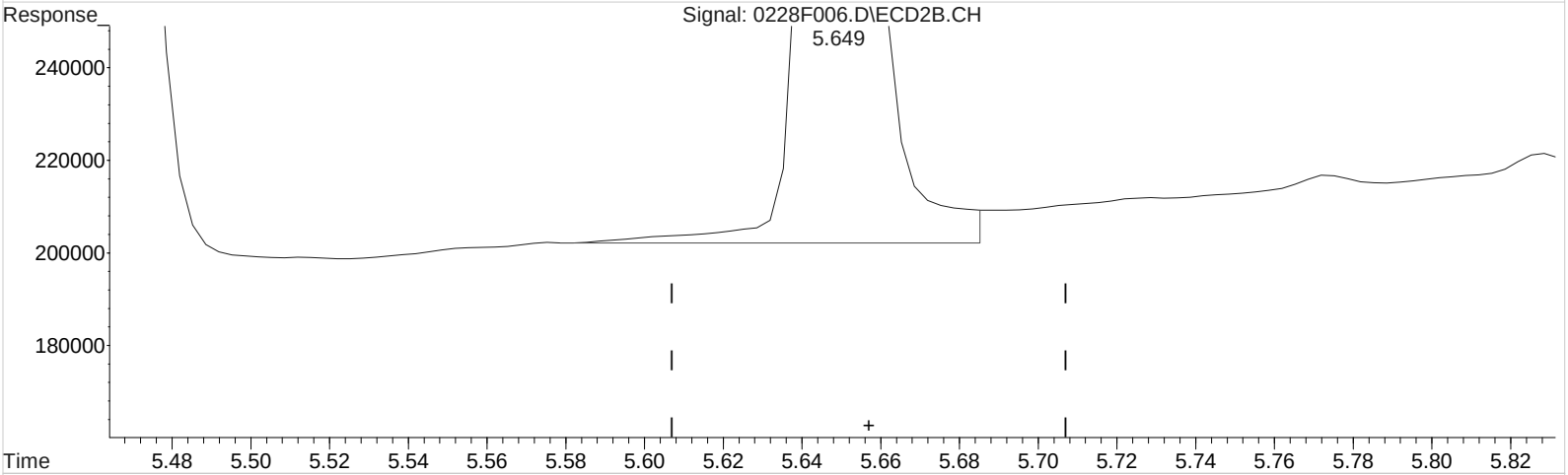
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.151min 5.309 ug/L

response 2839370

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.649min 5.063 ug/L

response 3480960

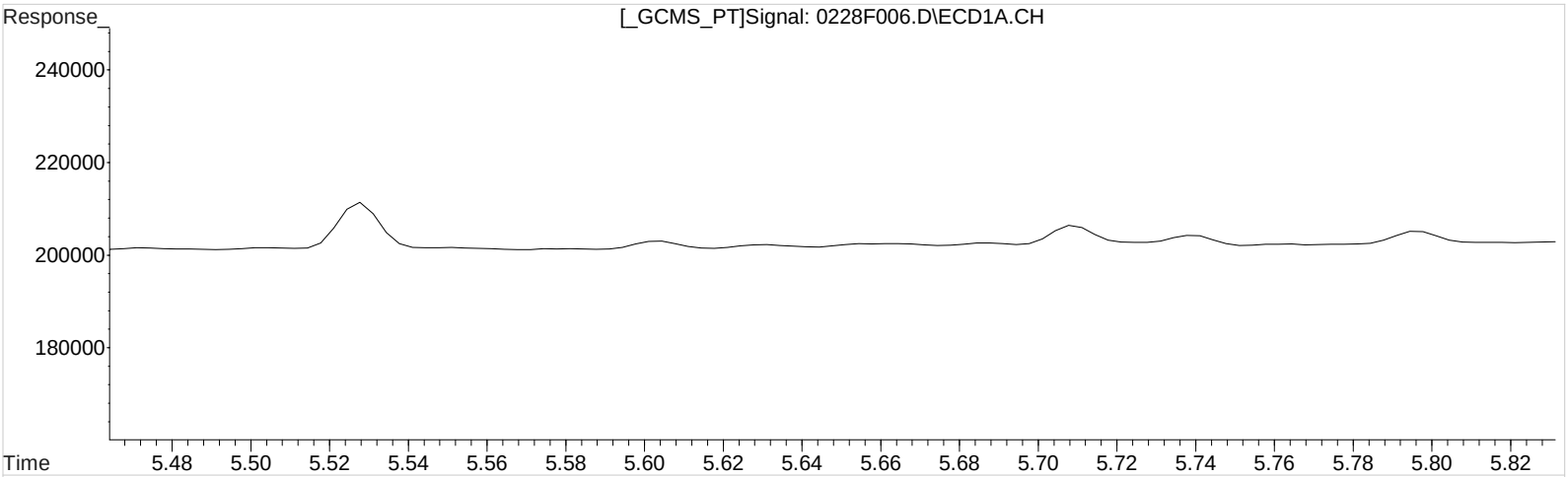
(+) = Expected Retention Time

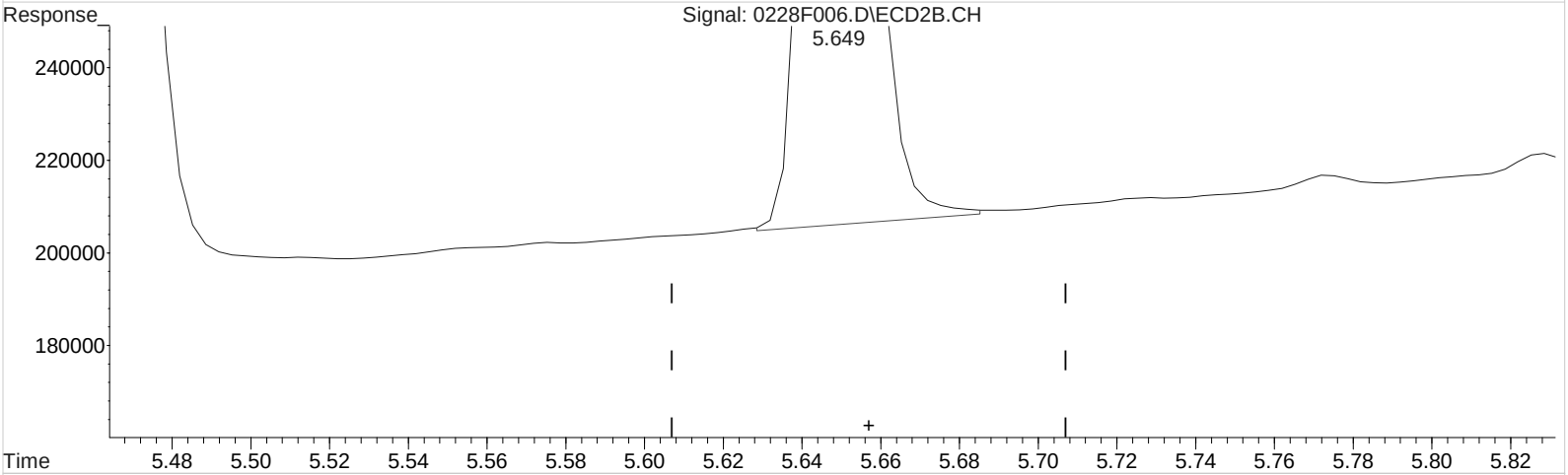
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.151min 5.309 ug/L

response 2839370

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.649min 4.775 ug/L m

response 3283089

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:31:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.033	4.717	4141410	4048056	11.304	9.312
		Target Compounds						
1)		3,4-Dichl...	3.136	3.831	158218	219018	9.573m	9.913
2)		3,5-Dichl...	3.380	4.087	115610	167574	10.545m	10.169
3)		2,4,6-Tri...	3.476	4.291	3397194	3850826	10.122	9.233
5)		2,4,5-Tri...	4.203	4.784	1619859	1881218	10.889	9.413
6)		3,4,5-Tri...	4.233	4.847	1583734	1764529	10.435m	9.401
7)	M	2,3,5,6-T...	4.476	5.077	4654510	5729619	9.778m	9.283
8)	M	2,3,4,5-T...	5.020	5.474	3486028	3874012	10.225m	9.382m
9)	M	Pentachlo...	5.156	5.657	5372015	6532395	10.950	9.501
10)		Pentachlo...	5.156	5.657	5372015	6532395	11.526	10.005

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

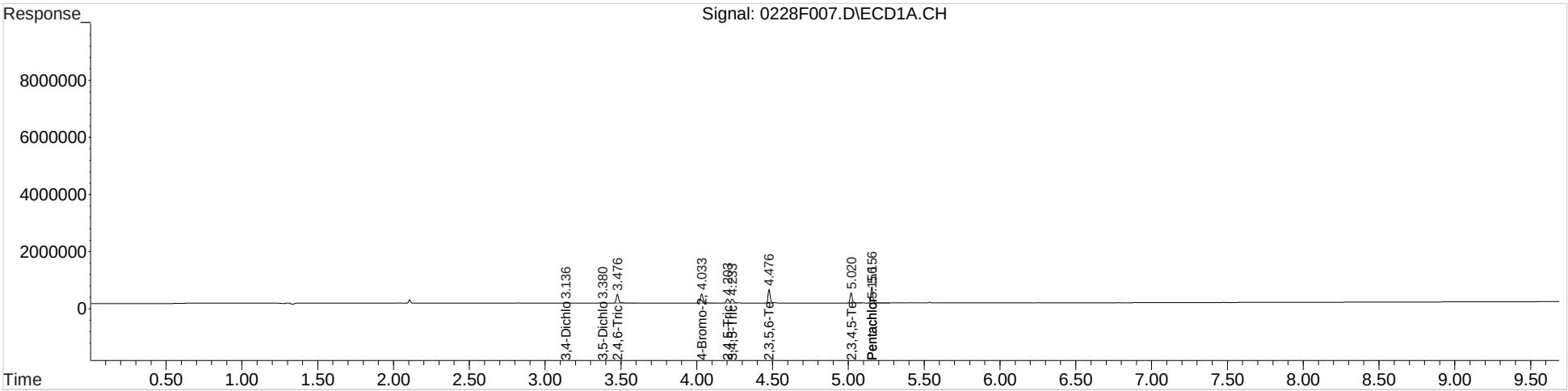
1st JMS 02/28/19
2nd MC 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:31:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



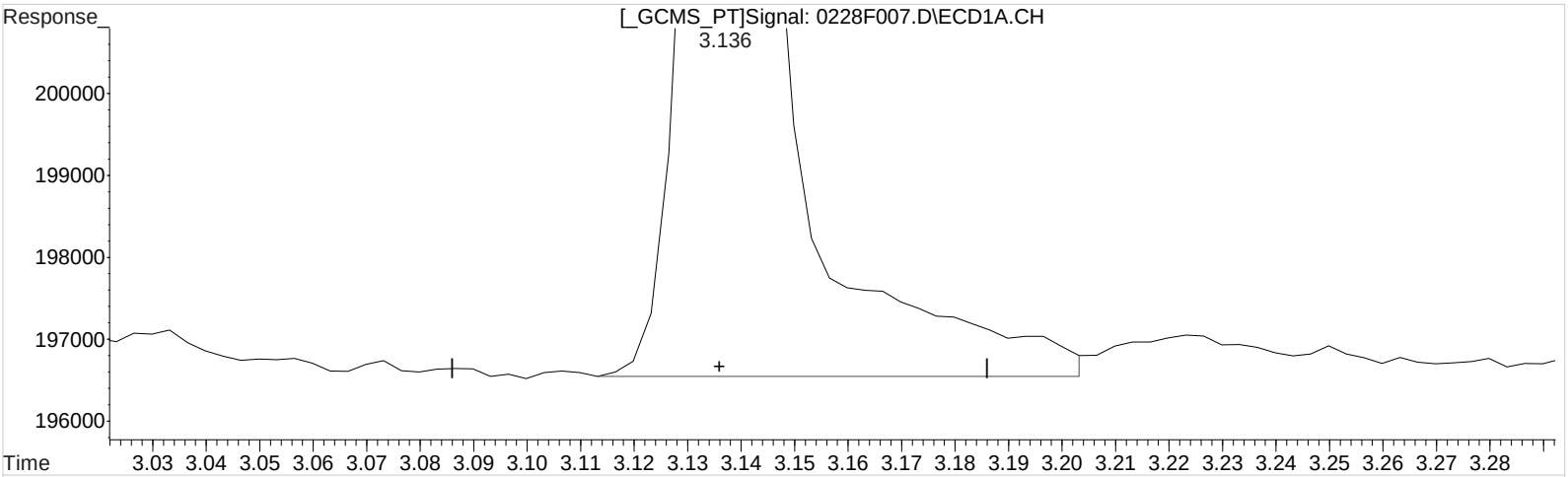
Quantitation Report (Qedit)

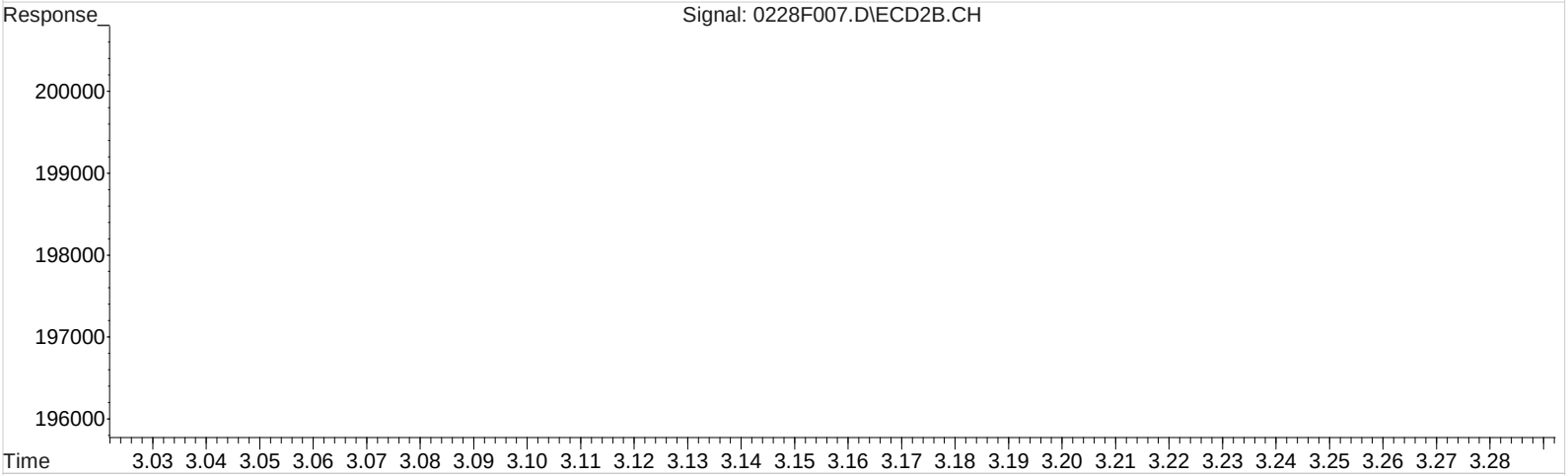
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.136min 10.715 ug/L

response 175614

(1) 3,4-Dichlorophenol #2

3.831min 9.913 ug/L

response 219018

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

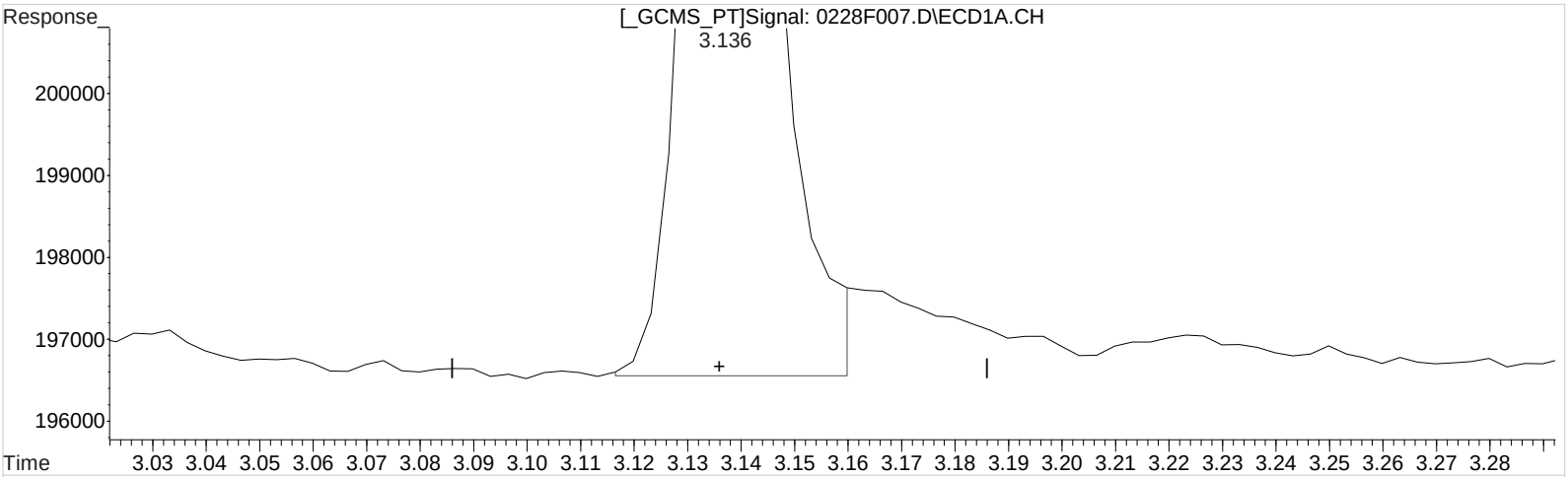
Quantitation Report (Qedit)

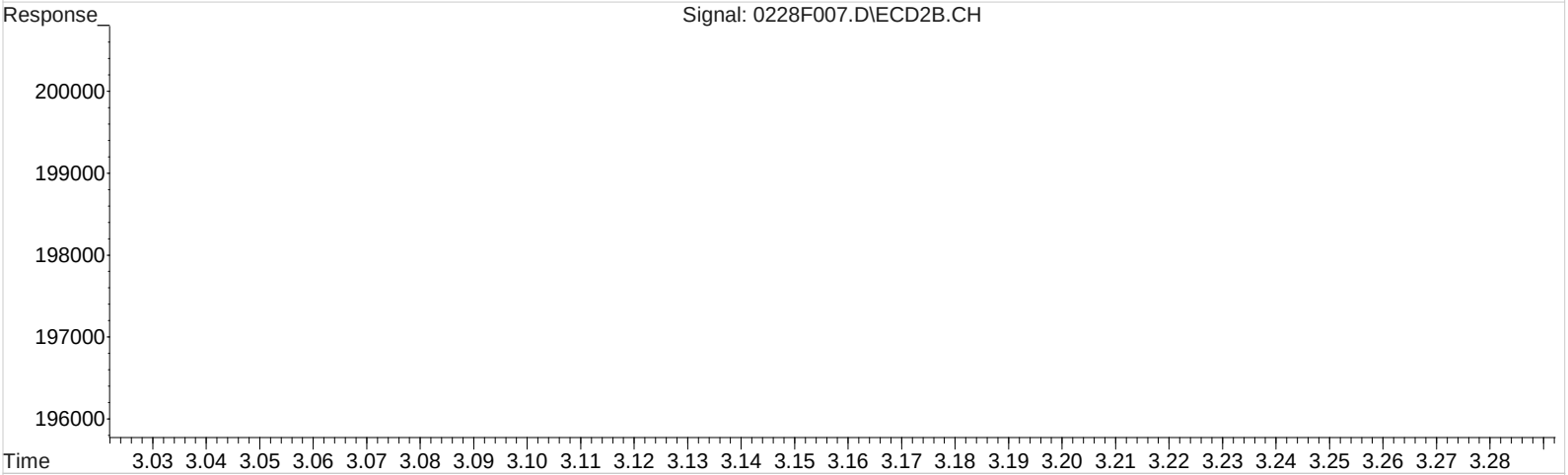
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.136min 9.573 ug/L m

response 158218

(1) 3,4-Dichlorophenol #2

3.831min 9.913 ug/L

response 219018

Manual Integration:

After

Baseline/Shoulder

02/28/19

(+) = Expected Retention Time

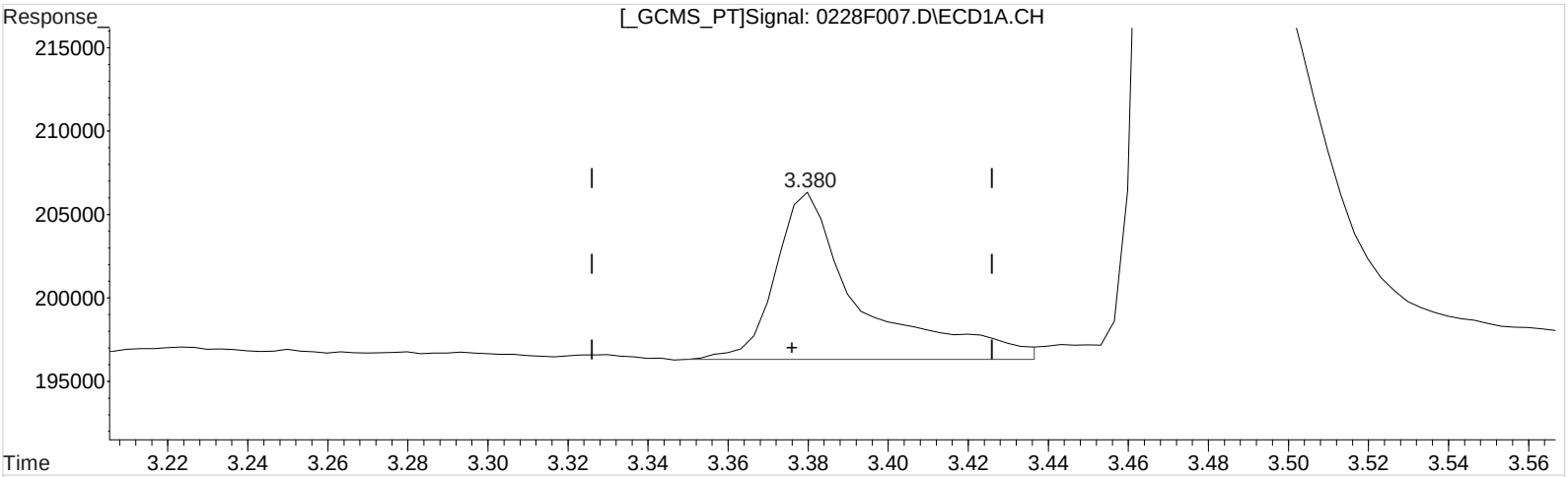
Quantitation Report (Qedit)

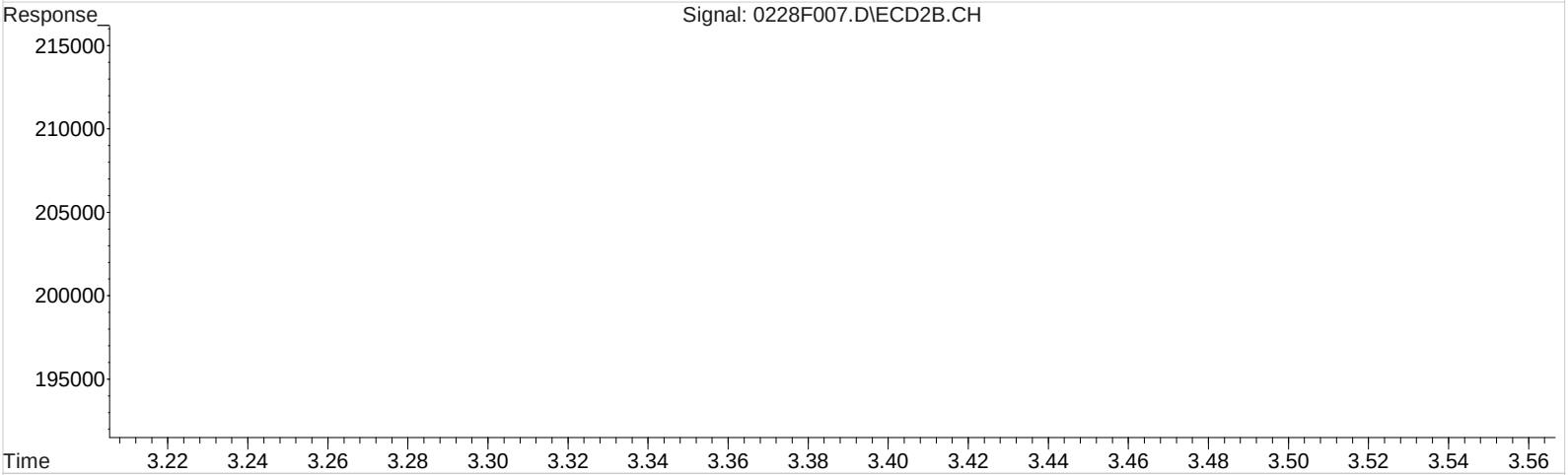
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 13.605 ug/L

response 146982

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.087min 10.169 ug/L

response 167574

(+) = Expected Retention Time

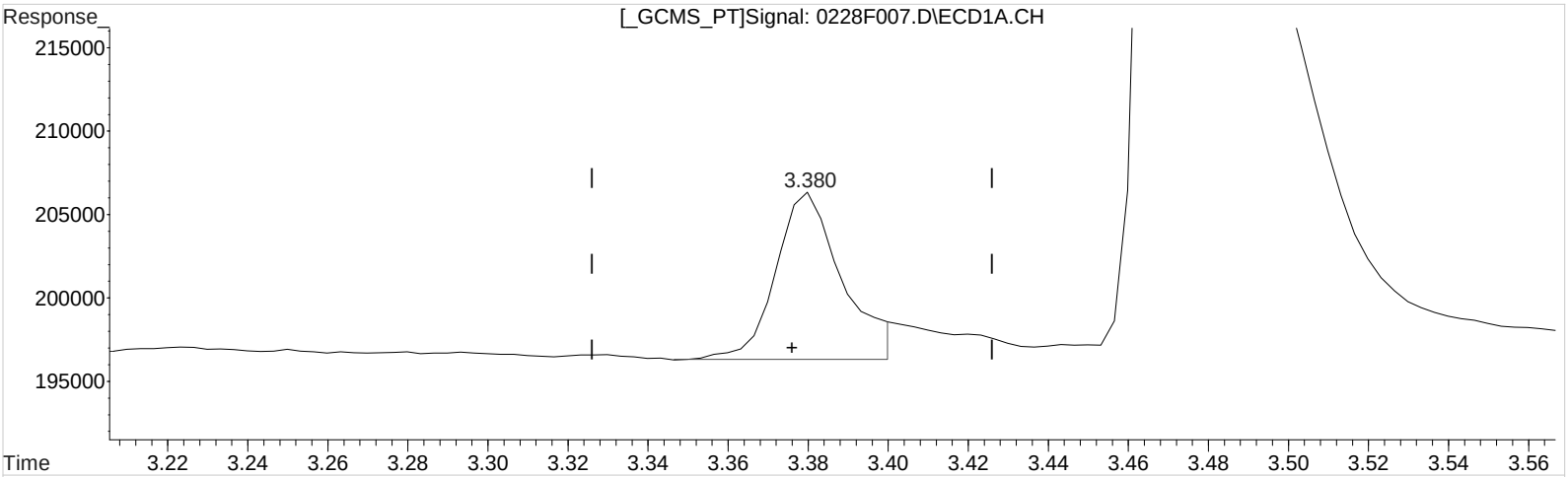
Quantitation Report (Qedit)

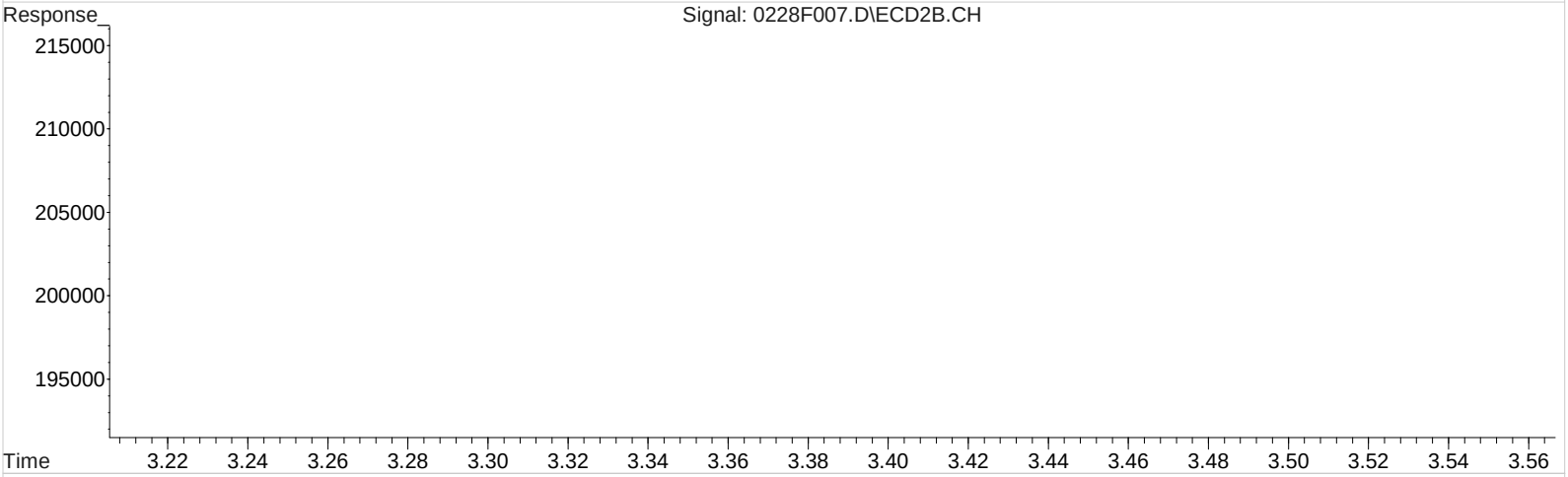
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 10.545 ug/L m

response 115610

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.087min 10.169 ug/L

response 167574

(+) = Expected Retention Time

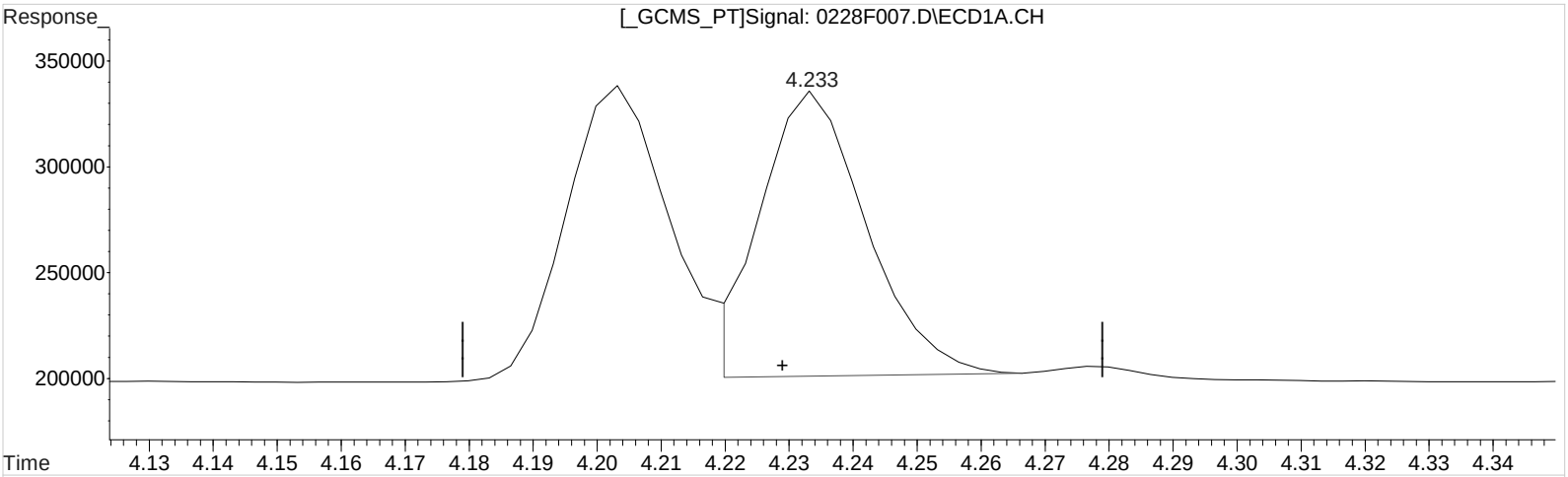
Quantitation Report (Qedit)

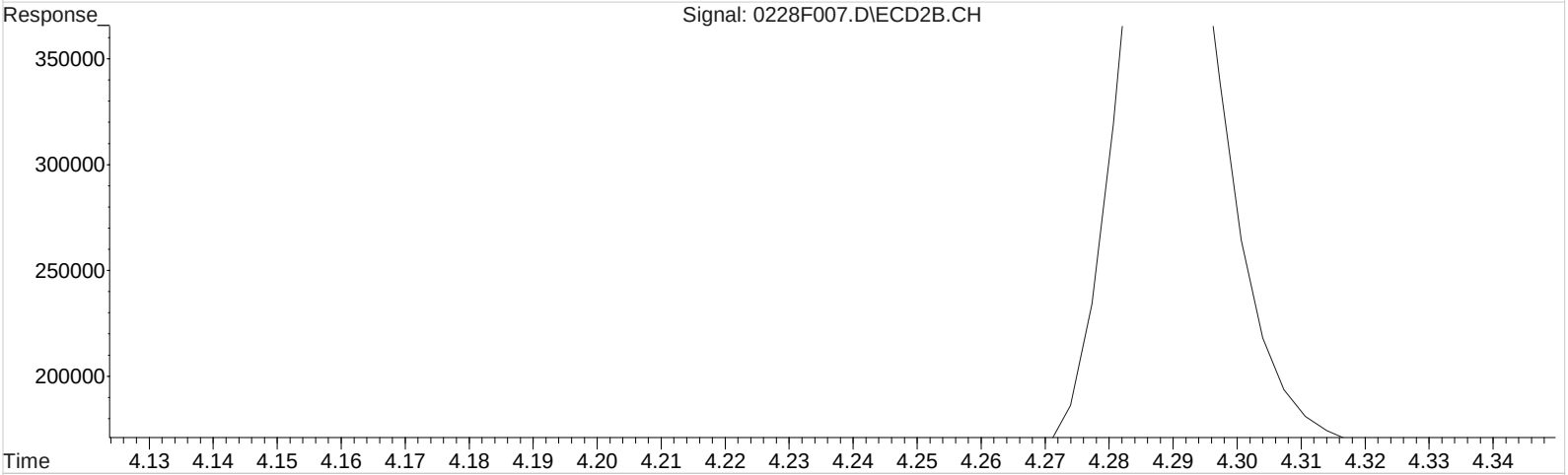
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 9.891 ug/L

response 1506370

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 9.401 ug/L

response 1764529

(+) = Expected Retention Time

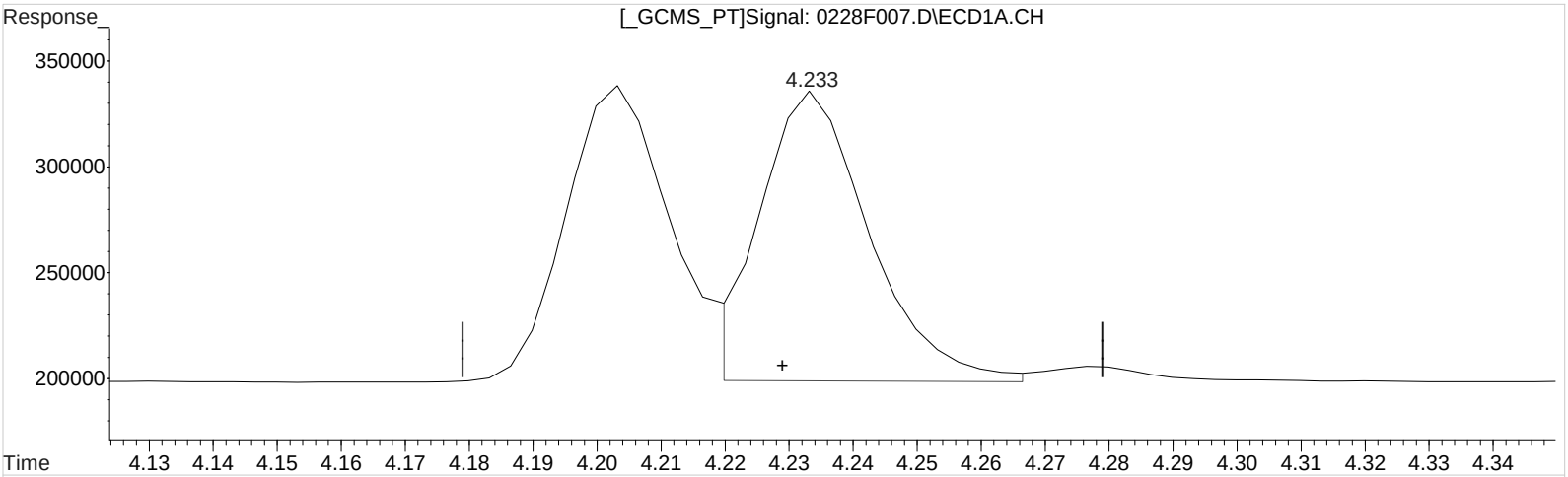
Quantitation Report (Qedit)

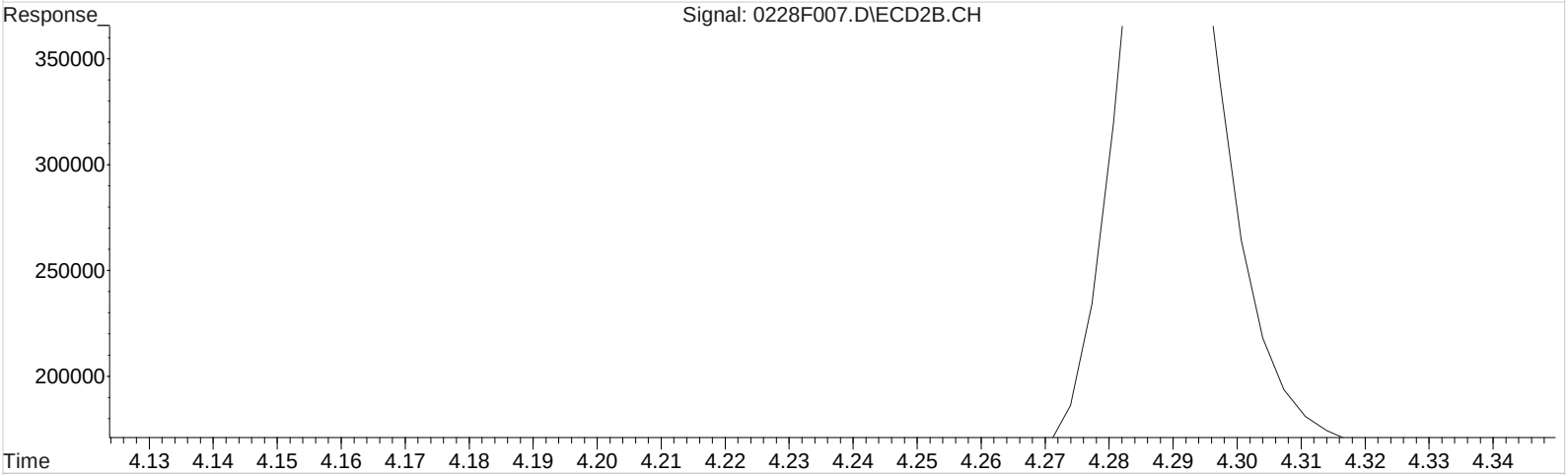
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 10.435 ug/L m

response 1583734

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 9.401 ug/L

response 1764529

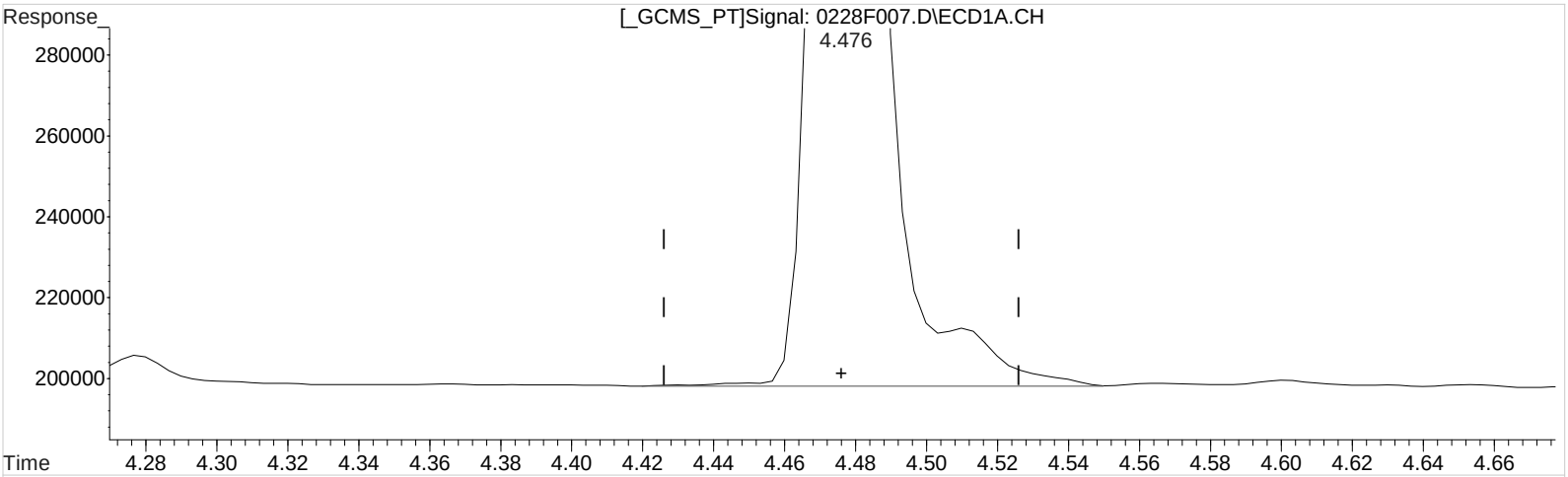
(+) = Expected Retention Time

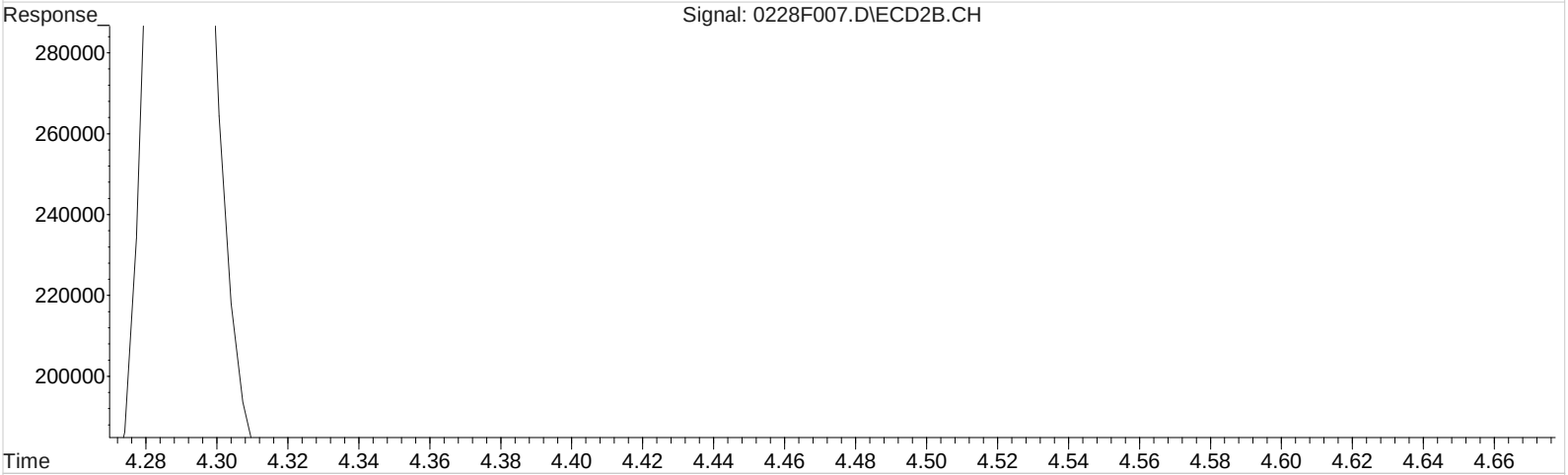
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.476min 10.180 ug/L

response 4845604

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.077min 9.283 ug/L

response 5729619

(+) = Expected Retention Time

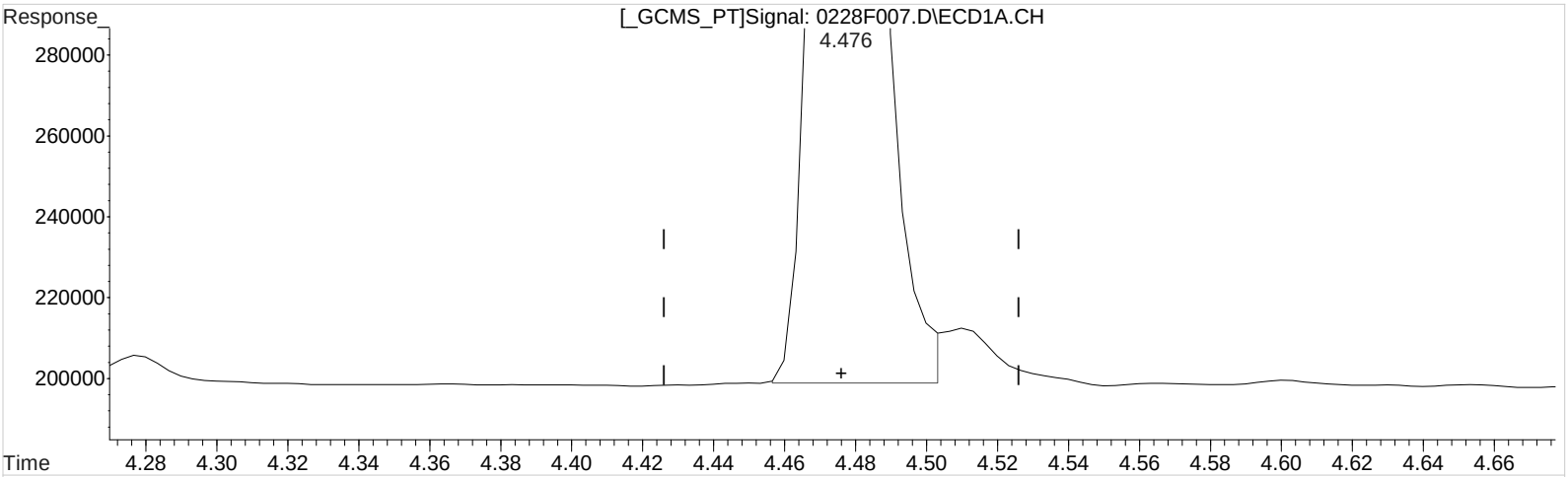
Quantitation Report (Qedit)

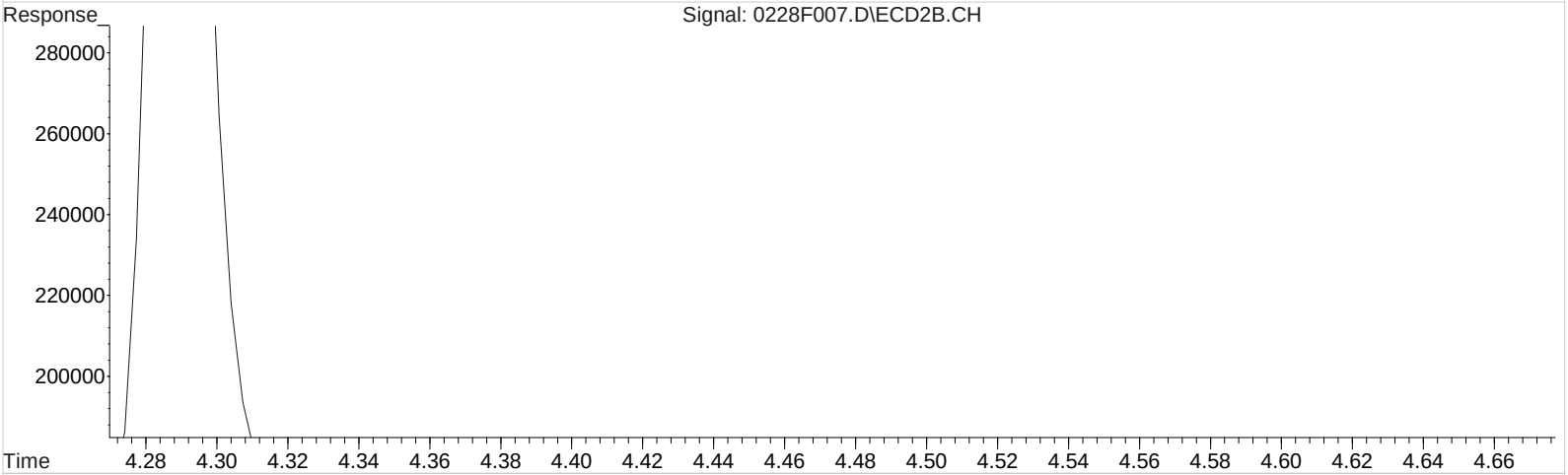
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.476min 9.778 ug/L m

response 4654510

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.077min 9.283 ug/L

response 5729619

(+) = Expected Retention Time

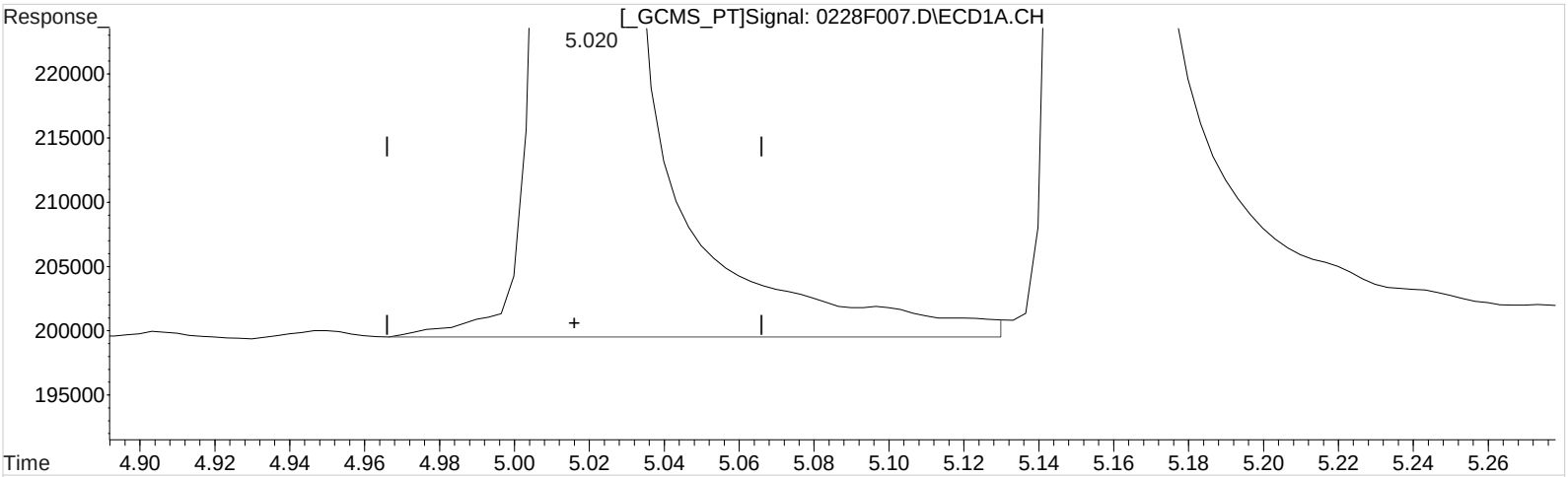
Quantitation Report (Qedit)

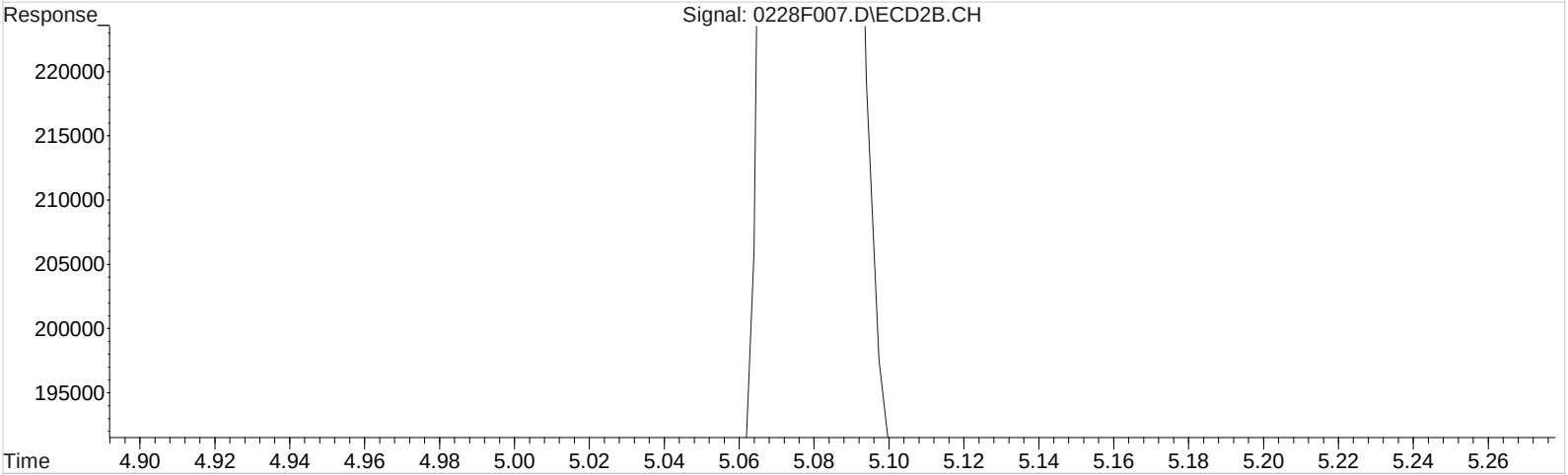
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.552 ug/L

response 3584964

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

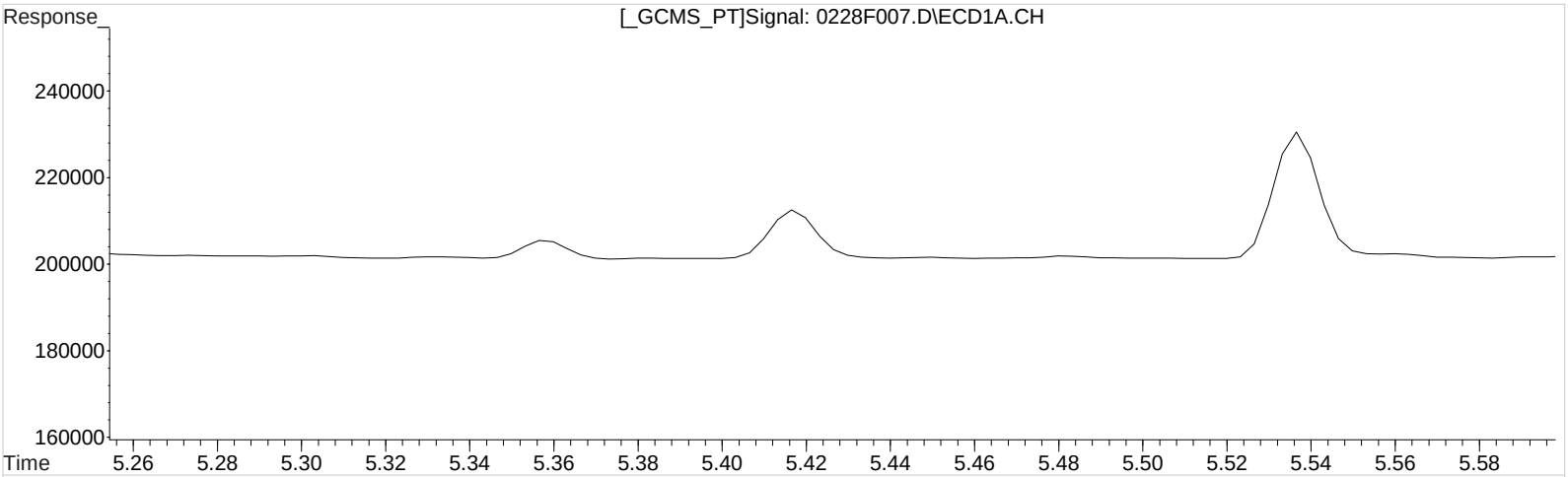
Quantitation Report (Qedit)

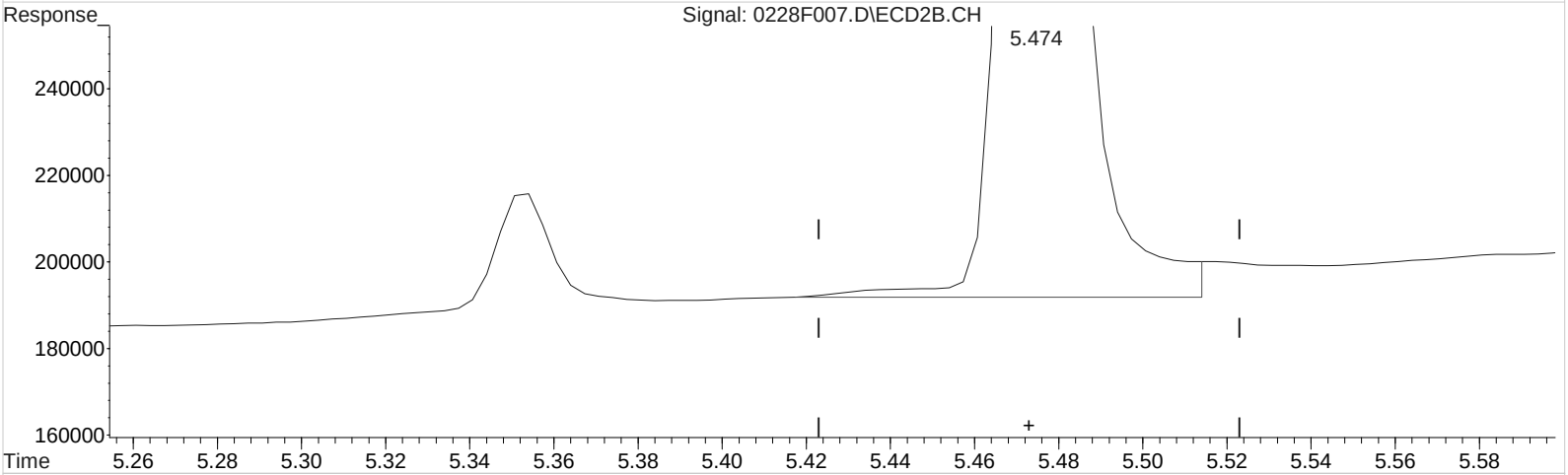
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

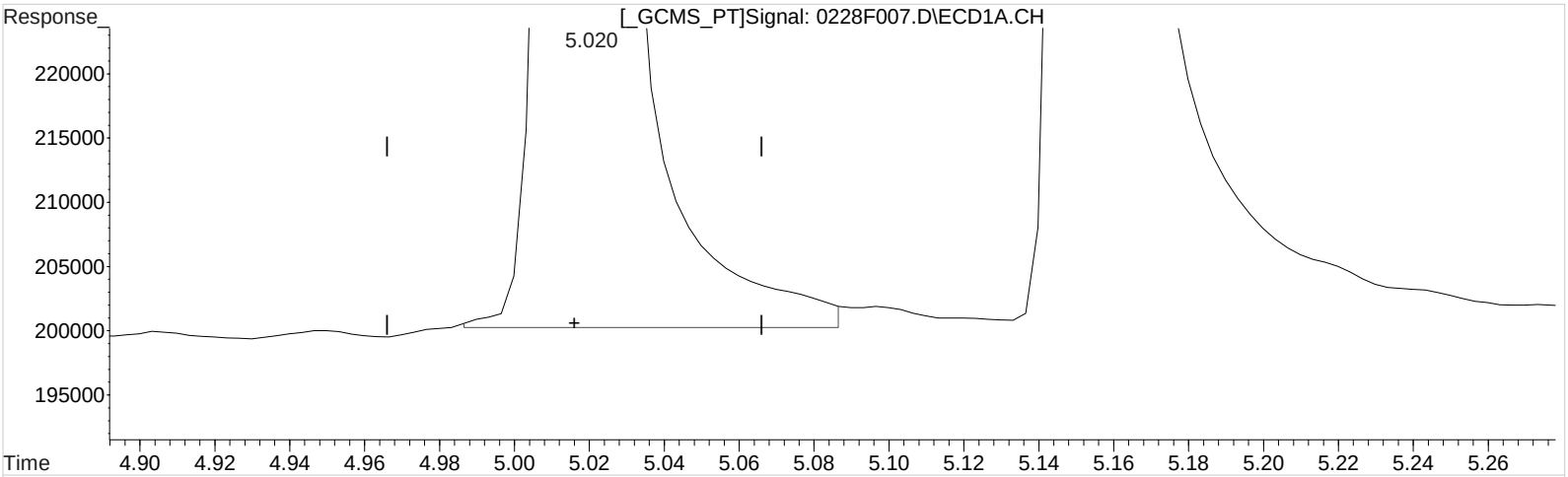
Quantitation Report (Qedit)

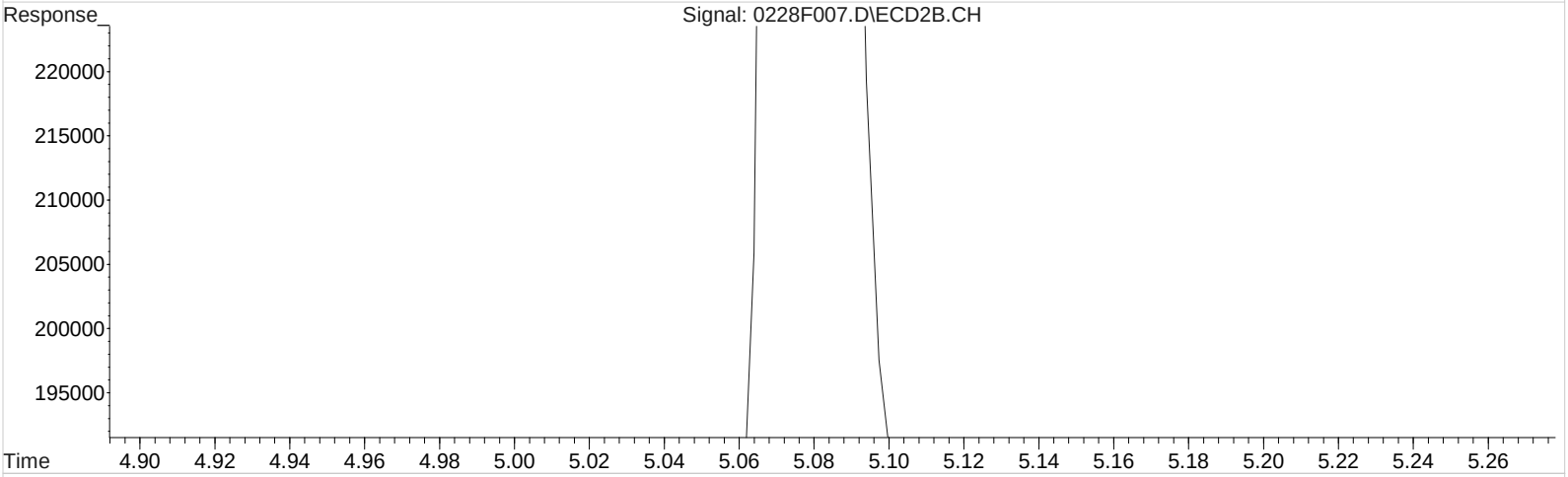
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

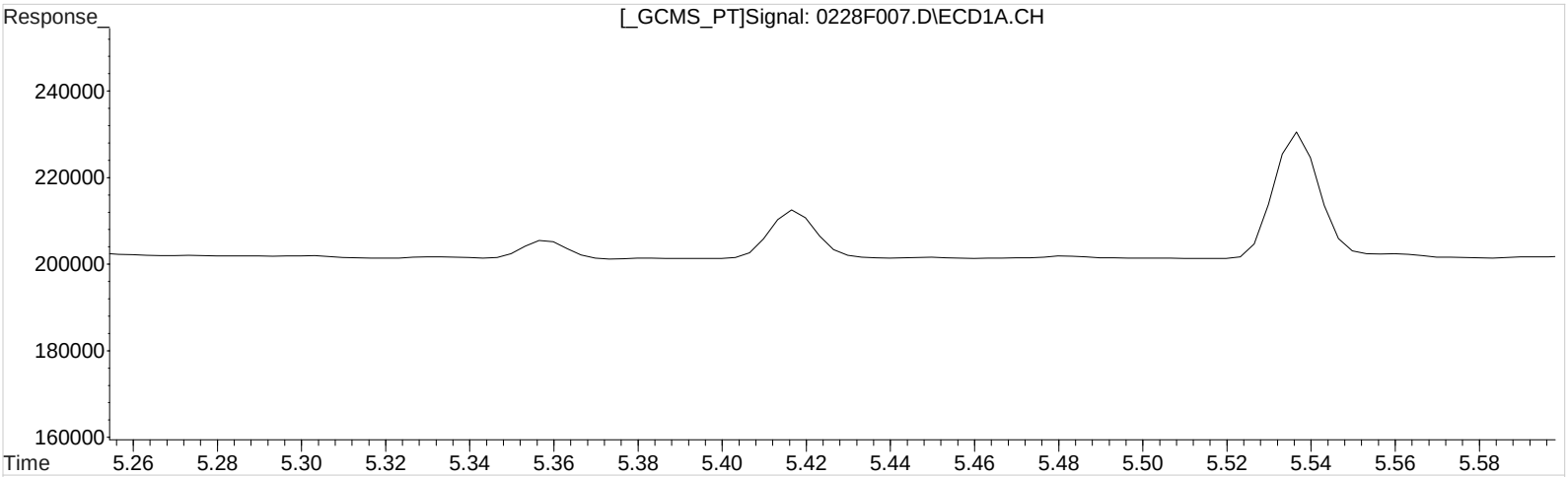
Quantitation Report (Qedit)

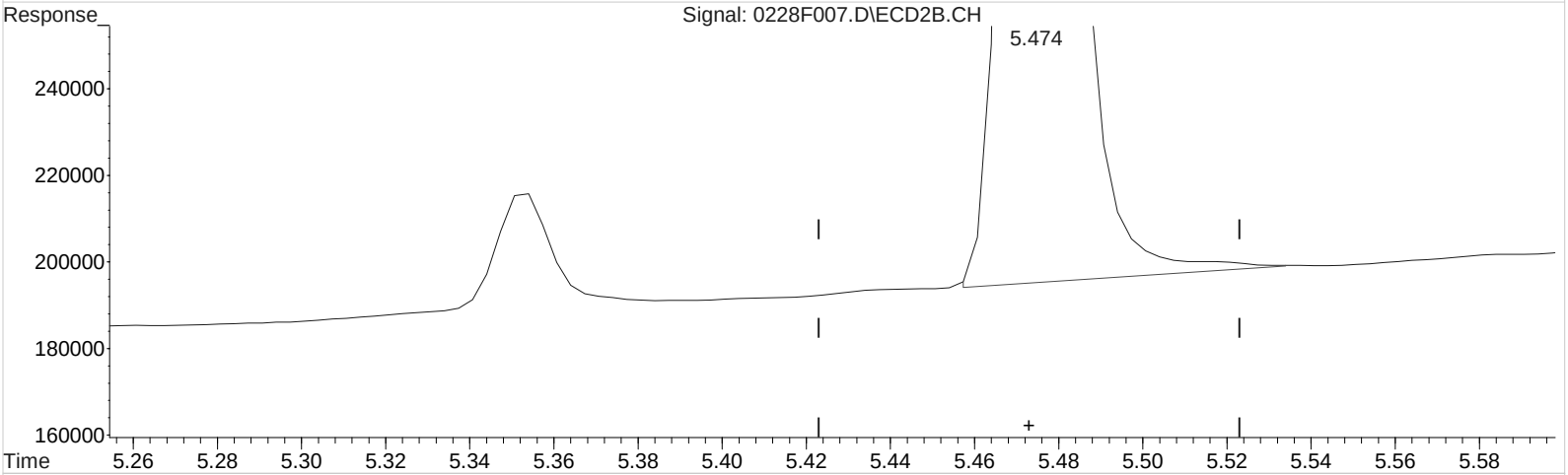
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.382 ug/L m

response 3874012

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.033	4.720	9384726	10345828	26.823	23.800
		Target Compounds						
1)		3,4-Dichl...	3.139	3.833	364718	495787	23.304m	22.440
2)		3,5-Dichl...	3.379	4.090	247686	371212	23.594m	22.526
3)		2,4,6-Tri...	3.476	4.290	7528057	9199994	23.385	22.059
5)		2,4,5-Tri...	4.203	4.783	3465348	4268979	24.581	21.360
6)		3,4,5-Tri...	4.233	4.847	3537210	4043017	24.409m	21.539
7)	M	2,3,5,6-T...	4.476	5.080	10557180	13711688	22.178	22.215
8)	M	2,3,4,5-T...	5.019	5.477	7682979	9204669	24.286	22.291
9)	M	Pentachlo...	5.156	5.660	12370956	15378050	26.604	22.366
10)		Pentachlo...	5.156	5.660	12370956	15378050	28.002	23.554

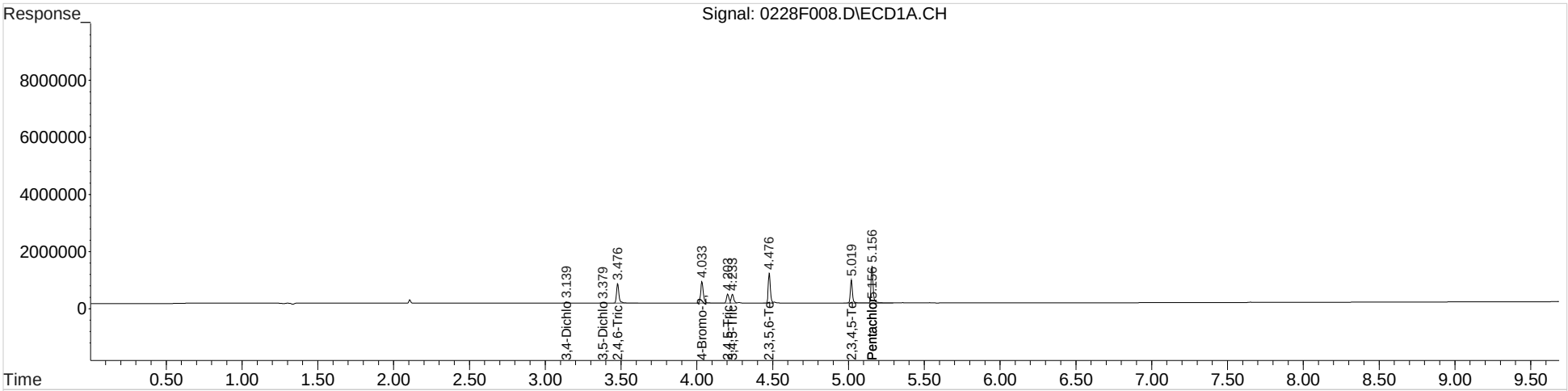
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



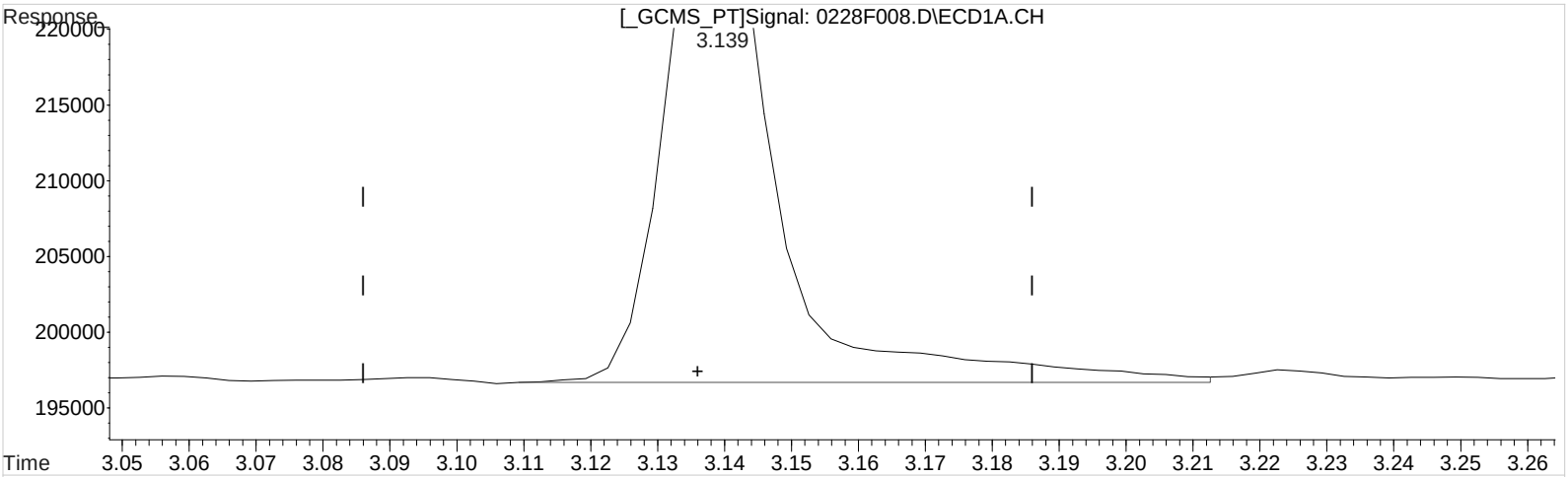
Quantitation Report (Qedit)

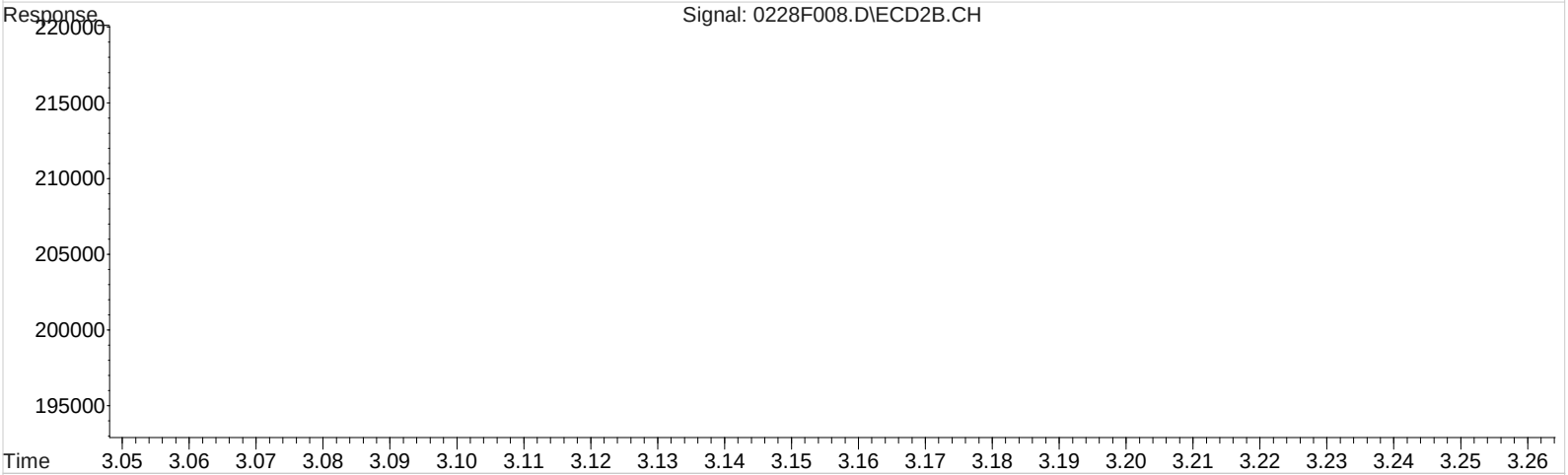
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 25.378 ug/L

response 395414

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 22.440 ug/L

response 495787

(+) = Expected Retention Time

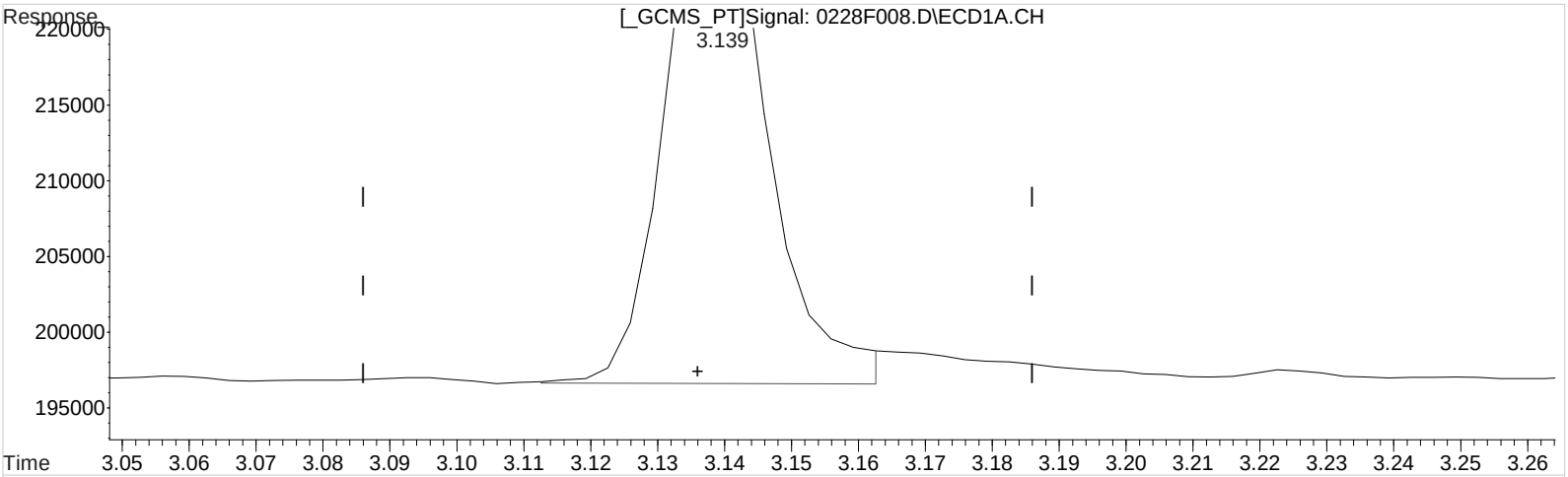
Quantitation Report (Qedit)

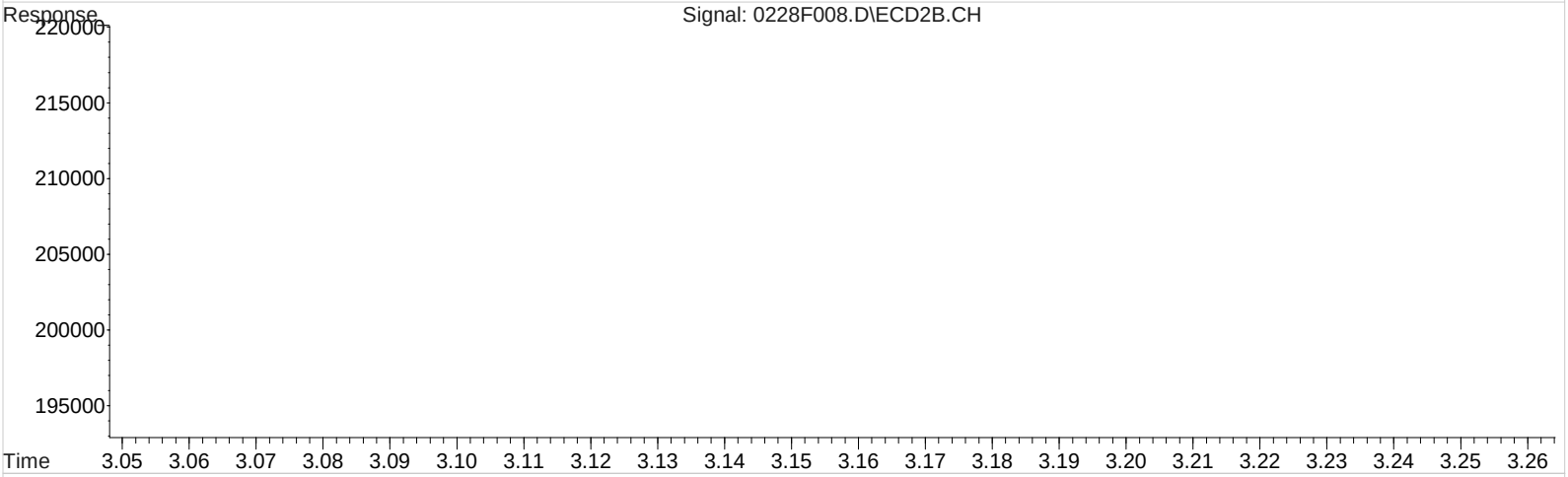
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 23.304 ug/L m

response 364718

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 22.440 ug/L

response 495787

(+) = Expected Retention Time

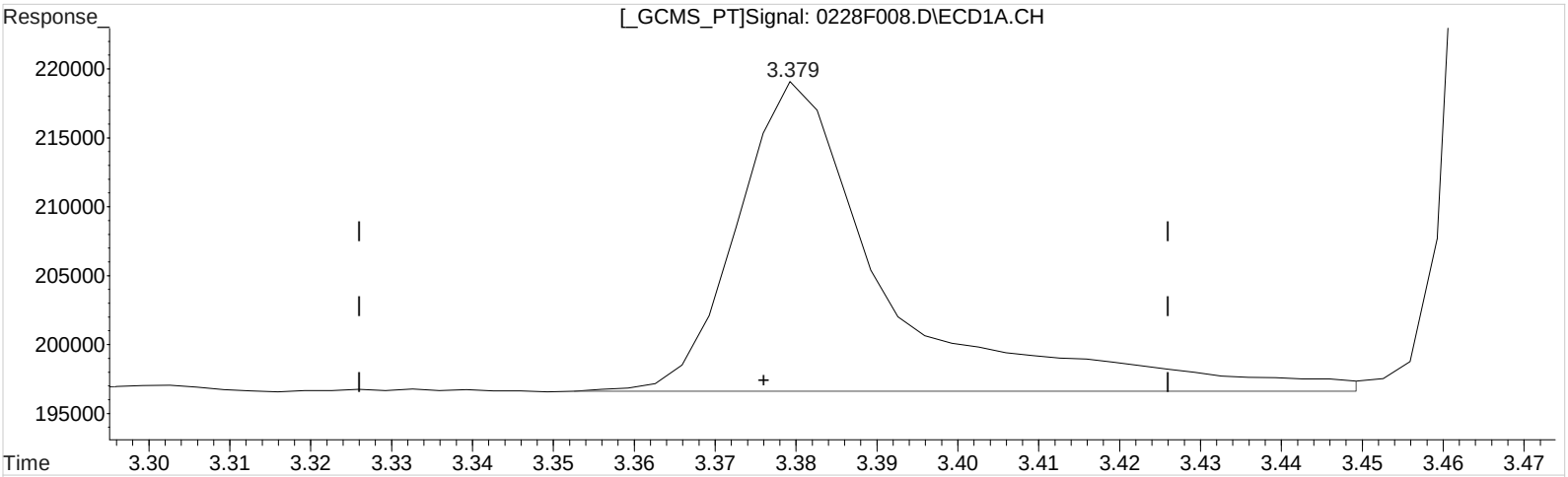
Quantitation Report (Qedit)

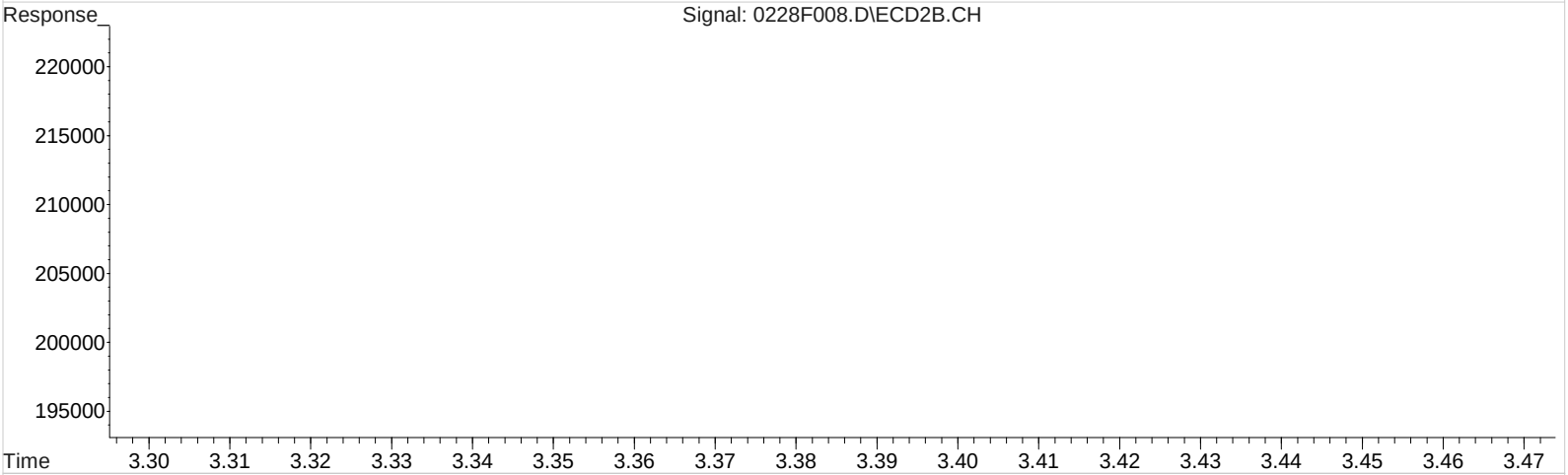
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 27.619 ug/L

response 287533

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 22.526 ug/L

response 371212

(+) = Expected Retention Time

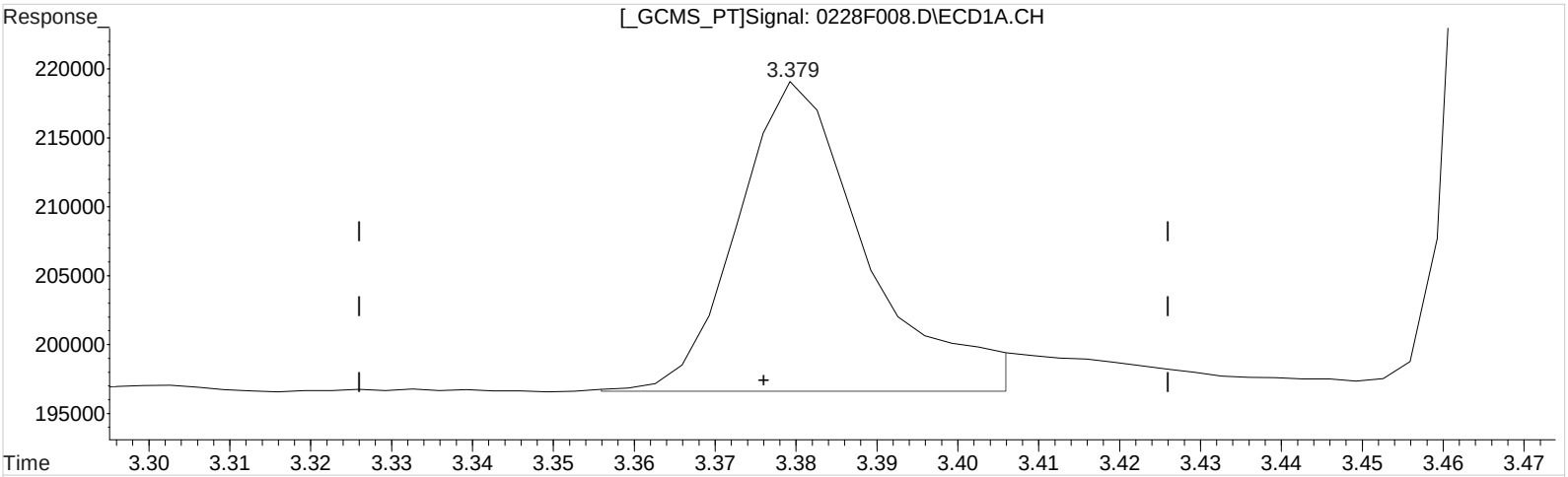
Quantitation Report (Qedit)

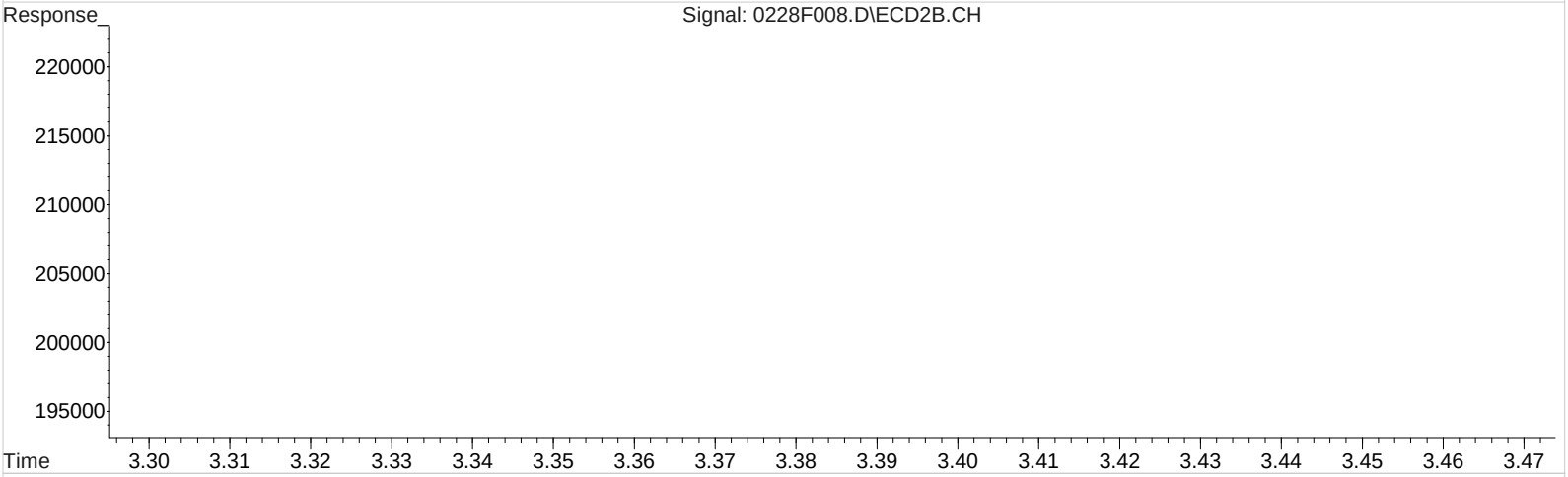
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 23.594 ug/L m

response 247686

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 22.526 ug/L

response 371212

(+) = Expected Retention Time

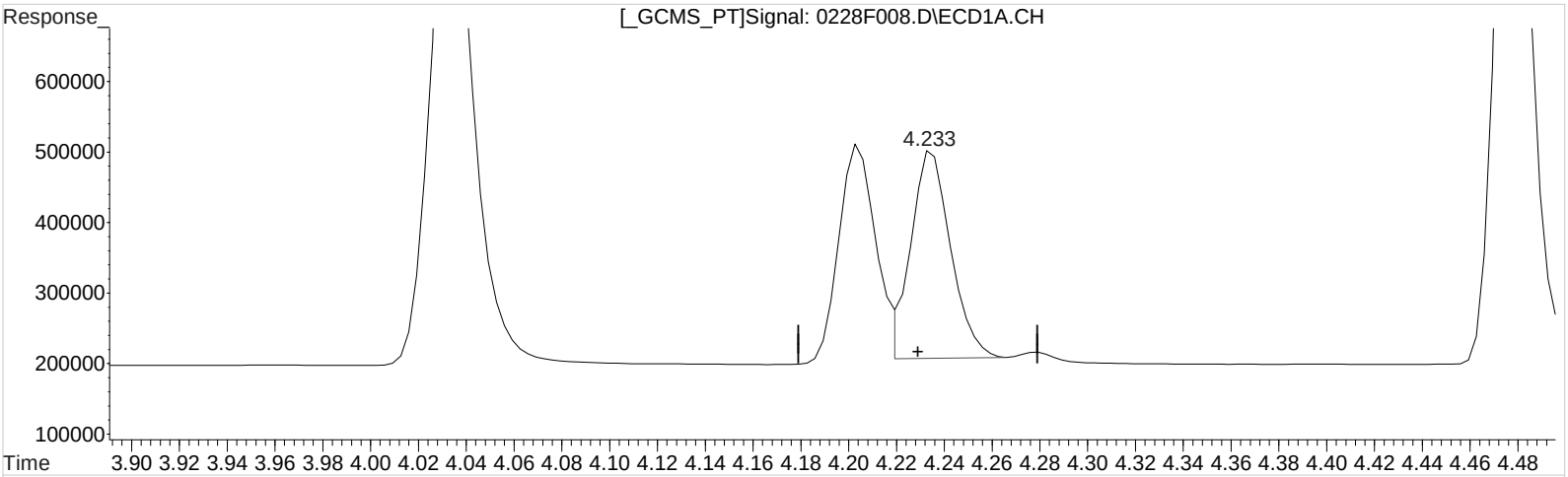
Quantitation Report (Qedit)

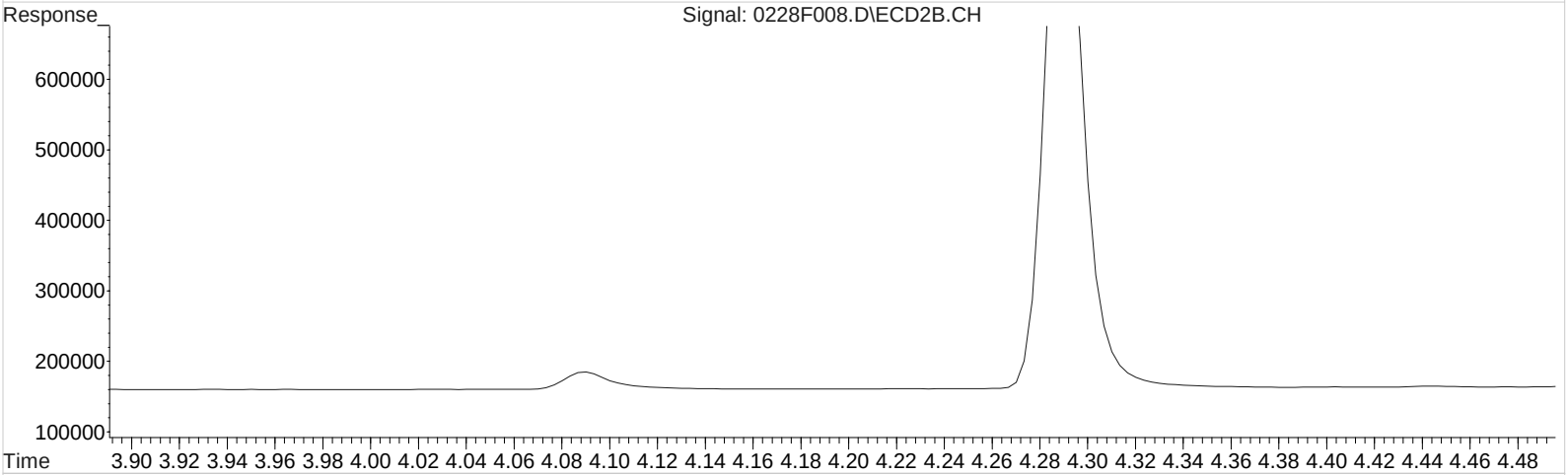
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 22.824 ug/L

response 3318986

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 21.539 ug/L

response 4043017

(+) = Expected Retention Time

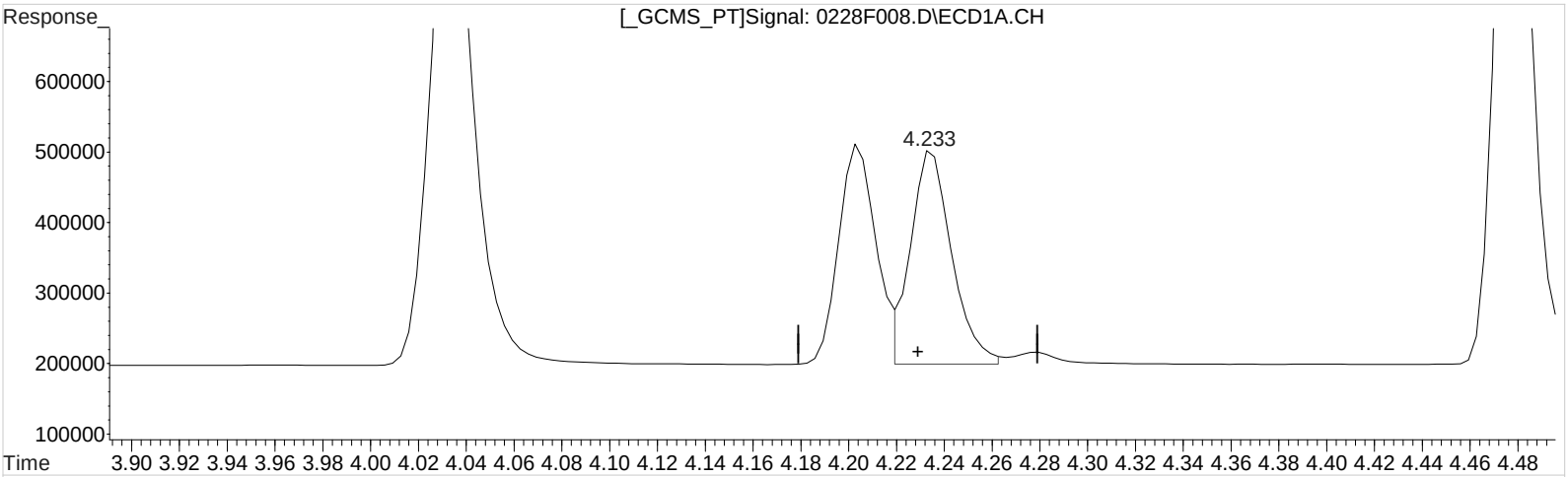
Quantitation Report (Qedit)

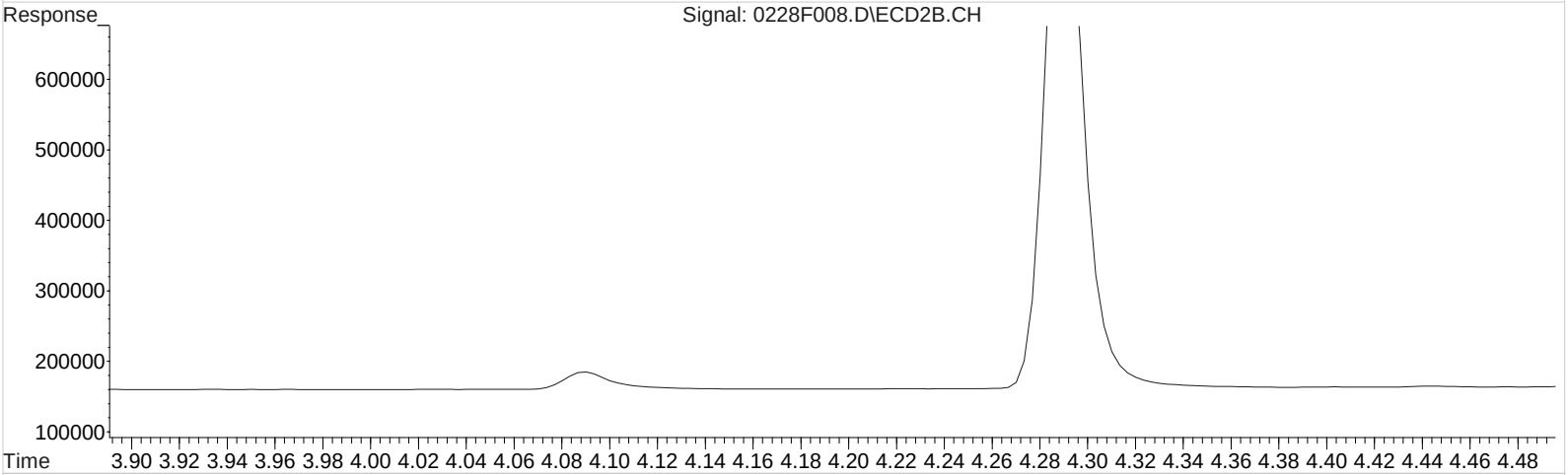
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 24.409 ug/L m

response 3537210

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 21.539 ug/L

response 4043017

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.034	4.718	18373800	22111030	53.653	50.866
		Target Compounds						
1)		3,4-Dichl...	3.137	3.831	717598	975860	47.710m	44.168
2)		3,5-Dichl...	3.380	4.088	527946	707614	52.883m	42.939
3)		2,4,6-Tri...	3.477	4.291	14477823	19027390	46.510	45.622
5)		2,4,5-Tri...	4.204	4.784	6258374	8346897	46.243	41.763
6)		3,4,5-Tri...	4.234	4.848	6723516	8022672	48.287m	42.741
7)	M	2,3,5,6-T...	4.477	5.078	20376062	27736415	42.806	44.938
8)	M	2,3,4,5-T...	5.017	5.474	14199642	17989254	46.931	43.566
9)	M	Pentachlo...	5.154	5.658	23456614	30413144	51.593	44.234
10)		Pentachlo...	5.154	5.658	23456614	30413144	54.305	46.582

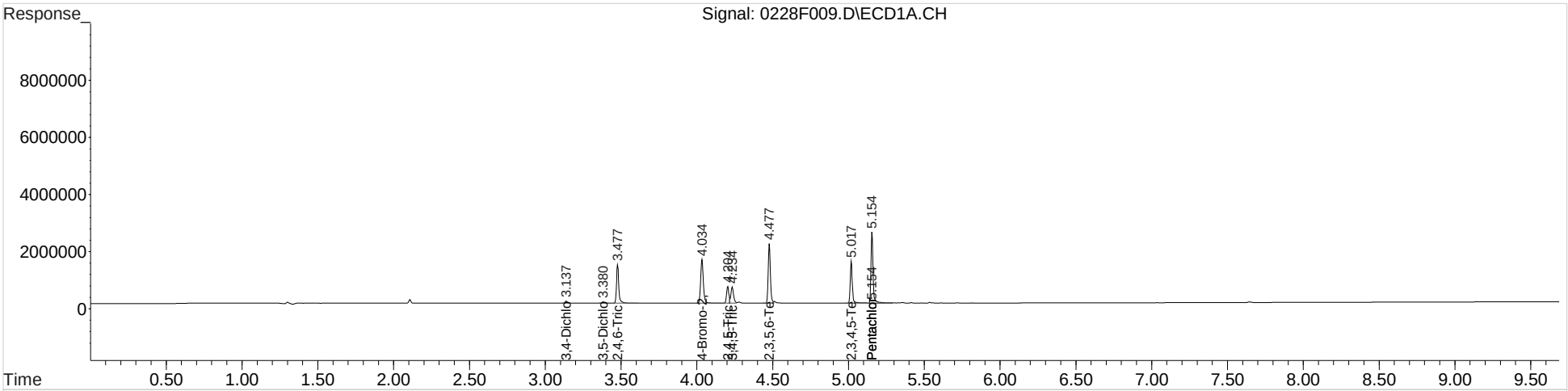
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



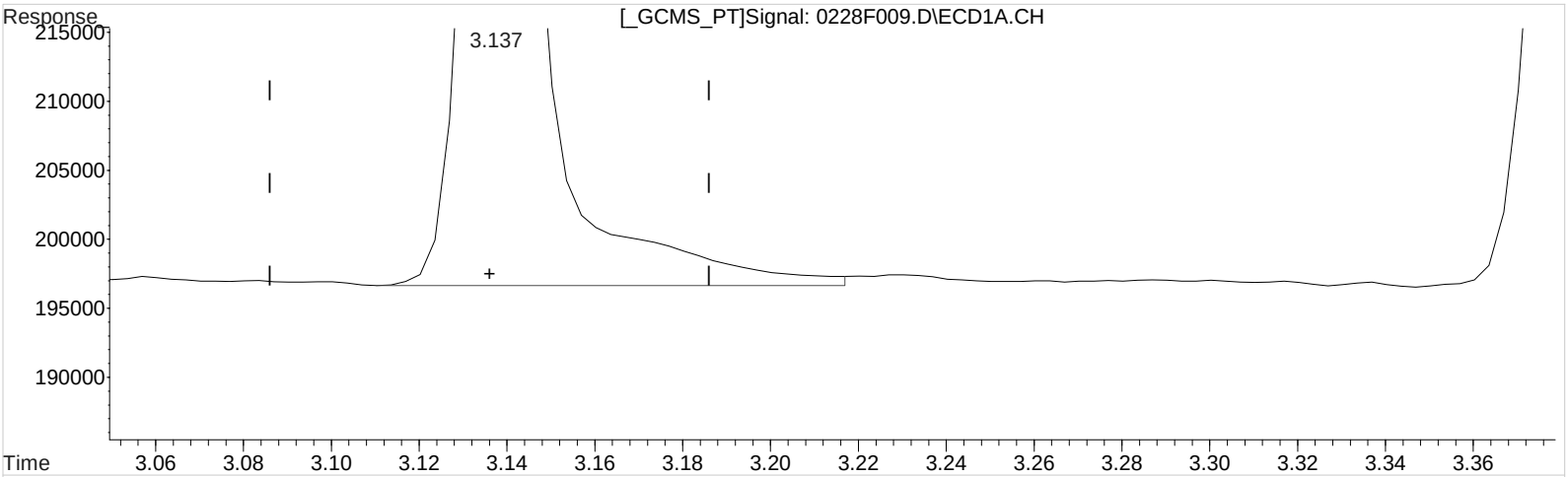
Quantitation Report (Qedit)

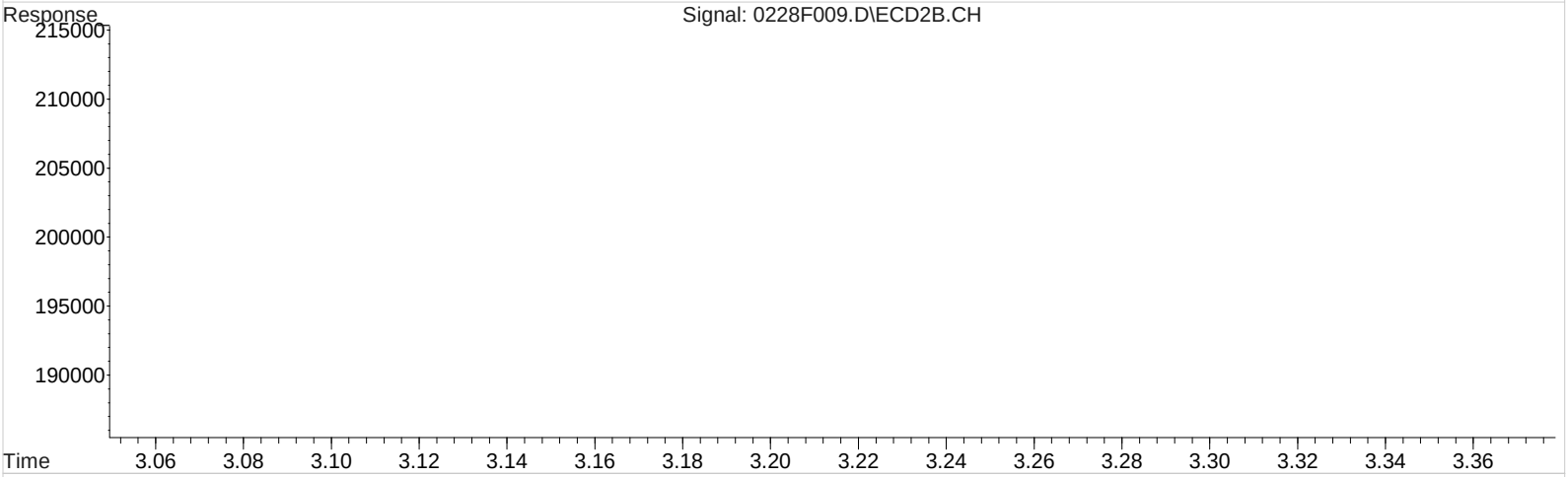
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 51.582 ug/L

response 771918

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 44.168 ug/L

response 975860

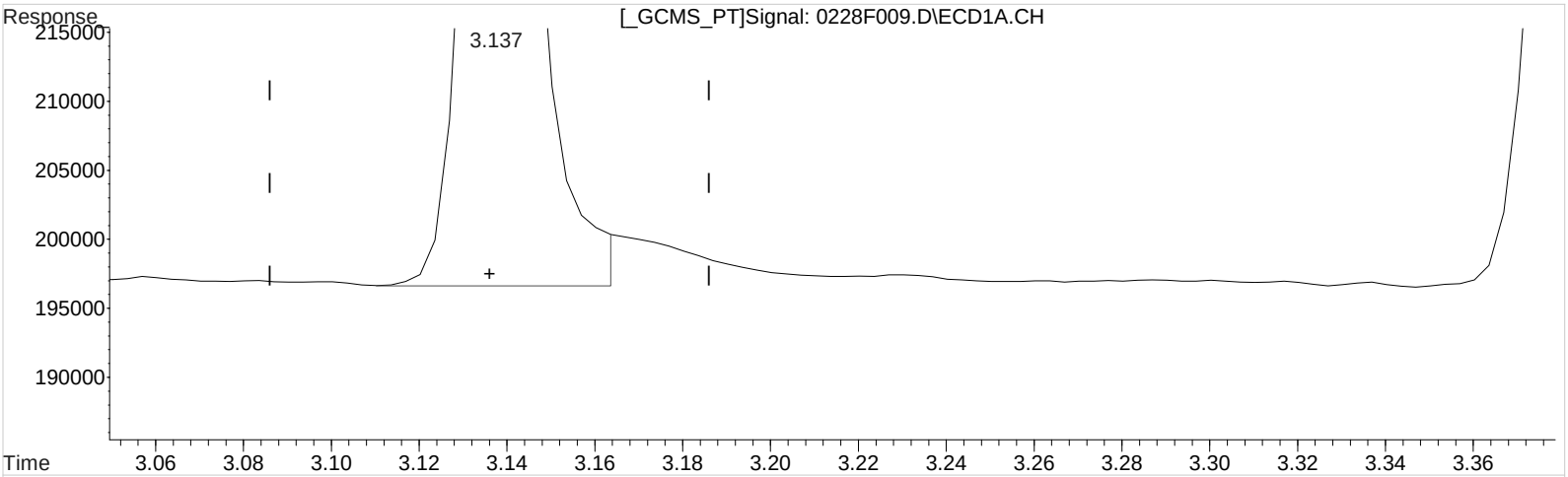
(+) = Expected Retention Time

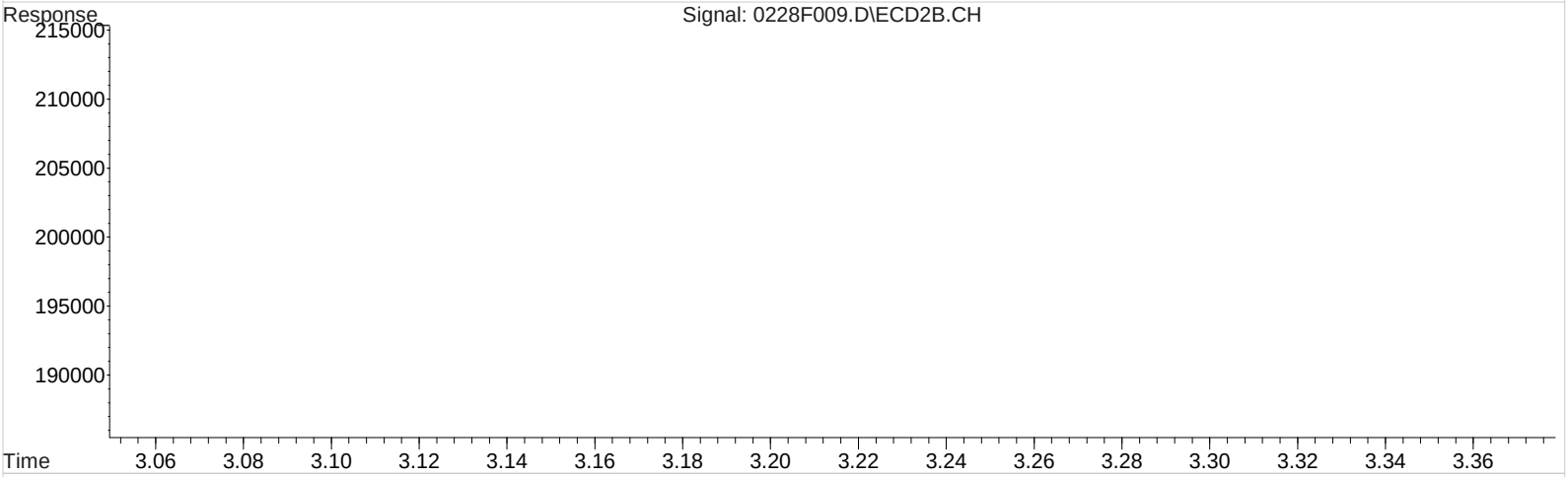
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 47.710 ug/L m

response 717598

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 44.168 ug/L

response 975860

(+) = Expected Retention Time

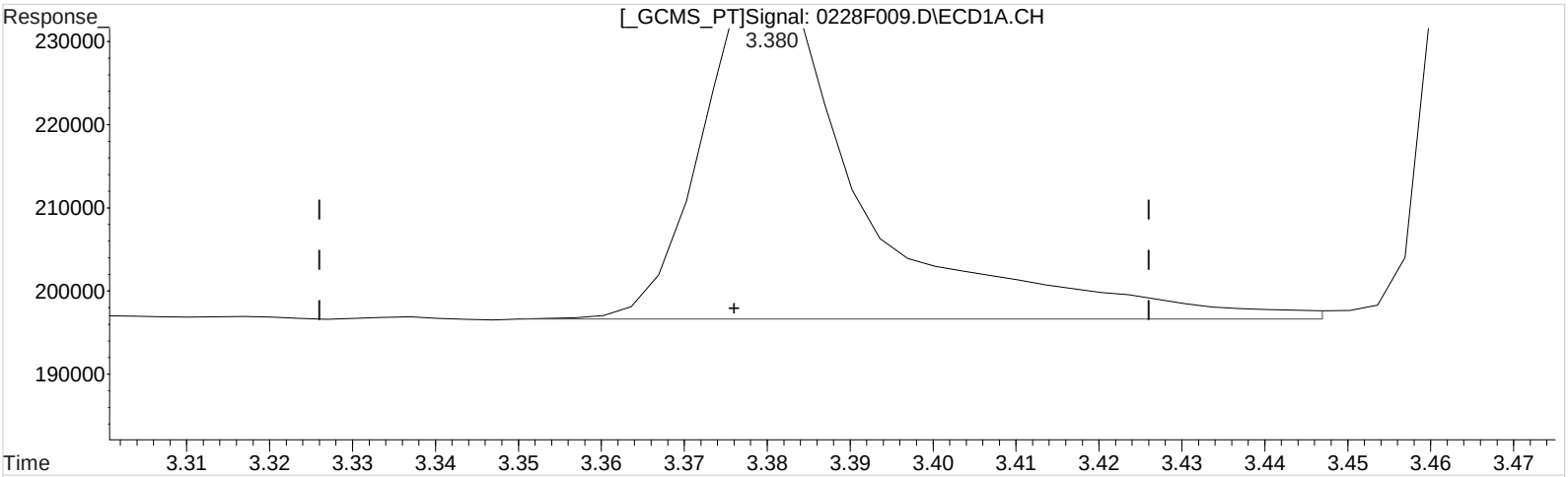
Quantitation Report (Qedit)

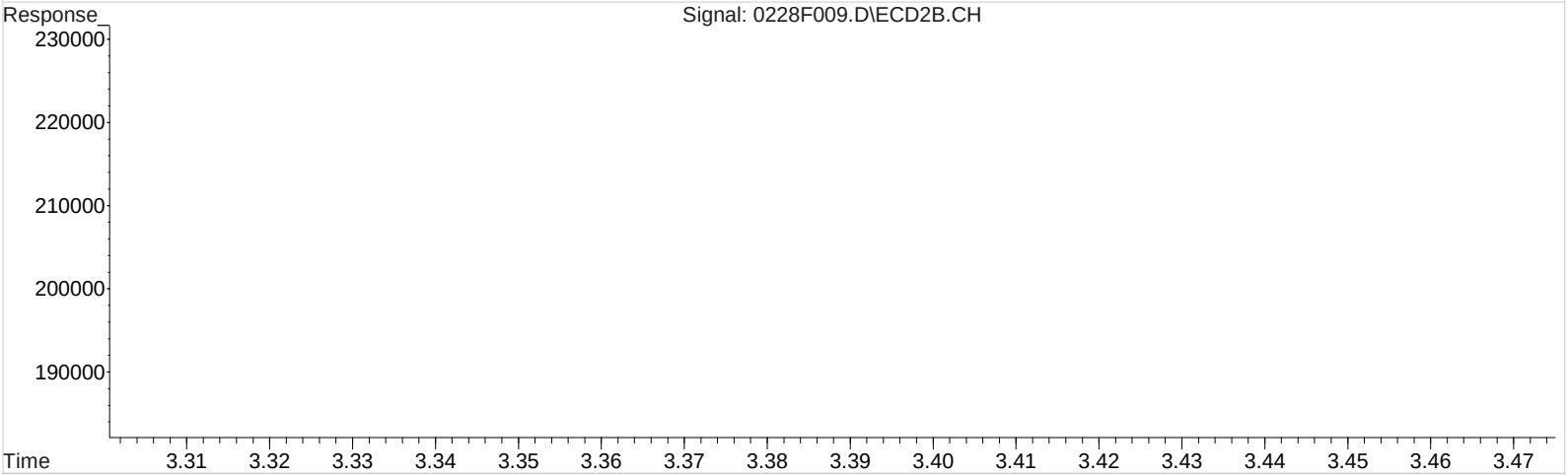
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 55.786 ug/L

response 554512

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 42.939 ug/L

response 707614

(+) = Expected Retention Time

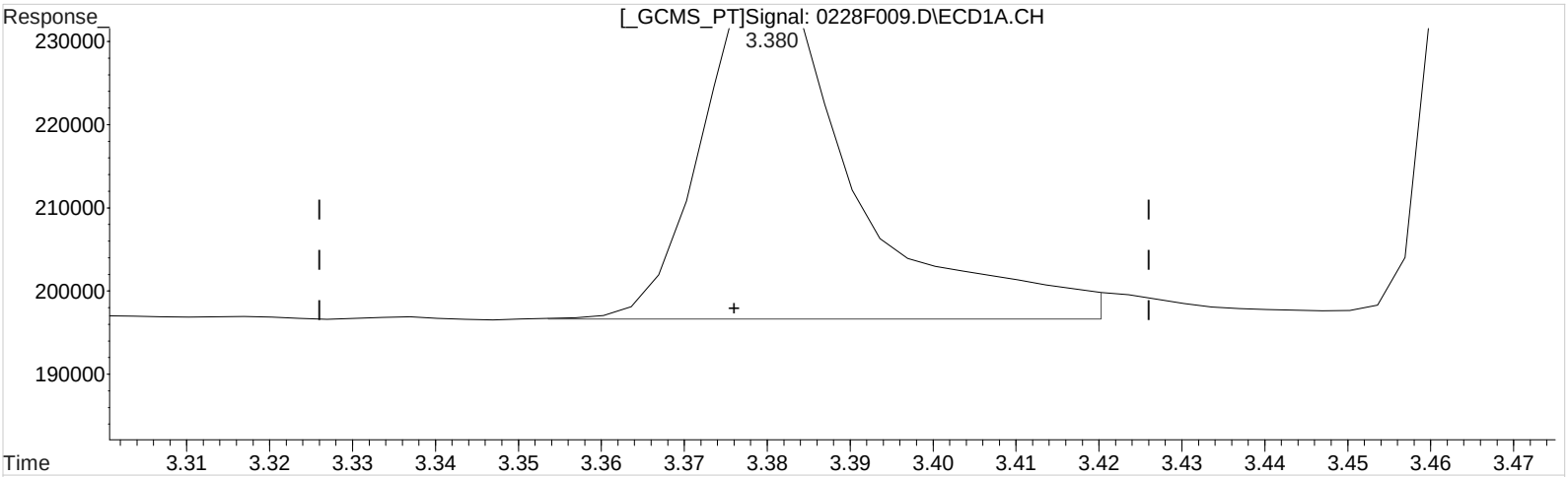
Quantitation Report (Qedit)

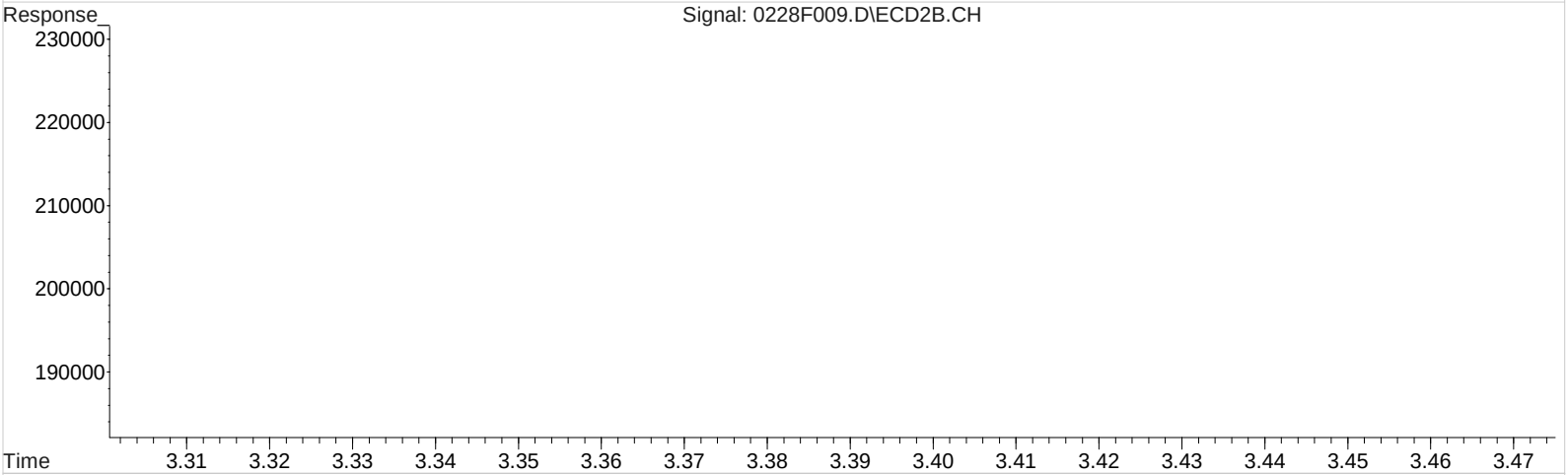
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 52.883 ug/L m

response 527946

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 42.939 ug/L

response 707614

(+) = Expected Retention Time

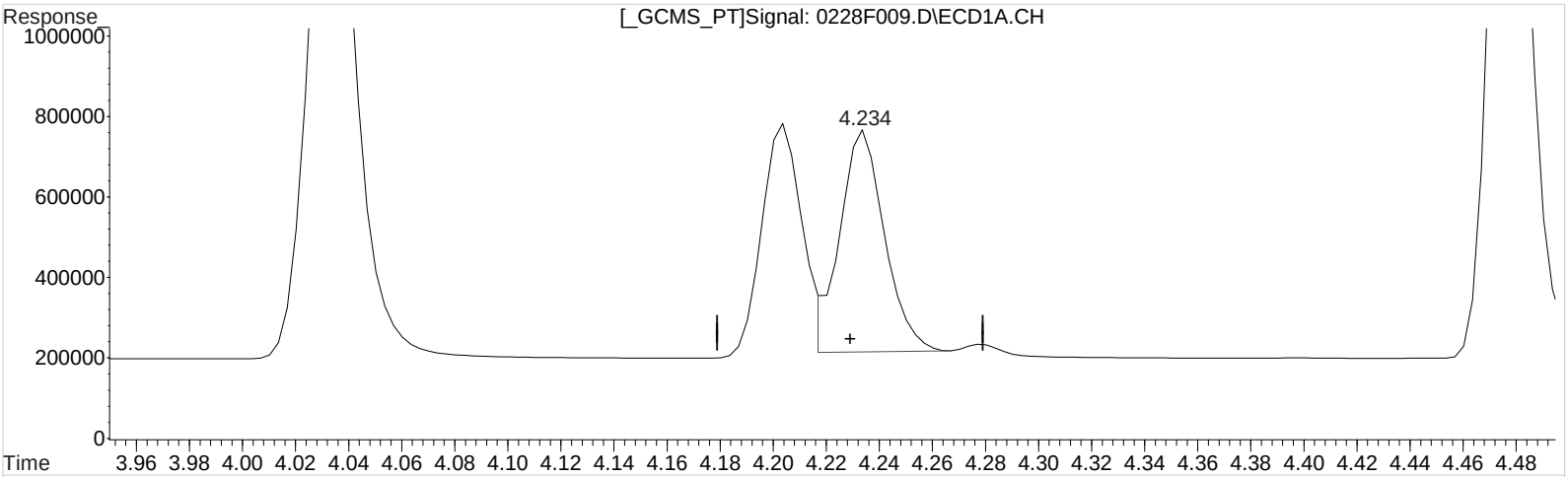
Quantitation Report (Qedit)

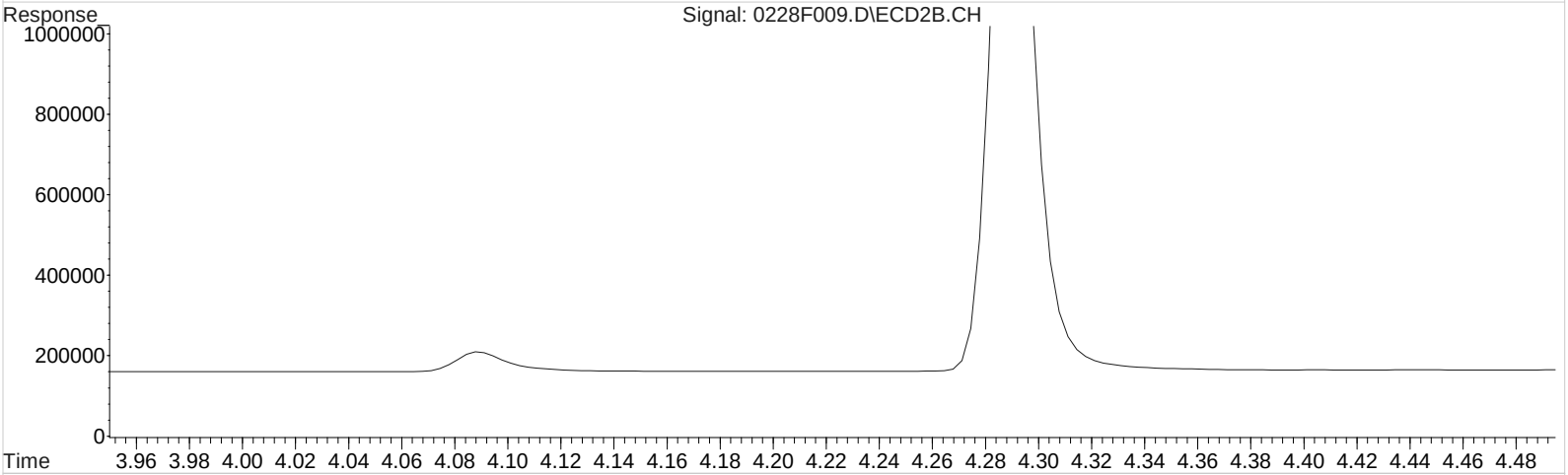
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.234min 45.176 ug/L

response 6319301

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.848min 42.741 ug/L

response 8022672

(+) = Expected Retention Time

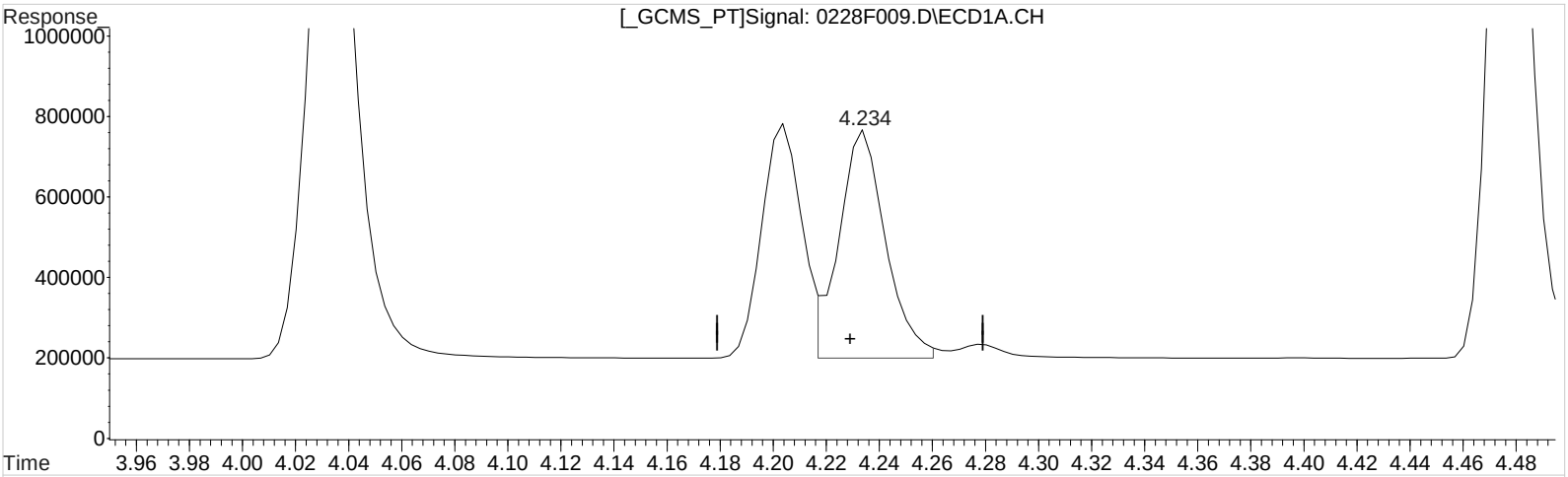
Quantitation Report (Qedit)

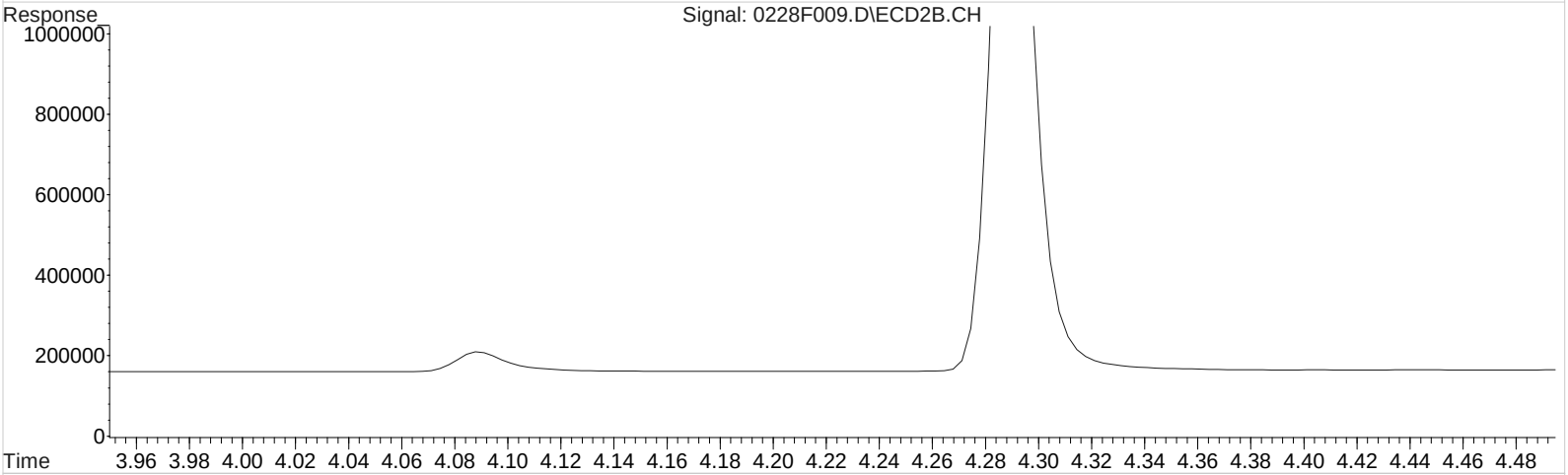
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.234min 48.287 ug/L m

response 6723516

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.848min 42.741 ug/L

response 8022672

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:22:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.032	4.719	34413155	43435506	102.249	99.922
		Target Compounds						
1)		3,4-Dichl...	3.138	3.833	1331525	1763970	93.560	79.838
2)		3,5-Dichl...	3.378	4.089	862010	1296503	91.350m	78.674
3)		2,4,6-Tri...	3.478	4.289	26311215	36325037	88.628	87.097
5)		2,4,5-Tri...	4.202	4.783	11366036	15617448	89.447	78.141
6)		3,4,5-Tri...	4.232	4.846	11877626	15048739	90.412	80.172
7)	M	2,3,5,6-T...	4.478	5.079	37783526	53764292	79.375	87.108
8)	M	2,3,4,5-T...	5.018	5.476	26302592	34720321	92.085	84.084
9)	M	Pentachlo...	5.155	5.659	44955036	59841010	100.762	87.035
10)		Pentachlo...	5.155	5.659	44955036	59841010	106.058	91.655

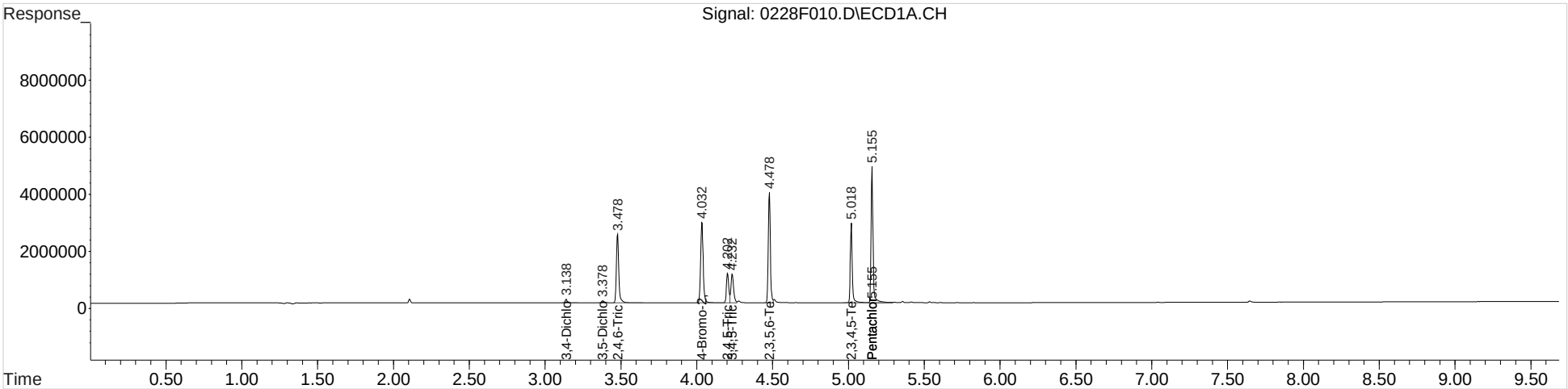
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:22:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



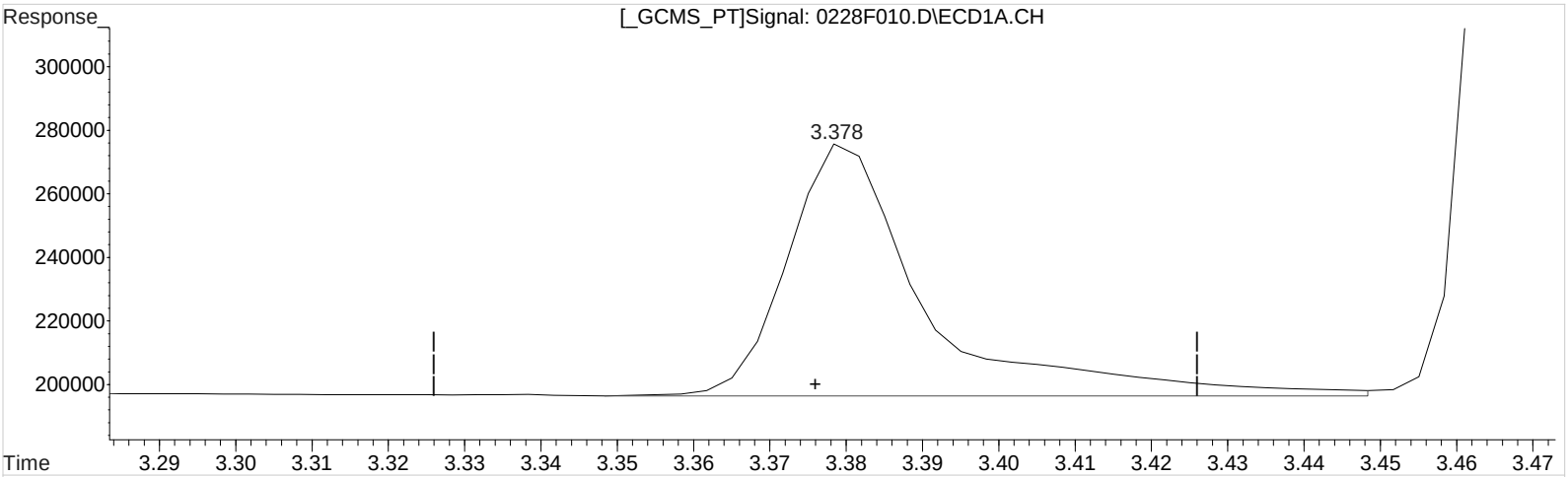
Quantitation Report (Qedit)

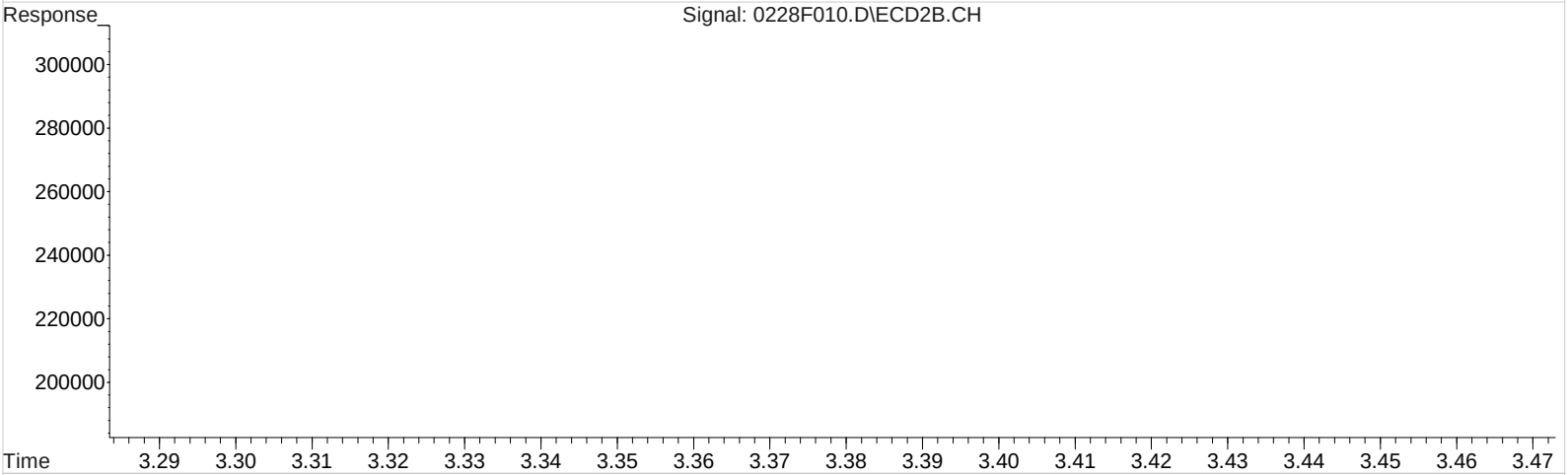
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 107.753 ug/L

response 992711

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 78.674 ug/L

response 1296503

(+) = Expected Retention Time

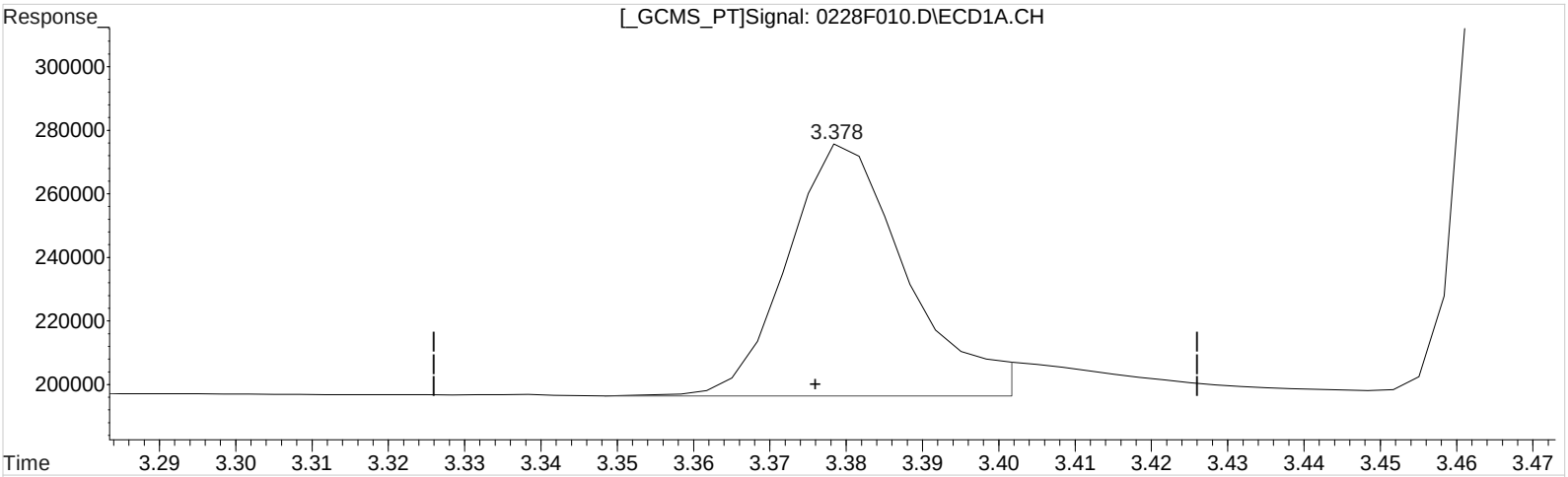
Quantitation Report (Qedit)

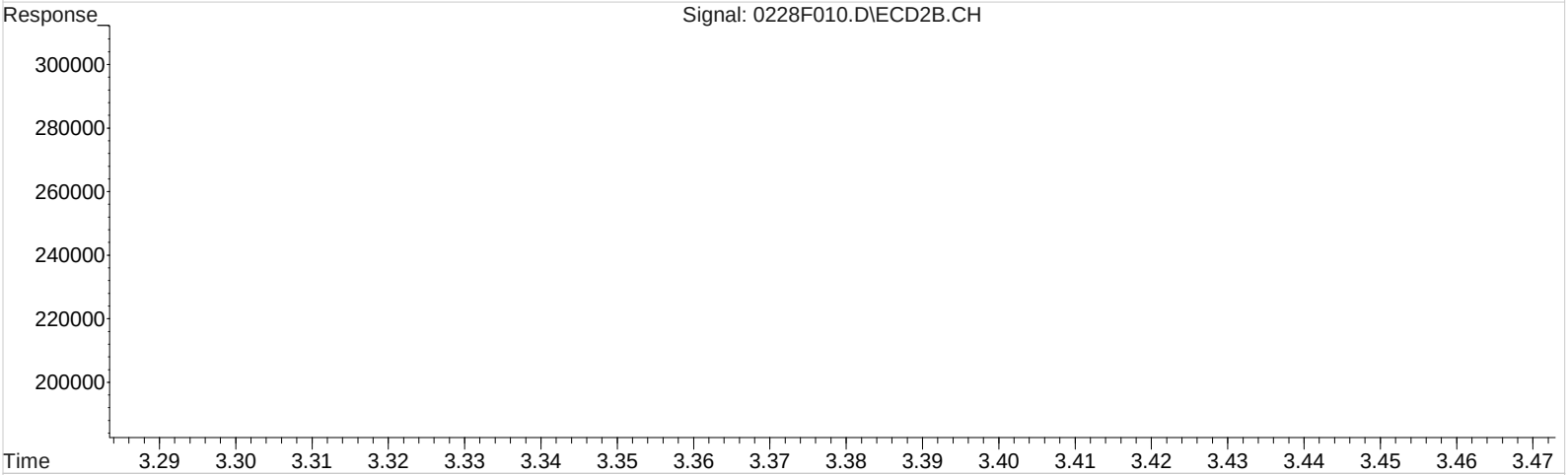
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 91.350 ug/L m

response 862010

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 78.674 ug/L

response 1296503

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:40:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.032	4.720	81814734	111.2E6	251.811	255.909	
		Target Compounds							
1)		3,4-Dichl...	3.139	3.833	2857364	4032207	239.203m	182.500	
2)		3,5-Dichl...	3.379	4.090	1819808	2874954	247.123m	174.458	#
3)		2,4,6-Tri...	3.479	4.290	60385111	91468356	241.870	219.315	
5)		2,4,5-Tri...	4.202	4.783	24998272	37739444	250.979	188.827	
6)		3,4,5-Tri...	4.232	4.846	25742104	36413226	245.950m	193.992	
7)	M	2,3,5,6-T...	4.479	5.076	86546934	134.6E6	181.817	218.076	
8)	M	2,3,4,5-T...	5.016	5.473	58240789	85792304	243.632	207.768	
9)	M	Pentachlo...	5.152	5.656	102.6E6	149.9E6	237.563	218.038	
10)		Pentachlo...	5.152	5.656	102.6E6	149.9E6	250.048	229.611	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

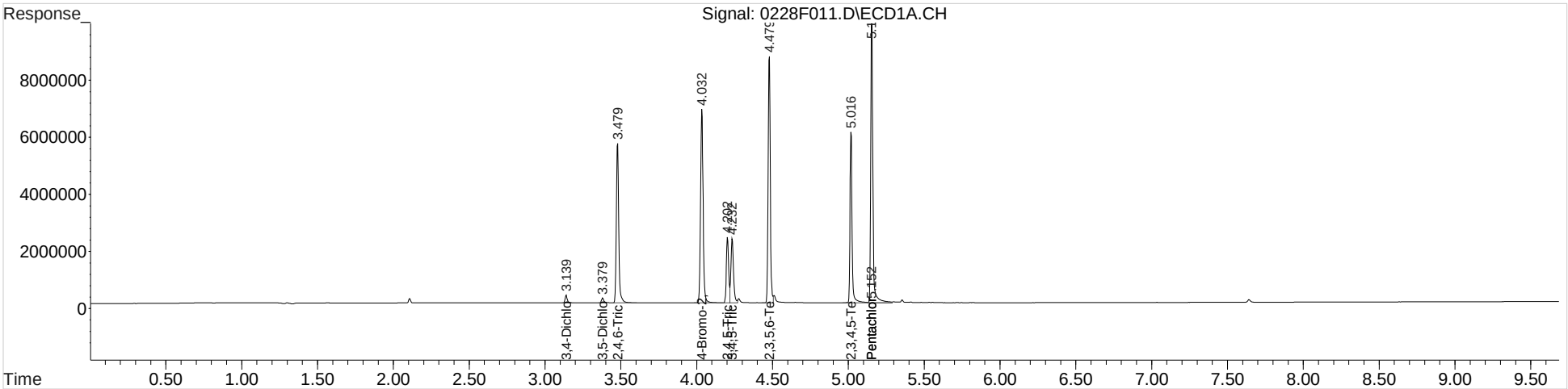
Quantitation Report (QT Reviewed)

1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:40:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



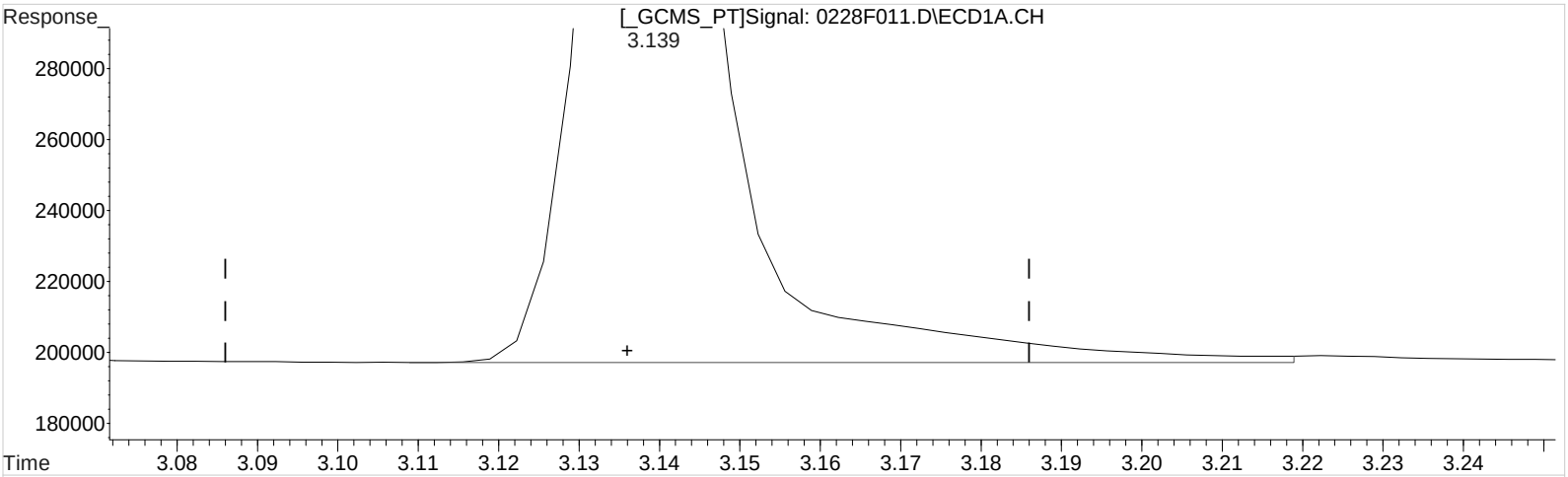
Quantitation Report (Qedit)

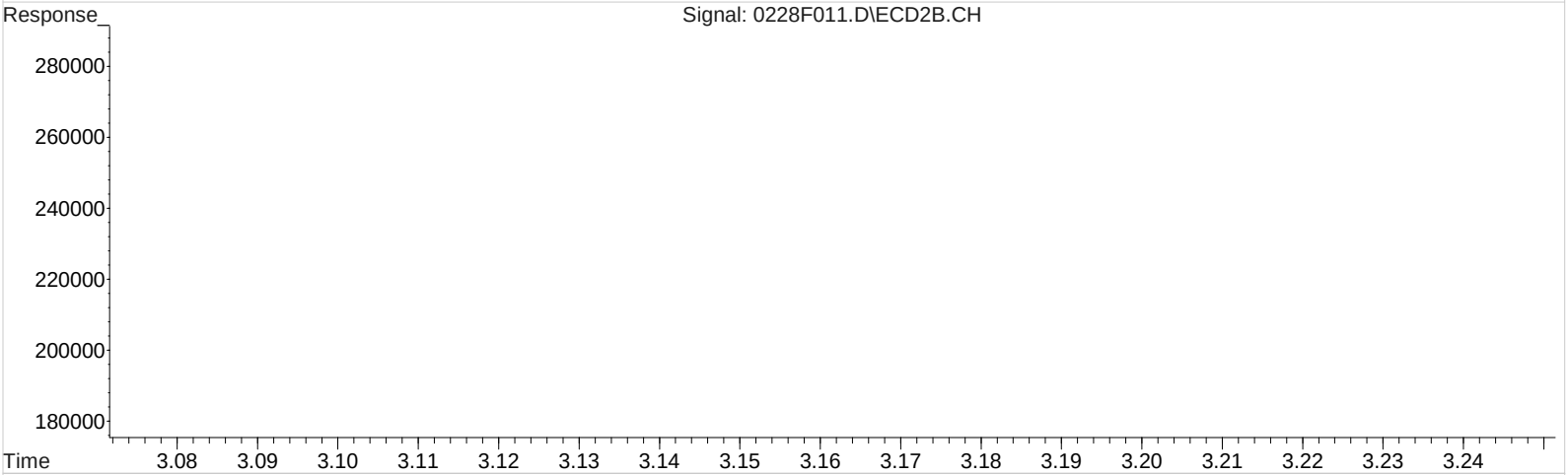
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 239.087 ug/L

response 2856406

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 182.500 ug/L

response 4032207

(+) = Expected Retention Time

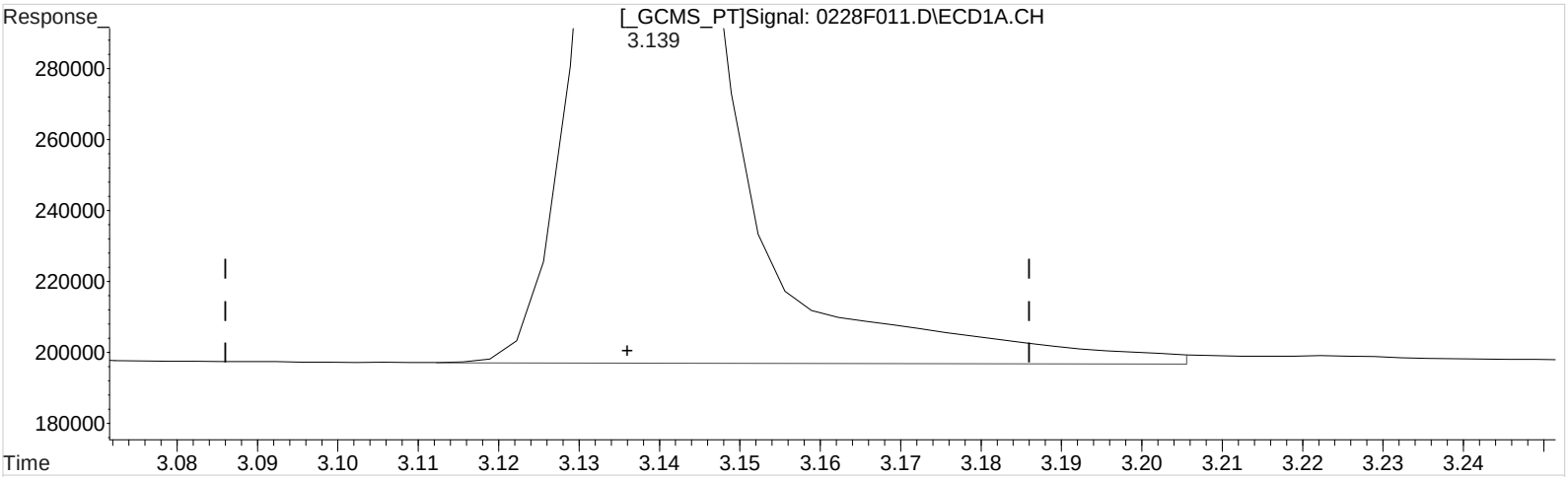
Quantitation Report (Qedit)

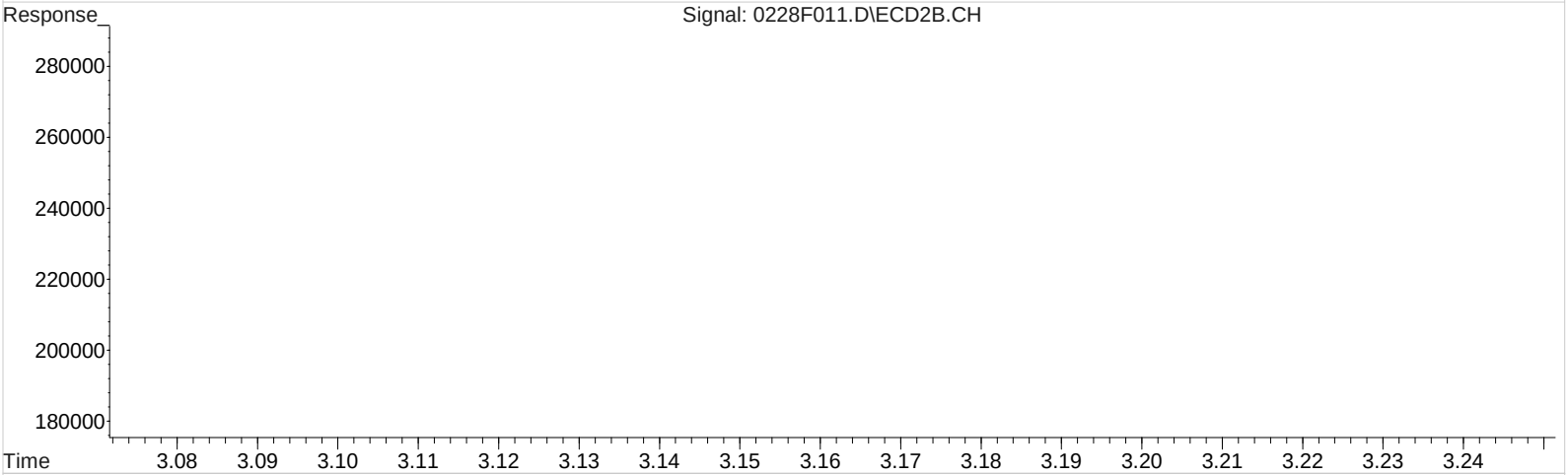
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 239.203 ug/L m

response 2857364

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 182.500 ug/L

response 4032207

(+) = Expected Retention Time

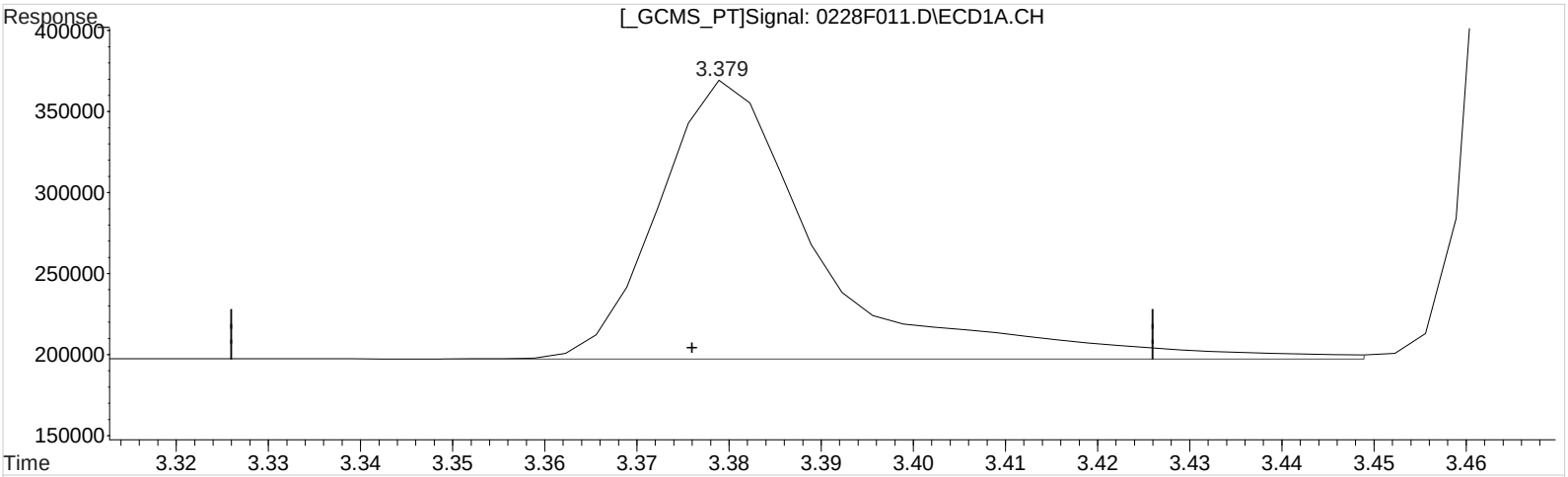
Quantitation Report (Qedit)

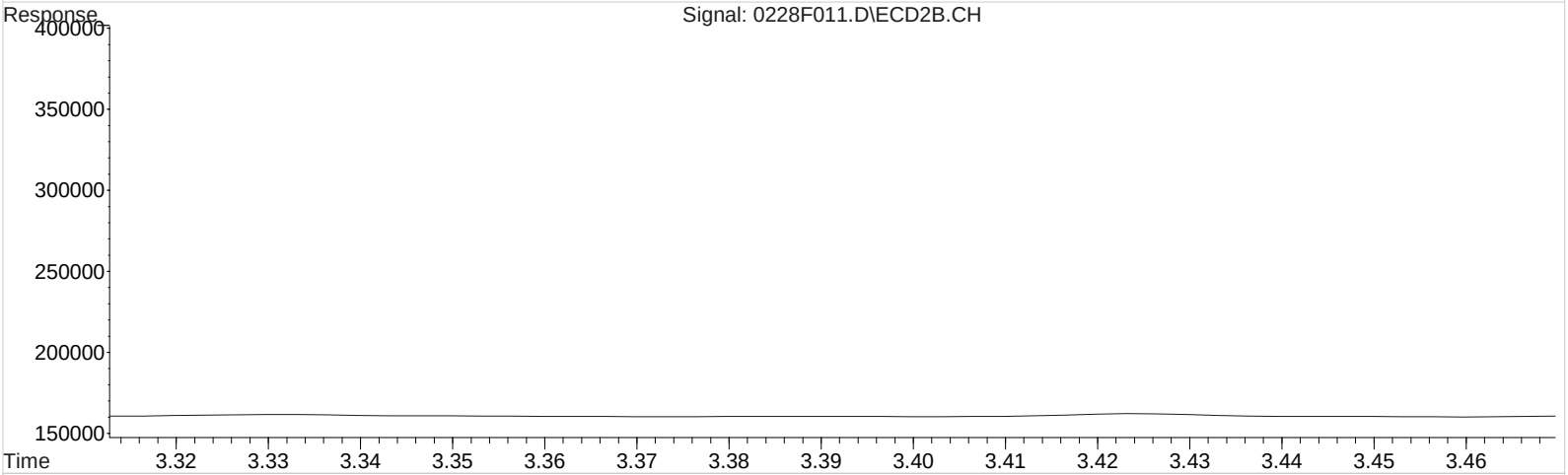
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 331.758 ug/L

response 2074587

(2) 3,5-Dichlorophenol #2

4.090min 174.458 ug/L

response 2874954

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

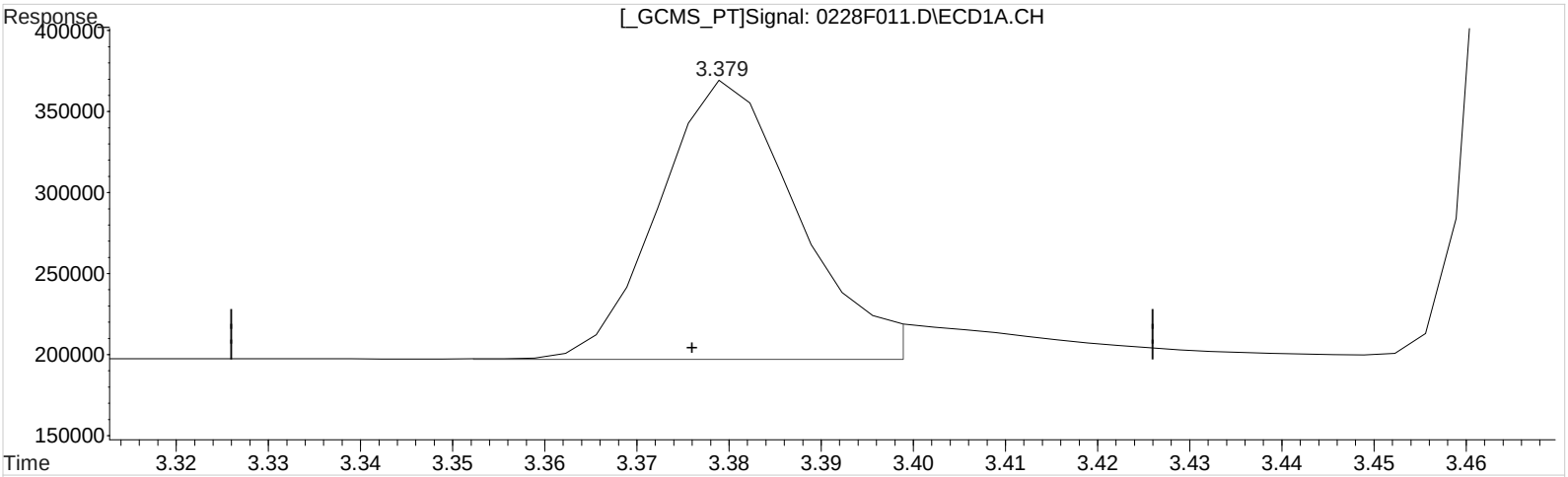
Quantitation Report (Qedit)

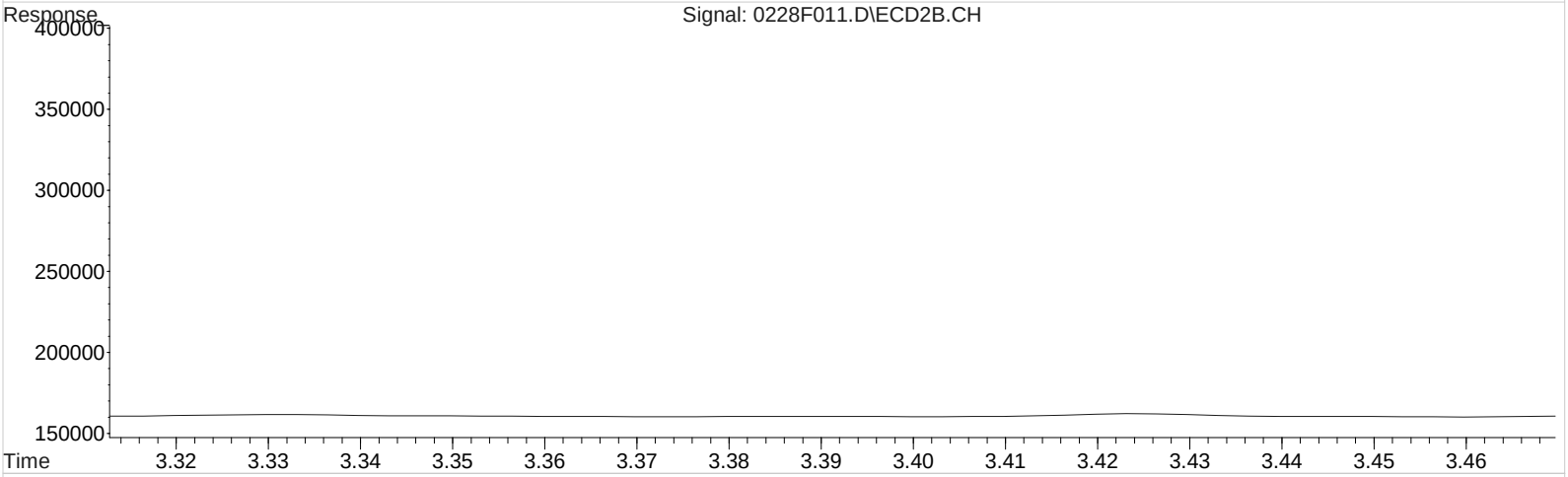
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 247.123 ug/L m

response 1819808

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 174.458 ug/L

response 2874954

(+) = Expected Retention Time

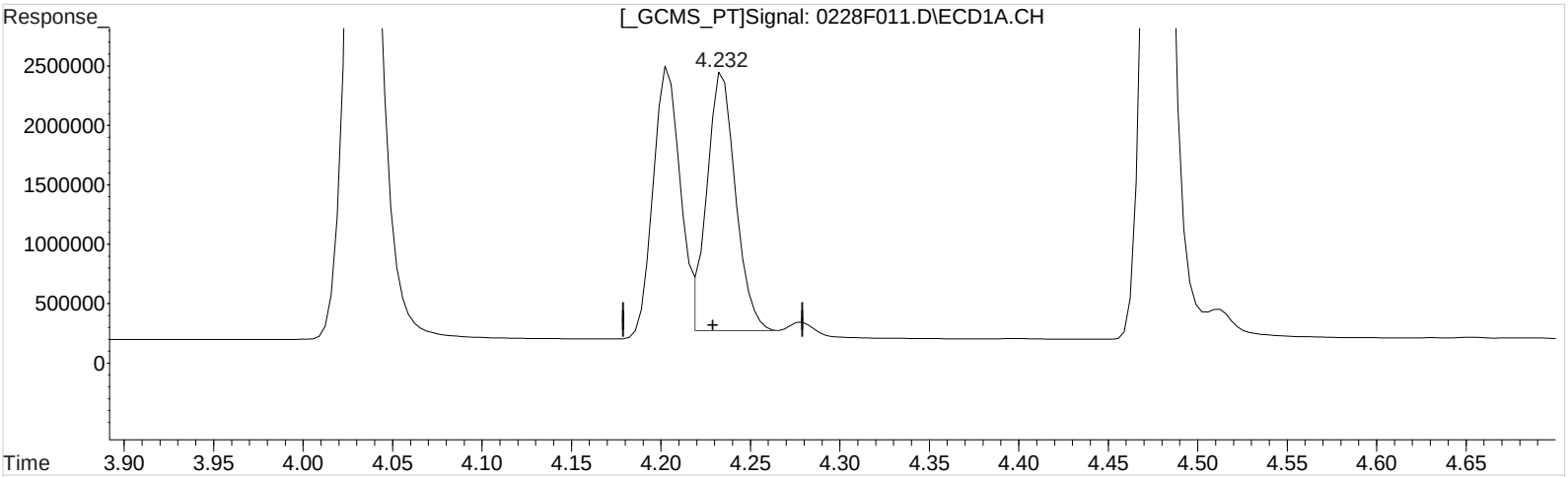
Quantitation Report (Qedit)

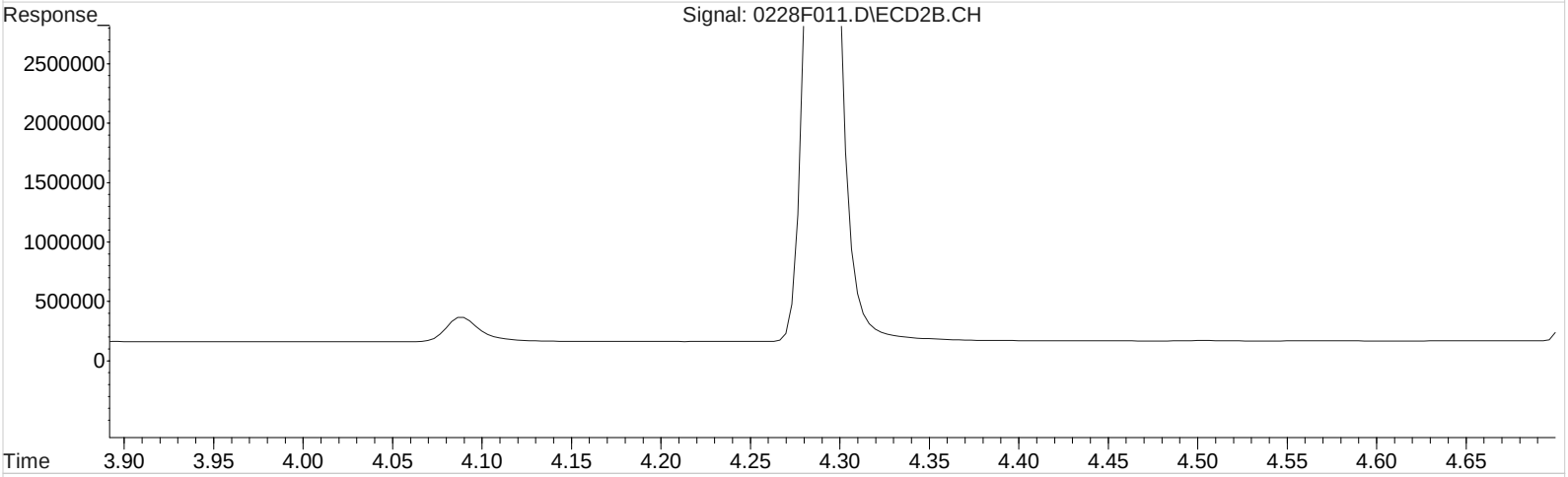
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min 214.424 ug/L

response 23588772

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.846min 193.992 ug/L

response 36413226

(+) = Expected Retention Time

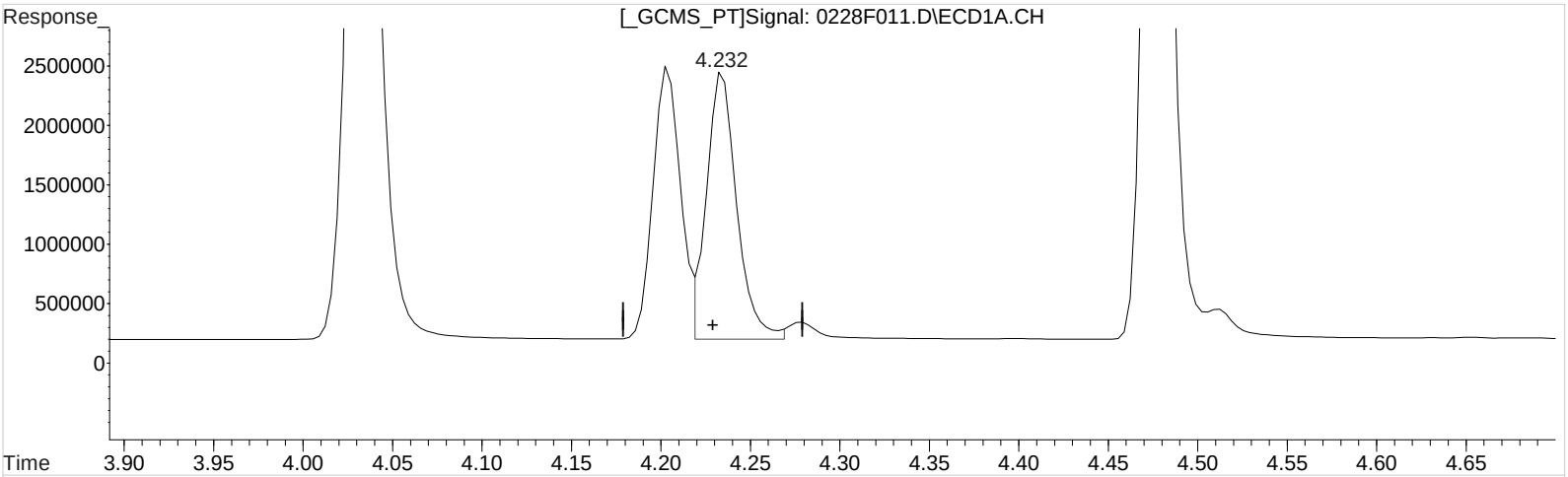
Quantitation Report (Qedit)

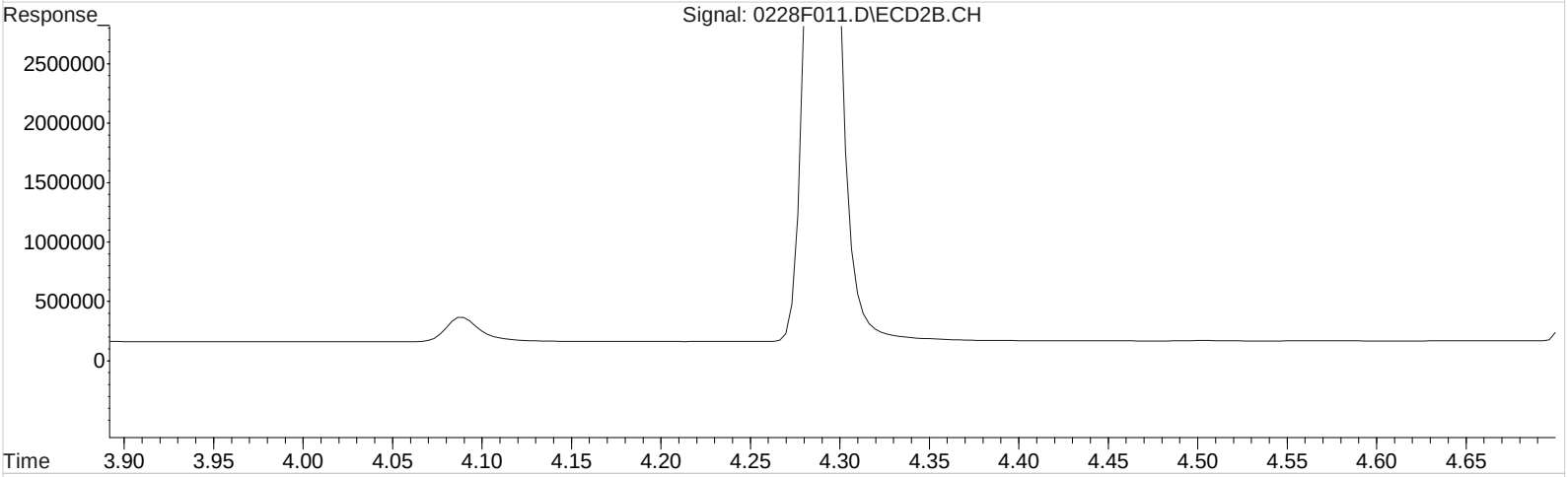
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min 245.950 ug/L m

response 25742104

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.846min 193.992 ug/L

response 36413226

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:02:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.034	4.718	148.9E6	219.7E6	481.796	505.496
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D. d
9)	M	Pentachlo...	5.154	5.658	187.0E6	302.6E6	453.396	440.083
10)		Pentachlo...	5.154	5.658	187.0E6	302.6E6	477.226	463.441

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

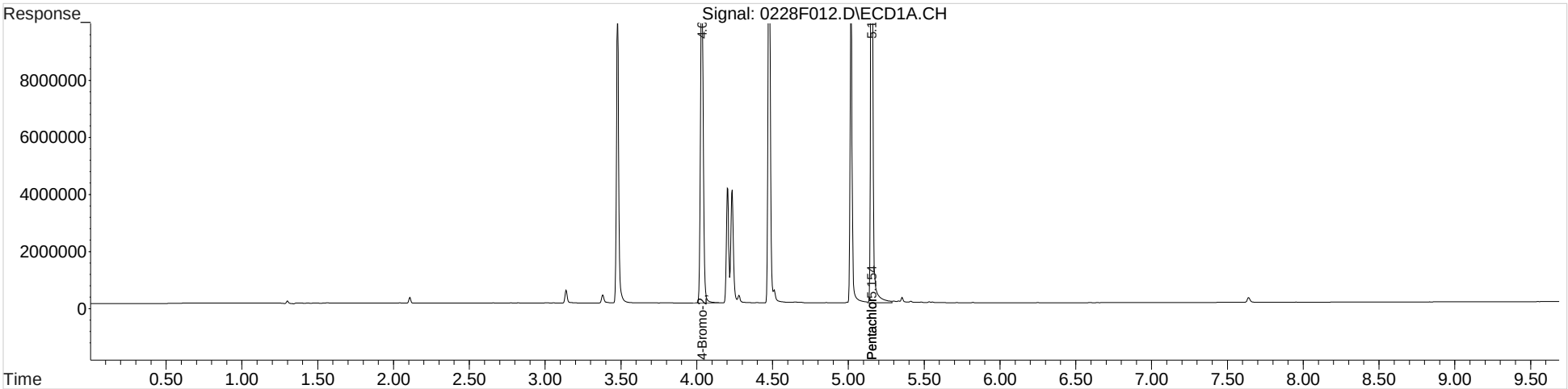
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:02:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



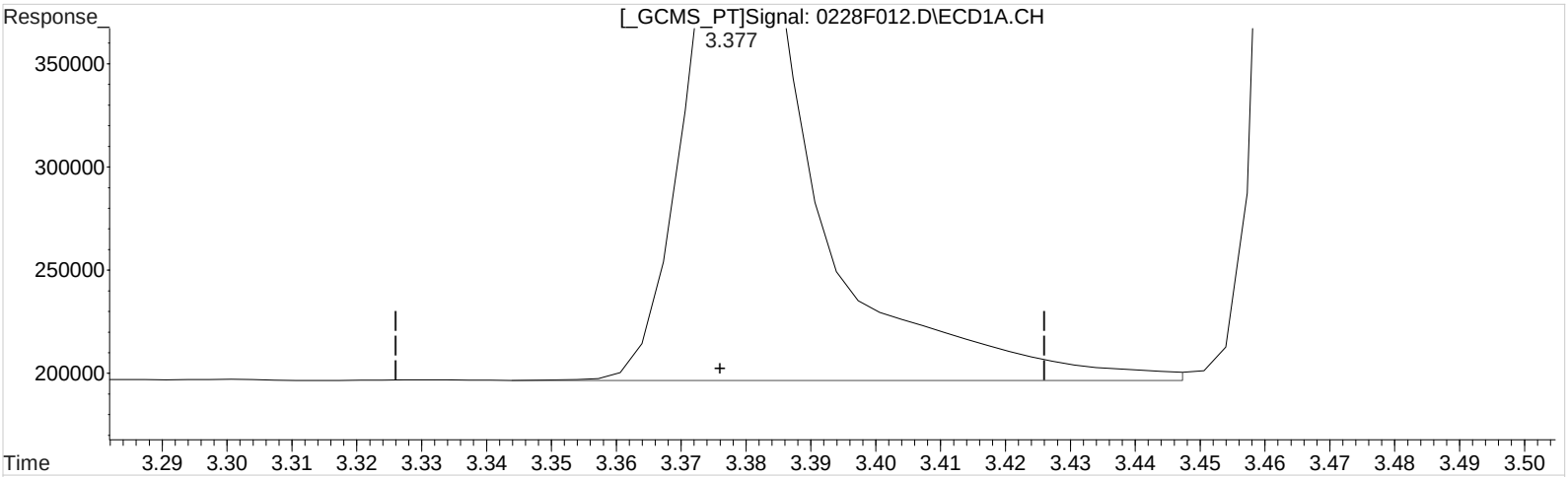
Quantitation Report (Qedit)

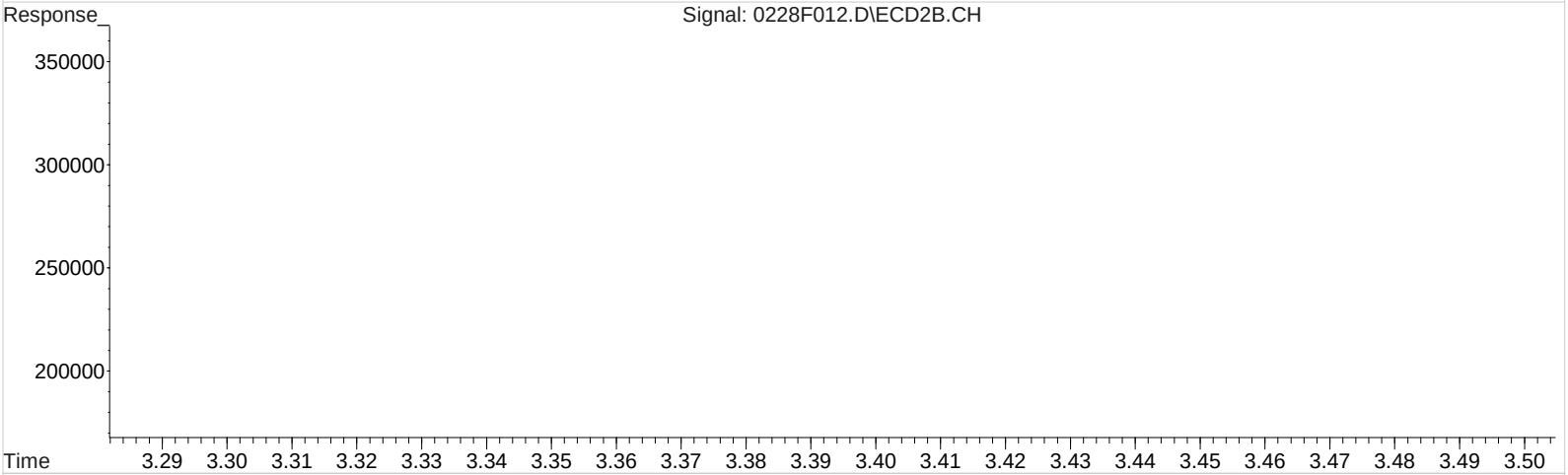
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:57:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min -1.000 ug/L

response 3515486

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 308.529 ug/L

response 5084362

(+) = Expected Retention Time

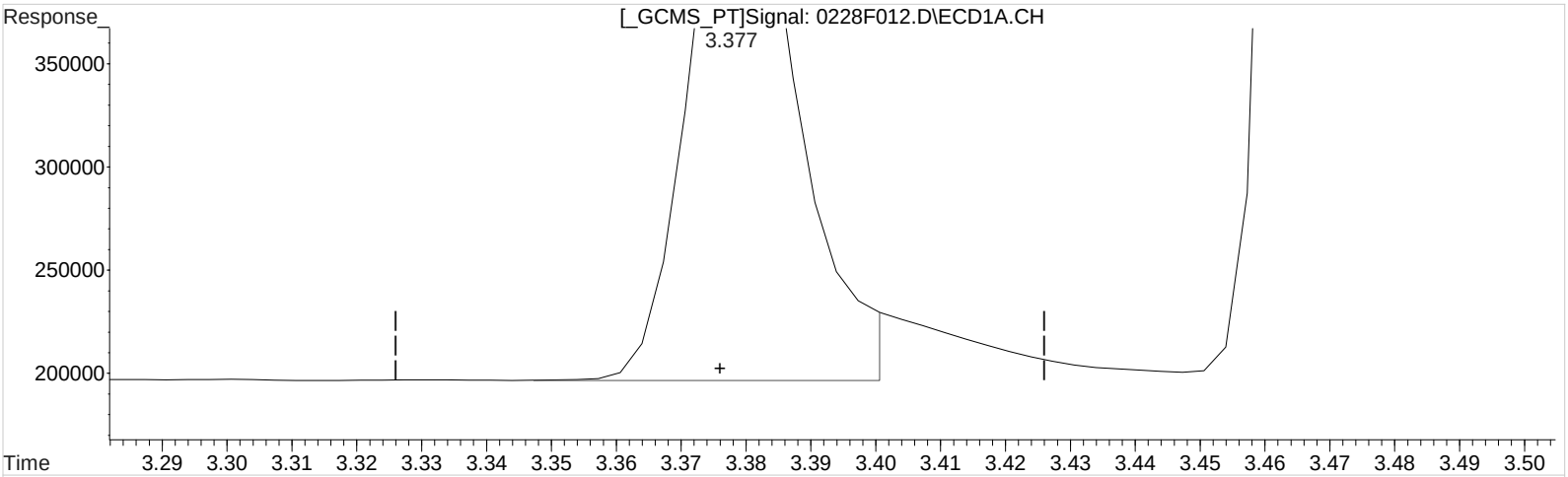
Quantitation Report (Qedit)

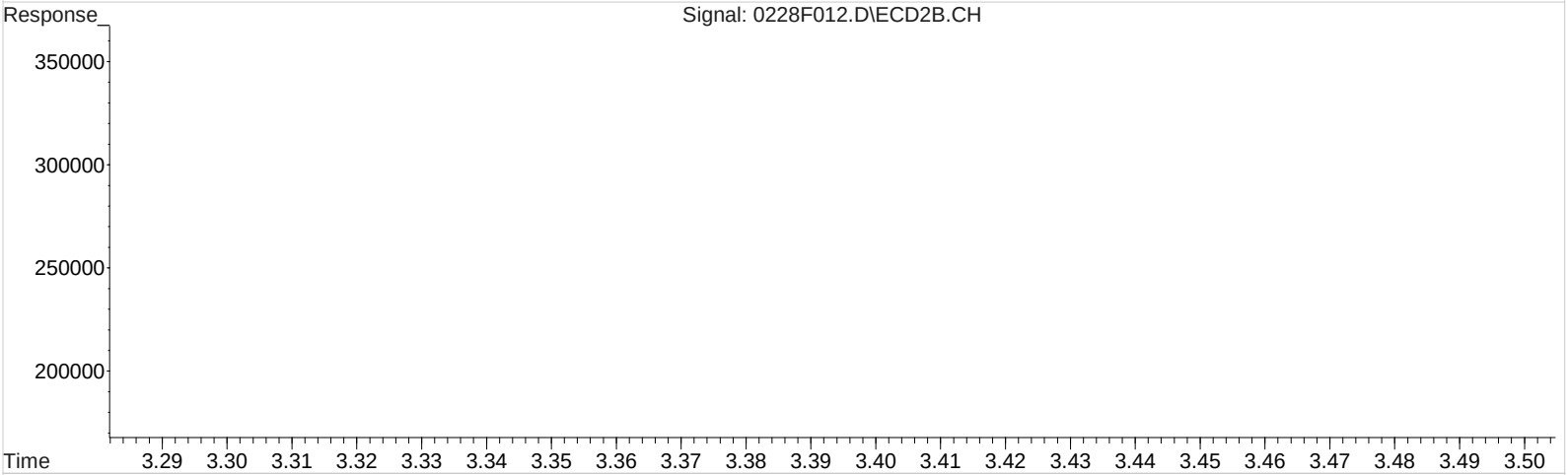
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:57:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min -1.000 ug/L m

response 3148268

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 308.529 ug/L

response 5084362

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:03:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.032	4.720	275.5E6	454.2E6	1004.956	1044.829
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D. d
9)	M	Pentachlo...	5.152	5.657	351.1E6	624.5E6	951.331	908.276
10)		Pentachlo...	5.152	5.657	351.1E6	624.5E6	1001.338	956.483

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

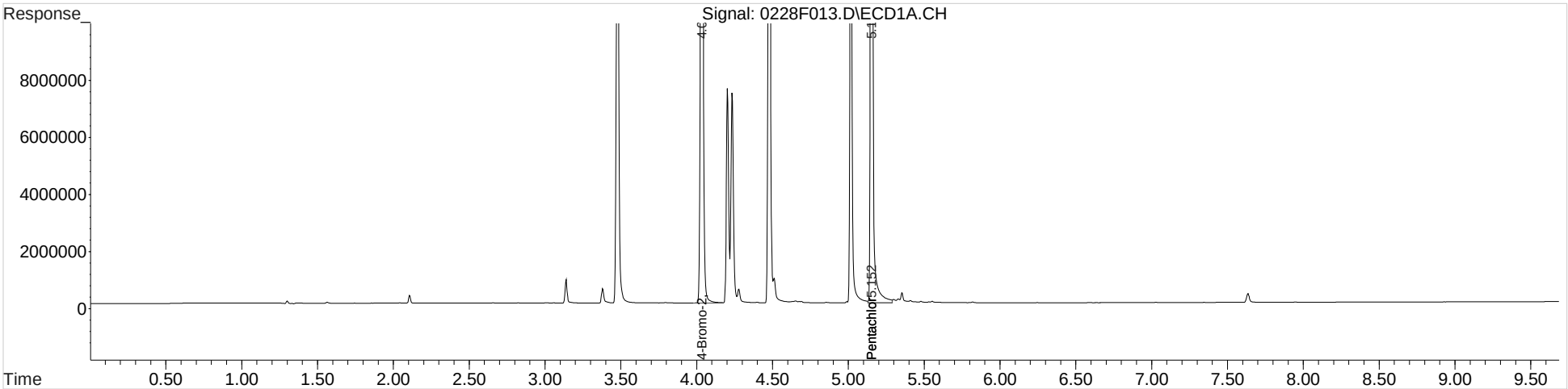
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:03:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



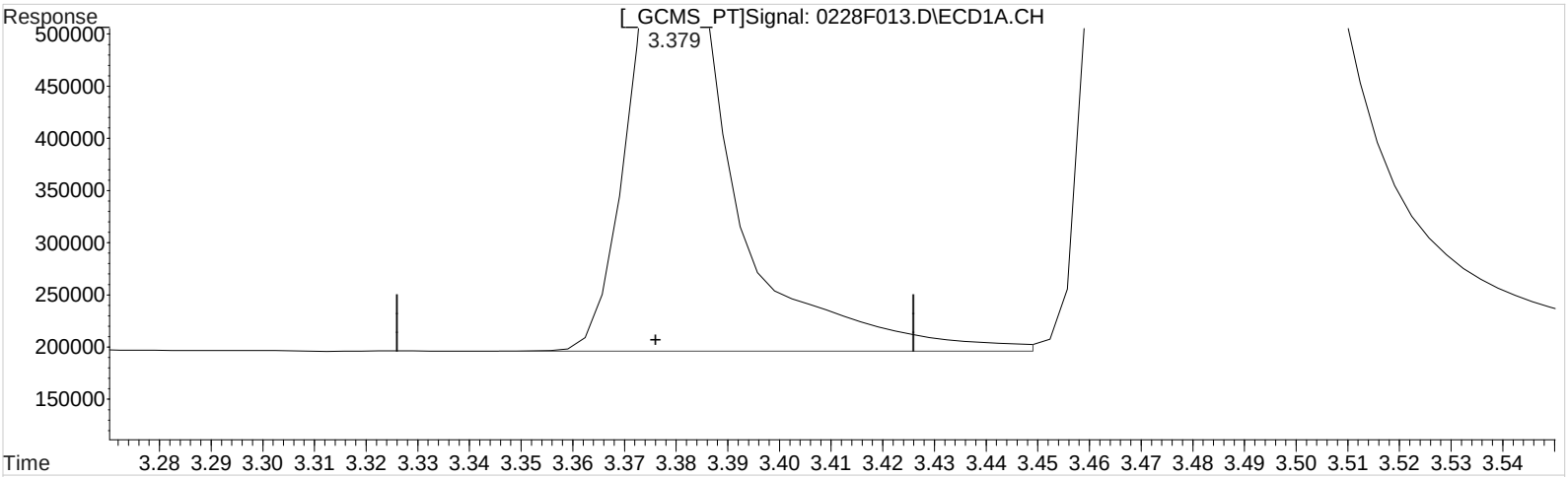
Quantitation Report (Qedit)

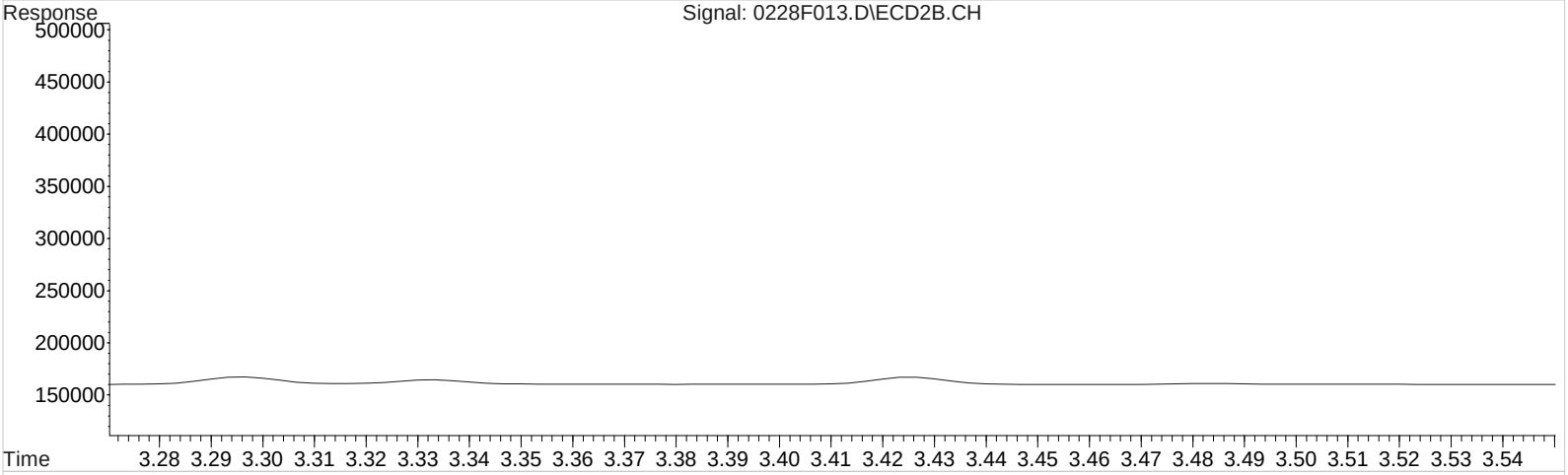
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min -1.000 ug/L

response 6094712

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 574.054 ug/L

response 9460033

(+) = Expected Retention Time

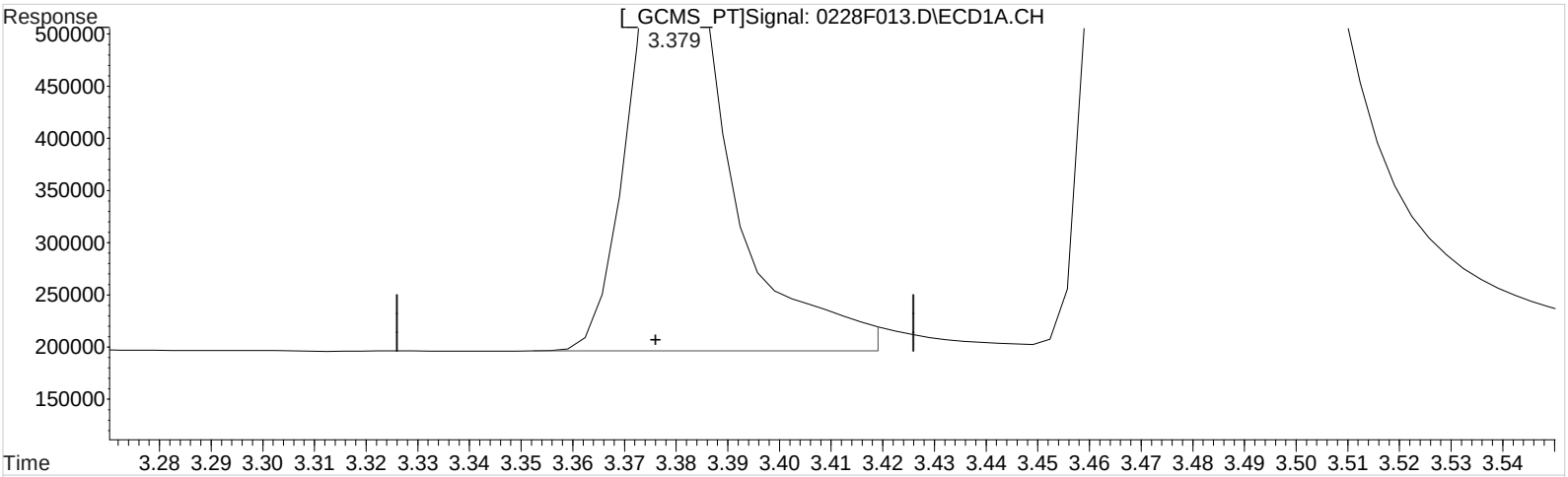
Quantitation Report (Qedit)

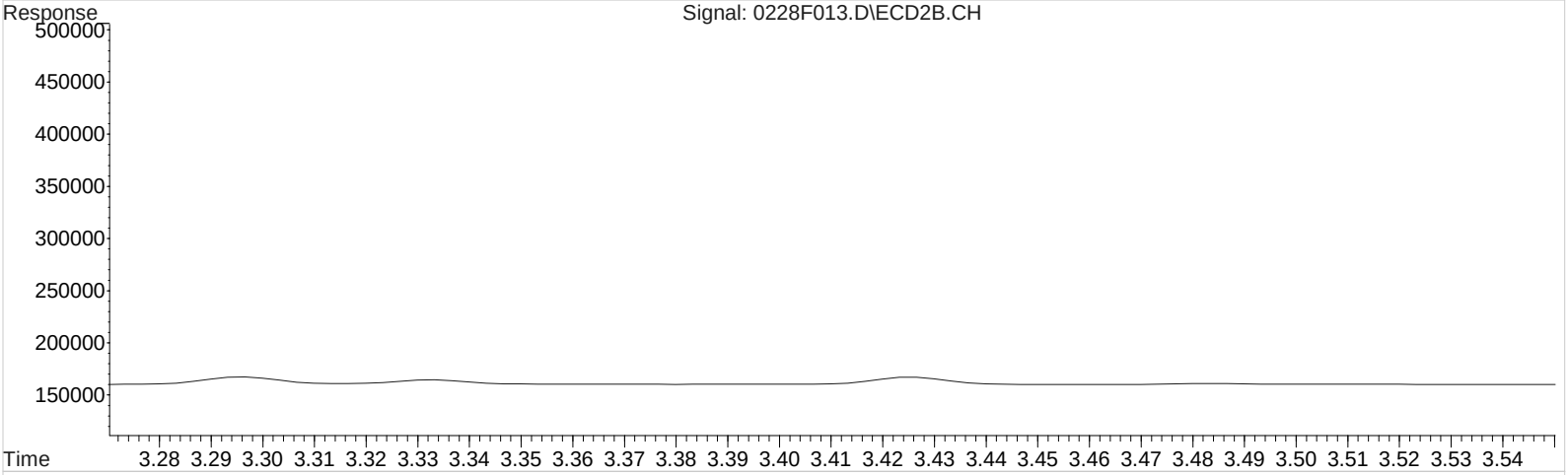
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min -1.000 ug/L m

response 5889814

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 574.054 ug/L

response 9460033

(+) = Expected Retention Time

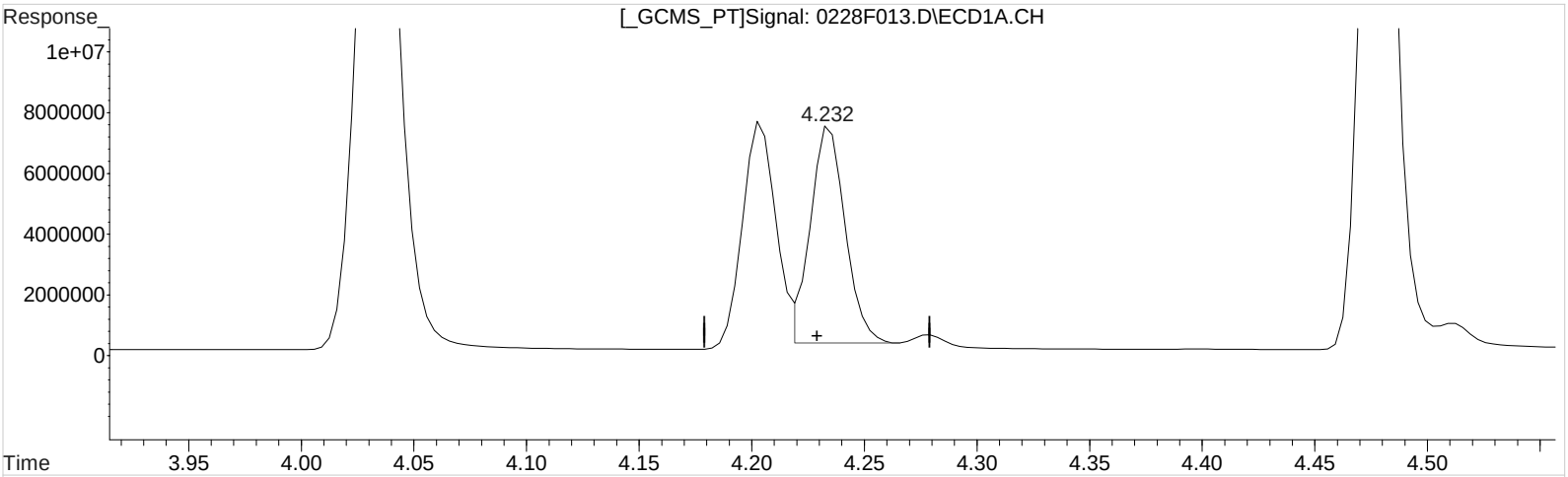
Quantitation Report (Qedit)

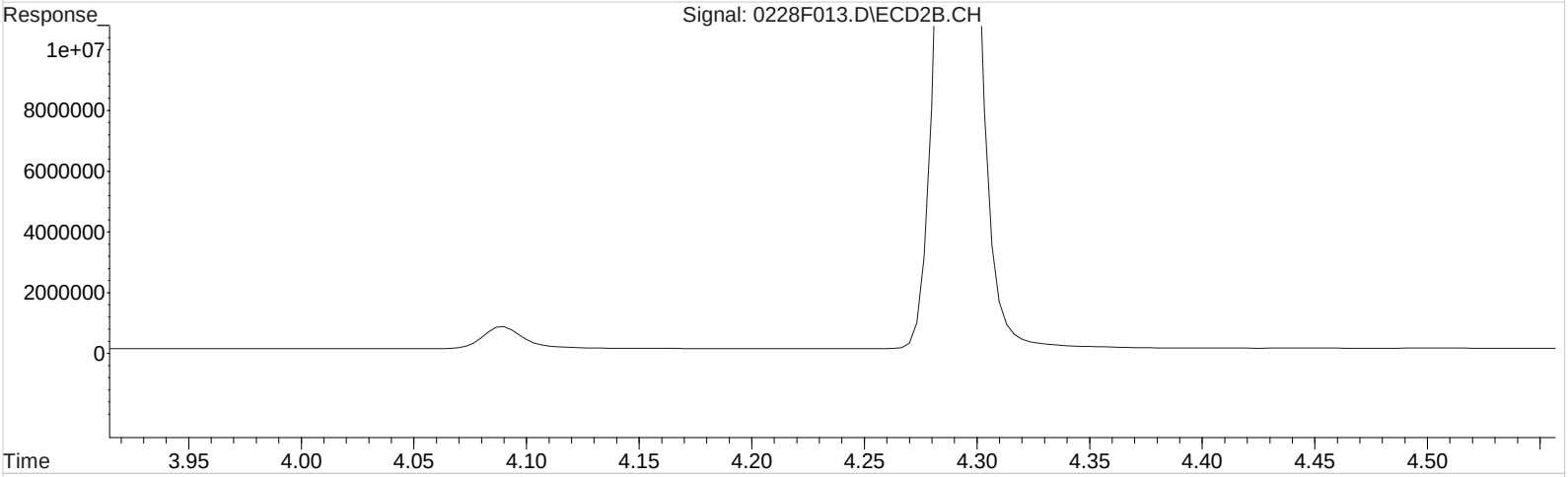
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min -1.000 ug/L

response 74934079

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 737.496 ug/L

response 138431346

(+) = Expected Retention Time

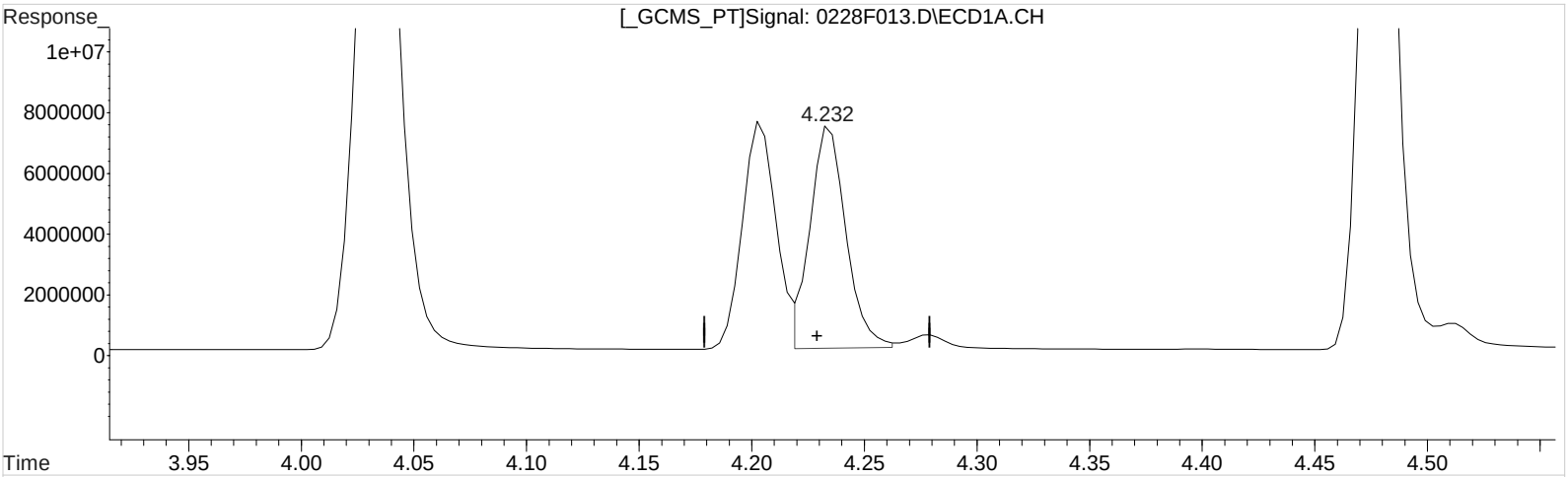
Quantitation Report (Qedit)

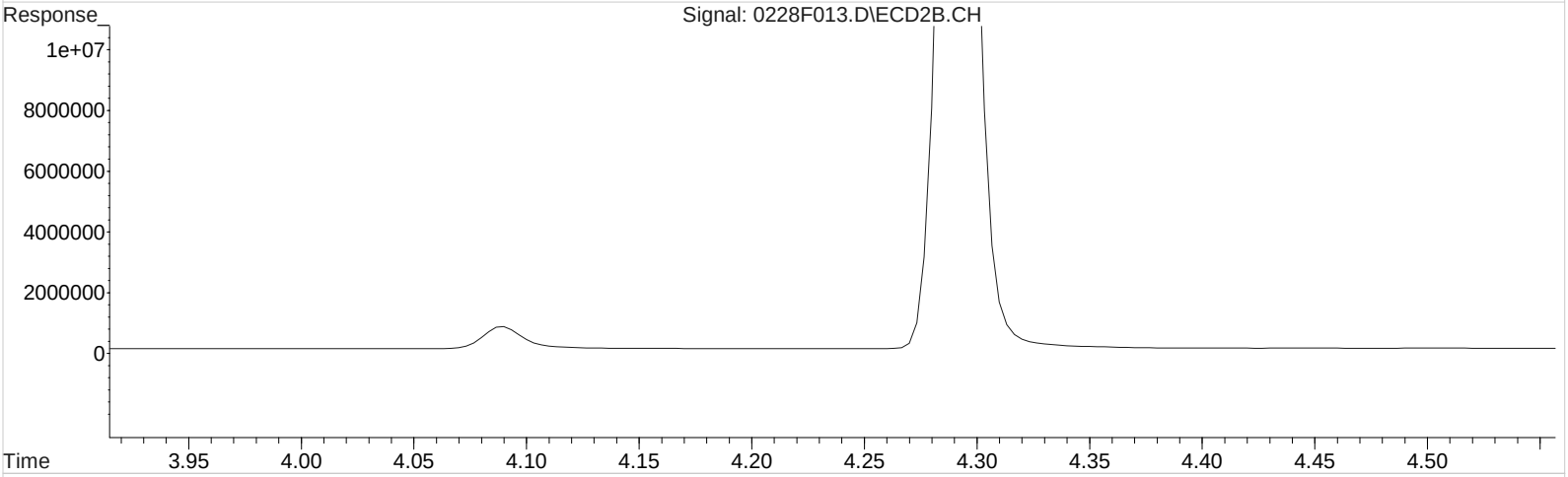
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min -1.000 ug/L m

response 79254186

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 737.496 ug/L

response 138431346

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:00:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.035	4.719	1168028	983474	2.544	2.262
		Target Compounds						
1)		3,4-Dichl...	3.138	3.832	45256	55247	2.218	2.501
2)		3,5-Dichl...	3.378	4.089	31638	44372	2.469m	2.693
3)		2,4,6-Tri...	3.478	4.289	951850	996024	2.425	2.388
5)		2,4,5-Tri...	4.205	4.785	468262	535226	2.569	2.678
6)		3,4,5-Tri...	4.235	4.849	464016	493606	2.630	2.630
7)	M	2,3,5,6-T...	4.478	5.079	1355696	1503718	2.848	2.436m
8)	M	2,3,4,5-T...	5.018	5.472	1121382	1115328	2.467m	2.701
9)	M	Pentachlo...	5.155	5.655	1532111	1786099	2.401	2.598m
10)		Pentachlo...	5.155	5.655	1532111	1782521	2.528	2.730m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

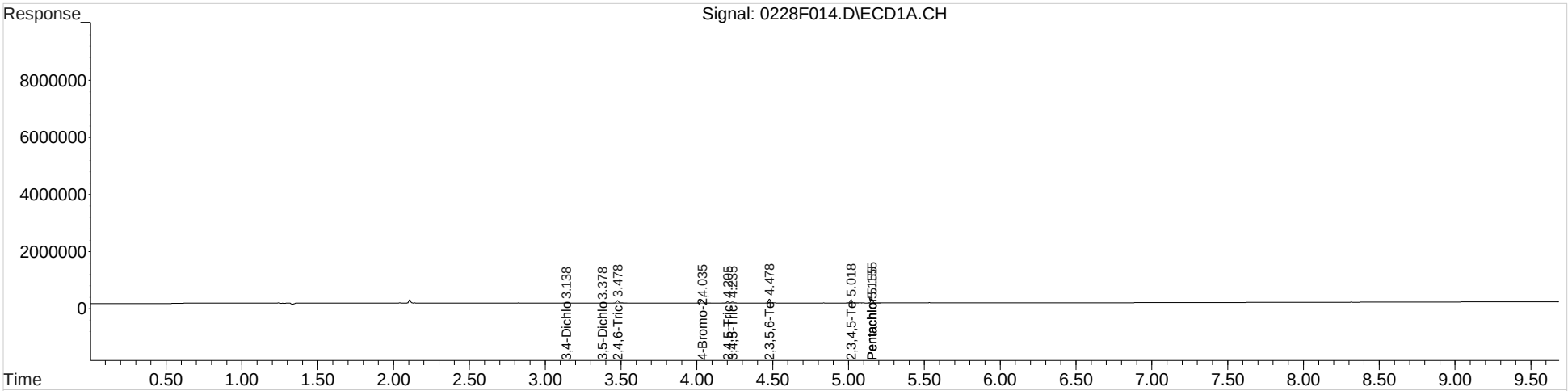
1st JMS 02/28/19
2nd MC 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:00:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



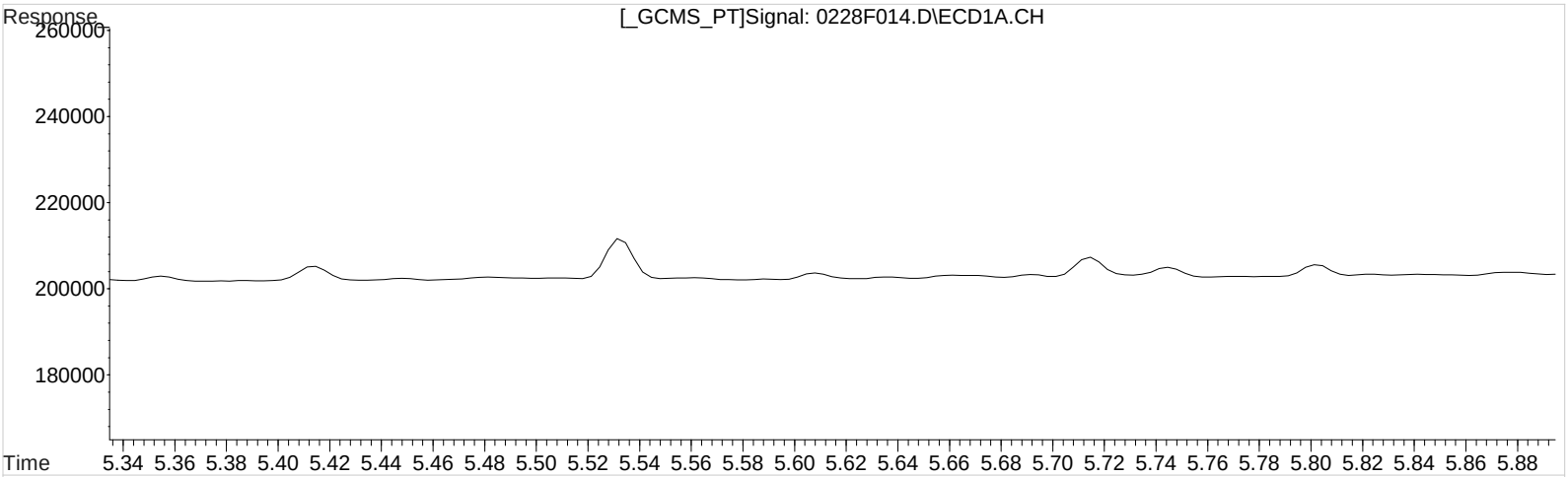
Quantitation Report (Qedit)

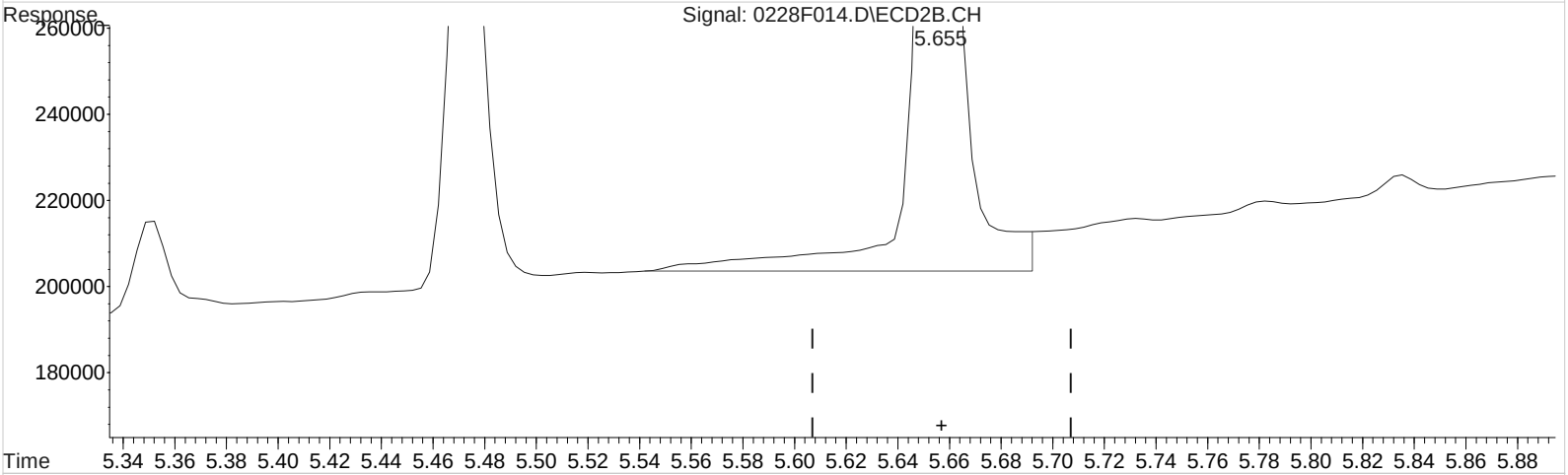
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.155min 2.528 ug/L

response 1532111

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.655min 3.364 ug/L

response 2196034

(+) = Expected Retention Time

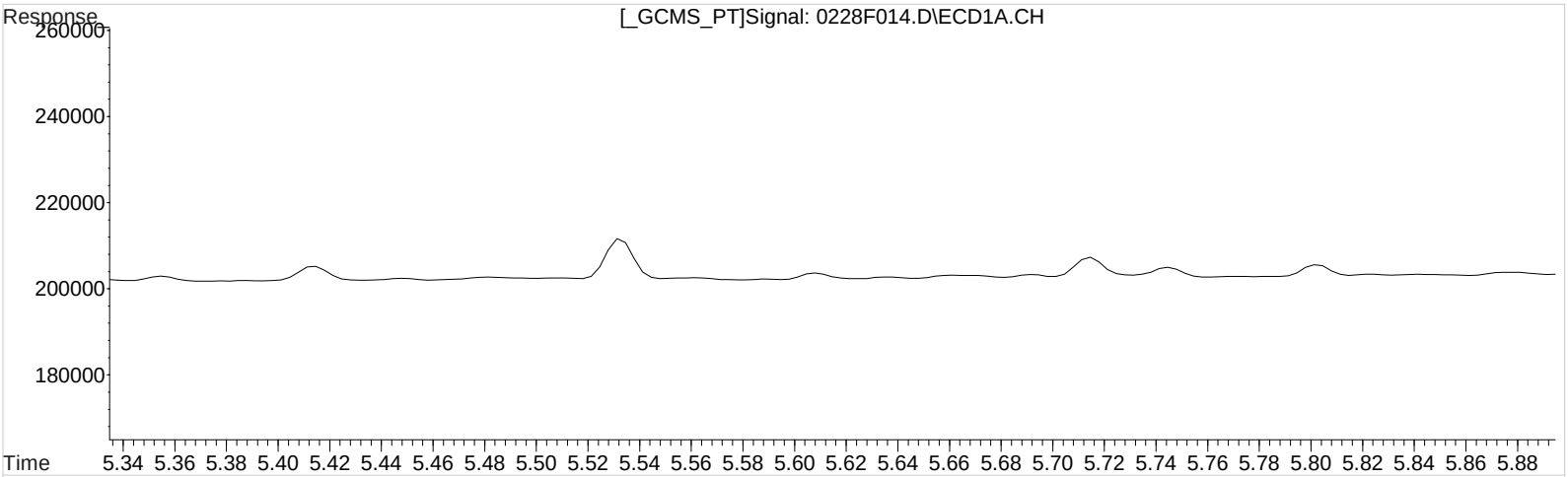
Quantitation Report (Qedit)

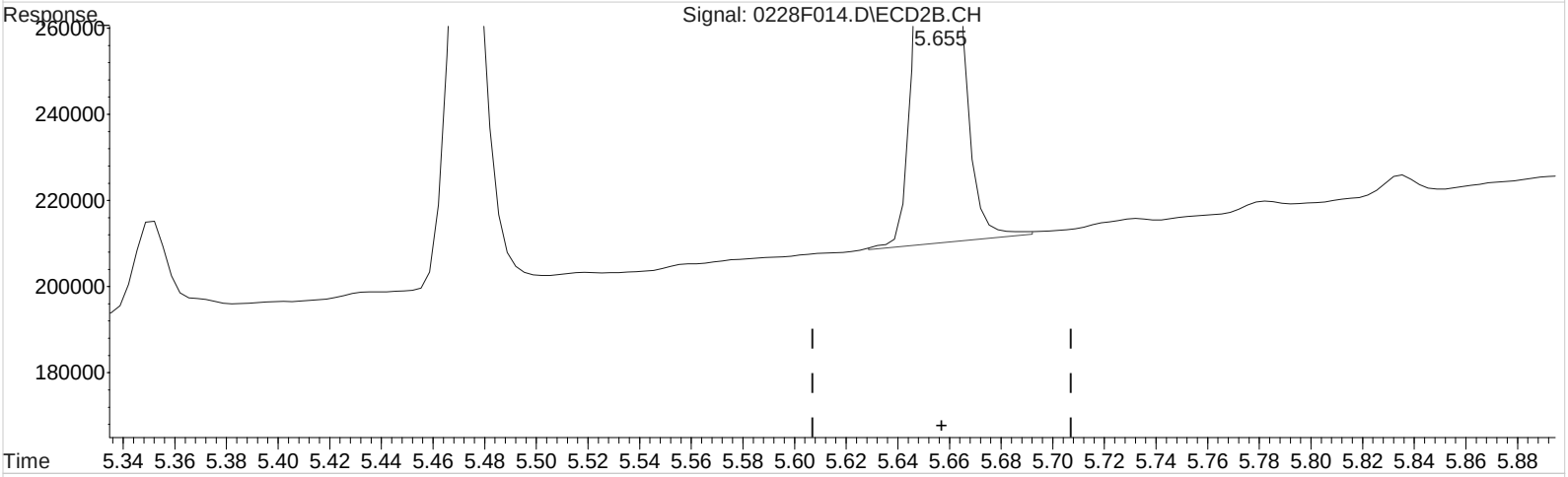
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.155min 2.528 ug/L

response 1532111

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.655min 2.730 ug/L m

response 1782521

(+) = Expected Retention Time

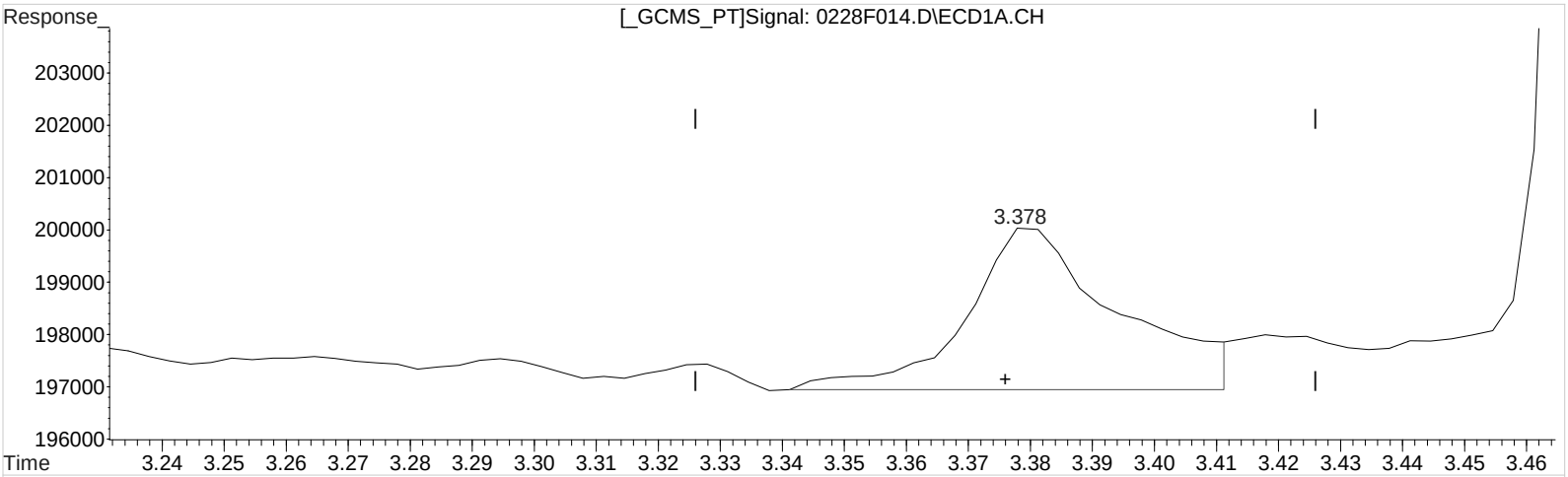
Quantitation Report (Qedit)

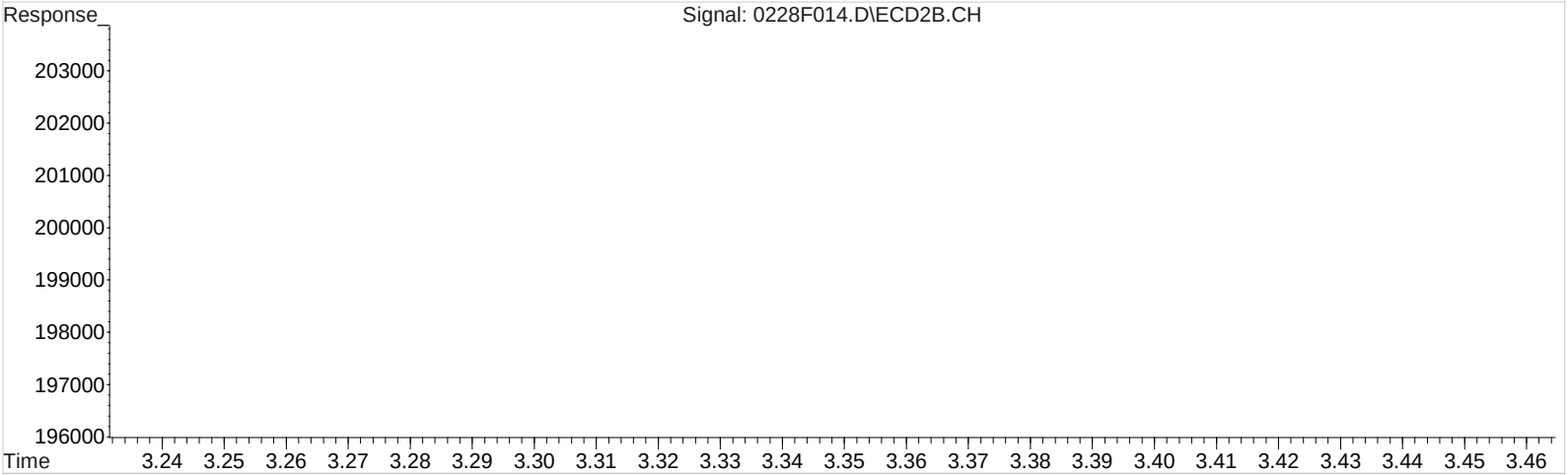
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 4.540 ug/L

response 53339

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 2.693 ug/L

response 44372

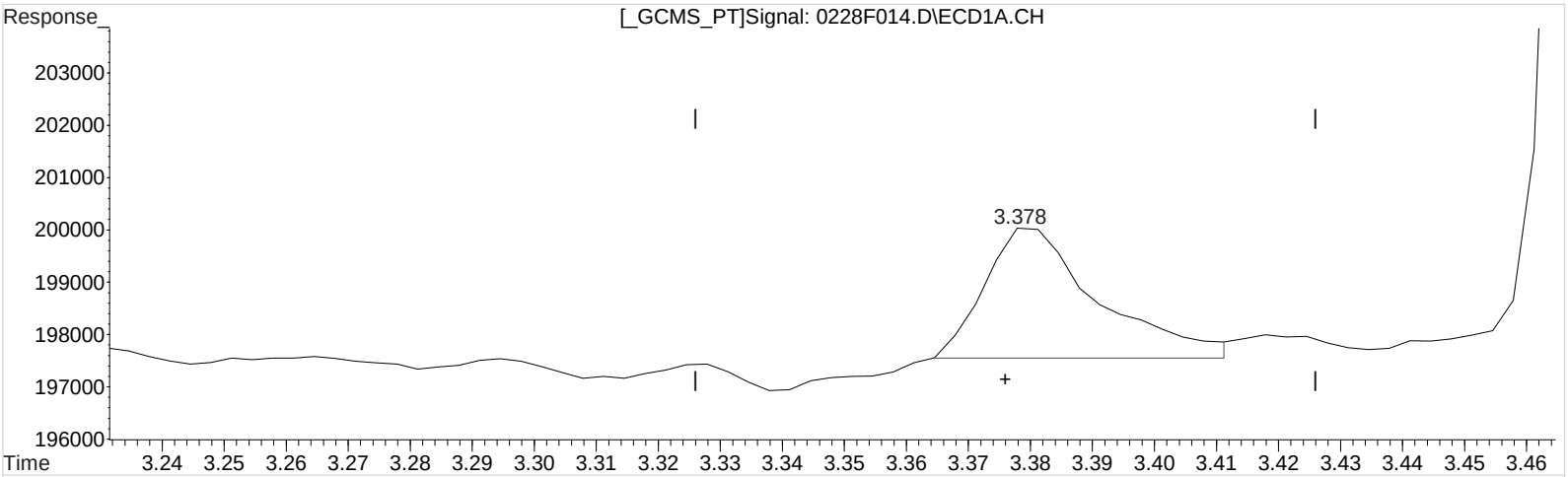
(+) = Expected Retention Time

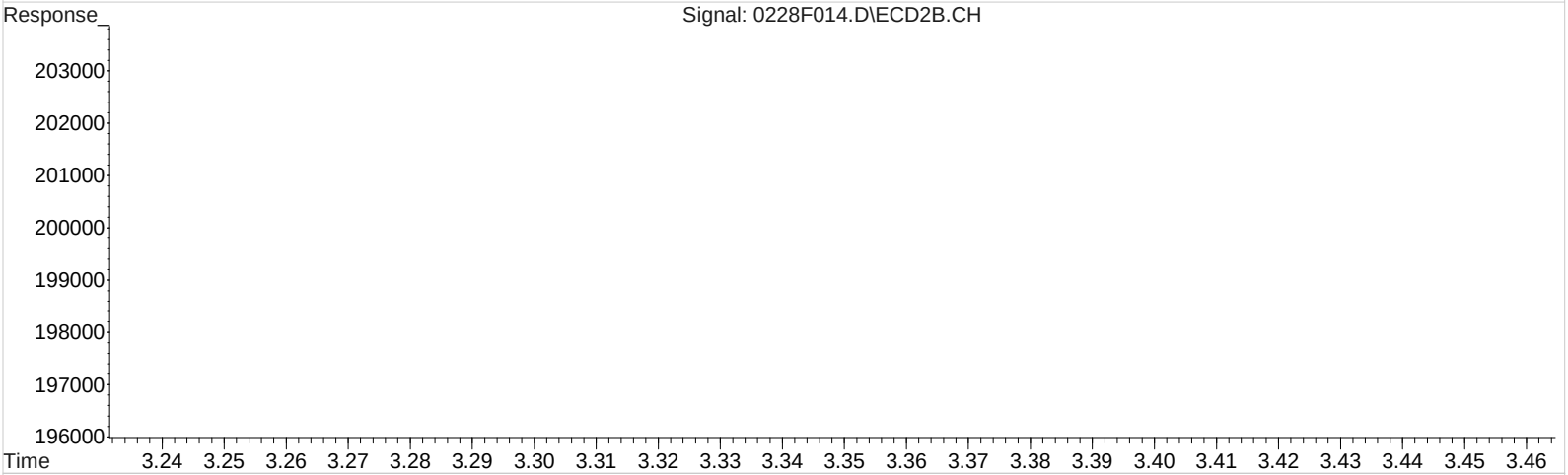
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 2.469 ug/L m

response 31638

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 2.693 ug/L

response 44372

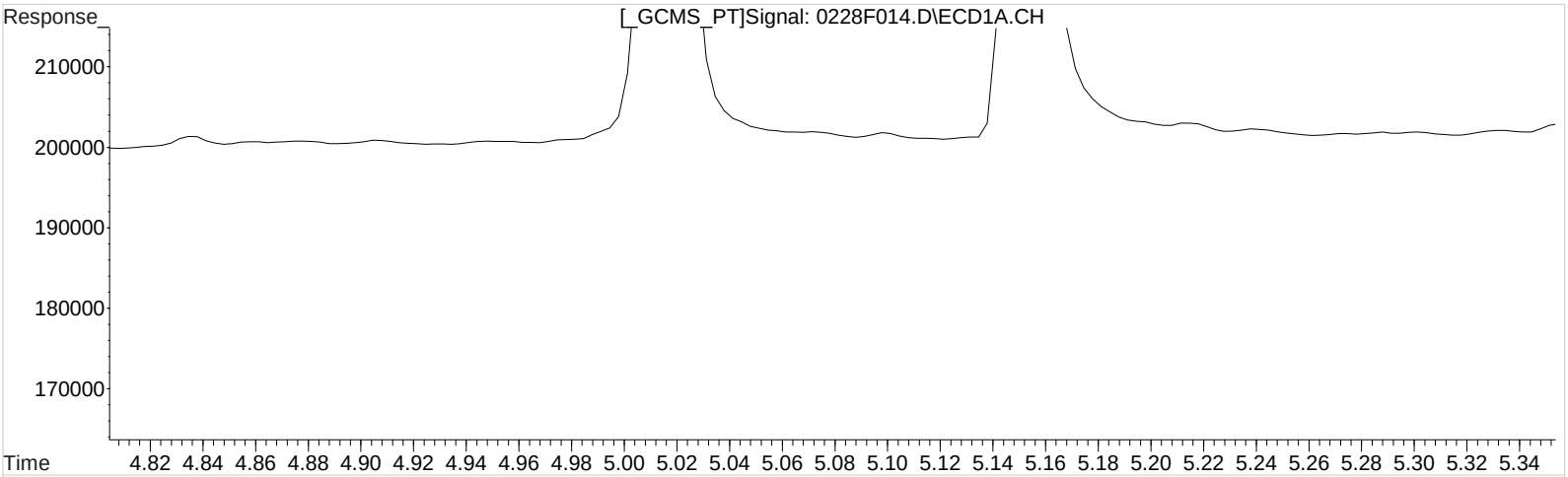
(+) = Expected Retention Time

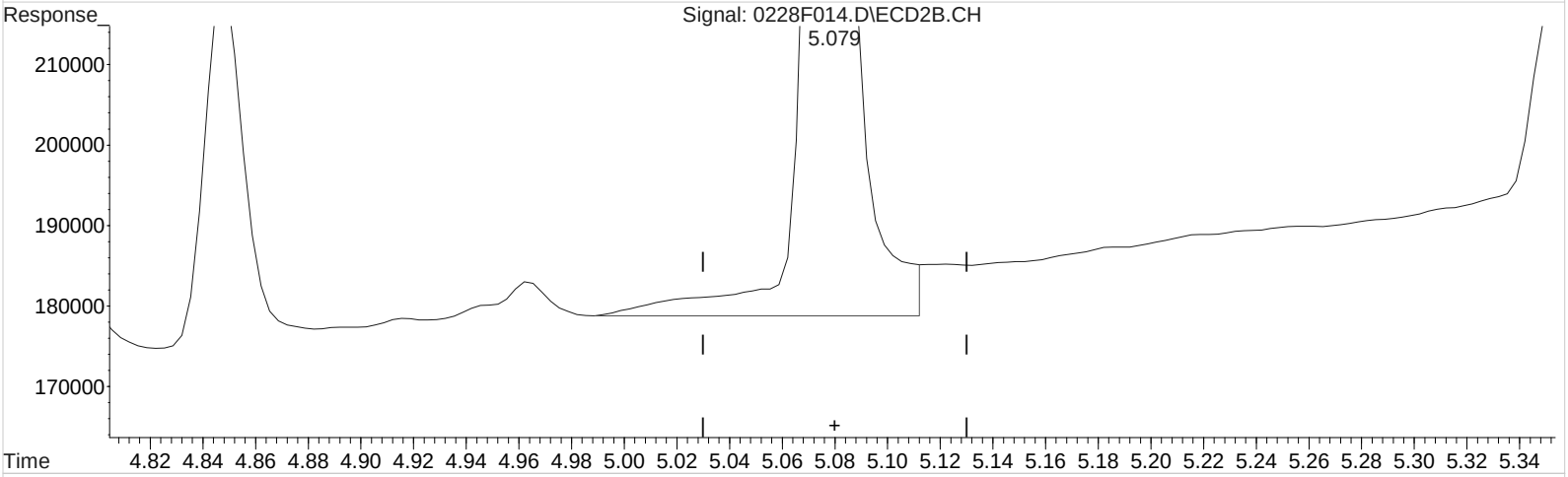
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 2.848 ug/L

response 1355696

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.079min 2.775 ug/L

response 1712944

(+) = Expected Retention Time

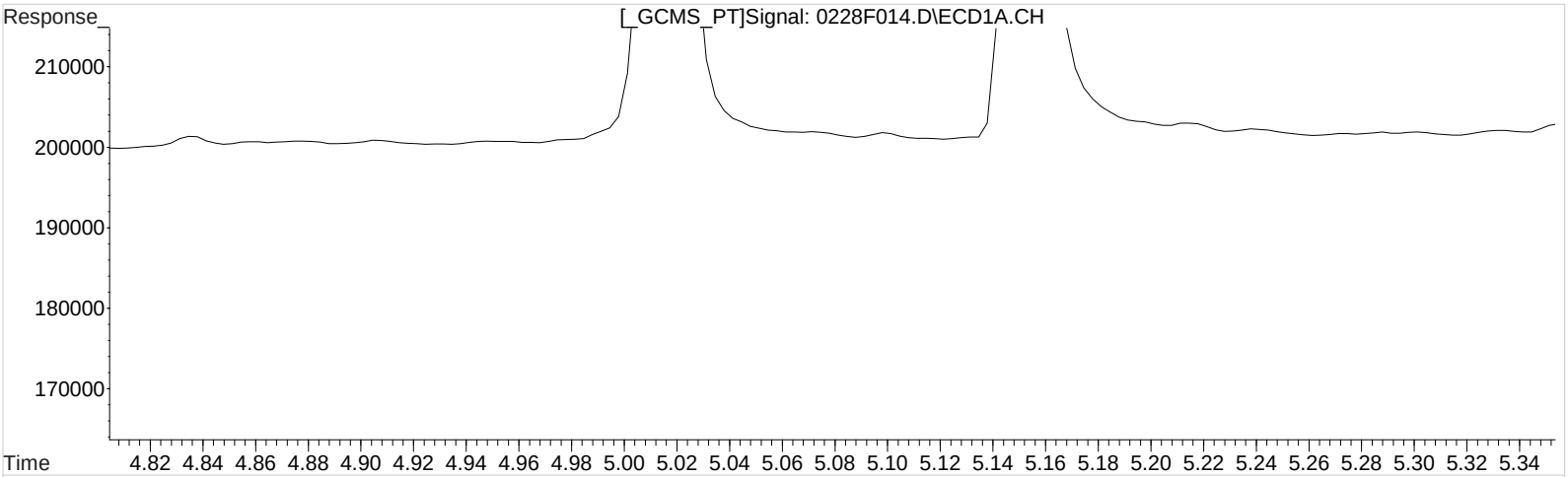
Quantitation Report (Qedit)

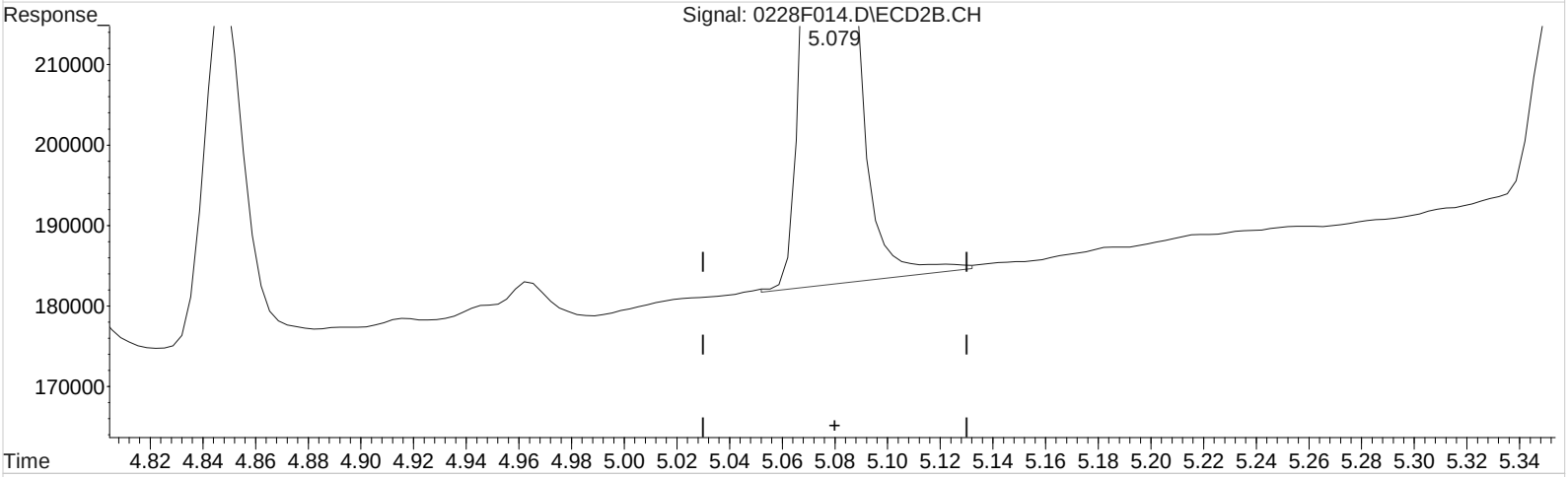
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 2.848 ug/L

response 1355696

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.079min 2.436 ug/L m

response 1503718

(+) = Expected Retention Time

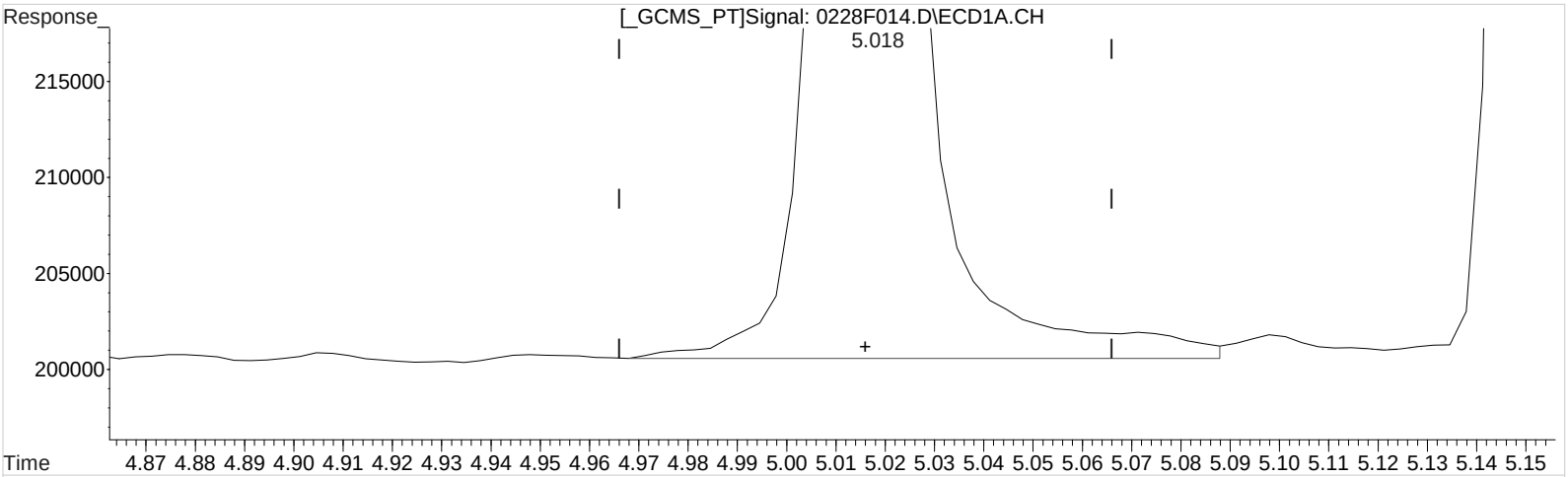
Quantitation Report (Qedit)

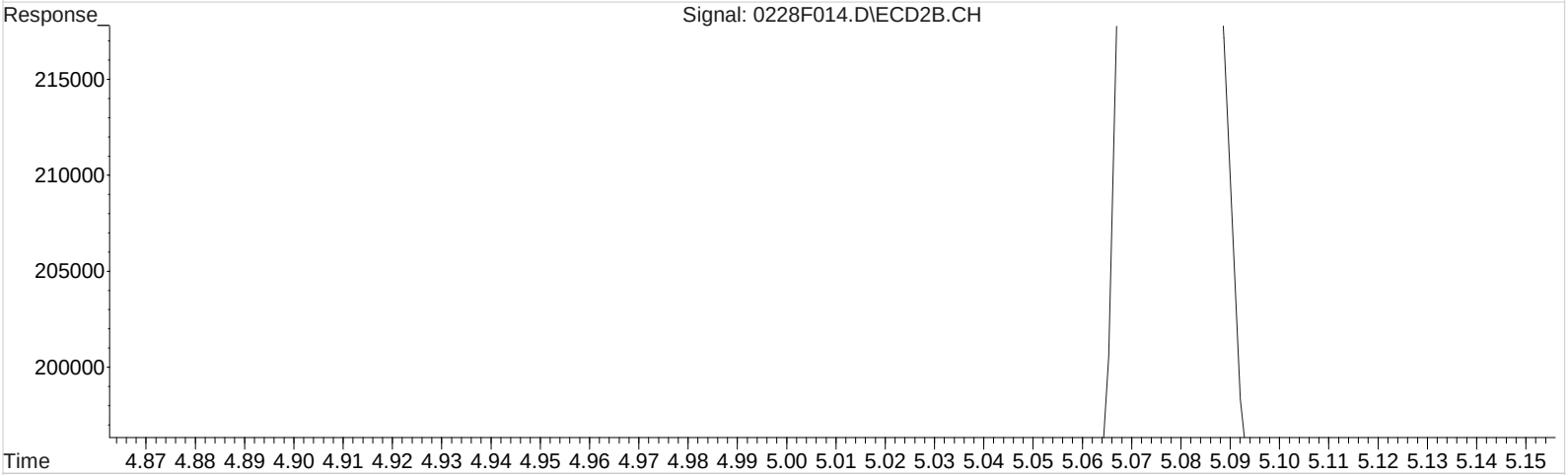
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.018min 2.609 ug/L

response 1164930

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.472min 2.701 ug/L

response 1115328

(+) = Expected Retention Time

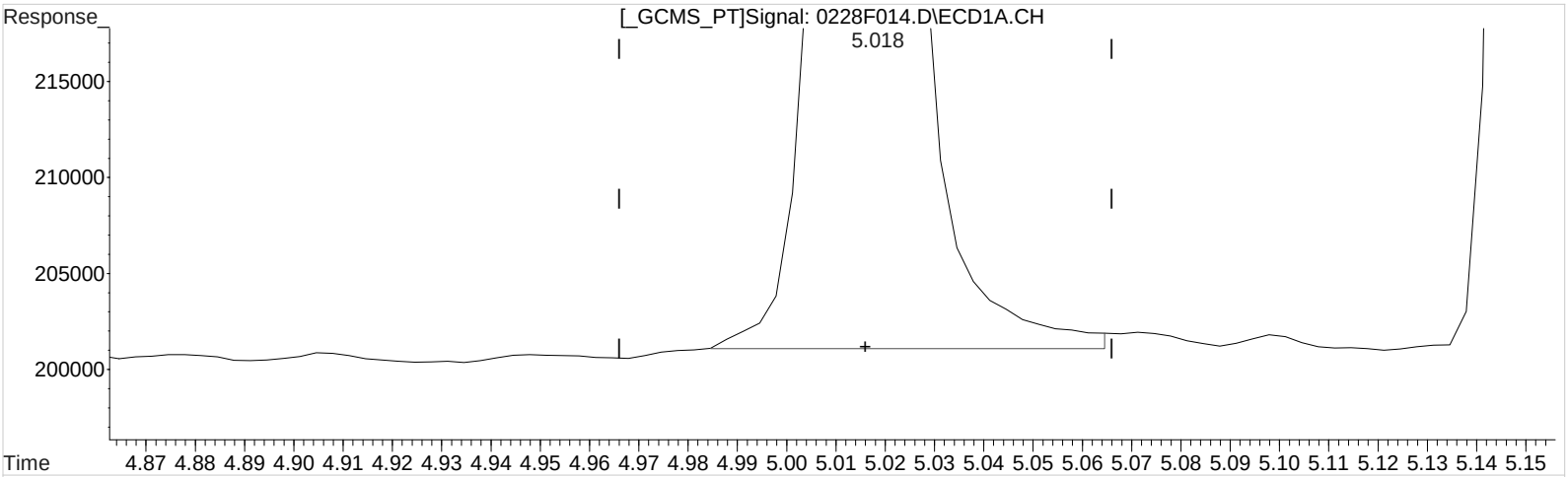
Quantitation Report (Qedit)

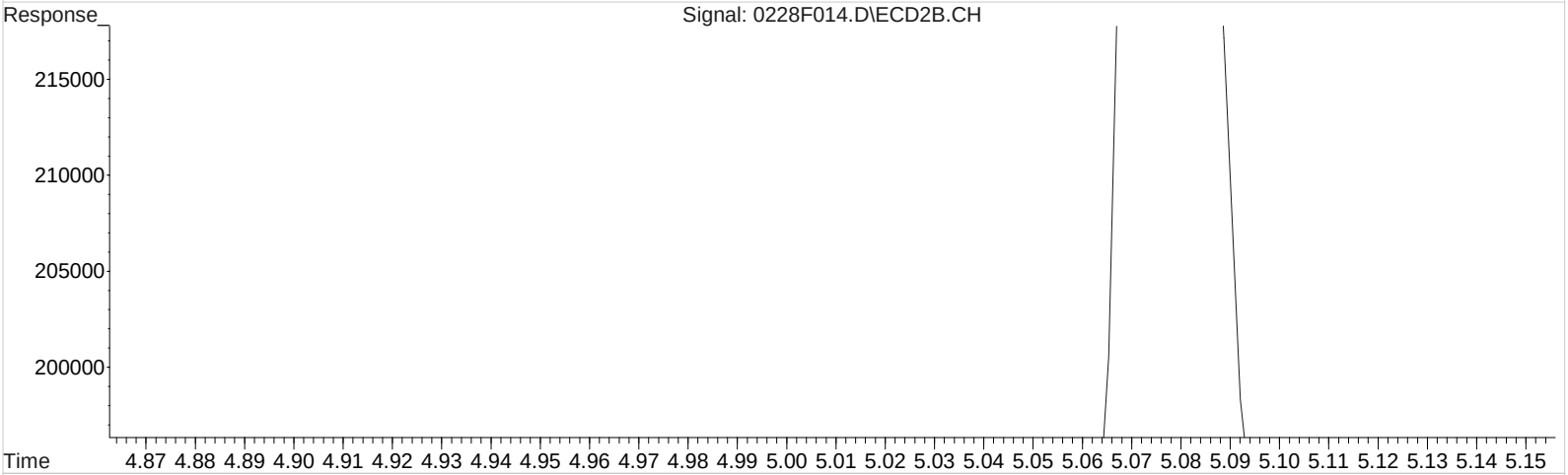
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.018min 2.467 ug/L m

response 1121382

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.472min 2.701 ug/L

response 1115328

(+) = Expected Retention Time

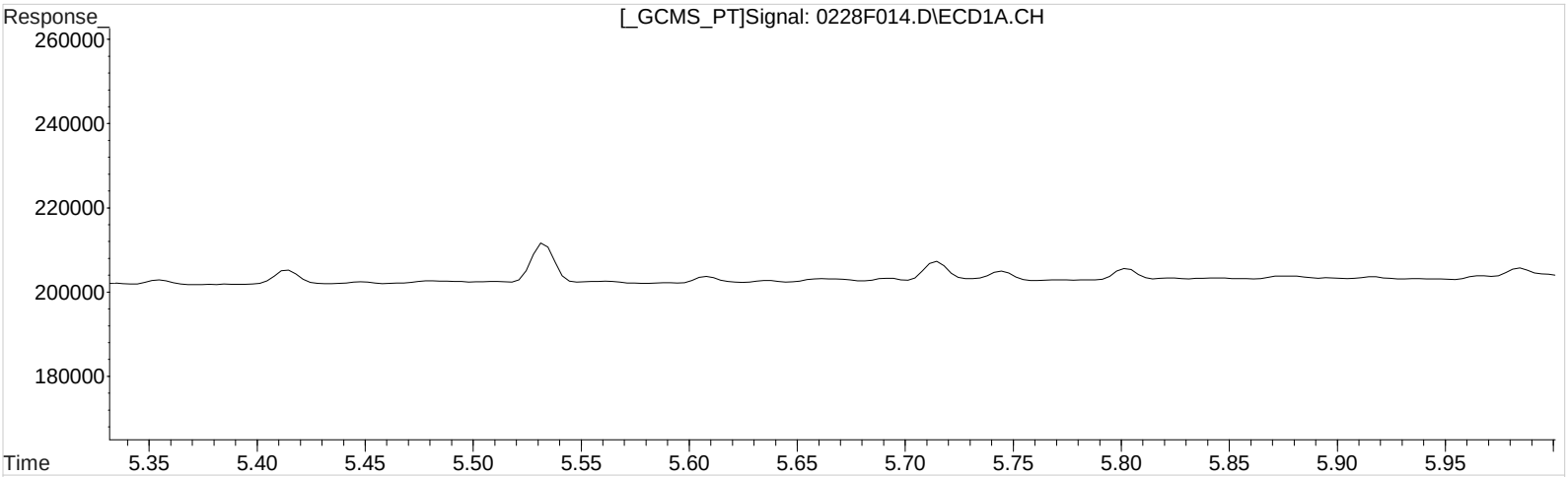
Quantitation Report (Qedit)

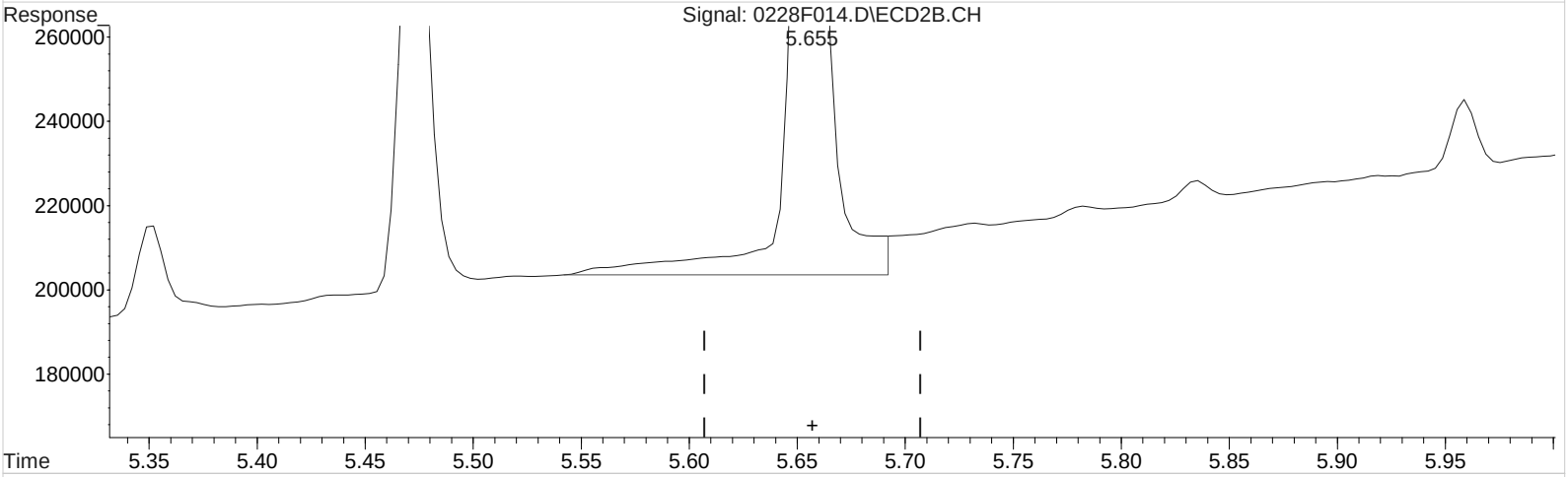
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.155min 2.401 ug/L

response 1532111

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.655min 3.194 ug/L

response 2196034

(+) = Expected Retention Time

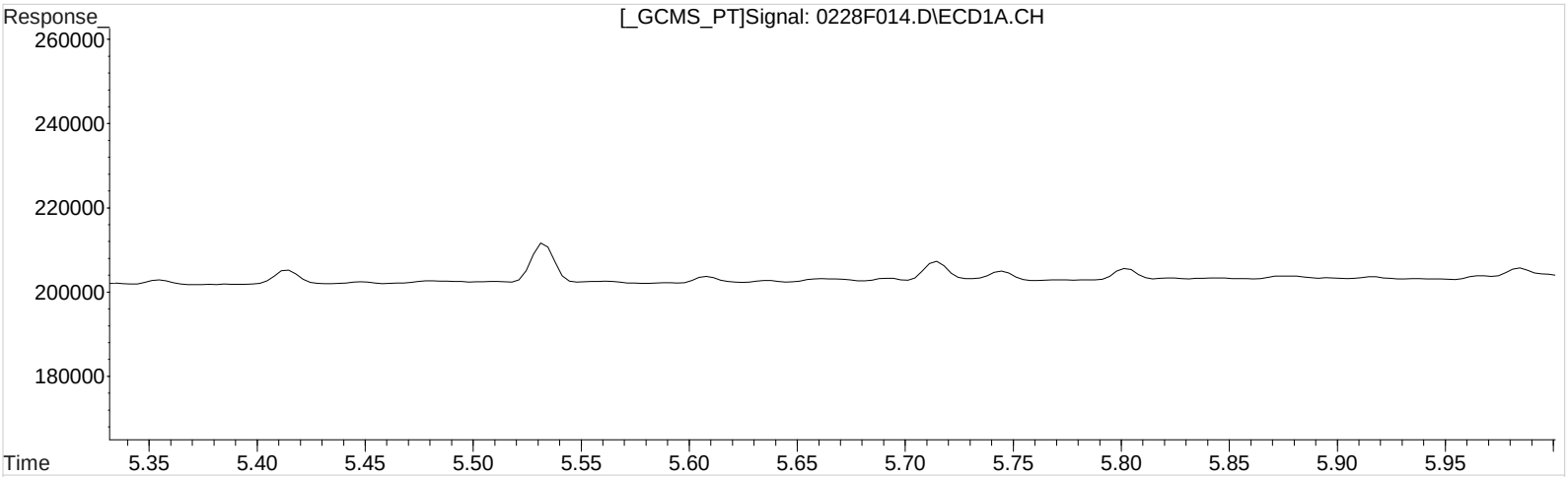
Quantitation Report (Qedit)

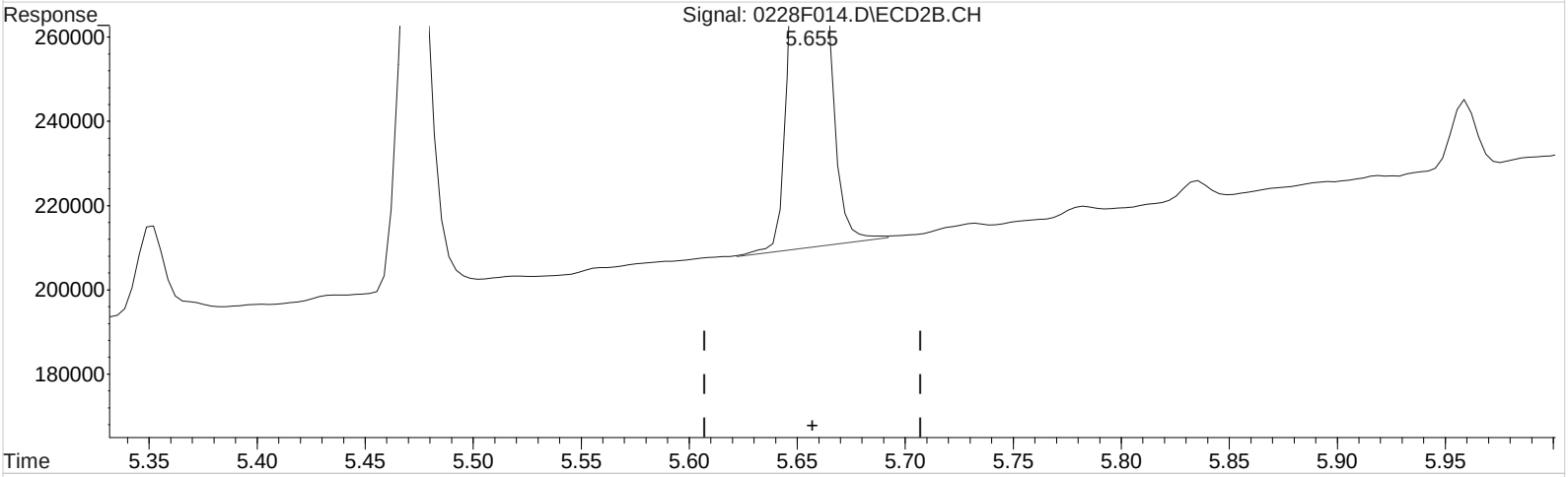
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.155min 2.401 ug/L

response 1532111

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.655min 2.598 ug/L m

response 1786099

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 12:00 pm Operator: MC
Sample : PENTA01-95D ICV Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:59:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	3.139	3.833	771944	1008155	50.405	46.475
2)		3,5-Dichl...	3.379	4.090	576261	745111	54.814	48.925
3)		2,4,6-Tri...	3.479	4.290	14461186	19074371	47.208	46.729
5)		2,4,5-Tri...	4.202	4.783	6741744	8923551	49.950	50.676
6)		3,4,5-Tri...	4.232	4.846	7001162	8168830	49.502	48.393
7)	M	2,3,5,6-T...	4.479	5.076	21719554	28913168	50.742	47.890
8)	M	2,3,4,5-T...	5.019	5.473	15112649	19440727	50.125	46.743
9)	M	Pentachlo...	5.152	5.656	25413518	33232162	55.308	48.834
10)		Pentachlo...	5.152	5.656	25413518	33232162	58.215	51.424

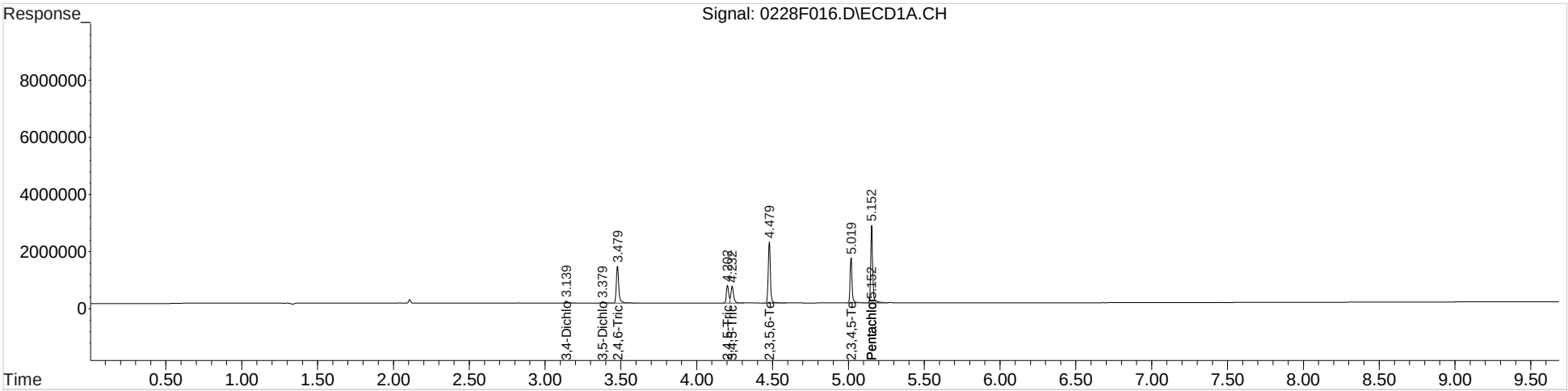
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 12:00 pm Operator: MC
Sample : PENTA01-95D ICV Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:59:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\061219\
Pre-Seq Cmd:
Post-Seq Cmd:

cal: KC1900082

Run# 639031

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0612F001	PENTHOT2	PRIMER
2	IB	100	0612F002	PENTHOT2	PRIMER
3	CCV	1	0612F003	PENTHOT2	CCV 50PPB PENTA01-97M
4	IB	2	0612F004	PENTHOT2	IB
5	MB	3	0612F005	PENTHOT2	KQ1907799-04 MB
6	LCS	4	0612F006	PENTHOT2	KQ1907799-03 LCS
7	SMPL	5	0612F007	PENTHOT2	K1905228-001
8	SMPL	6	0612F008	PENTHOT2	K1905228-002
9	SMPL	7	0612F009	PENTHOT2	K1905228-003 @5X
10	SMPL	8	0612F010	PENTHOT2	K1905228-004 @5X
11	SMPL	9	0612F011	PENTHOT2	K1905228-005
12	MS	10	0612F012	PENTHOT2	K1905228-005 MS
13	DMS	11	0612F013	PENTHOT2	K1905228-005 DMS
14	CCV	1	0612F014	PENTHOT2	CCV 50PPB PENTA01-97M
15	IB	2	0612F015	PENTHOT2	IB
16	MB	12	0612F016	PENTHOT2	KQ1907798-04 MB
17	LCS	13	0612F017	PENTHOT2	KQ1907798-03 LCS
18	SMPL	14	0612F018	PENTHOT2	K1905144-001
19	SMPL	15	0612F019	PENTHOT2	K1905144-002
20	SMPL	16	0612F020	PENTHOT2	K1905145-003 @20X
21	SMPL	17	0612F021	PENTHOT2	K1905213-001
22	SMPL	18	0612F022	PENTHOT2	K1905213-002 @5X — NR, 1X
23	SMPL	19	0612F023	PENTHOT2	K1905213-003 - also 5X
24	SMPL	40	0612F024	PENTHOT2	K1905213-002
25	SMPL	20	0612F025	PENTHOT2	K1905213-004 @20X
26	MS	21	0612F026	PENTHOT2	K1905213-004 MS @20X
27	DMS	22	0612F027	PENTHOT2	K1905213-004 DMS @20X
28	CCV	1	0612F028	PENTHOT2	CCV 50PPB PENTA01-97M
29	IB	2	0612F029	PENTHOT2	IB
30	MB	23	0612F030	PENTHOT2	KQ1907733-04 MB
31	LCS	24	0612F031	PENTHOT2	KQ1907733-03 LCS
32	SMPL	25	0612F032	PENTHOT2	K1905143-001 @10X
33	MS	26	0612F033	PENTHOT2	K1905143-001 MS @10X
34	DMS	27	0612F034	PENTHOT2	K1905143-001 DMS @10X
35	SMPL	28	0612F035	PENTHOT2	K1905143-002 @20X
36	SMPL	29	0612F036	PENTHOT2	K1905143-003 @20X
37	SMPL	30	0612F037	PENTHOT2	K1905143-004 @10X
38	SMPL	31	0612F038	PENTHOT2	K1905143-005 @20X
39	SMPL	32	0612F039	PENTHOT2	K1905143-006 @10X
40	SMPL	33	0612F040	PENTHOT2	K1905143-007 @20X
41	SMPL	34	0612F041	PENTHOT2	K1905143-008 @20X
42	CCV	1	0612F042	PENTHOT2	CCV 50PPB PENTA01-97M
43	IB	2	0612F043	PENTHOT2	IB

Last Modified: Wed Jun 12 15:45:04 2019

Page: 1

5

Line	Type	Vial	DataFile	Method	Sample Name
44	SMPL	35	0612F044	PENTHOT2	K1905143-009 @20X
45	SMPL	36	0612F045	PENTHOT2	K1905143-010 @10X
46	SMPL	41	0612F046	PENTHOT2	K1905213-003 @5X
47	CCV	1	0612F047	PENTHOT2	CCV 50PPB PENTA01-97M
48	IB	2	0612F048	PENTHOT2	IB

DILUTION LOG

LAB ID.	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	DATE	By:	Solvent Lot #	COMMENTS / **Ext. Date**
K1905228-003	100 uL	500 uL	5X	6/12/19	MC	ISO DR253	
K1905228-004	100 uL	500 uL	5X				
K1905145-003	50 uL	1 mL	20X				
K1905213-002	100 uL	500 uL	5X				
K1905213-004	50 uL	1 mL	20X				
K1905213-004 MS/DMS	50 uL	1 mL	20X				
K1905143-001	100 uL	1 mL	10X				
K1905143-001 MS/DMS	100 uL	1 mL	10X				
K1905143-002	50 uL	1 mL	20X				
K1905143-003	50 uL	1 mL	20X				
K1905143-004	100 uL	1 mL	10X				
K1905143-005	50 uL	1 mL	20X				
K1905143-006	100 uL	1 mL	10X				
K1905143-007	50 uL	1 mL	20X				
K1905143-008	50 uL	1 mL	20X				
K1905143-009	50 uL	1 mL	20X				
K1905143-010	100 uL	1 mL	10X				
K1905213-003	100 uL	500 uL	5X				

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 338019 **Prep WorkFlow:** OrgExtSimAq(7) **Status:** Prepped
Team: Semivoa GCMS/JDUNFIELD **Prep Method:** EPA 3511 **Prep Date/Time:** 6/5/19 10:03
Number of Copies to make: 2

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1905141-003	MW-16	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
2	K1905141-005	MW-18	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
3	K1905141-015	MW-30	.01	8270D/PAH SIM	6	Water	450mL	4.00mL	
4	K1905141-020	MW-36	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
5	K1905141-021	MW-37	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
6	K1905141-028	MW-44 DUP.	.01	8270D/PAH SIM	6	Water	450mL	4.00mL	
7	K1905141-029	MW-3	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
8	K1905144-001	BXS-1	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
9	K1905144-002	BXS-5	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
10	KQ1907688-01	LCS	—	8270D/PAH SIM	5	Liquid	450mL	2.00mL	
11	KQ1907688-02	DLCS	—	8270D/PAH SIM	5	Liquid	450mL	2.00mL	
12	KQ1907688-03	MB	—	8270D/PAH SIM	5	Liquid	450mL	2.00mL	

Spiking Solutions

Name: 8270 SIM-PAH Matrix Spike 25ppm Inventory ID 197598 Logbook Ref: SVM60-50D Expires On: 08/13/2019

KQ1907688-01 50.00µL KQ1907688-02 50.00µL

Name: 8270 ALL PURPOSE SURROGATE Inventory ID 198047 Logbook Ref: SVM60-60D Expires On: 09/07/2019

K1905141-003	20.00µL	K1905141-005	20.00µL	K1905141-015	20.00µL	K1905141-020	20.00µL	K1905141-021	20.00µL	K1905141-028	20.00µL
K1905141-029	20.00µL	K1905144-001	20.00µL	K1905144-002	20.00µL	KQ1907688-01	20.00µL	KQ1907688-02	20.00µL	KQ1907688-03	20.00µL

Preparation Steps

Step:	Extraction	Step:	Final Volume
Started:	6/5/19 10:03	Started:	6/5/19 12:37
Finished:	6/5/19 10:33	Finished:	6/5/19 12:37
By:	JLORIMER	By:	JLORIMER
Comments		Comments	

IS = SVM 60-41D

Comments: 6/7/19

Reviewed By: Date: 6/7/19

Page 249 of 373

Preparation Information Benchsheet

Prep Run#: 338019
Team: Semivoa GCMS/JDUNFIELD

Prep WorkFlow: OrgExtSimAq(7)
Prep Method: EPA 3511

Status: Prepped
Prep Date/Time: 6/5/19 10:03

Chain of Custody

Relinquished By:		Date:	6.5.19	Extracts Examined
Received By:		Date:	6/7/19	Yes / No

Preparation Information Benchsheet

D: 6/12/19
ID: 6/21/19

Prep Run#: 338019
Team: Semivoa GCMS/JDUNFIELD
Number of Copies to make: 2

Prep WorkFlow: OrgExtSimAq(7)
Prep Method: EPA 3511

Status: Draft
Prep Date/Time: 6/5/19 07:28 AM

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. mL	pH	Int. Vol	Final Vol mL	Surr Amt µL	Spike Amt µL
1	K1905141-003	MW-16	.01	✓	8270D / PAH SIM	Water	450	7	N/A	1 + 2	20	-
2	K1905141-005	MW-18	.01	✓	8270D / PAH SIM	Water	450	7		1 + 2		-
3	K1905141-015	MW-30	.01	✓	8270D / PAH SIM	Water	450	6		1 + 4		-
4	K1905141-020	MW-36	.01	✓	8270D / PAH SIM	Water	450	7		1 + 2		-
5	K1905141-021	MW-37	.01	✓	8270D / PAH SIM	Water	450	7		1 + 2		-
6	K1905141-028	MW-44 DUP.	~~.01~~ 1 .02	✓	8270D / PAH SIM	Water	450	6		1 + 4		-
7	K1905141-029	MW-3	.01	✓	8270D / PAH SIM	Water	450	7		1 + 2		-
8	K1905144-001	BXS-1	.01	✓	8270D / PAH SIM	Water	450	7		1 + 2		-
9	K1905144-002	BXS-5	.01	✓	8270D / PAH SIM	Water	450	7		1 + 2		-
10	KQ1907688-01	LCS	-	-	8270D / PAH SIM	Liquid	450	5		1 + 2		50
11	KQ1907688-02	DLCS	-	-	8270D / PAH SIM	Liquid	450	5		1 + 2		↓
12	KQ1907688-03	MB	-	-	8270D / PAH SIM	Liquid	450	5	↓	1 + 2	↓	-

DEE JD 6/5/19

Comments: Insufficient sample amount for ms/DMS. JD 6/5/19. FV x2 due to emulsion. JD 6/5/19

Surrogate ID: SVM60-60D 100/150ppm x8 9/7/19 20 µL syr.

Spike ID: SVM60-50D 25ppm x8 8/13/19 50 µL syr.

Witnessed By: BWillard ~~6-4-19~~ 6-5-19 BW

Analyst: J. Dufield 6/5/19

Assisted By: ——

Printed 6/5/19 7:29

Pest/PCB/PAH by 3511

Service Request # K1905141; K1905144 **Work Group # Pest:** —
PCB: —
PAH: KR1907088

Solvent Lot # 221327

Extraction Start (time/date/initial): 10:03 6/5/19 JP

Extraction Stop (time/date/initial): 10:33 6/5/19 JP

NaCL Lot# 0000197939
Sulfate Lot # 2018110573

Carbon Clean-up (Ext-Car)(time/date/initial): — Carbon Lot # —
1:1 DCM/Hexane Lot # —

Sulfuric Acid Clean-up (3665) (time/date/initial): — Acid Lot # —

Other Clean-up (type/time/date/initial) —
Lot# —

Pipette (5 mL) Lot # — Pipette (2 mL) Lot # 20717646
Pipette (1mL) 28517645

Pest Vial: — Vial Storage: —
PCB Vial: — Vial Storage: —
PAH Vial: Green Vial Storage: K-Tundra

Archived Extract Storage: Tianna

Additional Comments:

Bench Sheet Review Check List
☑ Hold times met; if no, reason:
☑ Prep date, time, method, department, product code correct
☑ Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☑ Weights/Volumes and units correct on raw and final bench sheets
☑ Sample IDs have been checked - bottle numbers appended if required
☑ Names present for: started by, completed by, relinquished by, and witnessed by
☑ Extract storage recorded
☑ Additional prep sheet completely filled out (NA or line out blanks)
☑ All clean-ups have been noted on additional prep sheet

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F043.D\
Lab ID: K1905144-001
RunType: N/A
Matrix: Water

Date Acquired: 6/8/19 04:29:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/17/19 10:31
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F043.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 04:29:00	**Vial:**	19
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905144-001	**Raw Units:**	ng/mL

Bottle ID:	K1905144-001.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	638644	**Prep Lot:**	338019	**Report Group:**	K1905144
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/5/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		34310	200.00	OK
Chrysene-d12	10.03	-0.01	69412	200.00	OK
Naphthalene-d8	4.75	+0.01	69152	200.00	OK
Perylene-d12	13.06	-0.02	79010	200.00	OK
Phenanthrene-d10	7.52	-0.01	63032	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.51		372297	1007.97	101	42 - 133	Y
Fluorene-d10	6.73		198068	1015.58	102	42 - 131	Y
Terphenyl-d14	8.85	-0.01	254474	792.78	79	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.40		304	1.20	0.0053	J	Y
Acenaphthene	6.32		198	0.94	0.0042	J	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.03		195	0.44	0.0020	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	6.46	-0.01	340	1.03	0.0046	J	Y
Fluoranthene	8.52	-0.01	225	0.50	0.0022	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F043.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 04:29:00	**Vial:**	19
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905144-001	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.75		188	0.73	0.0032	J	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.77	+0.01	380	1.03	0.0046	J	Y
Phenanthrene	7.54	-0.01	785	2.07	0.0092	J	Y
Pyrene	8.71	-0.01	171	0.31	0.0014	J	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

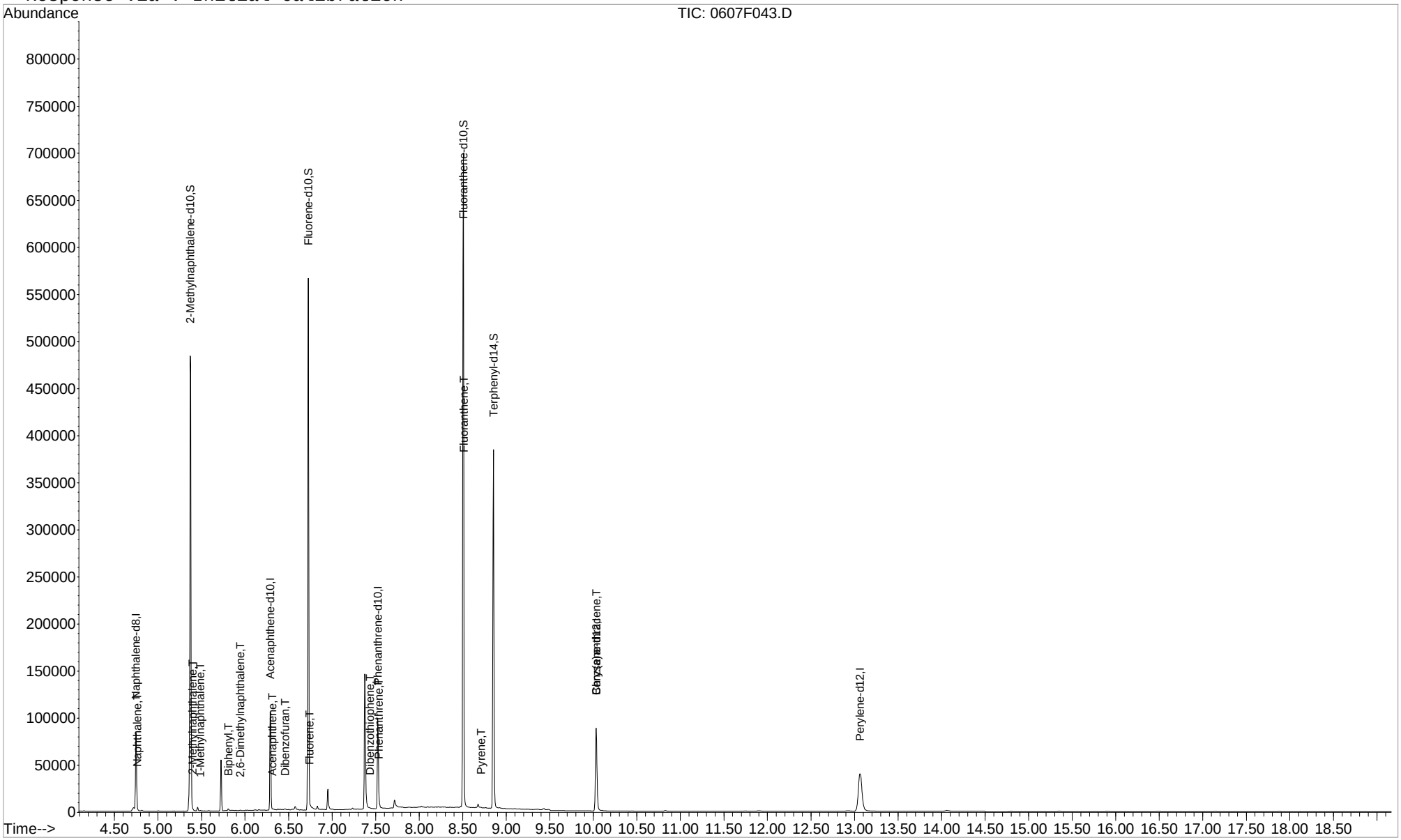
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

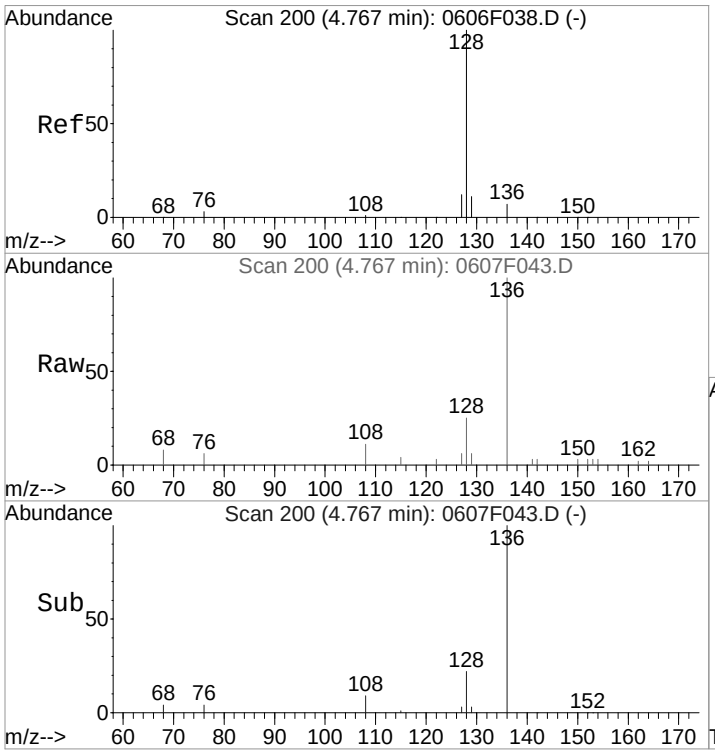
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F043.D Vial: 39
Acq On : 8 Jun 2019 4:29 am Operator: LWeiskopf
Sample : K1905144-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:20 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration



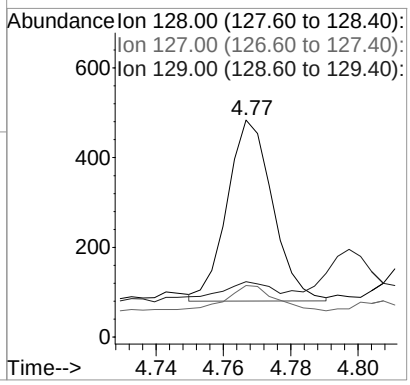
1st 06/17/19
2nd 06/17/19

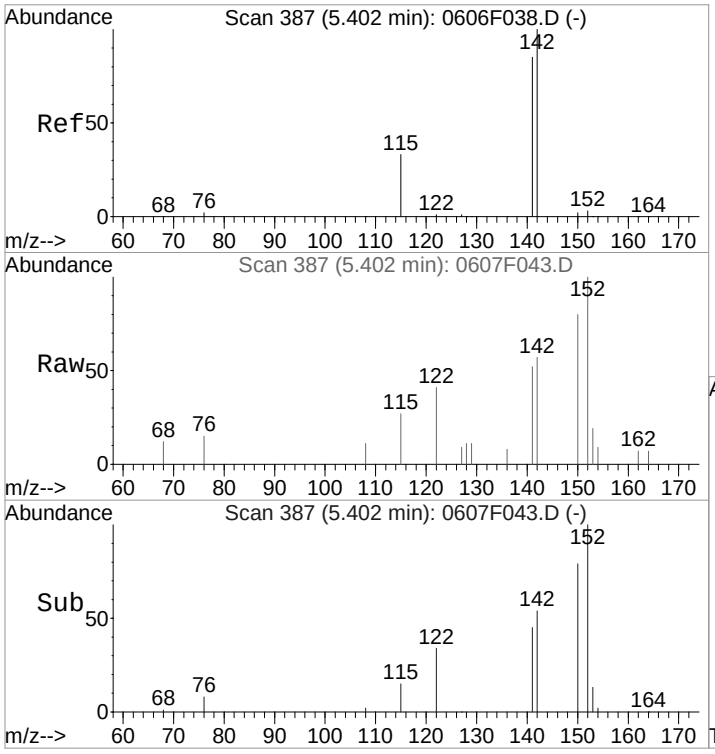


#2
Naphthalene
Concen: 1.03 ng/ml m
RT: 4.77 min Scan# 200
Delta R.T. -0.01 min
Lab File: 0607F043.D
Acq: 8 Jun 2019 4:29 am

Tgt Ion:128 Resp: 380

Ion	Ratio	Lower	Upper
128	100		
127	23.8	0.0	42.3
129	25.6	0.0	30.8

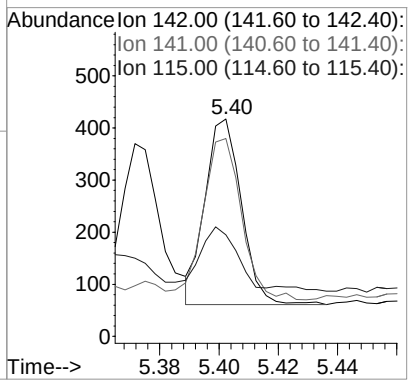


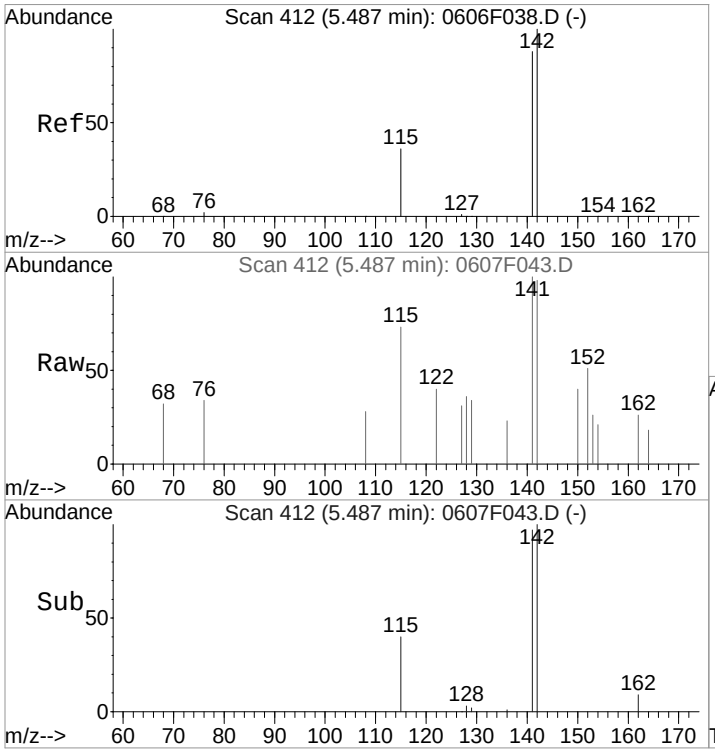


#4
2-Methylnaphthalene
Concen: 1.20 ng/ml
RT: 5.40 min Scan# 387
Delta R.T. -0.01 min
Lab File: 0607F043.D
Acq: 8 Jun 2019 4:29 am

Tgt Ion:142 Resp: 304

Ion	Ratio	Lower	Upper
142	100		
141	84.8	52.7	112.7
115	30.3	8.2	48.2

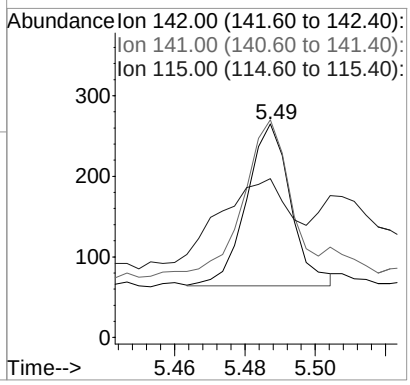


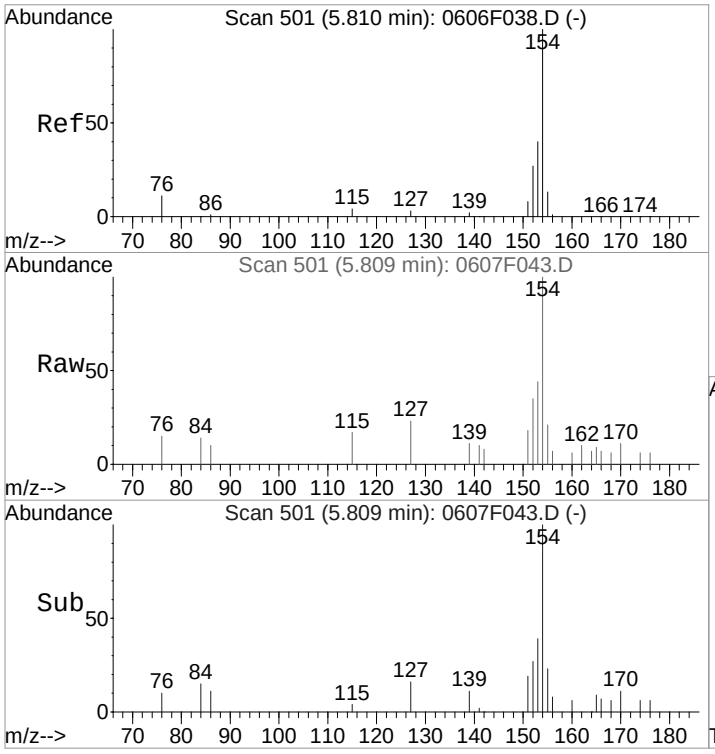


#5
1-Methylnaphthalene
Concen: 0.75 ng/ml m
RT: 5.49 min Scan# 412
Delta R.T. -0.01 min
Lab File: 0607F043.D
Acq: 8 Jun 2019 4:29 am

Tgt Ion:142 Resp: 176

Ion	Ratio	Lower	Upper
142	100		
141	101.9	55.8	115.8
115	74.3	10.1	50.1#

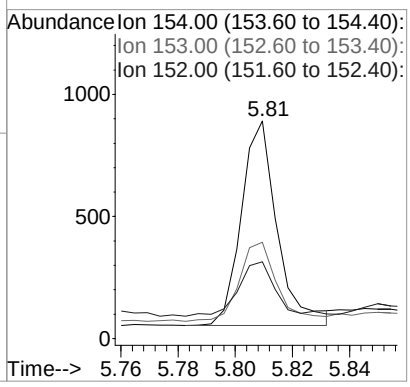


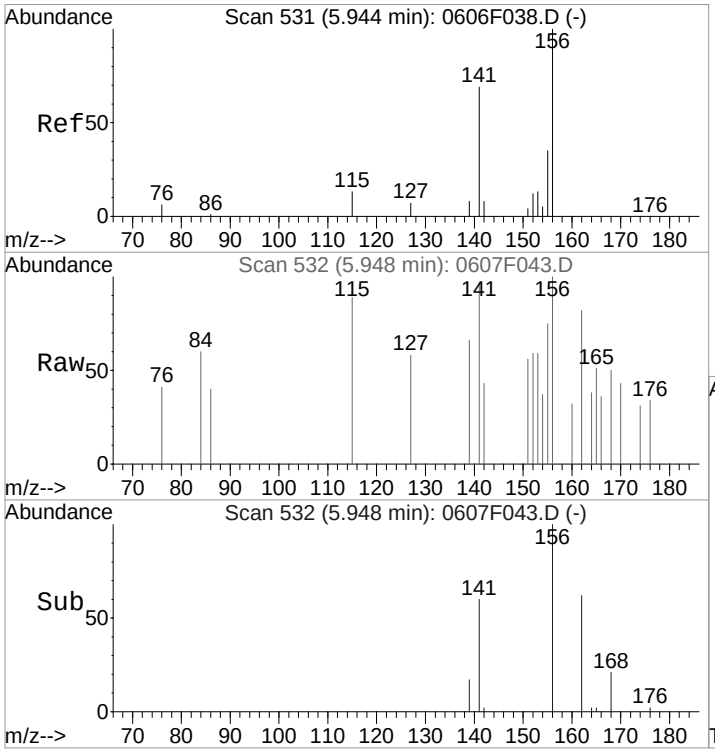


#6
Biphenyl
Concen: 2.32 ng/ml
RT: 5.81 min Scan# 501
Delta R.T. -0.01 min
Lab File: 0607F043.D
Acq: 8 Jun 2019 4:29 am

Tgt Ion:154 Resp: 734

Ion	Ratio	Lower	Upper
154	100		
153	38.6	8.2	68.2
152	26.5	6.1	46.1

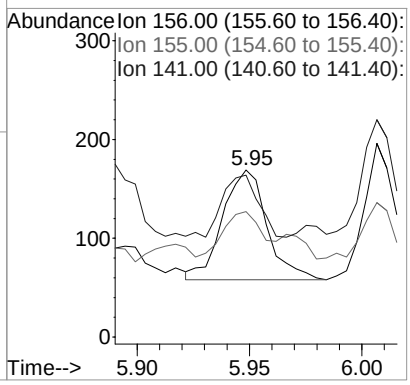


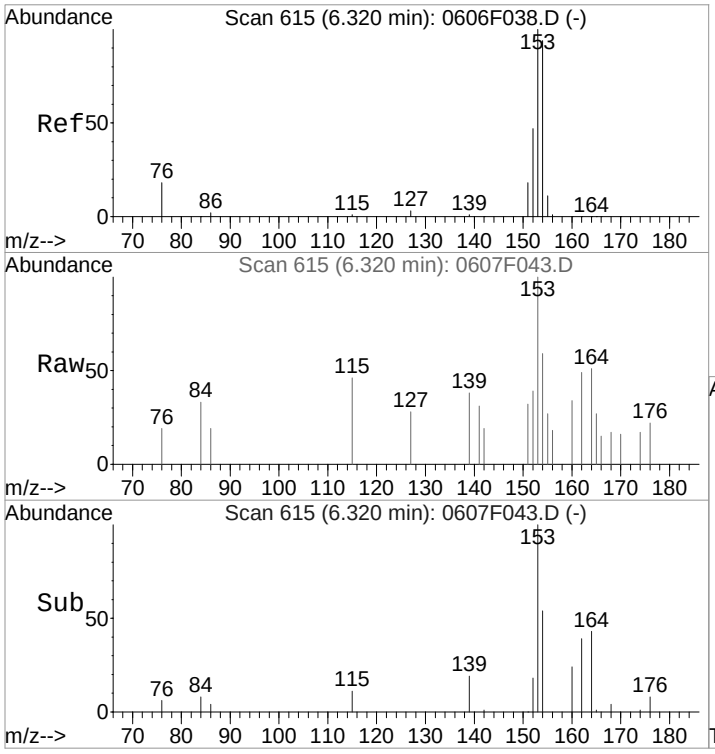


#7
2,6-Dimethylnaphthalene
Concen: 0.67 ng/ml
RT: 5.95 min Scan# 532
Delta R.T. -0.00 min
Lab File: 0607F043.D
Acq: 8 Jun 2019 4:29 am

Tgt Ion:156 Resp: 152

Ion	Ratio	Lower	Upper
156	100		
155	42.3	3.3	63.3
141	55.9	40.6	80.6

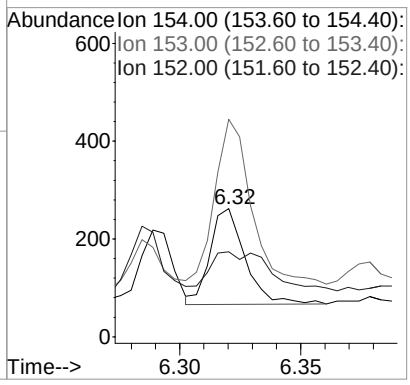


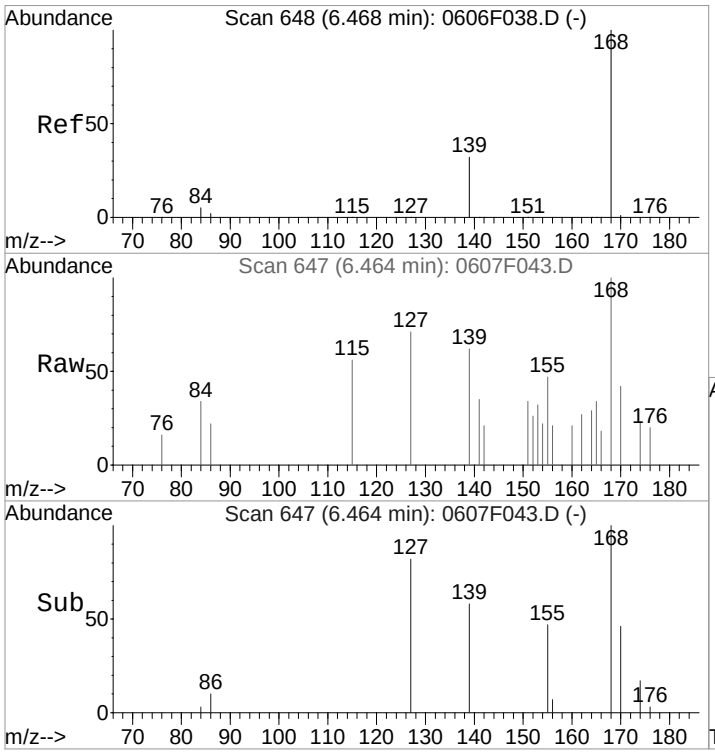


#10
Acenaphthene
Concen: 0.94 ng/ml
RT: 6.32 min Scan# 615
Delta R.T. -0.01 min
Lab File: 0607F043.D
Acq: 8 Jun 2019 4:29 am

Tgt Ion:154 Resp: 198

Ion	Ratio	Lower	Upper
154	100		
153	172.8	72.8	132.8#
152	37.9	17.7	77.7

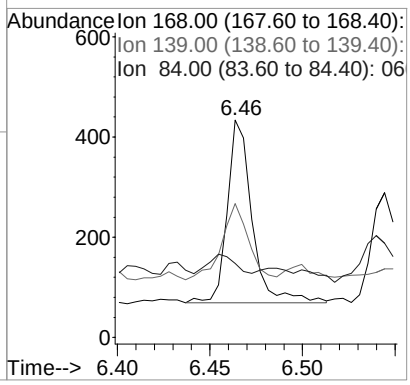


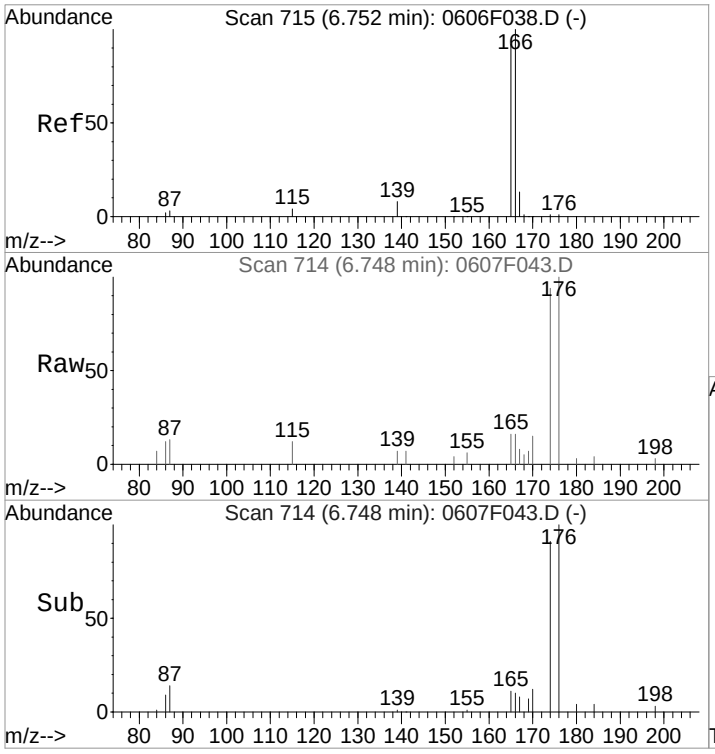


#11
Dibenzofuran
Concen: 1.03 ng/ml
RT: 6.46 min Scan# 647
Delta R.T. -0.01 min
Lab File: 0607F043.D
Acq: 8 Jun 2019 4:29 am

Tgt Ion:168 Resp: 340

Ion	Ratio	Lower	Upper
168	100		
139	41.6	0.0	54.7
84	6.6	0.0	22.9

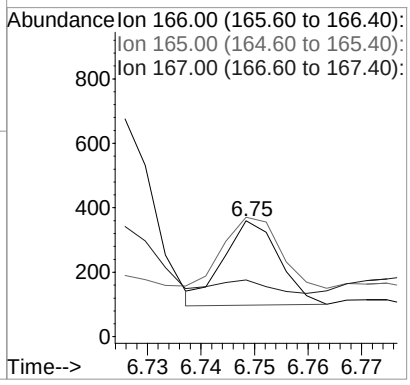


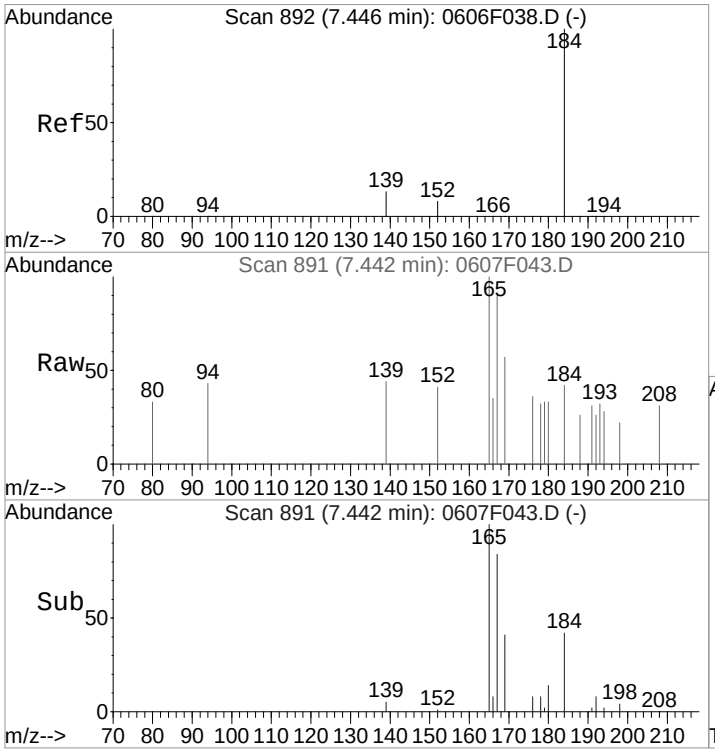


#14
Fluorene
Concen: 0.73 ng/ml
RT: 6.75 min Scan# 714
Delta R.T. -0.01 min
Lab File: 0607F043.D
Acq: 8 Jun 2019 4:29 am

Tgt Ion:166 Resp: 188

Ion	Ratio	Lower	Upper
166	100		
165	85.3	59.0	119.0
167	13.1	0.0	33.1

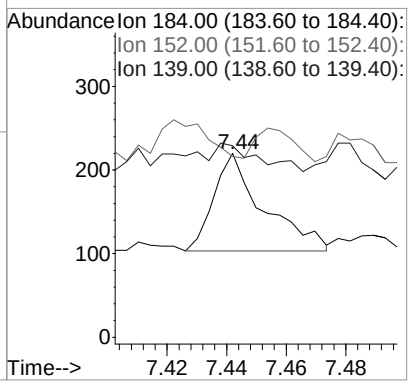


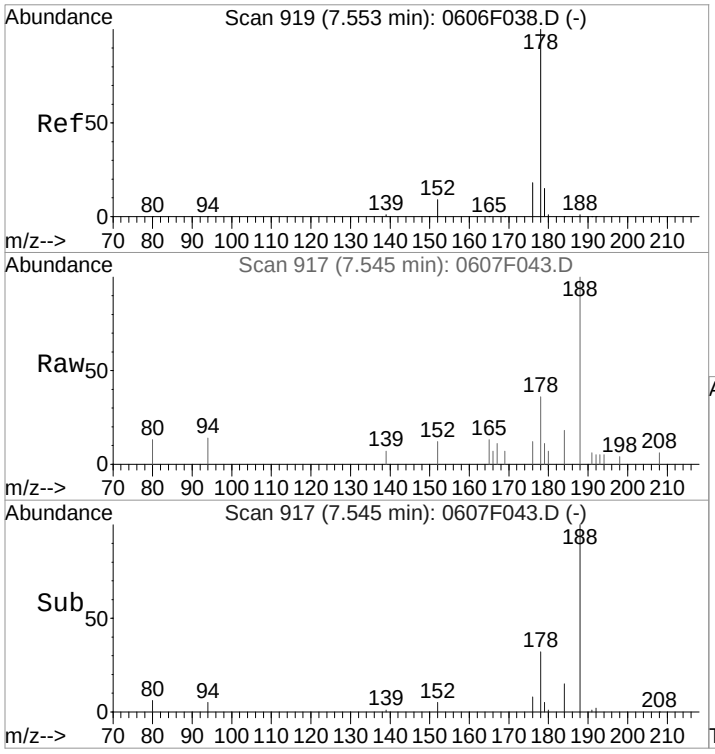


#16
Dibenzothiophene
Concen: 0.38 ng/ml
RT: 7.44 min Scan# 891
Delta R.T. -0.01 min
Lab File: 0607F043.D
Acq: 8 Jun 2019 4:29 am

Tgt Ion:184 Resp: 137

Ion	Ratio	Lower	Upper
184	100		
152	0.0	0.0	37.7
139	16.2	0.0	32.3

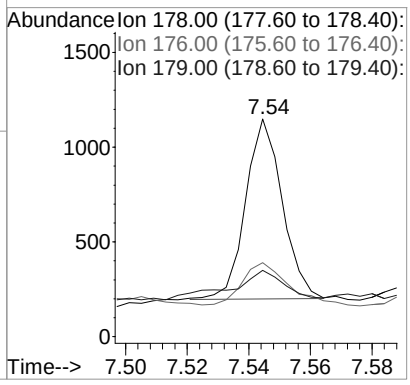




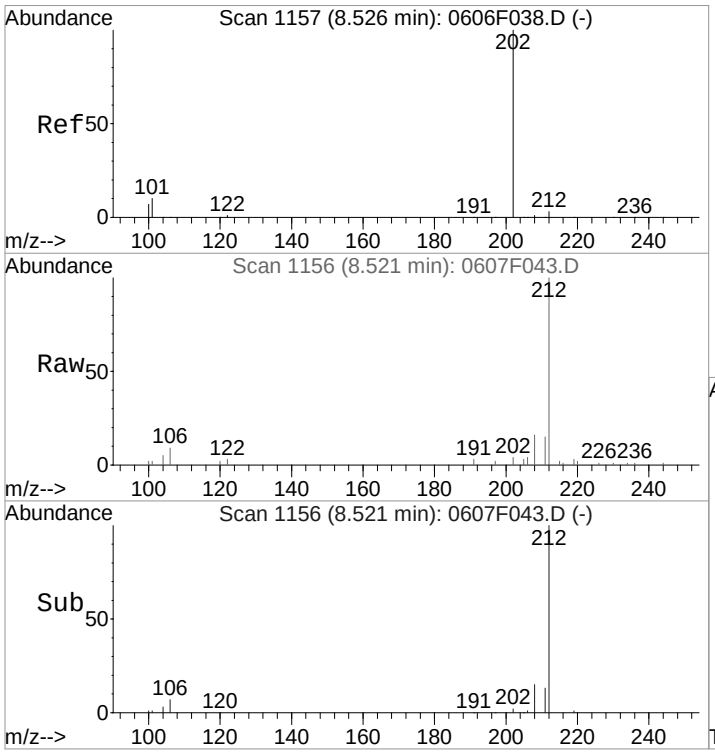
#17
Phenanthrene
Concen: 2.07 ng/ml m
RT: 7.54 min Scan# 917
Delta R.T. -0.01 min
Lab File: 0607F043.D
Acq: 8 Jun 2019 4:29 am

Tgt Ion:178 Resp: 785

Ion	Ratio	Lower	Upper
178	100		
176	34.0	0.0	48.4
179	30.5	0.0	35.2



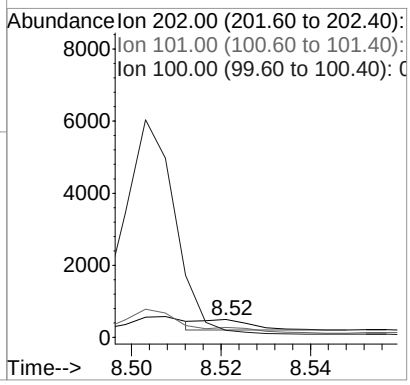
1st 06/17/19
2nd 06/17/19

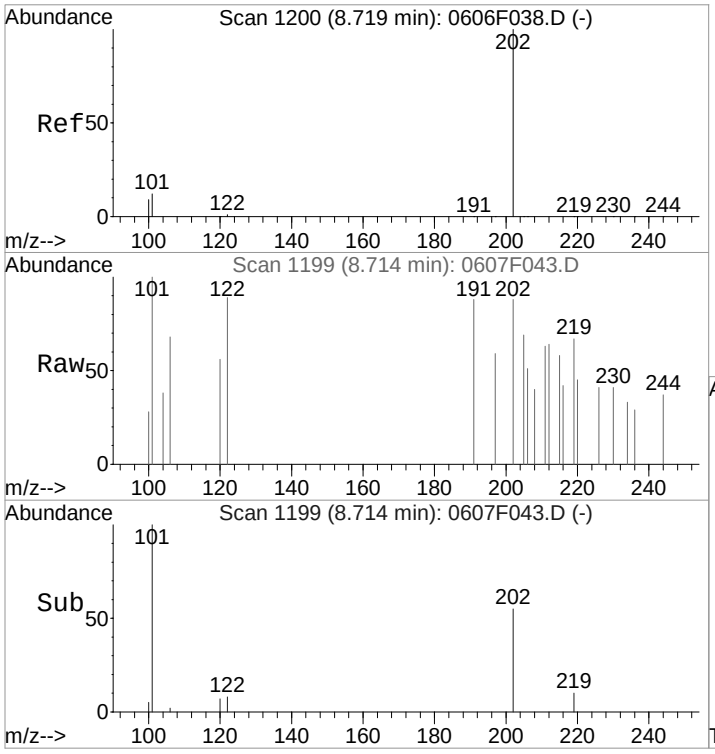


#21
Fluoranthene
Concen: 0.50 ng/ml m
RT: 8.52 min Scan# 1156
Delta R.T. -0.01 min
Lab File: 0607F043.D
Acq: 8 Jun 2019 4:29 am

Tgt Ion:202 Resp: 225

Ion	Ratio	Lower	Upper
202	100		
101	54.8	0.0	37.0#
100	38.6	0.0	24.7#

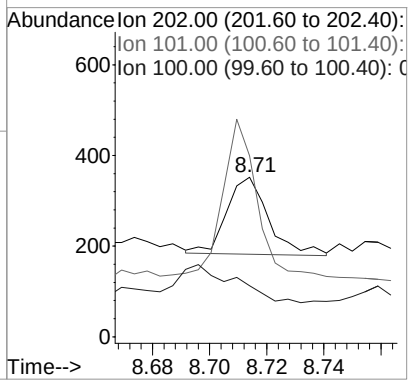


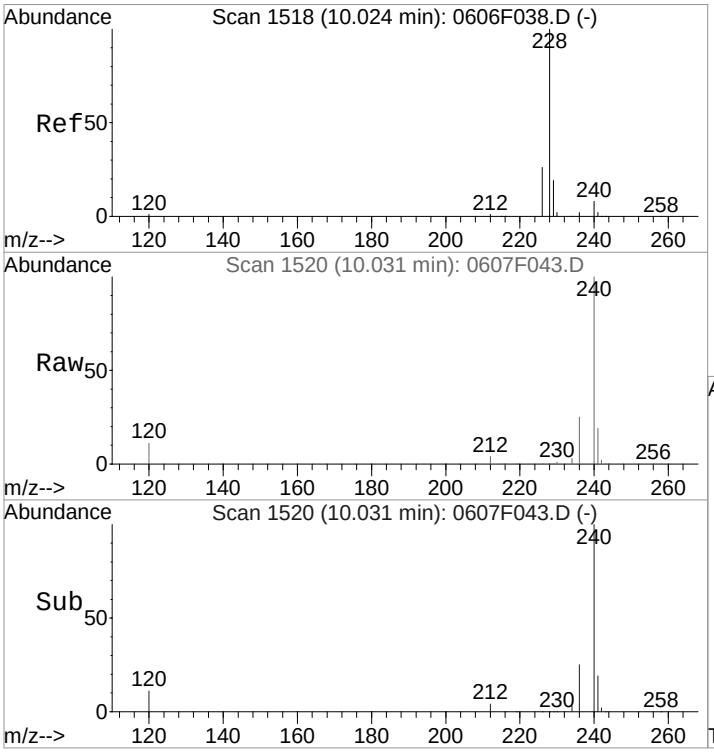


#24
Pyrene
Concen: 0.31 ng/ml
RT: 8.71 min Scan# 1199
Delta R.T. -0.01 min
Lab File: 0607F043.D
Acq: 8 Jun 2019 4:29 am

Tgt Ion:202 Resp: 171

Ion	Ratio	Lower	Upper
202	100		
101	159.3	0.0	38.8#
100	21.0	0.0	26.4

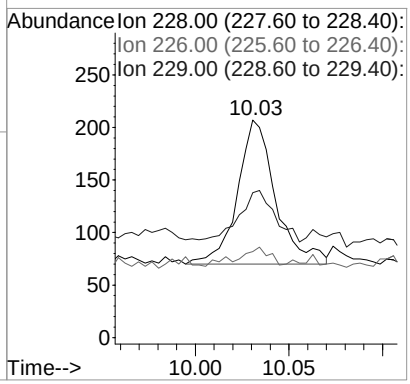




#26
Benz(a)anthracene
Concen: 0.44 ng/ml
RT: 10.03 min Scan# 1520
Delta R.T. 0.01 min
Lab File: 0607F043.D
Acq: 8 Jun 2019 4:29 am

Tgt Ion:228 Resp: 195

Ion	Ratio	Lower	Upper
228	100		
226	8.8	0.0	55.6
229	32.8	0.0	39.5



Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F043.D Vial: 39
Acq On : 8 Jun 2019 4:29 am Operator: LWeiskopf
Sample : K1905144-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:14:01 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	69152m	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.29	164	34310	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.52	188	63032	200.00	ng/ml	0.00
23) Chrysene-d12	10.03	240	69412	200.00	ng/ml	0.00
28) Perylene-d12	13.06	264	79010	200.00	ng/ml	0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.38	152	181698	1041.94	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 104.19%			
13) Fluorene-d10	6.73	176	198068	1015.58	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 101.56%			
22) Fluoranthene-d10	8.51	212	372297	1007.97	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 100.80%			
25) Terphenyl-d14	8.85	244	254474	792.78	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 79.28%			
Target Compounds						Qvalue
2) Naphthalene	4.77	128	380m	1.03	ng/ml	
4) 2-Methylnaphthalene	5.40	142	304	1.20	ng/ml	97
5) 1-Methylnaphthalene	5.49	142	176m	0.75	ng/ml	
6) Biphenyl	5.81	154	734	2.32	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.95	156	152	0.67	ng/ml	90
10) Acenaphthene	6.32	154	198	0.94	ng/ml#	48
11) Dibenzofuran	6.46	168	340	1.03	ng/ml	68
14) Fluorene	6.75	166	188	0.73	ng/ml	97
16) Dibenzothiophene	7.44	184	137	0.38	ng/ml	85
17) Phenanthrene	7.54	178	785m	2.07	ng/ml	
21) Fluoranthene	8.52	202	225m	0.50	ng/ml	
24) Pyrene	8.71	202	171	0.31	ng/ml#	1
26) Benz(a)anthracene	10.03	228	195	0.44	ng/ml	68

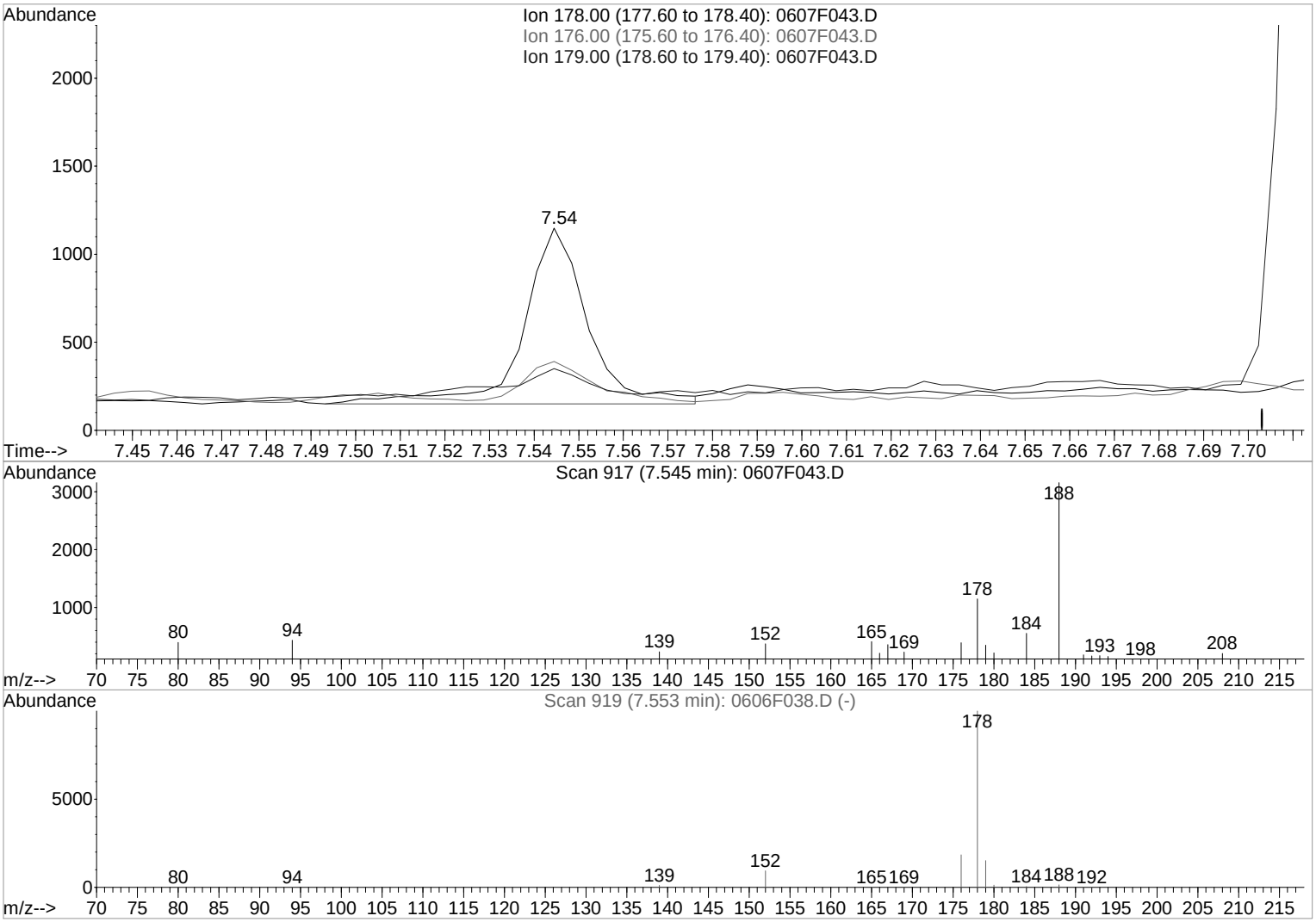
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F043.D Vial: 39
Acq On : 8 Jun 2019 4:29 am Operator: LWeiskopf
Sample : K1905144-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:19 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F043.D

(17) Phenanthrene (T)

7.54min 2.67ng/ml

response 1013

Ion	Exp%	Act%
178.00	100	100
176.00	18.40	22.82
179.00	15.20	16.22
0.00	0.00	0.00

Manual Integration:

Before

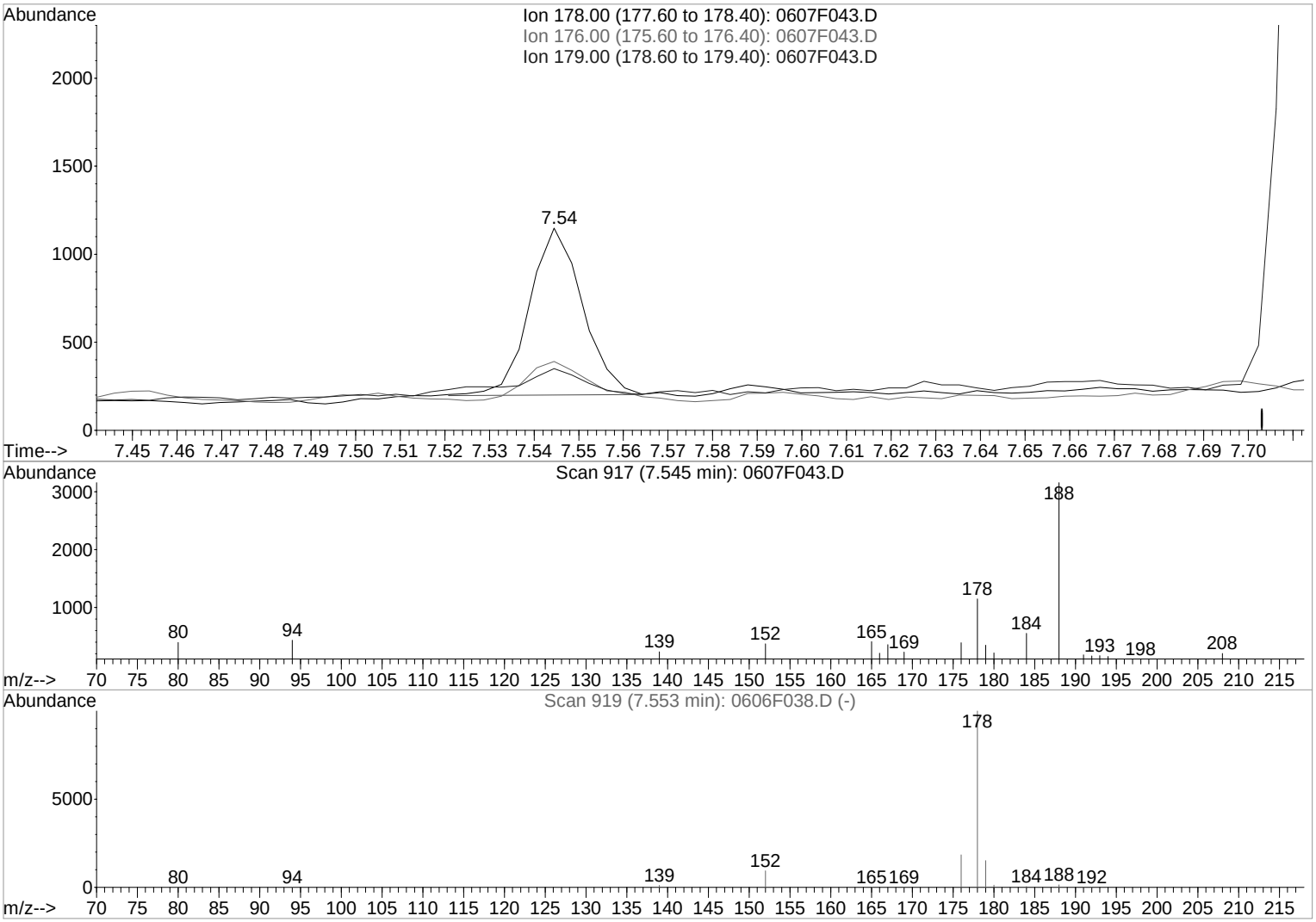
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F043.D Vial: 39
Acq On : 8 Jun 2019 4:29 am Operator: LWeiskopf
Sample : K1905144-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:19 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F043.D

(17) Phenanthrene (T)

7.54min 2.07ng/ml m

response 785

Ion	Exp%	Act%
178.00	100	100
176.00	18.40	33.97
179.00	15.20	30.49
0.00	0.00	0.00

Manual Integration:

After

BLC

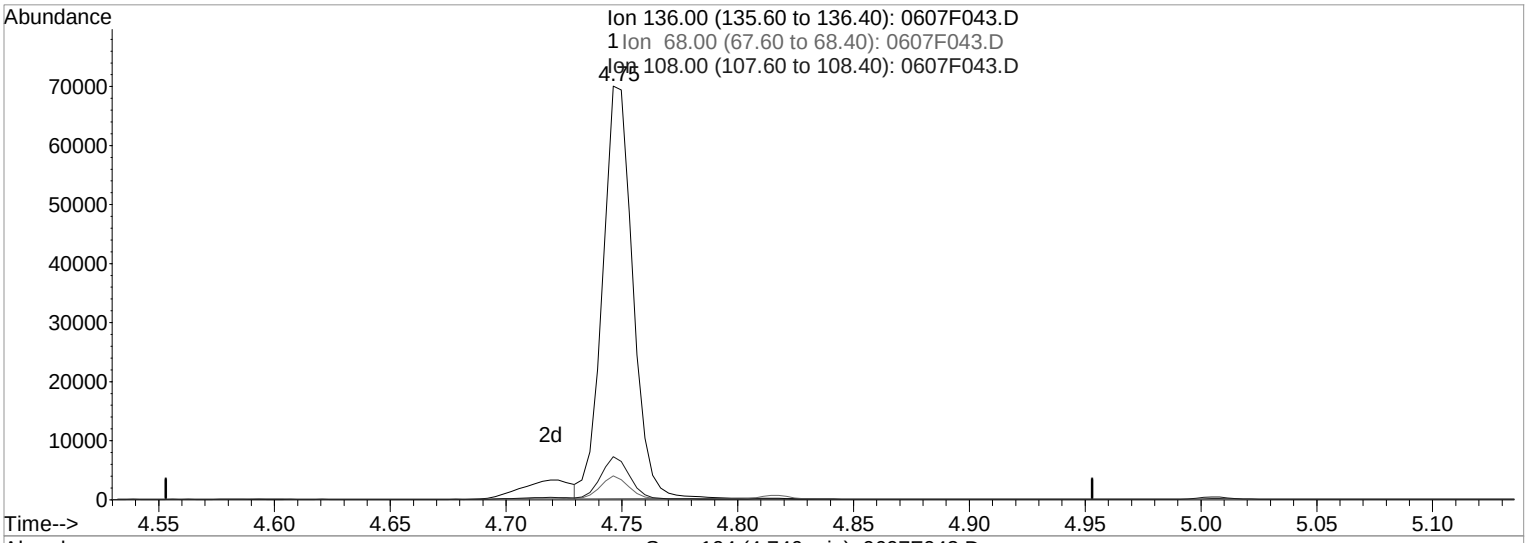
06/17/19

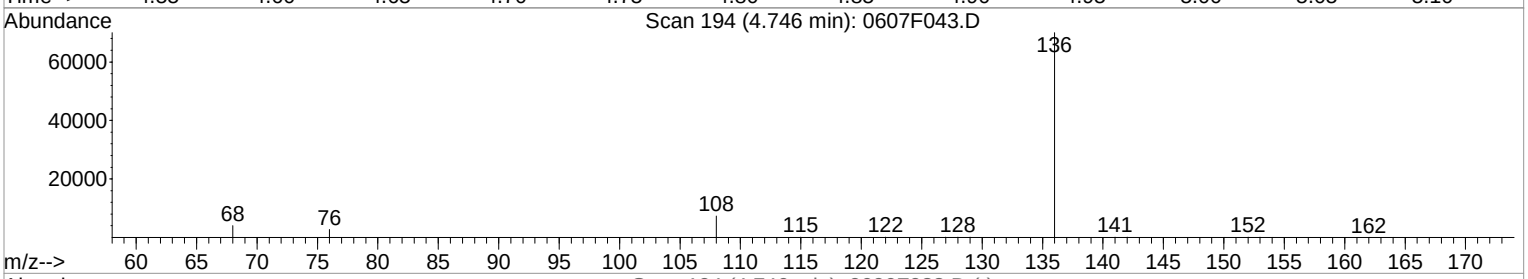
Quantitation Report (Qedit)

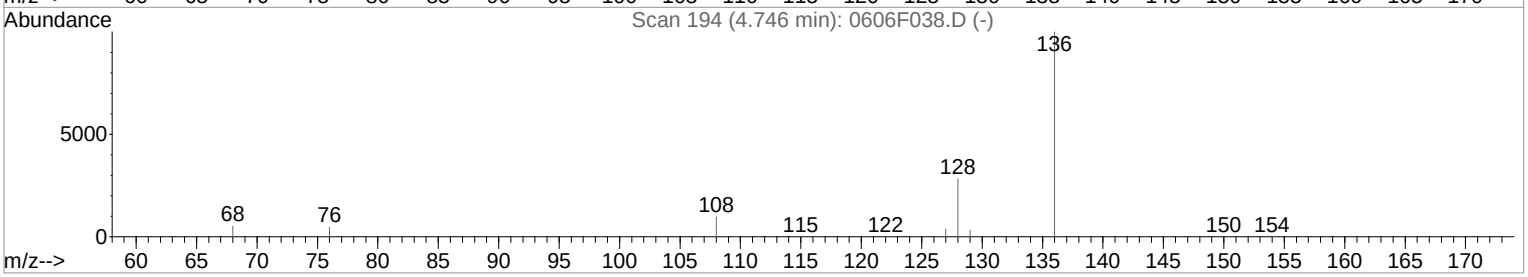
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F043.D Vial: 39
Acq On : 8 Jun 2019 4:29 am Operator: LWeiskopf
Sample : K1905144-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:14 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration







TIC: 0607F043.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml

response 63418

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.47
108.00	8.80	10.28
0.00	0.00	0.00

Manual Integration:

Before

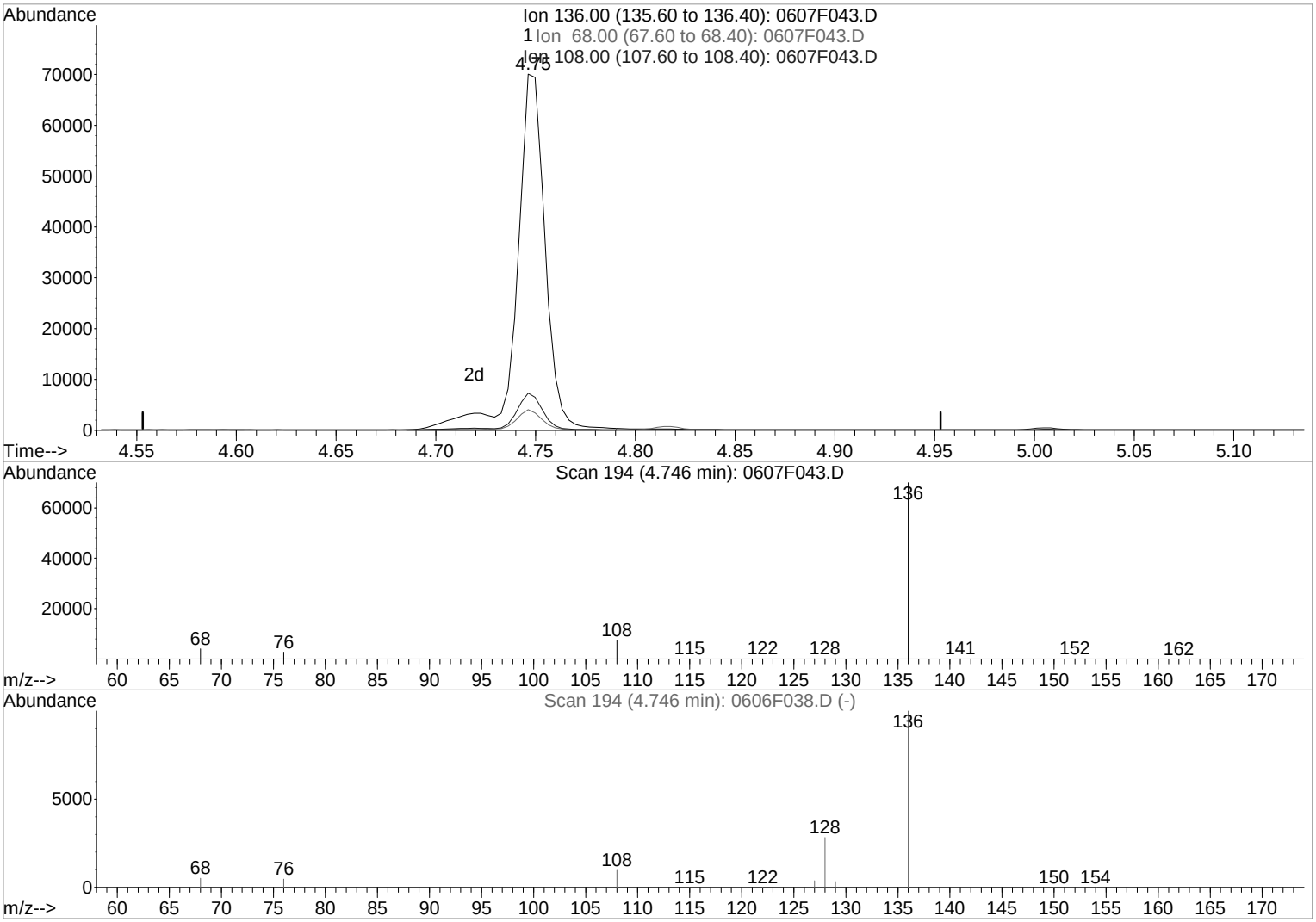
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F043.D Vial: 39
Acq On : 8 Jun 2019 4:29 am Operator: LWeiskopf
Sample : K1905144-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:18 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F043.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml m

response 69152

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.78
108.00	8.80	10.43
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

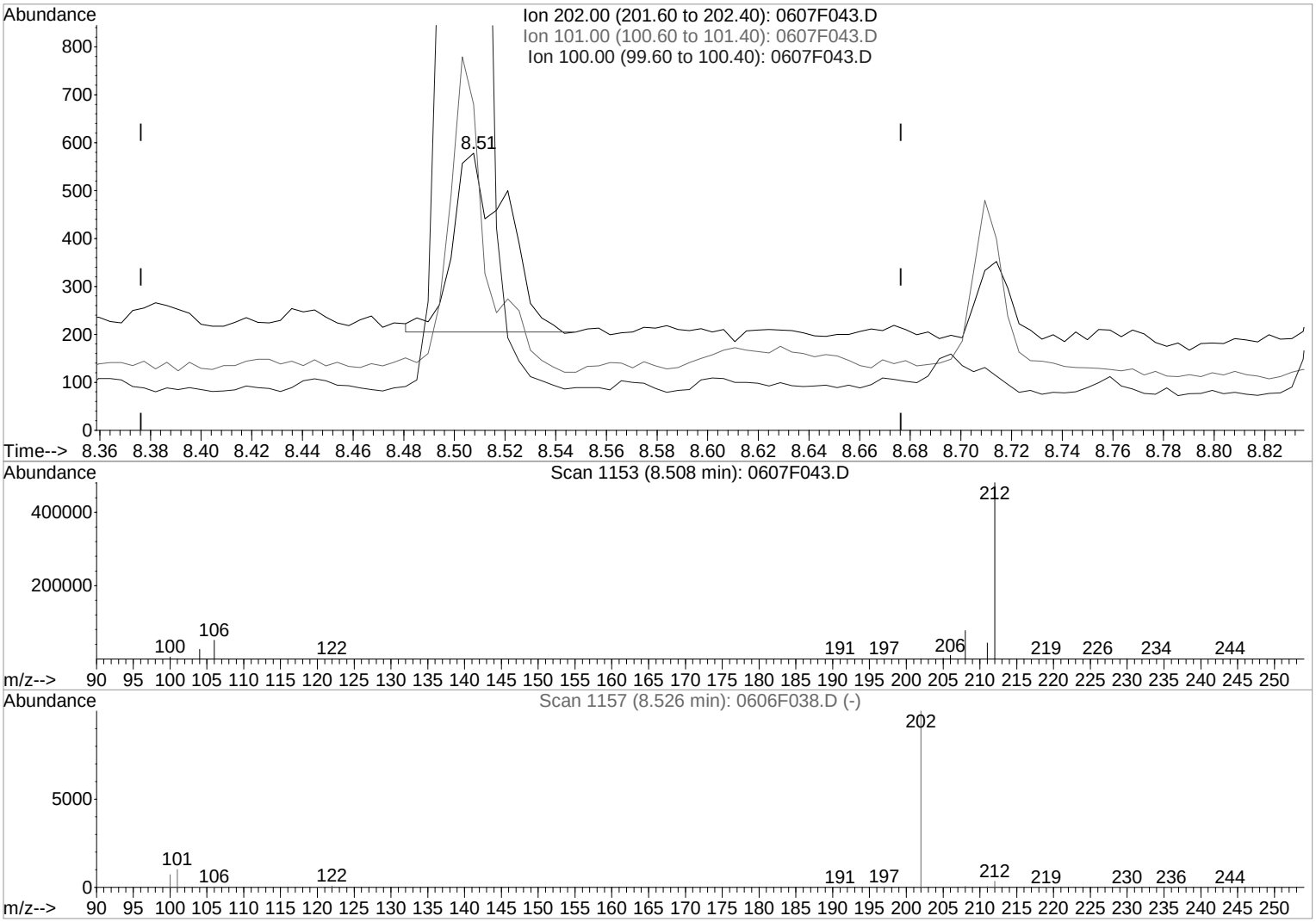
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F043.D Vial: 39
Acq On : 8 Jun 2019 4:29 am Operator: LWeiskopf
Sample : K1905144-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:20 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F043.D

(21) Fluoranthene (T)

8.51min 1.24ng/ml

response 554

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	149.87#
100.00	4.70	1308.31#
0.00	0.00	0.00

Manual Integration:

Before

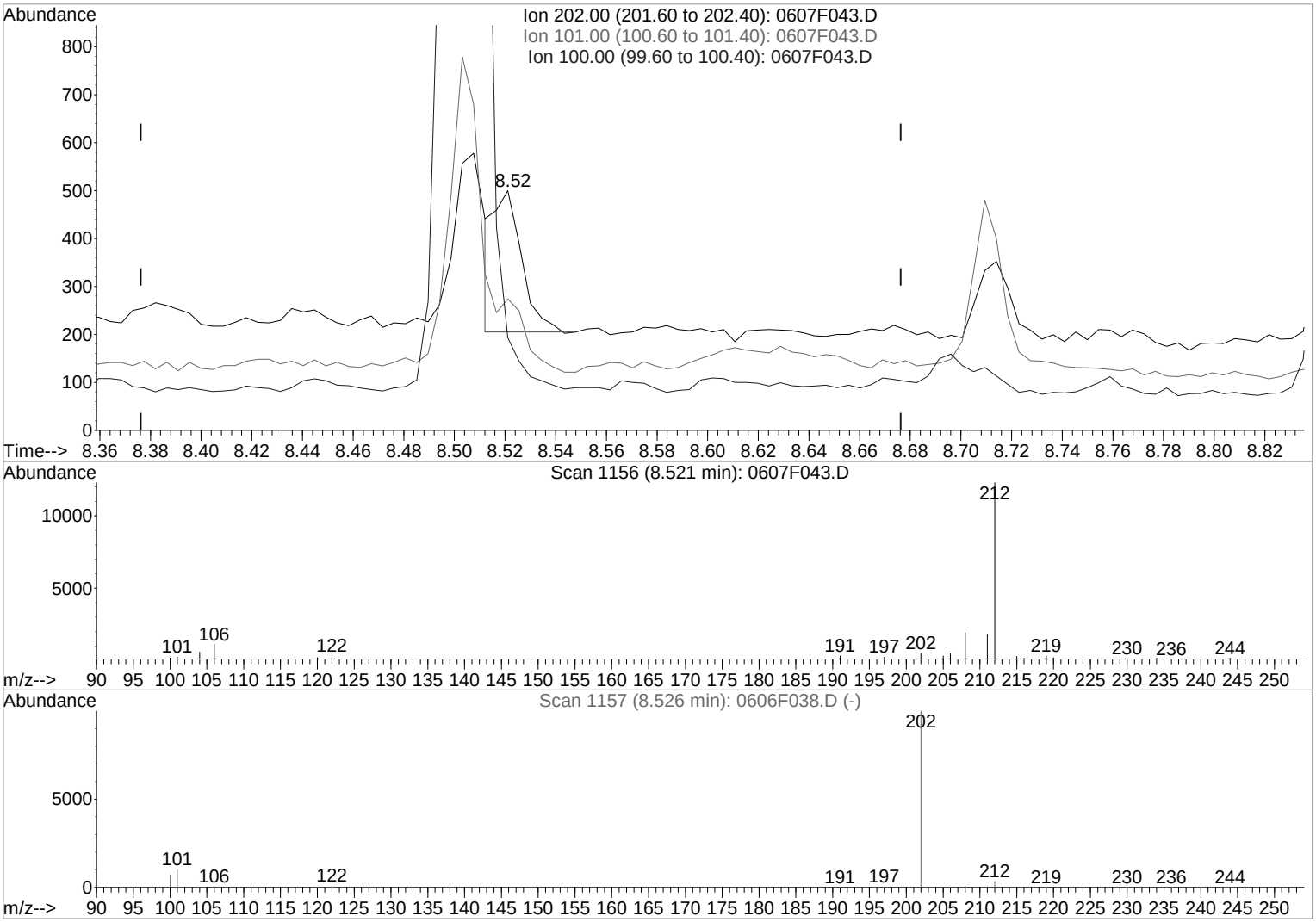
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F043.D Vial: 39
Acq On : 8 Jun 2019 4:29 am Operator: LWeiskopf
Sample : K1905144-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:20 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F043.D

(21) Fluoranthene (T)

8.52min 0.50ng/ml m

response 225

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	54.80#
100.00	4.70	38.60#
0.00	0.00	0.00

Manual Integration:

After

WP

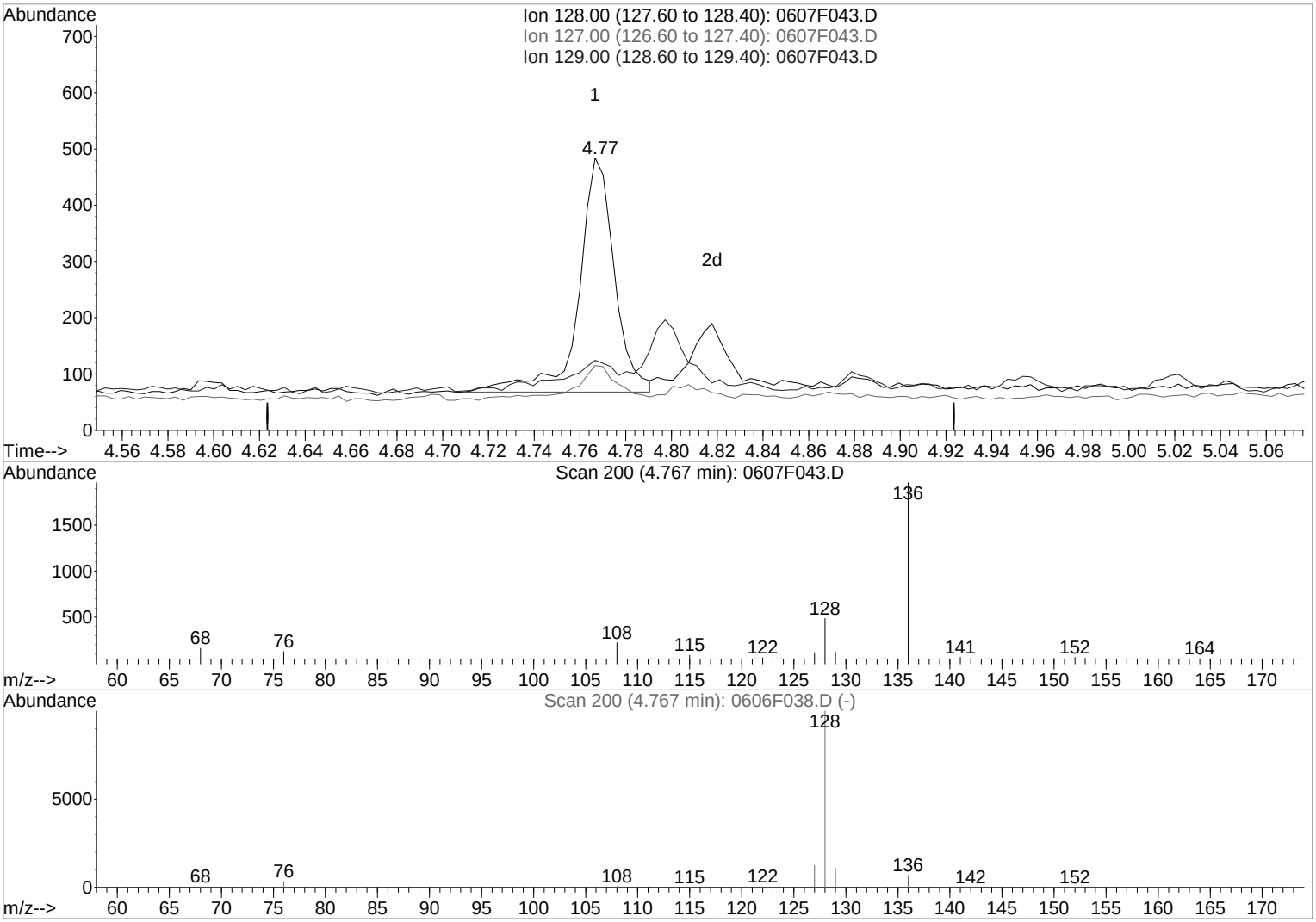
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F043.D Vial: 39
Acq On : 8 Jun 2019 4:29 am Operator: LWeiskopf
Sample : K1905144-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:18 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F043.D

(2) Naphthalene (T)

4.77min 1.22ng/ml

response 453

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	14.18
129.00	10.80	12.98
0.00	0.00	0.00

Manual Integration:

Before

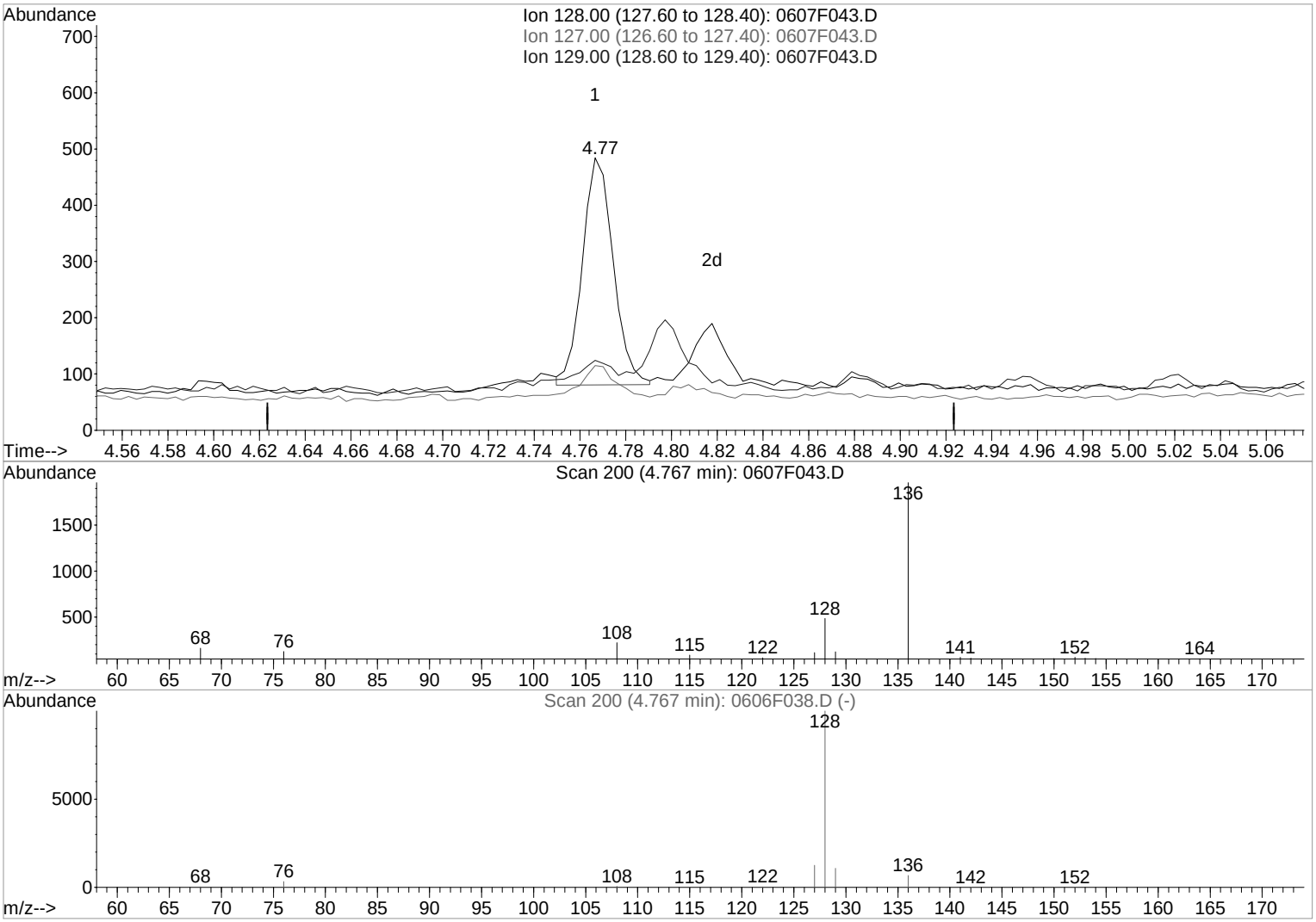
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F043.D Vial: 39
Acq On : 8 Jun 2019 4:29 am Operator: LWeiskopf
Sample : K1905144-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:18 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F043.D

(2) Naphthalene (T)

4.77min 1.03ng/ml m

response 380

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	23.76
129.00	10.80	25.62
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

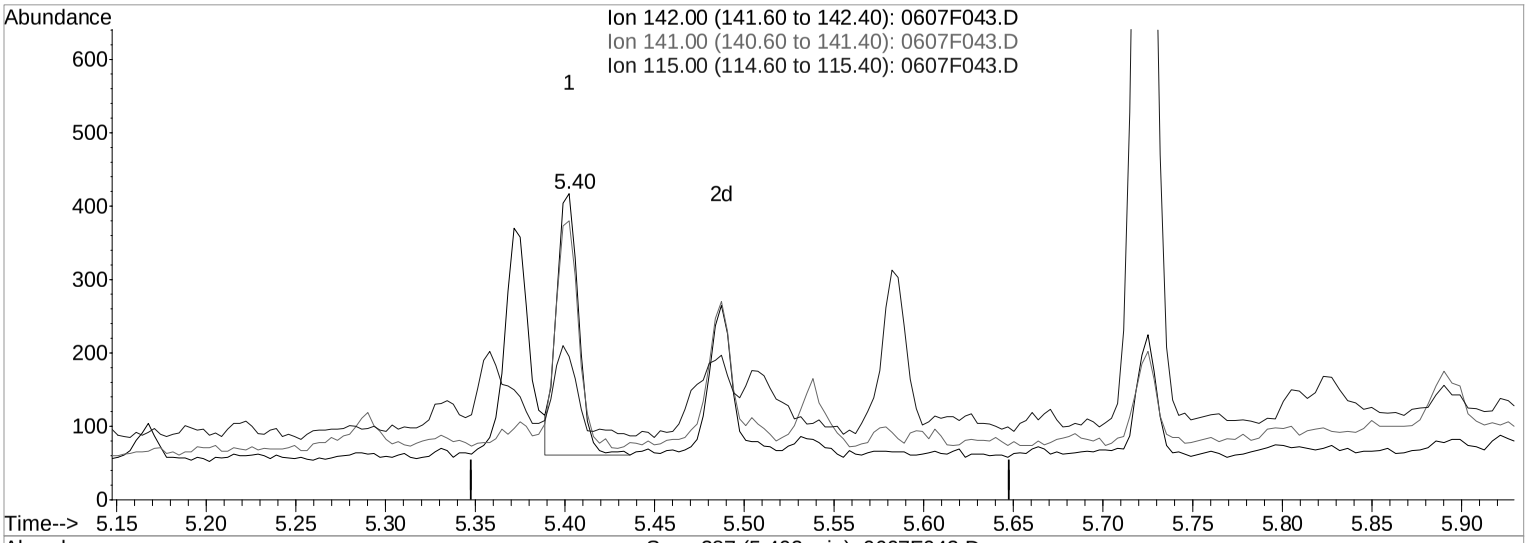
06/17/19

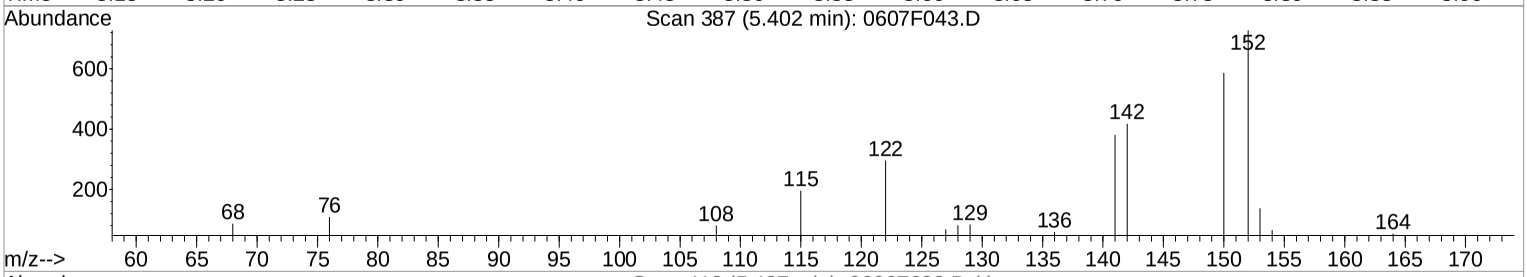
Quantitation Report (Qedit)

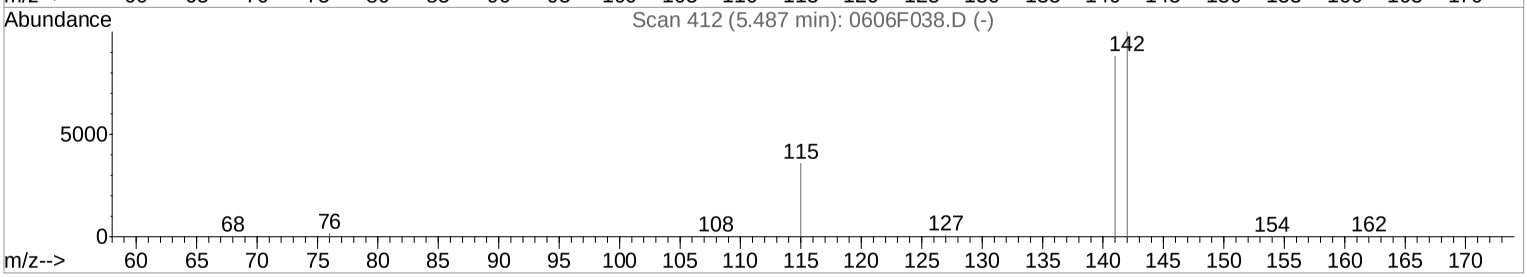
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F043.D Vial: 39
Acq On : 8 Jun 2019 4:29 am Operator: LWeiskopf
Sample : K1905144-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:18 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration







TIC: 0607F043.D

(5) 1-Methylnaphthalene (T)

5.40min 1.29ng/ml

response 304

Ion	Exp%	Act%
142.00	100	100
141.00	85.80	84.83
115.00	30.10	30.34
0.00	0.00	0.00

Manual Integration:

Before

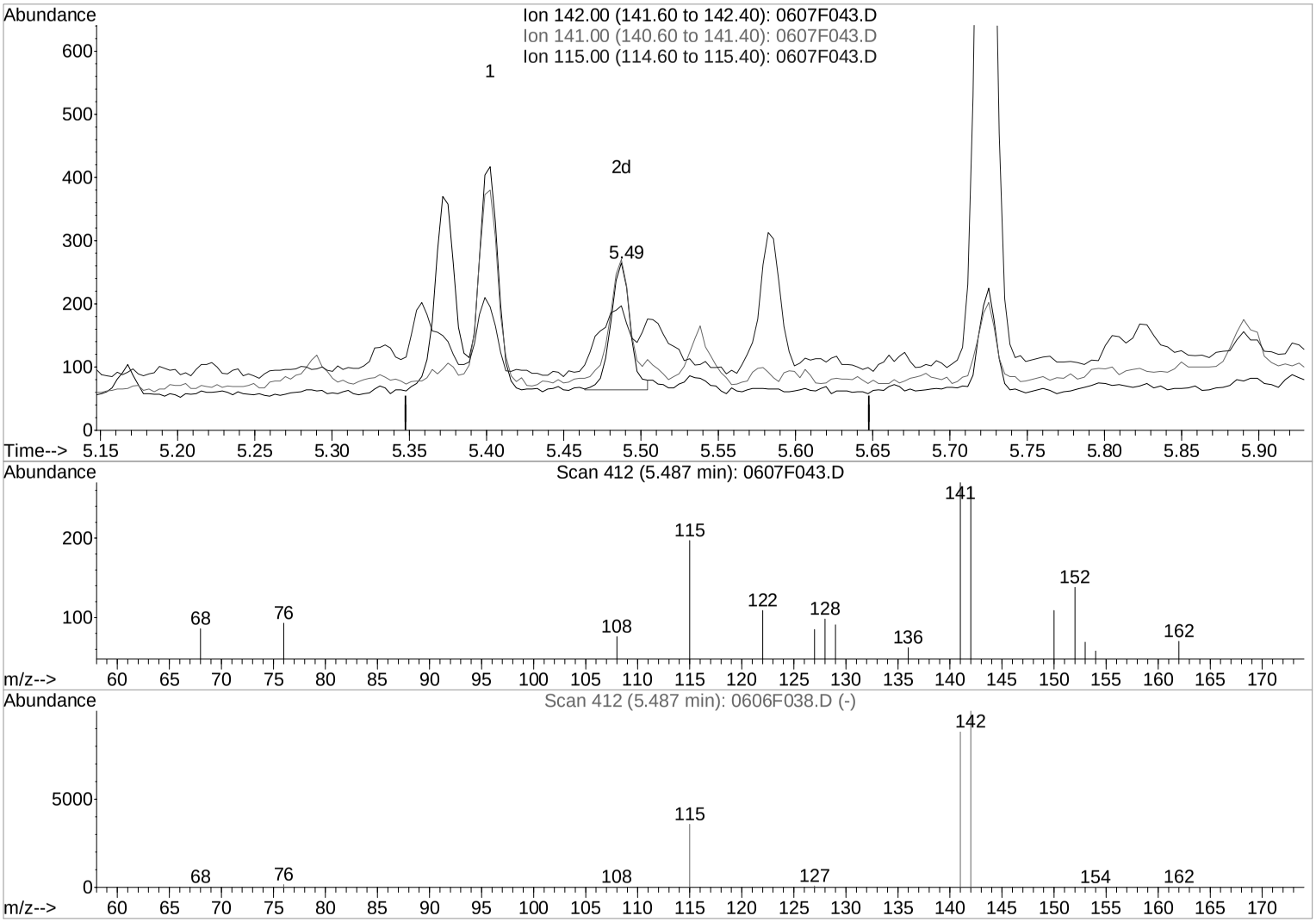
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F043.D Vial: 39
Acq On : 8 Jun 2019 4:29 am Operator: LWeiskopf
Sample : K1905144-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:18 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F043.D

(5) 1-Methylnaphthalene (T)

5.49min 0.75ng/ml m

response 176

Ion	Exp%	Act%
142.00	100	100
141.00	85.80	101.89
115.00	30.10	74.34#
0.00	0.00	0.00

Manual Integration:

After

WP

06/17/19

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F044.D\
Lab ID: K1905144-002
RunType: N/A
Matrix: Water

Date Acquired: 6/8/19 04:56:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Duplicate Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/17/19 10:31
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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F044.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 04:56:00	**Vial:**	20
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905144-002	**Raw Units:**	ng/mL

Bottle ID:	K1905144-002.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	638644	**Prep Lot:**	338019	**Report Group:**	K1905144
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/5/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		35899	200.00	OK
Chrysene-d12	10.03	-0.01	71606	200.00	OK
Naphthalene-d8	4.75	+0.01	72582	200.00	OK
Perylene-d12	13.06	-0.02	81202	200.00	OK
Phenanthrene-d10	7.53		65387	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.50	-0.01	361500	943.49	94	42 - 133	Y
Fluorene-d10	6.73		192485	943.27	94	42 - 131	Y
Terphenyl-d14	8.85	-0.01	244333	737.86	74	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.40		293	1.10	0.0049	J	Y
Acenaphthene	6.32		162	0.74	0.0033	J	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.03		194	0.42	0.0019	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	6.47		314	0.91	0.0040	J	Y
Fluoranthene	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31
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1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F044.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 04:56:00	**Vial:**	20
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905144-002	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.75		170	0.63	0.0028	J	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.77	+0.01	348	0.90	0.0040	J	Y
Phenanthrene	7.55		876	2.23	0.0099	J	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31

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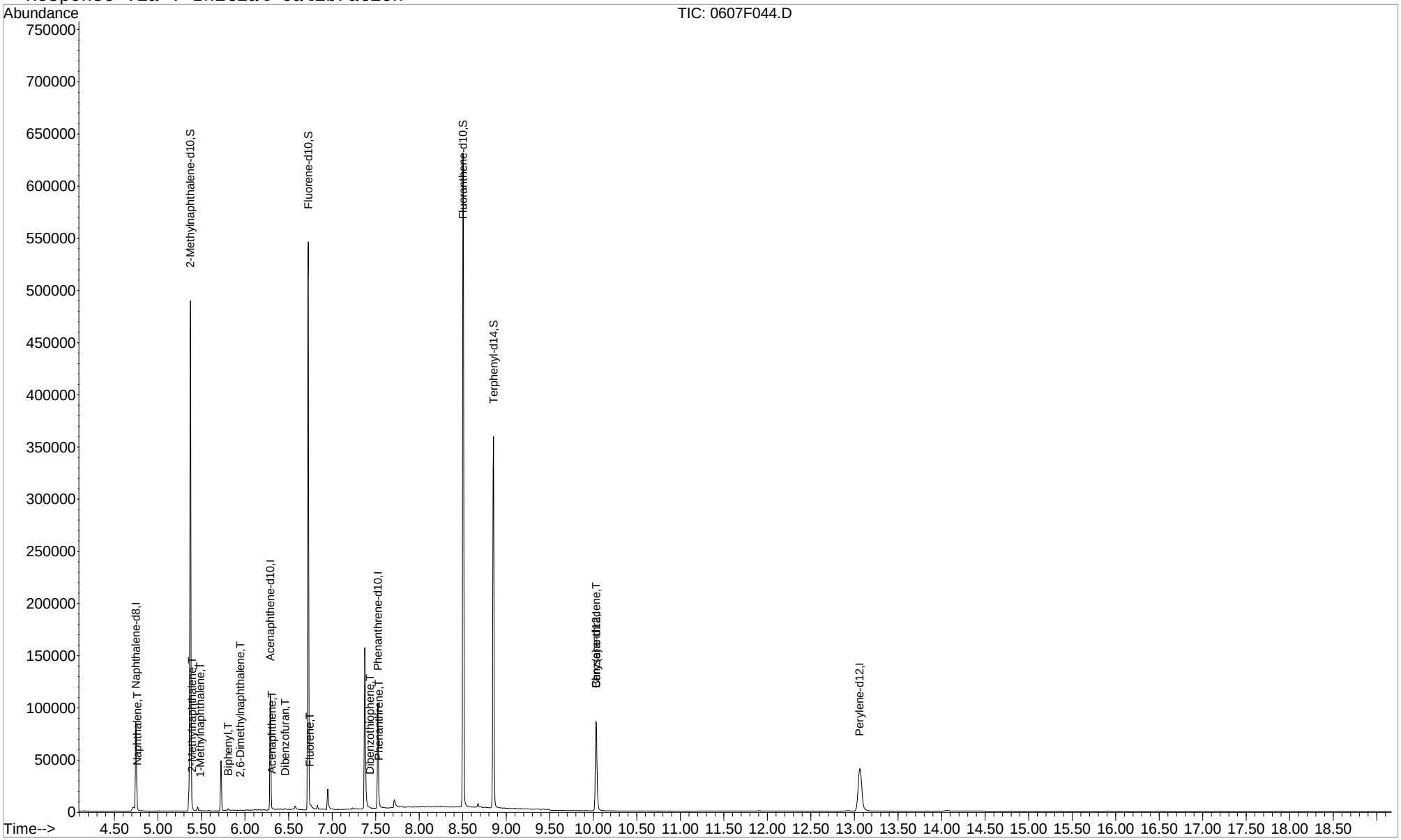
Quantitation Report (QT Reviewed)

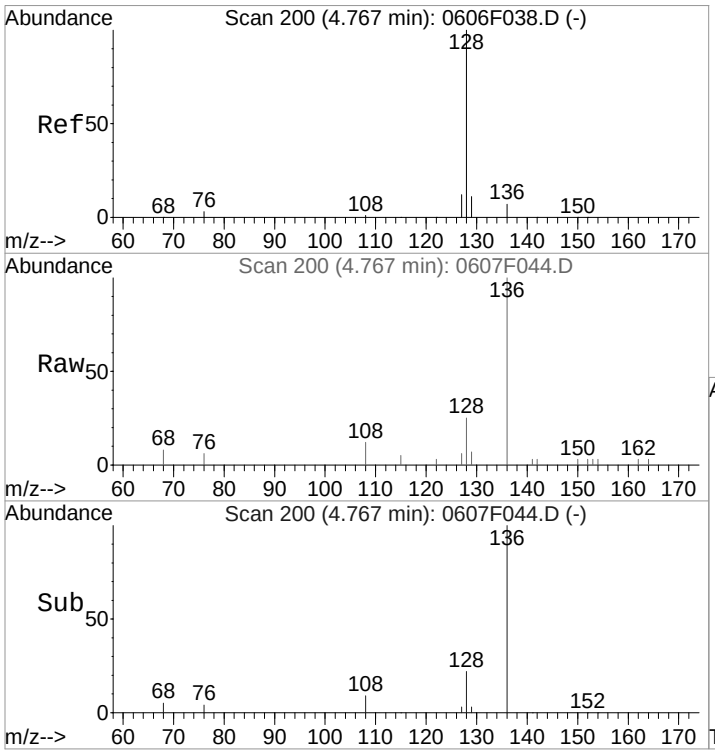
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F044.D Vial: 40
Acq On : 8 Jun 2019 4:56 am Operator: LWeiskopf
Sample : K1905144-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:22 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration



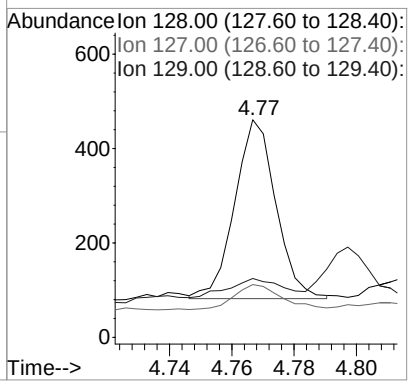
1st 06/17/19
2nd 06/17/19

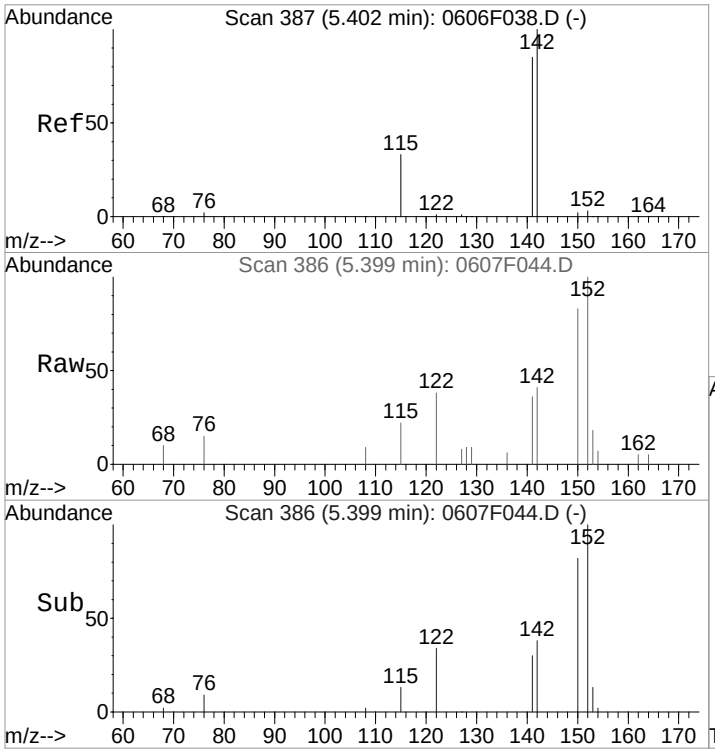


#2
Naphthalene
Concen: 0.90 ng/ml m
RT: 4.77 min Scan# 200
Delta R.T. -0.01 min
Lab File: 0607F044.D
Acq: 8 Jun 2019 4:56 am

Tgt Ion:128 Resp: 348

Ion	Ratio	Lower	Upper
128	100		
127	24.3	0.0	42.3
129	27.1	0.0	30.8

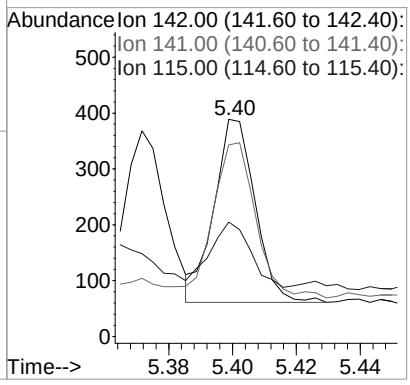


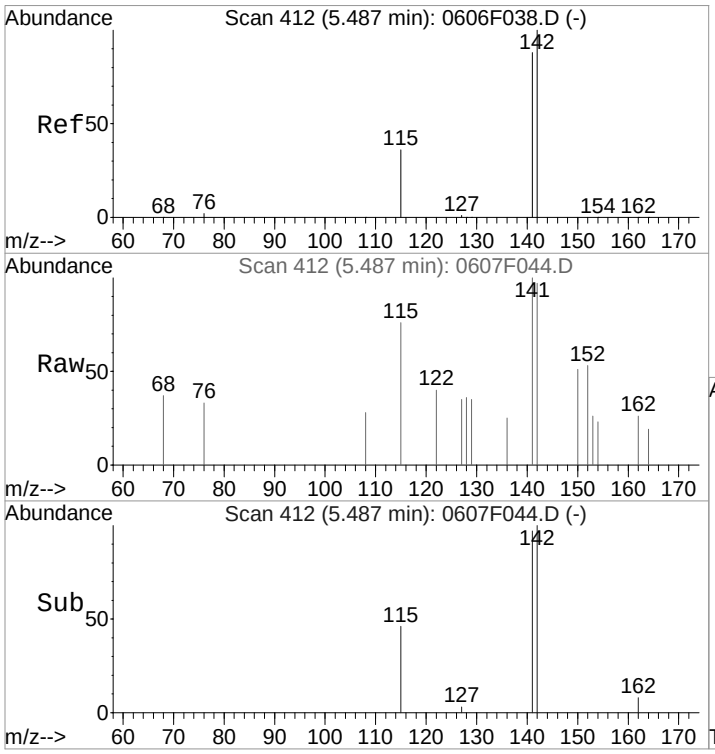


#4
2-Methylnaphthalene
Concen: 1.10 ng/ml
RT: 5.40 min Scan# 386
Delta R.T. -0.01 min
Lab File: 0607F044.D
Acq: 8 Jun 2019 4:56 am

Tgt Ion:142 Resp: 293

Ion	Ratio	Lower	Upper
142	100		
141	83.5	52.7	112.7
115	34.8	8.2	48.2

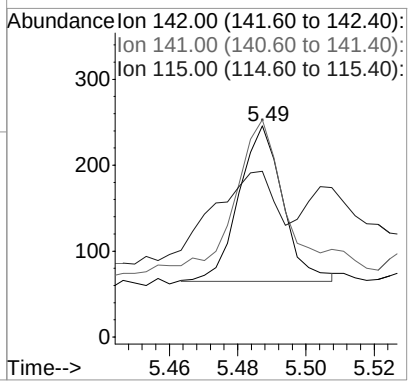


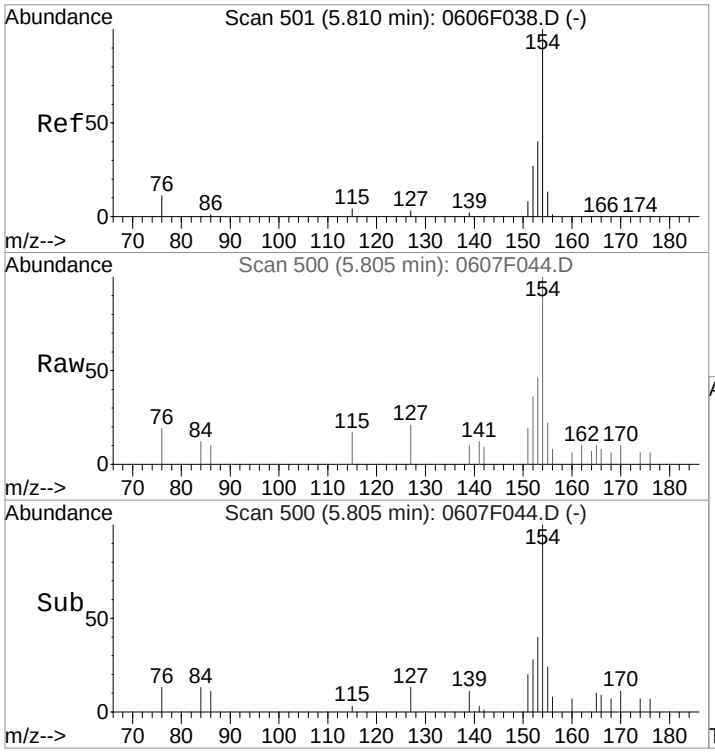


#5
1-Methylnaphthalene
Concen: 0.65 ng/ml m
RT: 5.49 min Scan# 412
Delta R.T. -0.01 min
Lab File: 0607F044.D
Acq: 8 Jun 2019 4:56 am

Tgt Ion:142 Resp: 161

Ion	Ratio	Lower	Upper
142	100		
141	102.8	55.8	115.8
115	78.5	10.1	50.1#

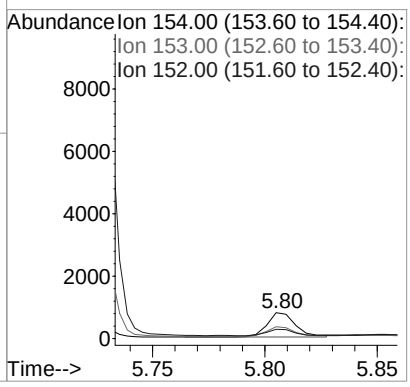




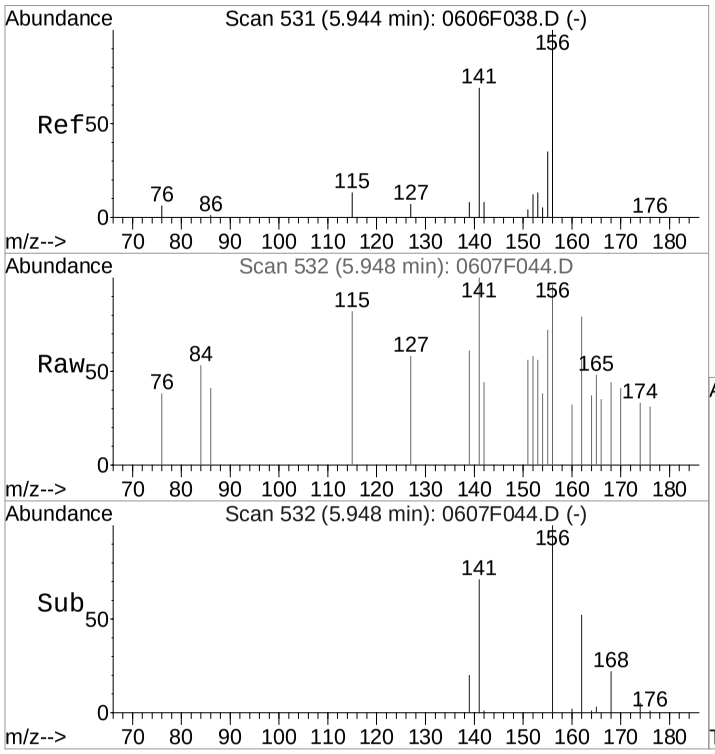
#6
Biphenyl
Concen: 2.13 ng/ml
RT: 5.80 min Scan# 500
Delta R.T. -0.01 min
Lab File: 0607F044.D
Acq: 8 Jun 2019 4:56 am

Tgt Ion:154 Resp: 708

Ion	Ratio	Lower	Upper
154	100		
153	40.1	8.2	68.2
152	25.2	6.1	46.1



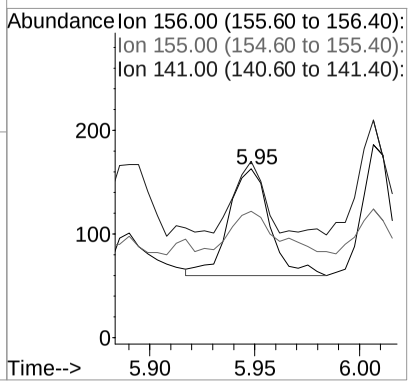
1st 06/17/19
2nd 06/17/19

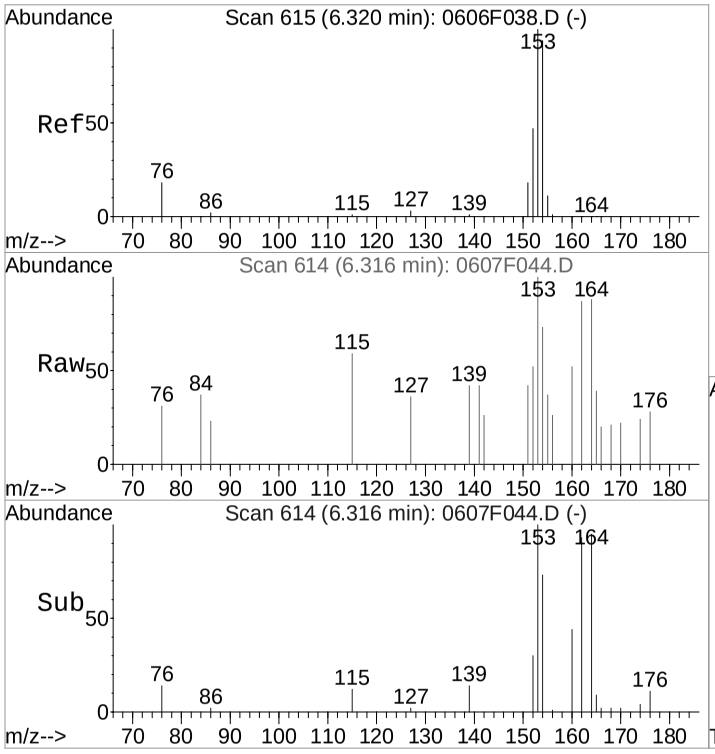


#7
2,6-Dimethylnaphthalene
Concen: 0.59 ng/ml
RT: 5.95 min Scan# 532
Delta R.T. -0.00 min
Lab File: 0607F044.D
Acq: 8 Jun 2019 4:56 am

Tgt Ion:156 Resp: 140

Ion	Ratio	Lower	Upper
156	100		
155	37.9	3.3	63.3
141	68.9	40.6	80.6

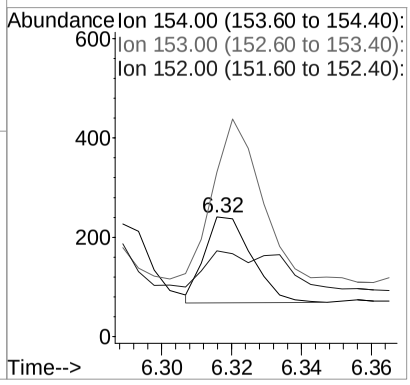


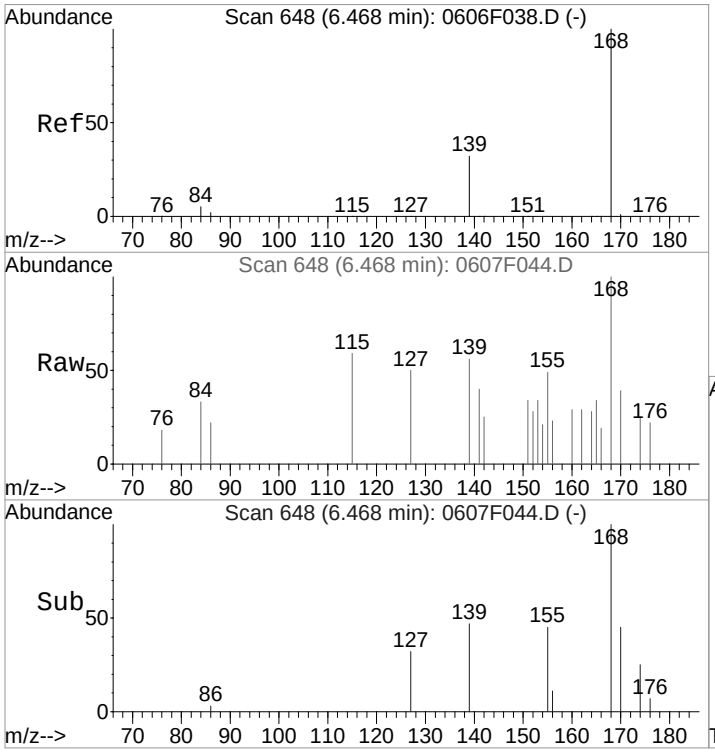


#10
Acenaphthene
Concen: 0.74 ng/ml
RT: 6.32 min Scan# 614
Delta R.T. -0.01 min
Lab File: 0607F044.D
Acq: 8 Jun 2019 4:56 am

Tgt Ion:154 Resp: 162

Ion	Ratio	Lower	Upper
154	100		
153	122.7	72.8	132.8
152	42.4	17.7	77.7

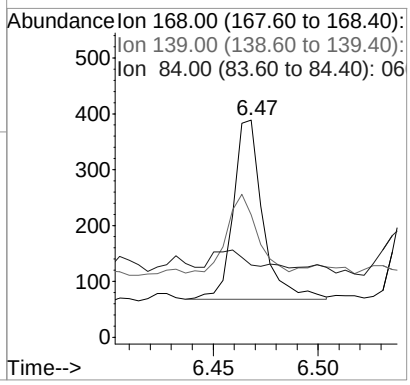


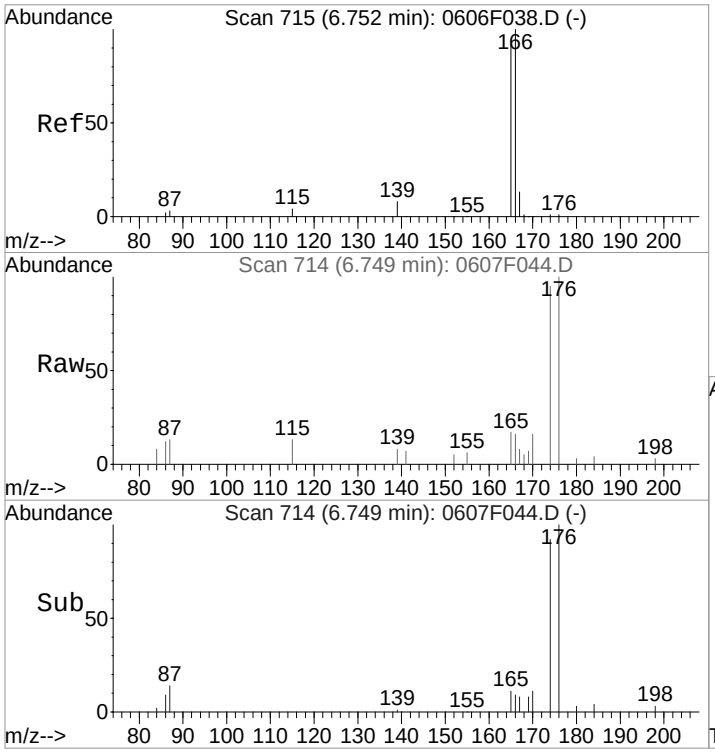


#11
Dibenzofuran
Concen: 0.91 ng/ml
RT: 6.47 min Scan# 648
Delta R.T. -0.01 min
Lab File: 0607F044.D
Acq: 8 Jun 2019 4:56 am

Tgt Ion:168 Resp: 314

Ion	Ratio	Lower	Upper
168	100		
139	32.4	0.0	54.7
84	1.2	0.0	22.9

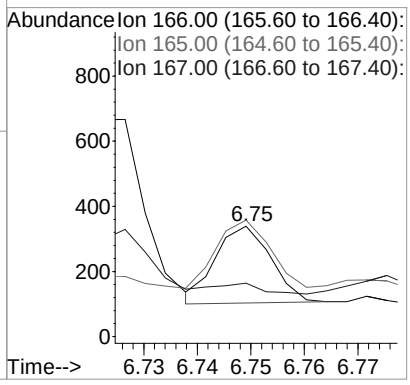


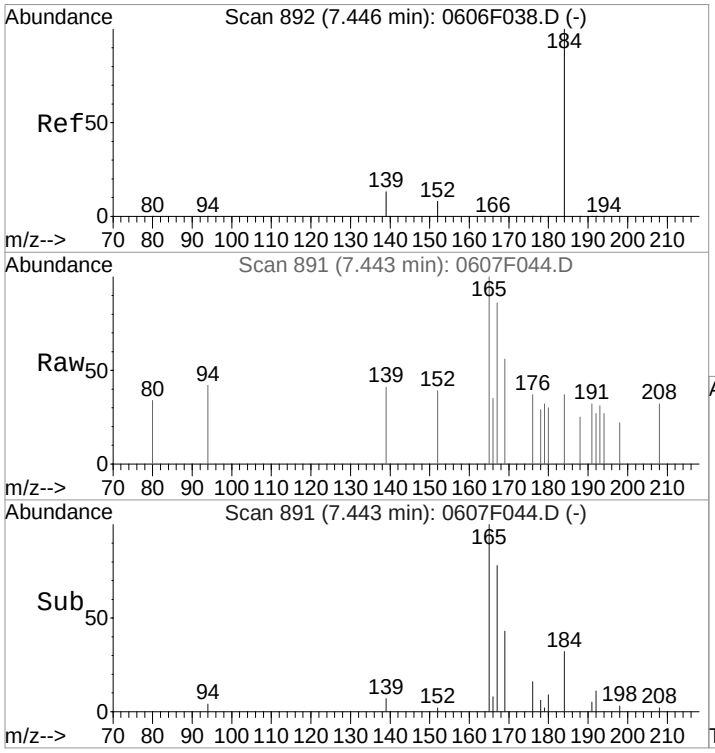


#14
Fluorene
Concen: 0.63 ng/ml
RT: 6.75 min Scan# 714
Delta R.T. -0.01 min
Lab File: 0607F044.D
Acq: 8 Jun 2019 4:56 am

Tgt Ion:166 Resp: 170

Ion	Ratio	Lower	Upper
166	100		
165	90.1	59.0	119.0
167	9.9	0.0	33.1

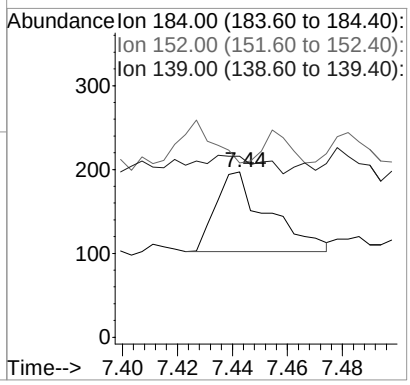


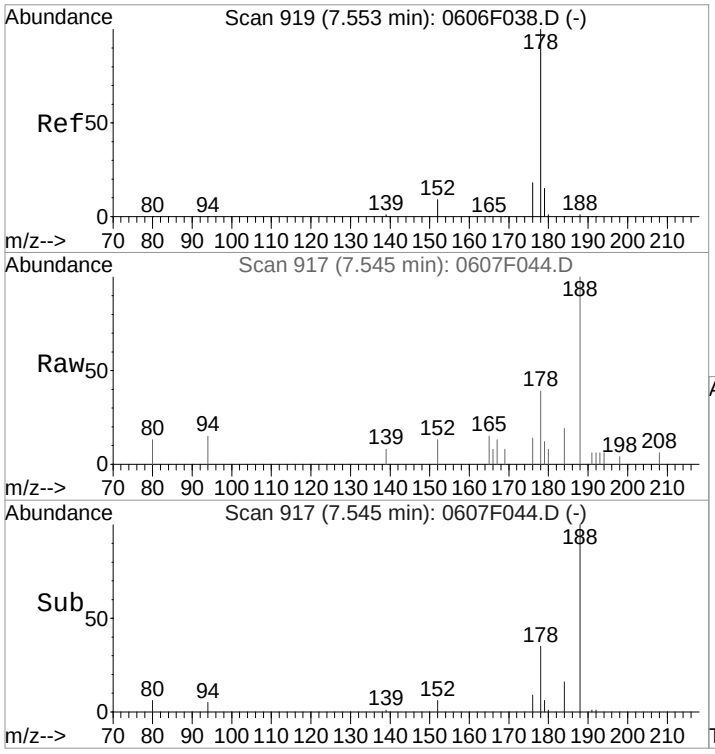


#16
Dibenzothiophene
Concen: 0.34 ng/ml
RT: 7.44 min Scan# 891
Delta R.T. -0.01 min
Lab File: 0607F044.D
Acq: 8 Jun 2019 4:56 am

Tgt Ion:184 Resp: 126

Ion	Ratio	Lower	Upper
184	100		
152	0.0	0.0	37.7
139	11.6	0.0	32.3

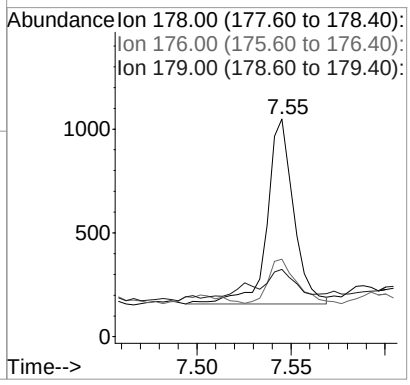




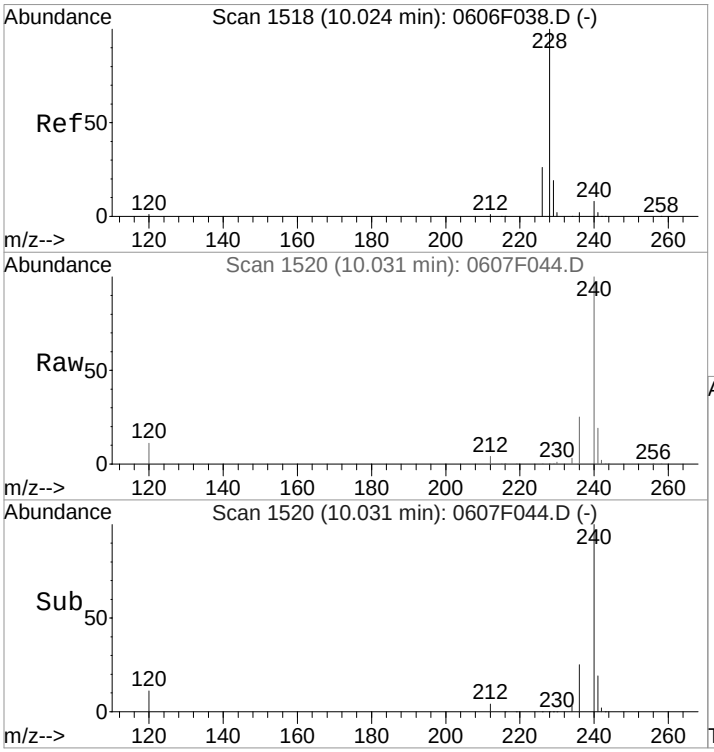
#17
Phenanthrene
Concen: 2.23 ng/ml
RT: 7.55 min Scan# 917
Delta R.T. -0.01 min
Lab File: 0607F044.D
Acq: 8 Jun 2019 4:56 am

Tgt Ion:178 Resp: 876

Ion	Ratio	Lower	Upper
178	100		
176	22.6	0.0	48.4
179	14.9	0.0	35.2



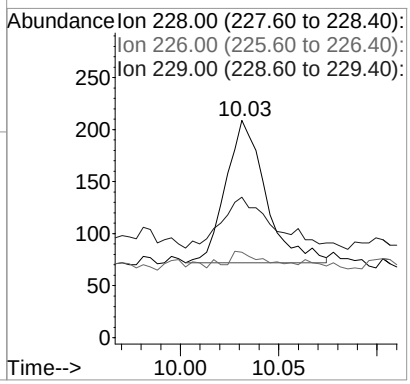
1st 06/17/19
2nd 06/17/19



#26
Benz(a)anthracene
Concen: 0.42 ng/ml
RT: 10.03 min Scan# 1520
Delta R.T. 0.01 min
Lab File: 0607F044.D
Acq: 8 Jun 2019 4:56 am

Tgt Ion:228 Resp: 194

Ion	Ratio	Lower	Upper
228	100		
226	10.2	0.0	55.6
229	35.8	0.0	39.5



Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F044.D Vial: 40
Acq On : 8 Jun 2019 4:56 am Operator: LWeiskopf
Sample : K1905144-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:20:54 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	72582m	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.29	164	35899	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.53	188	65387	200.00	ng/ml	0.00
23) Chrysene-d12	10.03	240	71606	200.00	ng/ml	0.00
28) Perylene-d12	13.06	264	81202	200.00	ng/ml	0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.37	152	177415	969.30	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	96.93%		
13) Fluorene-d10	6.73	176	192485	943.27	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	94.33%		
22) Fluoranthene-d10	8.50	212	361500	943.49	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	94.35%		
25) Terphenyl-d14	8.85	244	244333	737.86	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	73.79%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	348m	0.90	ng/ml	
4) 2-Methylnaphthalene	5.40	142	293	1.10	ng/ml	96
5) 1-Methylnaphthalene	5.49	142	161m	0.65	ng/ml	
6) Biphenyl	5.80	154	708	2.13	ng/ml	97
7) 2,6-Dimethylnaphthalene	5.95	156	140	0.59	ng/ml	90
10) Acenaphthene	6.32	154	162	0.74	ng/ml	84
11) Dibenzofuran	6.47	168	314	0.91	ng/ml	86
14) Fluorene	6.75	166	170	0.63	ng/ml	98
16) Dibenzothiophene	7.44	184	126	0.34	ng/ml	90
17) Phenanthrene	7.55	178	876	2.23	ng/ml	95
26) Benz(a)anthracene	10.03	228	194	0.42	ng/ml	67

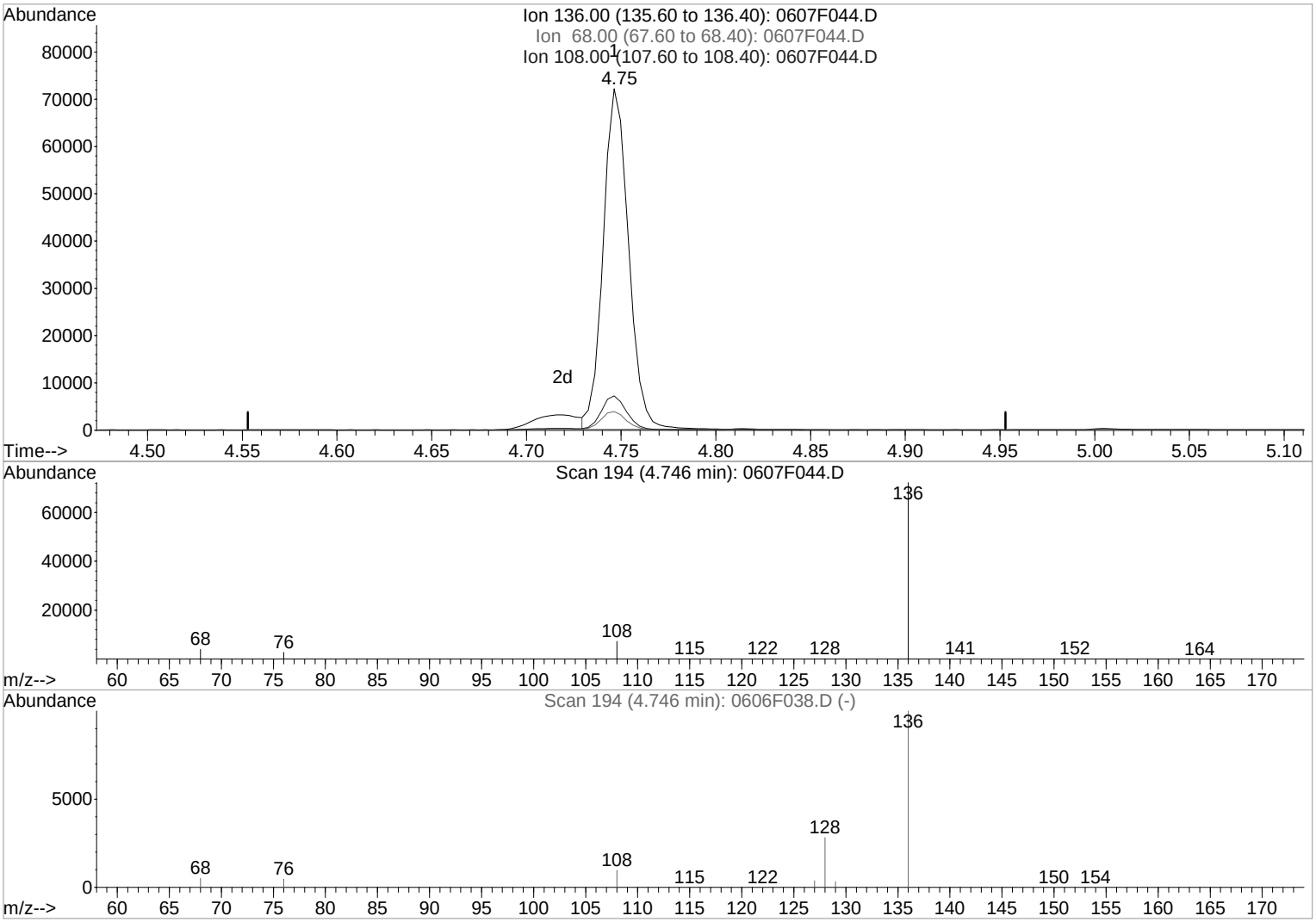
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F044.D Vial: 40
Acq On : 8 Jun 2019 4:56 am Operator: LWeiskopf
Sample : K1905144-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:20 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F044.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml

response 67114

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.18
108.00	8.80	9.88
0.00	0.00	0.00

Manual Integration:

Before

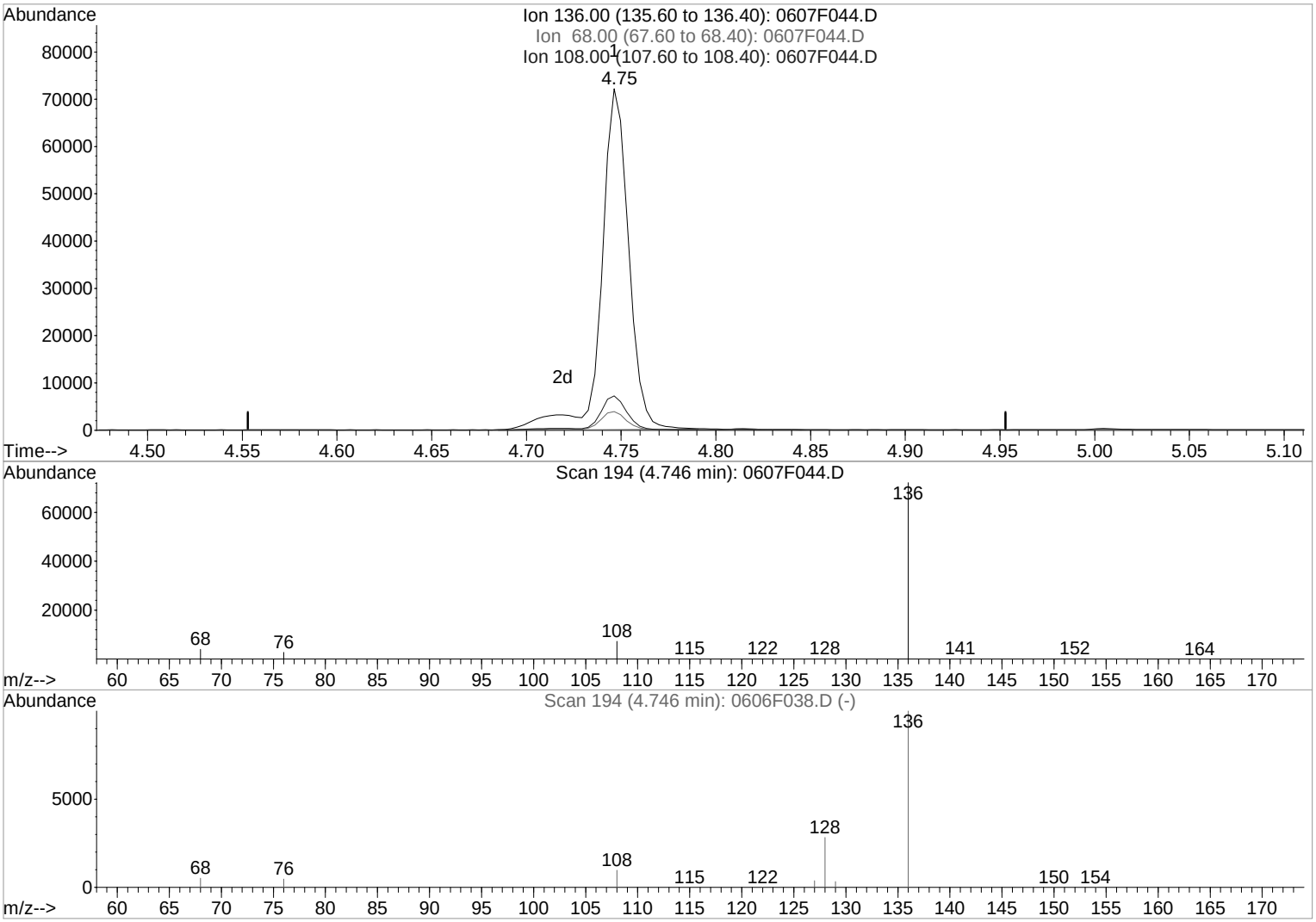
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F044.D Vial: 40
Acq On : 8 Jun 2019 4:56 am Operator: LWeiskopf
Sample : K1905144-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:20 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F044.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml m

response 72582

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.44
108.00	8.80	10.02
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

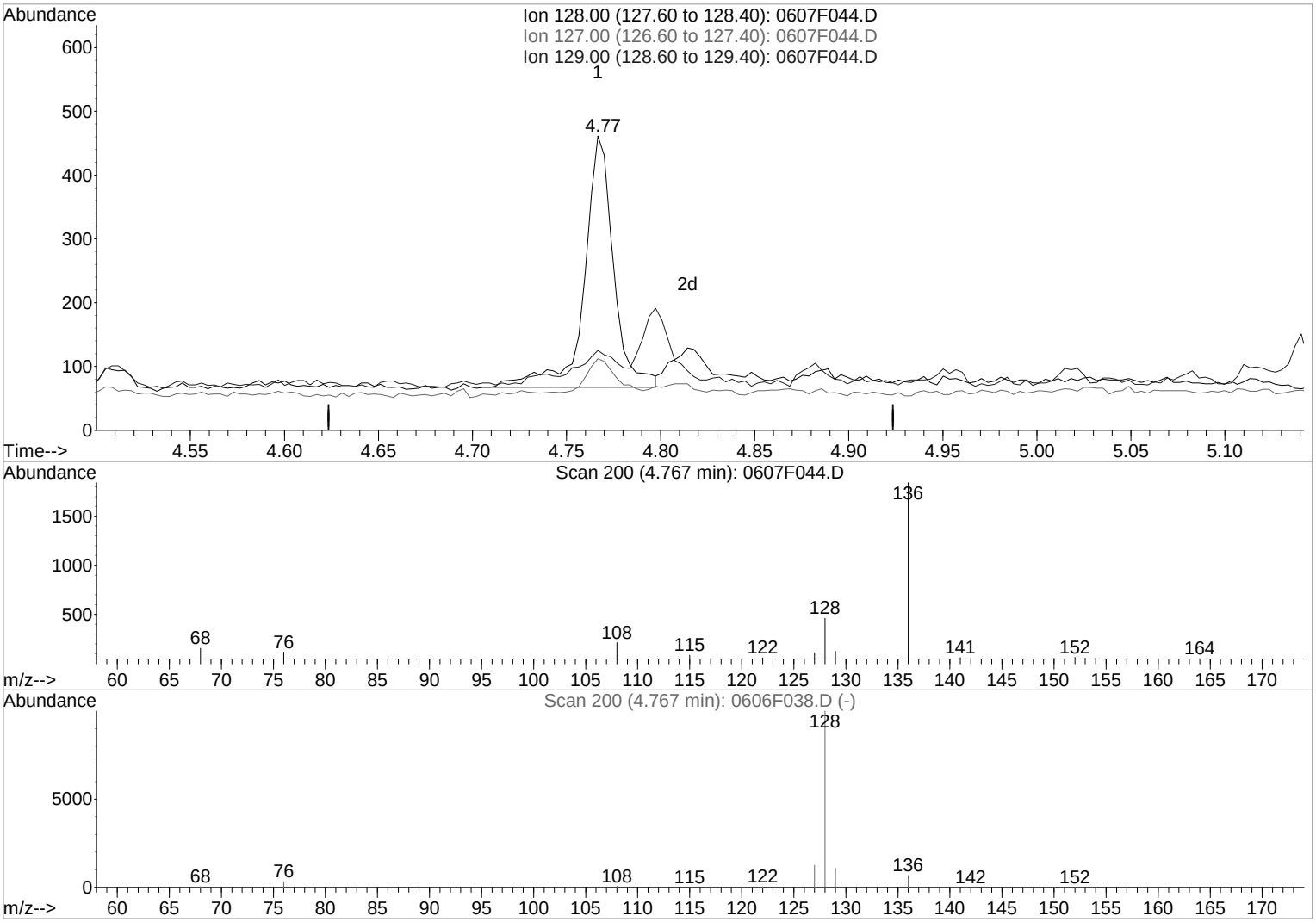
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F044.D Vial: 40
Acq On : 8 Jun 2019 4:56 am Operator: LWeiskopf
Sample : K1905144-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:20 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F044.D

(2) Naphthalene (T)

4.77min 1.11ng/ml

response 433

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	14.21
129.00	10.80	12.94
0.00	0.00	0.00

Manual Integration:

Before

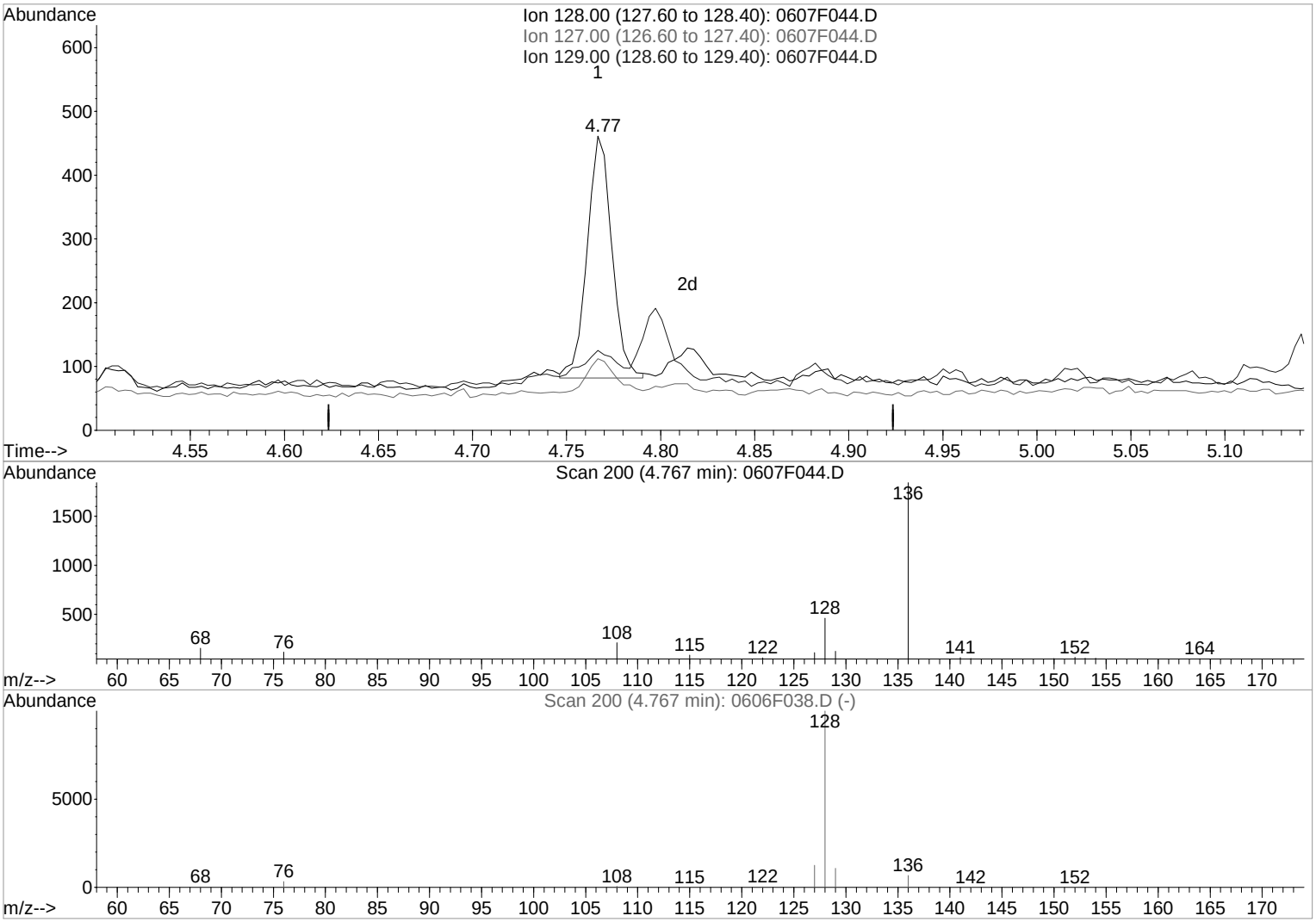
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F044.D Vial: 40
Acq On : 8 Jun 2019 4:56 am Operator: LWeiskopf
Sample : K1905144-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:20 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F044.D

(2) Naphthalene (T)

4.77min 0.90ng/ml m

response 348

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	24.30
129.00	10.80	27.11
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

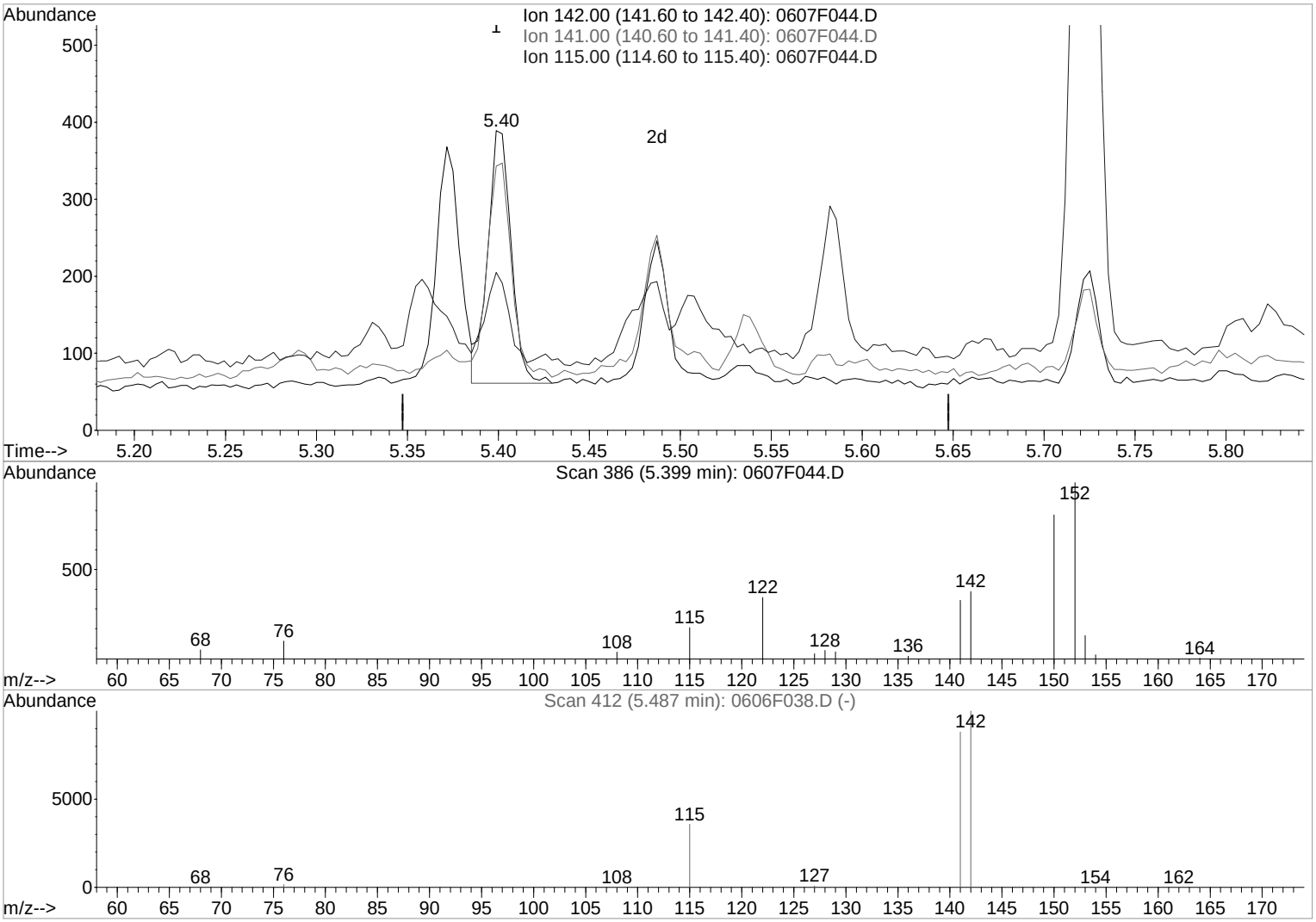
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F044.D Vial: 40
Acq On : 8 Jun 2019 4:56 am Operator: LWeiskopf
Sample : K1905144-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:20 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F044.D

(5) 1-Methylnaphthalene (T)

5.40min 1.19ng/ml

response 293

Ion	Exp%	Act%
142.00	100	100
141.00	85.80	83.54
115.00	30.10	34.76
0.00	0.00	0.00

Manual Integration:

Before

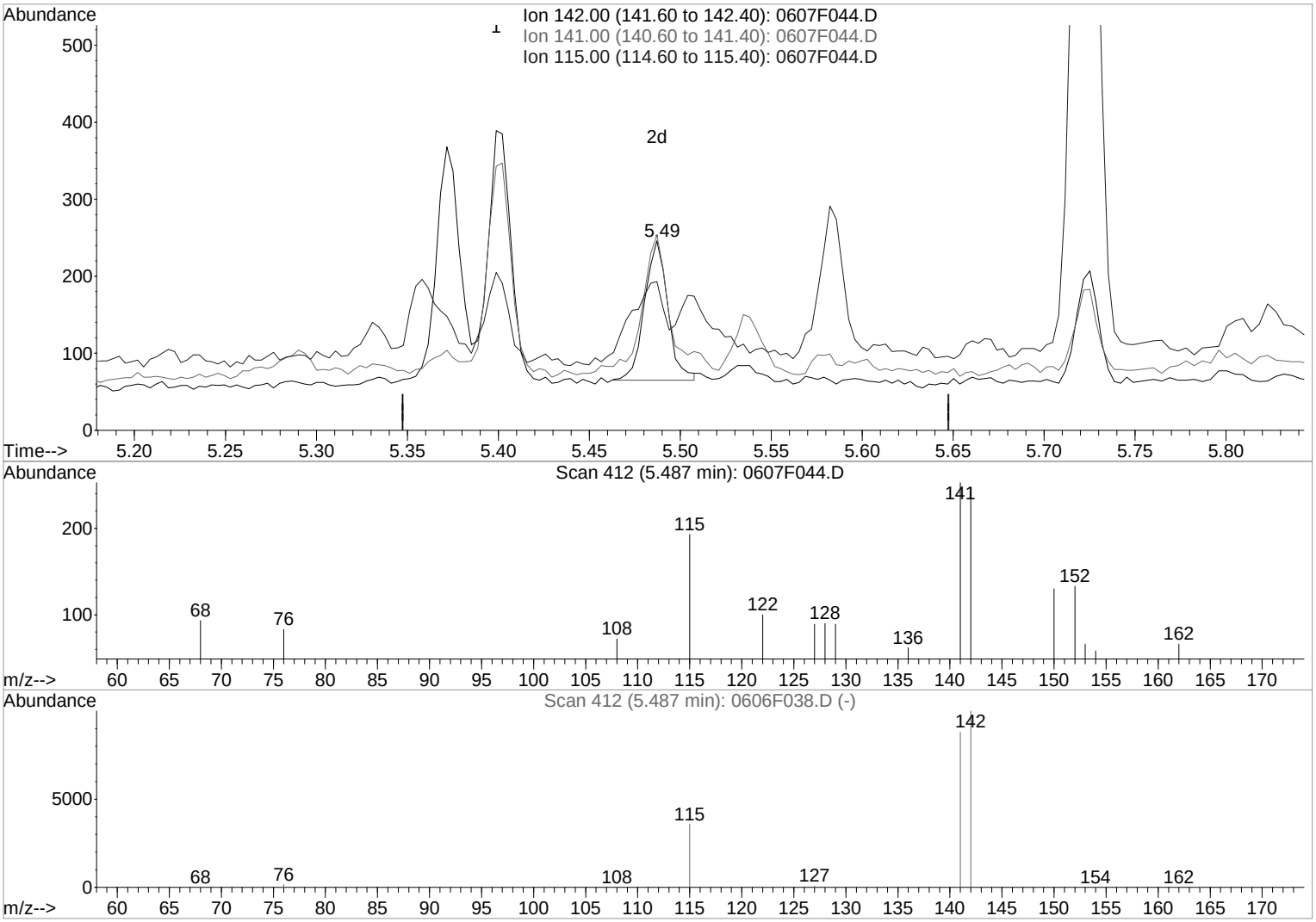
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F044.D Vial: 40
Acq On : 8 Jun 2019 4:56 am Operator: LWeiskopf
Sample : K1905144-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F044.D

(5) 1-Methylnaphthalene (T)

5.49min 0.65ng/ml m

response 161

Ion	Exp%	Act%
142.00	100	100
141.00	85.80	102.85
115.00	30.10	78.46#
0.00	0.00	0.00

Manual Integration:

After

WP

06/17/19

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F033.D\
Lab ID: KQ1907688-03
RunType: MB
Matrix: Water

Date Acquired: 6/7/19 23:57:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/17/19 10:31
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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F033.D\	**Instrument:**	K-MS-14
Acqu Date:	6/7/19 23:57:00	**Vial:**	9
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1907688-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	638644	**Prep Lot:**	338019	**Report Group:**	KQ1907688
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/5/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		37449	200.00	OK
Chrysene-d12	10.04		74280	200.00	OK
Naphthalene-d8	4.75	+0.01	74479	200.00	OK
Perylene-d12	13.07	-0.01	84508	200.00	OK
Phenanthrene-d10	7.53		69657	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.51		386782	947.59	95	42 - 133	Y
Fluorene-d10	6.73		203520	956.07	96	42 - 131	Y
Terphenyl-d14	8.85	-0.01	222082	646.52	65	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.40		209	0.77	0.0034	J	Y
Acenaphthene	6.32		119	0.52	0.0023	J	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.03		211	0.44	0.0020	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	6.47		255	0.71	0.0032	J	Y
Fluoranthene	8.53		193	0.39	0.0017	J	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31
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1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F033.D\	**Instrument:**	K-MS-14
Acqu Date:	6/7/19 23:57:00	**Vial:**	9
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1907688-03	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.75		191	0.68	0.0030	J	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.77	+0.01	292	0.73	0.0032	J	Y
Phenanthrene	7.55		810	1.94	0.0086	J	Y
Pyrene	8.71	-0.01	155	0.26	0.0012	J	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

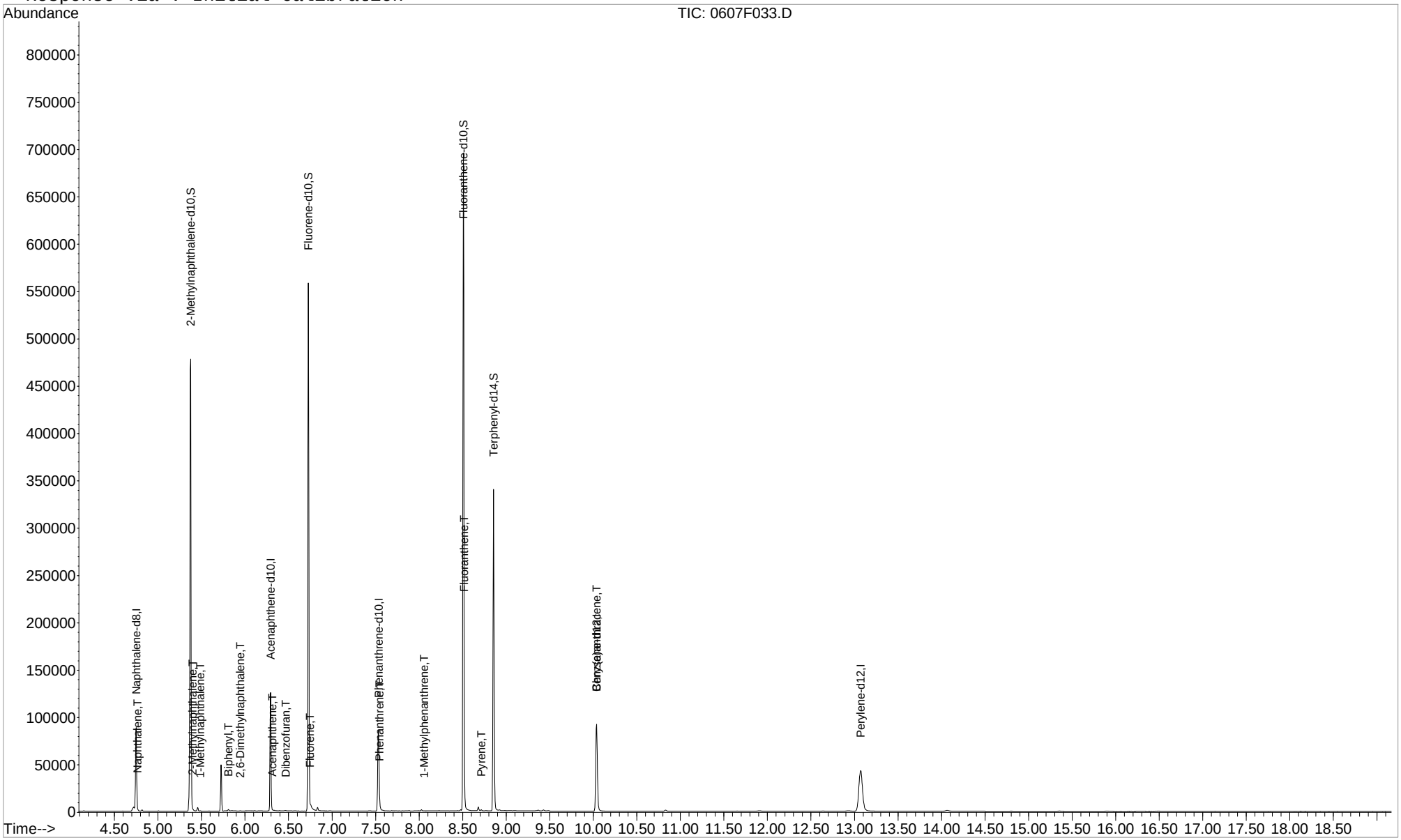
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

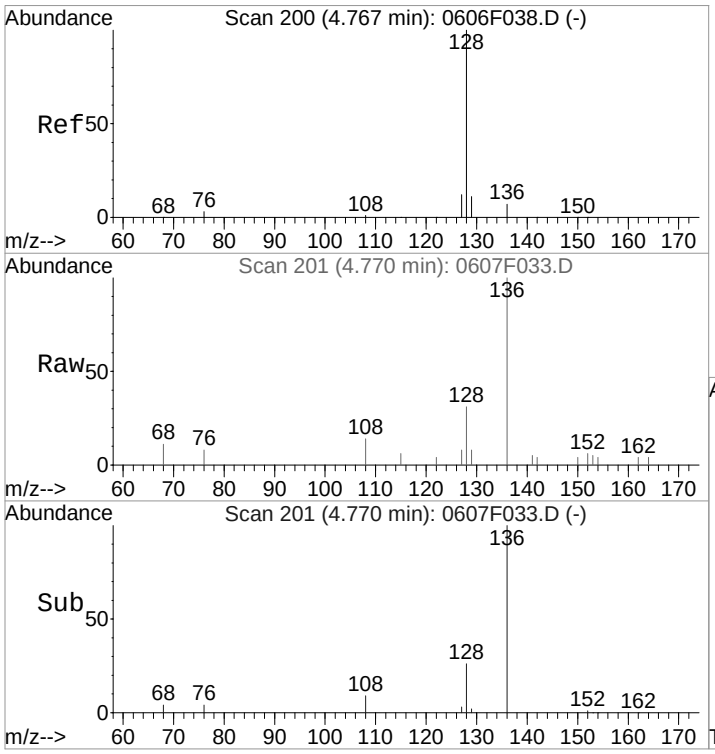
1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F033.D Vial: 29
Acq On : 7 Jun 2019 11:57 pm Operator: LWeiskopf
Sample : KQ1907688-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:59 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration



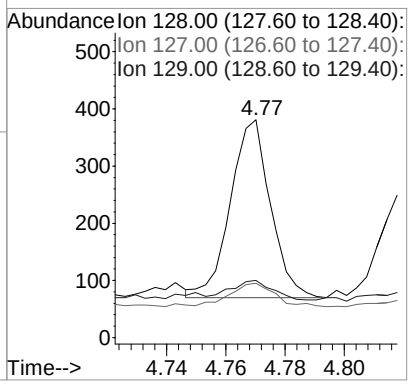
1st 06/17/19
2nd 06/17/19

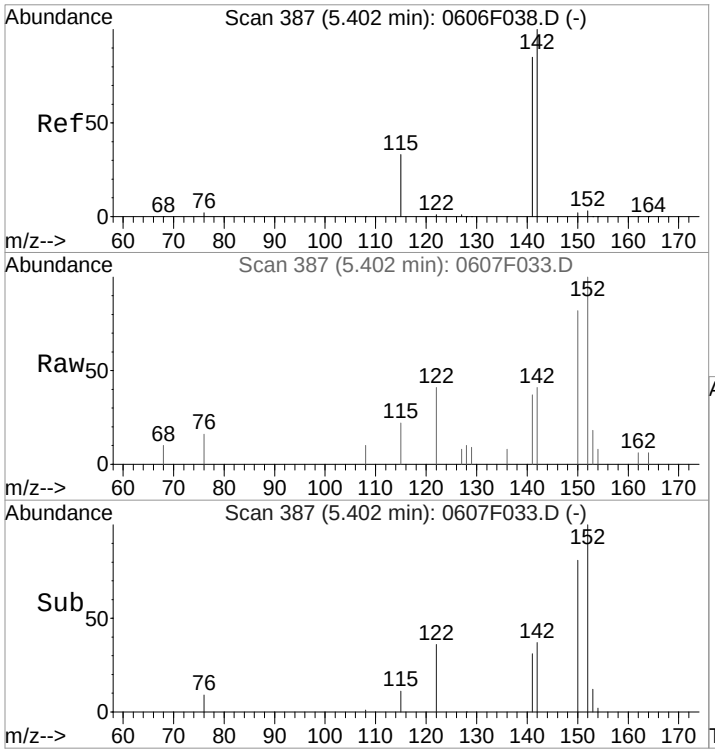


#2
Naphthalene
Concen: 0.73 ng/ml
RT: 4.77 min Scan# 201
Delta R.T. -0.00 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:128 Resp: 292

Ion	Ratio	Lower	Upper
128	100		
127	13.2	0.0	42.3
129	9.6	0.0	30.8

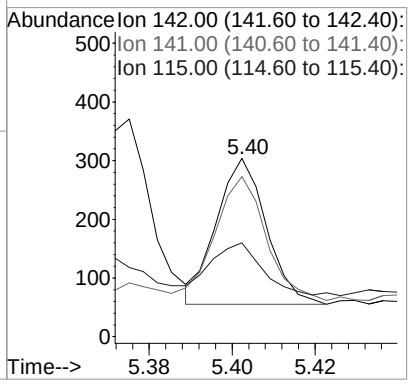


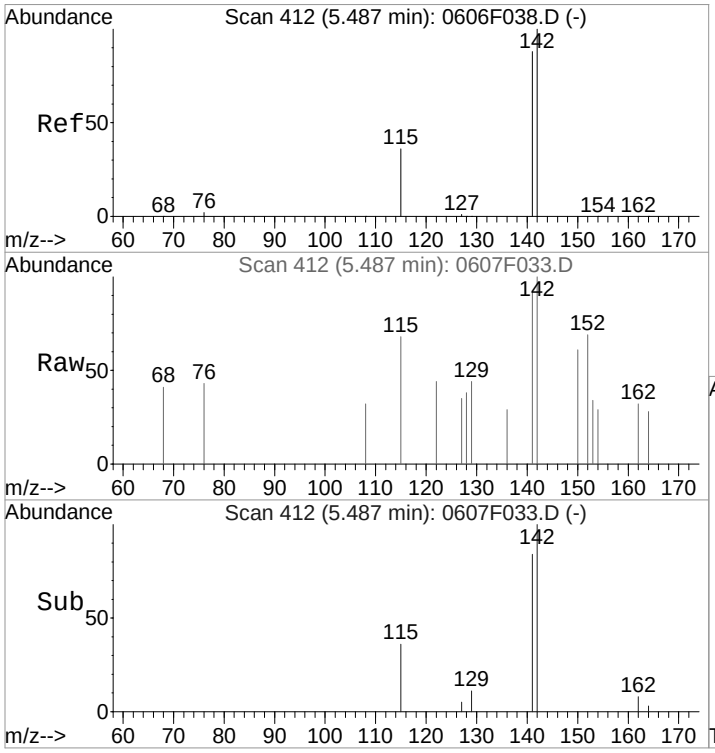


#4
2-Methylnaphthalene
Concen: 0.77 ng/ml
RT: 5.40 min Scan# 387
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:142 Resp: 209

Ion	Ratio	Lower	Upper
142	100		
141	84.7	52.7	112.7
115	34.1	8.2	48.2

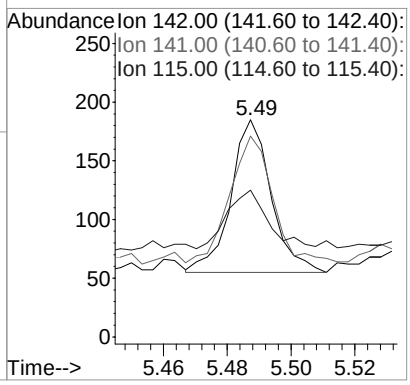


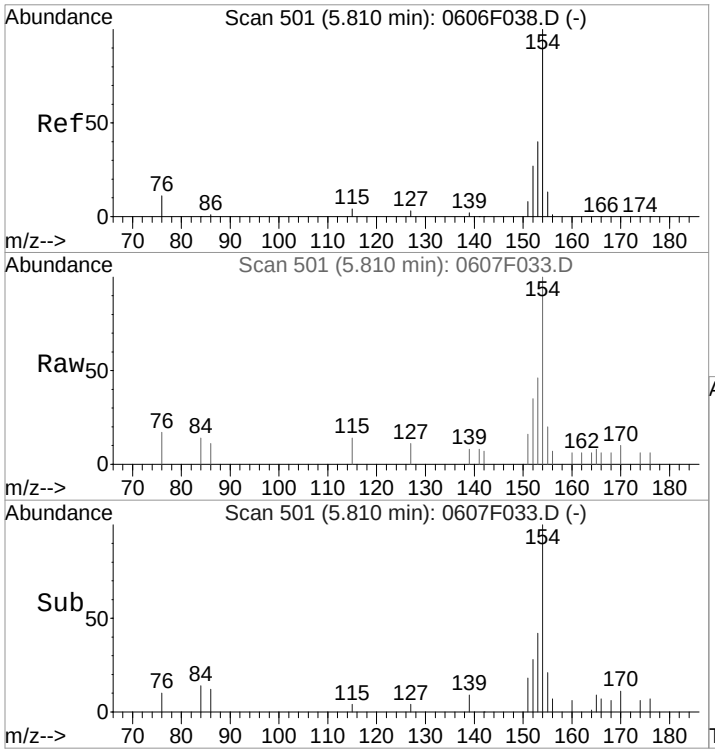


#5
1-Methylnaphthalene
Concen: 0.45 ng/ml
RT: 5.49 min Scan# 412
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:142 Resp: 114

Ion	Ratio	Lower	Upper
142	100		
141	83.1	55.8	115.8
115	35.4	10.1	50.1

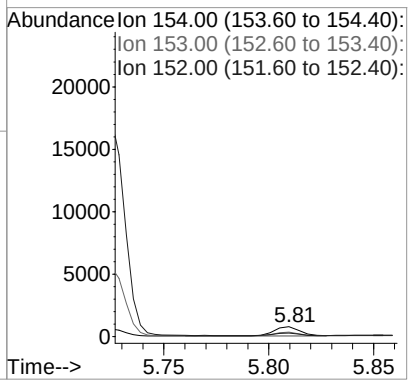




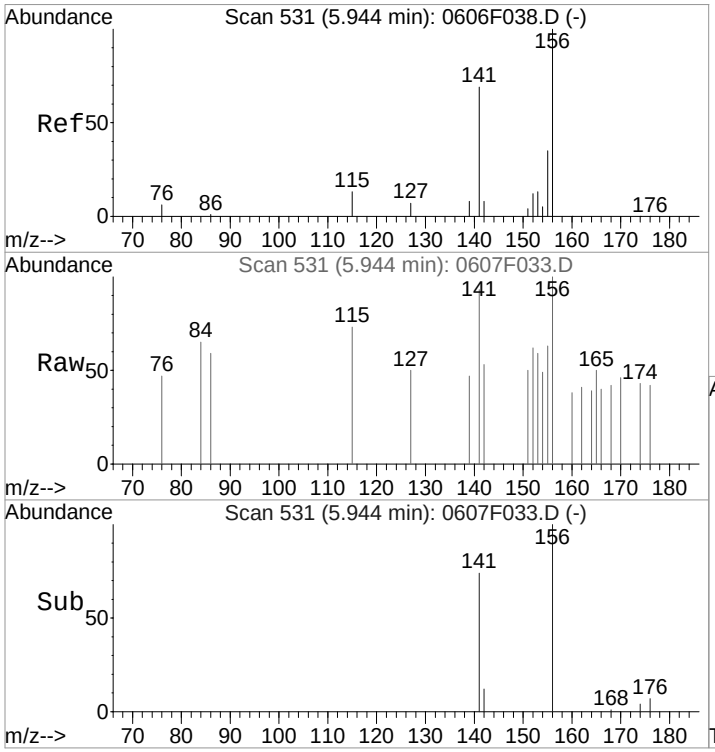
#6
Biphenyl
Concen: 1.95 ng/ml
RT: 5.81 min Scan# 501
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:154 Resp: 666

Ion	Ratio	Lower	Upper
154	100		
153	39.4	8.2	68.2
152	26.6	6.1	46.1



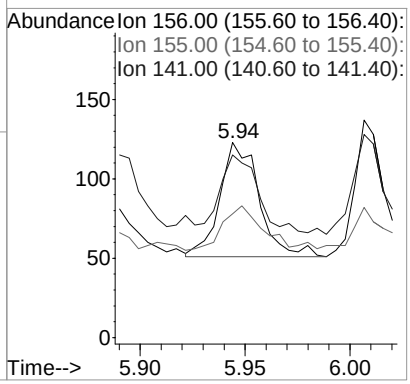
1st 06/17/19
2nd 06/17/19

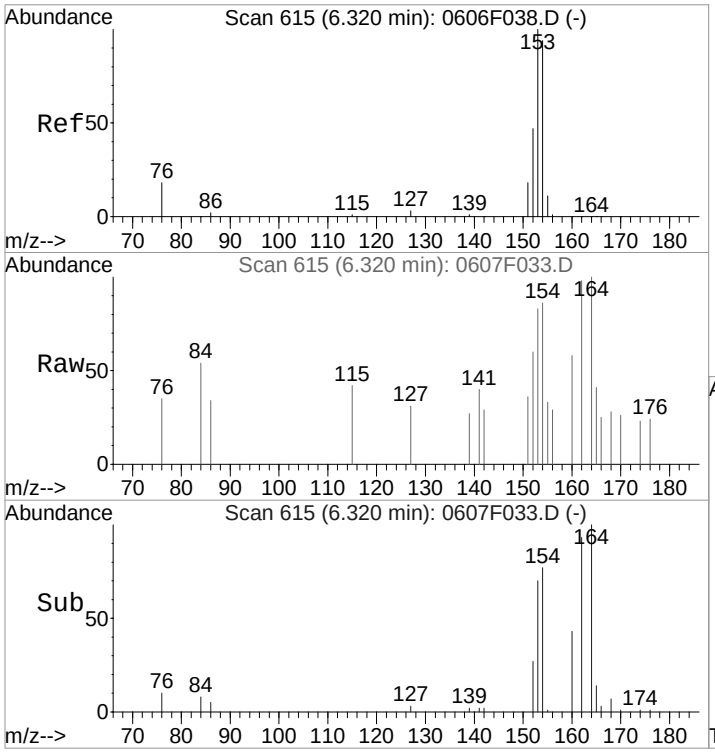


#7
2,6-Dimethylnaphthalene
Concen: 0.39 ng/ml
RT: 5.94 min Scan# 531
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:156 Resp: 94

Ion	Ratio	Lower	Upper
156	100		
155	31.9	3.3	63.3
141	69.4	40.6	80.6

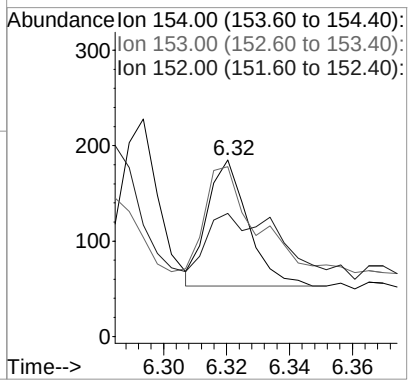


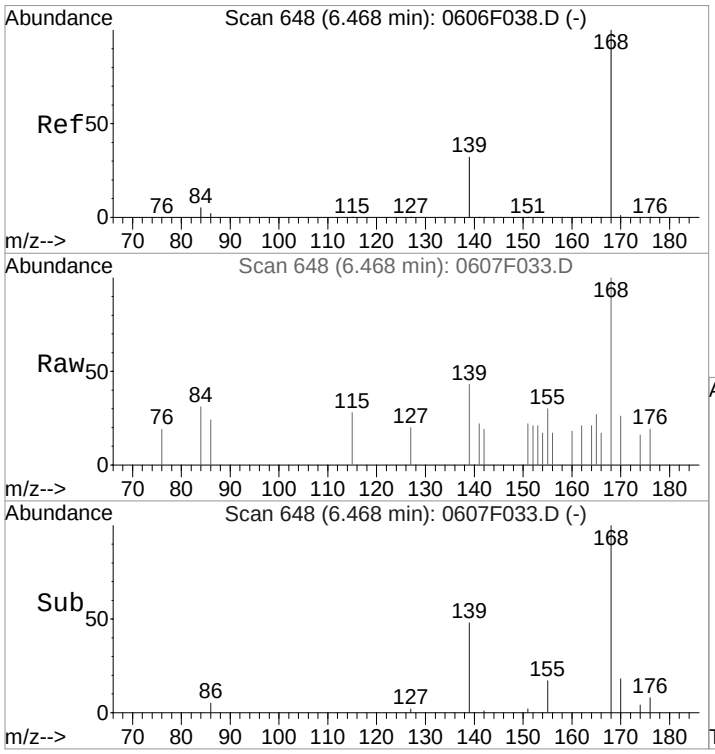


#10
Acenaphthene
Concen: 0.52 ng/ml
RT: 6.32 min Scan# 615
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:154 Resp: 119

Ion	Ratio	Lower	Upper
154	100		
153	81.1	72.8	132.8
152	46.2	17.7	77.7

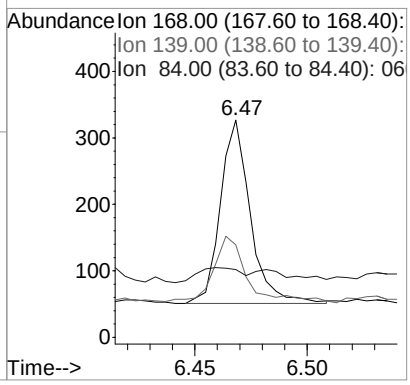


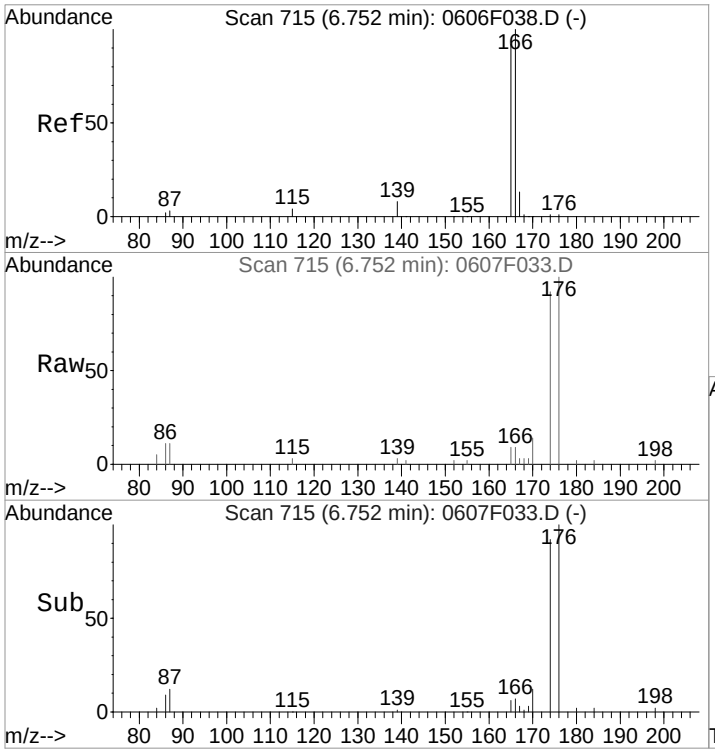


#11
Dibenzofuran
Concen: 0.71 ng/ml
RT: 6.47 min Scan# 648
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:168 Resp: 255

Ion	Ratio	Lower	Upper
168	100		
139	30.4	0.0	54.7
84	6.2	0.0	22.9

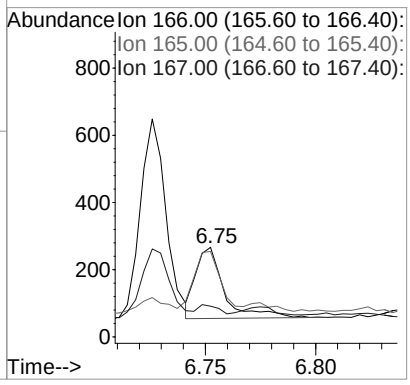




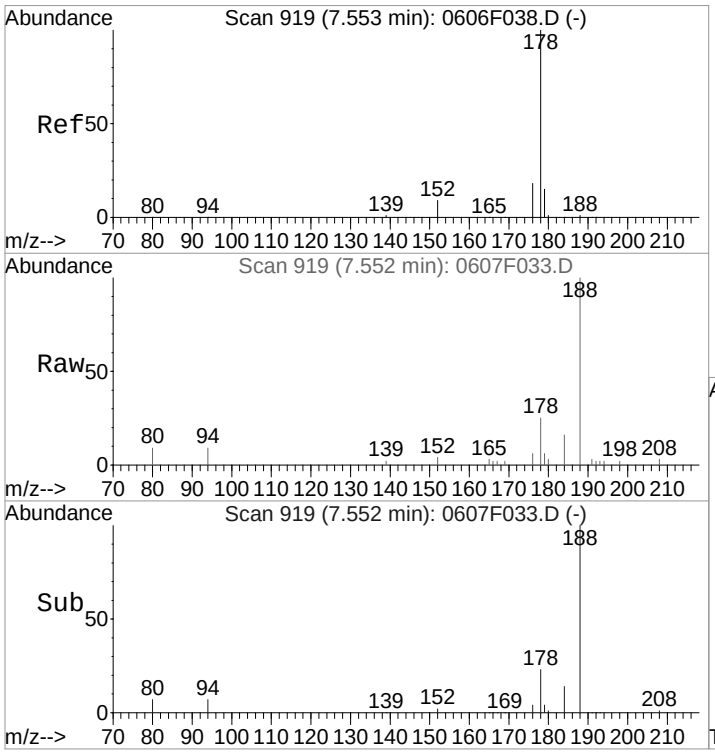
#14
Fluorene
Concen: 0.68 ng/ml
RT: 6.75 min Scan# 715
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:166 Resp: 191

Ion	Ratio	Lower	Upper
166	100		
165	85.1	59.0	119.0
167	9.6	0.0	33.1



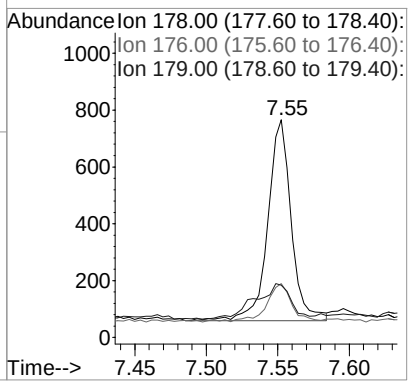
1st 06/17/19
2nd 06/17/19

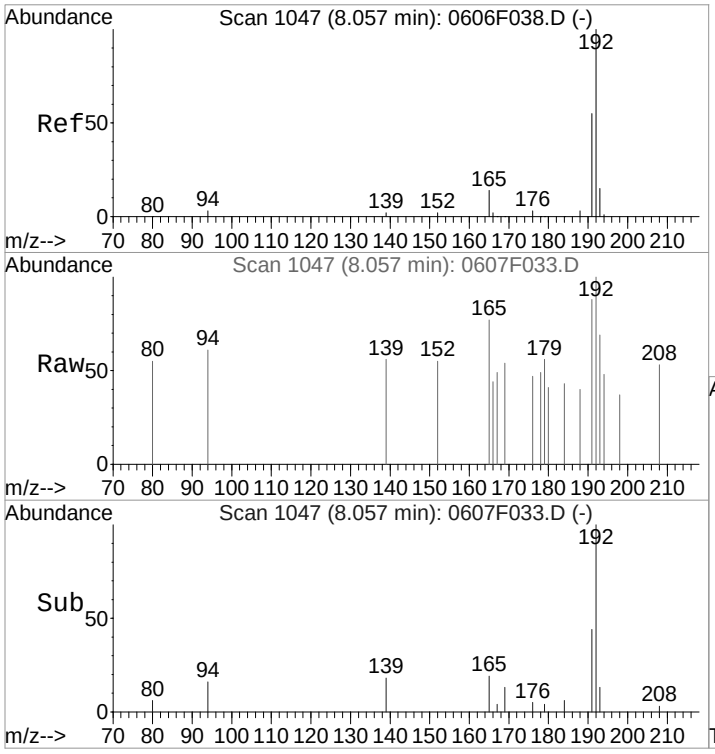


#17
Phenanthrene
Concen: 1.94 ng/ml
RT: 7.55 min Scan# 919
Delta R.T. -0.00 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:178 Resp: 810

Ion	Ratio	Lower	Upper
178	100		
176	18.2	0.0	48.4
179	16.5	0.0	35.2

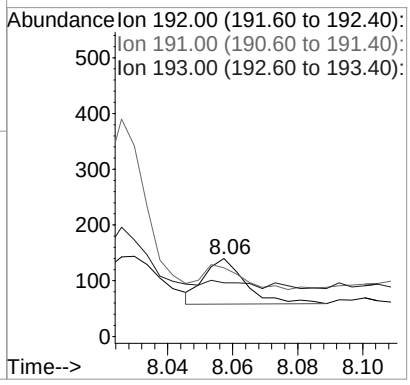




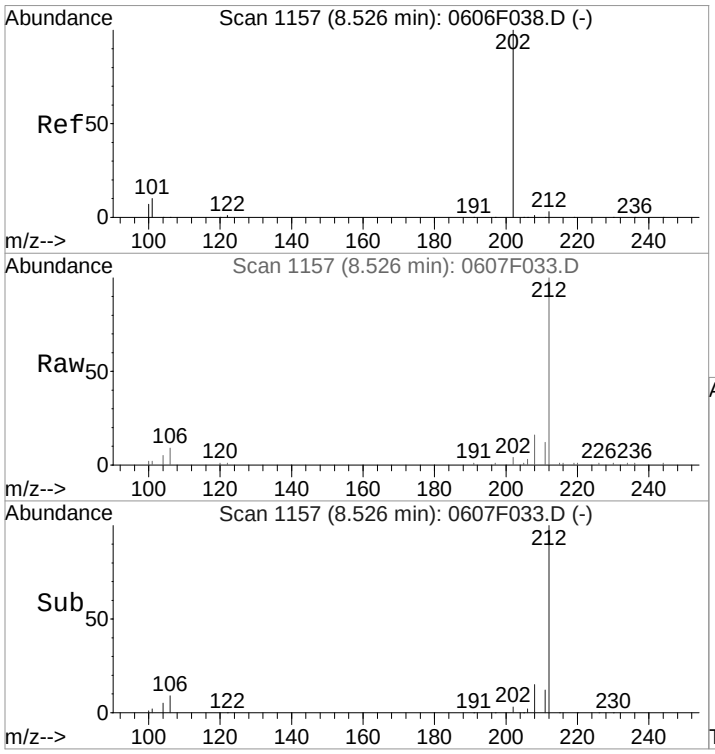
#20
1-Methylphenanthrene
Concen: 0.23 ng/ml
RT: 8.06 min Scan# 1047
Delta R.T. -0.00 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:192 Resp: 72

Ion	Ratio	Lower	Upper
192	100		
191	43.2	23.2	83.2
193	12.3	0.0	45.5



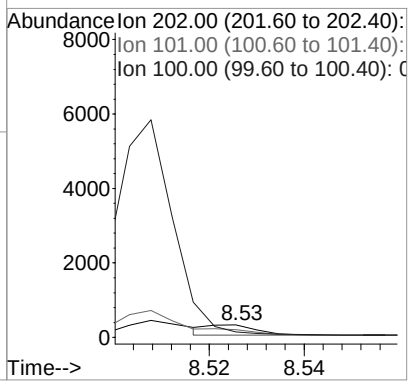
1st 06/17/19
2nd 06/17/19

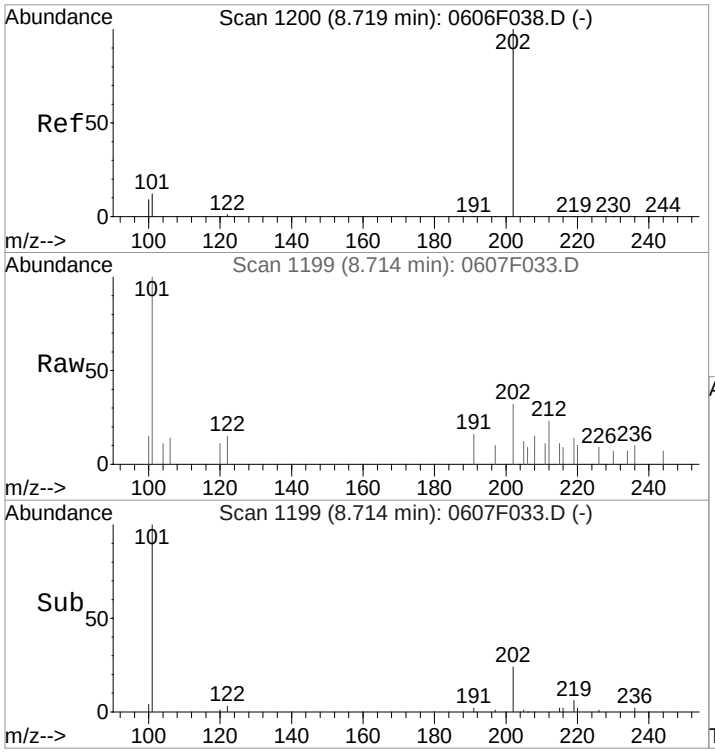


#21
Fluoranthene
Concen: 0.39 ng/ml m
RT: 8.53 min Scan# 1157
Delta R.T. -0.00 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:202 Resp: 193

Ion	Ratio	Lower	Upper
202	100		
101	62.2	0.0	37.0#
100	44.1	0.0	24.7#

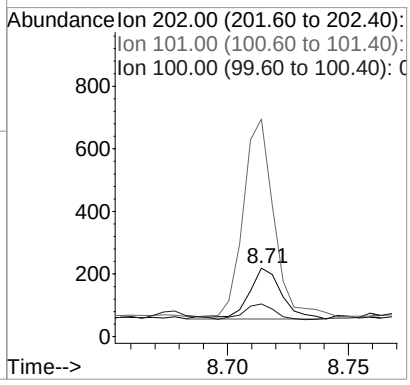




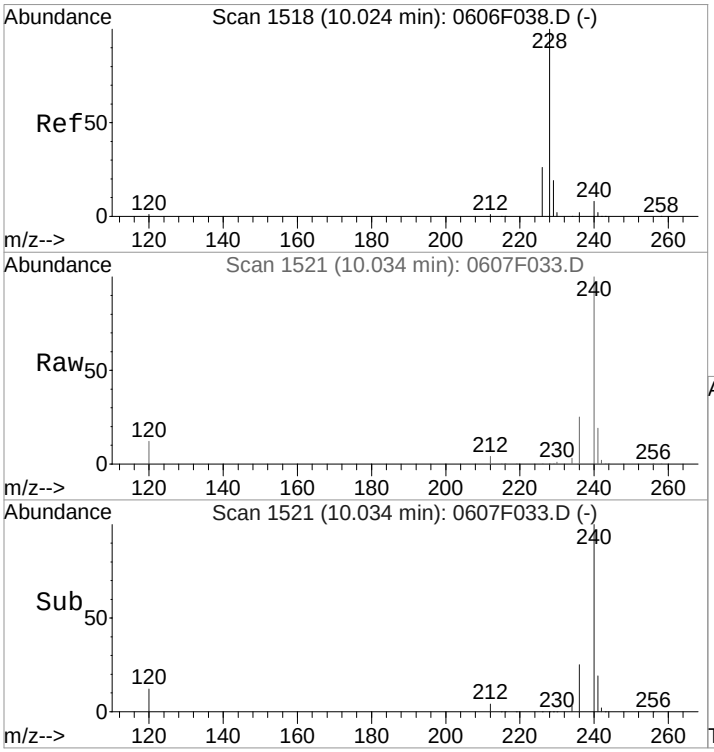
#24
Pyrene
Concen: 0.26 ng/ml
RT: 8.71 min Scan# 1199
Delta R.T. -0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:202 Resp: 155

Ion	Ratio	Lower	Upper
202	100		
101	387.1	0.0	38.8#
100	28.2	0.0	26.4#



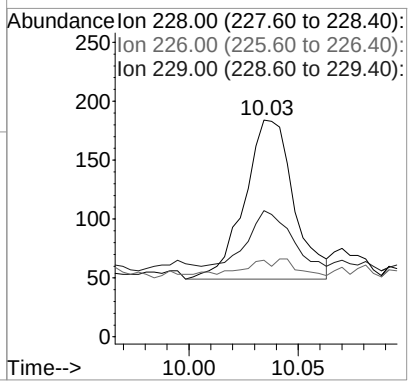
1st 06/17/19
2nd 06/17/19



#26
Benz(a)anthracene
Concen: 0.44 ng/ml
RT: 10.03 min Scan# 1521
Delta R.T. 0.01 min
Lab File: 0607F033.D
Acq: 7 Jun 2019 11:57 pm

Tgt Ion:228 Resp: 211

Ion	Ratio	Lower	Upper
228	100		
226	9.6	0.0	55.6
229	34.8	0.0	39.5



Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F033.D Vial: 29
Acq On : 7 Jun 2019 11:57 pm Operator: LWeiskopf
Sample : KQ1907688-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:13:42 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	74479m	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.29	164	37449	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.53	188	69657	200.00	ng/ml	0.00
23) Chrysene-d12	10.04	240	74280	200.00	ng/ml	0.00
28) Perylene-d12	13.07	264	84508	200.00	ng/ml	0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.38	152	180715	962.19	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	96.22%		
13) Fluorene-d10	6.73	176	203520	956.07	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	95.61%		
22) Fluoranthene-d10	8.51	212	386782	947.59	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	94.76%		
25) Terphenyl-d14	8.85	244	222082	646.52	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	64.65%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	292	0.73	ng/ml	97
4) 2-Methylnaphthalene	5.40	142	209	0.77	ng/ml	95
5) 1-Methylnaphthalene	5.49	142	114	0.45	ng/ml	95
6) Biphenyl	5.81	154	666	1.95	ng/ml	98
7) 2,6-Dimethylnaphthalene	5.94	156	94	0.39	ng/ml	92
10) Acenaphthene	6.32	154	119	0.52	ng/ml	85
11) Dibenzofuran	6.47	168	255	0.71	ng/ml	89
14) Fluorene	6.75	166	191	0.68	ng/ml	95
17) Phenanthrene	7.55	178	810	1.94	ng/ml	98
20) 1-Methylphenanthrene	8.06	192	72	0.23	ng/ml	87
21) Fluoranthene	8.53	202	193m	0.39	ng/ml	
24) Pyrene	8.71	202	155	0.26	ng/ml#	1
26) Benz(a)anthracene	10.03	228	211	0.44	ng/ml	68

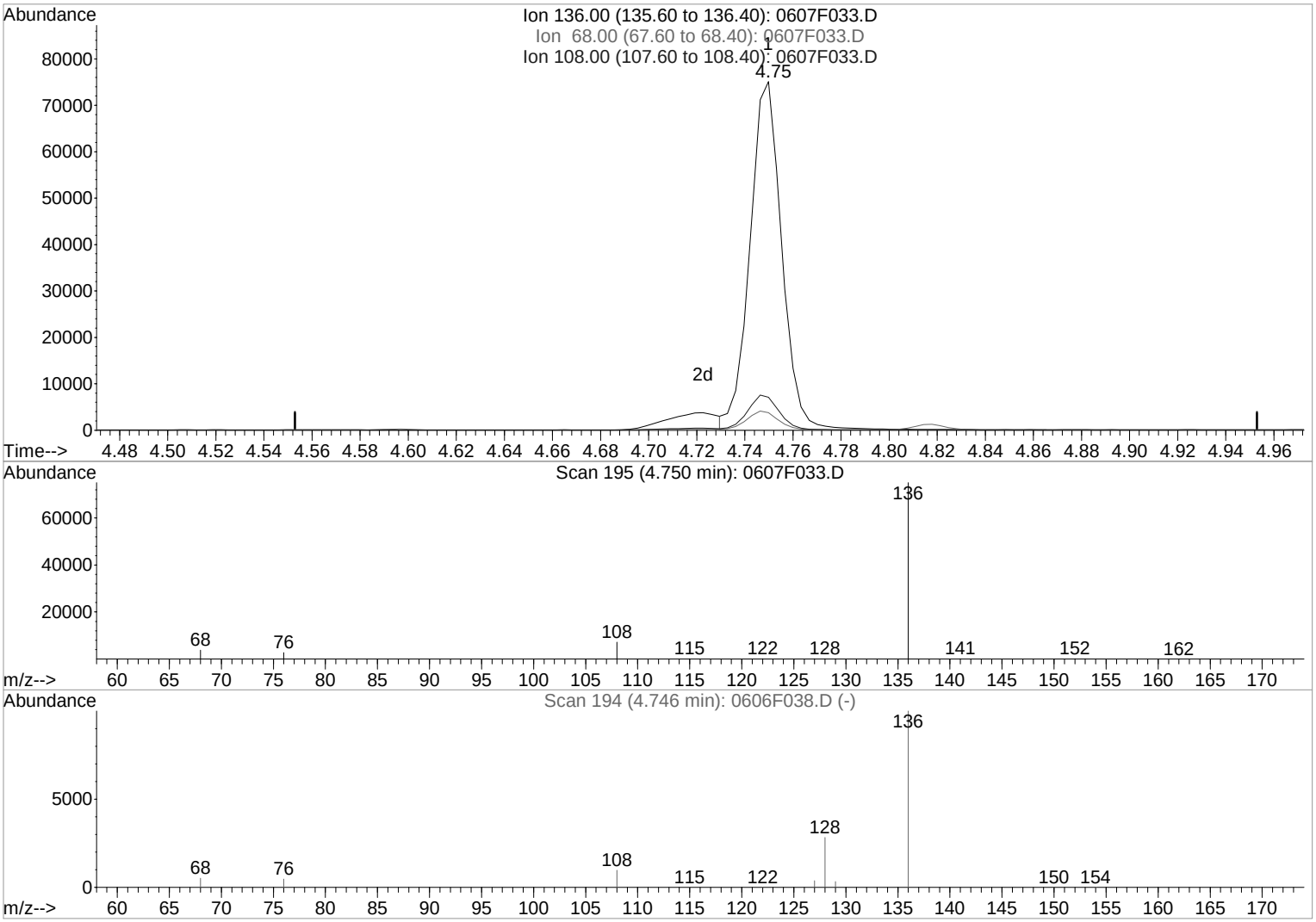
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F033.D Vial: 29
Acq On : 7 Jun 2019 11:57 pm Operator: LWeiskopf
Sample : KQ1907688-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:13 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F033.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml

response 69069

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	4.92
108.00	8.80	9.38
0.00	0.00	0.00

Manual Integration:

Before

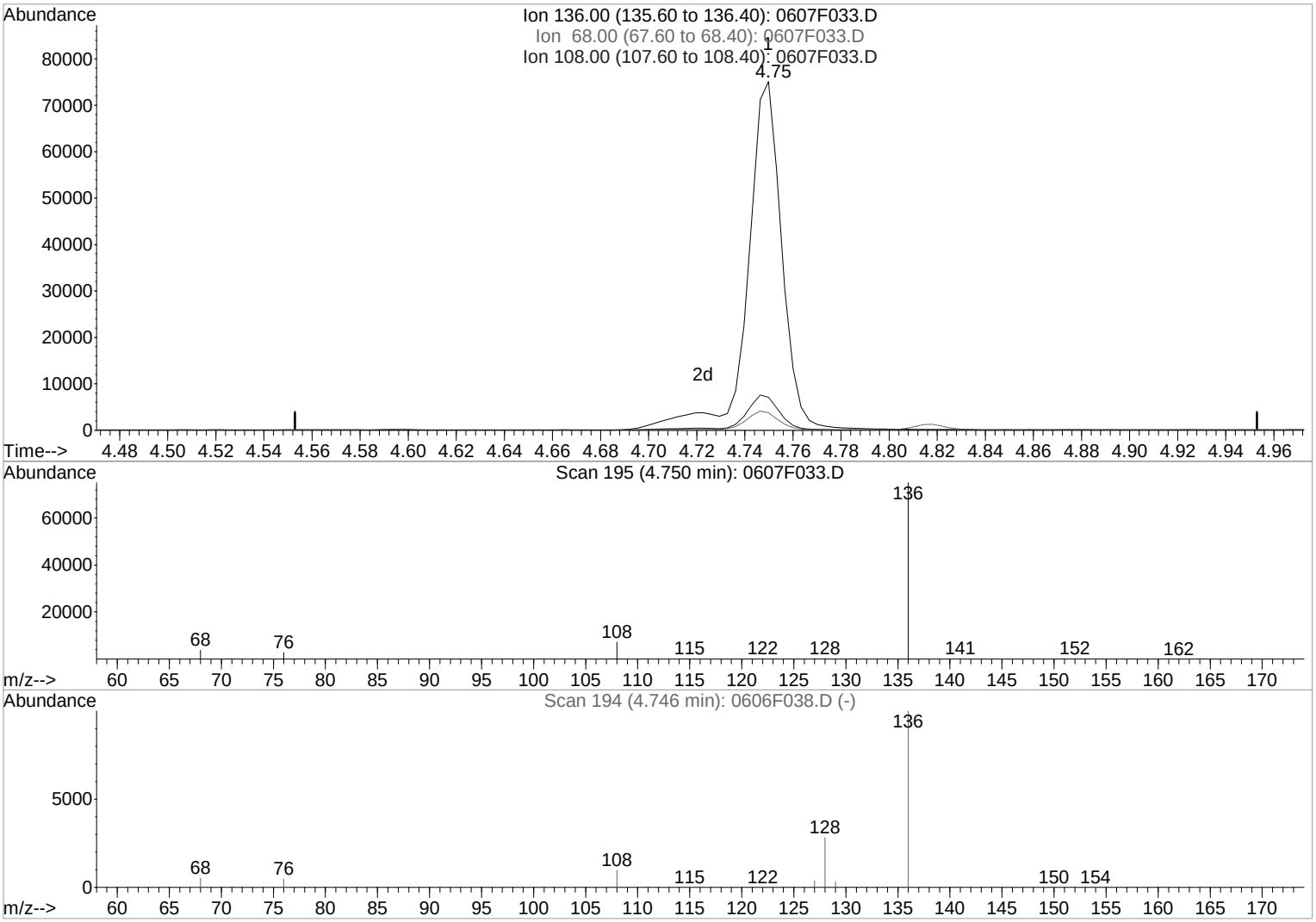
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F033.D Vial: 29
Acq On : 7 Jun 2019 11:57 pm Operator: LWeiskopf
Sample : KQ1907688-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:57 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F033.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml m

response 74479

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.02
108.00	8.80	9.45
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

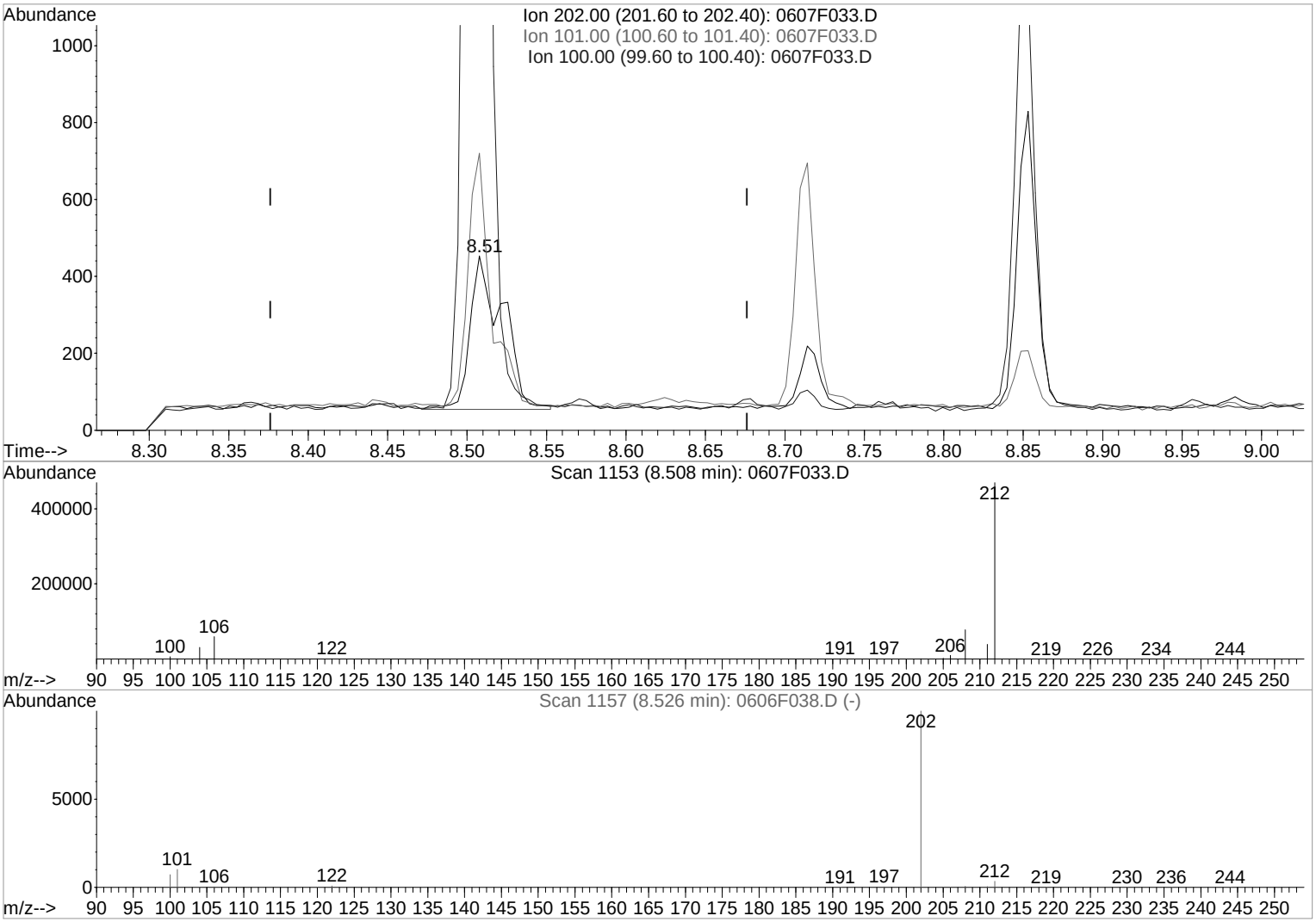
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F033.D Vial: 29
Acq On : 7 Jun 2019 11:57 pm Operator: LWeiskopf
Sample : KQ1907688-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:58 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F033.D

(21) Fluoranthene (T)

8.51min 1.17ng/ml

response 575

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	164.16#
100.00	4.70	1450.13#
0.00	0.00	0.00

Manual Integration:

Before

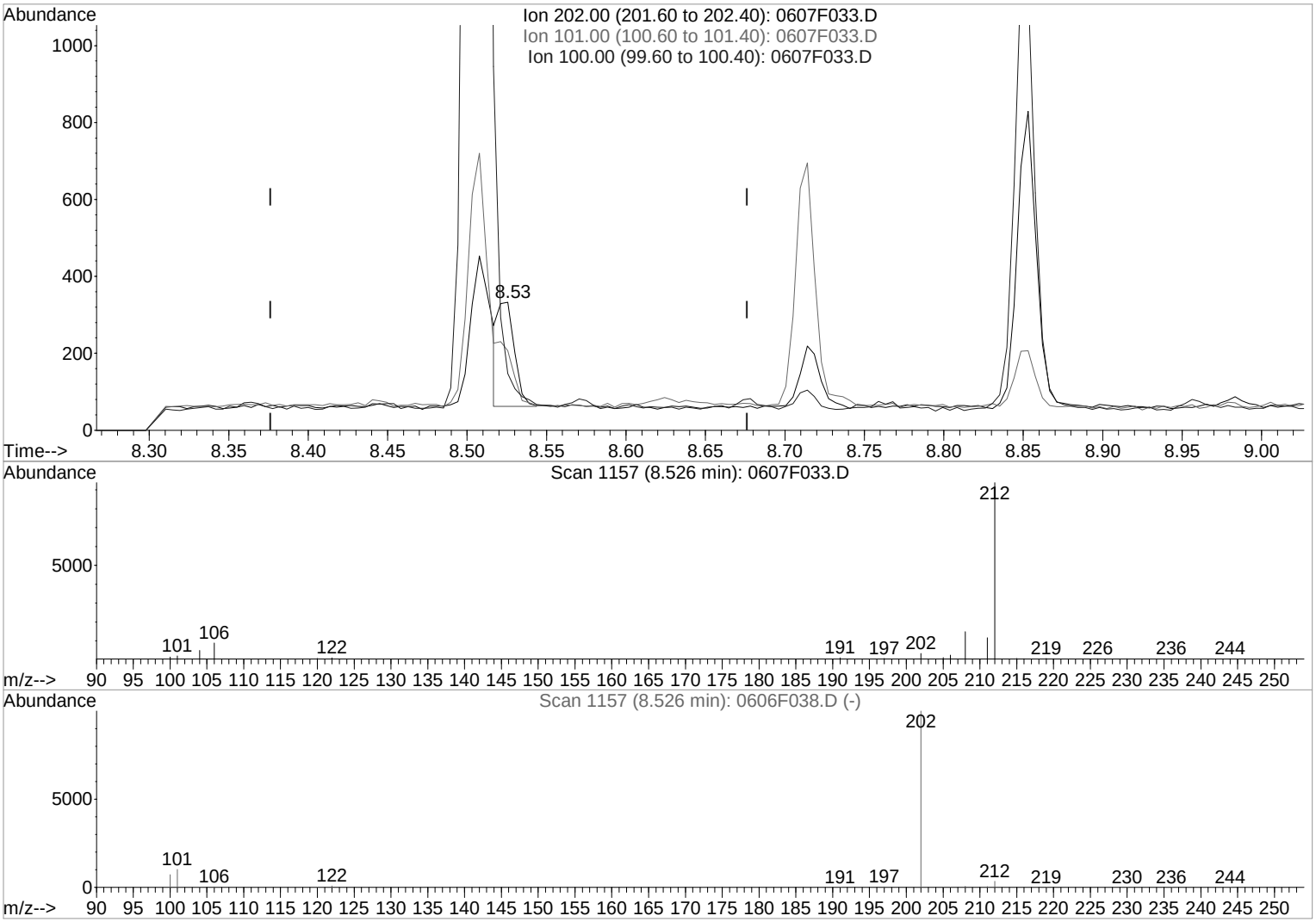
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F033.D Vial: 29
Acq On : 7 Jun 2019 11:57 pm Operator: LWeiskopf
Sample : KQ1907688-3 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:58 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F033.D

(21) Fluoranthene (T)

8.53min 0.39ng/ml m

response 193

Ion	Exp%	Act%
202.00	100	100
101.00	7.00	62.16#
100.00	4.70	44.14#
0.00	0.00	0.00

Manual Integration:

After

WP

06/17/19

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F034.D\
Lab ID: KQ1907688-01
RunType: LCS
Matrix: Water

Date Acquired: 6/8/19 00:24:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F034.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 00:24:00	**Vial:**	10
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1907688-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	638644	**Prep Lot:**	338019	**Report Group:**	KQ1907688
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/5/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		34903	200.00	OK
Chrysene-d12	10.04		70308	200.00	OK
Naphthalene-d8	4.75	+0.01	72667	200.00	OK
Perylene-d12	13.07	-0.01	80034	200.00	OK
Phenanthrene-d10	7.52	-0.01	63962	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.51		373043	995.30	100	42 - 133	Y
Fluorene-d10	6.73		189840	956.86	96	42 - 131	Y
Terphenyl-d14	8.85	-0.01	207873	639.35	64	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.40		142685	537.08	2.39		Y
Acenaphthene	6.32		130929	612.33	2.72		Y
Acenaphthylene	6.17		218046	619.04	2.75		Y
Anthracene	7.59	-0.01	233351	667.18	2.97		Y
Benz(a)anthracene	10.02	-0.01	281353	620.81	2.76		Y
Benzo(a)pyrene	12.90	-0.01	275661	676.55	3.01		Y
Benzo(b)fluoranthene	12.05	-0.01	314444	618.06	2.75		Y
Benzo(g,h,i)perylene	15.72	-0.01	272710	501.19	2.23		Y
Benzo(k)fluoranthene	12.12		296129	617.57	2.74		Y
Chrysene	10.07	-0.01	261890	594.81	2.64		Y
Dibenz(a,h)anthracene	15.39		252770	587.08	2.61		Y
Dibenzofuran	6.47		198469	591.63	2.63		Y
Fluoranthene	8.52	-0.01	263116	581.22	2.58		Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/17/19 10:31
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F034.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 00:24:00	**Vial:**	10
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1907688-01	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.75		151286	577.67	2.57		Y
Indeno(1,2,3-cd)pyrene	15.34		246726	608.25	2.70		Y
Naphthalene	4.77	+0.01	224035	575.53	2.56		Y
Phenanthrene	7.54	-0.01	228675	594.93	2.64		Y
Pyrene	8.71	-0.01	285200	514.37	2.29		Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

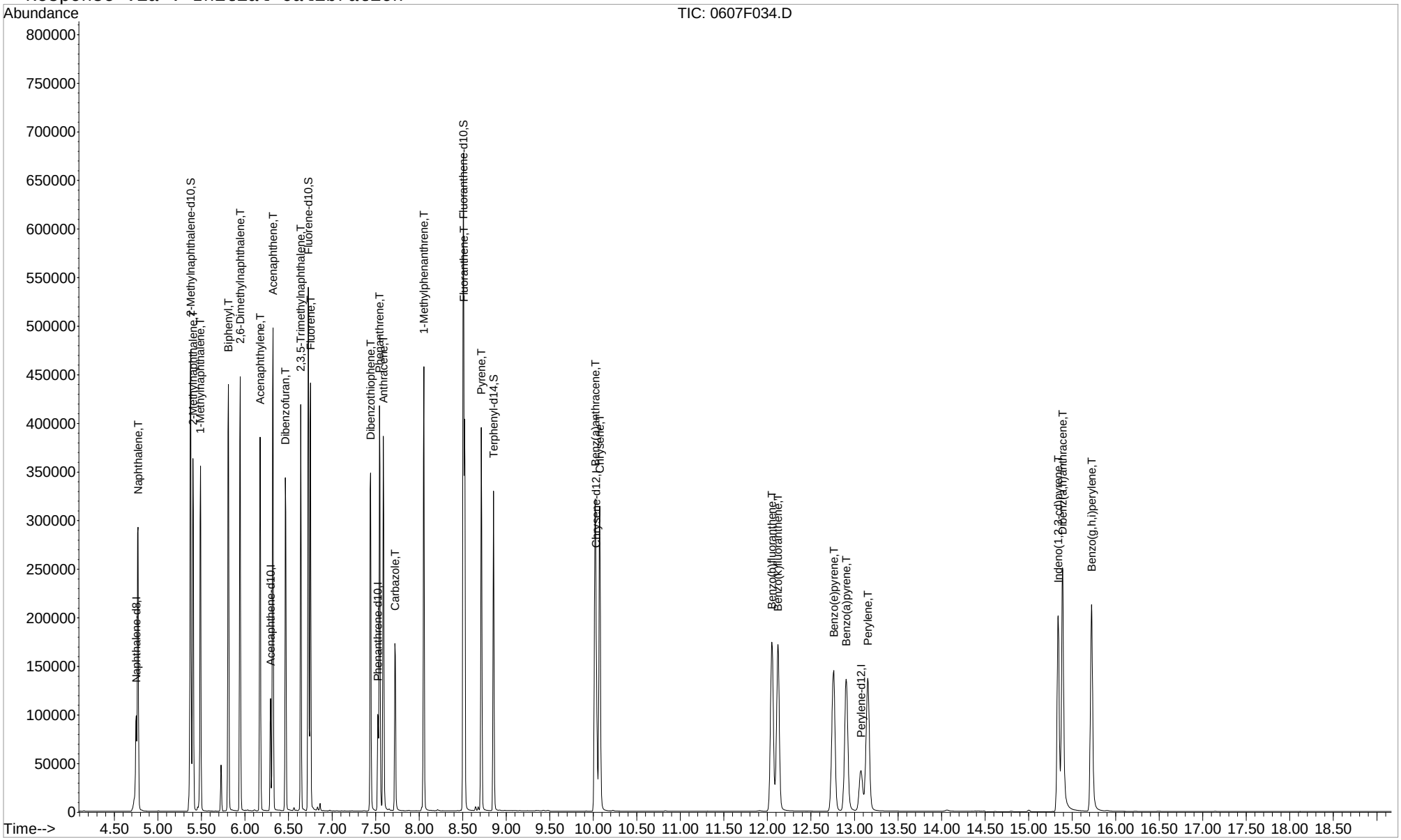
Printed: 6/17/19 10:31

\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F034.D Vial: 30
Acq On : 8 Jun 2019 12:24 am Operator: LWeiskopf
Sample : KQ1907688-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:59 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F034.D Vial: 30
Acq On : 8 Jun 2019 12:24 am Operator: LWeiskopf
Sample : KQ1907688-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:13:44 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	72667m	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.29	164	34903	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.52	188	63962	200.00	ng/ml	0.00
23) Chrysene-d12	10.04	240	70308	200.00	ng/ml	0.00
28) Perylene-d12	13.07	264	80034	200.00	ng/ml	0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.38	152	174418	951.82	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	95.18%		
13) Fluorene-d10	6.73	176	189840	956.86	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	95.69%		
22) Fluoranthene-d10	8.51	212	373043	995.30	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	99.53%		
25) Terphenyl-d14	8.85	244	207873	639.35	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	63.93%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	224035m	575.53	ng/ml	
4) 2-Methylnaphthalene	5.40	142	142685	537.08	ng/ml	96
5) 1-Methylnaphthalene	5.49	142	133058	538.55	ng/ml	96
6) Biphenyl	5.81	154	177444	533.14	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.94	156	128039	539.00	ng/ml	97
9) Acenaphthylene	6.17	152	218046	619.04	ng/ml	99
10) Acenaphthene	6.32	154	130929	612.33	ng/ml	99
11) Dibenzofuran	6.47	168	198469	591.63	ng/ml	97
12) 2,3,5-Trimethylnaphthalene	6.64	170	137338	656.58	ng/ml	83
14) Fluorene	6.75	166	151286	577.67	ng/ml	98
16) Dibenzothiophene	7.44	184	233371	641.40	ng/ml	99
17) Phenanthrene	7.54	178	228675	594.93	ng/ml	99
18) Anthracene	7.59	178	233351	667.18	ng/ml	99
19) Carbazole	7.72	167	115140	358.76	ng/ml	99
20) 1-Methylphenanthrene	8.05	192	178137	613.81	ng/ml	99
21) Fluoranthene	8.52	202	263116	581.22	ng/ml	89
24) Pyrene	8.71	202	285200	514.37	ng/ml	91
26) Benz(a)anthracene	10.02	228	281353	620.81	ng/ml	100
27) Chrysene	10.07	228	261890	594.81	ng/ml	100
29) Benzo(b)fluoranthene	12.05	252	314444	618.06	ng/ml	98
30) Benzo(k)fluoranthene	12.12	252	296129	617.57	ng/ml	98
31) Benzo(e)pyrene	12.76	252	288480	597.38	ng/ml	97
32) Benzo(a)pyrene	12.90	252	275661	676.55	ng/ml	98
33) Perylene	13.15	252	273251	613.35	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.34	276	246726	608.25	ng/ml	97
35) Dibenz(a,h)anthracene	15.39	278	252770	587.08	ng/ml	99
36) Benzo(g,h,i)perylene	15.72	276	272710	501.19	ng/ml	97

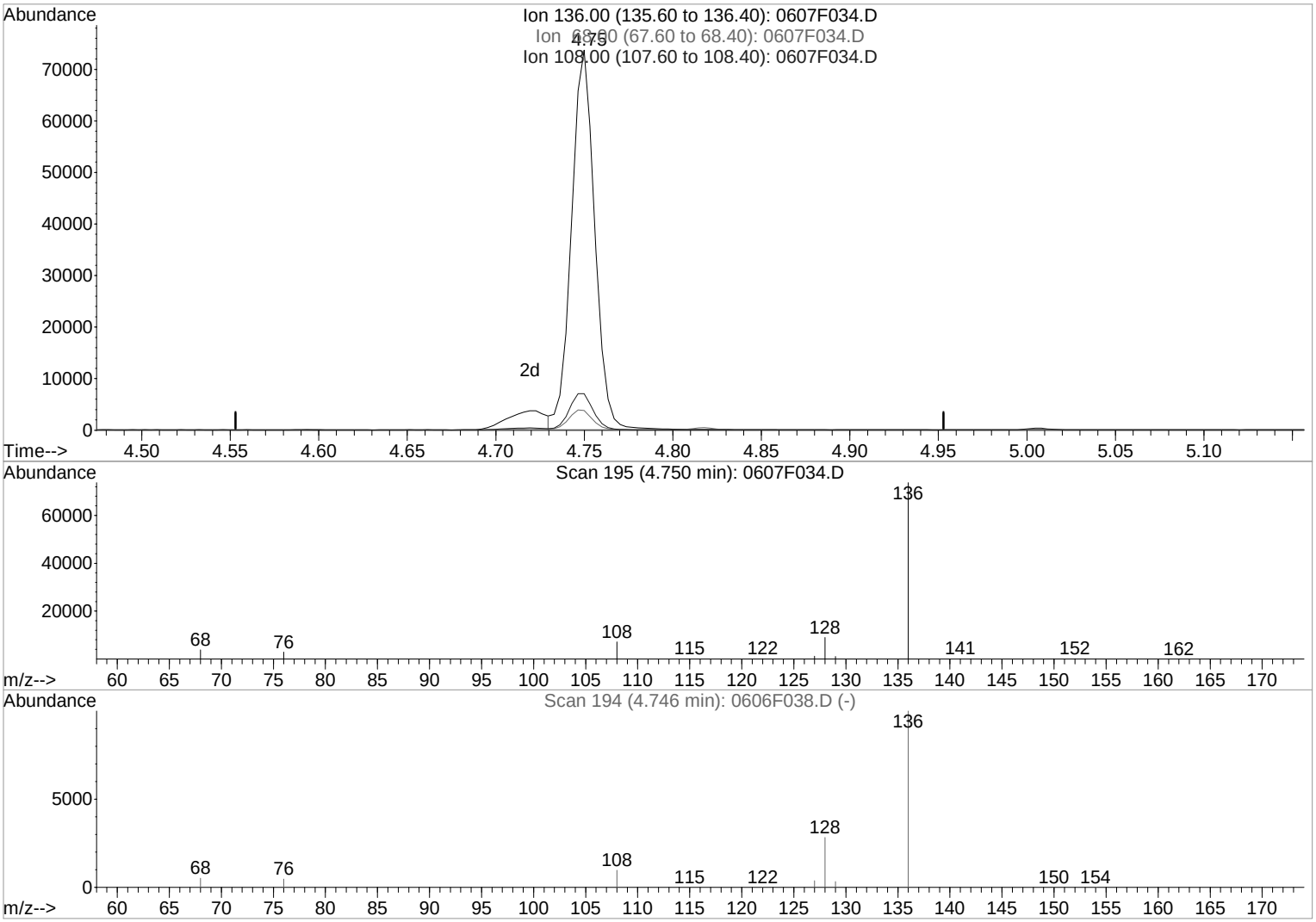
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F034.D Vial: 30
Acq On : 8 Jun 2019 12:24 am Operator: LWeiskopf
Sample : KQ1907688-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:13 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F034.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml

response 67590

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.06
108.00	8.80	9.53
0.00	0.00	0.00

Manual Integration:

Before

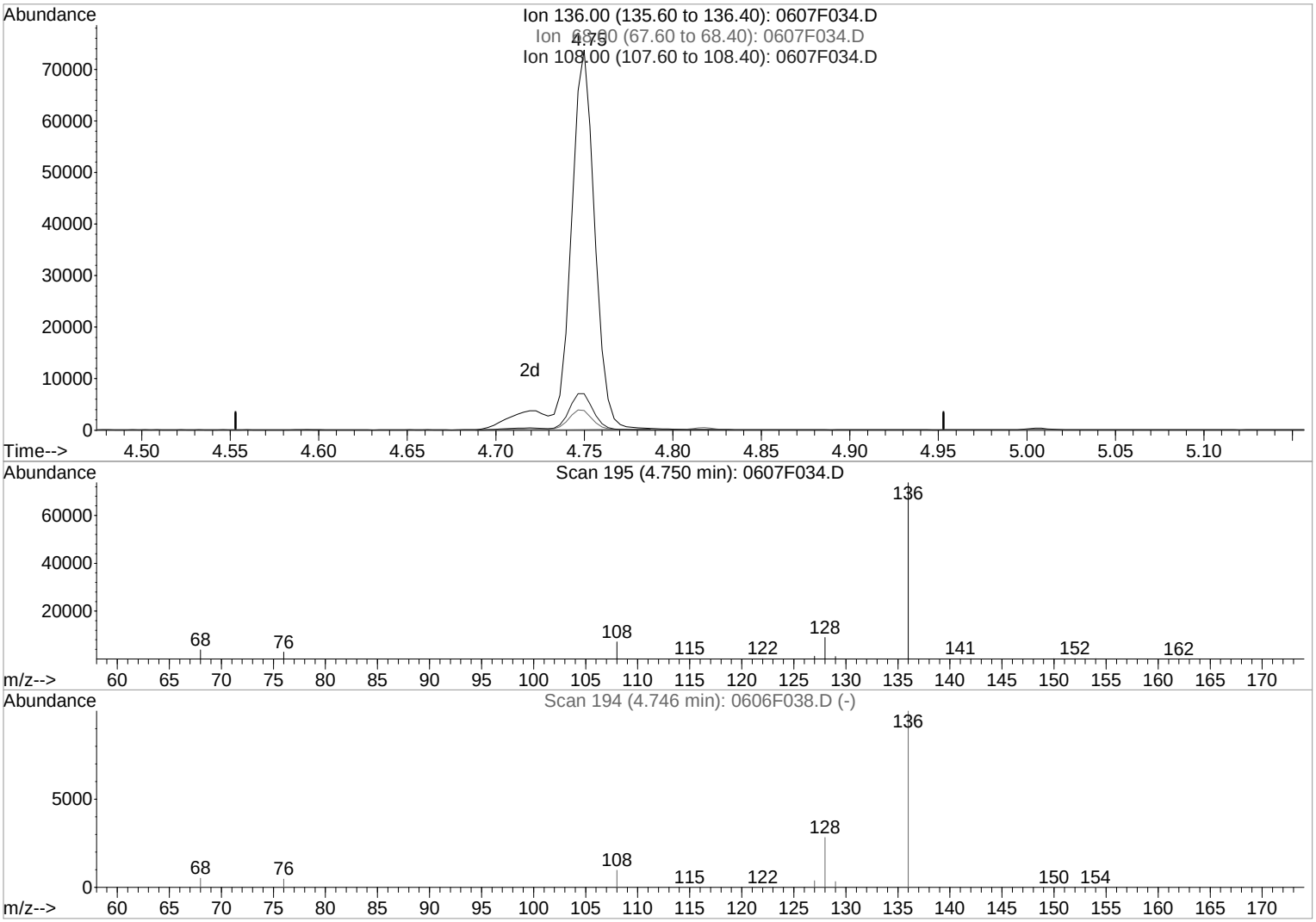
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F034.D Vial: 30
Acq On : 8 Jun 2019 12:24 am Operator: LWeiskopf
Sample : KQ1907688-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:59 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F034.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml m

response 72667

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.15
108.00	8.80	9.60
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

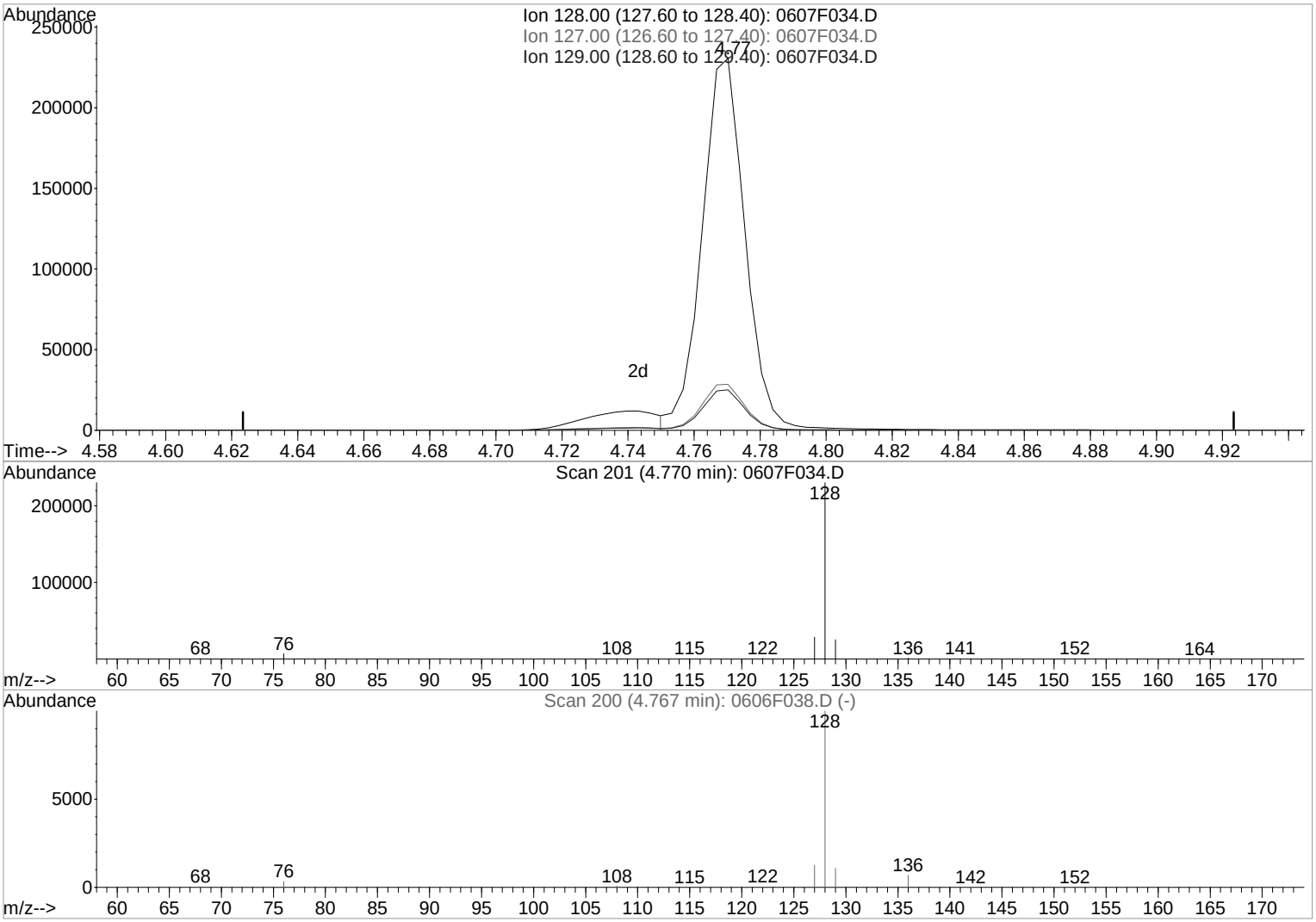
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F034.D Vial: 30
Acq On : 8 Jun 2019 12:24 am Operator: LWeiskopf
Sample : KQ1907688-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:59 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F034.D

(2) Naphthalene (T)

4.77min 536.07ng/ml

response 208677

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	12.32
129.00	10.80	10.81
0.00	0.00	0.00

Manual Integration:

Before

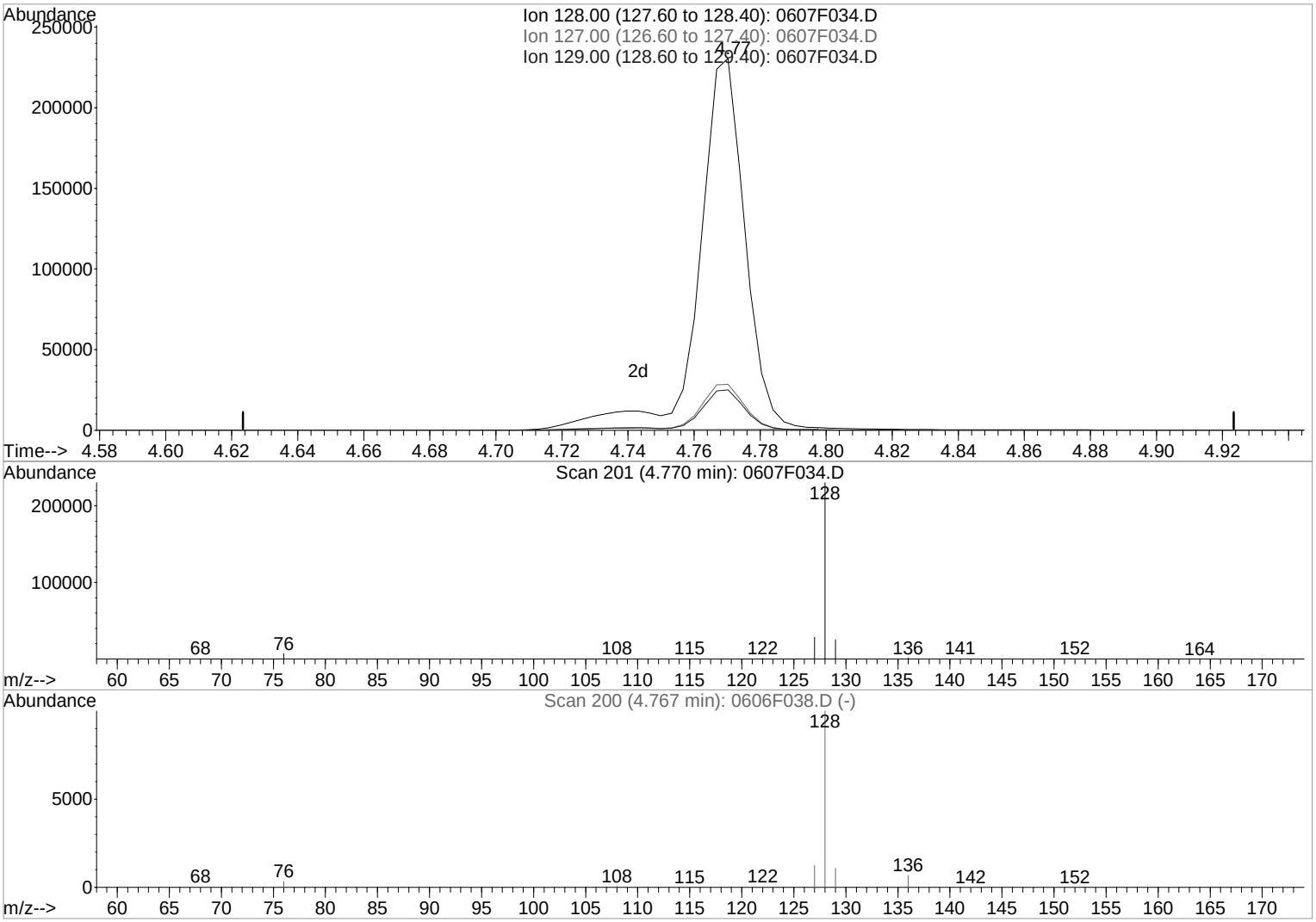
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F034.D Vial: 30
Acq On : 8 Jun 2019 12:24 am Operator: LWeiskopf
Sample : KQ1907688-1 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 8:59 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F034.D

(2) Naphthalene (T)

4.77min 575.53ng/ml m

response 224035

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	12.34
129.00	10.80	10.83
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

06/17/19

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F035.D\
Lab ID: KQ1907688-02
RunType: DLCS
Matrix: Water

Date Acquired: 6/8/19 00:51:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/17/19 10:31
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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F035.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 00:51:00	**Vial:**	11
Run Type:	DLCS	**Dilution:**	1
Lab ID:	KQ1907688-02	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	638644	**Prep Lot:**	338019	**Report Group:**	KQ1907688
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/5/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		34047	200.00	OK
Chrysene-d12	10.03	-0.01	69509	200.00	OK
Naphthalene-d8	4.75	+0.01	70913	200.00	OK
Perylene-d12	13.07	-0.01	79306	200.00	OK
Phenanthrene-d10	7.52	-0.01	63158	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.51		374660	1012.34	101	42 - 133	Y
Fluorene-d10	6.73		188586	974.43	97	42 - 131	Y
Terphenyl-d14	8.85	-0.01	233315	725.84	73	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.40		141392	545.38	2.42		Y
Acenaphthene	6.32		130087	623.69	2.77		Y
Acenaphthylene	6.17		215613	627.52	2.79		Y
Anthracene	7.59	-0.01	234097	677.83	3.01		Y
Benz(a)anthracene	10.02	-0.01	284463	634.89	2.82		Y
Benzo(a)pyrene	12.90	-0.01	280475	694.69	3.09		Y
Benzo(b)fluoranthene	12.05	-0.01	321542	637.81	2.83		Y
Benzo(g,h,i)perylene	15.72	-0.01	275530	511.02	2.27		Y
Benzo(k)fluoranthene	12.12		301006	633.50	2.82		Y
Chrysene	10.07	-0.01	266184	611.51	2.72		Y
Dibenz(a,h)anthracene	15.39		257460	603.46	2.68		Y
Dibenzofuran	6.46	-0.01	197655	604.01	2.68		Y
Fluoranthene	8.52	-0.01	265927	594.91	2.64		Y

1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F035.D\	**Instrument:**	K-MS-14
Acqu Date:	6/8/19 00:51:00	**Vial:**	11
Run Type:	DLCS	**Dilution:**	1
Lab ID:	KQ1907688-02	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.75		150403	588.74	2.62		Y
Indeno(1,2,3-cd)pyrene	15.34		246806	614.03	2.73		Y
Naphthalene	4.77	+0.01	221393	582.81	2.59		Y
Phenanthrene	7.54	-0.01	228825	602.90	2.68		Y
Pyrene	8.71	-0.01	289641	528.39	2.35		Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

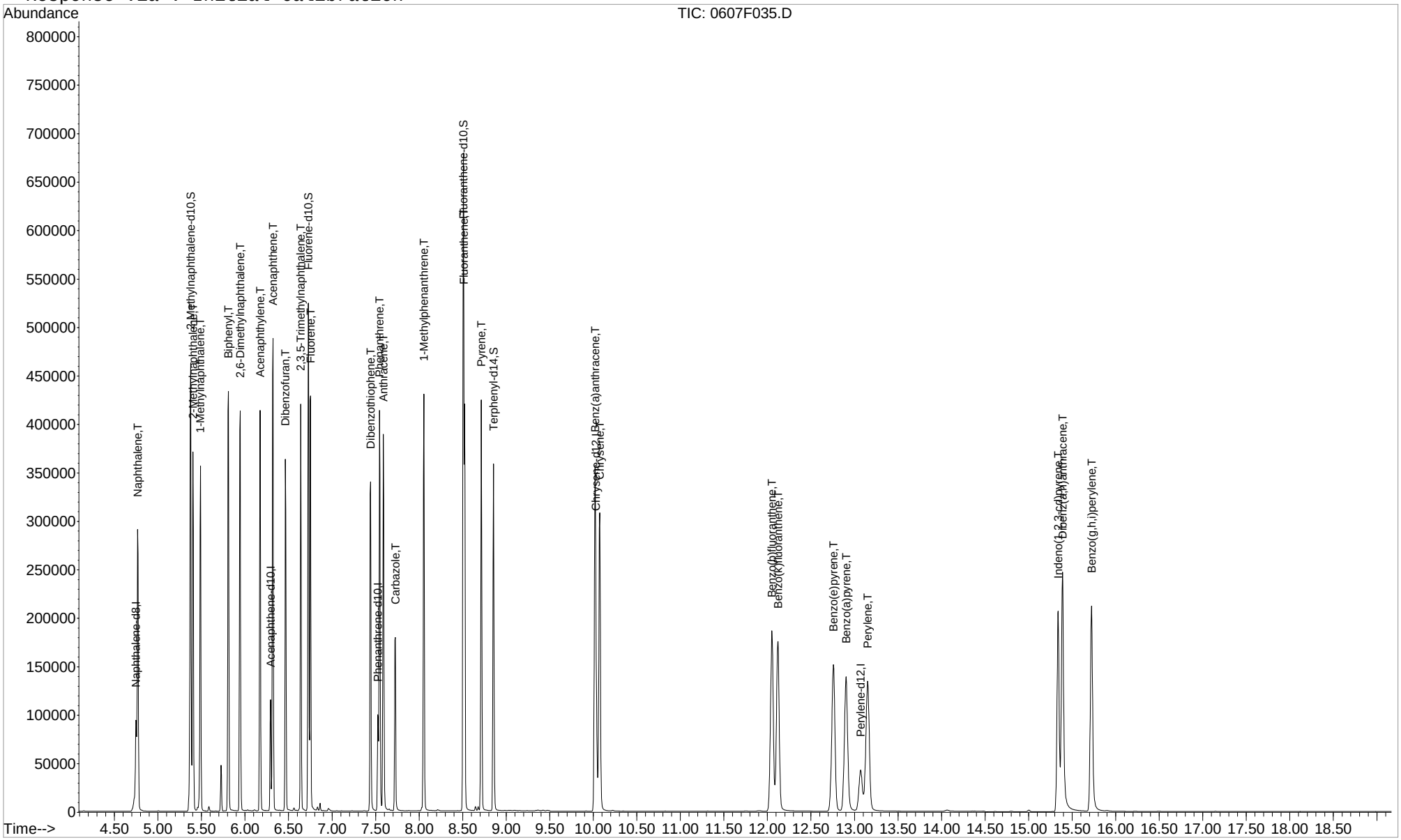
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F035.D Vial: 31
Acq On : 8 Jun 2019 12:51 am Operator: LWeiskopf
Sample : KQ1907688-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:00 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F035.D Vial: 31
Acq On : 8 Jun 2019 12:51 am Operator: LWeiskopf
Sample : KQ1907688-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:13:46 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	70913m	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.29	164	34047	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.52	188	63158	200.00	ng/ml	0.00
23) Chrysene-d12	10.03	240	69509	200.00	ng/ml	0.00
28) Perylene-d12	13.07	264	79306	200.00	ng/ml	0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.38	152	172295	963.49	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	96.35%		
13) Fluorene-d10	6.73	176	188586	974.43	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	97.44%		
22) Fluoranthene-d10	8.51	212	374660	1012.34	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	101.23%		
25) Terphenyl-d14	8.85	244	233315	725.84	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	72.58%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	221393m	582.81	ng/ml	
4) 2-Methylnaphthalene	5.40	142	141392	545.38	ng/ml	97
5) 1-Methylnaphthalene	5.49	142	131887	547.02	ng/ml	96
6) Biphenyl	5.81	154	176170	542.41	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.94	156	126280	544.75	ng/ml	97
9) Acenaphthylene	6.17	152	215613	627.52	ng/ml	99
10) Acenaphthene	6.32	154	130087	623.69	ng/ml	99
11) Dibenzofuran	6.46	168	197655	604.01	ng/ml	72
12) 2,3,5-Trimethylnaphthalene	6.64	170	137065	671.75	ng/ml	85
14) Fluorene	6.75	166	150403	588.74	ng/ml	98
16) Dibenzothiophene	7.44	184	233189	649.06	ng/ml	99
17) Phenanthrene	7.54	178	228825	602.90	ng/ml	100
18) Anthracene	7.59	178	234097	677.83	ng/ml	99
19) Carbazole	7.73	167	116610	367.97	ng/ml	99
20) 1-Methylphenanthrene	8.05	192	179185	625.28	ng/ml	98
21) Fluoranthene	8.52	202	265927	594.91	ng/ml	89
24) Pyrene	8.71	202	289641	528.39	ng/ml	92
26) Benz(a)anthracene	10.02	228	284463	634.89	ng/ml	100
27) Chrysene	10.07	228	266184	611.51	ng/ml	100
29) Benzo(b)fluoranthene	12.05	252	321542	637.81	ng/ml	98
30) Benzo(k)fluoranthene	12.12	252	301006	633.50	ng/ml	99
31) Benzo(e)pyrene	12.76	252	294284	614.99	ng/ml	97
32) Benzo(a)pyrene	12.90	252	280475	694.69	ng/ml	98
33) Perylene	13.15	252	277948	629.62	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.34	276	246806	614.03	ng/ml	97
35) Dibenz(a,h)anthracene	15.39	278	257460	603.46	ng/ml	98
36) Benzo(g,h,i)perylene	15.72	276	275530	511.02	ng/ml	97

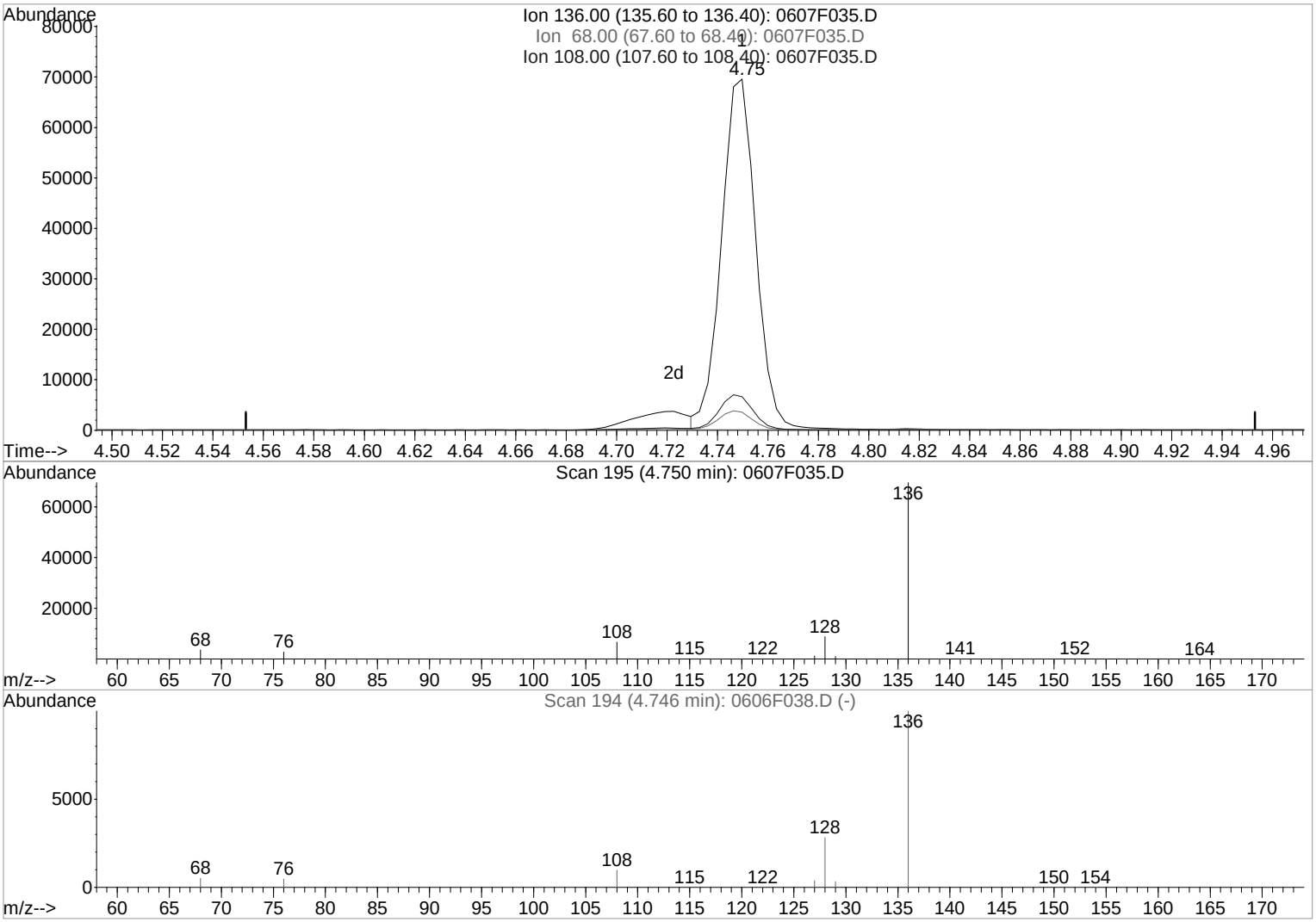
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F035.D Vial: 31
Acq On : 8 Jun 2019 12:51 am Operator: LWeiskopf
Sample : KQ1907688-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:13 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F035.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml

response 65967

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.04
108.00	8.80	9.49
0.00	0.00	0.00

Manual Integration:

Before

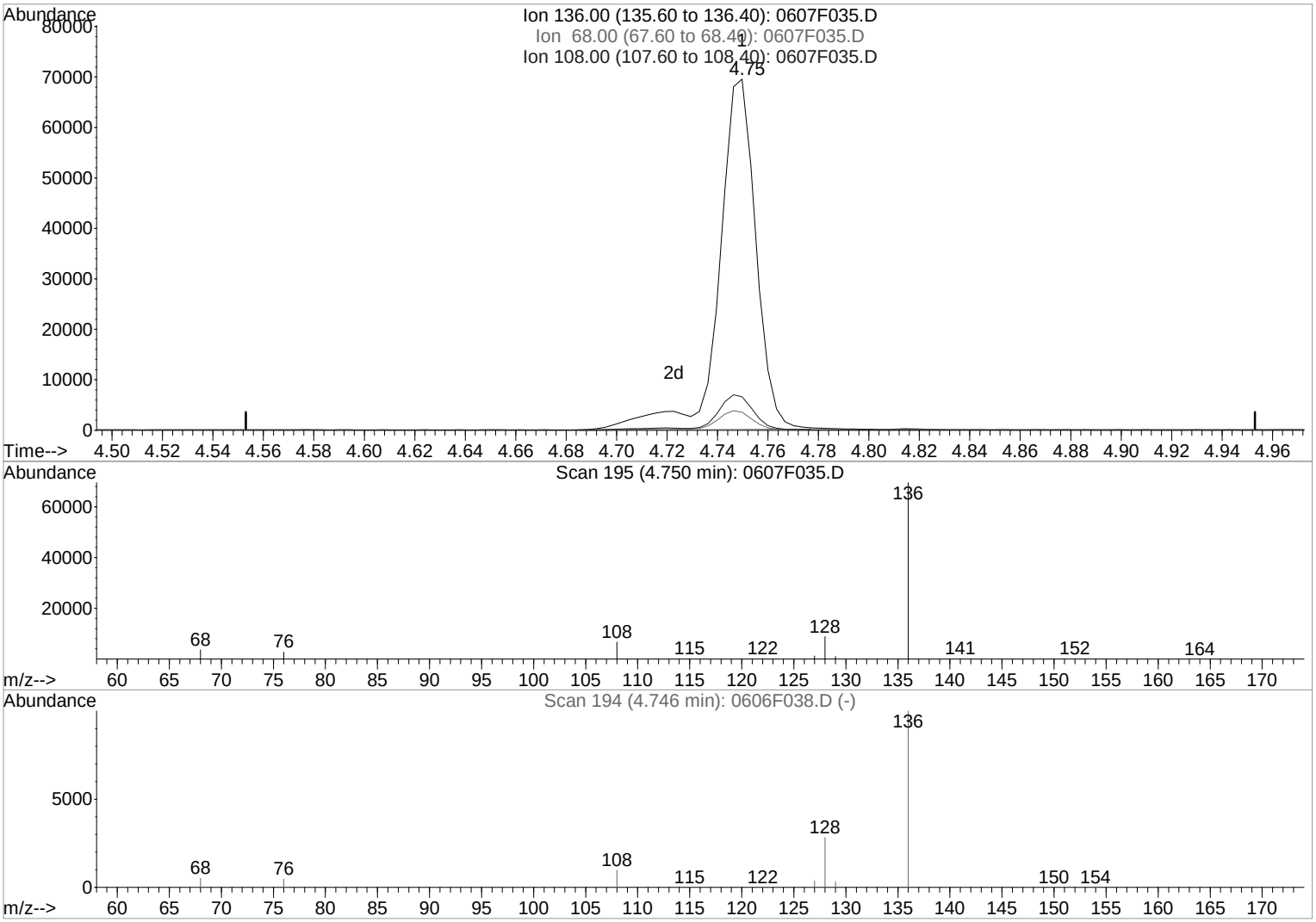
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F035.D Vial: 31
Acq On : 8 Jun 2019 12:51 am Operator: LWeiskopf
Sample : KQ1907688-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:00 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F035.D

(1) Naphthalene-d8 (I)

4.75min 200.00ng/ml m

response 70913

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.15
108.00	8.80	9.56
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

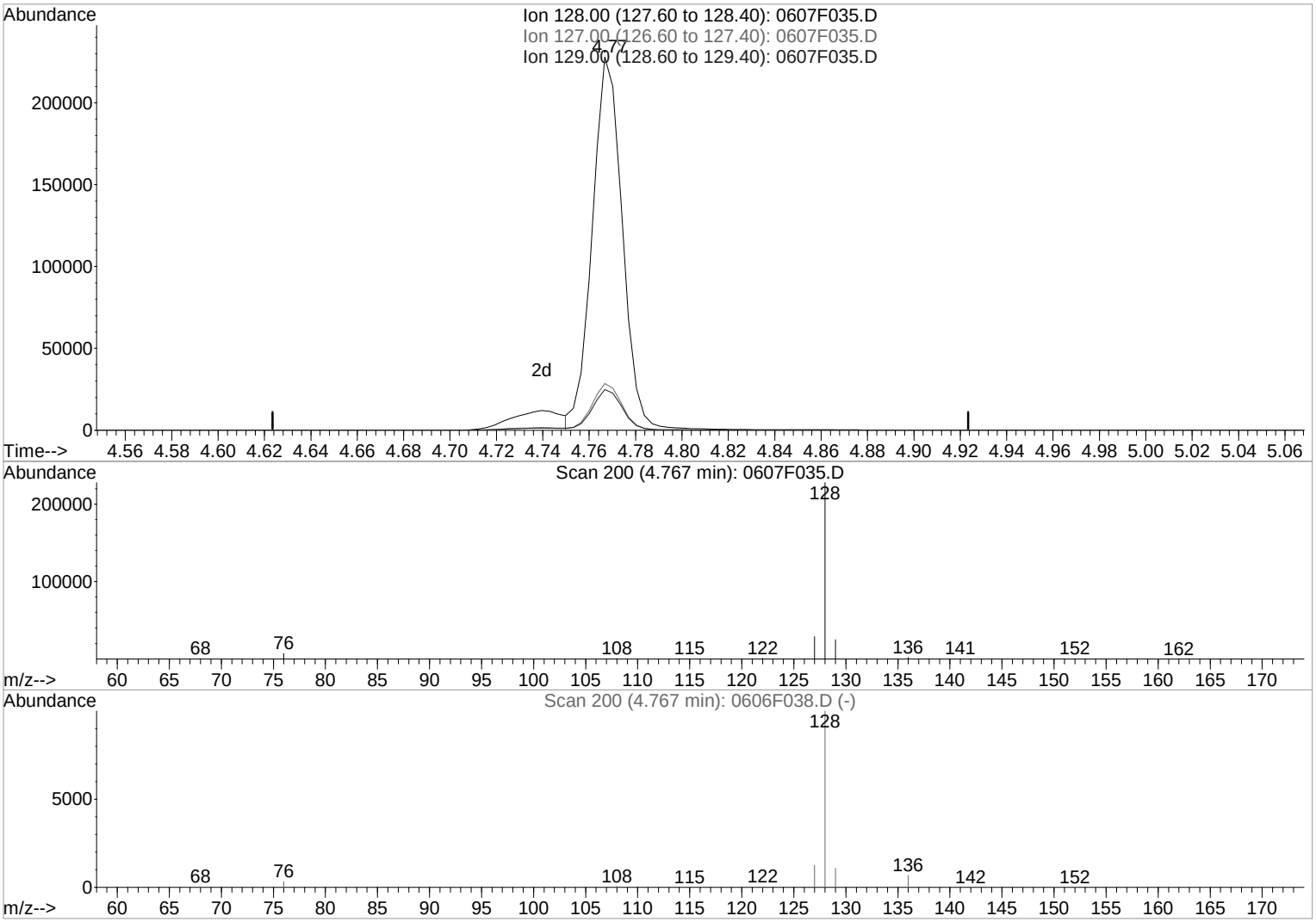
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F035.D Vial: 31
Acq On : 8 Jun 2019 12:51 am Operator: LWeiskopf
Sample : KQ1907688-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:00 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F035.D

(2) Naphthalene (T)

4.77min 541.19ng/ml

response 205583

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	12.52
129.00	10.80	10.84
0.00	0.00	0.00

Manual Integration:

Before

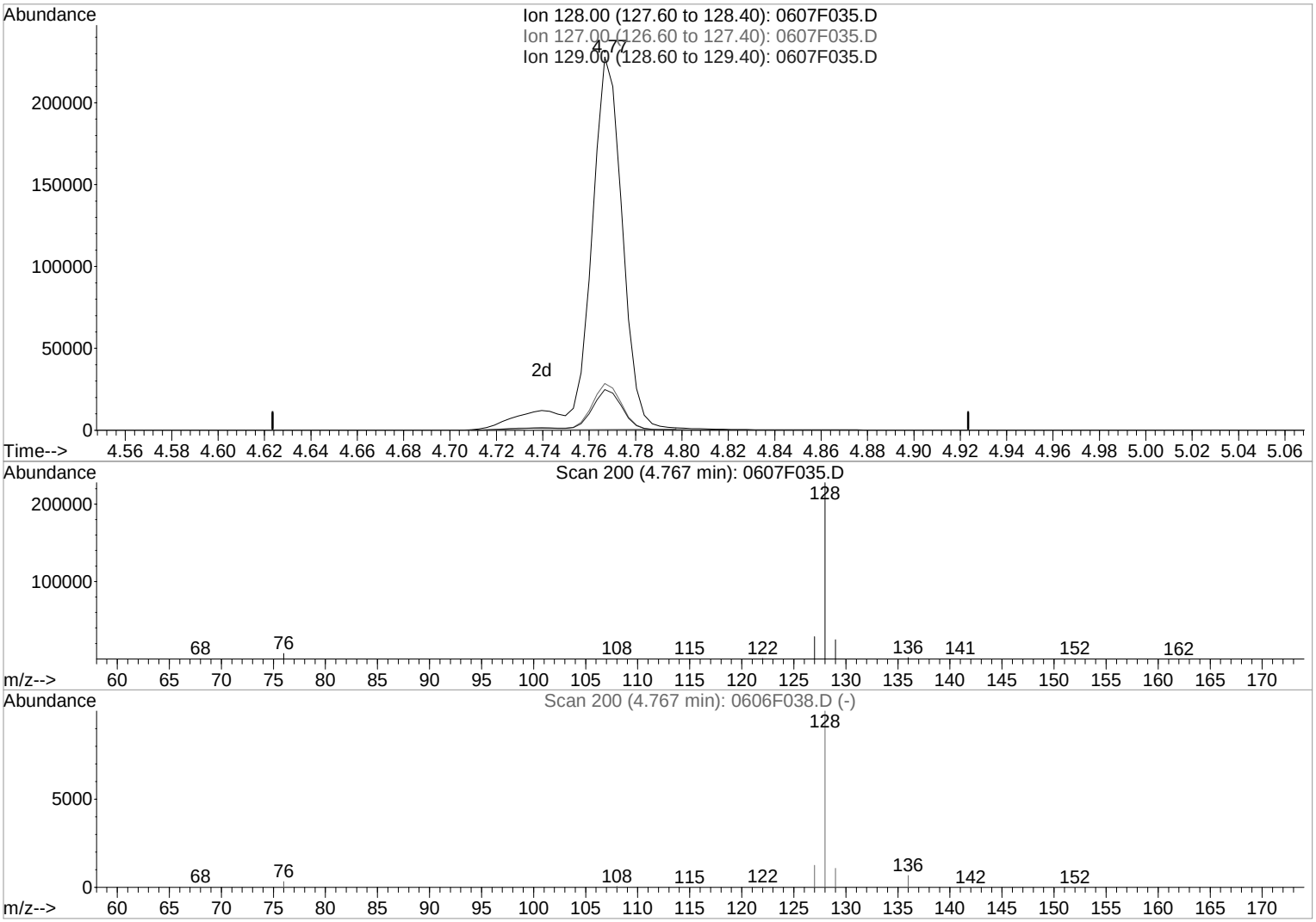
06/17/19

Quantitation Report (Qedit)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F035.D Vial: 31
Acq On : 8 Jun 2019 12:51 am Operator: LWeiskopf
Sample : KQ1907688-2 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 9:00 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0607F035.D

(2) Naphthalene (T)

4.77min 582.81ng/ml m

response 221393

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	12.54
129.00	10.80	10.87
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

06/17/19

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F028.D\
Lab ID: KQ1907979-01
RunType: CCV
Matrix: Ground Water

Date Acquired: 6/7/19 21:38:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Internal Standards	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F028.D\	**Instrument:**	K-MS-14
Acqu Date:	6/7/19 21:38:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1907979-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	II	**Matrix:**	Ground Water
Prod Code:	PAH SIM	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	638644	**Prep Lot:**		**Report Group:**	KQ1907979
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18909

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.29		28174	200.00	OK
Chrysene-d12	10.04		64987	200.00	OK
Naphthalene-d8	4.74		58051	200.00	OK
Perylene-d12	13.08		73107	200.00	OK
Phenanthrene-d10	7.53		49385	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Fluoranthene-d10	8.51		134285	464.04	Y
Fluorene-d10	6.73		60910	380.33	Y
Terphenyl-d14	8.86		111271	370.25	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2-Methylnaphthalene	5.40		83722	394.48	Y
Acenaphthene	6.32		73002	422.96	Y
Acenaphthylene	6.17		120075	422.32	Y
Anthracene	7.60		119239	441.55	Y
Benz(a)anthracene	10.03		178831	426.90	Y
Benzo(a)pyrene	12.91		175462	471.44	Y
Benzo(b)fluoranthene	12.06		201403	433.38	Y
Benzo(g,h,i)perylene	15.73		183731	369.66	Y
Benzo(k)fluoranthene	12.12		192843	440.27	Y
Chrysene	10.08		170923	419.99	Y
Dibenz(a,h)anthracene	15.39		170124	432.57	Y
Fluoranthene	8.53		168276	481.44	Y
Fluorene	6.75		83295	394.02	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 06/17/19

2nd 06/17/19

Data File:	J:\MS14\DATA\060719\0607F028.D\	**Instrument:**	K-MS-14
Acqu Date:	6/7/19 21:38:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1907979-01	**Raw Units:**	ng/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Indeno(1,2,3-cd)pyrene	15.34		167403	451.80	Y
Naphthalene	4.76		127541	410.13	Y
Phenanthrene	7.55		120704	406.72	Y
Pyrene	8.72		181777	354.69	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

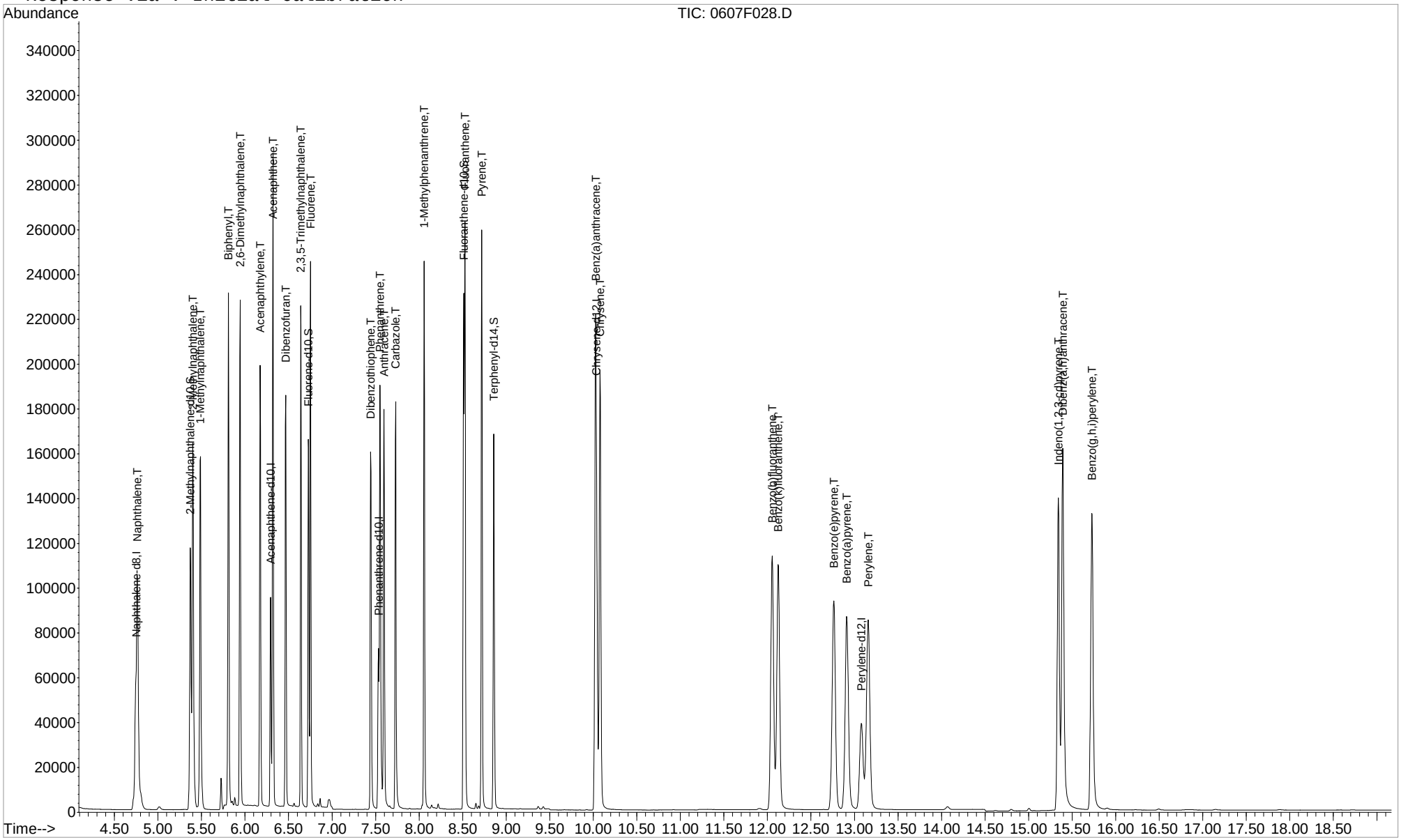
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F028.D Vial: 2
Acq On : 7 Jun 2019 9:38 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL SVM61-28A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 8 5:13 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F028.D Vial: 2
Acq On : 7 Jun 2019 9:38 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL SVM61-28A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 08 05:13:02 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.74	136	58051	200.00	ng/ml	-0.01
8) Acenaphthene-d10	6.29	164	28174	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.53	188	49385	200.00	ng/ml	0.00
23) Chrysene-d12	10.04	240	64987	200.00	ng/ml	0.00
28) Perylene-d12	13.08	264	73107	200.00	ng/ml	0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.37	152	55308	377.81	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	37.78%		
13) Fluorene-d10	6.73	176	60910	380.33	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	38.03%		
22) Fluoranthene-d10	8.51	212	134285	464.04	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	46.40%		
25) Terphenyl-d14	8.86	244	111271	370.25	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.03%		
Target Compounds						Qvalue
2) Naphthalene	4.76	128	127541	410.13	ng/ml	100
4) 2-Methylnaphthalene	5.40	142	83722	394.48	ng/ml	96
5) 1-Methylnaphthalene	5.49	142	76703	388.62	ng/ml	98
6) Biphenyl	5.81	154	99528	374.33	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.94	156	72076	379.81	ng/ml	96
9) Acenaphthylene	6.17	152	120075	422.32	ng/ml	100
10) Acenaphthene	6.32	154	73002	422.96	ng/ml	97
11) Dibenzofuran	6.47	168	108107	399.23	ng/ml	93
12) 2,3,5-Trimethylnaphthalene	6.64	170	75776	448.79	ng/ml	95
14) Fluorene	6.75	166	83295	394.02	ng/ml	98
16) Dibenzothiophene	7.44	184	122481	435.99	ng/ml	93
17) Phenanthrene	7.55	178	120704	406.72	ng/ml	100
18) Anthracene	7.60	178	119239	441.55	ng/ml	100
19) Carbazole	7.73	167	116986	472.10	ng/ml	99
20) 1-Methylphenanthrene	8.06	192	100647	449.17	ng/ml	98
21) Fluoranthene	8.53	202	168276	481.44	ng/ml	91
24) Pyrene	8.72	202	181777	354.69	ng/ml	90
26) Benz(a)anthracene	10.03	228	178831	426.90	ng/ml	100
27) Chrysene	10.08	228	170923	419.99	ng/ml	100
29) Benzo(b)fluoranthene	12.06	252	201403	433.38	ng/ml	99
30) Benzo(k)fluoranthene	12.12	252	192843	440.27	ng/ml	98
31) Benzo(e)pyrene	12.76	252	184909	419.19	ng/ml	97
32) Benzo(a)pyrene	12.91	252	175462	471.44	ng/ml	98
33) Perylene	13.16	252	172642	424.24	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.34	276	167403	451.80	ng/ml	98
35) Dibenz(a,h)anthracene	15.39	278	170124	432.57	ng/ml	99
36) Benzo(g,h,i)perylene	15.73	276	183731	369.66	ng/ml	98

(#) = qualifier out of range (m) = manual integration

1st 06/17/19
2nd 06/17/19

Validation Report

Data File: J:\MS14\DATA\060719\0607F027.D\
Lab ID: KQ1907979-04
RunType: TUNE
Matrix: Sediment

Date Acquired: 6/7/19 21:11:00
Batch ID: 638644
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Tune Ion Ratio	X	

Primary Review: _____

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Secondary Review: _____

1st 06/17/19
2nd 06/17/19

Quantitation Report

Data File:	J:\MS14\DATA\060719\0607F027.D\	**Instrument:**	K-MS-14
Acqu Date:	6/7/19 21:11:00	**Vial:**	1
Run Type:	TUNE	**Dilution:**	1
Lab ID:	KQ1907979-02	**Raw Units:**	

Bottle ID:		**Tier:**	II	**Matrix:**	Ground Water
Prod Code:	PAH SIM	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	638644	**Prep Lot:**		**Report Group:**	KQ1907979
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900163
		Report List ID:	18909

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	23.25	104640	Pass
68	69	0	2	1.79	2181	Pass
69	198	0	100	27.03	121640	Pass
70	69	0	2	0.52	631	Pass
127	198	10	80	41.99	188978	Pass
197	198	0	2	0.28	1252	Pass
198	442	30	100	35.57	450090	Pass
199	198	5	9	6.67	30033	Pass
275	198	10	60	36.03	162184	Pass
365	442	1	50	2.13	26896	Pass
441	443	0.01	100	73.34	181120	Pass
442	442	30	100	100.00	1265258	Pass
443	442	15	24	19.52	246976	Pass

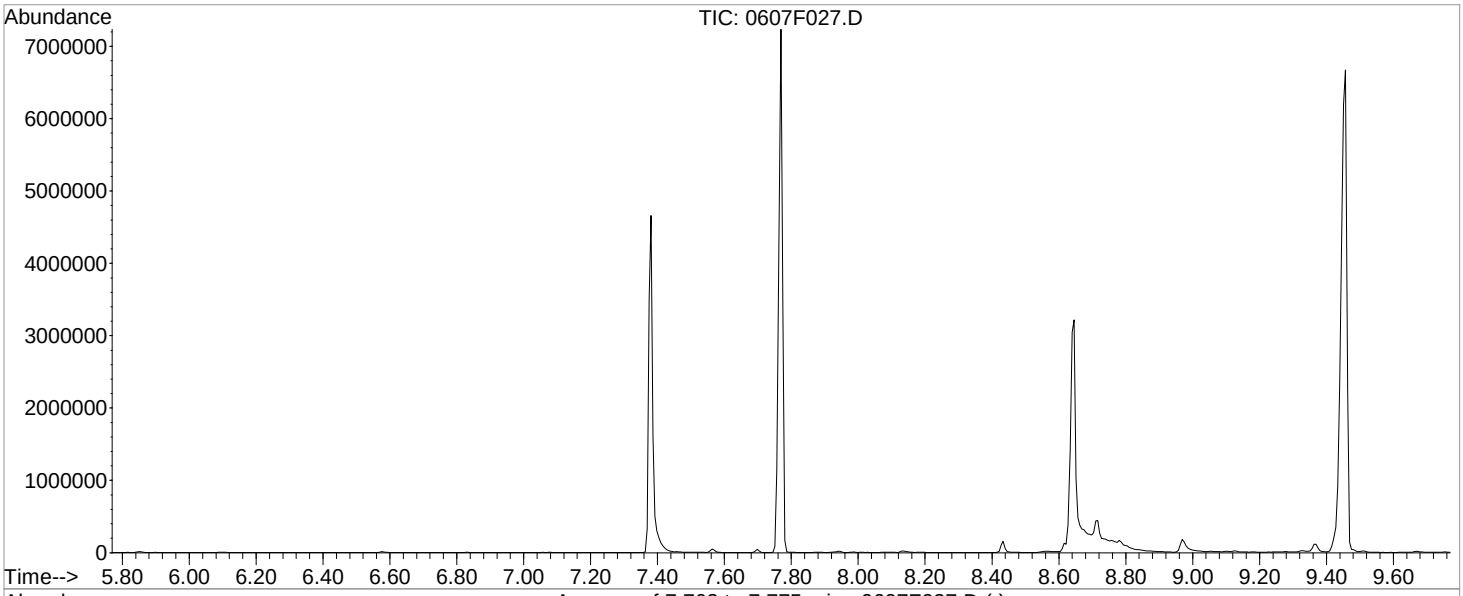
U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

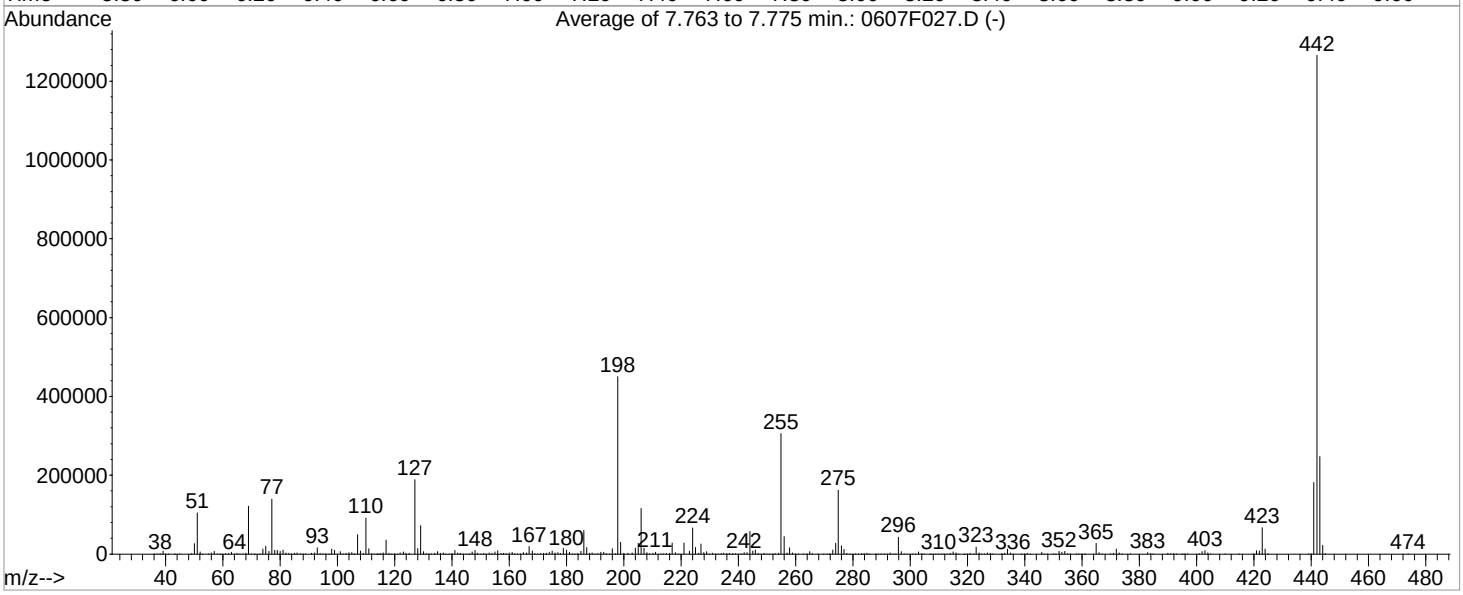
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st 06/17/19
2nd 06/17/19

Data File : J:\MS14\DATA\060719\0607F027.D Vial: 1
Acq On : 7 Jun 2019 9:11 pm Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix





Spectrum Information: Average of 7.763 to 7.775 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	23.2	104640	PASS
68	69	0.00	2	1.8	2181	PASS
69	198	0.00	100	27.0	121640	PASS
70	69	0.00	2	0.5	631	PASS
127	198	10	80	42.0	188978	PASS
197	198	0.00	2	0.3	1252	PASS
198	442	30	100	35.6	450090	PASS
199	198	5	9	6.7	30033	PASS
275	198	10	60	36.0	162184	PASS
365	442	1	50	2.1	26896	PASS
441	443	0.01	100	73.3	181120	PASS
442	442	30	100	100.0	1265258	PASS
443	442	15	24	19.5	246976	PASS

Average of 7.763 to 7.775 min.: 0607F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	58	51.10	104640	64.00	694	76.10	6887
37.05	425	52.10	5209	64.95	2108	77.10	139216
38.10	1286	53.00	185	65.95	284	78.10	9282
39.10	7664	55.00	473	67.05	198	79.00	9223
40.05	339	56.00	3075	68.10	2181	80.00	7078
41.00	180	57.00	7210	69.00	121640	81.00	10056
43.00	15	58.00	307	70.00	631	82.00	2520
44.90	183	59.00	53	71.00	53	83.00	2398
49.00	78	61.00	1260	72.95	739	83.90	89
49.20	492	62.05	1659	74.00	12326	85.00	1712
50.10	26879	63.00	4456	75.00	19524	85.95	2706

Average of 7.763 to 7.775 min.: 0607F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.00	1325	99.00	9621	110.00	91533	118.95	357
88.00	482	100.00	865	111.00	13385	120.00	708
88.90	274	101.00	5937	111.95	1562	121.00	288
90.95	2229	102.00	290	112.90	497	121.95	3312
92.00	2549	103.00	2038	113.80	54	123.00	5058
93.00	16203	104.00	3928	114.20	83	123.95	2268
94.00	1190	105.00	3736	114.80	52	125.00	2254
94.95	384	106.00	1260	115.05	167	127.00	188978
96.00	769	107.00	49147	116.00	2816	128.00	14200
97.05	479	108.00	7498	117.00	35175	129.00	71498
98.00	12584	109.05	1598	118.00	2418	130.00	6061

Average of 7.763 to 7.775 min.: 0607F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
130.95	1156	142.00	3132	152.95	2959	163.95	615
131.95	679	142.90	2020	154.00	2382	164.95	3535
132.80	318	143.95	550	154.95	5400	166.00	2818
133.95	2035	144.90	582	156.00	8215	166.95	18771
135.00	5791	146.00	1550	157.05	1711	168.00	7652
136.00	2210	147.00	5035	157.95	1870	168.95	1584
137.00	2810	148.00	9426	158.90	1323	169.95	731
137.90	634	148.90	1953	160.00	2952	170.95	904
138.95	438	150.00	602	161.00	4546	171.90	1717
139.95	927	151.05	1187	161.95	1359	173.00	2202
140.95	9406	151.80	762	162.95	307	174.00	4134

Average of 7.763 to 7.775 min.: 0607F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.00	7819	186.00	59936	197.00	1252	208.90	1106
176.00	2575	187.00	16972	197.90	450090	210.20	1977
176.95	3927	188.00	1758	198.90	30033	211.00	4503
177.90	1174	188.95	3320	199.95	2264	212.95	351
178.90	14124	189.95	647	201.40	2453	213.90	92
180.00	9845	190.95	1644	202.95	2936	214.90	1218
181.00	4706	191.90	4695	204.00	15288	215.95	2329
182.00	836	193.00	4887	205.00	26905	216.90	28188
182.90	453	193.95	1134	206.00	115746	217.95	3626
183.90	1166	195.05	647	207.00	14700	218.95	350
185.00	7122	196.00	13739	208.00	3650	221.00	28080

Average of 7.763 to 7.775 min.: 0607F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
222.95	6657	233.90	1579	244.00	57082	254.90	305877
224.00	66333	234.90	2060	245.00	7500	255.95	44429
225.00	16797	235.95	1258	245.90	10054	256.95	3276
226.00	1745	236.90	2215	246.90	2153	257.90	15825
226.90	25431	237.70	50	247.95	537	258.90	2544
227.90	3616	238.00	228	248.90	1927	259.90	499
228.90	5794	238.95	1083	249.90	421	260.95	521
229.90	887	239.90	797	250.85	534	262.80	139
230.95	2314	240.90	1559	251.90	544	263.85	428
231.90	420	241.95	3659	252.85	1152	264.90	6392
232.90	479	243.00	3776	254.00	2164	265.85	1018

Average of 7.763 to 7.775 min.: 0607F027.D

1st 06/17/19
2nd 06/17/19

DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
267.75	50	278.90	375	291.90	605	303.95	1558
269.85	397	280.90	75	292.90	3070	304.80	162
270.90	610	281.85	398	293.90	835	306.80	50
271.80	220	282.95	1388	294.95	871	307.90	776
271.95	627	283.90	1013	295.90	42680	308.90	411
272.90	9996	284.95	2300	296.90	5930	309.90	644
273.90	27068	285.95	441	297.85	370	311.00	70
274.90	162184	287.80	52	298.85	114	311.80	72
275.95	20906	288.85	573	300.90	655	312.85	448
276.90	11884	289.85	432	301.90	789	313.95	2396
277.90	2062	290.90	330	302.90	5460	314.90	5192

Average of 7.763 to 7.775 min.: 0607F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
315.95	3233	327.90	1691	345.90	4148	358.85	491
316.90	581	328.85	305	346.90	747	359.90	76
318.80	62	331.90	1311	347.90	64	360.90	51
319.90	135	332.90	1800	349.90	130	364.00	145
320.90	1723	333.90	12247	350.85	367	364.90	26896
321.95	895	335.00	3288	351.90	6557	365.90	3866
322.95	17715	335.90	435	352.90	4460	366.90	257
324.00	3222	338.85	296	353.90	6801	369.95	631
324.85	319	339.85	334	354.90	1312	370.90	1786
325.85	374	340.90	2203	355.90	66	371.90	12372
326.90	3153	341.90	613	358.00	65	372.95	3004

Average of 7.763 to 7.775 min.: 0607F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
373.90	363	396.85	134	422.90	66685		
376.85	319	400.85	930	423.90	12807		
382.90	3525	401.90	5763	424.90	1169		
383.90	981	402.90	8593	439.10	65		
384.80	282	403.90	3050	440.00	450		
389.90	1814	404.85	471	440.90	181120		
390.90	1359	409.90	301	442.00	1265258		
391.95	1037	414.85	422	443.00	246976		
392.90	154	419.80	75	443.95	22691		
394.80	60	420.90	8251	444.90	1296		
395.80	73	421.90	7673	473.85	140		

Injection Log

Directory: J:\MS14\DATA\042519

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0425F001.D	1.	DFTPP @ 10ug/mL | SVM60-55B		25 Apr 2019 06:19
2	2	0425F002.D	1.	IB NR		25 Apr 2019 06:48
3	2	0425F003.D	1.	IB		25 Apr 2019 07:14
4	3	0425F004.D	1.	SIM-PAH ICAL @.002 | SVM61-6A		25 Apr 2019 07:41
5	4	0425F005.D	1.	SIM-PAH ICAL @.004 | SVM61-6B		25 Apr 2019 08:08
6	5	0425F006.D	1.	SIM-PAH ICAL @.008 | SVM61-6C		25 Apr 2019 08:35
7	6	0425F007.D	1.	SIM-PAH ICAL @0.02 | SVM61-6D		25 Apr 2019 09:02
8	7	0425F008.D	1.	SIM-PAH @ 0.1 ppm | SVM61-6E		25 Apr 2019 09:29
9	8	0425F009.D	1.	SIM-PAH @ 0.2 ppm | SVM61-6F		25 Apr 2019 09:56
10	9	0425F010.D	1.	SIM-PAH @ 0.4 ppm | SVM61-6G		25 Apr 2019 10:23
11	10	0425F011.D	1.	SIM-PAH @ 1.0 ppm | SVM61-6H		25 Apr 2019 10:50
12	11	0425F012.D	1.	SIM-PAH @ 1.6 ppm | SVM61-6I		25 Apr 2019 11:18
13	12	0425F013.D	1.	SIM-PAH @ 2.0 ppm | SVM61-6J		25 Apr 2019 11:45
14	13	0425F014.D	1.	SIM-PAH ICV @ 0.4 ppm | SVM61-6K		25 Apr 2019 12:12

SIM-PAH ICAL

KC1900163 - Lims

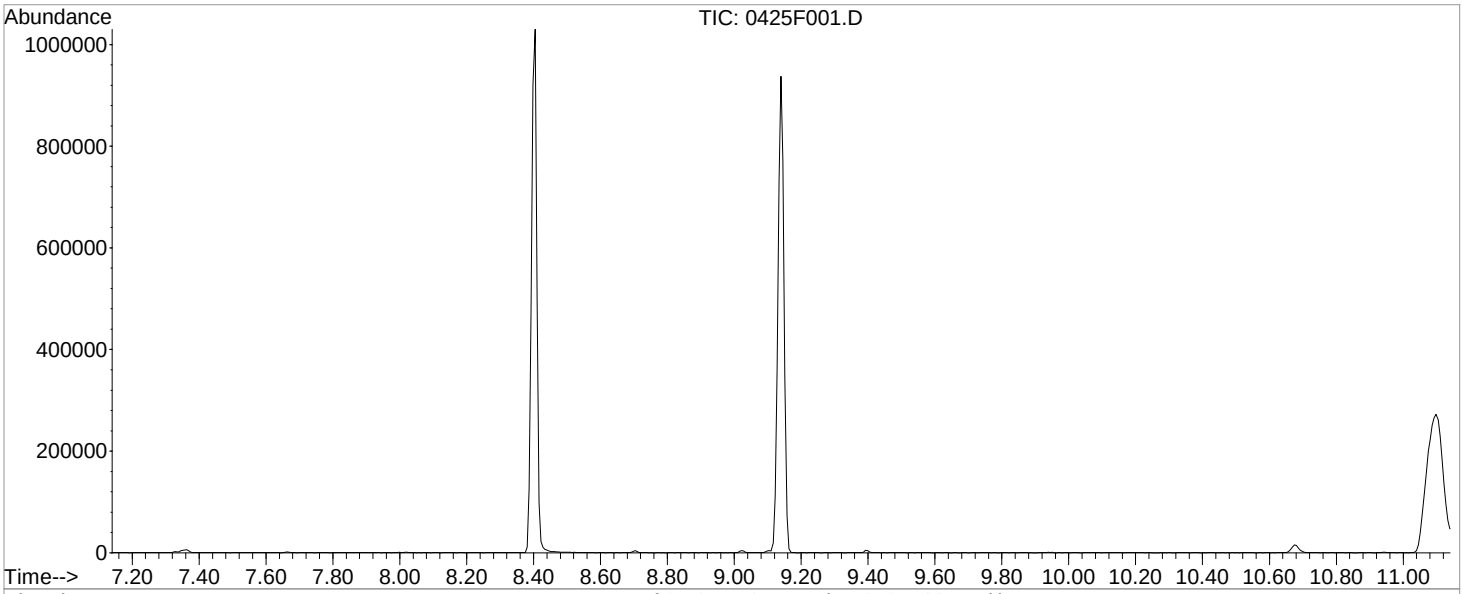
CAL16022 - Stealth

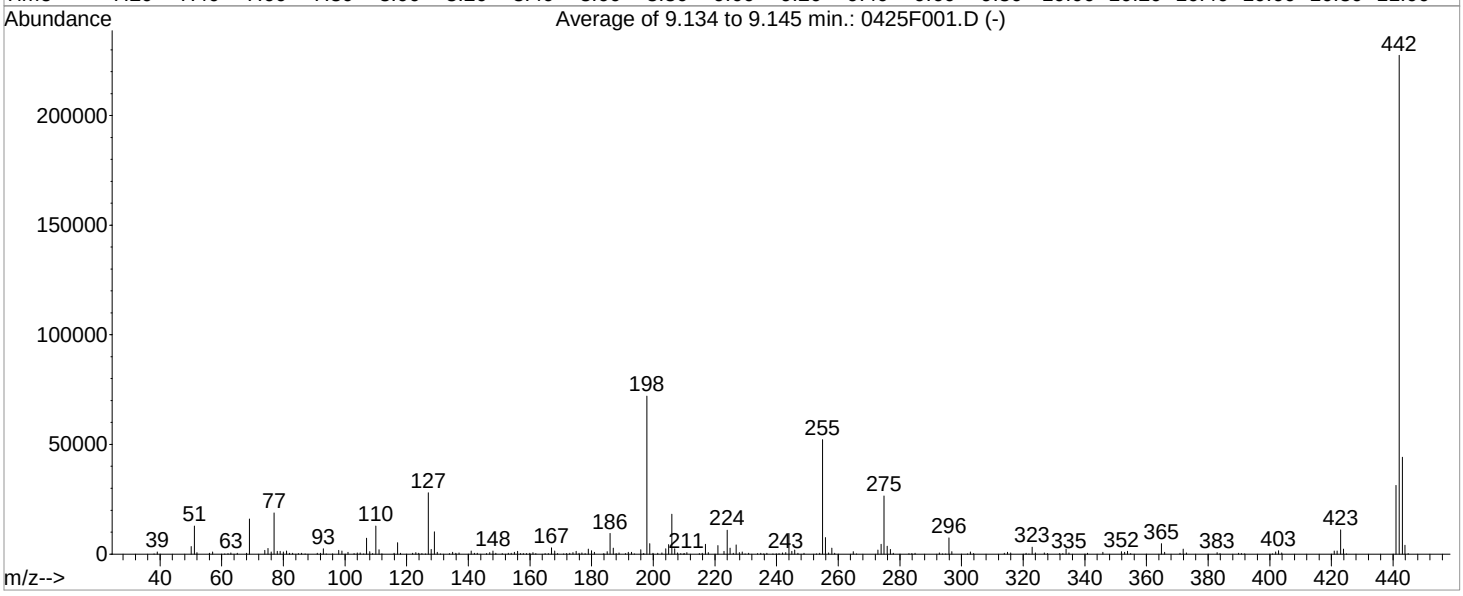
4/26/19

4/28/19

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F001.D Vial: 1
Acq On : 25 Apr 2019 6:19 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix





AutoFind: Scans 518, 519, 520; Background Corrected with Scan 511

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	17.8	12847	PASS
68	69	0.00	2	2.0	318	PASS
69	198	0.00	100	22.2	15997	PASS
70	69	0.00	2	0.0	0	PASS
127	198	10	80	38.9	28021	PASS
197	198	0.00	2	0.3	206	PASS
198	442	30	100	31.7	72026	PASS
199	198	5	9	6.6	4780	PASS
275	198	10	60	36.8	26482	PASS
365	442	1	50	2.1	4761	PASS
441	443	0.01	100	70.7	31258	PASS
442	442	30	100	100.0	227434	PASS
443	442	15	24	19.4	44224	PASS

1st 04/26/19
2nd 04/28/19

Average of 9.134 to 9.145 min.: 0425F001.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.00	122	68.05	318	82.95	350	100.95	827
39.05	936	69.00	15997	84.90	286	102.95	262
50.05	3388	74.00	1672	85.95	391	103.95	514
51.10	12847	75.00	2591	87.00	116	104.95	496
52.00	691	76.00	943	91.00	367	106.00	136
56.00	396	77.00	18708	92.00	342	107.00	7200
57.00	966	78.00	1234	93.00	2378	108.00	1092
61.00	67	79.00	1241	93.90	124	109.00	213
62.00	205	80.00	1005	96.00	51	110.00	12812
63.00	571	81.00	1391	98.00	1738	111.00	1958
65.00	307	81.95	340	99.00	1383	111.95	141

Average of 9.134 to 9.145 min.: 0425F001.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
115.95	378	129.95	886	147.95	1449	160.95	664
117.00	5120	130.95	113	148.95	335	161.90	196
117.95	363	133.90	250	150.95	181	164.90	210
121.90	421	134.90	836	152.95	417	165.90	192
122.95	681	135.95	371	153.90	350	167.00	2883
123.90	312	136.95	454	154.95	812	168.00	1394
124.95	299	140.90	1343	156.00	1230	168.95	234
126.10	53	141.95	420	156.90	258	170.90	52
127.00	28021	142.90	343	157.90	260	171.90	269
128.00	2158	145.95	233	158.90	210	172.90	357
129.00	10125	146.95	708	159.90	434	173.90	666

Average of 9.134 to 9.145 min.: 0425F001.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.00	1256	187.00	2685	198.90	4780	210.05	188
175.95	373	187.95	276	199.90	387	210.85	720
176.90	547	188.90	535	201.45	324	214.90	187
177.90	173	190.95	245	202.85	448	215.90	341
178.90	2202	191.90	748	204.00	2429	216.90	4503
179.95	1574	192.95	862	205.00	4357	217.90	614
180.90	789	193.90	119	206.00	18249	220.95	3909
183.80	62	195.95	1987	207.00	2374	222.90	1217
184.00	84	196.75	206	207.90	587	224.00	10924
185.00	1128	197.00	102	208.90	208	224.95	2772
186.00	9456	197.90	72026	209.80	73	225.95	306

Average of 9.134 to 9.145 min.: 0425F001.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

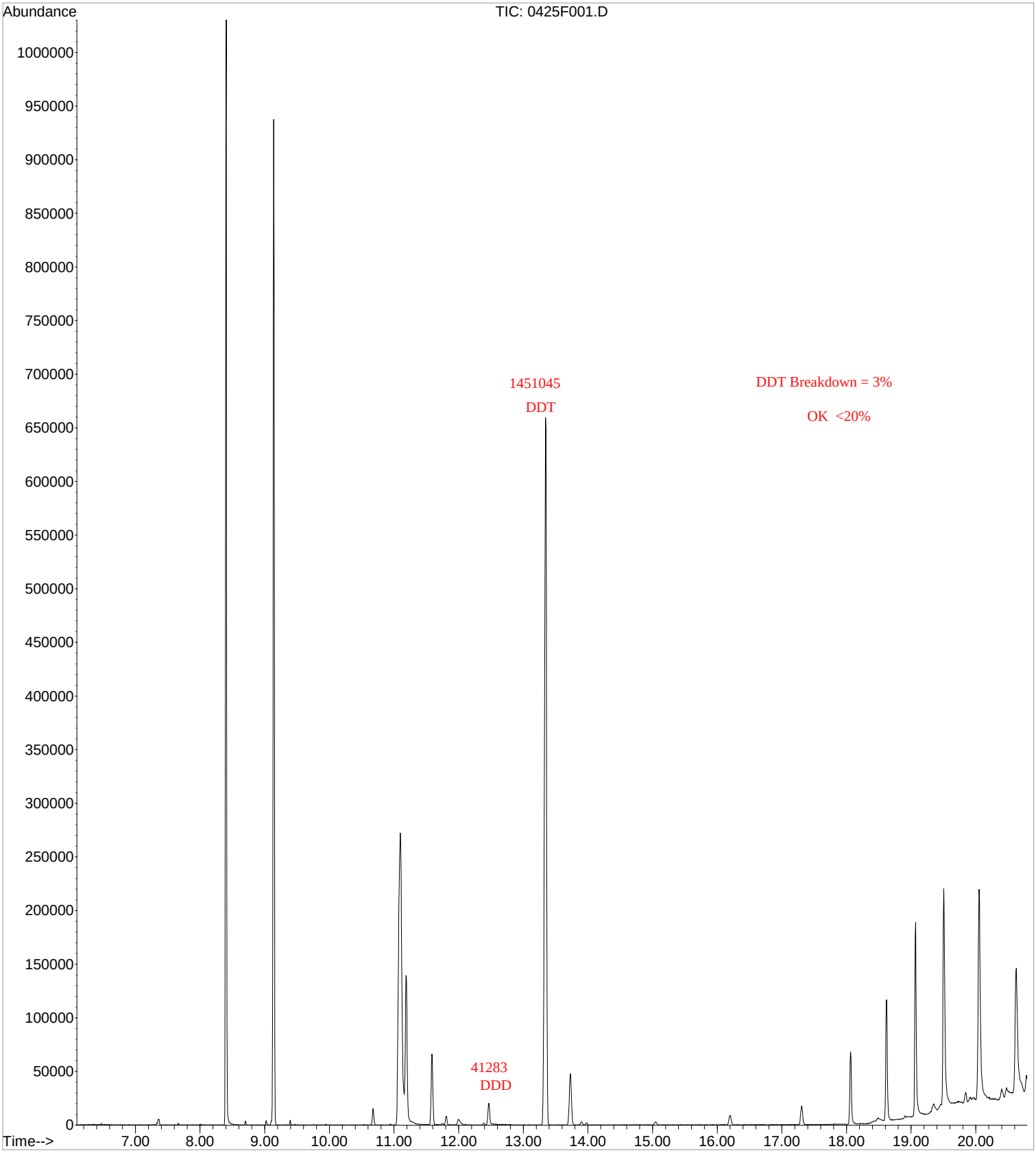
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
226.90	4202	240.85	258	255.90	7498	277.90	342
227.90	607	241.90	579	256.90	576	282.90	240
228.90	991	242.95	646	257.90	2779	283.90	179
229.80	54	244.00	9483	258.90	419	284.90	393
230.90	431	244.95	1219	264.90	1091	292.85	553
233.85	248	245.90	1763	265.90	82	293.80	51
234.90	315	246.90	347	272.90	1772	294.85	110
235.85	43	248.90	337	273.90	4437	295.90	7312
236.90	378	252.90	145	274.90	26482	296.90	1066
238.85	140	254.00	320	275.90	3587	301.90	52
239.90	50	254.90	52136	276.90	2080	302.90	960

Average of 9.134 to 9.145 min.: 0425F001.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
303.95	286	332.90	296	370.90	329	403.90	510
313.90	426	333.90	2202	371.90	2277	420.90	1449
314.90	882	334.90	580	372.95	513	421.90	1323
315.95	589	340.90	394	382.90	667	422.95	11098
320.95	325	345.85	738	383.90	189	423.90	2306
321.90	64	351.90	1137	389.85	370	424.85	148
322.95	3205	352.90	787	390.85	220	440.95	31258
323.95	554	353.90	1234	391.90	129	441.95	227434
326.85	539	354.90	244	400.90	60	443.00	44224
327.85	281	364.90	4761	401.90	1006	443.90	3983
331.85	234	365.85	753	402.90	1560	444.90	227

1st 04/26/19
2nd 04/28/19

File : J:\MS14\DATA\042519\0425F001.D
Operator : LWeiskopf
Acquired : 25 Apr 2019 6:19 am using AcqMethod SIMLOC
Instrument : MS14
Sample Name: DFTPP @ 10ug/mL | SVM60-55B
Misc Info :
Vial Number: 1

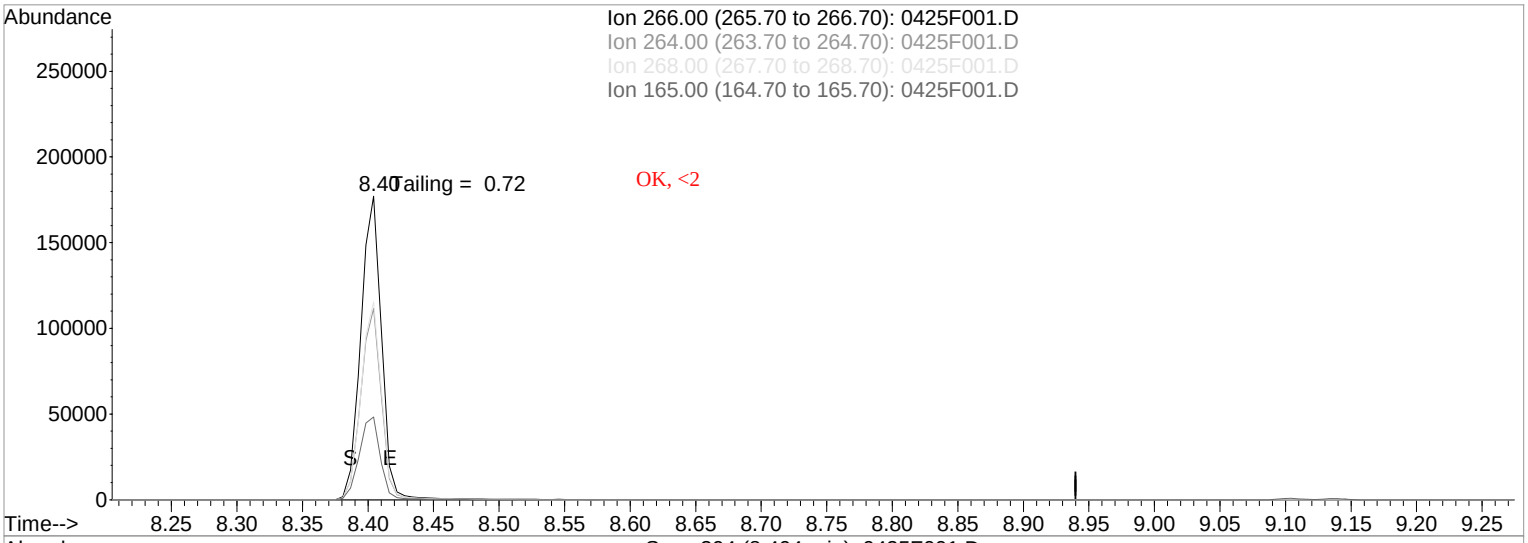


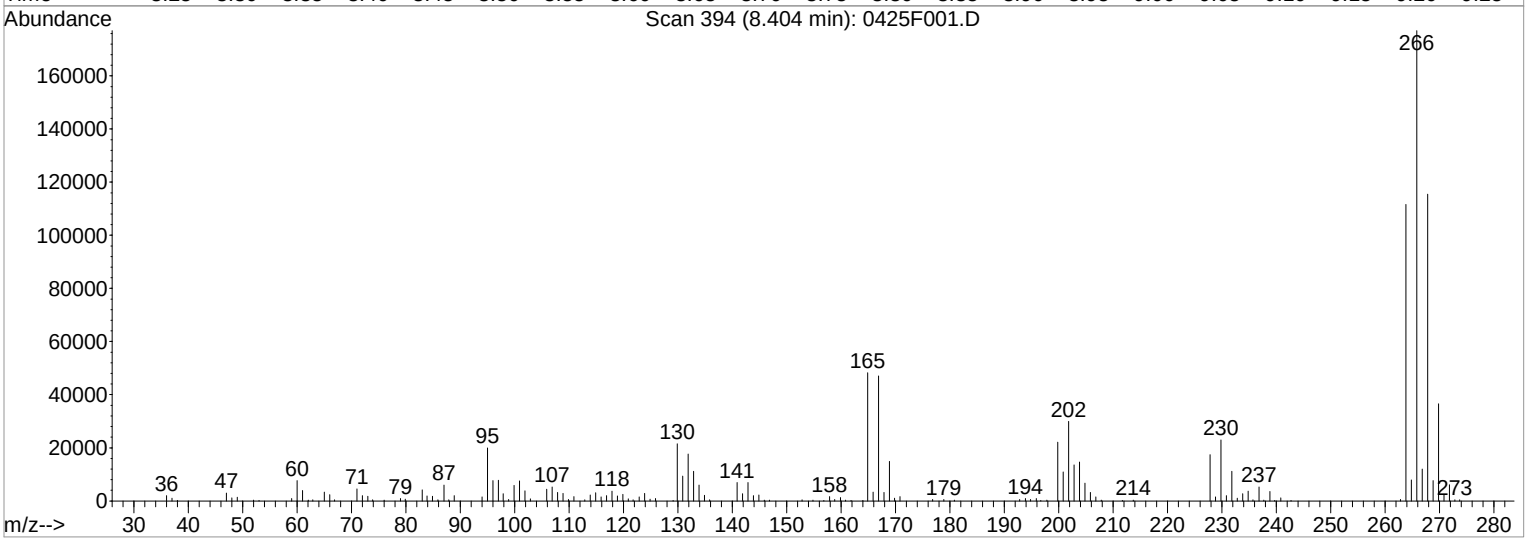
Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F001.D Vial: 1
Acq On : 25 Apr 2019 6:19 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 25 6:40 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Thu Sep 20 12:42:13 2018
Response via : Single Level Calibration





TIC: 0425F001.D

(1) Pentachlorophenol

8.40min 8.43ng/ml

response 194035

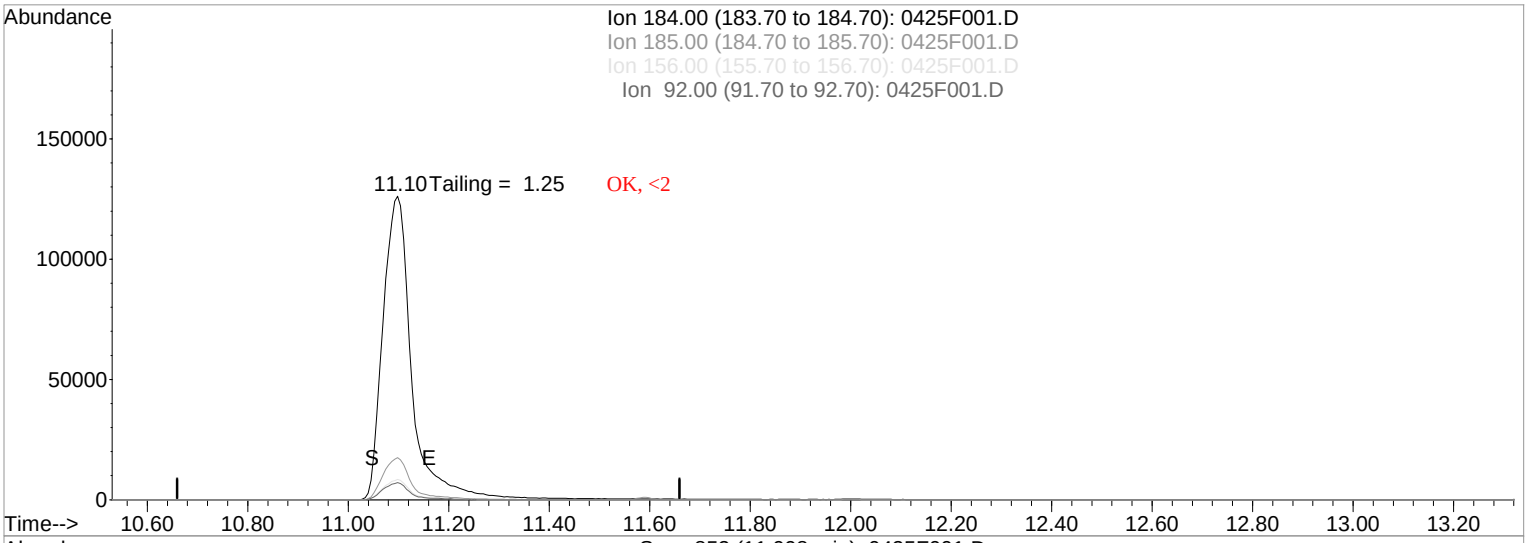
Ion	Exp%	Act%
266.00	100	100
264.00	62.30	63.01
268.00	72.30	65.24
165.00	42.00	27.23

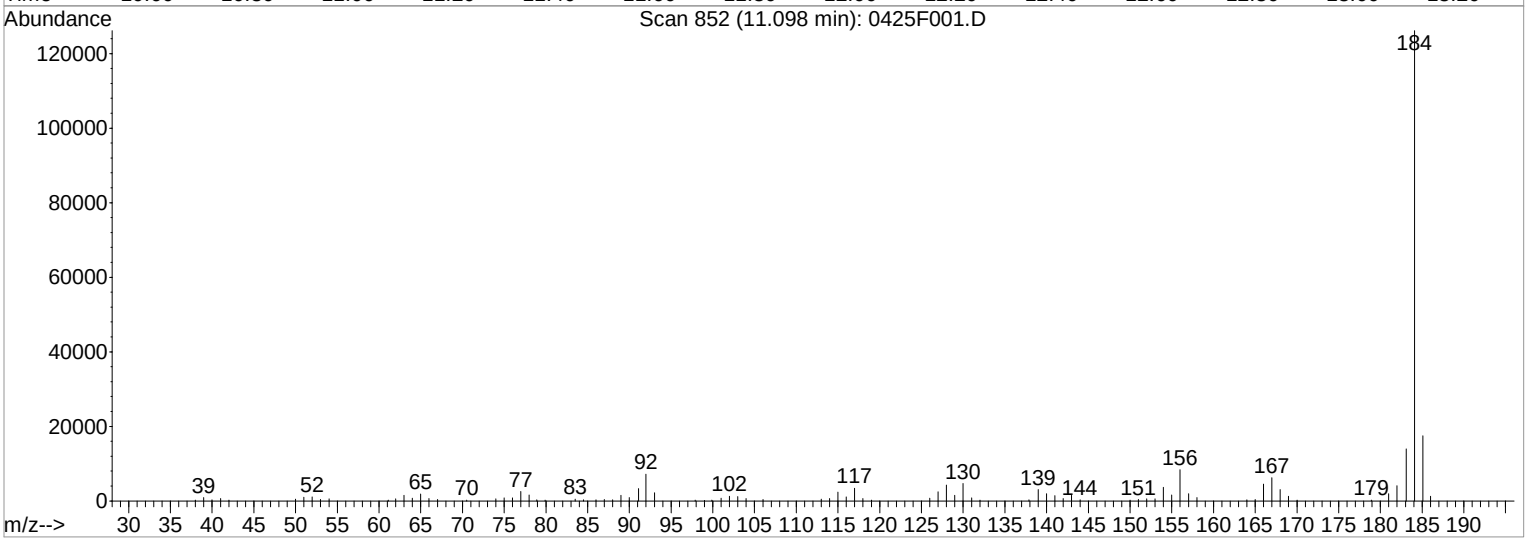
Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F001.D Vial: 1
Acq On : 25 Apr 2019 6:19 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 25 6:40 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Thu Sep 20 12:42:13 2018
Response via : Single Level Calibration





TIC: 0425F001.D

(3) Benzidine (T)

11.10min 8.75ug/ml

response 504216

Ion	Exp%	Act%
184.00	100	100
185.00	14.70	13.87
156.00	9.50	6.65
92.00	7.60	5.67

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F003.D Vial: 2
Acq On : 25 Apr 2019 7:14 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 07:34:45 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)	
1) Naphthalene-d8	4.79	136	54870	200.00	ng/ml	0.00	
8) Acenaphthene-d10	6.34	164	31240	200.00	ng/ml	0.00	
15) Phenanthrene-d10	7.57	188	66018	200.00	ng/ml	0.00	
23) Chrysene-d12	10.09	240	57307	200.00	ng/ml	0.00	
28) Perylene-d12	13.15	264	57734	200.00	ng/ml	0.00	
System Monitoring Compounds							
3) 2-Methylnaphthalene-d10	0.00	152	0	0.00	ng/ml		
Spiked Amount 1000.000			Recovery =	0.00%			
13) Fluorene-d10	6.77	176	64	0.30	ng/ml	0.00	
Spiked Amount 1000.000			Recovery =	0.03%			
22) Fluoranthene-d10	0.00	212	0	0.00	ng/ml		
Spiked Amount 1000.000			Recovery =	0.00%			
25) Terphenyl-d14	0.00	244	0	0.00	ng/ml		
Spiked Amount 1000.000			Recovery =	0.00%			
Target Compounds						Qvalue	
17) Phenanthrene	7.59	178	79	0.19	ng/ml	88	< 1/2 MRL
26) Benz(a)anthracene	10.09	228	171	0.42	ng/ml	68	< 1/2 MRL

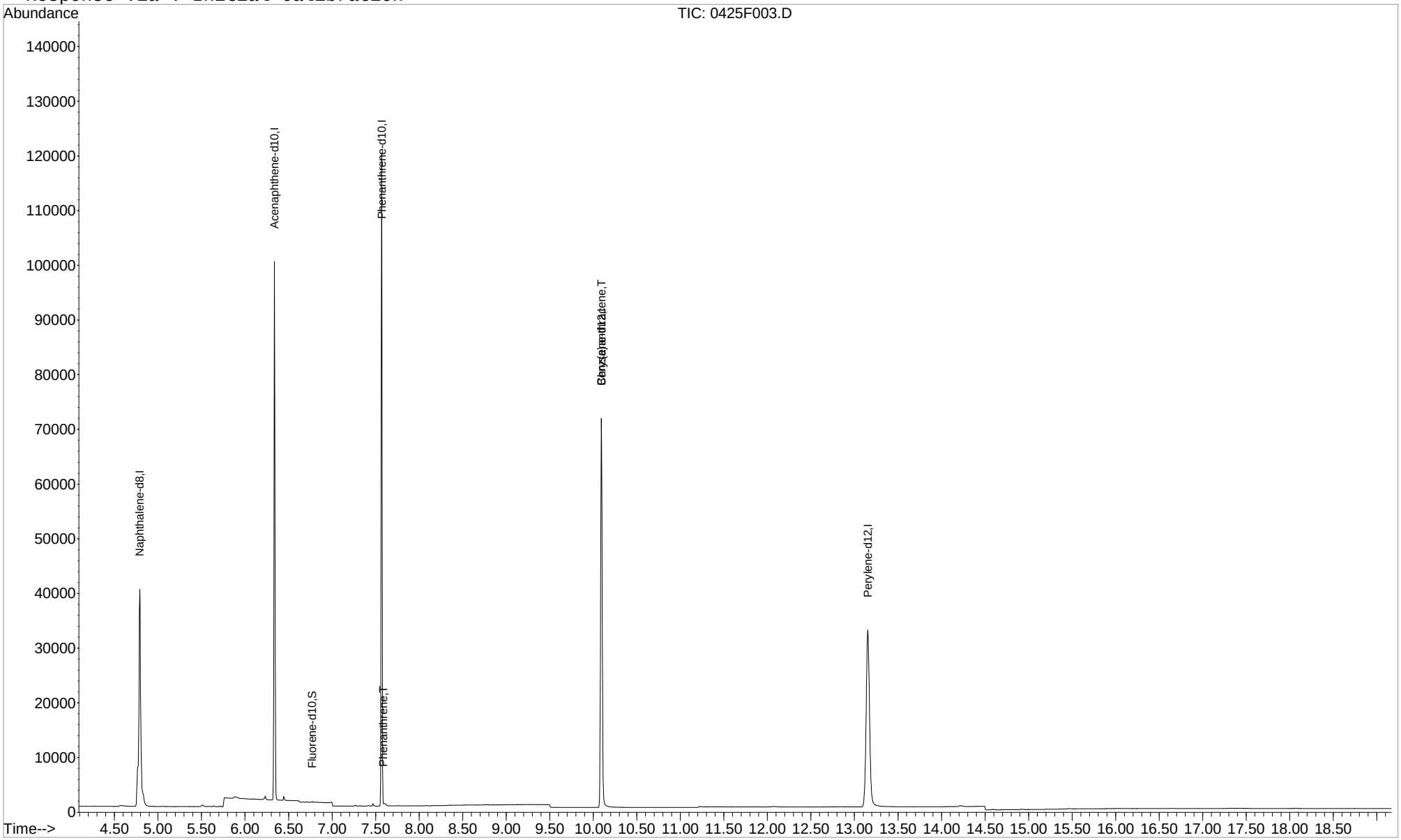
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

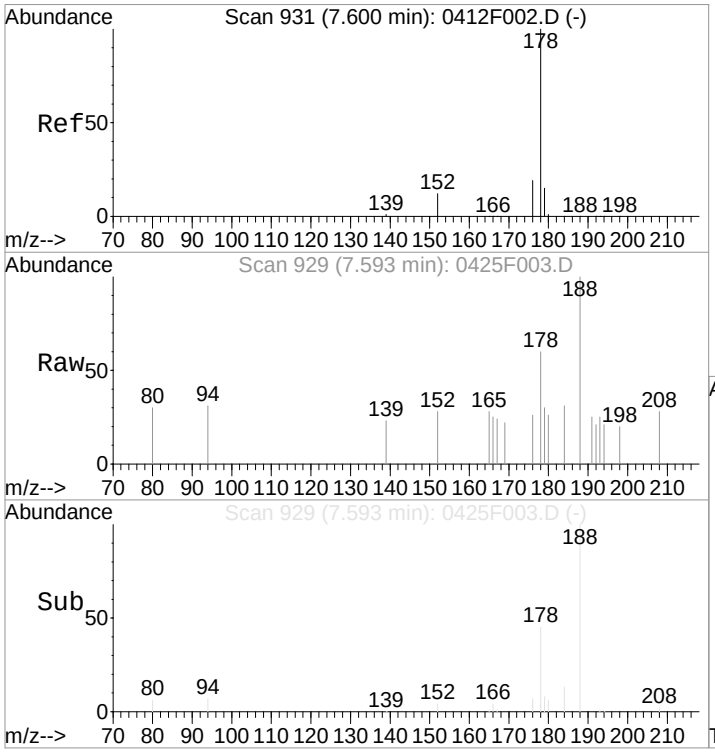
1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F003.D Vial: 2
Acq On : 25 Apr 2019 7:14 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:43 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



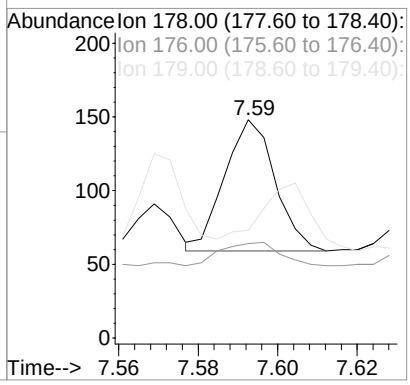
1st 04/26/19
2nd 04/28/19

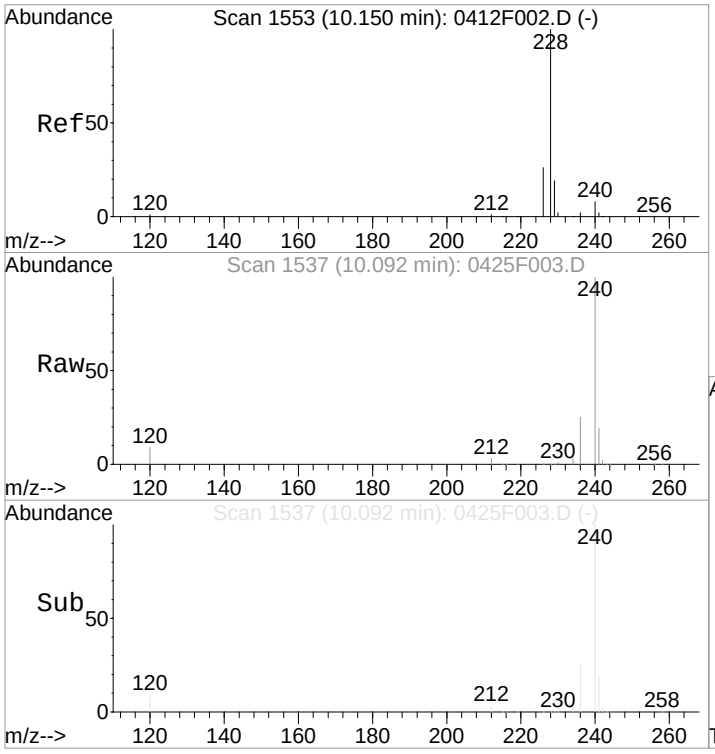


#17
Phenanthrene
Concen: 0.19 ng/ml
RT: 7.59 min Scan# 929
Delta R.T. 0.00 min
Lab File: 0425F003.D
Acq: 25 Apr 2019 7:14 am

Tgt Ion:178 Resp: 79

Ion	Ratio	Lower	Upper
178	100		
176	16.9	0.0	48.7
179	6.7	0.0	35.8

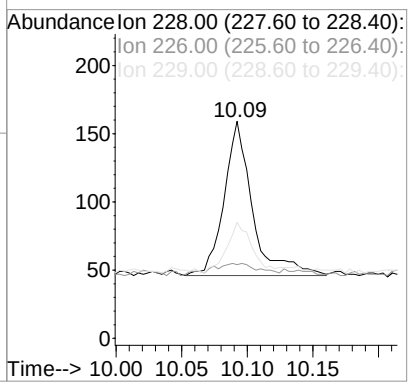




#26
Benz(a)anthracene
Concen: 0.42 ng/ml
RT: 10.09 min Scan# 1537
Delta R.T. 0.01 min
Lab File: 0425F003.D
Acq: 25 Apr 2019 7:14 am

Tgt Ion:228 Resp: 171

Ion	Ratio	Lower	Upper
228	100		
226	6.2	0.0	56.0
229	31.0	0.1	40.1



Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F004.D Vial: 3
Acq On : 25 Apr 2019 7:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002 | SVM61-6A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:34 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

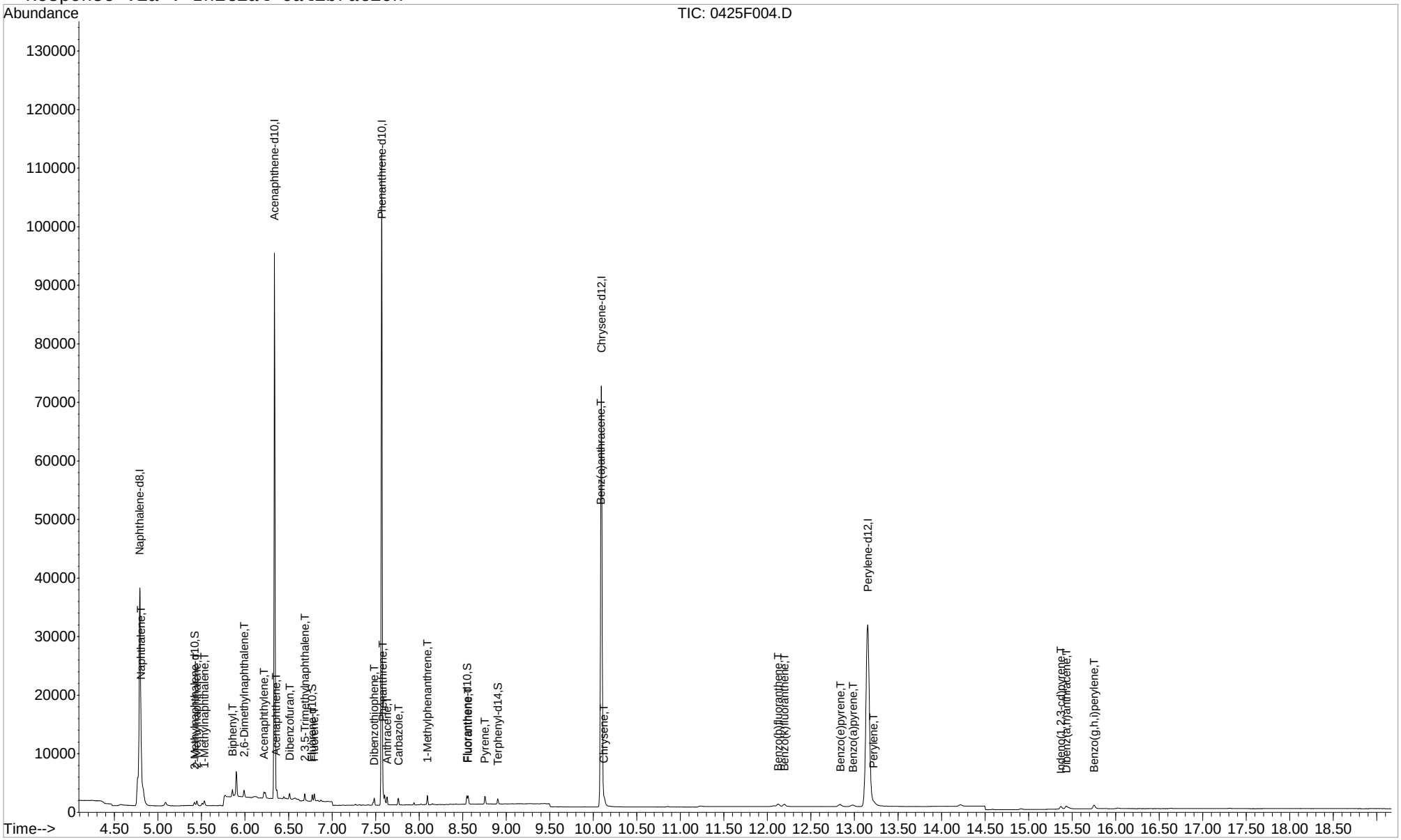
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	50907	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	28735	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	63696	200.00	ng/ml	0.00
23) Chrysene-d12	10.09	240	55468	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	58023	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	280	1.95	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.19%		
13) Fluorene-d10	6.77	176	417	2.09	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.21%		
22) Fluoranthene-d10	8.55	212	761	2.04	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.20%		
25) Terphenyl-d14	8.90	244	605	2.47	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.25%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	542	1.90	ng/ml	96
4) 2-Methylnaphthalene	5.45	142	409	2.29	ng/ml	99
5) 1-Methylnaphthalene	5.53	142	404	2.34	ng/ml	95
6) Biphenyl	5.85	154	554	2.39	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.99	156	400	2.45	ng/ml	95
9) Acenaphthylene	6.22	152	676	1.90	ng/ml	99
10) Acenaphthene	6.37	154	377	1.85	ng/ml	97
11) Dibenzofuran	6.51	168	626	1.91	ng/ml	97
12) 2,3,5-Trimethylnaphthalene	6.69	170	379	1.96	ng/ml	87
14) Fluorene	6.79	166	525	2.00	ng/ml	100
16) Dibenzothiophene	7.49	184	762	1.83	ng/ml	98
17) Phenanthrene	7.59	178	901	2.22	ng/ml	98
18) Anthracene	7.63	178	729	1.87	ng/ml	99
19) Carbazole	7.76	167	658	1.84	ng/ml	99
20) 1-Methylphenanthrene	8.09	192	614	2.04	ng/ml	98
21) Fluoranthene	8.56	202	941	2.03	ng/ml	99
24) Pyrene	8.76	202	971	2.32	ng/ml	96
26) Benz(a)anthracene	10.08	228	819	2.06	ng/ml	99
27) Chrysene	10.13	228	704	1.95	ng/ml	99
29) Benzo(b)fluoranthene	12.12	252	780	2.02	ng/ml	98
30) Benzo(k)fluoranthene	12.19	252	665	1.82	ng/ml	98
31) Benzo(e)pyrene	12.84	252	737	2.03	ng/ml	98
32) Benzo(a)pyrene	12.98	252	574	1.58	ng/ml	99
33) Perylene	13.22	252	653	1.89	ng/ml	96
34) Indeno(1,2,3-cd)pyrene	15.37	276	588	1.70	ng/ml	97
35) Dibenz(a,h)anthracene	15.43	278	645m	2.00	ng/ml	
36) Benzo(g,h,i)perylene	15.75	276	911	2.33	ng/ml	99

(#) = qualifier out of range (m) = manual integration

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F004.D Vial: 3
Acq On : 25 Apr 2019 7:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002 | SVM61-6A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:47 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration

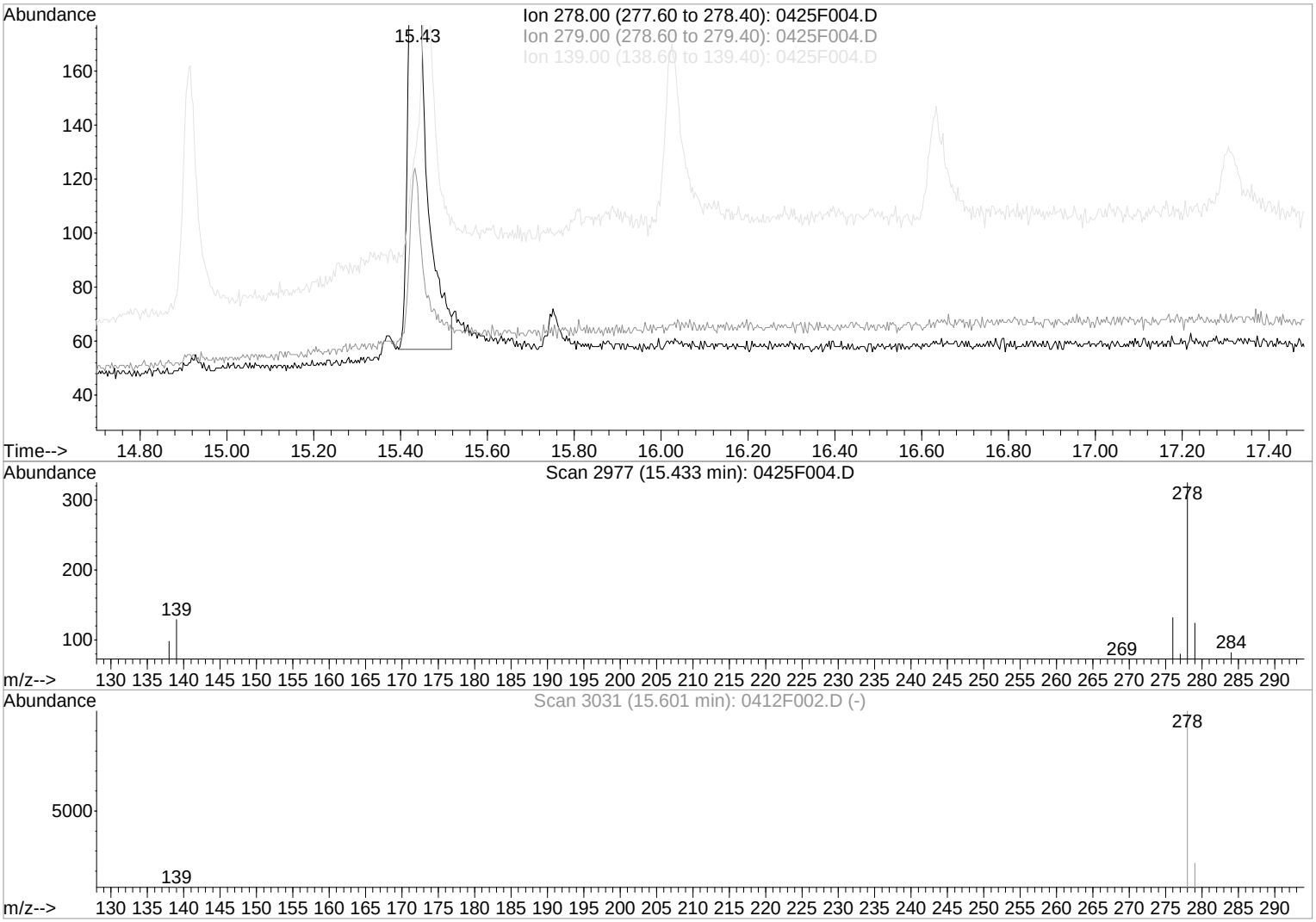


Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F004.D Vial: 3
Acq On : 25 Apr 2019 7:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002 | SVM61-6A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Multiple Level Calibration



TIC: 0425F004.D

(35) Dibenz(a,h)anthracene (T)

15.43min 1.79ng/ml

response 576

Ion	Exp%	Act%
278.00	100	100
279.00	24.40	23.88
139.00	11.50	13.43
0.00	0.00	0.00

Manual Integration:

Before

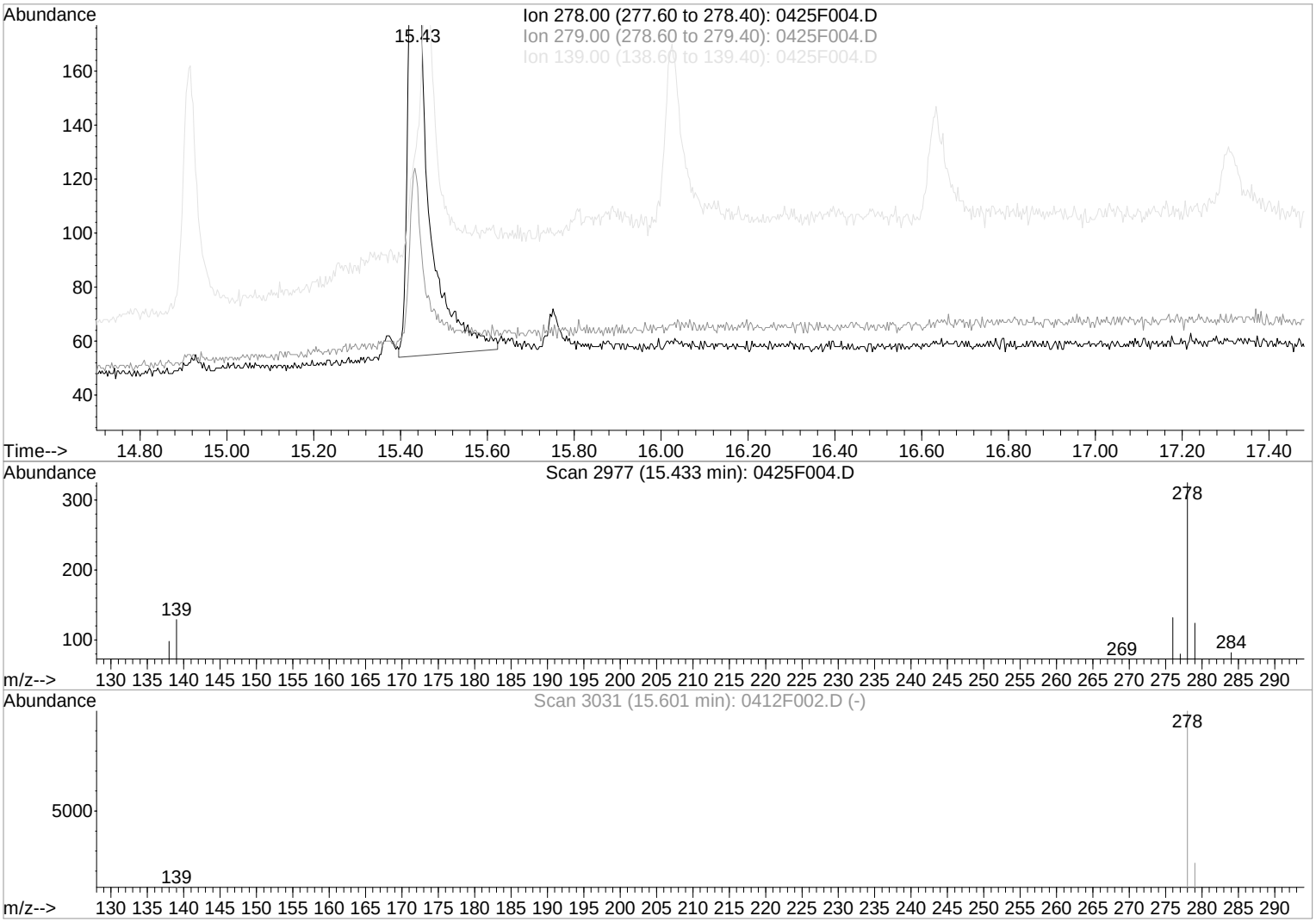
04/26/19

Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F004.D Vial: 3
Acq On : 25 Apr 2019 7:41 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002 | SVM61-6A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:47 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Multiple Level Calibration



TIC: 0425F004.D

(35) Dibenz(a,h)anthracene (T)

15.43min 2.00ng/ml m

response 645

Ion	Exp%	Act%
278.00	100	100
279.00	24.40	38.15
139.00	11.50	39.69#
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

04/26/19

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F005.D Vial: 4
Acq On : 25 Apr 2019 8:08 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004 | SVM61-6B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:34 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	54125	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	30466	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	65732	200.00	ng/ml	0.00
23) Chrysene-d12	10.09	240	56943	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	60344	200.00	ng/ml	-0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	597	3.91	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.39%		
13) Fluorene-d10	6.77	176	792	3.75	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.38%		
22) Fluoranthene-d10	8.55	212	1507	3.92	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.39%		
25) Terphenyl-d14	8.90	244	1153	4.59	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.46%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	1234	4.06	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	864	4.54	ng/ml	100
5) 1-Methylnaphthalene	5.53	142	802	4.38	ng/ml	99
6) Biphenyl	5.85	154	1098m	4.46	ng/ml	
7) 2,6-Dimethylnaphthalene	5.99	156	772	4.45	ng/ml	96
9) Acenaphthylene	6.22	152	1354	3.58	ng/ml	97
10) Acenaphthene	6.37	154	800	3.71	ng/ml	100
11) Dibenzofuran	6.51	168	1268	3.64	ng/ml	98
12) 2,3,5-Trimethylnaphthalene	6.68	170	777	3.78	ng/ml	86
14) Fluorene	6.79	166	1015	3.64	ng/ml	98
16) Dibenzothiophene	7.49	184	1557	3.63	ng/ml	99
17) Phenanthrene	7.59	178	1771	4.23	ng/ml	100
18) Anthracene	7.63	178	1499	3.73	ng/ml	99
19) Carbazole	7.76	167	1315	3.57	ng/ml	99
20) 1-Methylphenanthrene	8.09	192	1195	3.85	ng/ml	99
21) Fluoranthene	8.56	202	1864	3.90	ng/ml	98
24) Pyrene	8.75	202	1904	4.43	ng/ml	97
26) Benz(a)anthracene	10.08	228	1492	3.65	ng/ml	98
27) Chrysene	10.13	228	1463	3.94	ng/ml	100
29) Benzo(b)fluoranthene	12.12	252	1527	3.80	ng/ml	98
30) Benzo(k)fluoranthene	12.19	252	1369	3.60	ng/ml	99
31) Benzo(e)pyrene	12.83	252	1438	3.81	ng/ml	99
32) Benzo(a)pyrene	12.98	252	1130	2.99	ng/ml	99
33) Perylene	13.22	252	1326	3.70	ng/ml	99
34) Indeno(1,2,3-cd)pyrene	15.37	276	1201	3.34	ng/ml	100
35) Dibenz(a,h)anthracene	15.43	278	1187	3.54	ng/ml	98
36) Benzo(g,h,i)perylene	15.75	276	1838	4.51	ng/ml	98

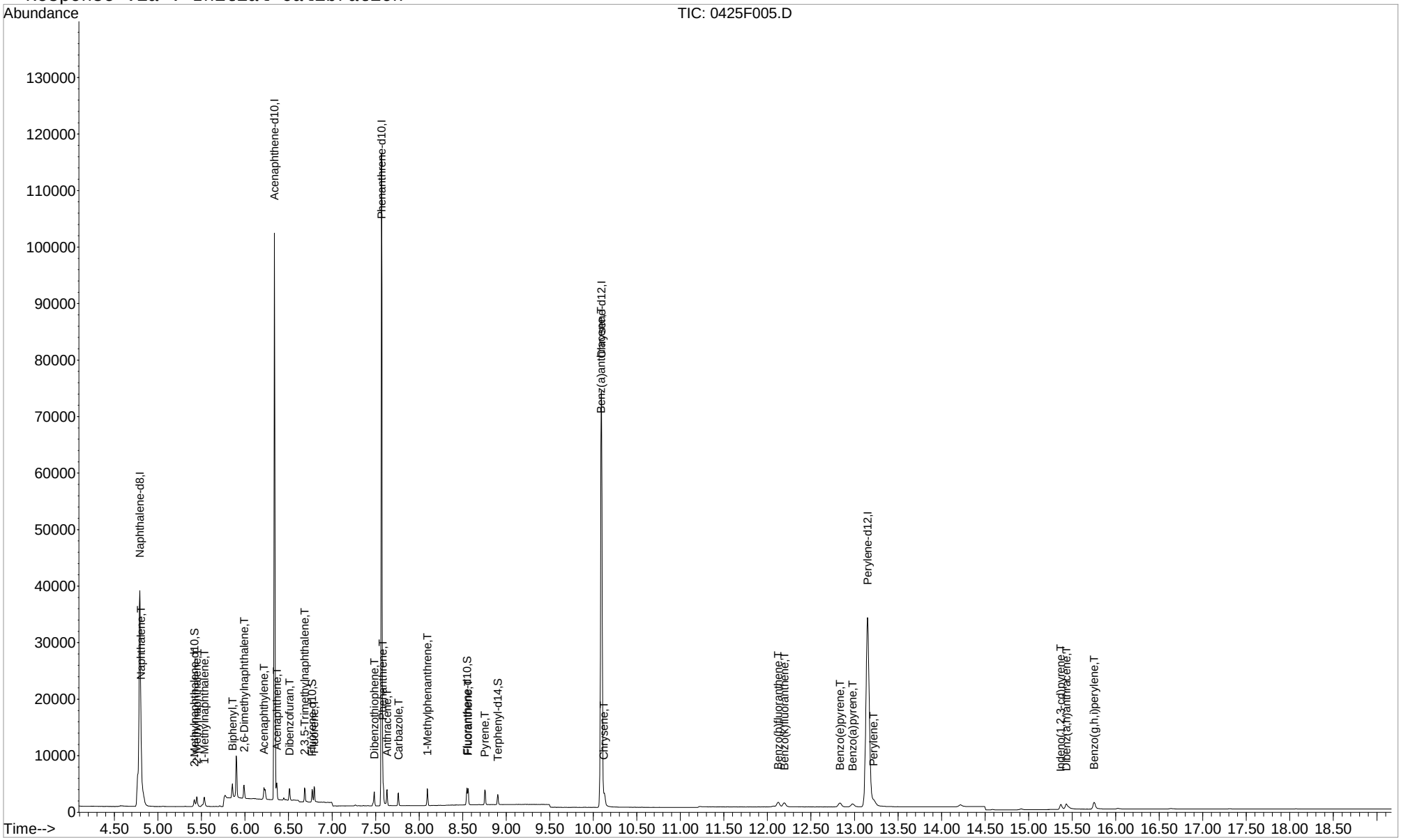
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F005.D Vial: 4
Acq On : 25 Apr 2019 8:08 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004 | SVM61-6B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:48 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration

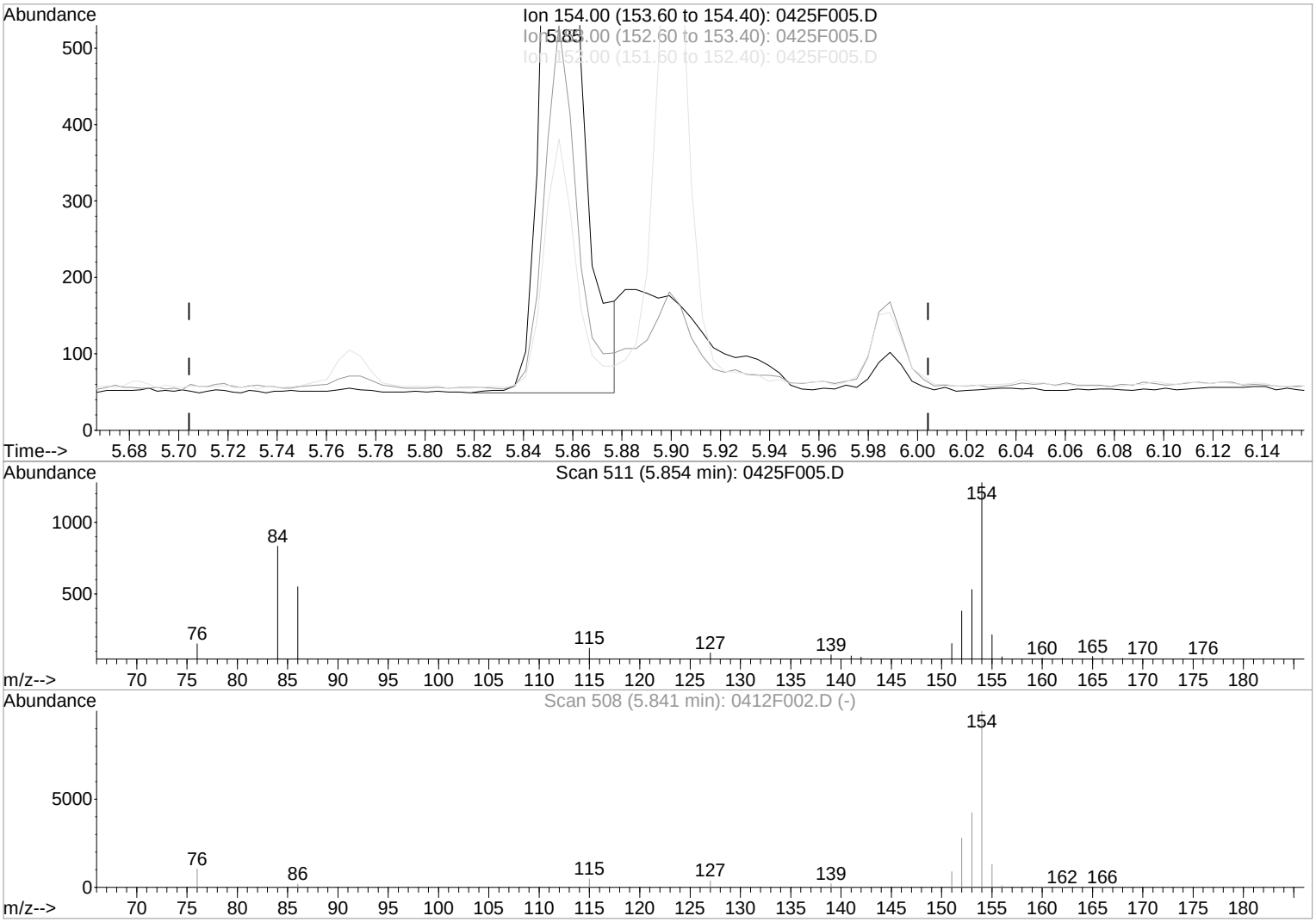


Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F005.D Vial: 4
Acq On : 25 Apr 2019 8:08 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004 | SVM61-6B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Multiple Level Calibration



TIC: 0425F005.D

(6) Biphenyl (T)

5.85min 4.58ng/ml

response 1129

Ion	Exp%	Act%
154.00	100	100
153.00	38.20	38.65
152.00	26.10	26.53
0.00	0.00	0.00

Manual Integration:

Before

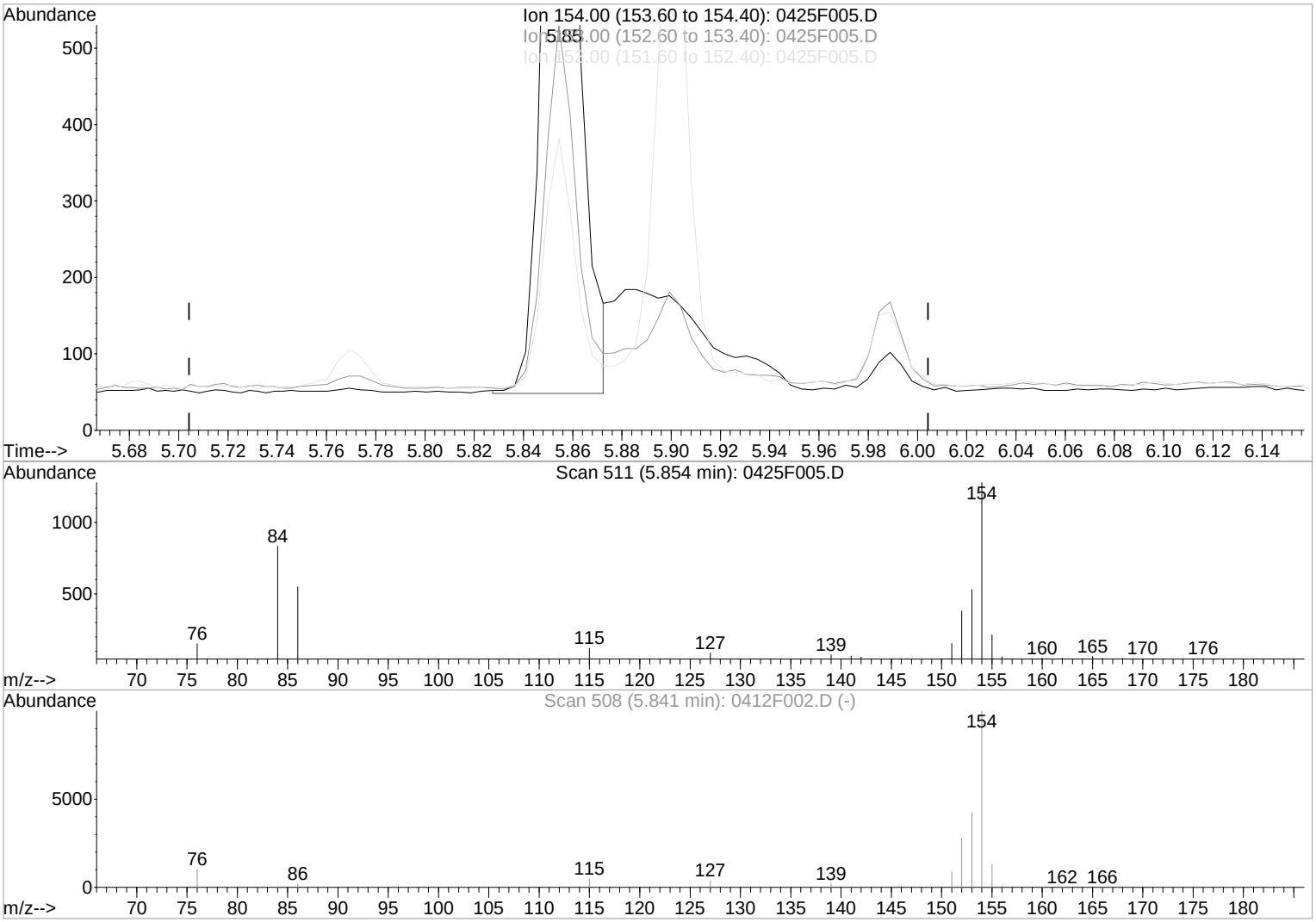
04/26/19

Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F005.D Vial: 4
Acq On : 25 Apr 2019 8:08 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004 | SVM61-6B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:48 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Multiple Level Calibration



TIC: 0425F005.D

(6) Biphenyl (T)

5.85min 4.46ng/ml m

response 1098

Ion	Exp%	Act%
154.00	100	100
153.00	38.20	41.55
152.00	26.10	29.81
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

04/26/19

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F006.D Vial: 5
Acq On : 25 Apr 2019 8:35 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008 | SVM61-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:35 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	53141	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	30045	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	65315	200.00	ng/ml	0.00
23) Chrysene-d12	10.09	240	55658	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	58101	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	1126	7.51	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.75%		
13) Fluorene-d10	6.77	176	1478	7.10	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.71%		
22) Fluoranthene-d10	8.55	212	2915	7.62	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.76%		
25) Terphenyl-d14	8.90	244	2231	9.09	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.91%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	2352	7.88	ng/ml	99
4) 2-Methylnaphthalene	5.45	142	1675	8.97	ng/ml	100
5) 1-Methylnaphthalene	5.53	142	1552	8.63	ng/ml	99
6) Biphenyl	5.85	154	2116m	8.75	ng/ml	
7) 2,6-Dimethylnaphthalene	5.99	156	1497	8.79	ng/ml	100
9) Acenaphthylene	6.22	152	2498	6.70	ng/ml	99
10) Acenaphthene	6.37	154	1523	7.16	ng/ml	99
11) Dibenzofuran	6.51	168	2423	7.06	ng/ml	98
12) 2,3,5-Trimethylnaphthalene	6.69	170	1494	7.37	ng/ml	84
14) Fluorene	6.79	166	1888	6.87	ng/ml	99
16) Dibenzothiophene	7.48	184	3020	7.09	ng/ml	94
17) Phenanthrene	7.59	178	3280	7.89	ng/ml	99
18) Anthracene	7.63	178	2907	7.28	ng/ml	99
19) Carbazole	7.76	167	2524	6.89	ng/ml	99
20) 1-Methylphenanthrene	8.09	192	2313	7.49	ng/ml	98
21) Fluoranthene	8.56	202	3656	7.70	ng/ml	98
24) Pyrene	8.76	202	3736	8.90	ng/ml	97
26) Benz(a)anthracene	10.08	228	2722	6.82	ng/ml	100
27) Chrysene	10.13	228	2785	7.67	ng/ml	99
29) Benzo(b)fluoranthene	12.13	252	2835	7.32	ng/ml	98
30) Benzo(k)fluoranthene	12.19	252	2684	7.33	ng/ml	100
31) Benzo(e)pyrene	12.83	252	2762	7.60	ng/ml	99
32) Benzo(a)pyrene	12.98	252	2155	5.92	ng/ml	100
33) Perylene	13.22	252	2522	7.30	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.37	276	2200	6.35	ng/ml	99
35) Dibenz(a,h)anthracene	15.43	278	2277	7.05	ng/ml	99
36) Benzo(g,h,i)perylene	15.75	276	3488	8.90	ng/ml	100

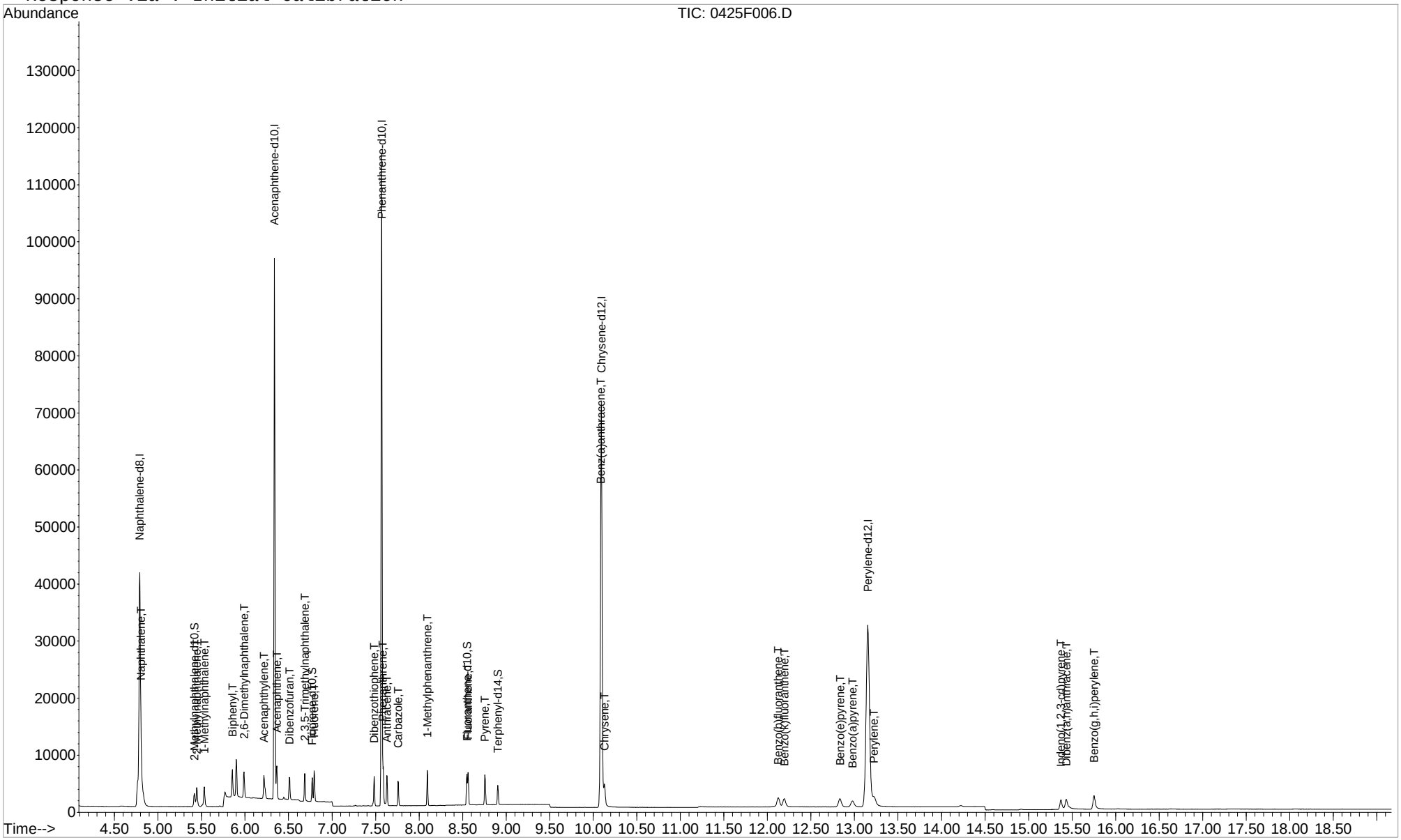
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F006.D Vial: 5
Acq On : 25 Apr 2019 8:35 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008 | SVM61-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:49 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration

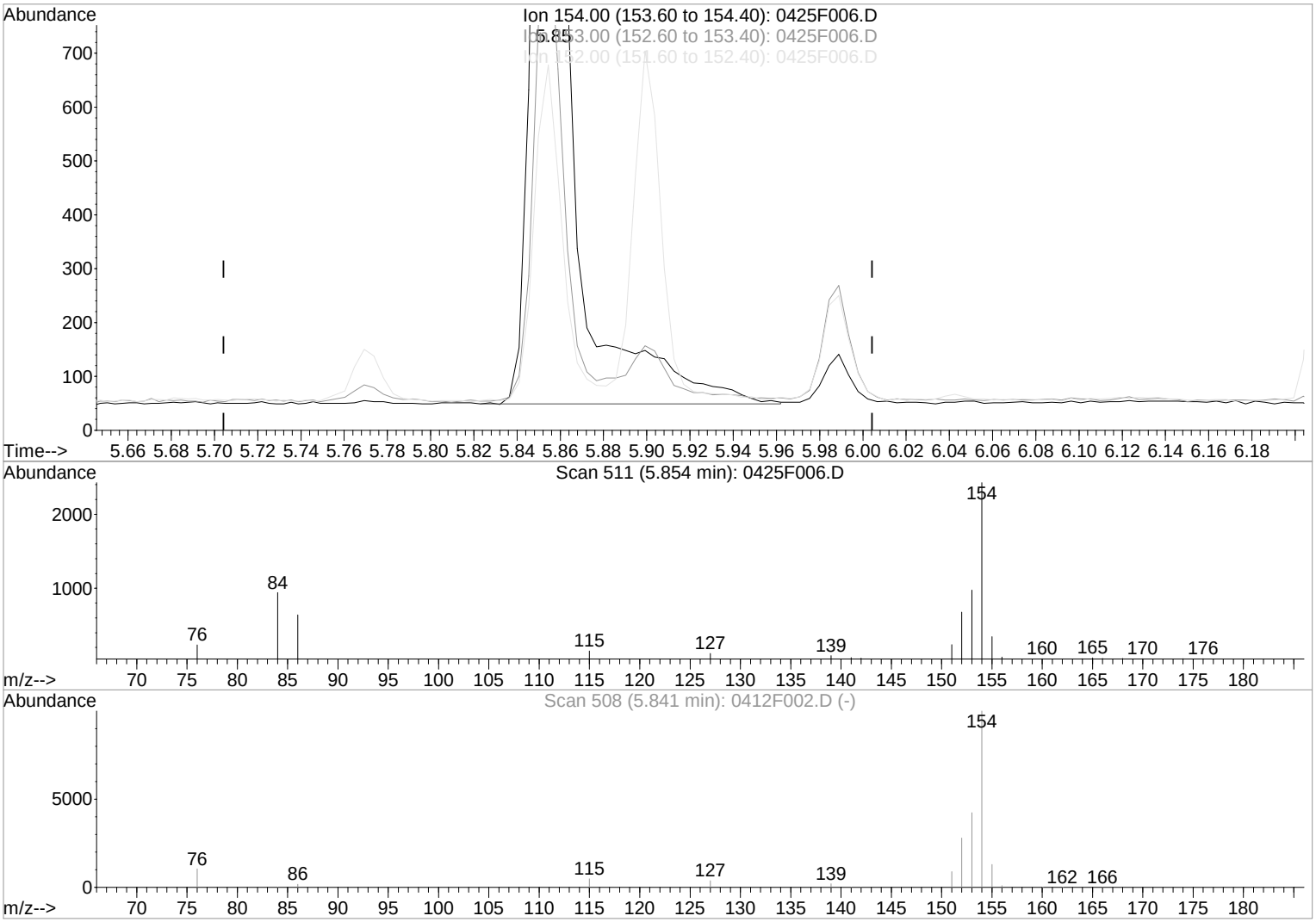


Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F006.D Vial: 5
Acq On : 25 Apr 2019 8:35 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008 | SVM61-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Multiple Level Calibration



TIC: 0425F006.D

(6) Biphenyl (T)

5.85min 9.80ng/ml

response 2371

Ion	Exp%	Act%
154.00	100	100
153.00	38.20	38.67
152.00	26.10	26.19
0.00	0.00	0.00

Manual Integration:

Before

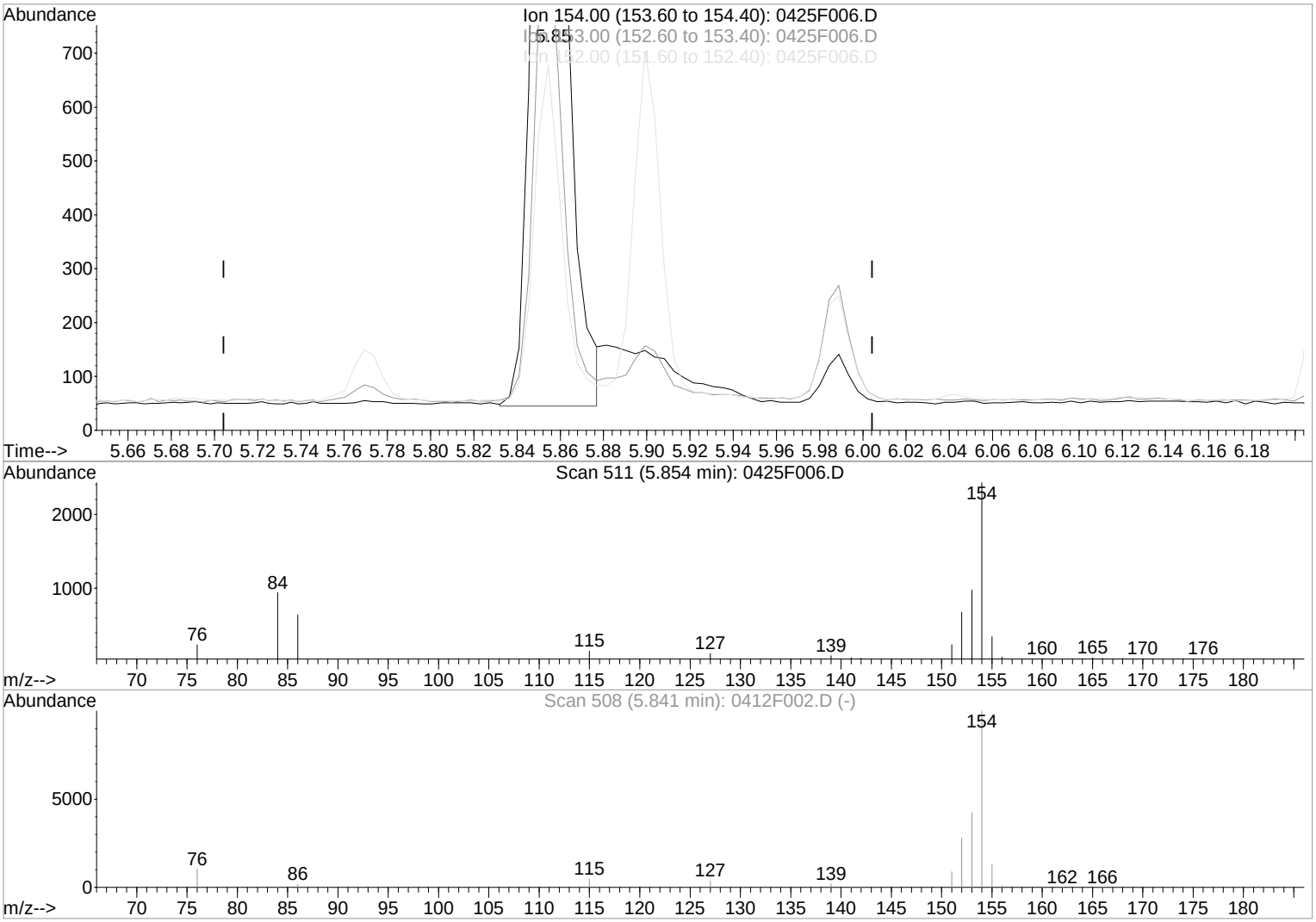
04/26/19

Quantitation Report (Qedit)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F006.D Vial: 5
Acq On : 25 Apr 2019 8:35 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008 | SVM61-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:49 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Multiple Level Calibration



TIC: 0425F006.D

(6) Biphenyl (T)

5.85min 8.75ng/ml m

response 2116

Ion	Exp%	Act%
154.00	100	100
153.00	38.20	40.12
152.00	26.10	27.92
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

04/26/19

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F007.D Vial: 6
Acq On : 25 Apr 2019 9:02 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02 | SVM61-6D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:35 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	52904	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	29541	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	64104	200.00	ng/ml	0.00
23) Chrysene-d12	10.09	240	55187	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	56915	200.00	ng/ml	-0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	2778	18.62	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	1.86%		
13) Fluorene-d10	6.77	176	3574	17.46	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	1.75%		
22) Fluoranthene-d10	8.55	212	7401	19.72	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	1.97%		
25) Terphenyl-d14	8.90	244	5535	22.74	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	2.27%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	5863	19.73	ng/ml	99
4) 2-Methylnaphthalene	5.45	142	4130	22.22	ng/ml	99
5) 1-Methylnaphthalene	5.53	142	3854	21.52	ng/ml	99
6) Biphenyl	5.85	154	5387	22.38	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.99	156	3697	21.80	ng/ml	99
9) Acenaphthylene	6.22	152	5936	16.19	ng/ml	99
10) Acenaphthene	6.37	154	3782	18.08	ng/ml	99
11) Dibenzofuran	6.51	168	6001	17.79	ng/ml	99
12) 2,3,5-Trimethylnaphthalene	6.69	170	3700	18.57	ng/ml	84
14) Fluorene	6.79	166	4665	17.26	ng/ml	98
16) Dibenzothiophene	7.49	184	7472	17.87	ng/ml	99
17) Phenanthrene	7.59	178	8063	19.75	ng/ml	99
18) Anthracene	7.63	178	7227	18.45	ng/ml	100
19) Carbazole	7.76	167	6216	17.29	ng/ml	100
20) 1-Methylphenanthrene	8.09	192	5814	19.18	ng/ml	99
21) Fluoranthene	8.56	202	9272	19.89	ng/ml	98
24) Pyrene	8.76	202	9447	22.70	ng/ml	96
26) Benz(a)anthracene	10.08	228	6574	16.60	ng/ml	99
27) Chrysene	10.13	228	7119	19.78	ng/ml	99
29) Benzo(b)fluoranthene	12.12	252	6977	18.39	ng/ml	99
30) Benzo(k)fluoranthene	12.19	252	6707	18.69	ng/ml	100
31) Benzo(e)pyrene	12.83	252	6977	19.61	ng/ml	100
32) Benzo(a)pyrene	12.98	252	5528	15.50	ng/ml	99
33) Perylene	13.22	252	6331	18.72	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.37	276	5661	16.69	ng/ml	99
35) Dibenz(a,h)anthracene	15.43	278	5850	18.50	ng/ml	99
36) Benzo(g,h,i)perylene	15.75	276	8777	22.85	ng/ml	100

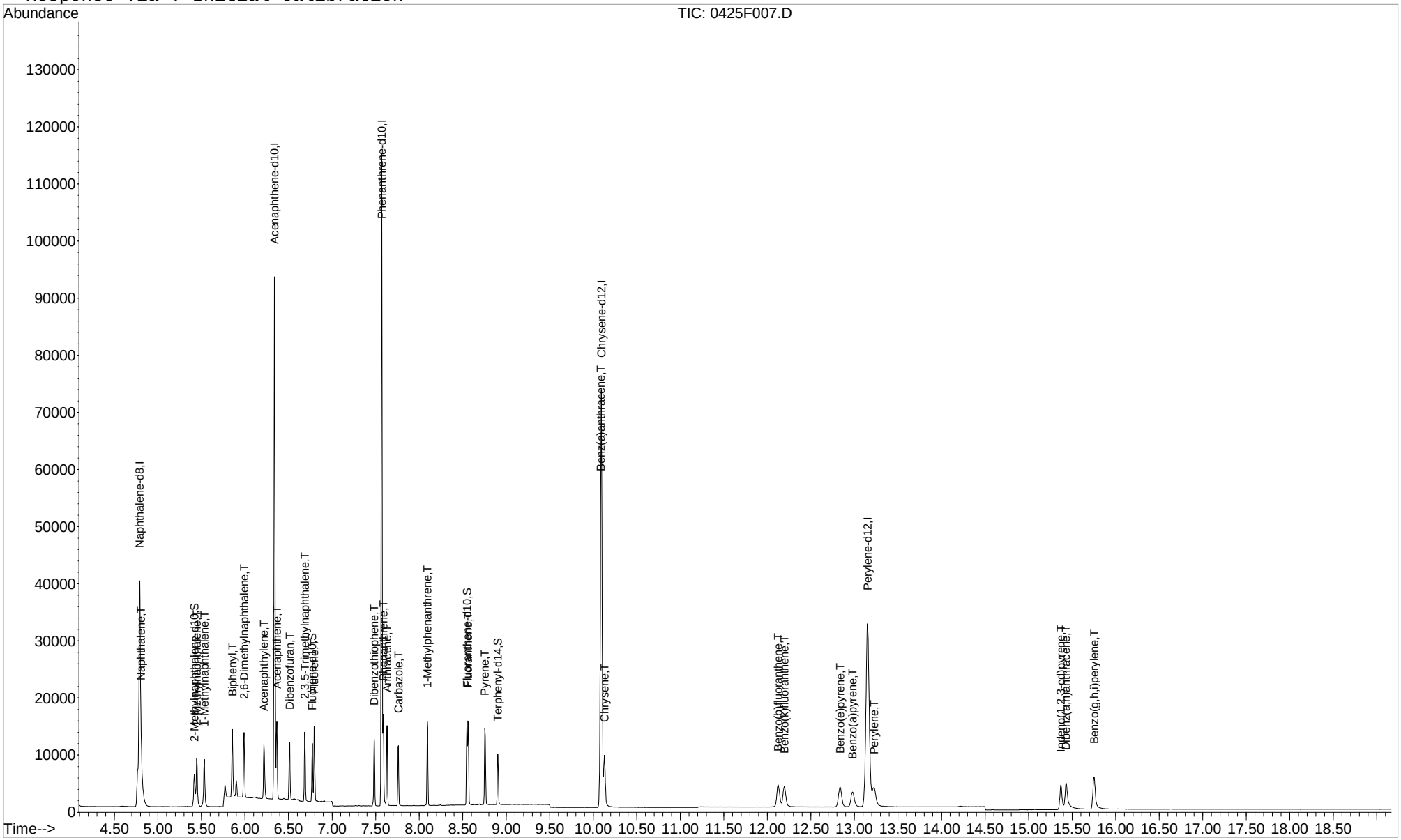
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F007.D Vial: 6
Acq On : 25 Apr 2019 9:02 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02 | SVM61-6D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F008.D Vial: 7
Acq On : 25 Apr 2019 9:29 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.1 ppm | SVM61-6E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:36 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	52077	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	28320	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	60372	200.00	ng/ml	0.00
23) Chrysene-d12	10.09	240	57184	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	62289	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	13451	91.60	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	9.16%		
13) Fluorene-d10	6.77	176	16579	84.50	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	8.45%		
22) Fluoranthene-d10	8.55	212	36951	104.54	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	10.45%		
25) Terphenyl-d14	8.90	244	27913	110.66	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	11.07%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	28363	96.96	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	19994	109.27	ng/ml	99
5) 1-Methylnaphthalene	5.53	142	18358	104.12	ng/ml	98
6) Biphenyl	5.85	154	24620	103.89	ng/ml	98
7) 2,6-Dimethylnaphthalene	5.99	156	17521	104.95	ng/ml	98
9) Acenaphthylene	6.22	152	28251	80.36	ng/ml	99
10) Acenaphthene	6.37	154	17941	89.46	ng/ml	99
11) Dibenzofuran	6.51	168	27866	86.16	ng/ml	100
12) 2,3,5-Trimethylnaphthalene	6.69	170	17418	91.21	ng/ml	99
14) Fluorene	6.79	166	21789	84.08	ng/ml	99
16) Dibenzothiophene	7.49	184	35593	90.40	ng/ml	99
17) Phenanthrene	7.59	178	37532	97.63	ng/ml	99
18) Anthracene	7.63	178	34979	94.82	ng/ml	99
19) Carbazole	7.76	167	31184	92.12	ng/ml	99
20) 1-Methylphenanthrene	8.10	192	28704	100.56	ng/ml	99
21) Fluoranthene	8.56	202	46164	105.15	ng/ml	97
24) Pyrene	8.76	202	47257	109.61	ng/ml	98
26) Benz(a)anthracene	10.08	228	34859	84.95	ng/ml	99
27) Chrysene	10.13	228	36719	98.46	ng/ml	99
29) Benzo(b)fluoranthene	12.13	252	40343	97.14	ng/ml	100
30) Benzo(k)fluoranthene	12.20	252	40023	101.91	ng/ml	100
31) Benzo(e)pyrene	12.83	252	39052	100.28	ng/ml	100
32) Benzo(a)pyrene	12.98	252	31982	81.94	ng/ml	100
33) Perylene	13.23	252	35113	94.84	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.37	276	33350	89.84	ng/ml	99
35) Dibenz(a,h)anthracene	15.43	278	35312	102.02	ng/ml	99
36) Benzo(g,h,i)perylene	15.75	276	45128	107.35	ng/ml	99

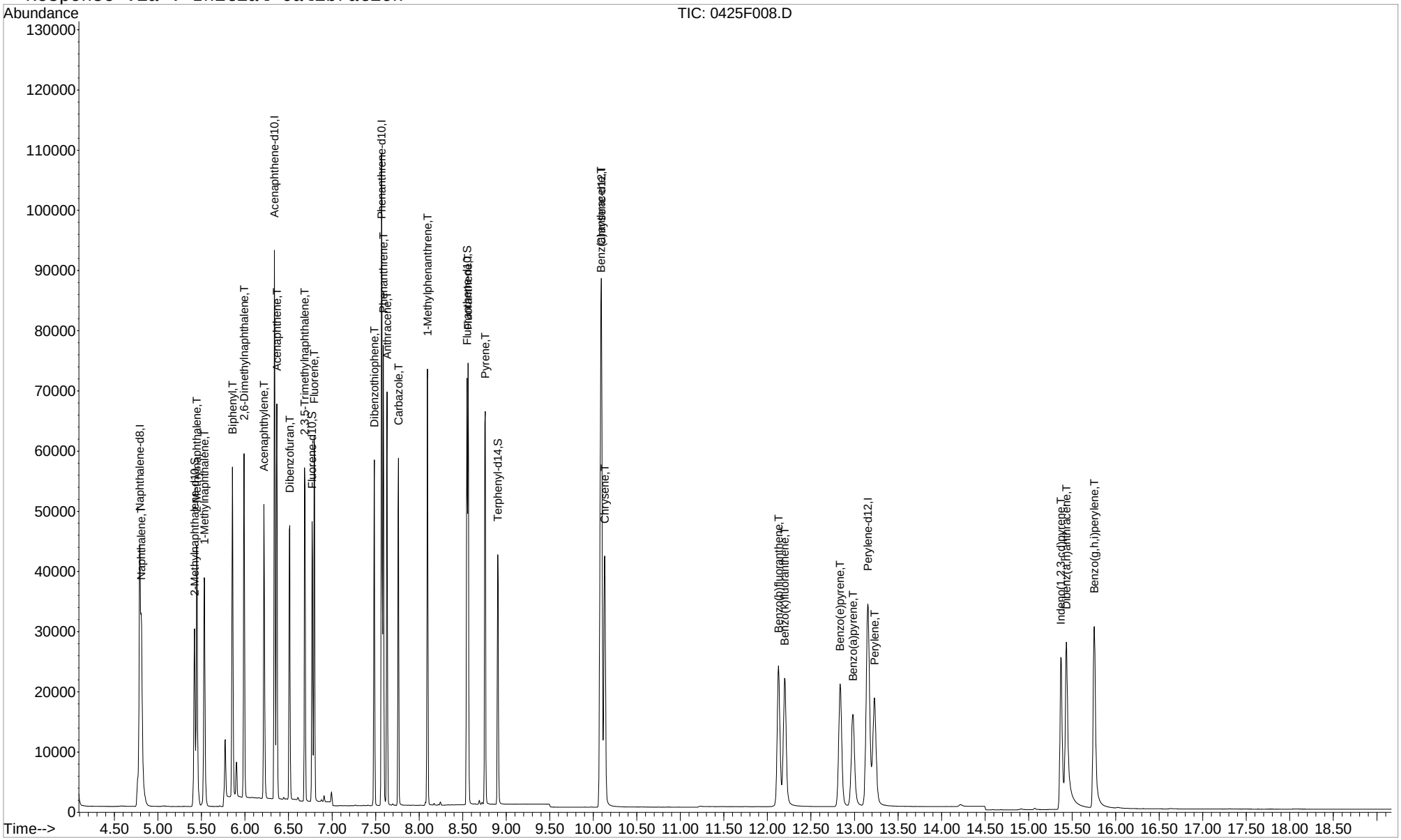
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F008.D Vial: 7
Acq On : 25 Apr 2019 9:29 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.1 ppm | SVM61-6E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F009.D Vial: 8
Acq On : 25 Apr 2019 9:56 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.2 ppm | SVM61-6F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:36 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	52598	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	27959	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	58942	200.00	ng/ml	0.00
23) Chrysene-d12	10.09	240	58645	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	66668	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	26298	177.31	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	17.73%		
13) Fluorene-d10	6.77	176	31609	163.18	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	16.32%		
22) Fluoranthene-d10	8.55	212	72703	210.68	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	21.07%		
25) Terphenyl-d14	8.90	244	55511	214.59	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	21.46%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	55622	188.27	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	38725	209.54	ng/ml	99
5) 1-Methylnaphthalene	5.53	142	35325	198.36	ng/ml	99
6) Biphenyl	5.85	154	47137	196.93	ng/ml	100
7) 2,6-Dimethylnaphthalene	5.99	156	33740	200.11	ng/ml	99
9) Acenaphthylene	6.22	152	55161	158.94	ng/ml	99
10) Acenaphthene	6.37	154	34439	173.95	ng/ml	99
11) Dibenzofuran	6.51	168	53058	166.18	ng/ml	99
12) 2,3,5-Trimethylnaphthalene	6.69	170	33625	178.35	ng/ml	86
14) Fluorene	6.79	166	41693	162.96	ng/ml	98
16) Dibenzothiophene	7.48	184	68305	177.69	ng/ml	94
17) Phenanthrene	7.59	178	71054	189.32	ng/ml	98
18) Anthracene	7.63	178	67620	187.75	ng/ml	99
19) Carbazole	7.76	167	61132	184.97	ng/ml	99
20) 1-Methylphenanthrene	8.09	192	55883	200.52	ng/ml	100
21) Fluoranthene	8.56	202	89742	209.37	ng/ml	98
24) Pyrene	8.76	202	92444	209.07	ng/ml	98
26) Benz(a)anthracene	10.08	228	72979	173.41	ng/ml	99
27) Chrysene	10.13	228	73554	192.32	ng/ml	98
29) Benzo(b)fluoranthene	12.13	252	84633	190.40	ng/ml	99
30) Benzo(k)fluoranthene	12.20	252	82395	196.03	ng/ml	99
31) Benzo(e)pyrene	12.84	252	80264	192.57	ng/ml	99
32) Benzo(a)pyrene	12.98	252	68458	163.88	ng/ml	100
33) Perylene	13.23	252	74901	189.02	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.37	276	68202	171.66	ng/ml	99
35) Dibenz(a,h)anthracene	15.43	278	73855	199.36	ng/ml	99
36) Benzo(g,h,i)perylene	15.75	276	90633	201.43	ng/ml	99

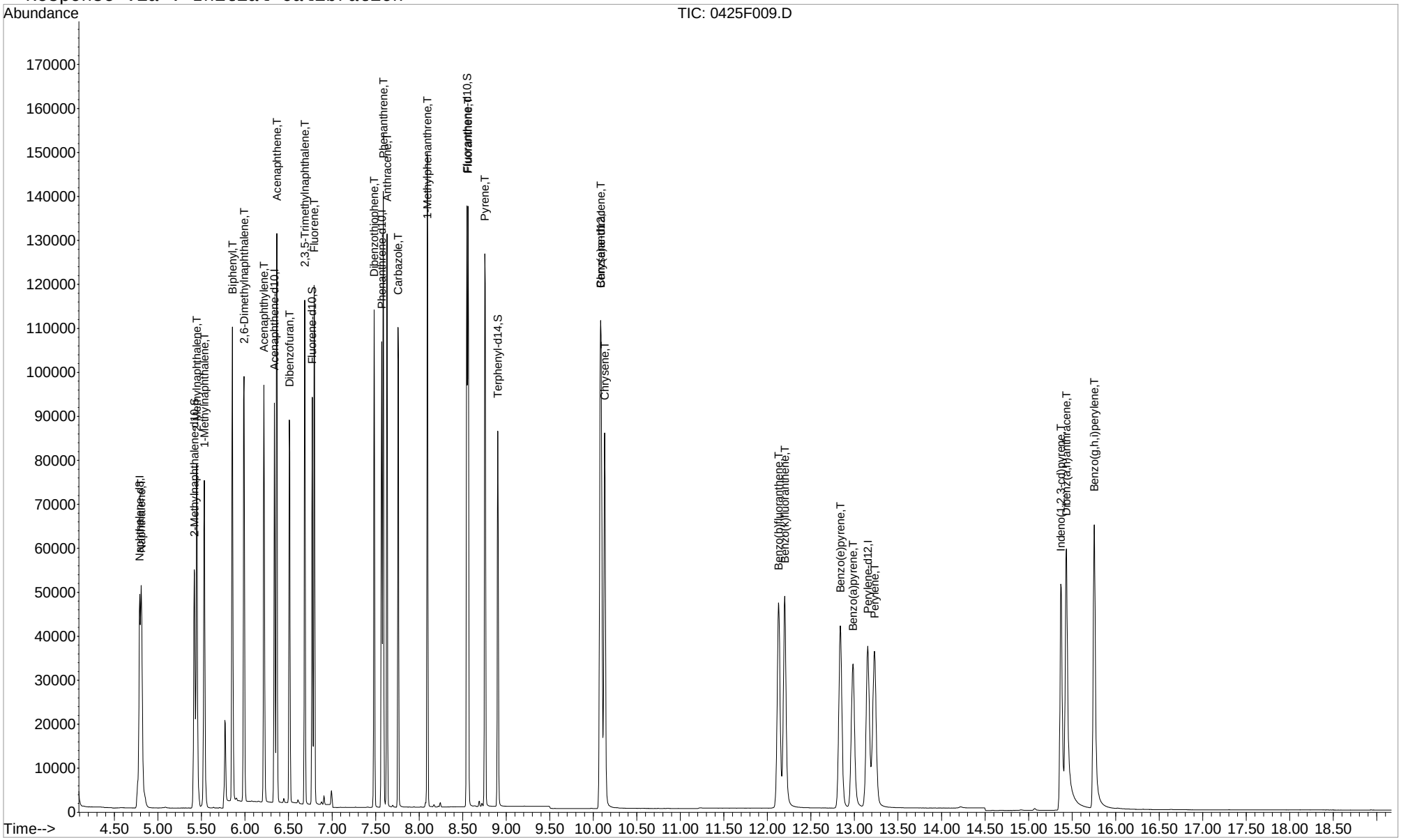
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F009.D Vial: 8
Acq On : 25 Apr 2019 9:56 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.2 ppm | SVM61-6F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F010.D Vial: 9
Acq On : 25 Apr 2019 10:23 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.4 ppm | SVM61-6G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:37 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	52797	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	27229	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	56937	200.00	ng/ml	0.00
23) Chrysene-d12	10.10	240	57657	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	67486	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	52484	352.53	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	35.25%		
13) Fluorene-d10	6.77	176	61653	326.81	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	32.68%		
22) Fluoranthene-d10	8.55	212	141660	424.96	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	42.50%		
25) Terphenyl-d14	8.90	244	109054	428.79	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	42.88%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	113118	381.43	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	76254	411.06	ng/ml	99
5) 1-Methylnaphthalene	5.53	142	69218	387.22	ng/ml	99
6) Biphenyl	5.85	154	91691	381.63	ng/ml	100
7) 2,6-Dimethylnaphthalene	5.99	156	66156	390.89	ng/ml	99
9) Acenaphthylene	6.22	152	108533	321.10	ng/ml	99
10) Acenaphthene	6.37	154	67190	348.47	ng/ml	99
11) Dibenzofuran	6.51	168	103070	331.47	ng/ml	100
12) 2,3,5-Trimethylnaphthalene	6.69	170	65929	359.06	ng/ml	98
14) Fluorene	6.80	166	79815	320.32	ng/ml	99
16) Dibenzothiophene	7.49	184	131848	355.07	ng/ml	100
17) Phenanthrene	7.59	178	134953	372.24	ng/ml	99
18) Anthracene	7.63	178	128937	370.60	ng/ml	99
19) Carbazole	7.76	167	119750	375.10	ng/ml	99
20) 1-Methylphenanthrene	8.10	192	109031	405.01	ng/ml	99
21) Fluoranthene	8.57	202	171257	413.61	ng/ml	99
24) Pyrene	8.76	202	180789	415.88	ng/ml	99
26) Benz(a)anthracene	10.08	228	151724	366.70	ng/ml	99
27) Chrysene	10.13	228	146003	388.30	ng/ml	99
29) Benzo(b)fluoranthene	12.13	252	179639	399.23	ng/ml	99
30) Benzo(k)fluoranthene	12.20	252	173956	408.85	ng/ml	99
31) Benzo(e)pyrene	12.84	252	167188	396.26	ng/ml	99
32) Benzo(a)pyrene	12.99	252	146941	347.49	ng/ml	99
33) Perylene	13.23	252	155887	388.63	ng/ml	99
34) Indeno(1,2,3-cd)pyrene	15.37	276	140438	349.19	ng/ml	99
35) Dibenz(a,h)anthracene	15.44	278	152372	406.32	ng/ml	99
36) Benzo(g,h,i)perylene	15.76	276	170975	375.39	ng/ml	99

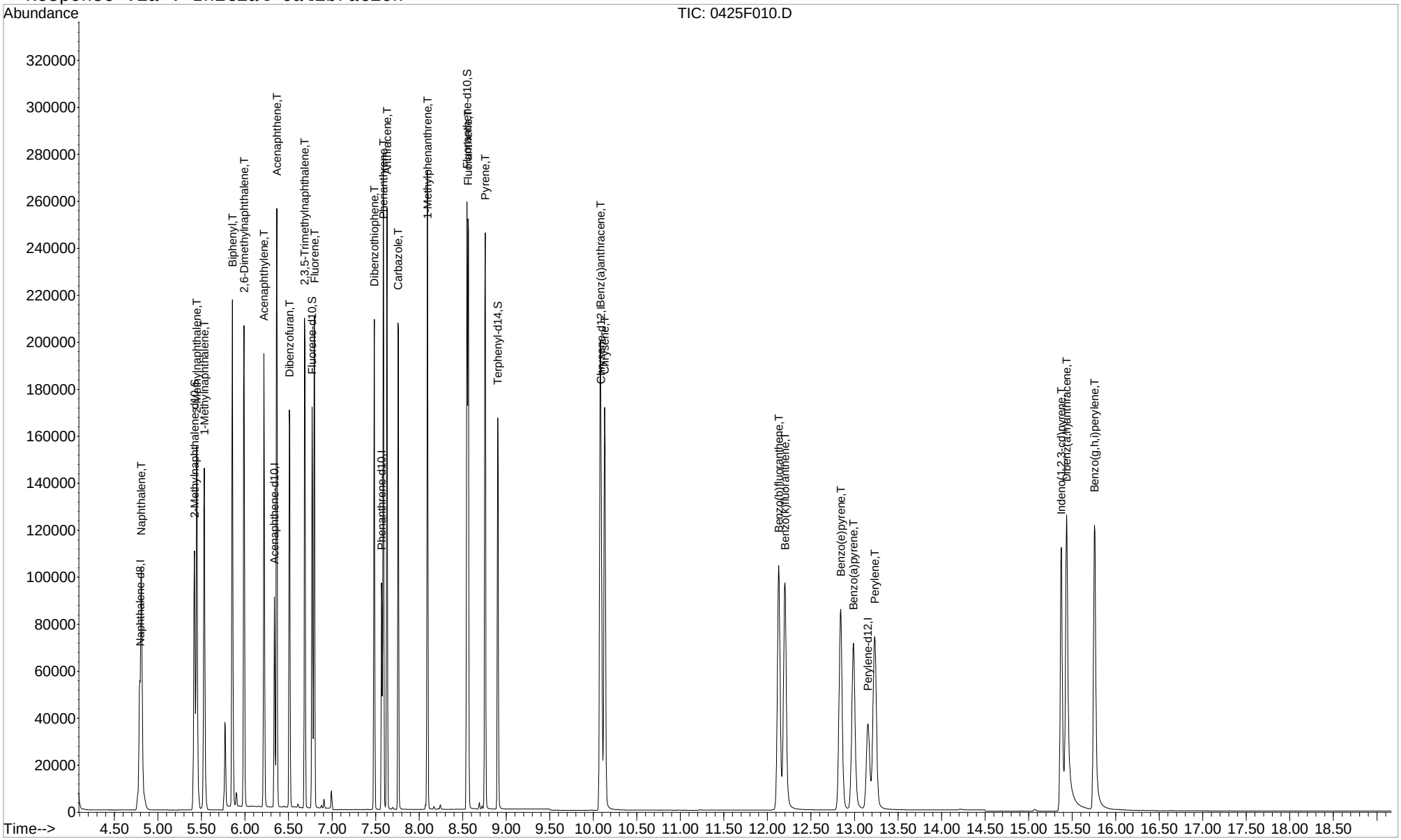
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F010.D Vial: 9
Acq On : 25 Apr 2019 10:23 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.4 ppm | SVM61-6G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F011.D Vial: 10
Acq On : 25 Apr 2019 10:50 am Operator: LWeiskopf
Sample : SIM-PAH @ 1.0 ppm | SVM61-6H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:37 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	51821	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	26135	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	53541	200.00	ng/ml	0.00
23) Chrysene-d12	10.10	240	55823	200.00	ng/ml	0.00
28) Perylene-d12	13.16	264	69172	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	121191	829.37	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	82.94%		
13) Fluorene-d10	6.77	176	137775	760.90	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	76.09%		
22) Fluoranthene-d10	8.55	212	316126	1008.49	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	100.85%		
25) Terphenyl-d14	8.91	244	235444	956.16	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	95.62%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	267477	918.92	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	169863	932.91	ng/ml	99
5) 1-Methylnaphthalene	5.53	142	156376	891.28	ng/ml	98
6) Biphenyl	5.85	154	206128	874.09	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.99	156	150415	905.47	ng/ml	98
9) Acenaphthylene	6.22	152	249748	769.82	ng/ml	99
10) Acenaphthene	6.37	154	151613	819.23	ng/ml	99
11) Dibenzofuran	6.51	168	232417	778.74	ng/ml	96
12) 2,3,5-Trimethylnaphthalene	6.69	170	147771	838.47	ng/ml	97
14) Fluorene	6.80	166	176158	736.56	ng/ml	99
16) Dibenzothiophene	7.49	184	295413	846.01	ng/ml	100
17) Phenanthrene	7.59	178	291073	853.79	ng/ml	100
18) Anthracene	7.63	178	277355	847.76	ng/ml	99
19) Carbazole	7.76	167	269991	899.35	ng/ml	99
20) 1-Methylphenanthrene	8.10	192	237898	939.76	ng/ml	99
21) Fluoranthene	8.57	202	364087	935.09	ng/ml	100
24) Pyrene	8.76	202	401217	953.27	ng/ml	100
26) Benz(a)anthracene	10.08	228	364584	910.11	ng/ml	100
27) Chrysene	10.13	228	341504	938.08	ng/ml	100
29) Benzo(b)fluoranthene	12.14	252	439475	952.88	ng/ml	100
30) Benzo(k)fluoranthene	12.21	252	416933	956.04	ng/ml	100
31) Benzo(e)pyrene	12.85	252	407810	943.01	ng/ml	99
32) Benzo(a)pyrene	13.00	252	371809	857.84	ng/ml	99
33) Perylene	13.24	252	385669	938.06	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.38	276	353328	857.11	ng/ml	99
35) Dibenz(a,h)anthracene	15.44	278	381549	992.66	ng/ml	99
36) Benzo(g,h,i)perylene	15.76	276	403051	863.36	ng/ml	99

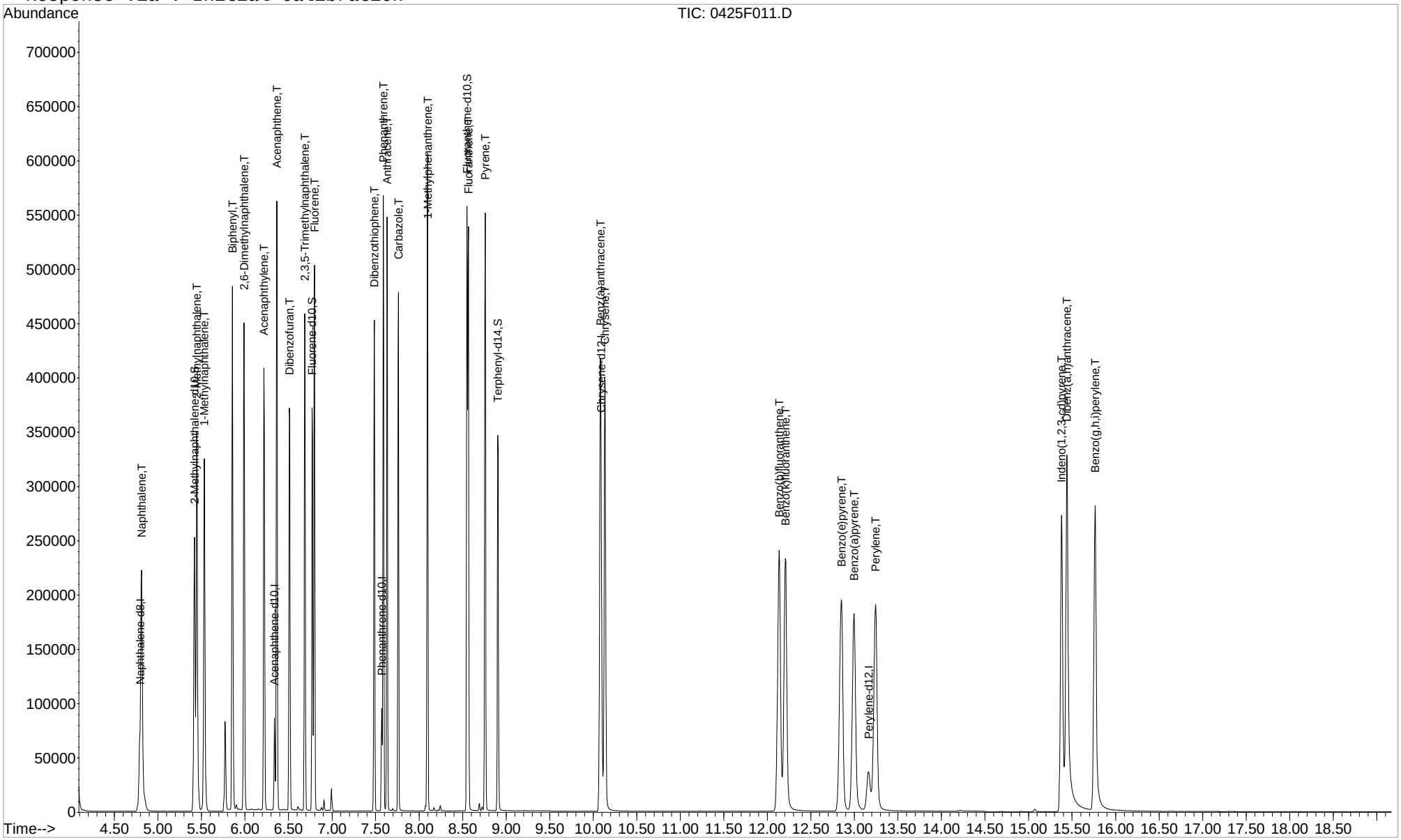
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F011.D Vial: 10
Acq On : 25 Apr 2019 10:50 am Operator: LWeiskopf
Sample : SIM-PAH @ 1.0 ppm | SVM61-6H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F012.D Vial: 11
Acq On : 25 Apr 2019 11:18 am Operator: LWeiskopf
Sample : SIM-PAH @ 1.6 ppm | SVM61-6I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:38 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	49722	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	25274	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	51649	200.00	ng/ml	0.00
23) Chrysene-d12	10.10	240	52617	200.00	ng/ml	0.00
28) Perylene-d12	13.17	264	66126	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	182083	1298.69	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 129.87%			
13) Fluorene-d10	6.78	176	206207	1177.63	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 117.76%			
22) Fluoranthene-d10	8.55	212	469619	1553.03	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 155.30%			
25) Terphenyl-d14	8.91	244	344341	1483.61	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 148.36%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	410427	1469.55	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	254187	1454.97	ng/ml	98
5) 1-Methylnaphthalene	5.53	142	235283	1397.62	ng/ml	100
6) Biphenyl	5.85	154	310020	1370.15	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.99	156	222944	1398.74	ng/ml	93
9) Acenaphthylene	6.22	152	375671	1197.41	ng/ml	99
10) Acenaphthene	6.37	154	225456	1259.74	ng/ml	98
11) Dibenzofuran	6.51	168	346618	1200.95	ng/ml	93
12) 2,3,5-Trimethylnaphthalene	6.69	170	218056	1279.42	ng/ml	90
14) Fluorene	6.80	166	260795	1127.60	ng/ml	100
16) Dibenzothiophene	7.49	184	437517	1298.87	ng/ml	96
17) Phenanthrene	7.59	178	427175	1298.91	ng/ml	99
18) Anthracene	7.63	178	409817	1298.53	ng/ml	99
19) Carbazole	7.76	167	407318	1406.50	ng/ml	98
20) 1-Methylphenanthrene	8.10	192	349865	1432.68	ng/ml	100
21) Fluoranthene	8.57	202	529010	1408.43	ng/ml	98
24) Pyrene	8.76	202	588478	1483.38	ng/ml	98
26) Benz(a)anthracene	10.08	228	556226	1473.11	ng/ml	100
27) Chrysene	10.14	228	512902	1494.74	ng/ml	99
29) Benzo(b)fluoranthene	12.14	252	674434	1529.69	ng/ml	100
30) Benzo(k)fluoranthene	12.22	252	635788	1525.03	ng/ml	100
31) Benzo(e)pyrene	12.86	252	626402	1515.20	ng/ml	100
32) Benzo(a)pyrene	13.01	252	578964	1397.31	ng/ml	100
33) Perylene	13.26	252	591804	1505.74	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.38	276	543910	1380.21	ng/ml	100
35) Dibenz(a,h)anthracene	15.45	278	584730	1591.35	ng/ml	100
36) Benzo(g,h,i)perylene	15.77	276	595807	1335.04	ng/ml	99

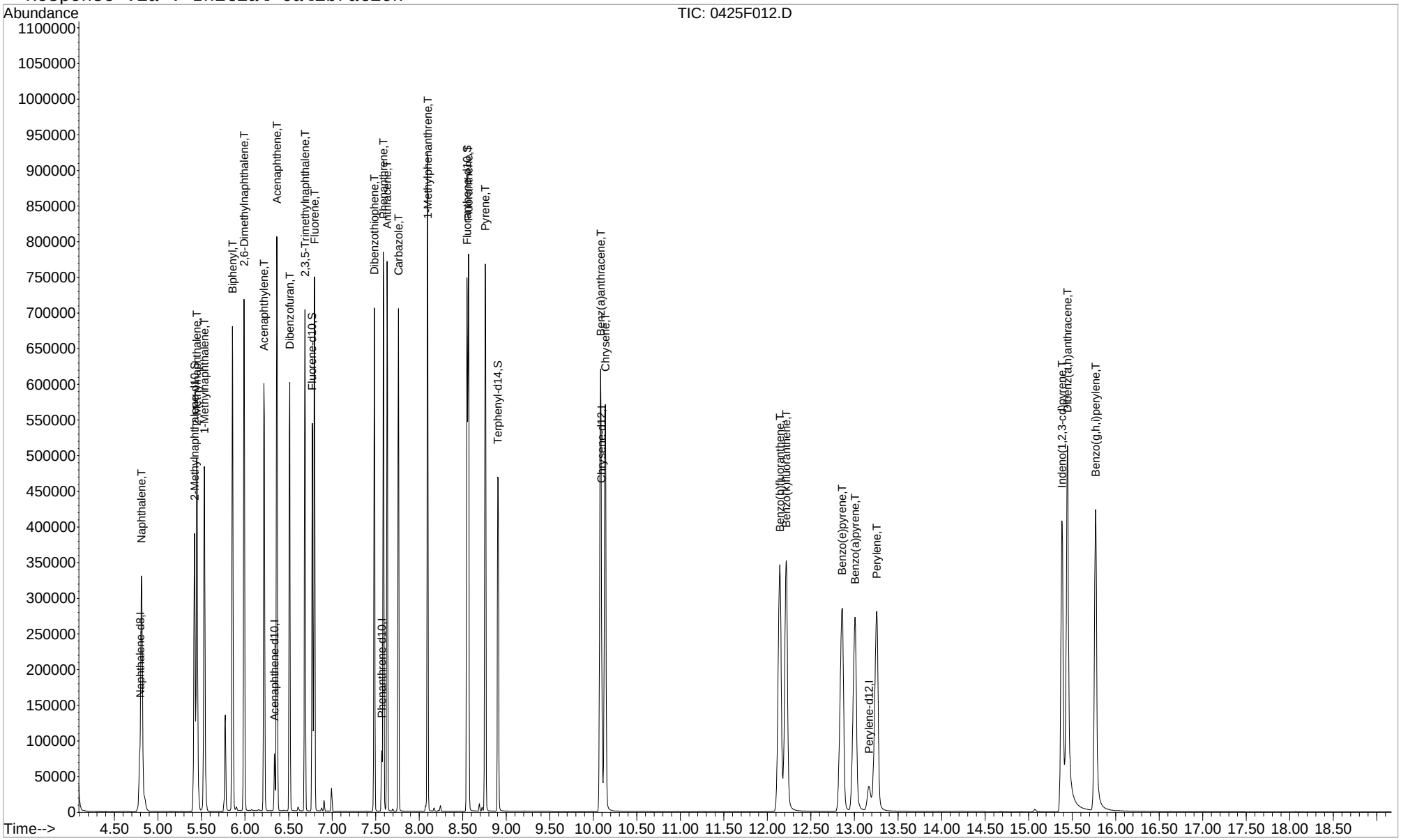
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F012.D Vial: 11
Acq On : 25 Apr 2019 11:18 am Operator: LWeiskopf
Sample : SIM-PAH @ 1.6 ppm | SVM61-6I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F013.D Vial: 12
Acq On : 25 Apr 2019 11:45 am Operator: LWeiskopf
Sample : SIM-PAH @ 2.0 ppm | SVM61-6J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21:38 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 05:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	47115	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	24493	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	49479	200.00	ng/ml	0.00
23) Chrysene-d12	10.10	240	50459	200.00	ng/ml	0.00
28) Perylene-d12	13.17	264	65463	200.00	ng/ml	0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	211106	1589.00	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 158.90%			
13) Fluorene-d10	6.77	176	241158	1421.15	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 142.12%			
22) Fluoranthene-d10	8.55	212	538923	1860.39	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 186.04%			
25) Terphenyl-d14	8.91	244	391763	1760.12	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 176.01%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	476951	1802.24	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	292496	1766.89	ng/ml	98
5) 1-Methylnaphthalene	5.53	142	273101	1712.03	ng/ml	98
6) Biphenyl	5.85	154	357649	1668.11	ng/ml	98
7) 2,6-Dimethylnaphthalene	5.99	156	261080	1728.64	ng/ml	94
9) Acenaphthylene	6.22	152	438569	1442.47	ng/ml	99
10) Acenaphthene	6.37	154	262536	1513.69	ng/ml	99
11) Dibenzofuran	6.51	168	407653	1457.45	ng/ml	92
12) 2,3,5-Trimethylnaphthalene	6.69	170	255565	1547.32	ng/ml	91
14) Fluorene	6.80	166	301337	1344.43	ng/ml	100
16) Dibenzothiophene	7.49	184	502985	1558.71	ng/ml	96
17) Phenanthrene	7.59	178	489191	1552.72	ng/ml	100
18) Anthracene	7.63	178	467812	1547.30	ng/ml	99
19) Carbazole	7.76	167	470095	1694.47	ng/ml	98
20) 1-Methylphenanthrene	8.10	192	404493	1729.03	ng/ml	100
21) Fluoranthene	8.57	202	602678	1674.94	ng/ml	97
24) Pyrene	8.76	202	669929	1760.92	ng/ml	98
26) Benz(a)anthracene	10.09	228	648162	1790.01	ng/ml	99
27) Chrysene	10.14	228	597084	1814.49	ng/ml	99
29) Benzo(b)fluoranthene	12.15	252	796673	1825.24	ng/ml	100
30) Benzo(k)fluoranthene	12.22	252	753980	1826.85	ng/ml	100
31) Benzo(e)pyrene	12.86	252	740940	1810.41	ng/ml	100
32) Benzo(a)pyrene	13.01	252	684675	1669.18	ng/ml	100
33) Perylene	13.26	252	701484	1802.88	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.39	276	656343	1682.38	ng/ml	100
35) Dibenz(a,h)anthracene	15.45	278	705342	1939.03	ng/ml	100
36) Benzo(g,h,i)perylene	15.78	276	716461	1621.65	ng/ml	99

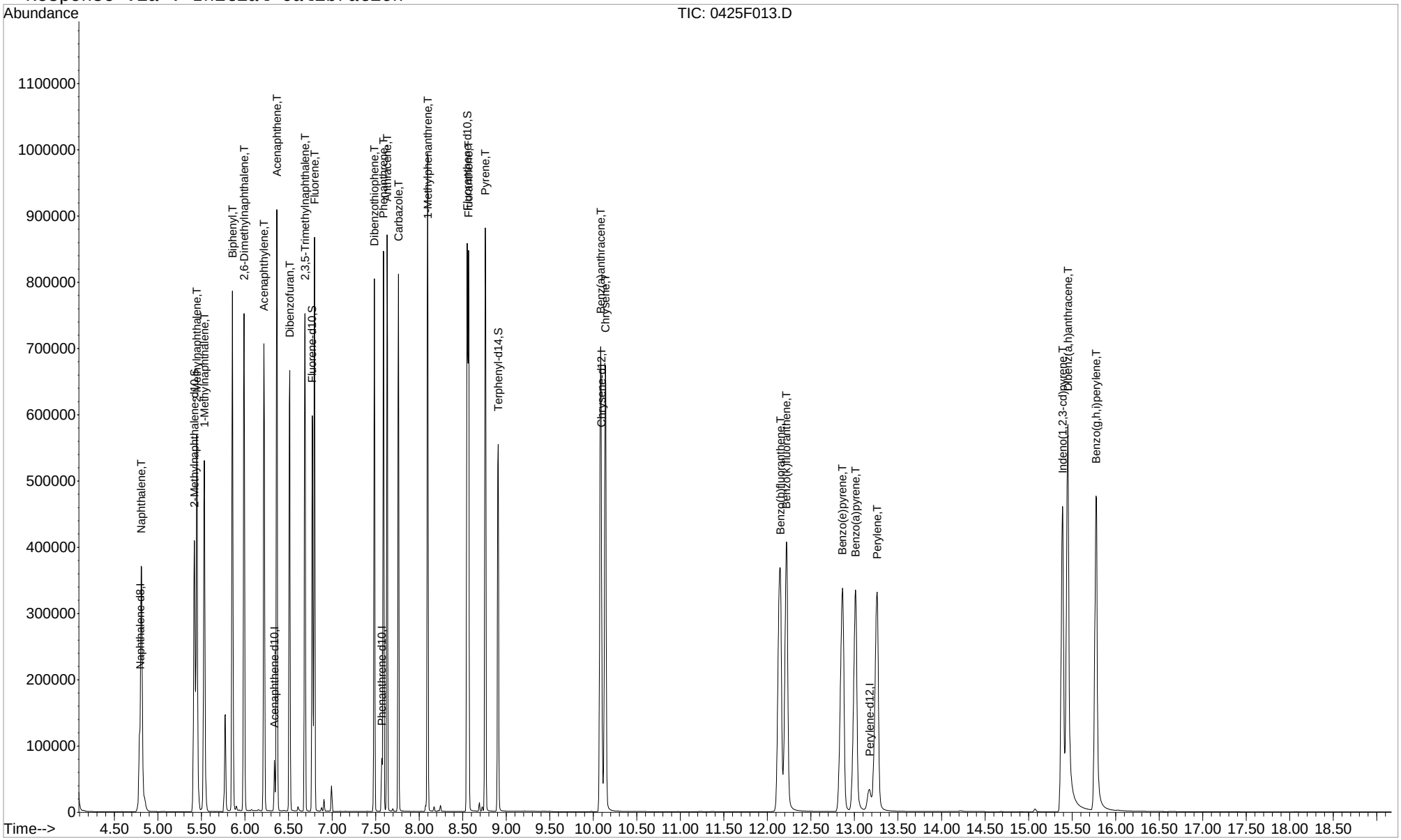
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F013.D Vial: 12
Acq On : 25 Apr 2019 11:45 am Operator: LWeiskopf
Sample : SIM-PAH @ 2.0 ppm | SVM61-6J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 25 12:21 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Apr 25 12:23:30 2019
Response via : Initial Calibration



1st 04/26/19
2nd 04/28/19

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\042519\0425F014.D Vial: 13
Acq On : 25 Apr 2019 12:12 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @ 0.4 ppm | SVM61-6K Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 09:56:41 2019 Quant Results File: 042519PAH.RES

Quant Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Apr 26 09:56:22 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

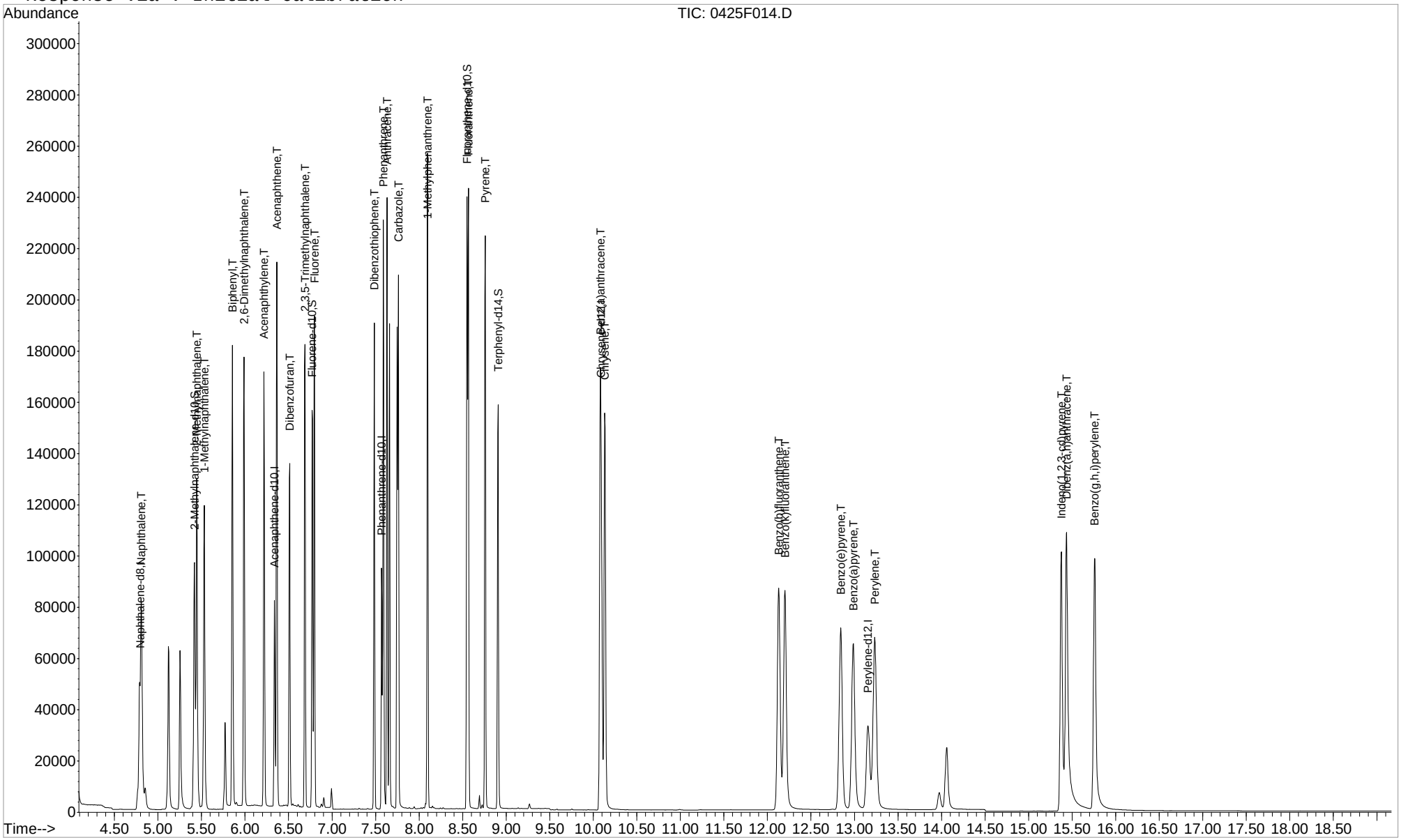
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.79	136	48476	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.34	164	25790	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	53453	200.00	ng/ml	0.00
23) Chrysene-d12	10.10	240	56347	200.00	ng/ml	0.00
28) Perylene-d12	13.15	264	63447	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.42	152	47794	390.97	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	39.10%		
13) Fluorene-d10	6.77	176	59327	404.69	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	40.47%		
22) Fluoranthene-d10	8.55	212	136358	435.34	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	43.53%		
25) Terphenyl-d14	8.91	244	105998	406.79	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	40.68%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	97291	374.66	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	63774	359.85	ng/ml	100
5) 1-Methylnaphthalene	5.53	142	57690	350.03	ng/ml	100
6) Biphenyl	5.85	154	80770	363.78	ng/ml	100
7) 2,6-Dimethylnaphthalene	5.99	156	58779	370.92	ng/ml	99
9) Acenaphthylene	6.22	152	100241	385.15	ng/ml	100
10) Acenaphthene	6.37	154	57239	362.29	ng/ml	100
11) Dibenzofuran	6.51	168	80947	326.56	ng/ml	98
12) 2,3,5-Trimethylnaphthalene	6.69	170	57270	370.54	ng/ml	97
14) Fluorene	6.80	166	70827	366.01	ng/ml	100
16) Dibenzothiophene	7.49	184	115772	380.75	ng/ml	100
17) Phenanthrene	7.59	178	116089	361.40	ng/ml	100
18) Anthracene	7.63	178	118393	405.05	ng/ml	99
19) Carbazole	7.76	167	106746	398.00	ng/ml	99
20) 1-Methylphenanthrene	8.10	192	97088	400.31	ng/ml	100
21) Fluoranthene	8.57	202	155987	412.32	ng/ml	99
24) Pyrene	8.76	202	157375	354.16	ng/ml	100
26) Benz(a)anthracene	10.08	228	137286	377.98	ng/ml	100
27) Chrysene	10.13	228	128726	364.80	ng/ml	100
29) Benzo(b)fluoranthene	12.13	252	156178	387.23	ng/ml	100
30) Benzo(k)fluoranthene	12.20	252	155109	408.04	ng/ml	100
31) Benzo(e)pyrene	12.84	252	140496	367.00	ng/ml	100
32) Benzo(a)pyrene	12.99	252	133377	412.93	ng/ml	100
33) Perylene	13.23	252	140699	398.38	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.38	276	130373	405.43	ng/ml	99
35) Dibenz(a,h)anthracene	15.44	278	131536	385.37	ng/ml	100
36) Benzo(g,h,i)perylene	15.76	276	143055	331.64	ng/ml	100

(#) = qualifier out of range (m) = manual integration

1st 04/26/19
2nd 04/28/19

Data File : J:\MS14\DATA\042519\0425F014.D Vial: 13
Acq On : 25 Apr 2019 12:12 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @ 0.4 ppm | SVM61-6K Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 26 9:56 2019 Quant Results File: 042519PAH.RES

Method : J:\MS14\METHODS\SIM\042519PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Apr 26 09:56:22 2019
Response via : Initial Calibration



Injection Log

Directory: J:\MS14\DATA\060719

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0607F001.D	1.	DFTPP @ 10ug/mL | SVM60-55B		7 Jun 2019 09:10
2	2	0607F002.D	1.	SIM-PAH CCV @ 0.4ug/mL SVM61-28A		7 Jun 2019 09:38
3	3	0607F003.D	1.	KQ1907578-4 MB		7 Jun 2019 10:05
4	4	0607F004.D	1.	KQ1907578-3 LCS		7 Jun 2019 10:33
5	5	0607F005.D	1.	K1905016-029MS		7 Jun 2019 11:00
6	6	0607F006.D	1.	K1905016-029DMS		7 Jun 2019 11:28
7	7	0607F007.D	1.	K1905016-029		7 Jun 2019 11:56
8	8	0607F008.D	1.	K1905016-026		7 Jun 2019 12:24
9	9	0607F009.D	1.	K1905016-028		7 Jun 2019 12:52
10	10	0607F010.D	1.	K1905016-021		7 Jun 2019 13:19
11	11	0607F011.D	1.	K1905016-031		7 Jun 2019 13:47
12	12	0607F012.D	1.	K1905016-032		7 Jun 2019 14:14
13	13	0607F013.D	1.	K1905016-033		7 Jun 2019 14:42
14	14	0607F014.D	1.	K1905016-034		7 Jun 2019 15:10
15	15	0607F015.D	1.	K1905016-030		7 Jun 2019 15:38
16	16	0607F016.D	1.	K1905014-005		7 Jun 2019 16:05
17	17	0607F017.D	1.	K1905016-027		7 Jun 2019 16:33
18	18	0607F018.D	1.	K1905016-035		7 Jun 2019 17:00
19	19	0607F019.D	1.	K1905016-036		7 Jun 2019 17:28
20	20	0607F020.D	1.	K1905016-037		7 Jun 2019 17:56
21	21	0607F021.D	1.	K1905016-038		7 Jun 2019 18:24
22	22	0607F022.D	1.	K1905016-039		7 Jun 2019 18:52
23	23	0607F023.D	1.	K1905016-040		7 Jun 2019 19:20
24	24	0607F024.D	1.	K1905016-004DMS SE		7 Jun 2019 19:47
25	100	0607F025.D	1.	DCM		7 Jun 2019 20:15
26	100	0607F026.D	1	DCM		7 Jun 2019 20:43
27	1	0607F027.D	1.	DFTPP @ 10ug/mL | SVM60-55B		7 Jun 2019 21:11
28	2	0607F028.D	1.	SIM-PAH CCV @ 0.4ug/mL SVM61-28A		7 Jun 2019 21:38
29	25	0607F029.D	1.	KQ1907801-3 MB		7 Jun 2019 22:06
30	26	0607F030.D	1.	K1905213-002		7 Jun 2019 22:35
31	27	0607F031.D	1.	KQ1907801-1 LCS		7 Jun 2019 23:02
32	28	0607F032.D	1.	KQ1907801-2 DLCS		7 Jun 2019 23:29
33	29	0607F033.D	1.	KQ1907688-3 MB		7 Jun 2019 23:57
34	30	0607F034.D	1.	KQ1907688-1 LCS		8 Jun 2019 00:24
35	31	0607F035.D	1.	KQ1907688-2 DLCS		8 Jun 2019 00:51
36	32	0607F036.D	1.	K1905141-003		8 Jun 2019 01:18
37	33	0607F037.D	1.	K1905141-005		8 Jun 2019 01:45
38	34	0607F038.D	1.	K1905141-015		8 Jun 2019 02:13
39	35	0607F039.D	1.	K1905141-020		8 Jun 2019 02:40
40	36	0607F040.D	1.	K1905141-021		8 Jun 2019 03:06
41	37	0607F041.D	1.	K1905141-028		8 Jun 2019 03:34
42	38	0607F042.D	1.	K1905141-029		8 Jun 2019 04:01
43	39	0607F043.D	1.	K1905144-001		8 Jun 2019 04:29
44	40	0607F044.D	1.	K1905144-002		8 Jun 2019 04:56
45	41	0607F045.D	1.	KQ1907599-4 MB		8 Jun 2019 05:24
46	42	0607F046.D	1.	KQ1907599-3 LCS		8 Jun 2019 05:52
47	43	0607F047.D	1.	K1904704-002MS		8 Jun 2019 06:20
48	44	0607F048.D	1.	K1904704-002DMS		8 Jun 2019 06:48
49	45	0607F049.D	1.	K1904704-002		8 Jun 2019 07:16
50	46	0607F050.D	1.	K1904704-001		8 Jun 2019 07:43

*LIMS # 638644
KC1900163
JUN 17 2019
6/17/19

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July 12, 2019

Analytical Report for Service Request No: K1905145
Revised Service Request No: K1905145.01

Randy Pratt
JH Baxter & Company
85 N Baxter Rd
Eugene, OR 97402

RE: Arlington Landfill Wells / Landfill Program

Dear Randy,

Enclosed is the revised report for the sample(s) submitted to our laboratory June 04, 2019
For your reference, these analyses have been assigned our service request number **K1905145.**

The PCP data has been updated in this report.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

We apologize for any inconvenience this may have created.

Please contact me if you have any questions. My extension is 3350. You may also contact me via email at Kelley.Lovejoy@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Kelley Lovejoy

Kelley Lovejoy
Project Manager

RIGHT SOLUTIONS | RIGHT PARTNER

REVISED
5:04 pm, Jul 12, 2019

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Table of Contents

Acronyms
Qualifiers
State Certifications, Accreditations, And Licenses
Case Narrative
Chain of Custody
Chlorinated Phenolics
Raw Data
    Chlorinated Phenolics

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: JH Baxter & Company
Project: Arlington Landfill Wells
Sample Matrix: Water

Service Request: K1905145
Date Received: 06/04/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Two water samples were received for analysis at ALS Environmental on 06/04/2019. As instructed, the discreet samples were composited at the laboratory to create one composite sample(s) EW Composite. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivoa GC:

Method 8151A Modified, Chlorinated Phenolics 06/12/2019: 4-Bromo-2,6-dichlorophenol is failing on one column for Continuing Calibratrion Verification (CCV) KQ1908184-03. The analyte will be reported from the passing column. No further corrective action is required.

Method 8151A Modified, Chlorinated Phenolics 06/12/2019: Field sample EW Composite was analyzed at a dilution due to previous history.

Approved by Kelley Lovejoy Date 06/18/2019

Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS

1317 South 13th, Kelso, WA 98626 (360) 577-7222 FAX (360) 636-1068

SR# K1905145

PAGE _____ OF _____

	0H	7D	28D	180D	7D

Project Name: JH Baxter - Arlington **Project Number:** _____

Project Manager: _____ **Company:** JH Baxter _____

Company/Address: 85 N Baxter Rd **Phone:** 541-689-3801

City, State, Zip: Eugene, OR 97402 **FAX:** 541-689-0769

Sampler's Signature: _____

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	Analysis Requested: SM 4500-H+ B / Ph	8270 D / PAH SIM	120.1 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	6020A / AS D	8151 A Modified/PCP only	REMARKS
EW 1	10/2/19	0635		water	1													X	PCP & breakdown
~~EW 2~~				water	1													X	products
~~EW 3~~				water	1													X	
EW 4	4/2/19	0720		water	1													X	

TURNAROUND REQUIREMENTS

_____ 24 hr _____ 48 hr _____ 5 day

_X_ Standard (21 days)

_____ Provide FAX Preliminary Results

Requested Report Date: _____

REPORT REQUIREMENTS

_____ I. Routine Report: Results, Method Blank, Surrogate, as required

_____ II. Report Dup., MS, MSD as required

_____ III. Data Validation Report (includes raw data)

_X_ IV. CLP Deliverable Report

_____ V. EDD

Comments/Special Instructions:

Composite will be put together at ALS.
4 samples will be sent.

Invoice Information

P.O. # _____

Bill to: JH Baxter & Co
San Mateo CA,94402

Questions? - Please Call Randy Pratt @ GSI Water Solutions 971-200-8512

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Printed Name: Matt Hansen	Printed Name: Naomi Pedersen	Printed Name:	Printed Name:
Firm: JH Baxter	Firm: ALS	Firm:	Firm:
Date/Time: 4/3/19 / 1300	Date/Time: 6.4.19 9:30	Date/Time:	Date/Time:

PC KL

Cooler Receipt and Preservation Form

Client JH Baxter Service Request *K19* 05145

Received: 6.4.19 Opened: 6.4.19 By: NP Unloaded: 6.4.19 By: NP

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____

If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID (NA)	Tracking Number	NA	File
1.2	1.2	7.4	7.6	0.2	397		4808 3230 2658		
-0.3	-0.5	2.4	2.2	-0.2	386		4808 3230 2647		

4. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA Y N

If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*

7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: Temp blank not indicative of sample temp, it was between the insert & bubble wrap away from ice. Missing Samples EW-2 & EW-3

Chlorinated Phenolics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

REVISED
5:03 pm, Jul 12, 2019

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905145
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/02/19
Sample Matrix:	Water	**Date Received:**	06/04/19 09:30
Sample Name:	EW COMPOSITE	**Units:**	ug/L
Lab Code:	K1905145-003	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4,5-Trichlorophenol	ND U	20	3.2	20	06/12/19 14:37	6/6/19	
2,4,6-Trichlorophenol	ND U	10	0.84	20	06/12/19 14:37	6/6/19	
3,4,5-Trichlorophenol	ND U	20	3.0	20	06/12/19 14:37	6/6/19	
2,3,4,5-Tetrachlorophenol	ND U	10	0.84	20	06/12/19 14:37	6/6/19	
2,3,5,6-Tetrachlorophenol	**8.1 J**	10	0.64	20	06/12/19 14:37	6/6/19	
Pentachlorophenol (PCP)	**190**	10	1.5	20	06/12/19 14:37	6/6/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	82	55 - 130	06/12/19 14:37	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905145
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KQ1907798-04	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4,5-Trichlorophenol	ND U	1.0	0.16	1	06/12/19 13:26	6/6/19	
2,4,6-Trichlorophenol	ND U	0.50	0.042	1	06/12/19 13:26	6/6/19	
3,4,5-Trichlorophenol	ND U	1.0	0.15	1	06/12/19 13:26	6/6/19	
2,3,4,5-Tetrachlorophenol	ND U	0.50	0.042	1	06/12/19 13:26	6/6/19	
2,3,5,6-Tetrachlorophenol	ND U	0.50	0.032	1	06/12/19 13:26	6/6/19	
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/12/19 13:26	6/6/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	117	55 - 130	06/12/19 13:26	

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905145
Date Collected: 06/02/19
Date Received: 6/4/19

Sample Name: EW COMPOSITE
Lab Code: K1905145-003

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
2,3,5,6-Tetrachlorophenol	0.64	8.1	11	30	J	20	06/12/19 14:37
Pentachlorophenol (PCP)	1.5	190	260	31		20	06/12/19 14:37

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905145
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: KQ1907798-03

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
2,3,4,5-Tetrachlorophenol	0.042	6.04	8.02	28		1	06/12/19 13:43
2,3,5,6-Tetrachlorophenol	0.032	6.47	8.13	23		1	06/12/19 13:43
2,4,5-Trichlorophenol	0.16	5.47	8.27	41	P	1	06/12/19 13:43
2,4,6-Trichlorophenol	0.042	5.69	7.32	25		1	06/12/19 13:43
3,4,5-Trichlorophenol	0.15	5.05	6.07	18		1	06/12/19 13:43
Pentachlorophenol (PCP)	0.071	6.46	8.94	32		1	06/12/19 13:43

Client: JH Baxter & Company **Service Request:** K1905145

Project: Arlington Landfill Wells/Landfill Program

Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Chlorinated Phenolics

Analysis Method: 8151A Modified

Extraction Method: Method

Sample Name	Lab Code	4-Bromo-2,6-dichlorophenol 55-130
EW COMPOSITE	K1905145-003	82
Method Blank	KQ1907798-04	117
Lab Control Sample	KQ1907798-03	111

Client:	JH Baxter & Company	**Service Request:**	K1905145
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19
Sample Matrix:	Water	**Date Extracted:**	06/06/19

Lab Control Sample Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Units:**	ug/L
Prep Method:	Method	**Basis:**	NA
		Analysis Lot:	639031

Lab Control Sample
KQ1907798-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
2,3,4,5-Tetrachlorophenol	6.04	10.0	60	36-94
2,3,5,6-Tetrachlorophenol	6.47	10.0	65	42-110
2,4,5-Trichlorophenol	5.47 P	10.0	55	20-101
2,4,6-Trichlorophenol	5.69	10.0	57	37-91
3,4,5-Trichlorophenol	5.05	10.0	51	10-105
Pentachlorophenol (PCP)	6.46	10.0	65	42-110

Client:	JH Baxter & Company	**Service Request:**	K1905145
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19 13:26
Sample Matrix:	Water	**Date Extracted:**	06/06/19

Method Blank Summary
Chlorinated Phenolics

Sample Name:	Method Blank	**Instrument ID:**	K-GC-28
Lab Code:	KQ1907798-04	**File ID:**	J:\GC28\Data\061219\0612F016.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	639031
Prep Method:	Method	**Extraction Lot:**	338124

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1907798-03	J:\GC28\Data\061219\0612F017.D\	06/12/19 13:43
EW COMPOSITE	K1905145-003	J:\GC28\Data\061219\0612F020.D\	06/12/19 14:37

Client:	JH Baxter & Company	**Service Request:**	K1905145
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19 13:43
Sample Matrix:	Water	**Date Extracted:**	06/06/19

Lab Control Sample Summary
Chlorinated Phenolics

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-28
Lab Code:	KQ1907798-03	**File ID:**	J:\GC28\Data\061219\0612F017.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	639031
Prep Method:	Method	**Extraction Lot:**	338124

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1907798-04	J:\GC28\Data\061219\0612F016.D\	06/12/19 13:26
EW COMPOSITE	K1905145-003	J:\GC28\Data\061219\0612F020.D\	06/12/19 14:37

Client: JH Baxter & Company **Service Request:** K1905145
Project: Arlington Landfill Wells **Calibration Date:** 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-1701
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Analyte

2,3,4,5-Tetrachlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	10	2.358	4.756E5	02	4.715	3.979E5	03	9.431	3.696E5
04	23.577	3.259E5	05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5

2,3,5,6-Tetrachlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	10	2.358	5.749E5	02	4.715	5.28E5	03	9.431	4.935E5
04	23.577	4.478E5	05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5

2,4,5-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	10	2.334	2.006E5	02	4.669	1.8E5	03	9.338	1.735E5
04	23.345	1.484E5	05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5

2,4,6-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	10	2.334	4.078E5	02	4.669	3.846E5	03	9.338	3.638E5
04	23.345	3.225E5	05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5

3,4,5-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	10	2.334	1.988E5	02	4.669	1.823E5	03	9.338	1.696E5
04	23.345	1.515E5	05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5

4-Bromo-2,6-dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	10	2.500	4.672E5	02	5.000	4.356E5	03	10.000	4.141E5
04	25.000	3.754E5	05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5
08	500.000	2.979E5	09	1000.000	2.755E5						

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	10	2.375	6.451E5	02	4.750	5.978E5	03	9.501	5.654E5

Client: JH Baxter & Company
Project: Arlington Landfill Wells

Service Request: K1905145
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-1701

Analyte

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	23.752	5.208E5	05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5
08	475.030	3.936E5	09	950.060	3.695E5						

Client: JH Baxter & Company
Project: Arlington Landfill Wells

Service Request: K1905145
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-1701

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
2,3,4,5-Tetrachlorophenol	TRG	Quadratic	COD	0.9997	≥0.99	3.79E5	
2,3,5,6-Tetrachlorophenol	TRG	Quadratic	COD	0.9997	≥0.99	4.819E5	
2,4,5-Trichlorophenol	TRG	Quadratic	COD	0.9991	≥0.99	1.615E5	
2,4,6-Trichlorophenol	TRG	Quadratic	COD	0.9995	≥0.99	3.489E5	
3,4,5-Trichlorophenol	TRG	Quadratic	COD	0.9991	≥0.99	1.603E5	
4-Bromo-2,6-dichlorophenol	SURR	Quadratic	COD	0.9994	≥0.99	3.824E5	
Pentachlorophenol (PCP)	TRG	Quadratic	COD	0.9990	≥0.99	5.2E5	

Client: JH Baxter & Company **Service Request:** K1905145
Project: Arlington Landfill Wells **Calibration Date:** 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-35
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Analyte

2,3,4,5-Tetrachlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	10	2.358	4.73E5	02	4.715	4.353E5	03	9.431	4.108E5
04	23.577	3.904E5	05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5

2,3,5,6-Tetrachlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	10	2.358	6.377E5	02	4.715	5.882E5	03	9.431	6.075E5
04	23.577	5.816E5	05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5

2,4,5-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	10	2.334	2.293E5	02	4.669	2.059E5	03	9.338	2.015E5
04	23.345	1.829E5	05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5

2,4,6-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	10	2.334	4.267E5	02	4.669	4.004E5	03	9.338	4.124E5
04	23.345	3.941E5	05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5

3,4,5-Trichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	10	2.334	2.115E5	02	4.669	1.919E5	03	9.338	1.89E5
04	23.345	1.732E5	05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5

4-Bromo-2,6-dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	10	2.500	3.934E5	02	5.000	3.777E5	03	10.000	4.048E5
04	25.000	4.138E5	05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5
08	500.000	4.395E5	09	1000.000	4.542E5						

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	10	2.375	7.52E5	02	4.750	6.912E5	03	9.501	6.875E5

Client: JH Baxter & Company
Project: Arlington Landfill Wells

Service Request: K1905145
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-35

Analyte

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	23.752	6.474E5	05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5
08	475.030	6.37E5	09	950.060	6.573E5						

Client: JH Baxter & Company
Project: Arlington Landfill Wells

Service Request: K1905145
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-35

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
2,3,4,5-Tetrachlorophenol	TRG	Average RF	% RSD	12.3	≤20	4.159E5	
2,3,5,6-Tetrachlorophenol	TRG	Average RF	% RSD	6.6	≤20	6.037E5	
2,4,5-Trichlorophenol	TRG	Quadratic	COD	0.9997	≥0.99	1.99E5	
2,4,6-Trichlorophenol	TRG	Average RF	% RSD	4.6	≤20	4.082E5	
3,4,5-Trichlorophenol	TRG	Quadratic	COD	0.9998	≥0.99	1.881E5	
4-Bromo-2,6-dichlorophenol	SURR	Average RF	% RSD	6.0	≤20	4.216E5	
Pentachlorophenol (PCP)	TRG	Average RF	% RSD	9.6	≤20	6.805E5	

Client: JH Baxter & Company **Service Request:** K1905145
Project: Arlington Landfill Wells **Calibration Date:** 2/28/2019

Initial Calibration Verification Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-1701
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900082-11	PENTA01-95D ICV	J:\GC28\Data\022819CAL\0228F016.D	02/28/2019 12:00

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	50.0	1.615E5	1.444E5	6.98	±20	Quadratic
2,4,6-Trichlorophenol	46.7	47.2	3.489E5	3.097E5	1.11	±20	Quadratic
3,4,5-Trichlorophenol	46.7	49.5	1.603E5	1.499E5	6.02	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	50.1	3.79E5	3.205E5	6.30	±20	Quadratic
2,3,5,6-Tetrachlorophenol	47.2	50.7	4.819E5	4.606E5	7.61	±20	Quadratic
Pentachlorophenol (PCP)	47.5	55.3	5.2E5	5.35E5	16.43	±20	Quadratic

Client: JH Baxter & Company **Service Request:** K1905145
Project: Arlington Landfill Wells **Calibration Date:** 2/28/2019

Initial Calibration Verification Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-35
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900082-11	PENTA01-95D ICV	J:\GC28\Data\022819CAL\0228F016.D	02/28/2019 12:00

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	50.7	1.99E5	1.911E5	8.54	±20	Quadratic
2,4,6-Trichlorophenol	46.7	46.7	4.082E5	4.085E5	0.085	±20	Average RF
3,4,5-Trichlorophenol	46.7	48.4	1.881E5	1.75E5	3.65	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	46.7	4.159E5	4.123E5	-0.870	±20	Average RF
2,3,5,6-Tetrachlorophenol	47.2	47.9	6.037E5	6.132E5	1.56	±20	Average RF
Pentachlorophenol (PCP)	47.5	48.8	6.805E5	6.996E5	2.80	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905145
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19 12:50

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061219\0612F014.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	639031
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	42.5	1.99E5	1.614E5	NA	-8.9	±20	Quadratic
2,4,6-Trichlorophenol	46.7	41.1	4.082E5	3.594E5	-11.9	NA	±20	Average RF
3,4,5-Trichlorophenol	46.7	42.5	1.881E5	1.542E5	NA	-9.0	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	40.2	4.159E5	3.542E5	-14.8	NA	±20	Average RF
2,3,5,6-Tetrachlorophenol	47.2	41.8	6.037E5	5.349E5	-11.4	NA	±20	Average RF
Pentachlorophenol (PCP)	47.5	41.6	6.805E5	5.957E5	-12.5	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	41.7	4.216E5	3.514E5	-16.7	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905145
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19 12:50

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061219\0612F014.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	639031
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	53.5	1.615E5	1.539E5	NA	14.6	±20	Quadratic
2,4,6-Trichlorophenol	46.7	53.6	3.489E5	3.492E5	NA	14.8	±20	Quadratic
3,4,5-Trichlorophenol	46.7	51.1	1.603E5	1.546E5	NA	9.5	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	53.0	3.79E5	3.376E5	NA	12.4	±20	Quadratic
2,3,5,6-Tetrachlorophenol	47.2	54.1	4.819E5	4.894E5	NA	14.7	±20	Quadratic
Pentachlorophenol (PCP)	47.5	56.2	5.2E5	5.433E5	NA	18.3	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	55.8	3.824E5	3.841E5	NA	11.5	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1905145
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19 17:00

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061219\0612F028.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	639031
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	40.1	1.99E5	1.523E5	NA	-14.2	±20	Quadratic
2,4,6-Trichlorophenol	46.7	38.4	4.082E5	3.358E5	-17.7	NA	±20	Average RF
3,4,5-Trichlorophenol	46.7	40.2	1.881E5	1.461E5	NA	-13.9	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	37.6	4.159E5	3.321E5	-20.2	NA	±20	Average RF
2,3,5,6-Tetrachlorophenol	47.2	38.9	6.037E5	4.976E5	-17.6	NA	±20	Average RF
Pentachlorophenol (PCP)	47.5	38.5	6.805E5	5.509E5	-19.0	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	38.6	4.216E5	3.251E5	-22.9*	NA	±20	Average RF

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
Service Request: K1905145
Date Analyzed: 06/12/19 17:00

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method: 8151A Modified
File ID: J:\GC28\Data\061219\0612F028.D\
Signal ID: Rtx-1701
Calibration Date: 2/28/2019
Calibration ID: KC1900082
Analysis Lot: 639031
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	55.3	1.615E5	1.588E5	NA	18.5	±20	Quadratic
2,4,6-Trichlorophenol	46.7	54.5	3.489E5	3.551E5	NA	16.8	±20	Quadratic
3,4,5-Trichlorophenol	46.7	53.9	1.603E5	1.622E5	NA	15.4	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	51.5	3.79E5	3.286E5	NA	9.2	±20	Quadratic
2,3,5,6-Tetrachlorophenol	47.2	55.3	4.819E5	4.996E5	NA	17.2	±20	Quadratic
Pentachlorophenol (PCP)	47.5	56.9	5.2E5	5.498E5	NA	19.8	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	56.9	3.824E5	3.921E5	NA	13.9	±20	Quadratic

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
Service Request: K1905145
Date Analyzed: 06/12/19 22:37

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method: 8151A Modified
File ID: J:\GC28\Data\061219\0612F047.D\
Signal ID: Rtx-35
Calibration Date: 2/28/2019
Calibration ID: KC1900082
Analysis Lot: 639031
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	42.2	1.99E5	1.6E5	NA	-9.7	±20	Quadratic
2,4,6-Trichlorophenol	46.7	41.2	4.082E5	3.603E5	-11.7	NA	±20	Average RF
3,4,5-Trichlorophenol	46.7	42.2	1.881E5	1.531E5	NA	-9.6	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	39.5	4.159E5	3.482E5	-16.3	NA	±20	Average RF
2,3,5,6-Tetrachlorophenol	47.2	41.4	6.037E5	5.298E5	-12.3	NA	±20	Average RF
Pentachlorophenol (PCP)	47.5	40.8	6.805E5	5.847E5	-14.1	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	41.7	4.216E5	3.52E5	-16.5	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905145
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/12/19 22:37

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061219\0612F047.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	639031
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4,5-Trichlorophenol	46.7	51.1	1.615E5	1.474E5	NA	9.4	±20	Quadratic
2,4,6-Trichlorophenol	46.7	49.5	3.489E5	3.242E5	NA	6.1	±20	Quadratic
3,4,5-Trichlorophenol	46.7	48.6	1.603E5	1.473E5	NA	4.0	±20	Quadratic
2,3,4,5-Tetrachlorophenol	47.2	47.1	3.79E5	3.023E5	NA	-0.2	±20	Quadratic
2,3,5,6-Tetrachlorophenol	47.2	51.1	4.819E5	4.64E5	NA	8.4	±20	Quadratic
Pentachlorophenol (PCP)	47.5	53.4	5.2E5	5.17E5	NA	12.4	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	53.7	3.824E5	3.703E5	NA	7.4	±20	Quadratic

Client: JH Baxter & Company **Service Request:**K1905145
Project: Arlington Landfill Wells/Landfill Program

Analysis Run Log
Chlorinated Phenolics

Analysis Method: **Analysis Lot:**639031
Instrument ID:K-GC-28

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\GC28\Data\061219\0612F003.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	09:37:00	
J:\GC28\Data\061219\0612F004.D\	Continuing Calibration Blank	KQ1908184-06	6/12/2019	09:55:00	
J:\GC28\Data\061219\0612F005.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	10:12:00	
J:\GC28\Data\061219\0612F006.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	10:30:00	
J:\GC28\Data\061219\0612F007.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	10:47:00	
J:\GC28\Data\061219\0612F008.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	11:05:00	
J:\GC28\Data\061219\0612F009.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	11:22:00	
J:\GC28\Data\061219\0612F010.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	11:40:00	
J:\GC28\Data\061219\0612F011.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	11:57:00	
J:\GC28\Data\061219\0612F012.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	12:15:00	
J:\GC28\Data\061219\0612F013.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	12:33:00	
J:\GC28\Data\061219\0612F014.D\	Continuing Calibration Verification	KQ1908184-02	6/12/2019	12:50:00	
J:\GC28\Data\061219\0612F015.D\	Continuing Calibration Blank	KQ1908184-07	6/12/2019	13:08:00	
J:\GC28\Data\061219\0612F016.D\	Method Blank	KQ1907798-04	6/12/2019	13:26:00	
J:\GC28\Data\061219\0612F017.D\	Lab Control Sample	KQ1907798-03	6/12/2019	13:43:00	
J:\GC28\Data\061219\0612F018.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	14:01:00	
J:\GC28\Data\061219\0612F019.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	14:19:00	
J:\GC28\Data\061219\0612F020.D\	EW COMPOSITE	K1905145-003	6/12/2019	14:37:00	
J:\GC28\Data\061219\0612F021.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	14:55:00	
J:\GC28\Data\061219\0612F023.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	15:30:00	
J:\GC28\Data\061219\0612F024.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	15:48:00	
J:\GC28\Data\061219\0612F025.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	16:06:00	
J:\GC28\Data\061219\0612F026.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	16:24:00	
J:\GC28\Data\061219\0612F027.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	16:42:00	
J:\GC28\Data\061219\0612F028.D\	Continuing Calibration Verification	KQ1908184-03	6/12/2019	17:00:00	
J:\GC28\Data\061219\0612F029.D\	Continuing Calibration Blank	KQ1908184-08	6/12/2019	17:18:00	
J:\GC28\Data\061219\0612F030.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	17:36:00	
J:\GC28\Data\061219\0612F031.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	17:54:00	
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J:\GC28\Data\061219\0612F033.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	18:30:00	
J:\GC28\Data\061219\0612F034.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	18:47:00	
J:\GC28\Data\061219\0612F035.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	19:05:00	
J:\GC28\Data\061219\0612F036.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	19:23:00	
J:\GC28\Data\061219\0612F037.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	19:41:00	
J:\GC28\Data\061219\0612F038.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	19:59:00	
J:\GC28\Data\061219\0612F039.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	20:16:00	
J:\GC28\Data\061219\0612F040.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	20:34:00	
J:\GC28\Data\061219\0612F041.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	20:52:00	
J:\GC28\Data\061219\0612F042.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	21:09:00	
J:\GC28\Data\061219\0612F043.D\	Continuing Calibration Blank	KQ1908184-09	6/12/2019	21:27:00	
J:\GC28\Data\061219\0612F044.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	21:45:00	
J:\GC28\Data\061219\0612F045.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	22:02:00	
J:\GC28\Data\061219\0612F046.D\	ZZZZZZZ	ZZZZZZZ	6/12/2019	22:20:00	
J:\GC28\Data\061219\0612F047.D\	Continuing Calibration Verification	KQ1908184-05	6/12/2019	22:37:00	
J:\GC28\Data\061219\0612F048.D\	Continuing Calibration Blank	KQ1908184-10	6/12/2019	22:55:00	

Prep Summary Report

Client: JH Baxter & Company **Service Request:**K1905145
Project: Arlington Landfill Wells/Landfill Program
Sample Matrix: Water

Chlorinated Phenolics

Prep Method: Method **Extraction Lot:** 338124
Analytical Method: 8151A Modified **Extraction Date:** 06/06/19 08:53

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
EW COMPOSITE	K1905145-003	6/2/19	6/4/19	5 mL	1 mL	
Lab Control Sample	KQ1907798-03LCS	NA	NA	5 mL	1 mL	
Method Blank	KQ1907798-04MB	NA	NA	5 mL	1 mL	

Raw Data

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Chlorinated Phenolics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

REVISED
5:03 pm, Jul 12, 2019

Preparation Information Benchsheet

Prep Run#: 338124
Team: Semivoa GC/WVANDERHOFF
Number of Copies to make: 3

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method

Status: Prepped
Prep Date/Time: 6/6/19 08:53

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1905144-001	BXS-1	.03	8151A Modified/PCP		Water	5mL	1.00mL	
2	K1905144-002	BXS-5	.03	8151A Modified/PCP		Water	5mL	1.00mL	
3	K1905145-003	EW COMPOSITE	.01	8151A Modified/PCP		Water	5mL	1.00mL	
4	K1905213-001	ADS A	.01	8151A Modified/PCP		Ground Water	5mL	1.00mL	
5	K1905213-002	ADS B	.01	8151A Modified/PCP		Ground Water	5mL	1.00mL	
6	K1905213-003	ADS C	.01	8151A Modified/PCP		Ground Water	5mL	1.00mL	
7	K1905213-004	INFLUENT	.01	8151A Modified/PCP		Ground Water	5mL	1.00mL	
8	KQ1907798-01	K1905213-004 MS	.01	8151A Modified/PCP		Liquid	5mL	1.00mL	
9	KQ1907798-02	K1905213-004 DMS	.01	8151A Modified/PCP		Liquid	5mL	1.00mL	
10	KQ1907798-03	LCS		8151A Modified/PCP		Liquid	5mL	1.00mL	
11	KQ1907798-04	MB		8151A Modified/PCP		Liquid	5mL	1.00mL	

Spiking Solutions

Name: 8151M Penta Matrix Spike Inventory ID 197895 Logbook Ref: Penta01-95L Expires On: 09/20/2019

KQ1907798-01 100.00µL KQ1907798-02 100.00µL KQ1907798-03 100.00µL

Name: 8151M Penta Surrogate Inventory ID 199349 Logbook Ref: Penta01-97J Expires On: 11/13/2019

K1905144-001 100.00µL K1905144-002 100.00µL K1905145-003 100.00µL K1905213-001 100.00µL K1905213-002 100.00µL K1905213-003 100.00µL
K1905213-004 100.00µL KQ1907798-01 100.00µL KQ1907798-02 100.00µL KQ1907798-03 100.00µL KQ1907798-04 100.00µL

Preparation Steps

Step:	Extraction	Step:	Final Volume
Started:	6/6/19 08:53	Started:	6/6/19 12:04
Finished:	6/11/19 15:12	Finished:	6/6/19 12:32
By:	WVANDERHOFF	By:	WVANDERHOFF
Comments		Comments	Times Are messed up*** Derivitization start 13:09

Comments:

Reviewed By: MC Date: 6-13-19

Preparation Information Benchsheet

Prep Run#: 338124
Team: Semivoa GC/WVANDERHOFF

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method

Status: Prepped
Prep Date/Time: 6/6/19 08:53

Chain of Custody

Relinquished By:		Date: 6-11-19	Extracts Examined
Received By:		Date: 6-12-19	Yes (circled) No

Preparation Information Benchsheet

Prep Run#: 338124
Team: Semivoa GC/WVANDERHOFF
Number of Copies to make: 3

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method [redacted]

Status: Draft
Prep Date/Time: 6/6/19 08:53 AM

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. mL.	pH	Int. Vol mL.	Final Vol mL.	Surr Amt uL	Spike Amt uL
1	**K1905144-001**	BXS-1	.03	✓	8151A Modified / PCP	Water	5	<2		1	100	-
2	**K1905144-002**	BXS-5	.03	✓	8151A Modified / PCP	Water	5	<2		1		-
3	**K1905145-003**	EW COMPOSITE	.01	-	8151A Modified / PCP	Water	5	<2		1		-
4	**K1905213-001**	ADS A	.01	-	8151A Modified / PCP	Ground Water	5	<2		1		-
5	**K1905213-002**	ADS B	.01	-	8151A Modified / PCP	Ground Water	5	<2		1		-
6	**K1905213-003**	ADS C	.01	-	8151A Modified / PCP	Ground Water	5	<2		1		-
7	**K1905213-004**	INFLUENT	.01	✓	8151A Modified / PCP	Ground Water	5	<2		1		✓
8	**KQ1907798-01**	K1905213-004 MS	.01	✓	8151A Modified / PCP	Liquid	5	<2		1		100
9	**KQ1907798-02**	K1905213-004 DMS	.01	✓	8151A Modified / PCP	Liquid	5	<2		1		100
10	**KQ1907798-03**	LCS	—	—	8151A Modified / PCP	Liquid	5	<2		1		-
11	**KQ1907798-04**	MB	—	—	8151A Modified / PCP	Liquid	5	<2		1		-

Comments:

Surrogate ID: 199,349-Penta01-97J 199,349-Penta01-97J 199,349-Penta01-97J 199,349-Penta01-97J 199,34
500ppb 100uL xp. 11-13-19 exp.#28

Spike ID: 197,895-Penta01-95L 199,349-Penta01-97J 197,895-Penta01-95L 199,349-Penta01-97J 197,89
500ppb 100uL xp. 9-20-19 exp.#28

Witnessed By: 6/6/19

Analyst: NEV

Assisted By:

Additional Prep Information for Method 8151M

Chlorinated Phenols "PCPs" in Water

Service Request # K1905144, 5145, 5213 [redacted] **Work Group #** KQ1907799

1:1 Sulfuric Acid Lot # 7121159 Ethyl Ether Lot # DW176-US

Extraction Start (time/date/initial): 12:14 6-6-19 WS

Extraction Stop (time/date/initial): 12:32 6-6-19 WS

Storage Location (overnight): 25R Acidified Sulfate Lot # DZ03-87B

N-Evap (time/date/initial): 11:51 6-11-19 WS N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Derivatization Start (time/date/initial): 13:09 6/11/19 BW

Derivatization Stop (time/date/initial): 13:56 6-11-19 WS

Diazomethane Lot # DZ03-41B Methanol Lot # DN615

Solvent Exchange to Iso-Octane (time/date/initial): 13:56 6-11-19 WS

Iso-Octane Lot # DM121 N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Pipette (1 mL) Lot # 28517645

Vial: red Vial Storage: peach

Additional Comments:

Bench Sheet Review Check List

- ☐ Hold times met (if no, reason:)
- ☐ Prep date, time, method, department, product code correct in stealth
- ☐ Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
- ☐ Weights/Volumes and units correct on raw and final bench sheets
- ☐ Sample IDs have been checked - bottle numbers appended if required
- ☐ Names present for: started by, completed by, relinquished by, and witnessed by. Training circled.
- ☐ Extract storage recorded
- ☐ Additional prep sheet completely filled out (NA or line out blanks)
- ☐ All clean-ups have been noted on additional prep sheet
- ☐ Signed service request with Form V, if applicable, has been attached

1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F020.D\
Lab ID: K1905145-003
RunType: N/A
Matrix: Water

Date Acquired: 6/12/19 14:37:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - Rtx-35	4-Bromo-2,6-dichlorophenol	-23		20	RO

Primary Review: _____

Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F020.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 14:37:00	**Vial:**	36
Run Type:	N/A	**Dilution:**	20
Lab ID:	K1905145-003	**Raw Units:**	ug/L

Bottle ID:	K1905145-003.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639031	**Prep Lot:**	338124	**Report Group:**	K1905145
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.65	998176	581135	2.041	1.378[CCV]	82	55	82	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15	5.61	29648382	31999983	64.817	47.023	260	190	**190**	Y

Prep Amount:	5 mL	**Dilution:**	20
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F020.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 14:37:00	**Vial:**	36
Run Type:	N/A	**Dilution:**	20
Lab ID:	K1905145-003	**Raw Units:**	ug/L

Bottle ID:	K1905145-003.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/2/19	**Receive Date:**	6/4/19

Analysis Lot:	639031	**Prep Lot:**	338124	**Report Group:**	K1905145
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18597

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.65	998176	581135	2.041	1.378 CCV	82	55	82	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
2,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	3.2 U	Y
2,4,6-Trichlorophenol	0.00	4.21	0	5382	0.000	0.013	0U	0.052U	0.84 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	3.0 U	Y
2,3,4,5-Tetrachlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.84 U	Y
2,3,5,6-Tetrachlorophenol	4.48 +0.01	5.03 +0.01	1501956	1226214	2.852	2.031	11	8.1J	**8.1** J	Y
Pentachlorophenol (PCP)	5.15	5.61	29648382	31999983	64.817	47.023	260	190	**190**	Y

Prep Amount:	5 mL	**Dilution:**	20
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F020.D Vial: 16
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 2:37 pm Operator: MC
Sample : K1905145-003 @20X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 14:57:03 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.030	4.653	998176	581135	2.041	1.378 #
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D.	N.D.
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
3)		2,4,6-Tri...	0.000	4.213	0	5382	N.D. d	0.013
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	4.480	5.029	1501956	1226214	2.852	2.031 #
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	5.154	5.609	29648382	31999983	64.817	47.023 #
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

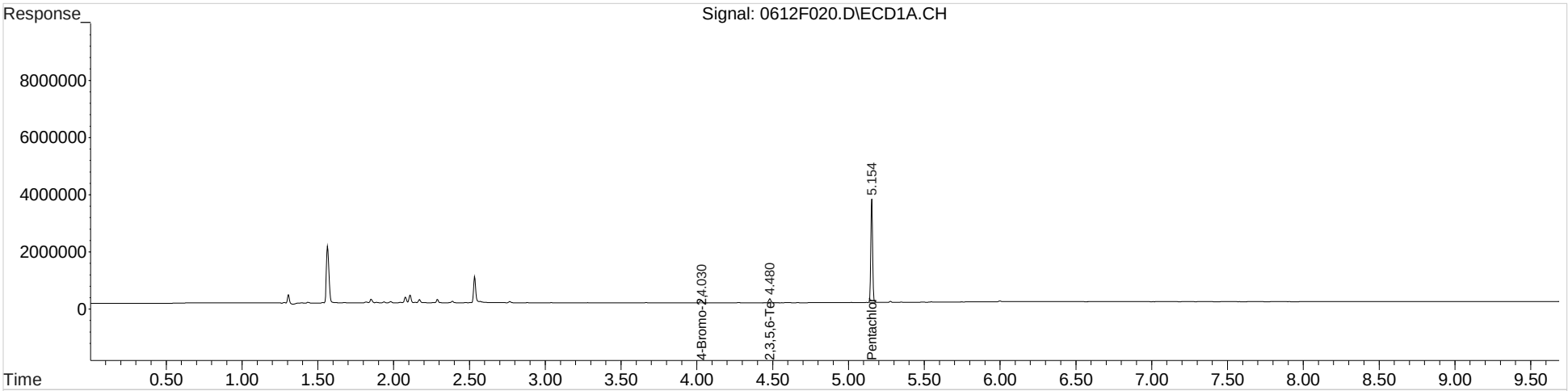
1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F020.D Vial: 16
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 2:37 pm Operator: MC
Sample : K1905145-003 @20X Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 14:57:03 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F016.D\
Lab ID: KQ1907798-04
RunType: MB
Matrix: Ground Water

Date Acquired: 6/12/19 13:26:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - Rtx-35	4-Bromo-2,6-dichlorophenol	-23		20	RO

Primary Review: _____

Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F016.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 13:26:00	**Vial:**	44
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1907798-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	II	**Matrix:**	Ground Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**	338124	**Report Group:**	KQ1907798
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.65	20055344	17959168	58.300	42.600[CCV]	117	85	117	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.59 -0.02	0	9985	0.000	0.015	0U	0.0030U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F016.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 13:26:00	**Vial:**	44
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1907798-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	II	**Matrix:**	Ground Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**	338124	**Report Group:**	KQ1907798
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18597

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.65	20055344	17959168	58.300	42.600[CCV]	117	85	117	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
2,4,5-Trichlorophenol	4.18 -0.02	0.00	713713	0	4.241	0.000	0.85J	0U	0.16 U	Y
2,4,6-Trichlorophenol	0.00	4.21	0	73964	0.000	0.181	0U	0.036U	0.042 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.15 U	Y
2,3,4,5-Tetrachlorophenol	0.00	5.38 -0.04	0	12244	0.000	0.029	0U	0.0058U	0.042 U	Y
2,3,5,6-Tetrachlorophenol	0.00	5.01 -0.01	0	271181	0.000	0.449	0U	0.090J	0.032 U	Y
Pentachlorophenol (PCP)	0.00	5.59 -0.02	0	9985	0.000	0.015	0U	0.0030U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 1:26 pm Operator: MC
Sample : KQ1907798-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:41:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.026	4.652	20055344	17959168	58.300	42.600 #
		Target Compounds						
1)		3,4-Dichl...	0.000	3.752	0	37378	N.D.	1.723 #
2)		3,5-Dichl...	3.343	3.995	24584	14266	1.534	0.368 #
3)		2,4,6-Tri...	0.000	4.209	0	73964	N.D. d	0.181
5)		2,4,5-Tri...	4.176	0.000	713713	0	4.241	N.D. d#
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.012	0	271181	N.D. d	0.449
8)	M	2,3,4,5-T...	0.000	5.375f	0	12244	N.D. d	0.029
9)	M	Pentachlo...	0.000	5.585	0	9985	N.D. d	0.015
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

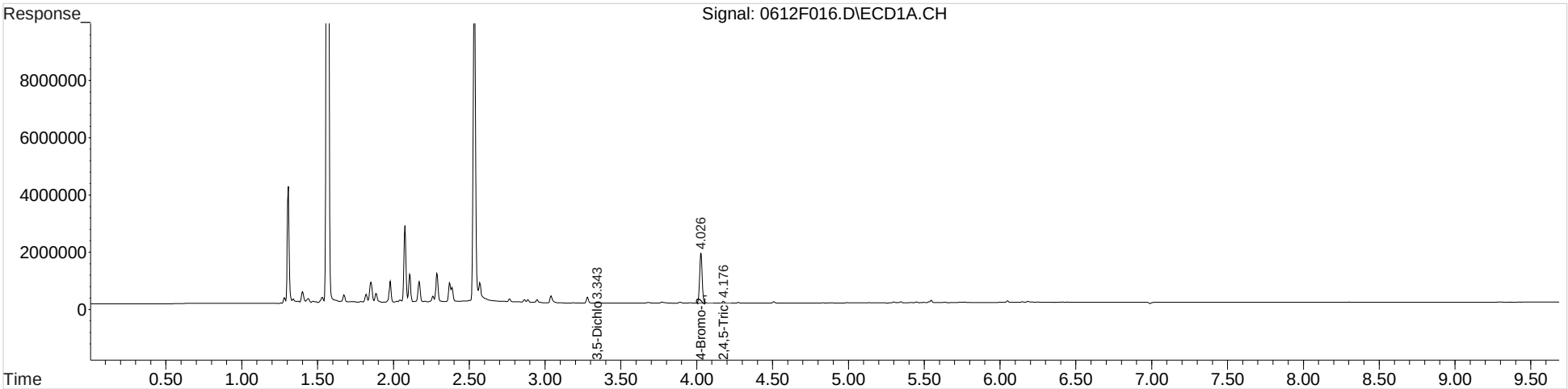
1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 1:26 pm Operator: MC
Sample : KQ1907798-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:41:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F017.D\
Lab ID: KQ1907798-03
RunType: LCS
Matrix: Ground Water

Date Acquired: 6/12/19 13:43:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - Rtx-35	4-Bromo-2,6-dichlorophenol	-23		20	RO

Primary Review: _____

Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F017.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 13:43:00	**Vial:**	43
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1907798-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	II	**Matrix:**	Ground Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**	338124	**Report Group:**	KQ1907798
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.65	19058086	17048588	55.323	40.440[CCV]	111	81	111	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15	5.61	20673717	21980398	44.712	32.300	8.94	6.46	**6.46**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F017.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 13:43:00	**Vial:**	43
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1907798-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	II	**Matrix:**	Ground Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**	338124	**Report Group:**	KQ1907798
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/6/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18597

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.65	19058086	17048588	55.323	40.440^{CCV}	111	81	111	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc		Rpt?
2,4,5-Trichlorophenol	4.20	4.72	5656827	4907382	41.370	27.325	8.27	5.47	**5.47**	P	Y
2,4,6-Trichlorophenol	3.47	4.21	11351641	11619438	36.598	28.466	7.32	5.69	**5.69**		Y
3,4,5-Trichlorophenol	4.23	4.78	4426548	4346233	30.374	25.271	6.07	5.05	**5.05**		Y
2,3,4,5-Tetrachlorophenol	5.01	5.42	12276635	12568897	40.121	30.220	8.02	6.04	**6.04**		Y
2,3,5,6-Tetrachlorophenol	4.47	5.02	17583281	19530407	40.658	32.349	8.13	6.47	**6.47**		Y
Pentachlorophenol (PCP)	5.15	5.61	20673717	21980398	44.712	32.300	8.94	6.46	**6.46**		Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F017.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 1:43 pm Operator: MC
Sample : KQ1907798-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jul 12 15:40:59 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.028	4.654	19058086	17048588	55.323	40.440	#
		Target Compounds							
1)		3,4-Dichl...	0.000	3.744	0	543401	N.D.	25.050	#
2)		3,5-Dichl...	3.362	3.998	28980	232708	1.929	14.408	#
3)		2,4,6-Tri...	3.475	4.211	11351641	11619438	36.598	28.466	
5)		2,4,5-Tri...	4.198	4.721	5168128	4907382	37.560m	27.325	#
6)		3,4,5-Tri...	4.228	4.784	4426548	4346233	30.374	25.271	
7)	M	2,3,5,6-T...	4.475	5.018	17583281	19530407	40.658	32.349	
8)	M	2,3,4,5-T...	5.015	5.421	12276635	12568897	40.121	30.220	
9)	M	Pentachlo...	5.152	5.608	20673717	21980398	44.712	32.300	#
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

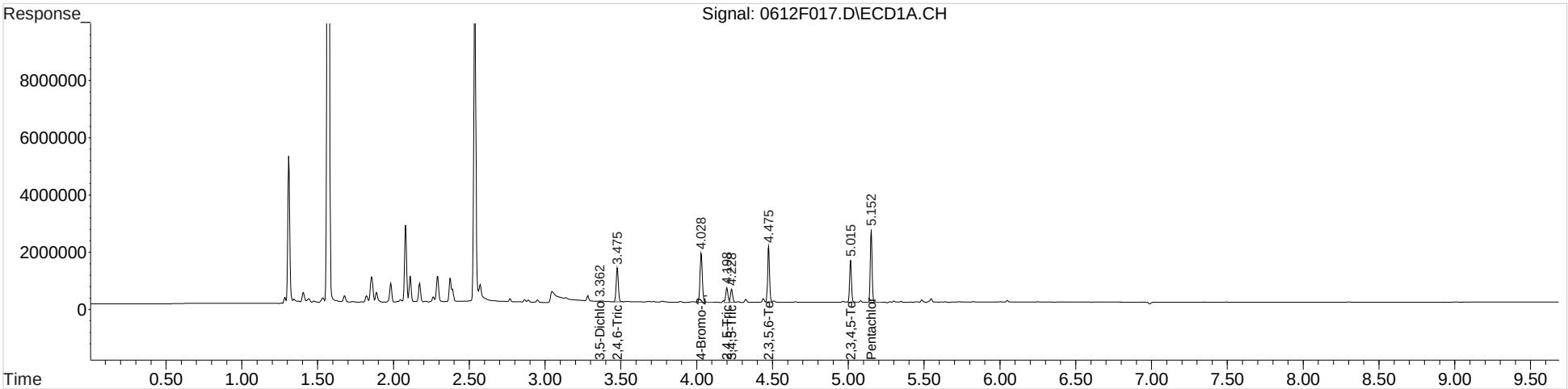
1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F017.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 1:43 pm Operator: MC
Sample : KQ1907798-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jul 12 15:40:59 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

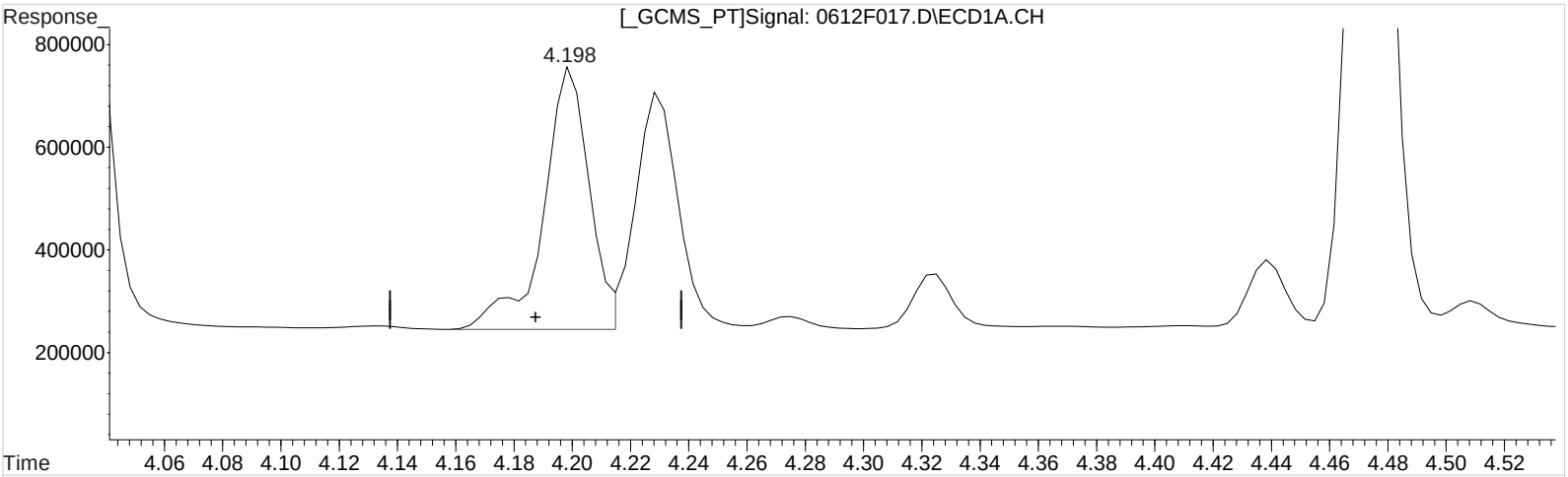


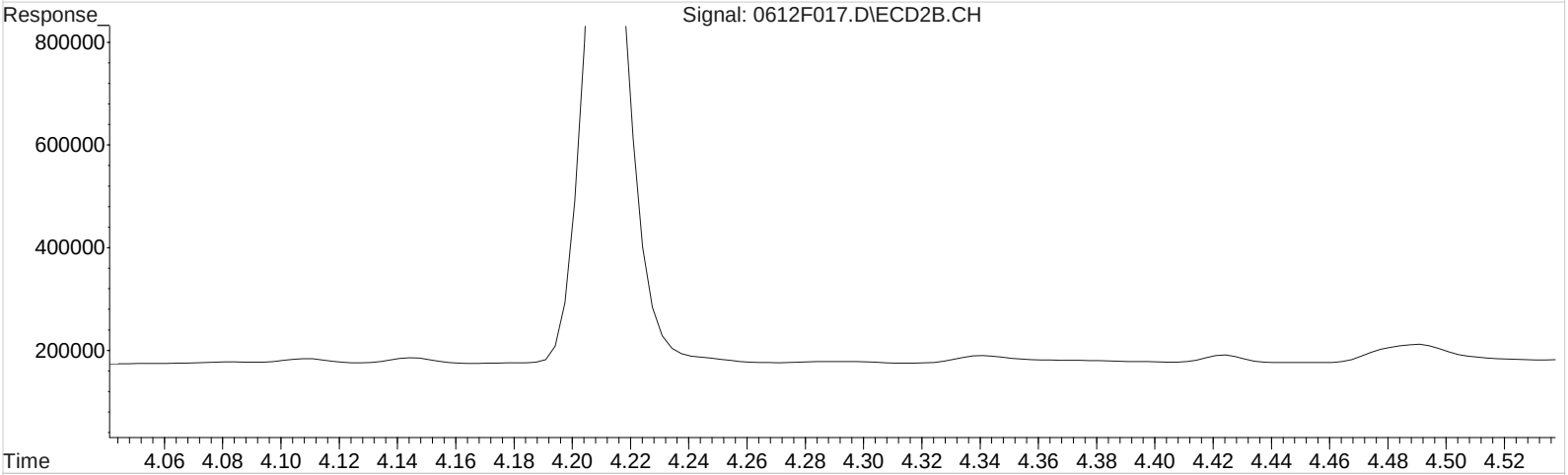
1st MC 07/12/19

Data File : J:\GC28\Data\061219\0612F017.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 1:43 pm Operator: MC
Sample : KQ1907798-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:58:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(5) 2,4,5-Trichlorophenol

4.198min 41.370 ug/L

response 5656827

Manual Integration:

Before

07/12/19

(5) 2,4,5-Trichlorophenol #2

4.721min 27.325 ug/L

response 4907382

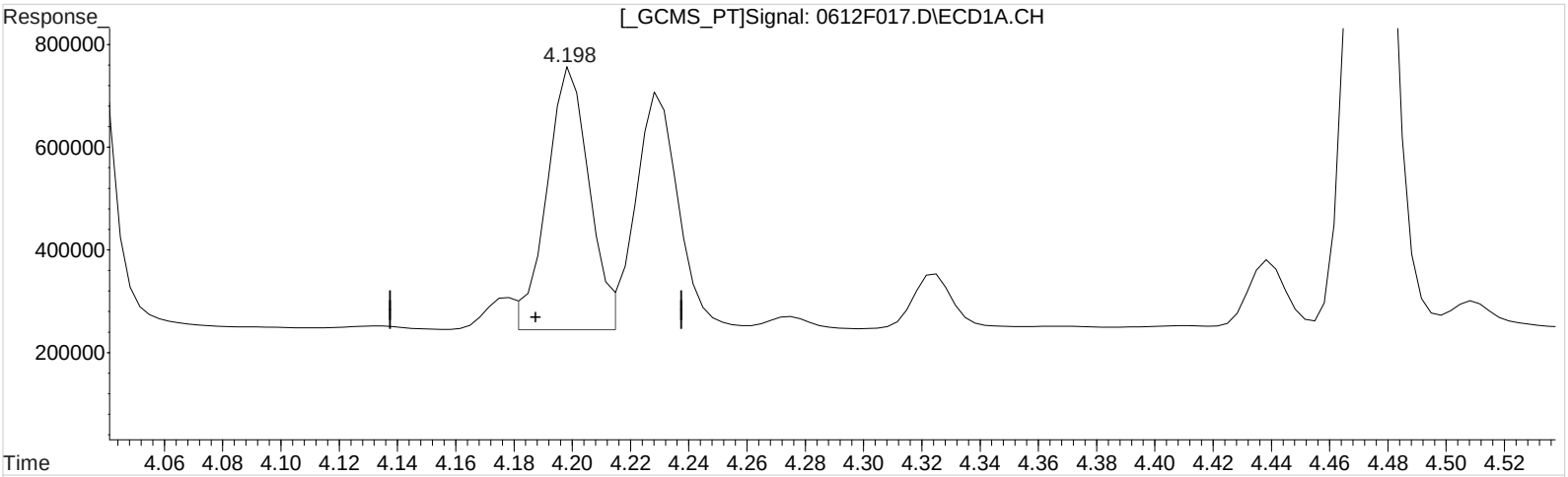
(+) = Expected Retention Time

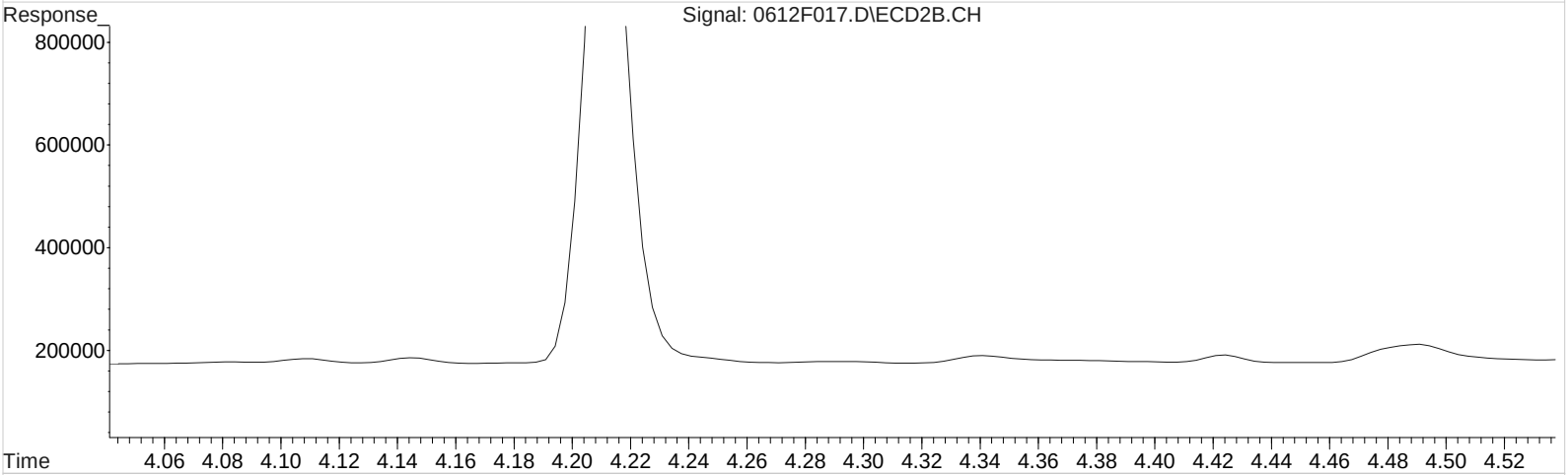
1st MC 07/12/19

Data File : J:\GC28\Data\061219\0612F017.D Vial: 13
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 1:43 pm Operator: MC
Sample : KQ1907798-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:58:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(5) 2,4,5-Trichlorophenol

4.198min 37.560 ug/L m

response 5168128

Manual Integration:

After

Baseline/Shoulder

07/12/19

(5) 2,4,5-Trichlorophenol #2

4.721min 27.325 ug/L

response 4907382

(+) = Expected Retention Time

1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F004.D\
Lab ID: KQ1908184-06
RunType: CCB
Matrix: Water

Date Acquired: 6/12/19 09:55:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F004.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 09:55:00	**Vial:**	6
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908184-06	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	0.00	0	0	0.000	0.000				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.59	0	352281	0.000	0.518	0U	0.10J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 9:55 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 11:53:30 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D. d	N.D.
		Target Compounds						
1)		3,4-Dichl...	0.000	3.762f	0	52437	N.D.	2.417 #
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
3)		2,4,6-Tri...	0.000	4.248f	0	3030	N.D. d	0.007
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.032	0	99091	N.D. d	0.164
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	5.592	0	352281	N.D. d	0.518
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

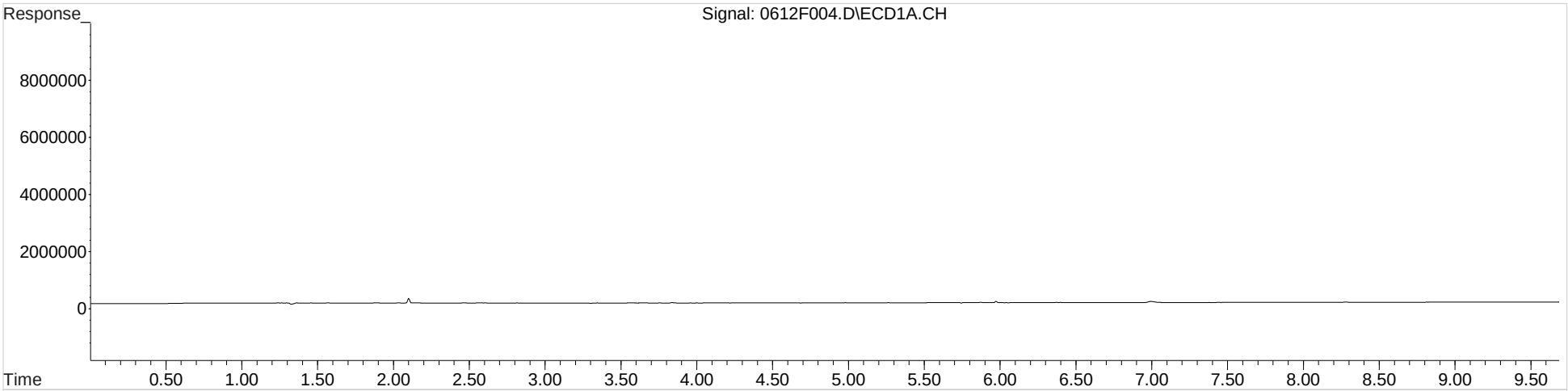
1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 9:55 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 11:53:30 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F015.D\
Lab ID: KQ1908184-07
RunType: CCB
Matrix: Water

Date Acquired: 6/12/19 13:08:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - Rtx-35	4-Bromo-2,6-dichlorophenol	-23		20	RO

Primary Review: _____

Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F015.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 13:08:00	**Vial:**	7
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908184-07	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.67 +0.02	0	4616	0.000	0.011 CCV				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.60 -0.01	0	337452	0.000	0.496	0U	0.099J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F015.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 1:08 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:41:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.666	0	4616	N.D. d	0.011
		Target Compounds						
1)		3,4-Dichl...	0.000	3.740	0	24638	N.D.	1.136 #
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.013	0	4680	N.D. d	0.008
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	5.600	0	337452	N.D. d	0.496
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

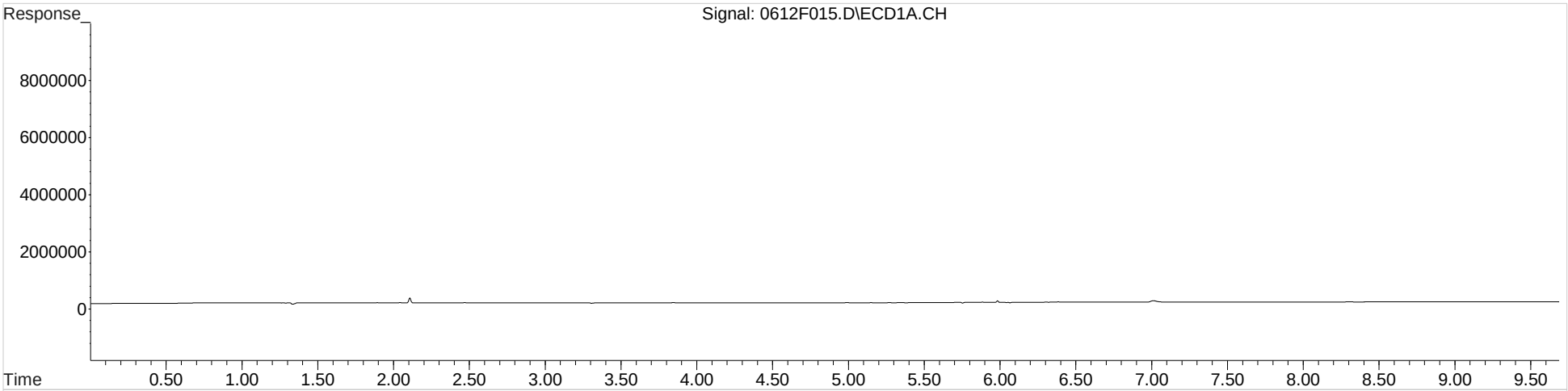
1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F015.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 1:08 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:41:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F029.D\
Lab ID: KQ1908184-08
RunType: CCB
Matrix: Water

Date Acquired: 6/12/19 17:18:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - Rtx-35	4-Bromo-2,6-dichlorophenol	-23		20	RO

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F029.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 17:18:00	**Vial:**	8
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908184-08	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	0.00	0	0	0.000	0.000[CCV]				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61	0	41874	0.000	0.062	0U	0.012U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F029.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 17:18:00	**Vial:**	8
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908184-08	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	0.00	0	0	0.000	0.000 CCV				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.35 U	Y
3,5-Dichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.65 U	Y
2,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.16 U	Y
2,4,6-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.042 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.15 U	Y
2,3,4,5-Tetrachlorophenol	0.00	5.40 -0.02	0	3795	0.000	0.009	0U	0.0018U	0.042 U	Y
2,3,5,6-Tetrachlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.032 U	Y
Pentachlorophenol (PCP)	0.00	5.61	0	41874	0.000	0.062	0U	0.012U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F029.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:18 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D.	N.D.
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D.
8)	M	2,3,4,5-T...	0.000	5.399	0	3795	N.D. d	0.009
9)	M	Pentachlo...	0.000	5.609	0	41874	N.D. d	0.062
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

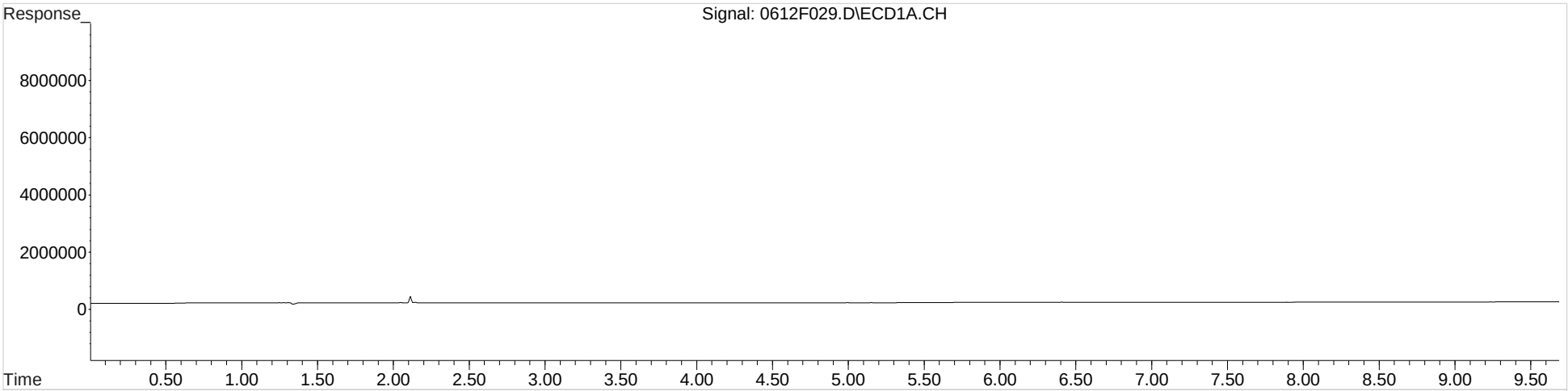
1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F029.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:18 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F043.D\
Lab ID: KQ1908184-09
RunType: CCB
Matrix: Water

Date Acquired: 6/12/19 21:27:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F043.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 21:27:00	**Vial:**	9
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908184-09	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.66 +0.01	0	50366	0.000	0.119				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.59 -0.01	0	28313	0.000	0.042	0U	0.0084U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F043.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 21:27:00	**Vial:**	9
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908184-09	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.66 +0.01	0	50366	0.000	0.119				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	3.09 -0.04	0.00	40196	0	1.978	0.000	0.40J	0U	0.35 U	Y
3,5-Dichlorophenol	3.35 -0.02	3.94 -0.05	38702	12197	2.804	0.237	0.56U	0.047U	0.65 U	Y
2,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.16 U	Y
2,4,6-Trichlorophenol	0.00	4.23 +0.02	0	26026	0.000	0.064	0U	0.013U	0.042 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.15 U	Y
2,3,4,5-Tetrachlorophenol	0.00	5.41 -0.01	0	97502	0.000	0.234	0U	0.047J	0.042 U	Y
2,3,5,6-Tetrachlorophenol	0.00	5.00 -0.02	0	54490	0.000	0.090	0U	0.018U	0.032 U	Y
Pentachlorophenol (PCP)	0.00	5.59 -0.01	0	28313	0.000	0.042	0U	0.0084U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F043.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 9:27 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:49:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.663	0	50366	N.D. d	0.119
		Target Compounds						
1)		3,4-Dichl...	3.094f	0.000	40196	0	1.978	N.D. #
2)		3,5-Dichl...	3.350	3.943f	38702	12197	2.804	0.237 #
3)		2,4,6-Tri...	0.000	4.230f	0	26026	N.D. d	0.064
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.000	0	54490	N.D. d	0.090
8)	M	2,3,4,5-T...	0.000	5.413	0	97502	N.D. d	0.234
9)	M	Pentachlo...	0.000	5.593	0	28313	N.D. d	0.042
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

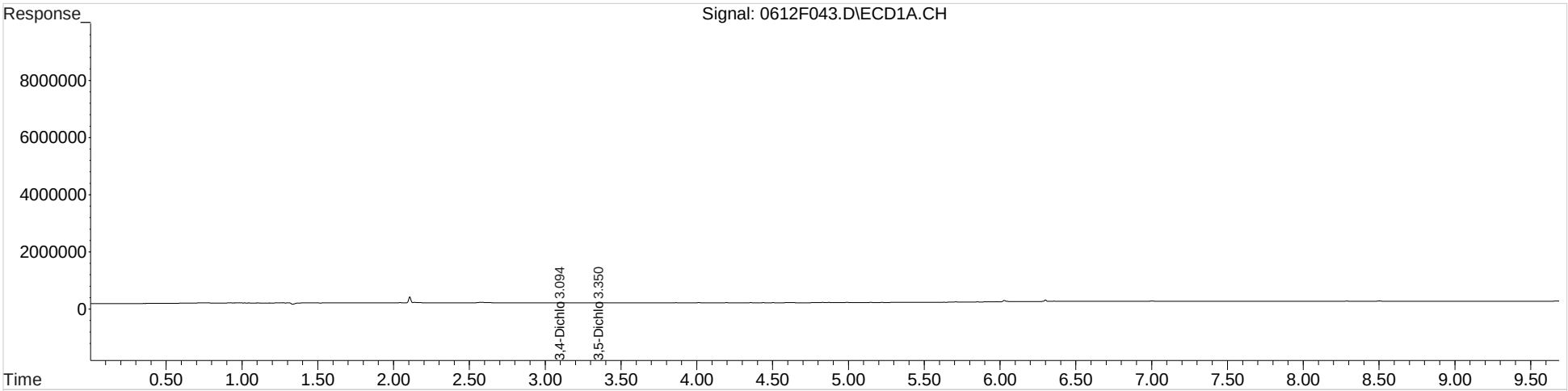
1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F043.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 9:27 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:49:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F048.D\
Lab ID: KQ1908184-10
RunType: CCB
Matrix: Water

Date Acquired: 6/12/19 22:55:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F048.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 22:55:00	**Vial:**	10
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908184-10	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.64 -0.01	0	4830	0.000	0.011				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F048.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 22:55:00	**Vial:**	10
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908184-10	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.64 -0.01	0	4830	0.000	0.011				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
3,4-Dichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.35 U	Y
3,5-Dichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.65 U	Y
2,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.16 U	Y
2,4,6-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.042 U	Y
3,4,5-Trichlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.15 U	Y
2,3,4,5-Tetrachlorophenol	0.00	0.00	0	0	0.000	0.000	0U	0U	0.042 U	Y
2,3,5,6-Tetrachlorophenol	0.00	5.00 -0.01	0	5937	0.000	0.010	0U	0.0020U	0.032 U	Y
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F048.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:55 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:54:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.636	0	4830	N.D. d	0.011
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D.	N.D.
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	5.000	0	5937	N.D. d	0.010
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

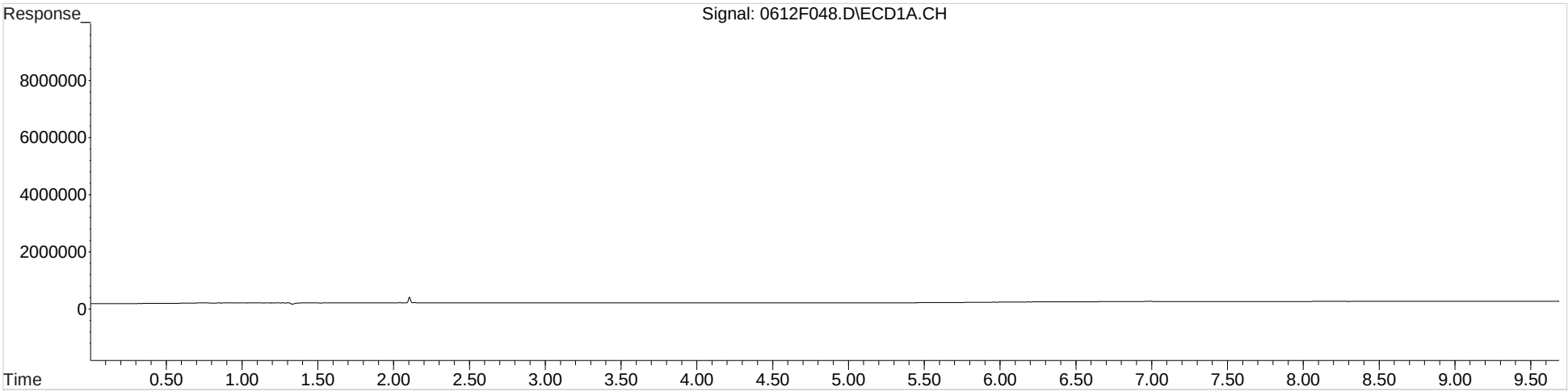
1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F048.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:55 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:54:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st mc 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F014.D\
Lab ID: KQ1908184-02
RunType: CCV
Matrix: Water

Date Acquired: 6/12/19 12:50:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F014.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 12:50:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908184-02	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.65	19205134	17568633	55.762	41.673			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.15	5.61	25808860	28296167	56.195	41.581	56.2	41.6	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F014.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 12:50 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:40:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.027	4.650	19205134	17568633	55.762	41.673 #
		Target Compounds						
1)		3,4-Dichl...	3.134	3.740	808064	978982	52.926	45.130
2)		3,5-Dichl...	3.374	3.993	491744	634979	46.103m	41.303
3)		2,4,6-Tri...	3.471	4.210	16303776	16781828	53.587	41.113
5)		2,4,5-Tri...	4.197	4.720	7186574	7533711	53.518	42.542
6)		3,4,5-Tri...	4.227	4.783	7216712	7200518	51.146	42.497
7)	M	2,3,5,6-T...	4.471	5.017	23075022	25218337	54.081	41.770
8)	M	2,3,4,5-T...	5.014	5.420	15918542	16699781	53.003	40.152
9)	M	Pentachlo...	5.151	5.607	25808860	28296167	56.195	41.581 #
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

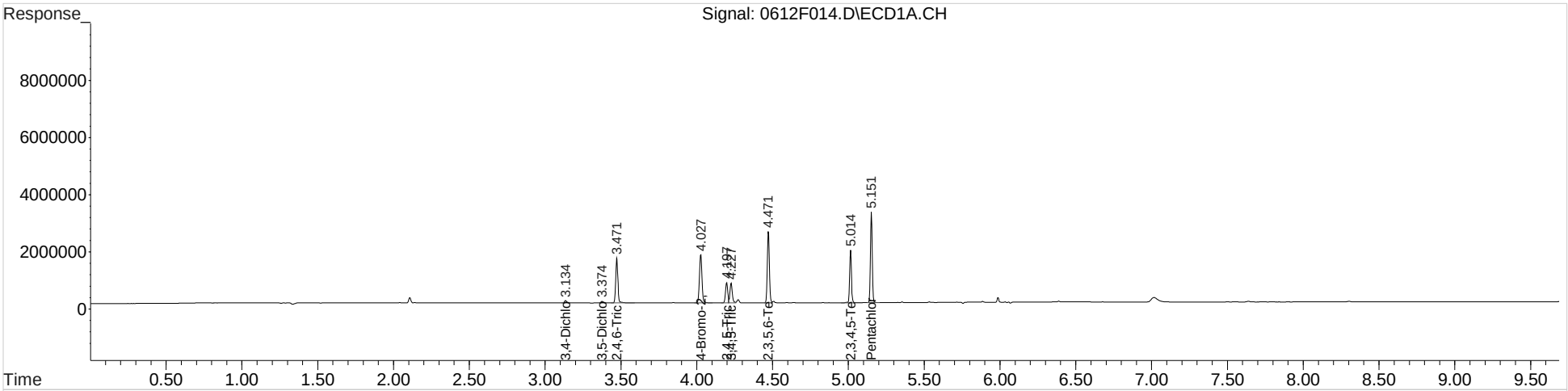
1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F014.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 12:50 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:40:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



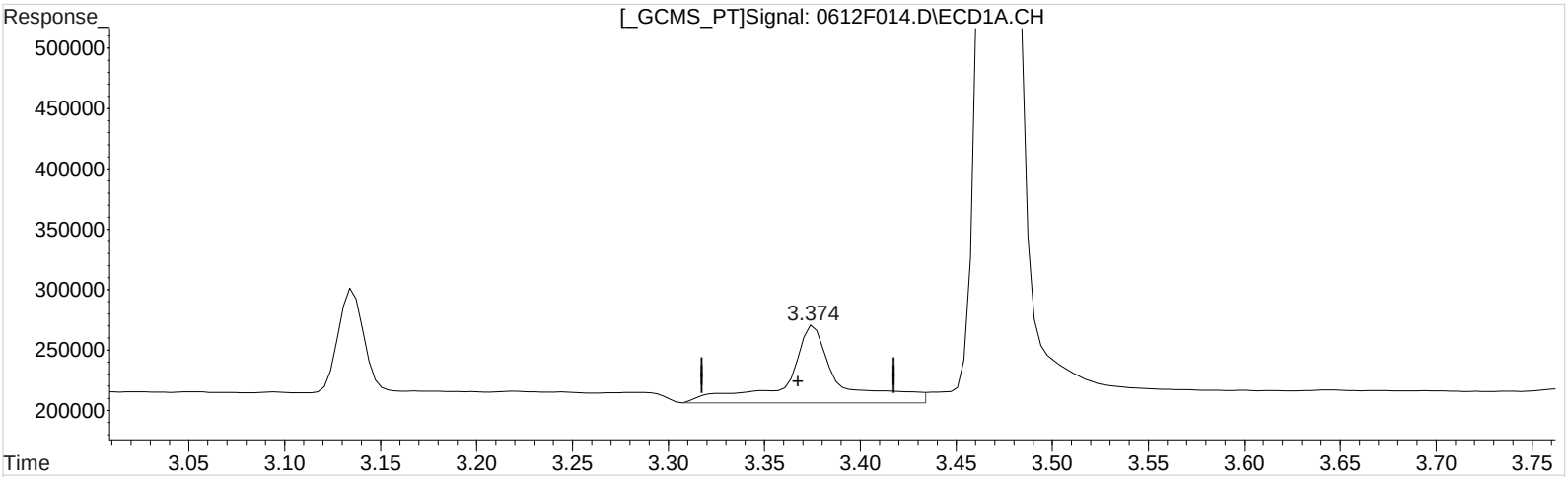
Quantitation Report (Qedit)

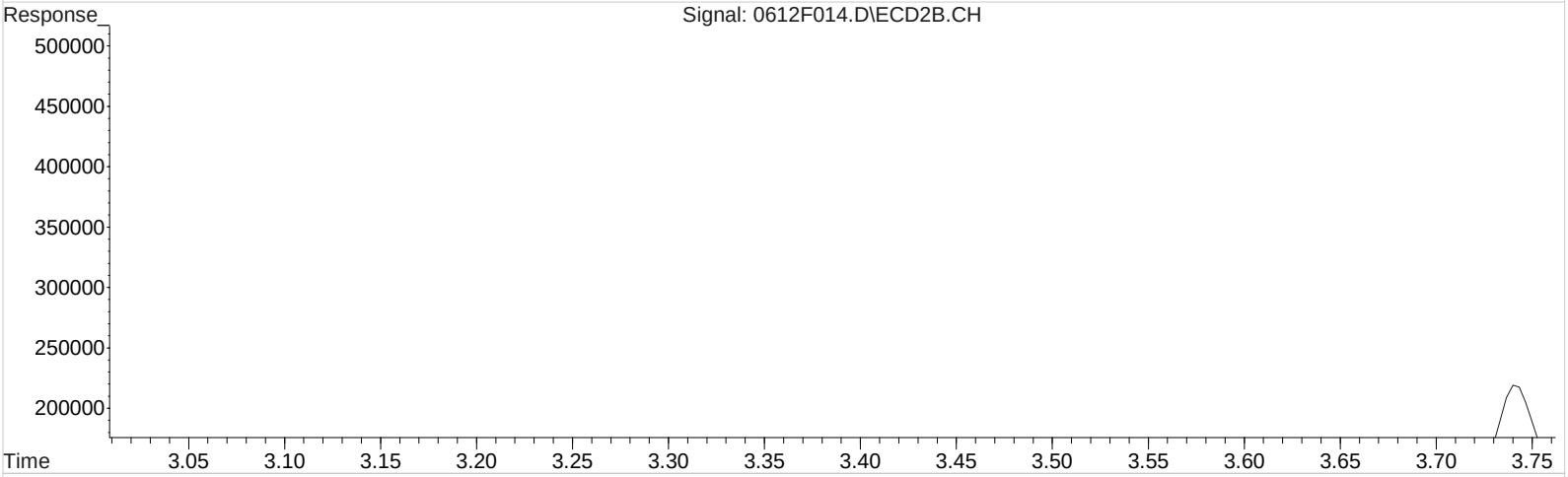
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F014.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 12:50 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:39:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.374min 125.762 ug/L

response 1182064

Manual Integration:

Before

06/12/19

(2) 3,5-Dichlorophenol #2

3.993min 41.303 ug/L

response 634979

(+) = Expected Retention Time

022819-PCP.M Wed Jun 12 13:40:15 2019 Page: 1

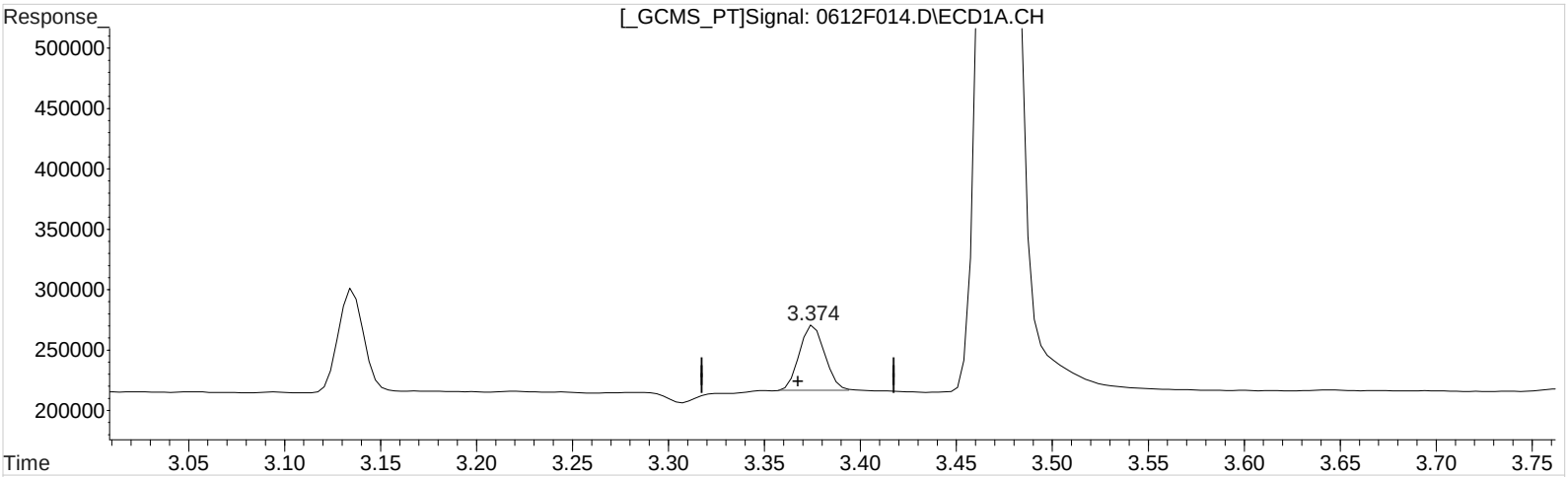
Quantitation Report (Qedit)

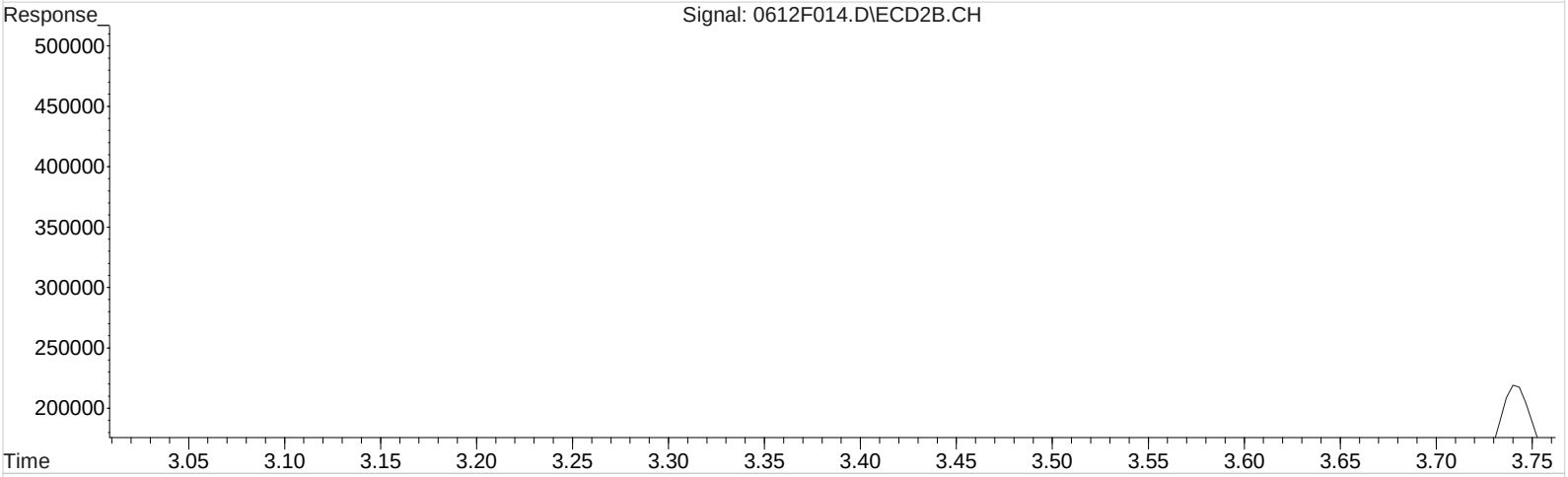
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F014.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 12:50 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 12 13:39:43 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.374min 46.103 ug/L m

response 491744

Manual Integration:

After

Baseline/Shoulder

06/12/19

(2) 3,5-Dichlorophenol #2

3.993min 41.303 ug/L

response 634979

(+) = Expected Retention Time

1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F028.D\
Lab ID: KQ1908184-03
RunType: CCV
Matrix: Water

Date Acquired: 6/12/19 17:00:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F028.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 17:00:00	**Vial:**	3
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908184-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.66	19602746	16253579	56.948	38.554			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.15	5.61	26115942	26168171	56.883	38.454	56.9	38.5	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F028.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 17:00:00	**Vial:**	3
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908184-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.03	4.66	19602746	16253579	56.948	38.554 RO			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
3,4-Dichlorophenol	3.14	3.75	824338	838501	54.067	38.654	54.1	38.7	Y
3,5-Dichlorophenol	3.38	4.00	566386	608717	53.784	39.503	53.8	39.5	Y
2,4,5-Trichlorophenol	4.20	4.72	7412494	7109769	55.341	40.073	55.3	40.1	Y
2,4,6-Trichlorophenol	3.48	4.22	16579017	15680612	54.546	38.415	54.5	38.4	Y
3,4,5-Trichlorophenol	4.23	4.79	7572356	6819577	53.873	40.184	53.9	40.2	Y
2,3,4,5-Tetrachlorophenol	5.02	5.42	15491268	15656856	51.475	37.645	51.5	37.6	Y
2,3,5,6-Tetrachlorophenol	4.48	5.02	23554944	23463807	55.268	38.864	55.3	38.9	Y
Pentachlorophenol (PCP)	5.15	5.61	26115942	26168171	56.883	38.454	56.9	38.5	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:40:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.033	4.656	19602746	16253579	56.948	38.554	#
		Target Compounds							
1)		3,4-Dichl...	3.140	3.749	824338	838501	54.067m	38.654	#
2)		3,5-Dichl...	3.380	4.002	566386	608717	53.784m	39.503	#
3)		2,4,6-Tri...	3.476	4.216	16579017	15680612	54.546	38.415	#
5)		2,4,5-Tri...	4.200	4.722	7412494	7109769	55.341	40.073	#
6)		3,4,5-Tri...	4.233	4.789	7572356	6819577	53.873	40.184	#
7)	M	2,3,5,6-T...	4.476	5.022	23554944	23463807	55.268	38.864	#
8)	M	2,3,4,5-T...	5.016	5.422	15491268	15656856	51.475m	37.645	#
9)	M	Pentachlo...	5.153	5.606	26115942	26168171	56.883m	38.454	#
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

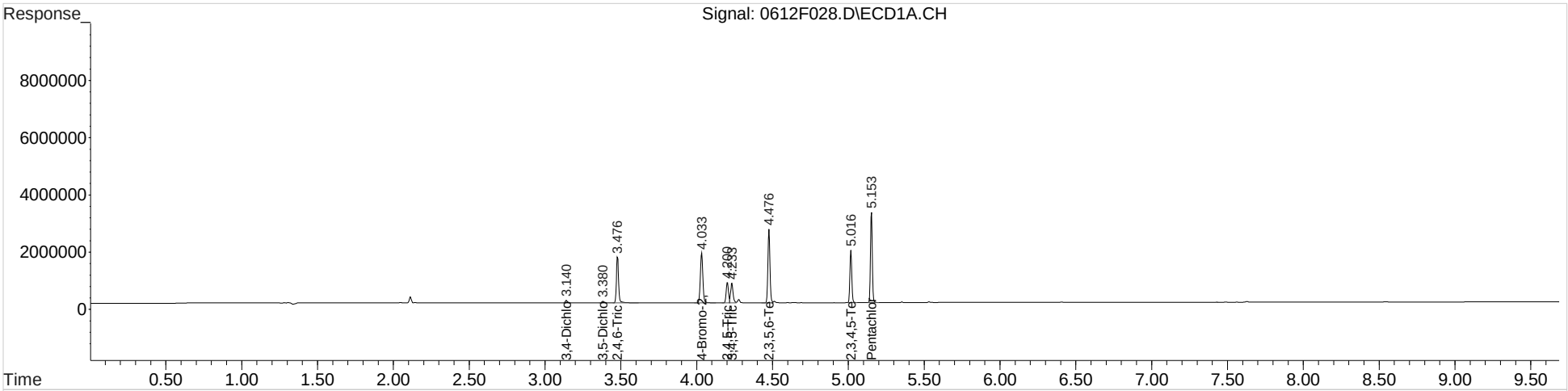
1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:40:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



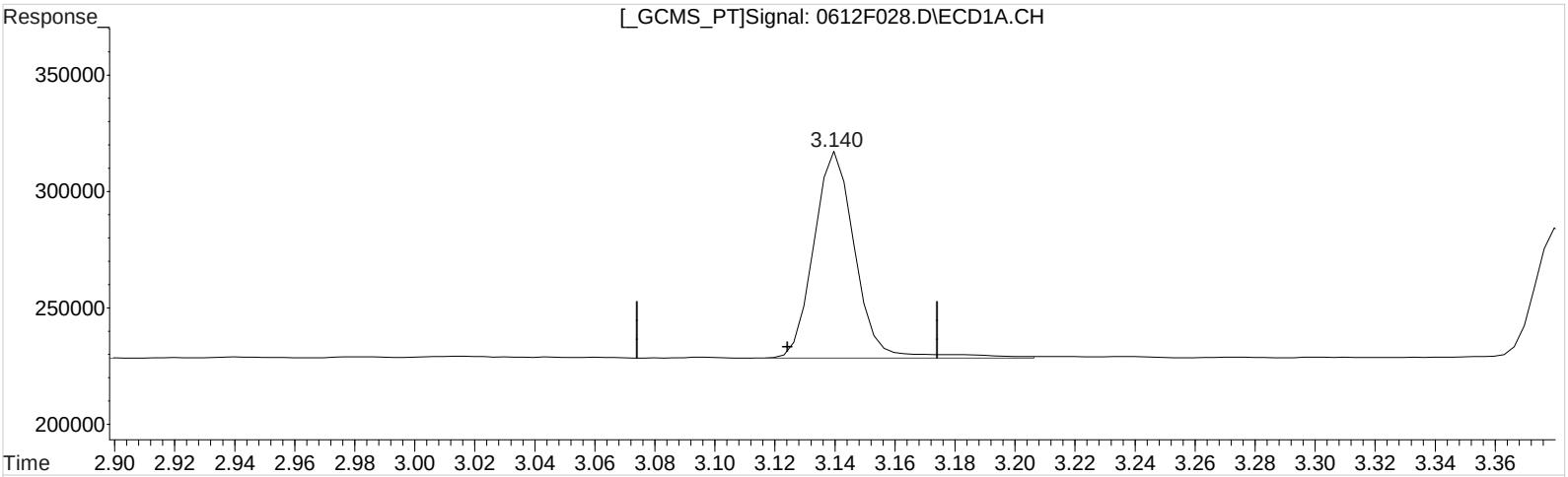
Quantitation Report (Qedit)

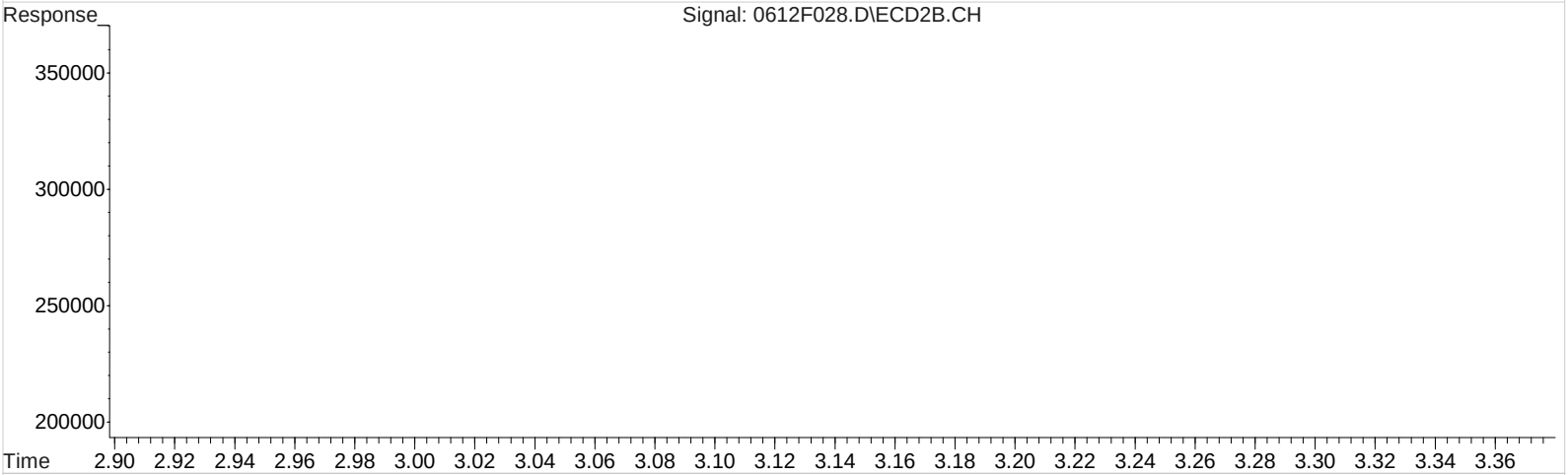
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.140min 56.354 ug/L

response 856844

Manual Integration:

Before

06/13/19

(1) 3,4-Dichlorophenol #2

3.749min 38.654 ug/L

response 838501

(+) = Expected Retention Time

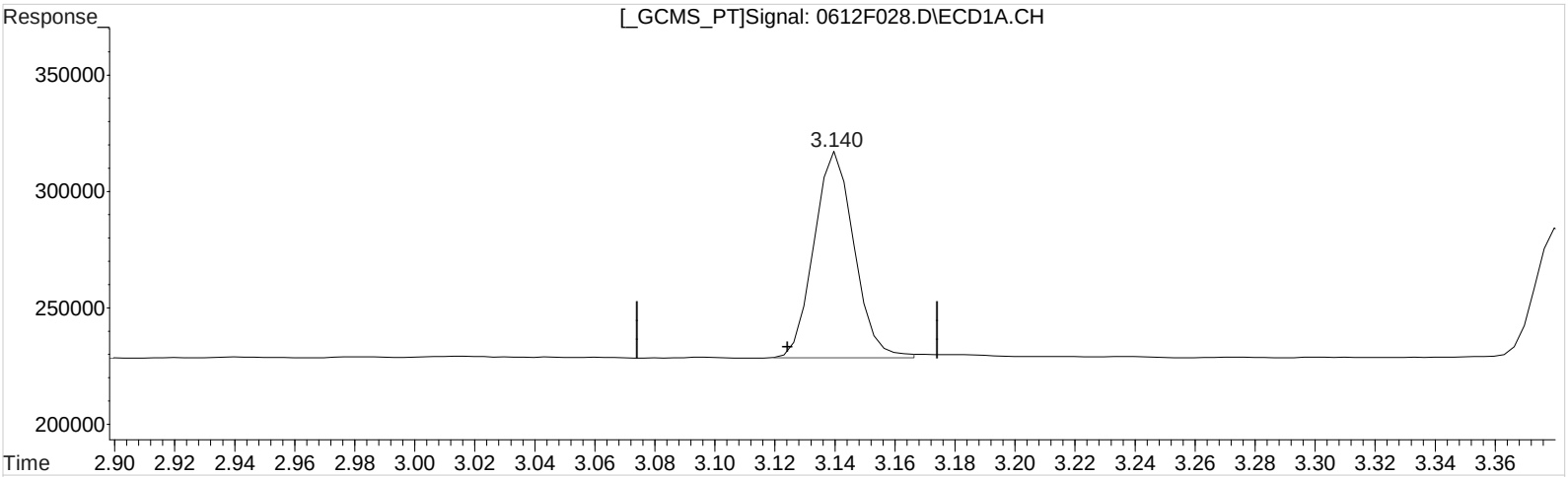
Quantitation Report (Qedit)

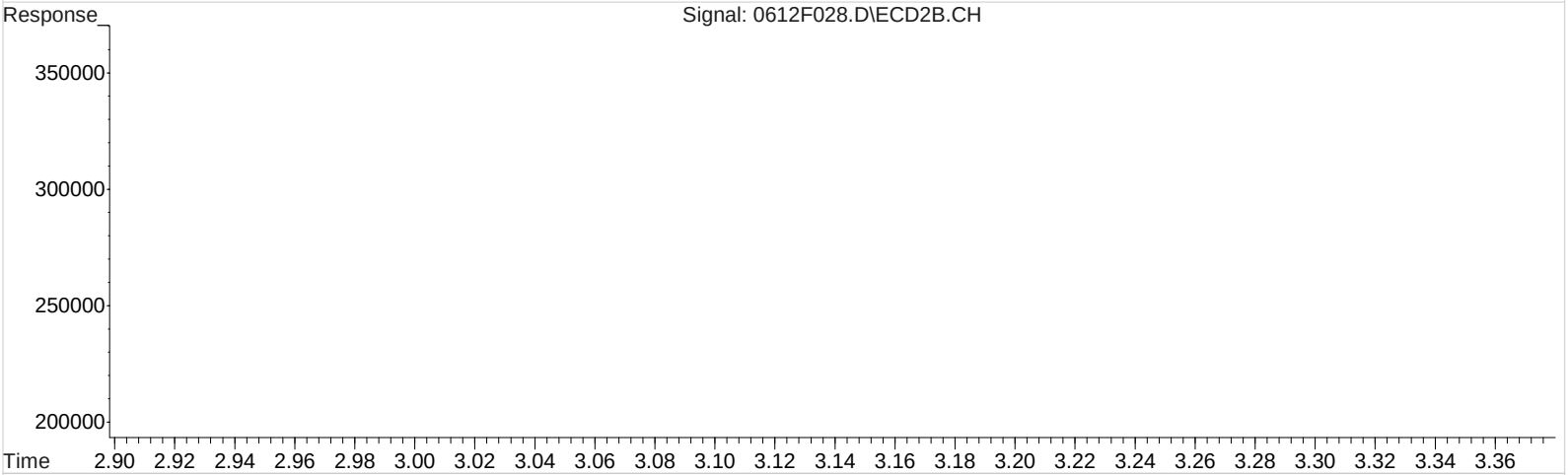
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.140min 54.067 ug/L m

response 824338

Manual Integration:

After

Baseline/Shoulder

06/13/19

(1) 3,4-Dichlorophenol #2

3.749min 38.654 ug/L

response 838501

(+) = Expected Retention Time

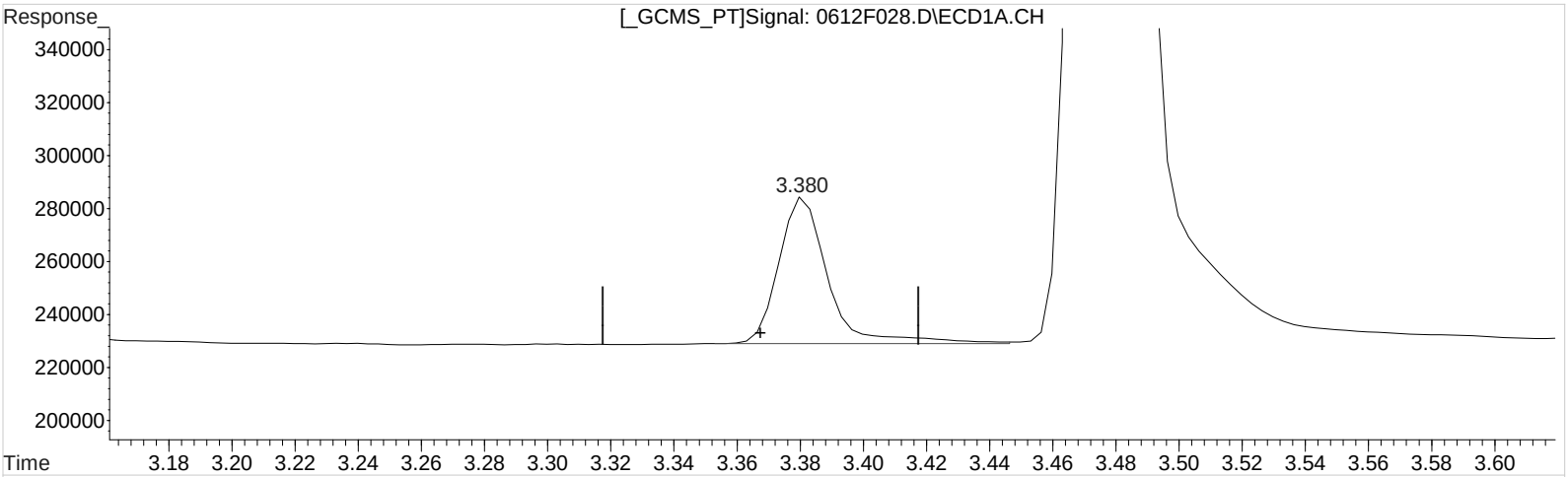
Quantitation Report (Qedit)

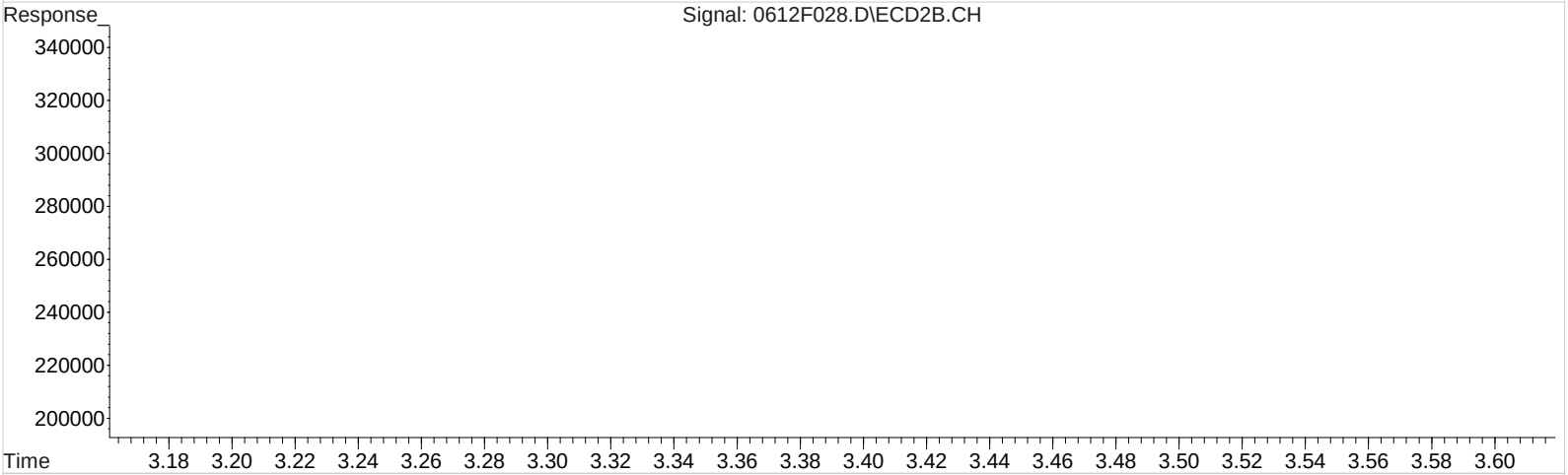
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 56.893 ug/L

response 596112

Manual Integration:

Before

06/13/19

(2) 3,5-Dichlorophenol #2

4.002min 39.503 ug/L

response 608717

(+) = Expected Retention Time

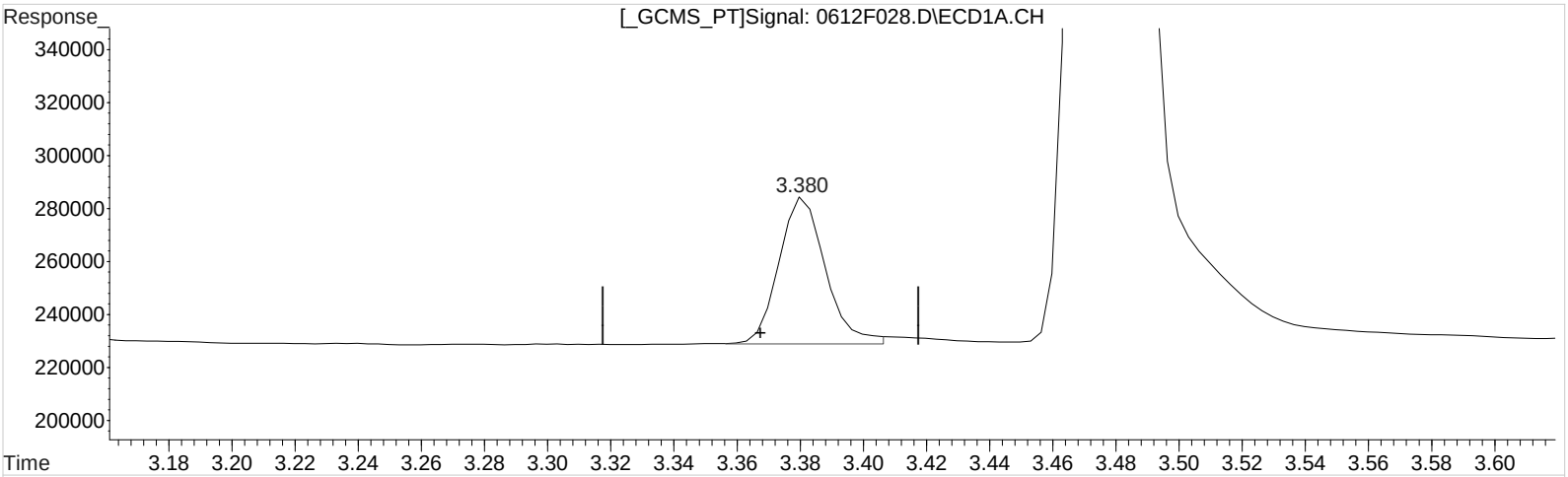
Quantitation Report (Qedit)

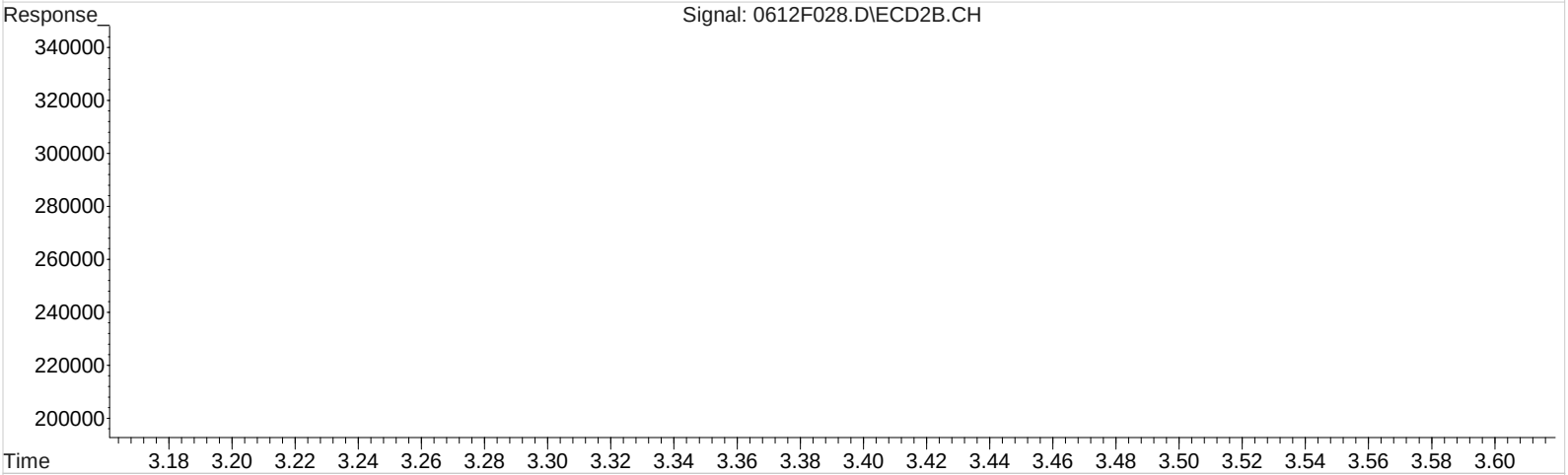
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 53.784 ug/L m

response 566386

Manual Integration:

After

Baseline/Shoulder

06/13/19

(2) 3,5-Dichlorophenol #2

4.002min 39.503 ug/L

response 608717

(+) = Expected Retention Time

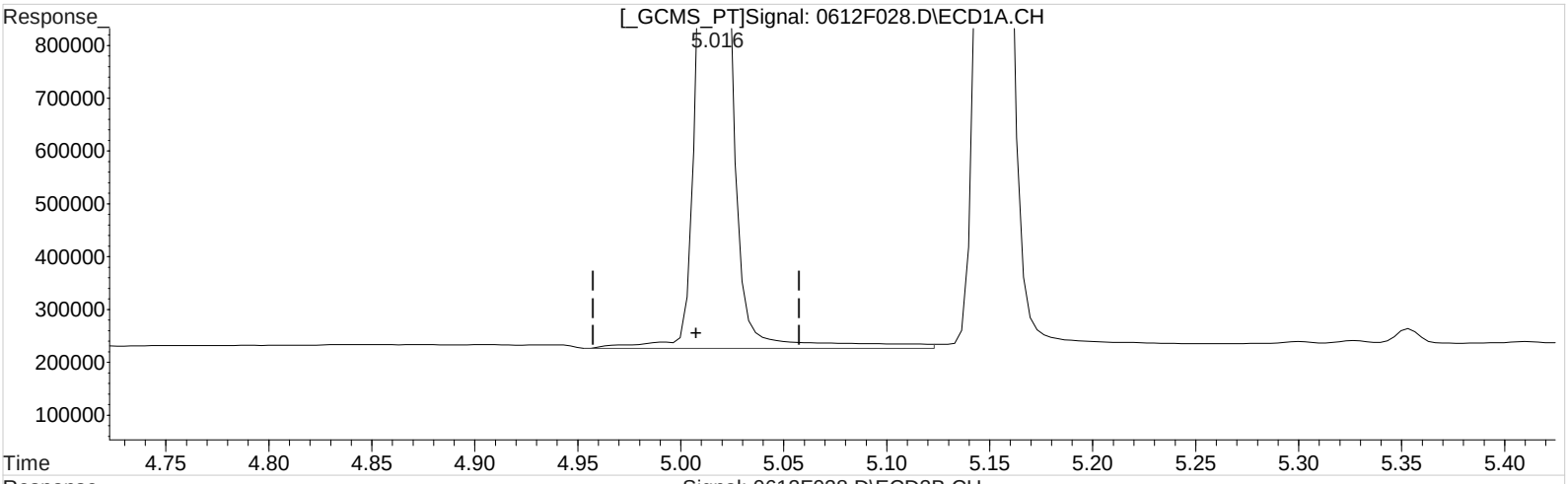
Quantitation Report (Qedit)

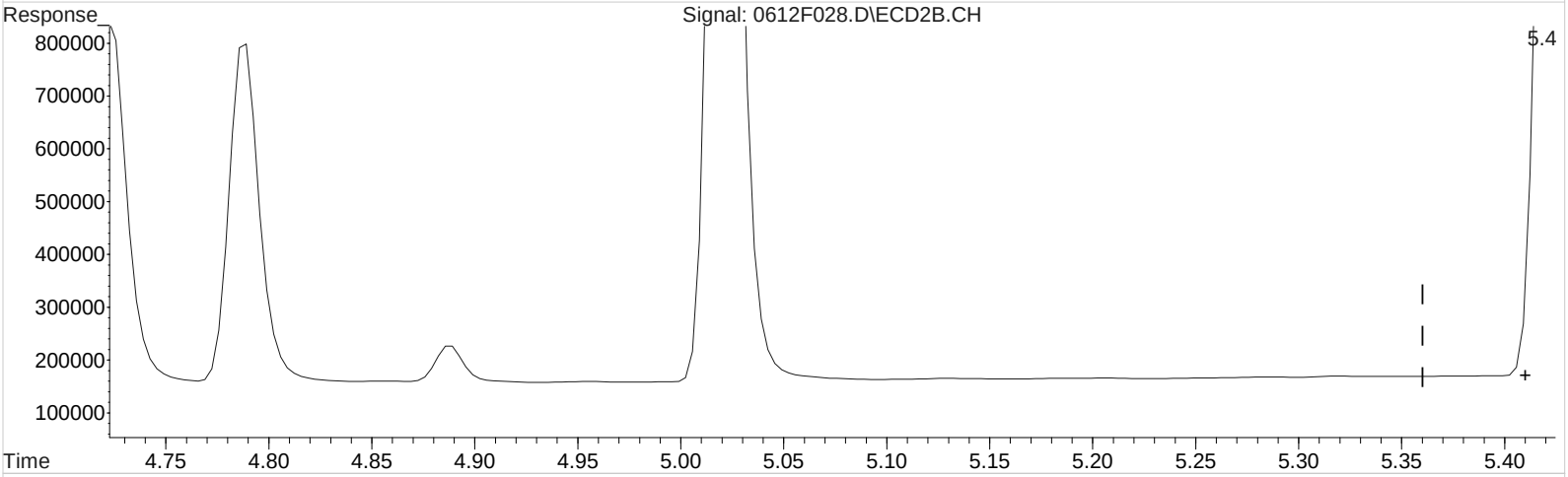
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.016min 54.650 ug/L

response 16377734

Manual Integration:

Before

06/13/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.422min 37.645 ug/L

response 15656856

(+) = Expected Retention Time

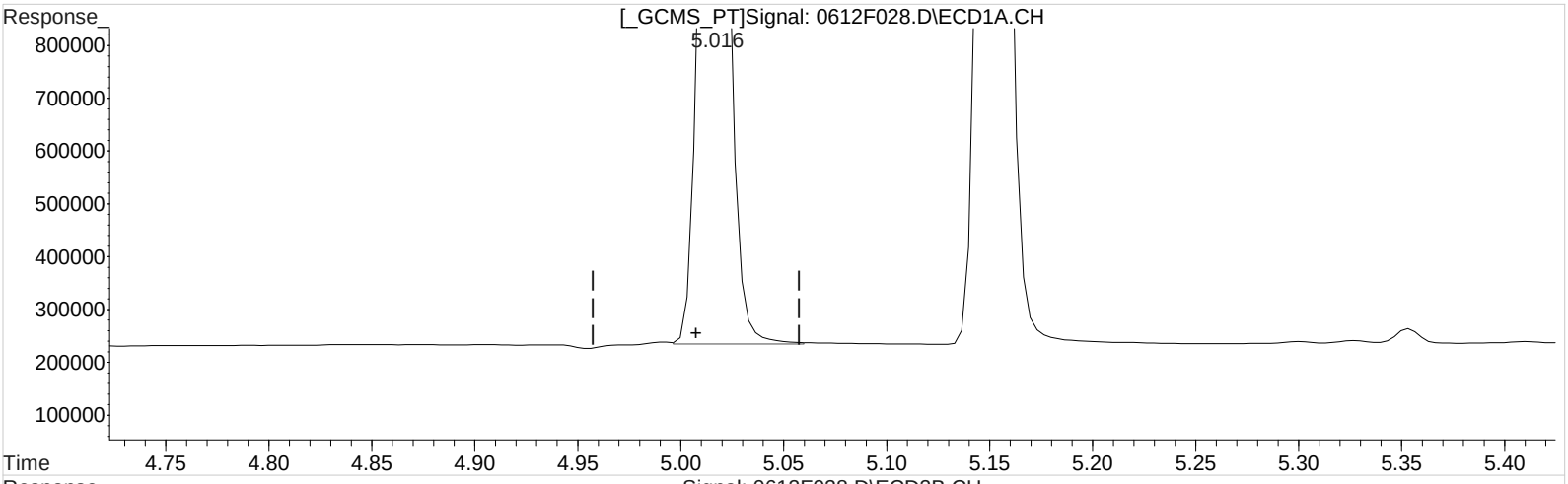
Quantitation Report (Qedit)

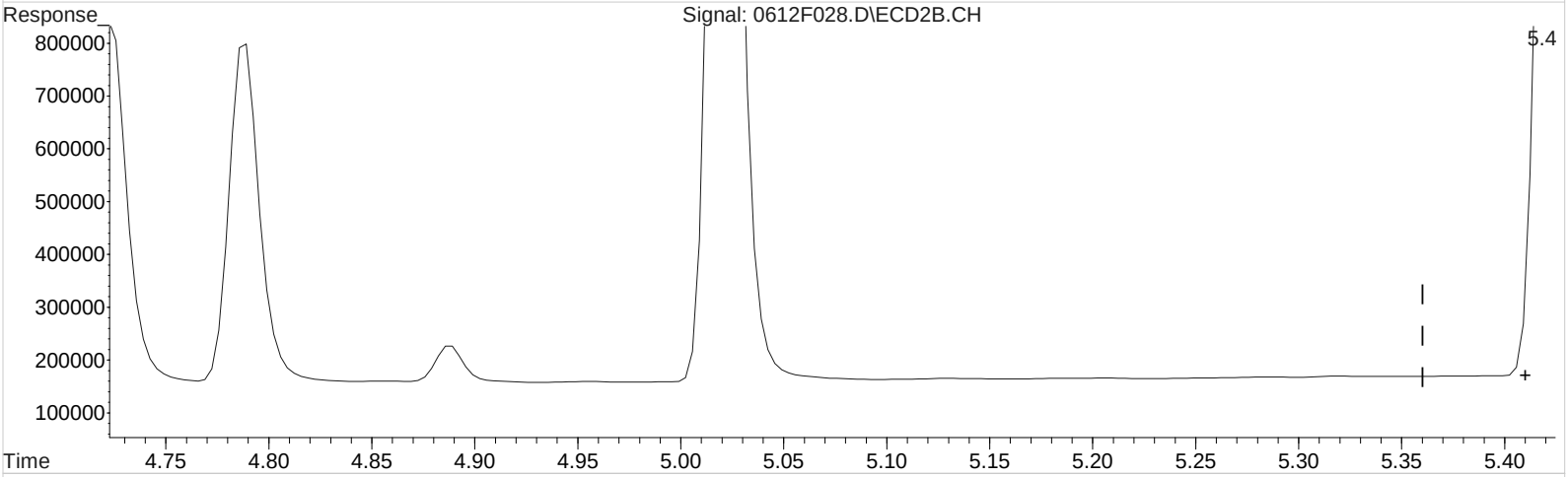
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:29 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.016min 51.475 ug/L m

response 15491268

Manual Integration:

After

Baseline/Shoulder

06/13/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.422min 37.645 ug/L

response 15656856

(+) = Expected Retention Time

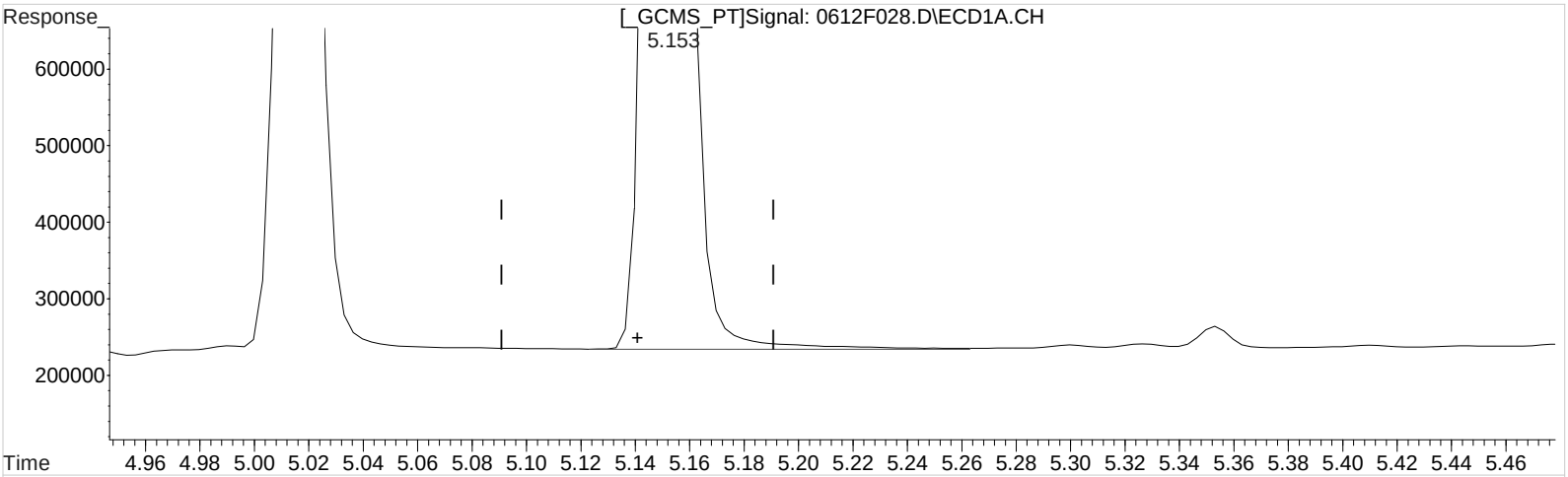
Quantitation Report (Qedit)

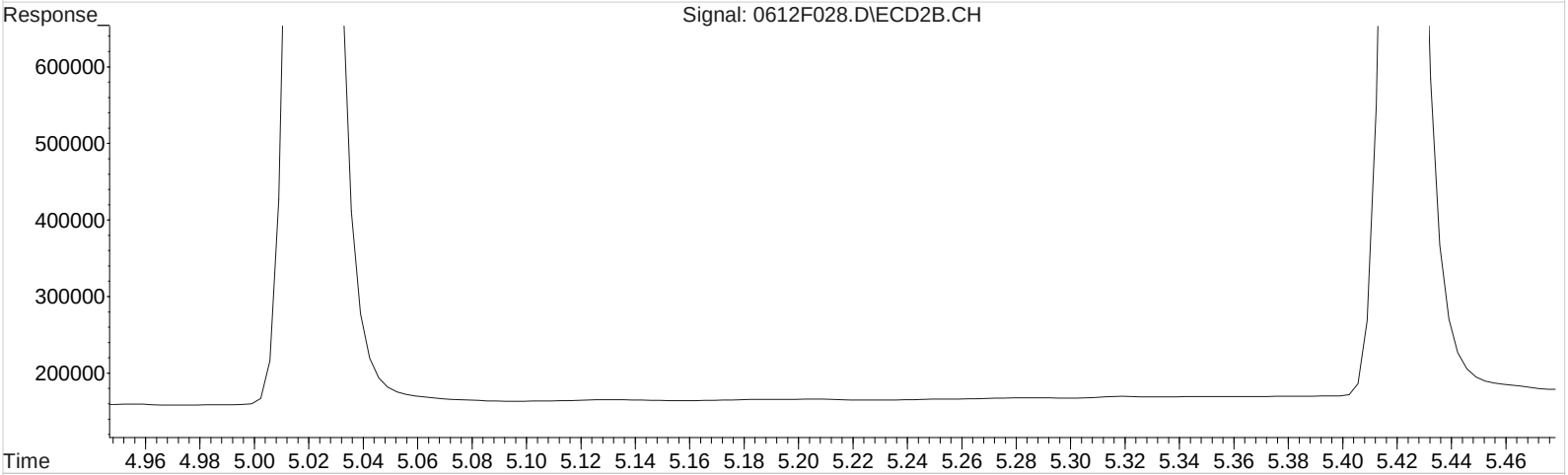
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:01 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.153min 57.115 ug/L

response 26219208

Manual Integration:

Before

06/13/19

(9) Pentachlorophenol #2 (M)

5.606min 38.454 ug/L

response 26168171

(+) = Expected Retention Time

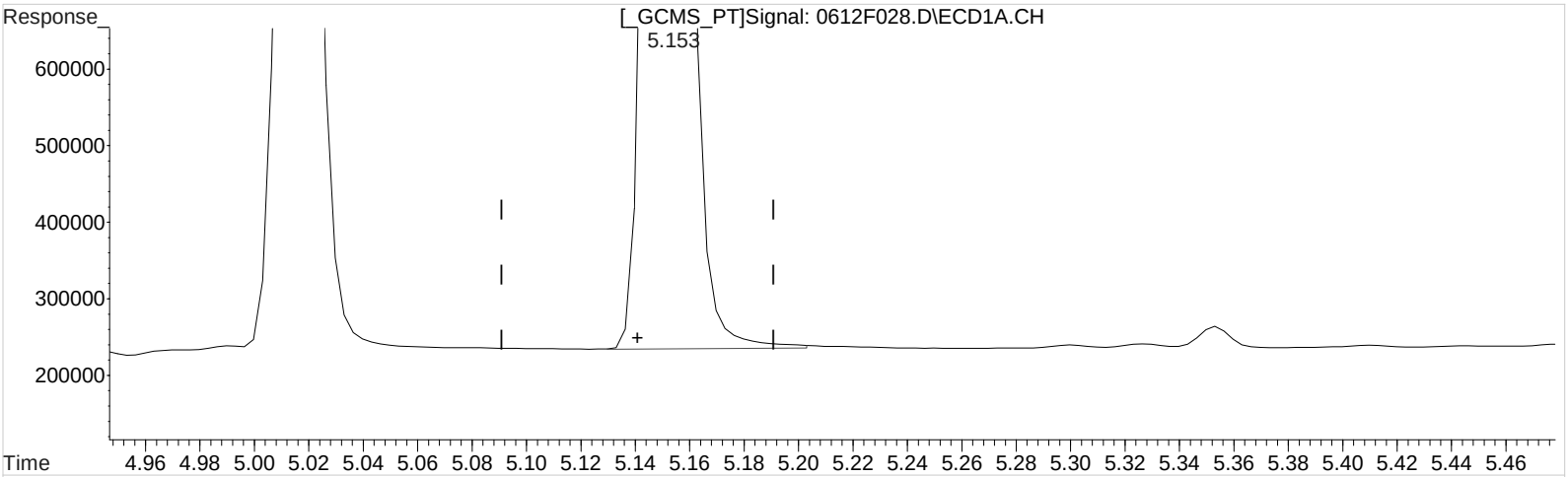
Quantitation Report (Qedit)

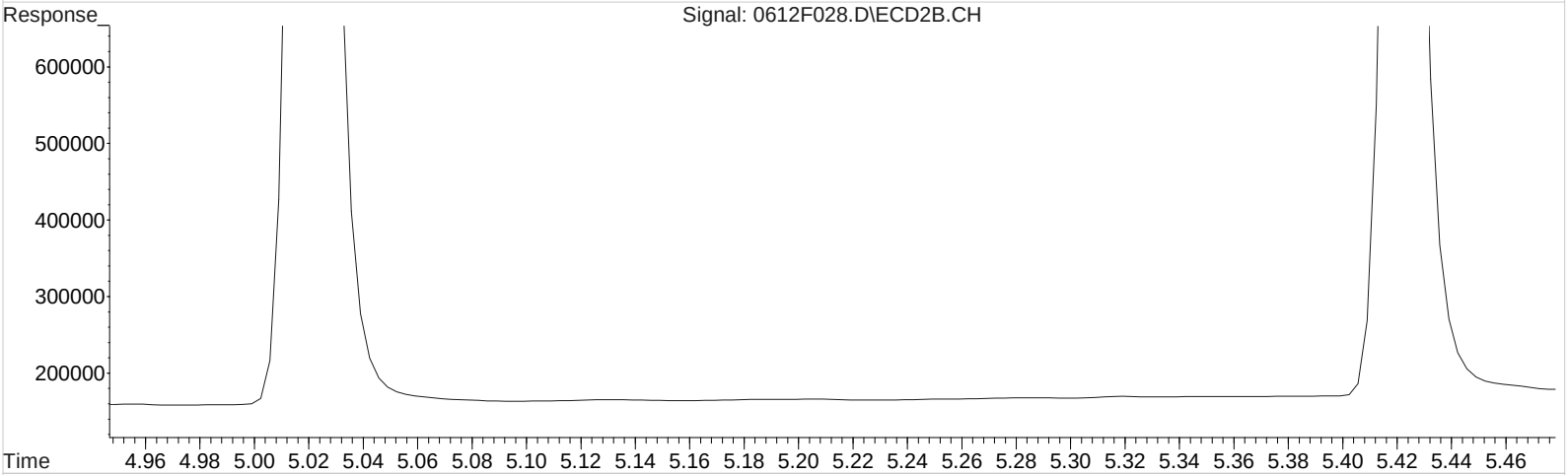
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F028.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 5:00 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:37:01 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.153min 56.883 ug/L m

response 26115942

Manual Integration:

After

Baseline/Shoulder

06/13/19

(9) Pentachlorophenol #2 (M)

5.606min 38.454 ug/L

response 26168171

(+) = Expected Retention Time

1st MC 06/13/19
2nd TP 06/14/19

Validation Report

Data File: J:\GC28\Data\061219\0612F047.D\
Lab ID: KQ1908184-05
RunType: CCV
Matrix: Water

Date Acquired: 6/12/19 22:37:00
Batch ID: 639031
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F047.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 22:37:00	**Vial:**	5
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908184-05	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18514495	17599300	53.702	41.746			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.59	24556090	27775094	53.388	40.815	53.4	40.8	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report

Data File:	J:\GC28\Data\061219\0612F047.D\	**Instrument:**	K-GC-28
Acqu Date:	6/12/19 22:37:00	**Vial:**	5
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908184-05	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/4/19	**Receive Date:**	6/5/19

Analysis Lot:	639031	**Prep Lot:**		**Report Group:**	KQ1908184
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18598

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	18514495	17599300	53.702	41.746			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
3,4-Dichlorophenol	3.13	3.74	796964	881444	52.150	40.634	52.2	40.6	Y
3,5-Dichlorophenol	3.37	3.99	511968	643092	48.167	41.861	48.2	41.9	Y
2,4,5-Trichlorophenol	4.19	4.72	6881606	7469595	51.069	42.168	51.1	42.2	Y
2,4,6-Trichlorophenol	3.47	4.21	15136318	16824524	49.538	41.218	49.5	41.2	Y
3,4,5-Trichlorophenol	4.23	4.78	6879323	7150154	48.576	42.191	48.6	42.2	Y
2,3,4,5-Tetrachlorophenol	5.01	5.41	14251746	16418826	47.068	39.477	47.1	39.5	Y
2,3,5,6-Tetrachlorophenol	4.47	5.01	21876425	24978546	51.128	41.373	51.1	41.4	Y
Pentachlorophenol (PCP)	5.14	5.59	24556090	27775094	53.388	40.815	53.4	40.8	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F047.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:37 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 09:51:00 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.023	4.649	18514495	17599300	53.702	41.746
		Target Compounds						
1)		3,4-Dichl...	3.133	3.739	796964	881444	52.150	40.634
2)		3,5-Dichl...	3.373	3.989	511968	643092	48.167m	41.861
3)		2,4,6-Tri...	3.470	4.206	15136318	16824524	49.538	41.218
5)		2,4,5-Tri...	4.193	4.716	6881606	7469595	51.069	42.168
6)		3,4,5-Tri...	4.227	4.779	6879323	7150154	48.576	42.191
7)	M	2,3,5,6-T...	4.470	5.013	21876425	24978546	51.128	41.373
8)	M	2,3,4,5-T...	5.010	5.413	14251746	16418826	47.068m	39.477
9)	M	Pentachlo...	5.143	5.593	24556090	27775094	53.388	40.815
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st MC 06/13/19
2nd TP 06/14/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061219\0612F047.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:37 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
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Quant Time: Jun 13 09:51:00 2019
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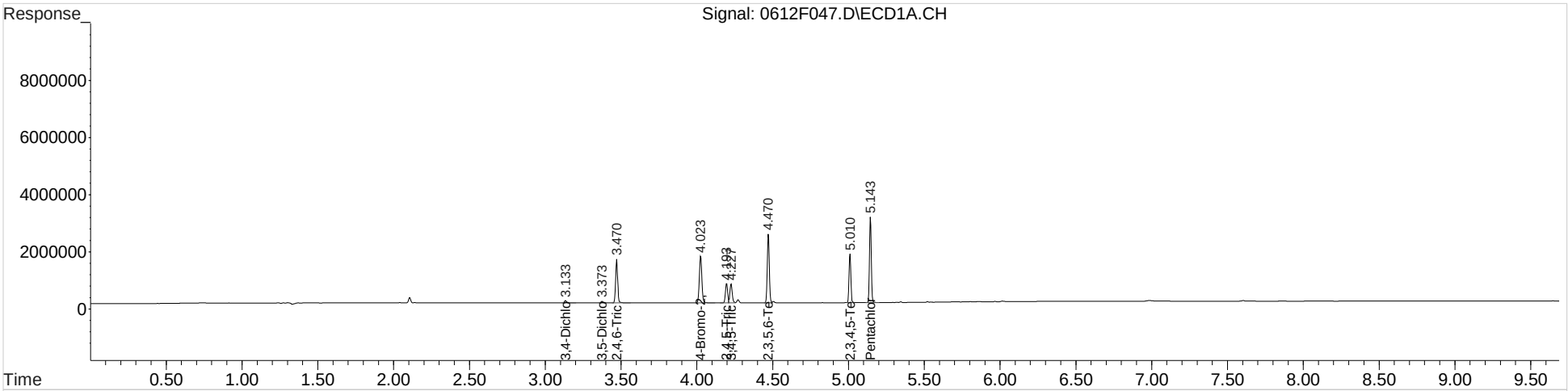
Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

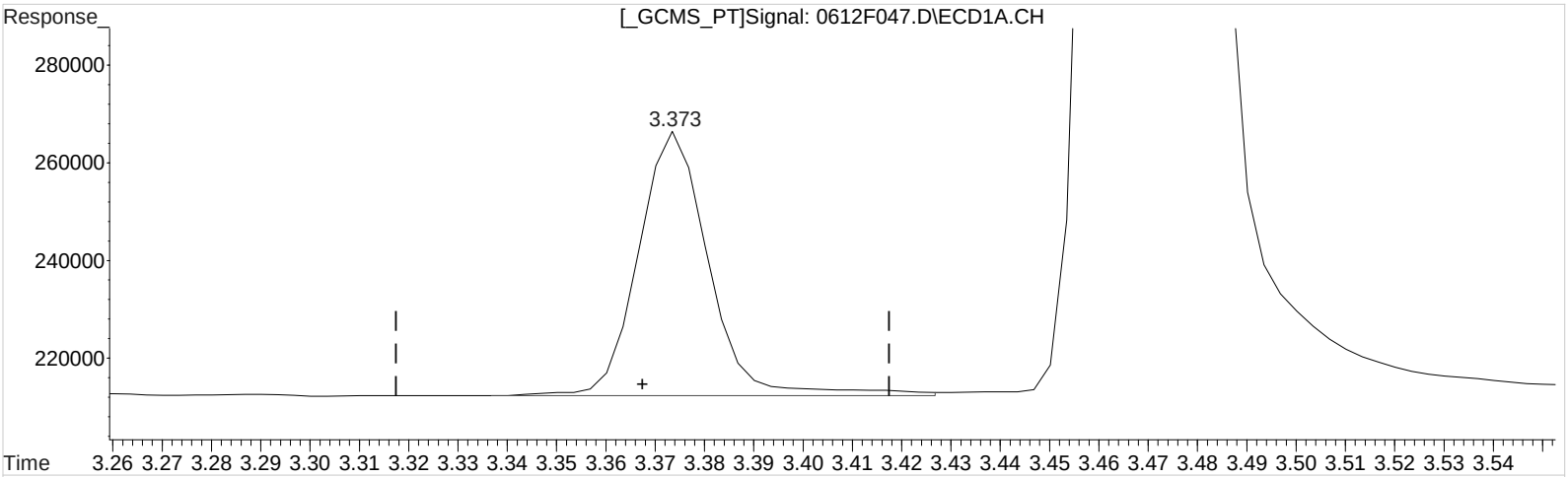


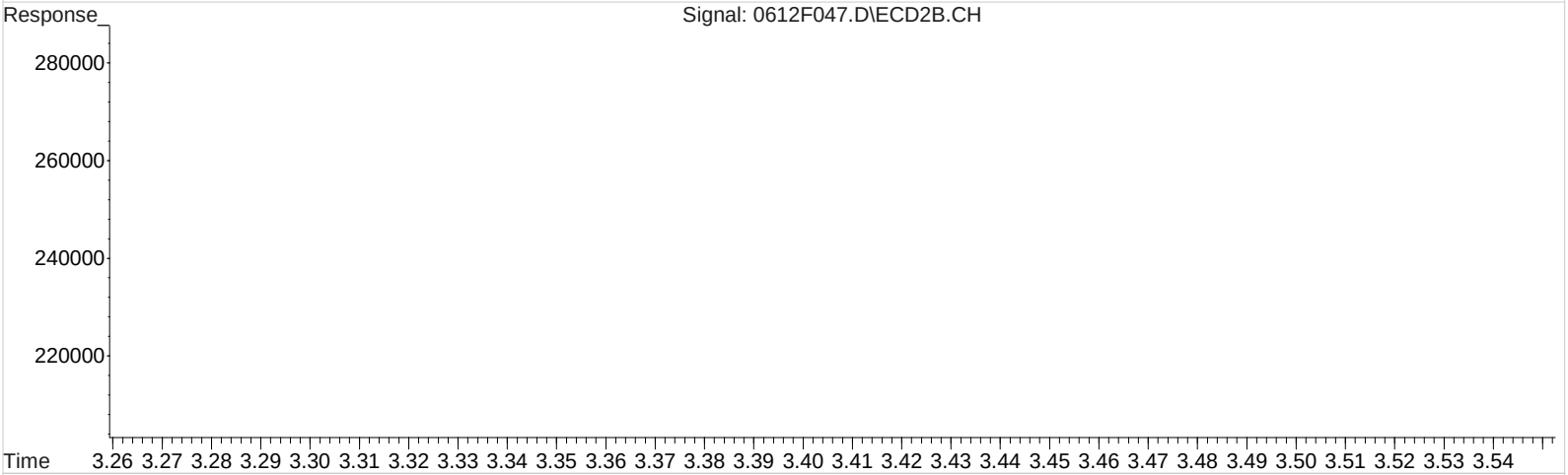
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F047.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:37 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 07:49:44 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.373min 50.826 ug/L

response 537848

Manual Integration:

Before

06/13/19

(2) 3,5-Dichlorophenol #2

3.989min 41.861 ug/L

response 643092

(+) = Expected Retention Time

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F047.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:37 pm Operator: MC
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Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
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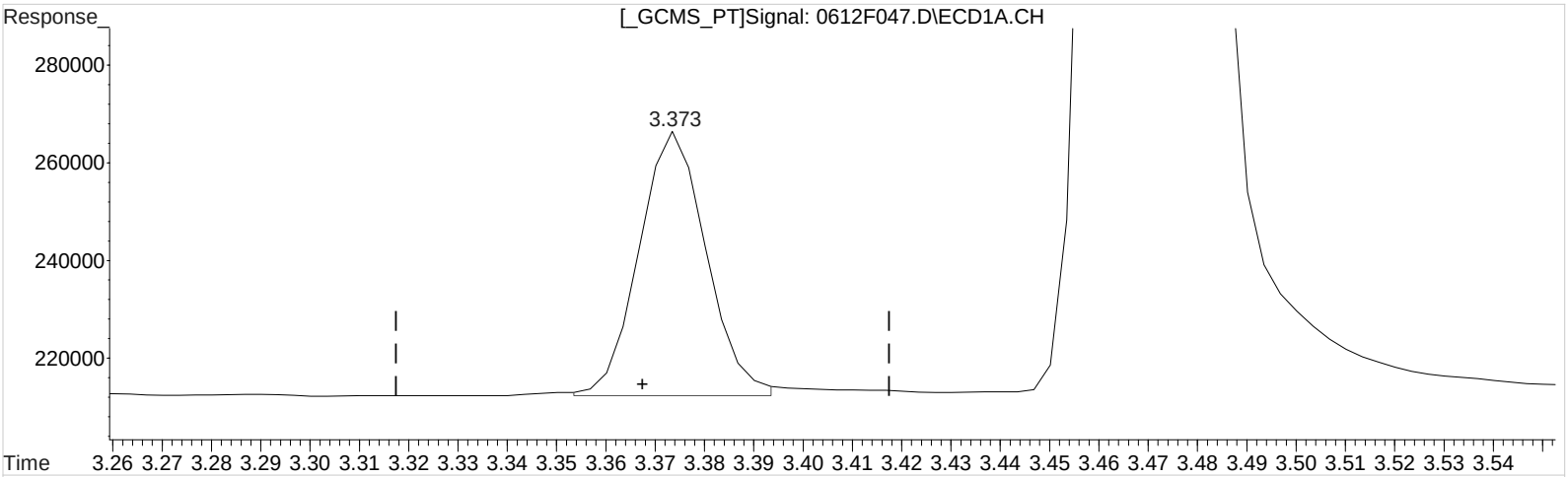
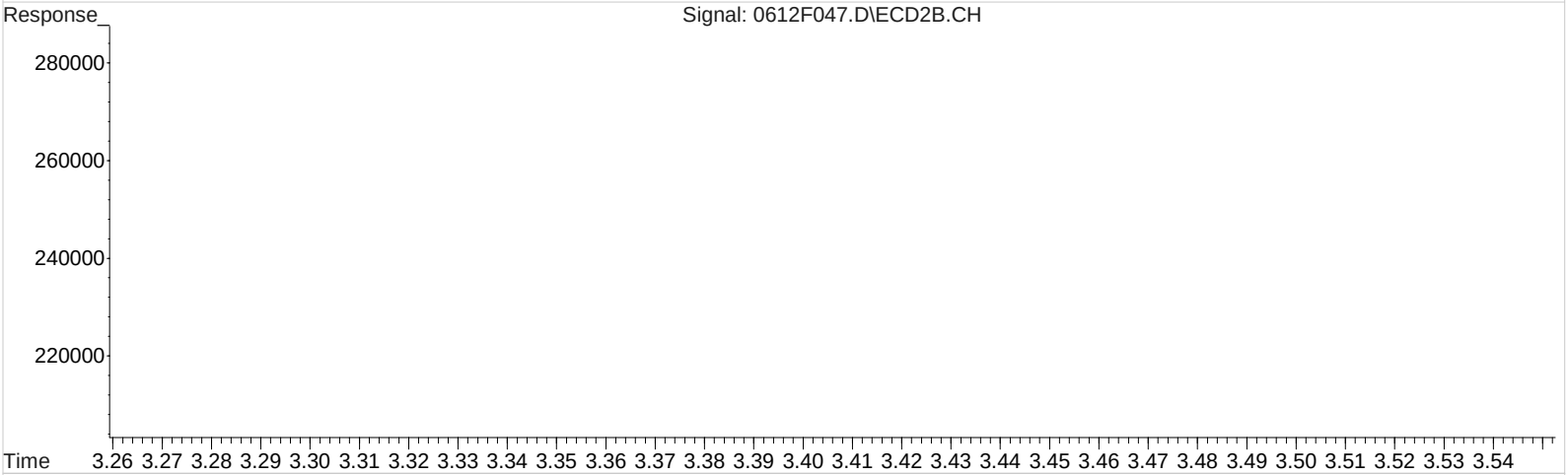
Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.373min 48.167 ug/L m

response 511968

Manual Integration:

After

Baseline/Shoulder

06/13/19

(2) 3,5-Dichlorophenol #2

3.989min 41.861 ug/L

response 643092

(+) = Expected Retention Time

Quantitation Report (Qedit)

1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F047.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:37 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 07:49:44 2019
Quant Results File: 022819-PCP.RES

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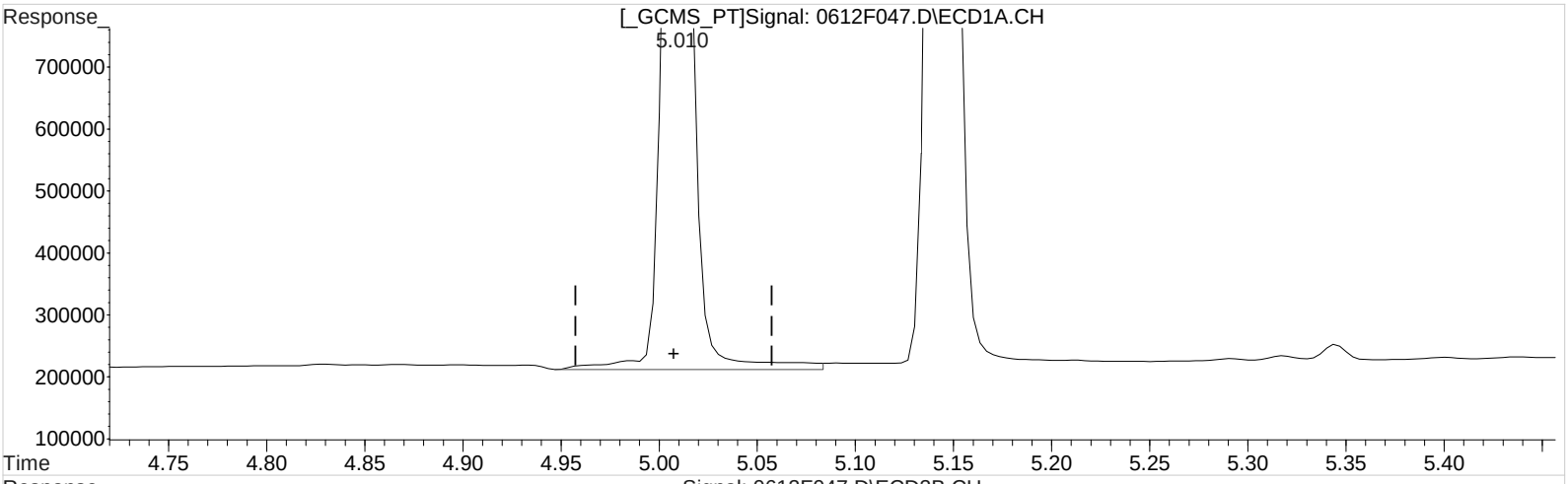
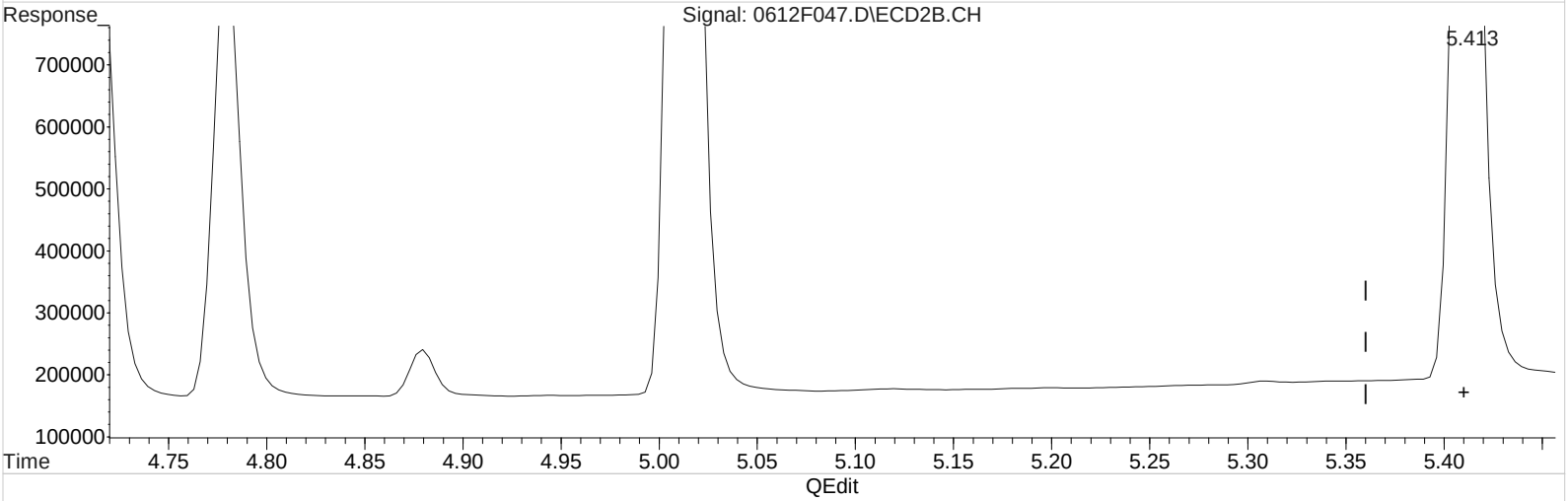
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.010min 50.001 ug/L

response 15078004

Manual Integration:

Before

06/13/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.413min 39.477 ug/L

response 16418826

(+) = Expected Retention Time

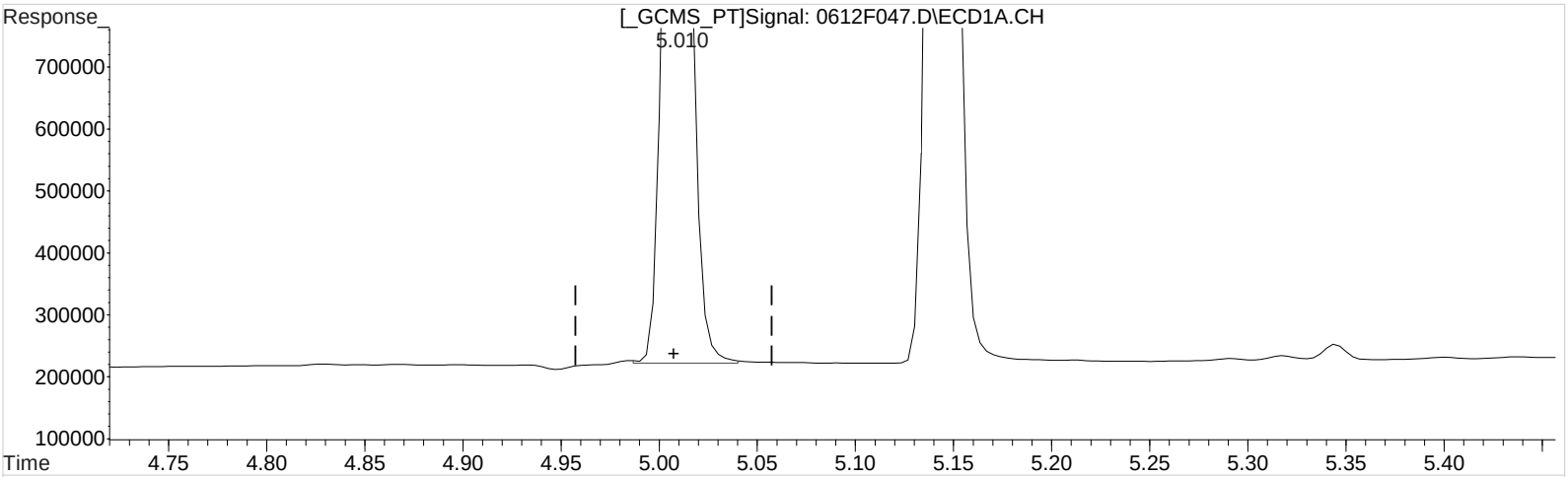
Quantitation Report (Qedit)

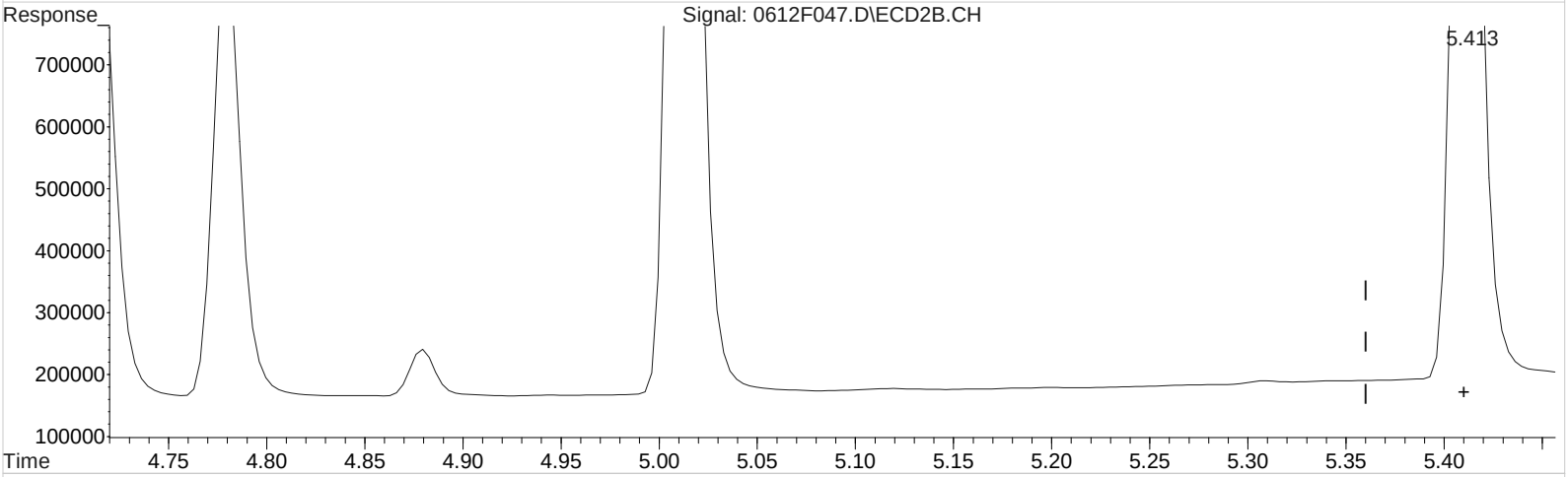
1st MC 06/13/19
2nd TP 06/14/19

Data File : J:\GC28\Data\061219\0612F047.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12 Jun 2019 10:37 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 13 07:49:44 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.010min 47.068 ug/L m

response 14251746

Manual Integration:

After

Baseline/Shoulder

06/13/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.413min 39.477 ug/L

response 16418826

(+) = Expected Retention Time

Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\022819CAL\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0228F001	PENTHOT2	PRIMER
2	IB	100	0228F002	PENTHOT2	PRIMER
3	ICAL	1	0228F003	PENTHOT2	IB
4	ICAL	2	0228F004	PENTHOT2	PENTA01-94T 1.0
5	ICAL	NR 3	0228F005	PENTHOT2	PENTA01-94S 2.5 - bad injection
6	ICAL	4	0228F006	PENTHOT2	PENTA01-94R 5.0
7	ICAL	5	0228F007	PENTHOT2	PENTA01-94Q 10
8	ICAL	6	0228F008	PENTHOT2	PENTA01-94P 25
9	ICAL	7	0228F009	PENTHOT2	PENTA01-94O 50
10	ICAL	8	0228F010	PENTHOT2	PENTA01-94N 100
11	ICAL	9	0228F011	PENTHOT2	PENTA01-94M 250
12	ICAL	10	0228F012	PENTHOT2	PENTA01-95G 500
13	ICAL	11	0228F013	PENTHOT2	PENTA01-95H 1000
14	ICAL	3	0228F014	PENTHOT2	PENTA01-94S 2.5 ok
15	IB	1	0228F015	PENTHOT2	IB
16	ICAL	12	0228F016	PENTHOT2	PENTA01-95D ICV

KC1900082
2/28/19

Last Modified: Thu Feb 28 10:29:05 2019 Page: 1

ALS-Kelso
Initial Calibration Checklist GC

Method: 8151M
ICAL ID or Date: KC000821
Instrument: GC28

Primary	Secondary	
☑	☑	The new ICAL is saved with a unique ID.
☑	☑	ICAL was performed continuously (i.e. not interrupted by maintenance event).
☑	☐	All analytes in blank are < ½ MRL.
☑	☑	ICAL contains minimum number of concentrations.
☑	☑	No internal levels excluded for any analytes.
☑	☑	Retention times updated using a midpoint of the calibration. Secondary reviewer double check peak IDs.
☑	☑	Calibration files quantitated with new method.
☑	☑	Check integrations. Primary reviewer must check all integrations electronically. Secondary reviewer will check low point and high point electronically.
☑	☑	ICAL files added to calibration table.
☑	☑	The average RF or COD meets method criteria for all analytes.
☑	☑	ICV is quantitated against new ICAL.
☑	☑	ICV meets method criteria.
☑	☐	Linked in ~~Stealth~~ UMS to an appropriate method. An appropriate method will be one that contains all analytes that were analyzed.
☑	☑	All calibration reports included: ICAL SUMMARY, ICAL DETAILED, ICV SUMMARY.
☑	☑	Enviroquant/Target responses match those in Stealth.
☑	☑	All quant reports and manual integrations initialed and dated.

Data packet should be in the following order: Sequence log, Calibration Review, Stealth ICAL reports, and quant reports.

Primary: _____ Date: 2/28/19

Secondary: _____ Date: 2/28/19

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -87.82 X² + 4.342E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	6.732E5	02	5.000	5.679E5	03	10.000	5.372E5	04	25.000	4.948E5
05	50.000	4.691E5	06	100.000	4.496E5	07	250.000	4.103E5	08	500.000	3.739E5
09	1000.000	3.511E5	10	2.500	6.128E5						

2,3,4,5-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -268.7 X² + 3.077E5 X + 3.627E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	02	4.715	3.979E5	03	9.431	3.696E5	04	23.577	3.259E5
05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5	10	2.358	4.756E5

2,3,5,6-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -316.9 X² + 4.391E5 X + 2.523E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	02	4.715	5.28E5	03	9.431	4.935E5	04	23.577	4.478E5
05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5	10	2.358	5.749E5

2,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -146.2 X² + 1.398E5 X + 1.234E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	02	4.669	1.8E5	03	9.338	1.735E5	04	23.345	1.484E5
05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5	10	2.334	2.006E5

2,4,6-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9995**	**Y= -245.7 X² + 3.136E5 X + 2.021E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	02	4.669	3.846E5	03	9.338	3.638E5	04	23.345	3.225E5
05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5	10	2.334	4.078E5

3,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -166.3 X² + 1.479E5 X + 8.837E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	02	4.669	1.823E5	03	9.338	1.696E5	04	23.345	1.515E5
05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5	10	2.334	1.988E5

3,4-Dichlorophenol	**Quadratic**	**1/X**	**COD = 1.0000**	**Y= -15.47 X² + 1.592E4 X + 8.759E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.529E4	02	4.605	1.749E4	03	9.209	1.718E4	04	23.023	1.584E4
05	46.046	1.558E4	06	92.091	1.446E4	07	230.230	1.241E4	10	2.302	1.966E4

3,5-Dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9982**	**Y= -14.62 X² + 1.118E4 X + 7.47E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	1.798E4	02	4.605	1.407E4	03	9.209	1.255E4	04	23.023	1.076E4
05	46.046	1.147E4	06	92.091	9.36E3	07	230.230	7.904E3	10	2.302	1.374E4

Pentachlorophenol (PCP)	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -97.29 X² + 4.57E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	02	4.750	5.978E5	03	9.501	5.654E5	04	23.752	5.208E5
05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5	08	475.030	3.936E5
09	950.060	3.695E5	10	2.375	6.451E5						

4-Bromo-2,6-dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9994**	**Y= -70.25 X² + 3.43E5 X + 2.985E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	02	5.000	4.356E5	03	10.000	4.141E5	04	25.000	3.754E5
05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5	08	500.000	2.979E5
09	1000.000	2.755E5	10	2.500	4.672E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.555	**-44.5**	02	5.000	5.55	11.0	03	10.000	11.4	14.0
04	25.000	27.6	10.6	05	50.000	53.6	7.2	06	100.000	105	4.8
07	250.000	248	-0.9	08	500.000	475	-5.0	09	1000.000	1020	1.6
10	2.500	2.53	1.4								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.770	-18.3	02	4.715	4.94	4.7	03	9.431	10.2	8.6
04	23.577	24.3	3.1	05	47.153	46.9	-0.6	06	94.307	91.6	-2.8
07	235.770	237	0.6	10	2.358	2.47	4.8				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.738	-21.7	02	4.715	5.11	8.5	03	9.431	10.1	7.1
04	23.577	23.9	1.3	05	47.153	47.4	0.6	06	94.307	91.5	-3.0
07	235.770	237	0.5	10	2.358	2.52	6.8				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.634	**-32.1**	02	4.669	5.16	10.4	03	9.338	10.8	15.9
04	23.345	24.5	5.1	05	46.690	46.1	-1.2	06	93.379	88.6	-5.1
07	233.450	236	1.2	10	2.334	2.47	6.0				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.732	-21.6	02	4.669	5.10	9.3	03	9.338	10.3	10.0
04	23.345	23.8	2.0	05	46.690	47.3	1.2	06	93.379	89.5	-4.1
07	233.450	235	0.8	10	2.334	2.39	2.6				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.655	-29.8	02	4.669	5.19	11.1	03	9.338	10.2	9.6
04	23.345	24.0	2.7	05	46.690	47.4	1.5	06	93.379	88.5	-5.2
07	233.450	236	1.2	10	2.334	2.55	9.2				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.914	-0.8	02	4.605	4.53	-1.6	03	9.209	9.47	2.9
04	23.023	22.9	-0.7	05	46.046	46.6	1.3	06	92.091	91.2	-1.0
07	230.230	231	0.2	10	2.302	2.30	-0.2				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.814	-11.6	02	4.605	5.16	12.1	03	9.209	9.80	6.4
04	23.023	22.1	-3.9	05	46.046	49.8	8.2	06	92.091	86.2	-6.4
07	230.230	233	1.3	10	2.302	2.17	-5.8				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	0.527	**-44.5**	02	4.750	5.27	11.0	03	9.501	10.8	14.0
04	23.752	26.3	10.6	05	47.503	50.9	7.2	06	95.006	99.5	4.8
07	237.520	235	-0.9	08	475.030	452	-5.0	09	950.060	966	1.6
10	2.375	2.41	1.4								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.643	**-35.7**	02	5.000	5.49	9.7	03	10.000	11.2	12.3
04	25.000	26.6	6.5	05	50.000	53.3	6.6	06	100.000	102	1.6
07	250.000	251	0.2	08	500.000	481	-3.9	09	1000.000	1010	1.2
10	2.500	2.54	1.5								

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D\0228F004c.d	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D\0228F006c.d	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D\0228F007c.d	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D\0228F008c.d	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D\0228F009c.d	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D\0228F010c.d	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D\0228F011c.d	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D\0228F012c.d	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D\0228F013c.d	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D\0228F014c.d	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte	Curve Fit	Weighting

2,3,4,5,6-Pentachloroanisole

Average RF **RSD = 9.583** **Average RF = 6.462E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	7.909E5	02	5.000	6.542E5	03	10.000	6.532E5	04	25.000	6.151E5
05	50.000	6.083E5	06	100.000	5.984E5	07	250.000	5.996E5	08	500.000	6.052E5
09	1000.000	6.245E5	10	2.500	7.13E5						

2,3,4,5-Tetrachlorophenol

Average RF **RSD = 12.29** **Average RF = 4.159E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	02	4.715	4.353E5	03	9.431	4.108E5	04	23.577	3.904E5
05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5	10	2.358	4.73E5

2,3,5,6-Tetrachlorophenol

Average RF **RSD = 6.587** **Average RF = 6.037E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	02	4.715	5.882E5	03	9.431	6.075E5	04	23.577	5.816E5
05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5	10	2.358	6.377E5

2,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9997** **Y= -73.44 X² + 1.777E5 X + 1.058E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	02	4.669	2.059E5	03	9.338	2.015E5	04	23.345	1.829E5
05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5	10	2.334	2.293E5

2,4,6-Trichlorophenol

Average RF **RSD = 4.634** **Average RF = 4.082E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	02	4.669	4.004E5	03	9.338	4.124E5	04	23.345	3.941E5
05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5	10	2.334	4.267E5

3,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9998** **Y= -63.92 X² + 1.7E5 X + 9.004E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	02	4.669	1.919E5	03	9.338	1.89E5	04	23.345	1.732E5
05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5	10	2.334	2.115E5

3,4-Dichlorophenol

Average RF **RSD = 10.82** **Average RF = 2.169E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.356E4	02	4.605	2.28E4	03	9.209	2.378E4	04	23.023	2.153E4
05	46.046	2.119E4	06	92.091	1.915E4	07	230.230	1.751E4	10	2.302	2.4E4

3,5-Dichlorophenol

Quadratic **1/X** **COD = 0.9996** **Y= -14.71 X² + 1.578E4 X + 8.463E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.299E4	02	4.605	1.798E4	03	9.209	1.82E4	04	23.023	1.612E4
05	46.046	1.537E4	06	92.091	1.408E4	07	230.230	1.249E4	10	2.302	1.928E4

Pentachlorophenol (PCP)

Average RF **RSD = 9.573** **Average RF = 6.805E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	02	4.750	6.912E5	03	9.501	6.875E5	04	23.752	6.474E5
05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5	08	475.030	6.37E5
09	950.060	6.573E5	10	2.375	7.52E5						

4-Bromo-2,6-dichlorophenol

Average RF **RSD = 5.968** **Average RF = 4.216E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	02	5.000	3.777E5	03	10.000	4.048E5	04	25.000	4.138E5
05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5	08	500.000	4.395E5
09	1000.000	4.542E5	10	2.500	3.934E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.22	22.4	02	5.000	5.06	1.2	03	10.000	10.1	1.1
04	25.000	23.8	-4.8	05	50.000	47.1	-5.9	06	100.000	92.6	-7.4
07	250.000	232	-7.2	08	500.000	468	-6.4	09	1000.000	966	-3.4
10	2.500	2.76	10.3								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.14	21.2	02	4.715	4.93	4.7	03	9.431	9.31	-1.2
04	23.577	22.1	-6.1	05	47.153	43.3	-8.3	06	94.307	83.5	-11.5
07	235.770	206	-12.5	10	2.358	2.68	13.7				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.07	13.6	02	4.715	4.59	-2.6	03	9.431	9.49	0.6
04	23.577	22.7	-3.7	05	47.153	45.9	-2.6	06	94.307	89.1	-5.6
07	235.770	223	-5.4	10	2.358	2.49	5.6				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.799	-14.5	02	4.669	4.82	3.3	03	9.338	10.0	7.4
04	23.345	23.7	1.3	05	46.690	47.3	1.3	06	93.379	90.7	-2.9
07	233.450	234	0.4	10	2.334	2.42	3.6				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	1.01	8.7	02	4.669	4.58	-1.9	03	9.338	9.43	1.0
04	23.345	22.5	-3.5	05	46.690	46.6	-0.2	06	93.379	89.0	-4.7
07	233.450	224	-4.0	10	2.334	2.44	4.5				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.846	-9.5	02	4.669	4.75	1.7	03	9.338	9.88	5.9
04	23.345	23.5	0.5	05	46.690	47.5	1.7	06	93.379	91.1	-2.4
07	233.450	234	0.3	10	2.334	2.38	1.8				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	1.00	8.6	02	4.605	4.84	5.1	03	9.209	10.1	9.6
04	23.023	22.9	-0.7	05	46.046	45.0	-2.3	06	92.091	81.3	-11.7
07	230.230	186	-19.3	10	2.302	2.55	10.6				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.806	-12.4	02	4.605	4.73	2.8	03	9.209	10.2	10.6
04	23.023	23.5	2.1	05	46.046	46.3	0.6	06	92.091	89.0	-3.3
07	230.230	232	0.7	10	2.302	2.28	-0.9				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	1.16	22.2	02	4.750	4.82	1.6	03	9.501	9.60	1.0
04	23.752	22.6	-4.9	05	47.503	44.7	-5.9	06	95.006	87.9	-7.4
07	237.520	220	-7.3	08	475.030	445	-6.4	09	950.060	918	-3.4
10	2.375	2.62	10.5								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.975	-2.5	02	5.000	4.48	-10.4	03	10.000	9.60	-4.0
04	25.000	24.5	-1.8	05	50.000	52.4	4.9	06	100.000	103	3.0
07	250.000	264	5.5	08	500.000	521	4.2	09	1000.000	1080	7.7
10	2.500	2.33	-6.7								

Initial Calibration Verification Summary Report

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-1701

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Quadratic	50	58.215	ug/L	16.4	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.125	ug/L	6.3	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.742	ug/L	7.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.950	ug/L	7.0	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	47.208	ug/L	1.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.502	ug/L	6.0	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	50.405	ug/L	9.5	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	54.814	ug/L	19.0	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Quadratic	47.5030	55.309	ug/L	16.4	<= 20

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-35

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Average RF	50	51.424	ug/L	2.8	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	46.743	ug/L	-0.9	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	47.890	ug/L	1.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	50.676	ug/L	8.5	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Average RF	46.69	46.729	ug/L	0.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	48.393	ug/L	3.6	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Average RF	46.0460	46.475	ug/L	0.9	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	48.925	ug/L	6.3	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Average RF	47.5030	48.834	ug/L	2.8	<= 20

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:01 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:03:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.712	0	59380	N.D. d	0.137
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
2)		3,5-Dichl...	0.000	4.125f	0	25046	N.D.	1.520 #
3)		2,4,6-Tri...	0.000	4.292	0	32648	N.D. d	0.078
5)		2,4,5-Tri...	0.000	4.802	0	42050	N.D. d	0.210
6)		3,4,5-Tri...	0.000	4.832	0	55519	N.D. d	0.296
7)	M	2,3,5,6-T...	0.000	5.088	0	70520	N.D. d	0.114
8)	M	2,3,4,5-T...	0.000	5.452	0	131834	N.D. d	0.319
9)	M	Pentachlo...	0.000	5.685f	0	269600	N.D. d	0.392
10)		Pentachlo...	0.000	5.685f	0	269600	N.D. d	0.413

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

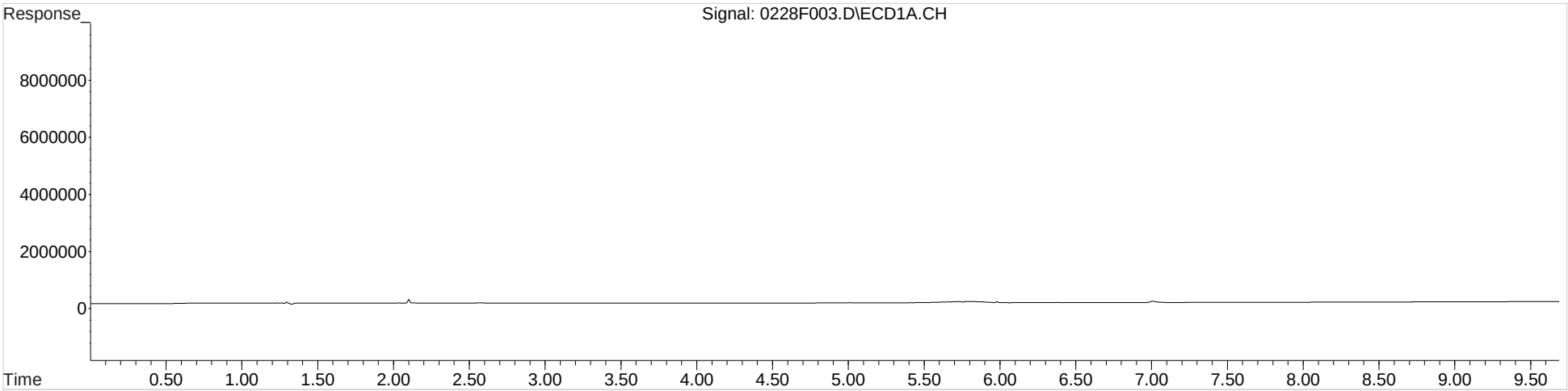
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:01 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:03:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.027	4.714	519128	410904	0.637	0.945 #
		Target Compounds						
1)		3,4-Dichl...	3.137	3.824	23293	21701	0.801m	0.982m
2)		3,5-Dichl...	3.377	4.084	16564	21176	1.036m	1.285m
3)		2,4,6-Tri...	3.473	4.284	431646	414230	0.802	0.993
5)		2,4,5-Tri...	4.200	4.778	211915	247658	0.739	1.239 #
6)		3,4,5-Tri...	4.230	4.844	185206	233780	0.709m	1.245 #
7)	M	2,3,5,6-T...	4.473	5.071	576226	646609	1.211m	1.048m
8)	M	2,3,4,5-T...	5.013	5.468	599618	475513	0.771	1.152m#
9)	M	Pentachlo...	5.150	5.648	673174	789810	0.493	1.149m#
10)		Pentachlo...	5.150	5.648	673174	790854	0.519	1.211m#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

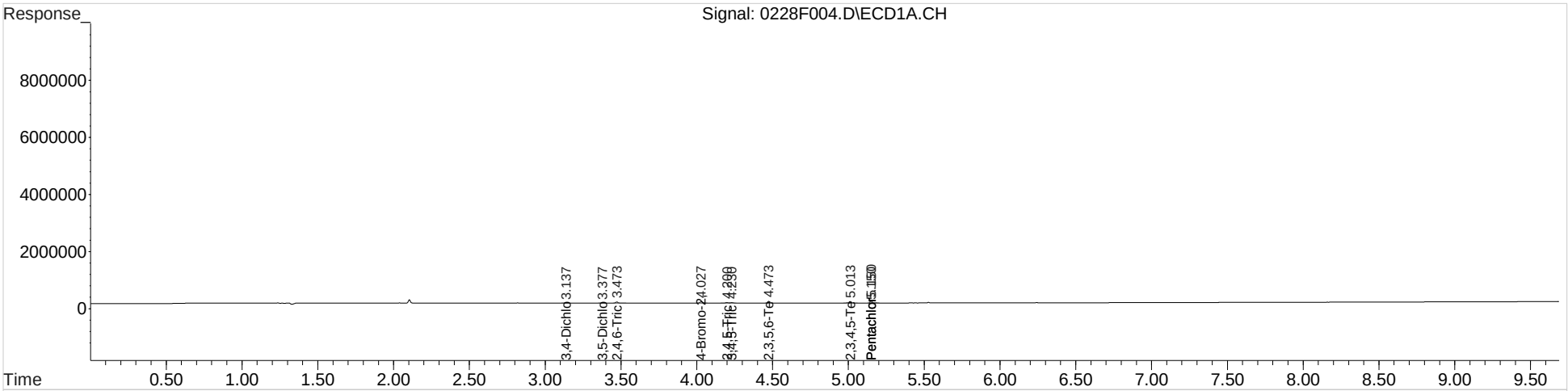
1st JMS 02/28/19
2nd MC 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



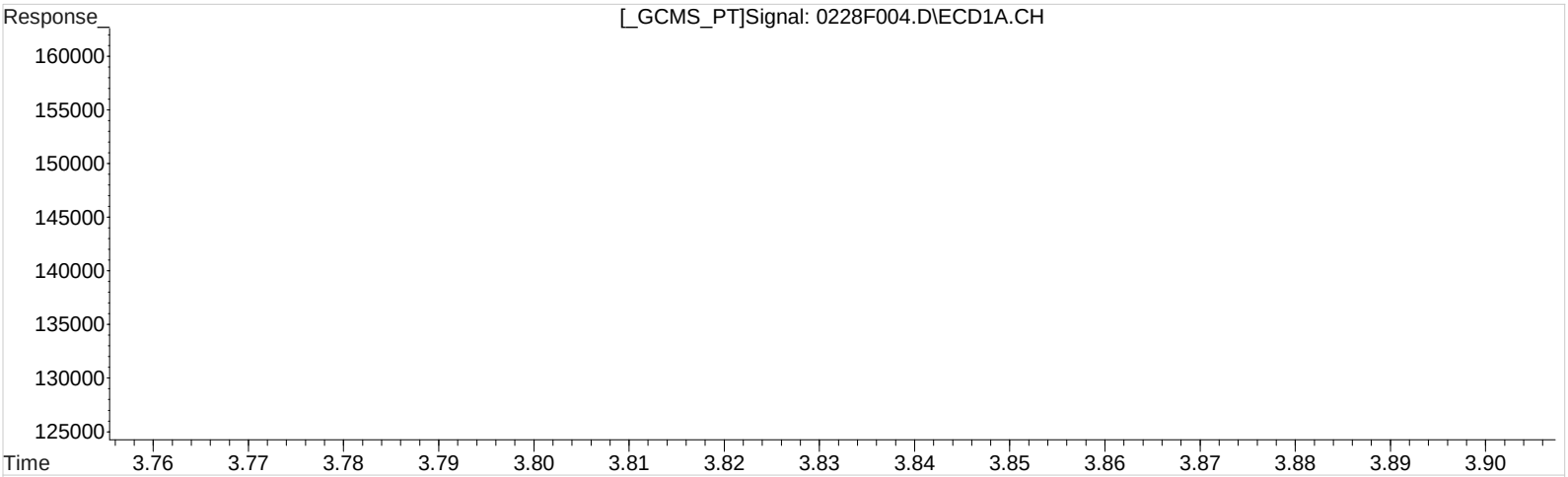
Quantitation Report (Qedit)

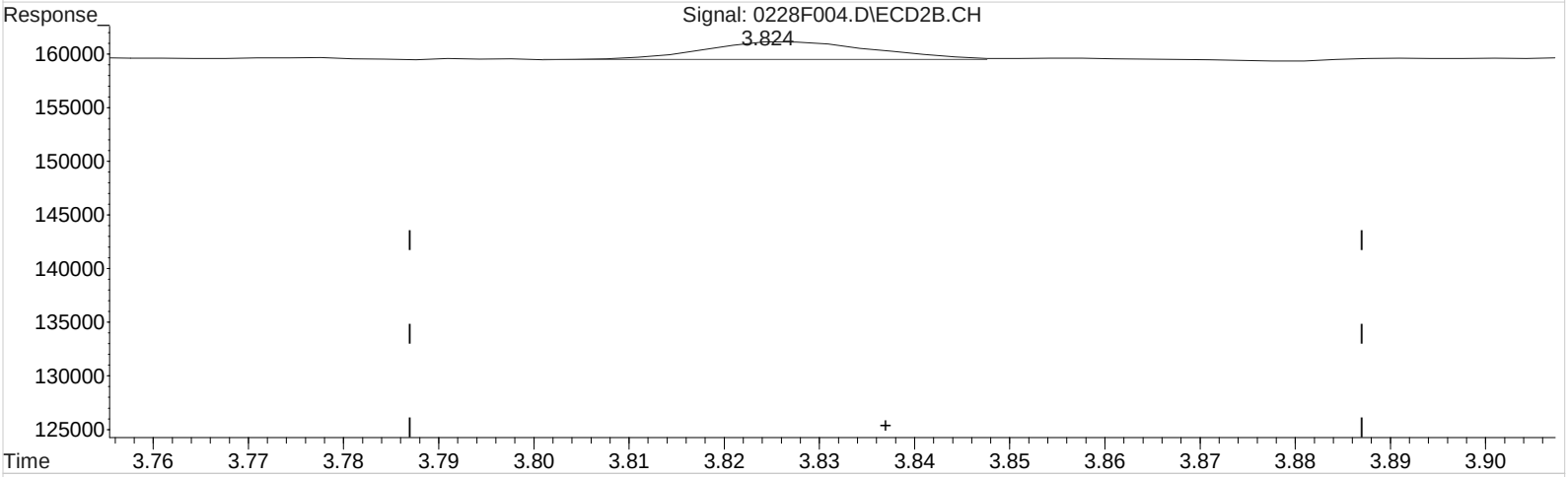
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.924 ug/L

response 20420

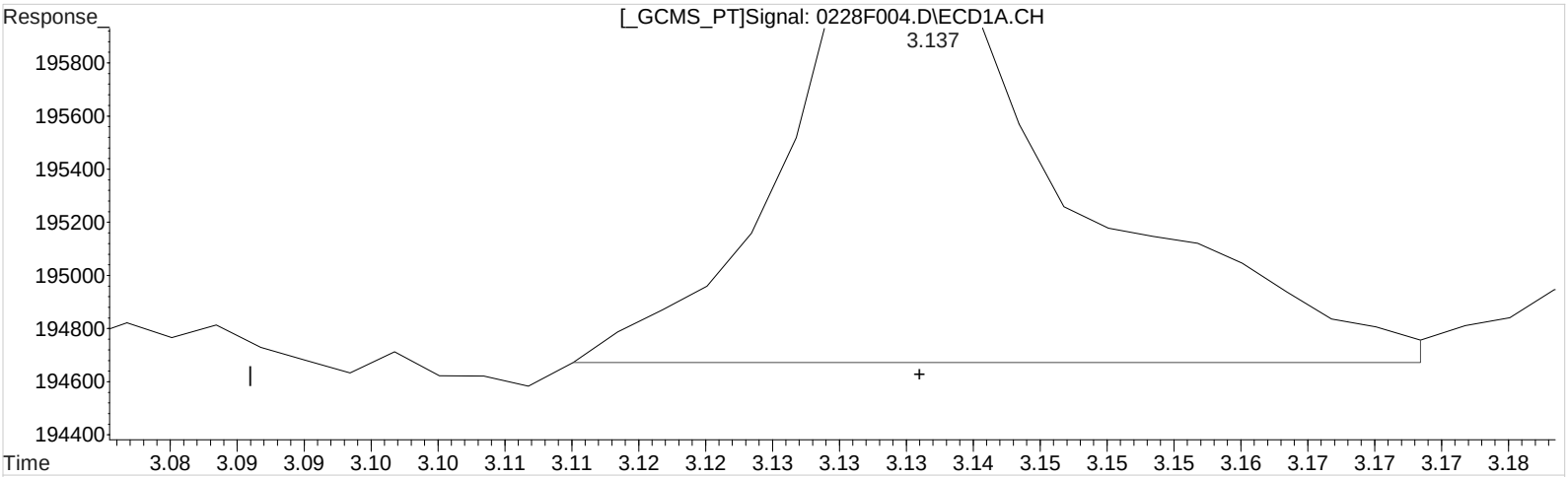
(+) = Expected Retention Time

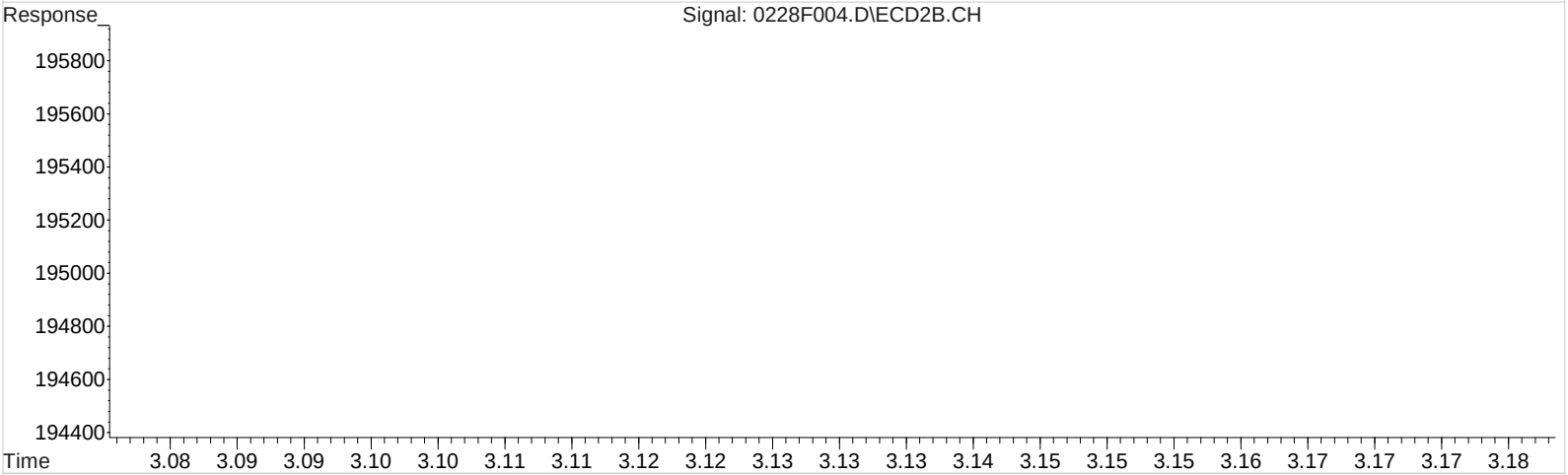
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

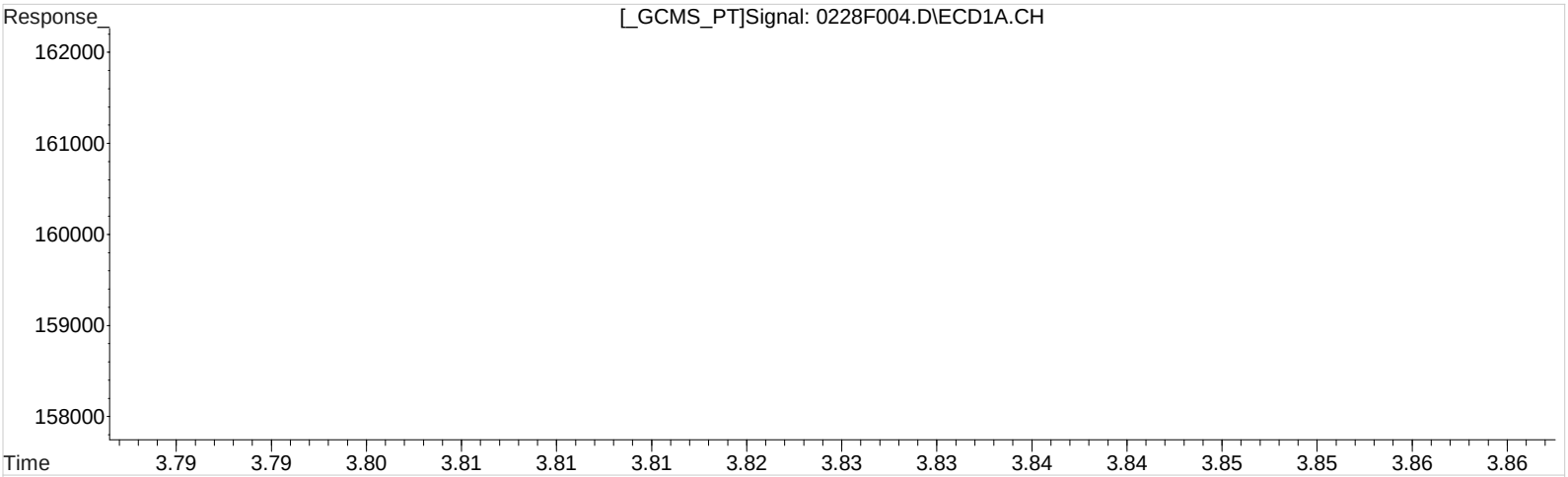
Quantitation Report (Qedit)

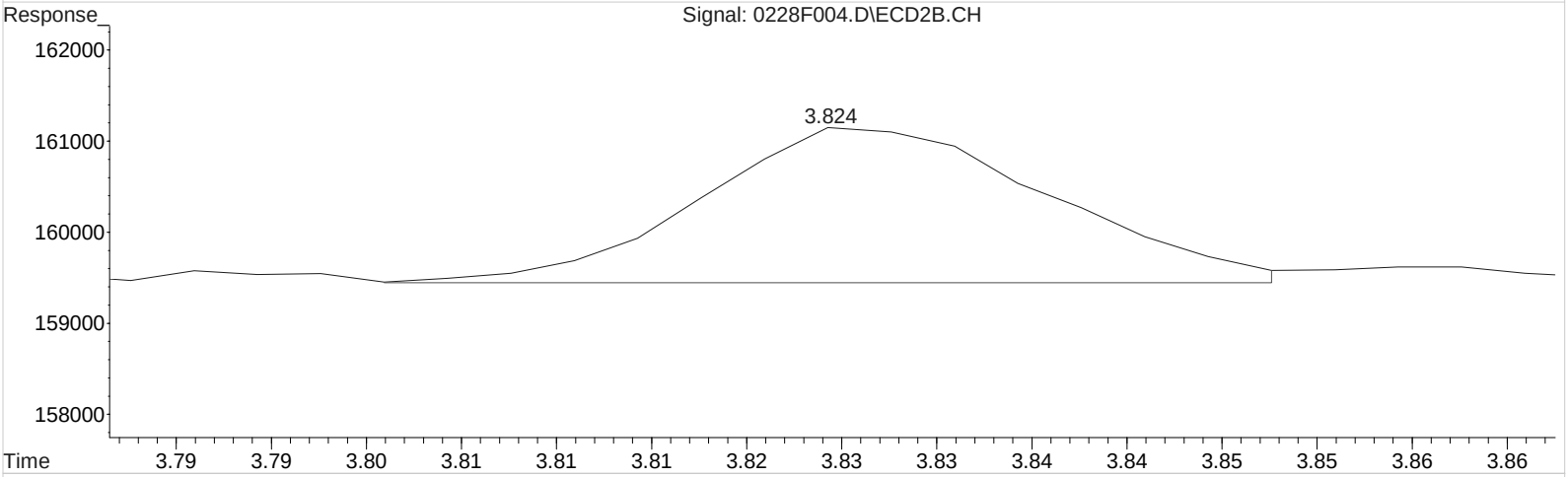
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

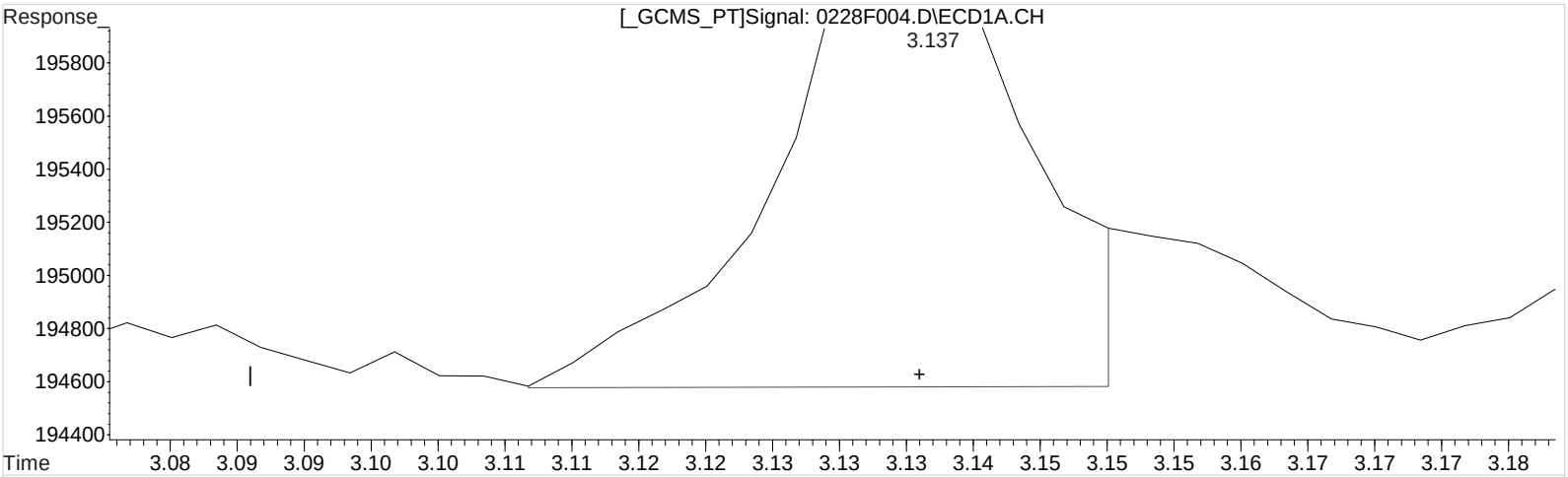
(+) = Expected Retention Time

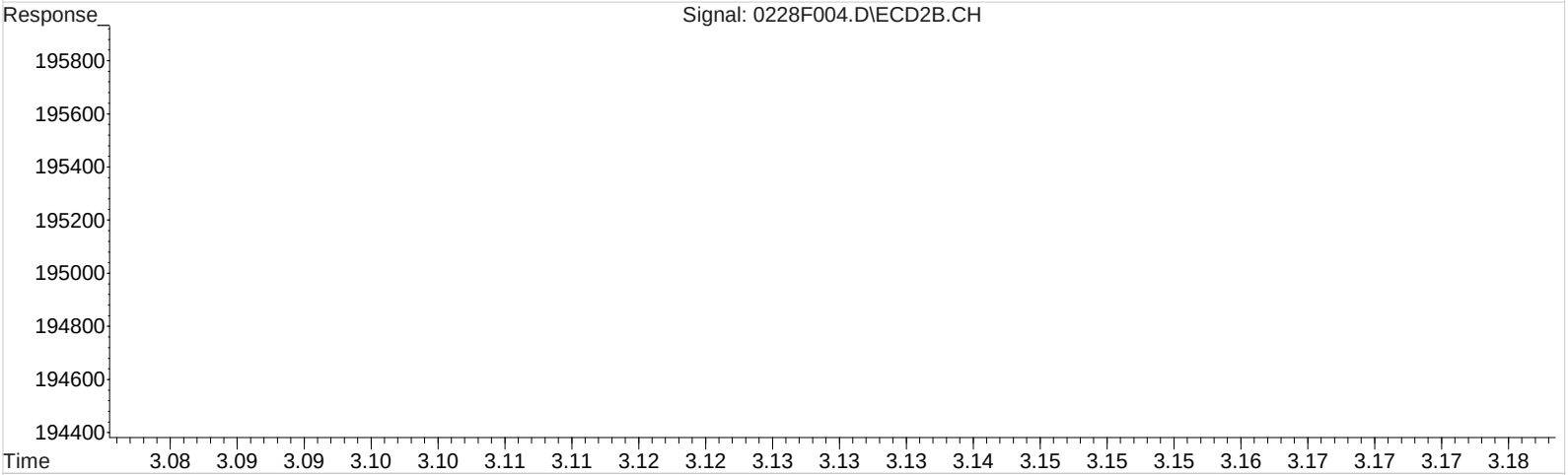
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.801 ug/L m

response 23293

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

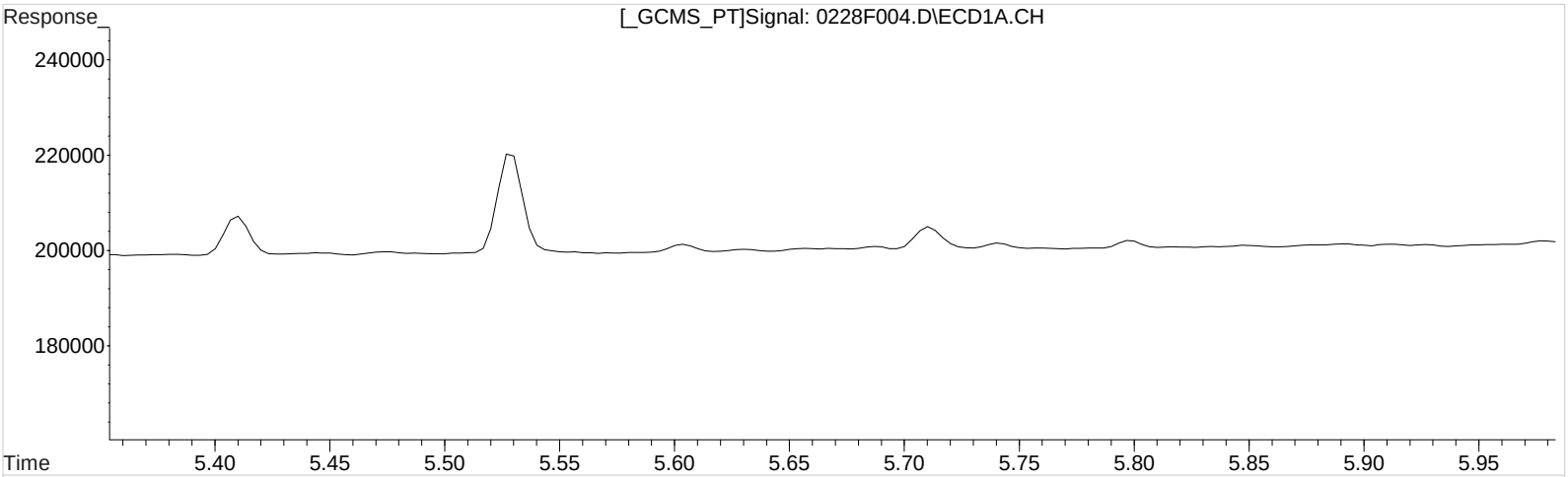
Quantitation Report (Qedit)

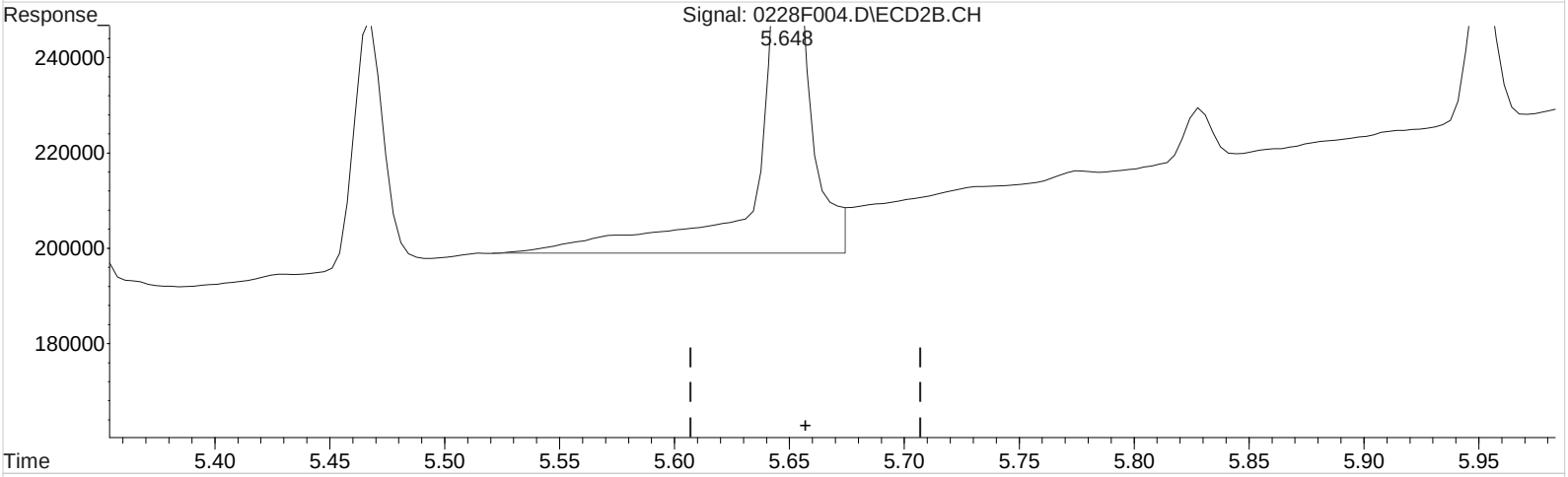
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.150min 0.519 ug/L

response 673174

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.648min 1.879 ug/L

response 1226970

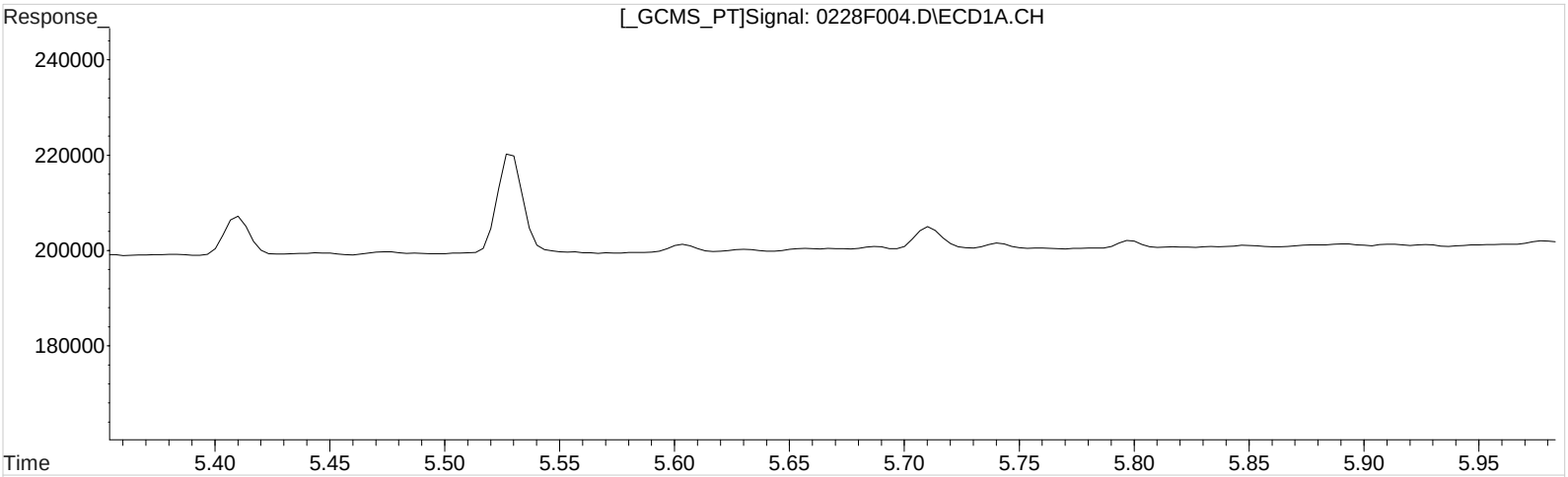
(+) = Expected Retention Time

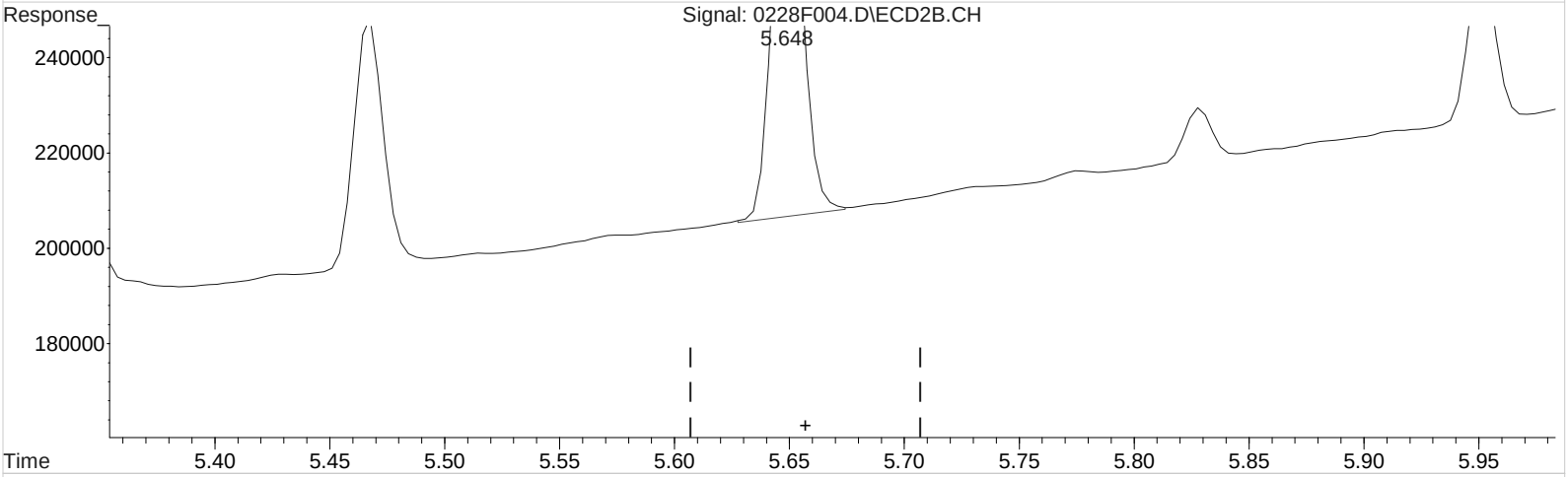
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.150min 0.519 ug/L

response 673174

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.648min 1.211 ug/L m

response 790854

(+) = Expected Retention Time

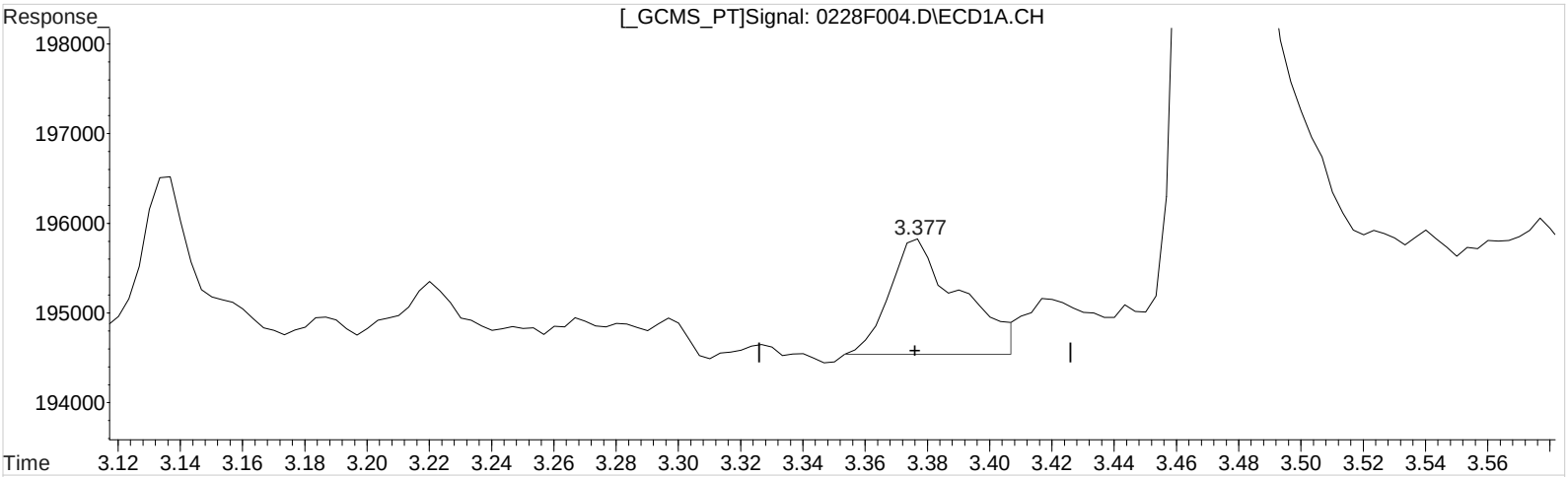
Quantitation Report (Qedit)

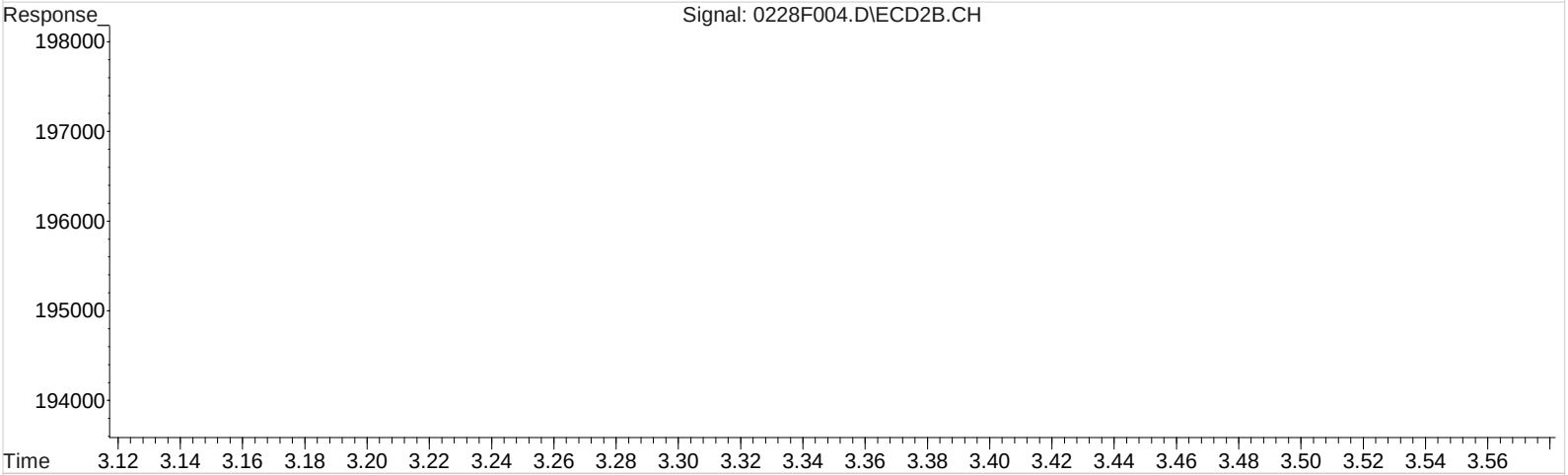
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.388 ug/L

response 20270

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

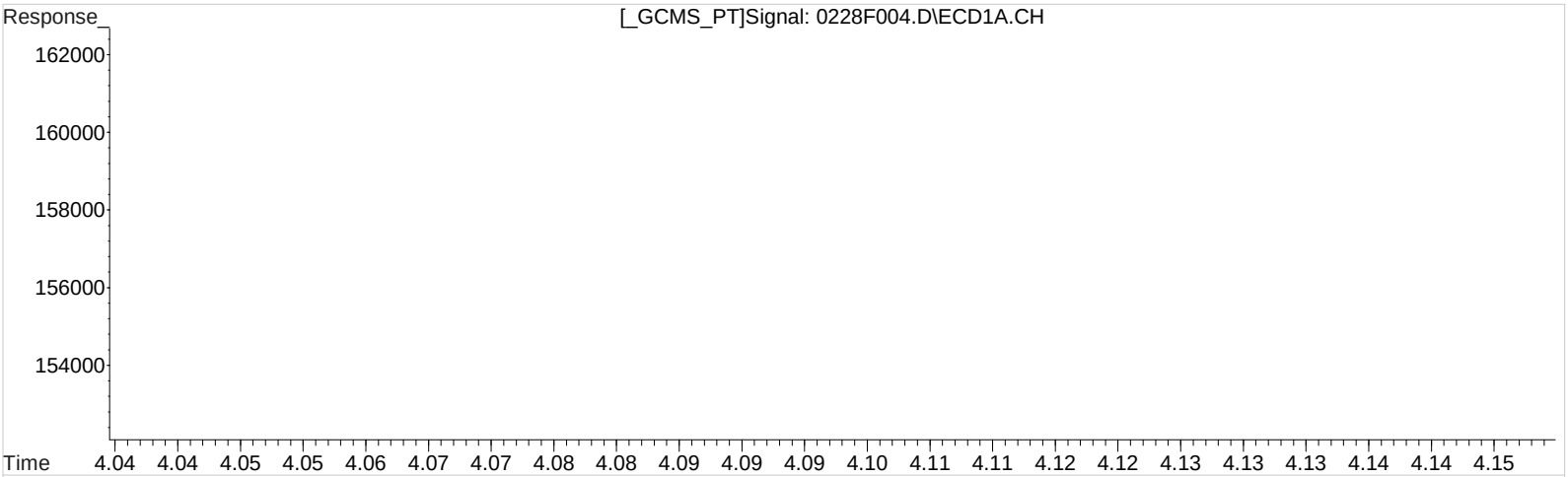
Quantitation Report (Qedit)

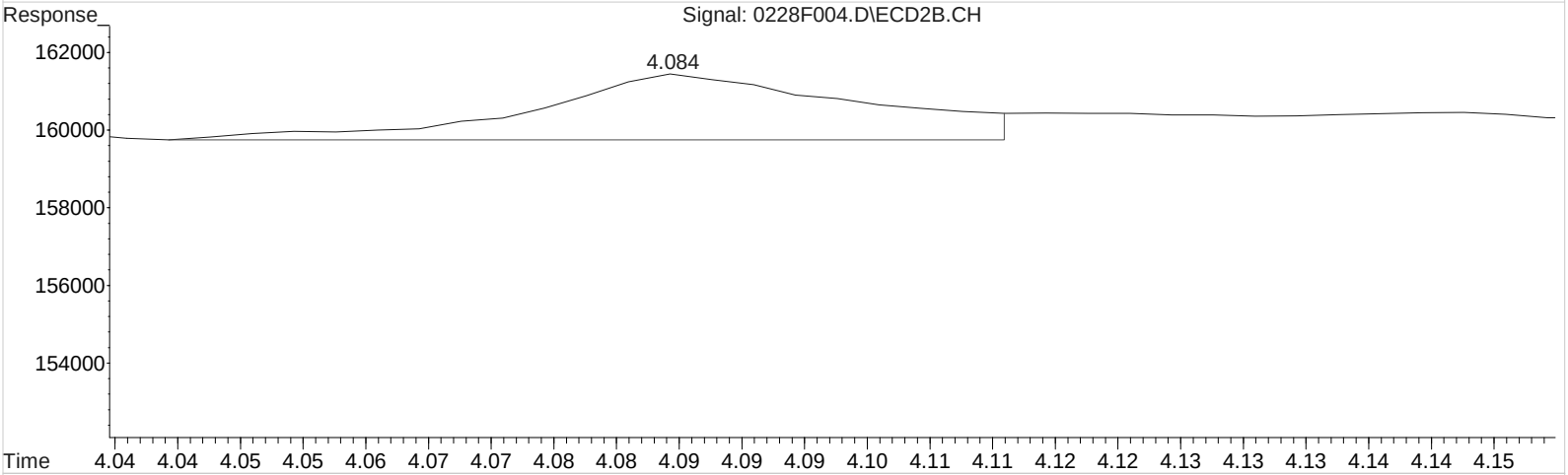
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

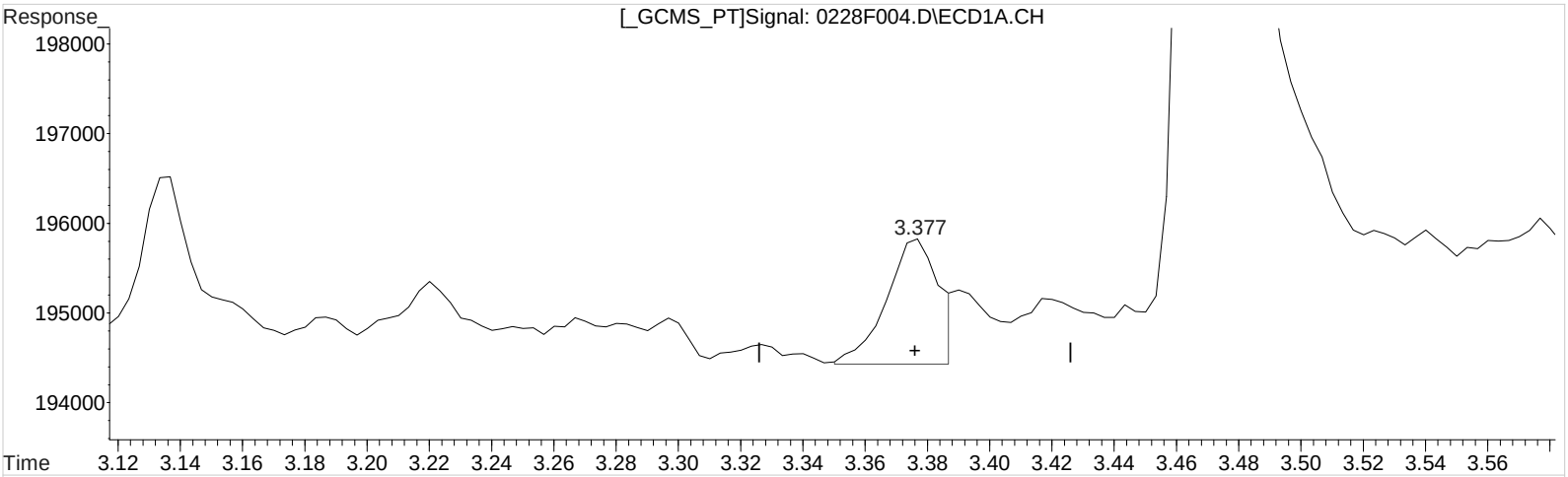
Quantitation Report (Qedit)

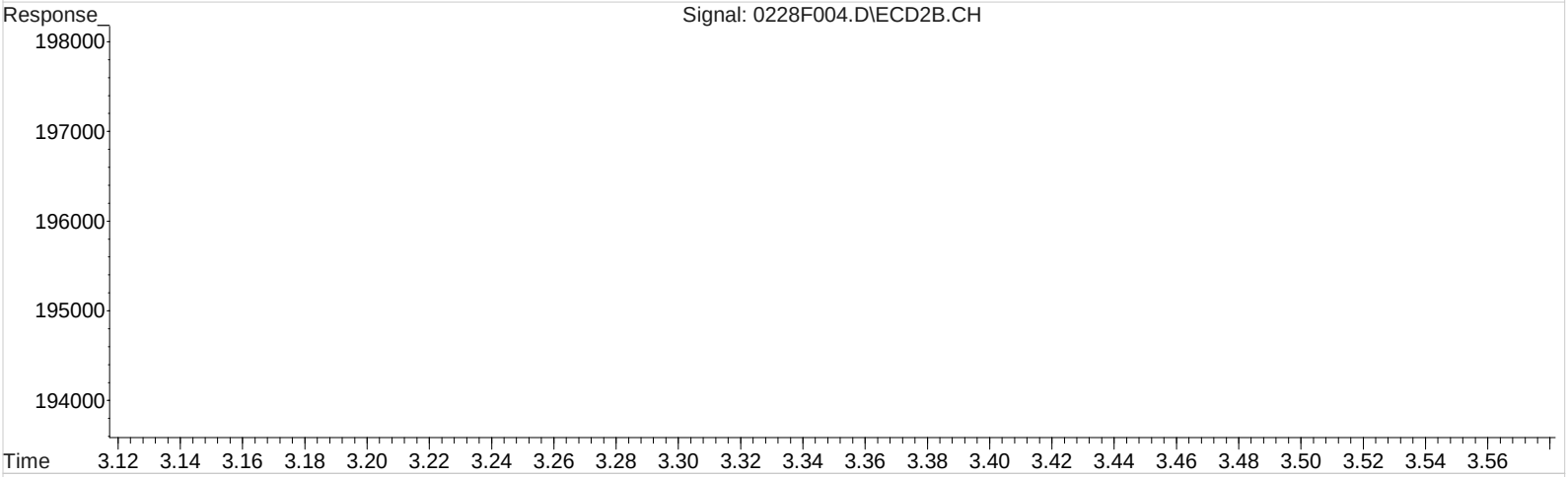
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

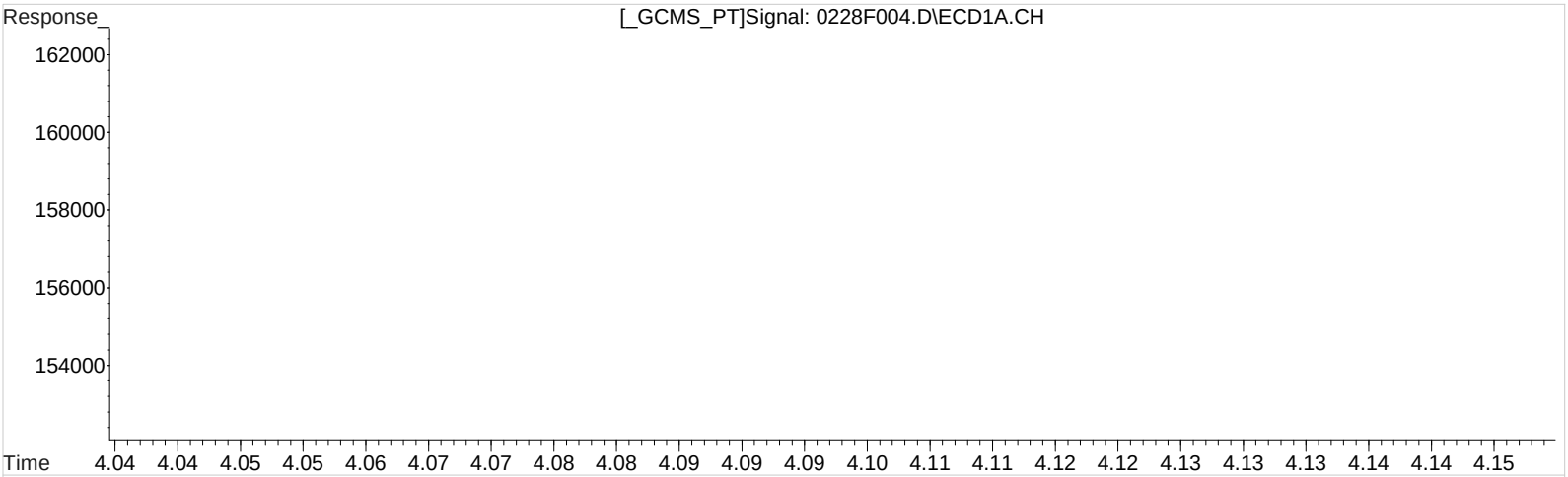
Quantitation Report (Qedit)

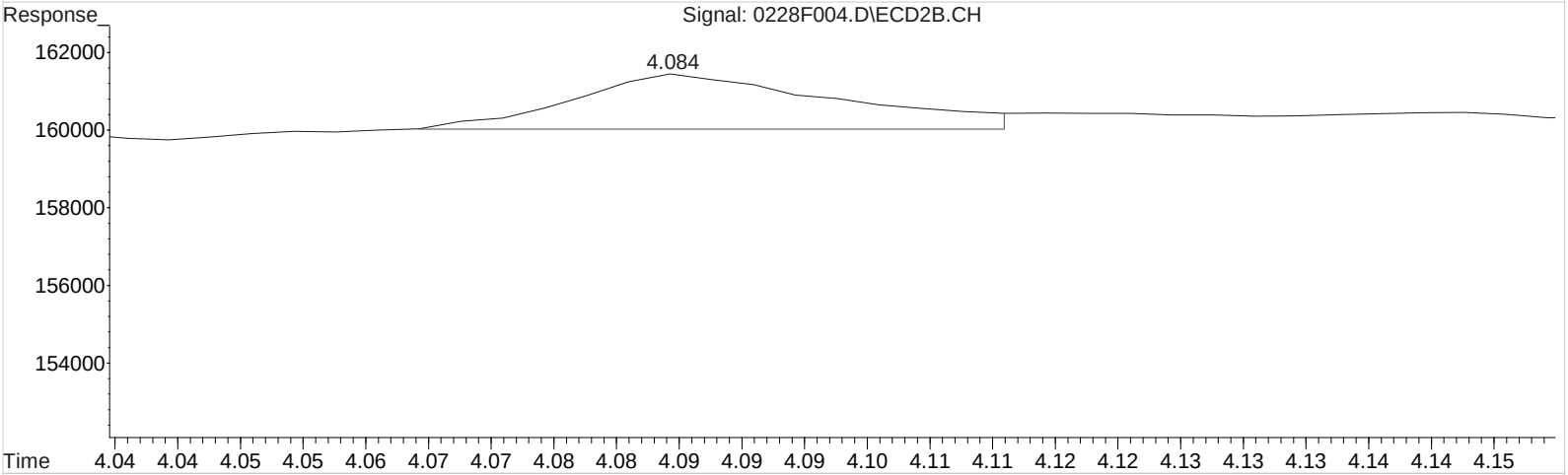
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.285 ug/L m

response 21176

(+) = Expected Retention Time

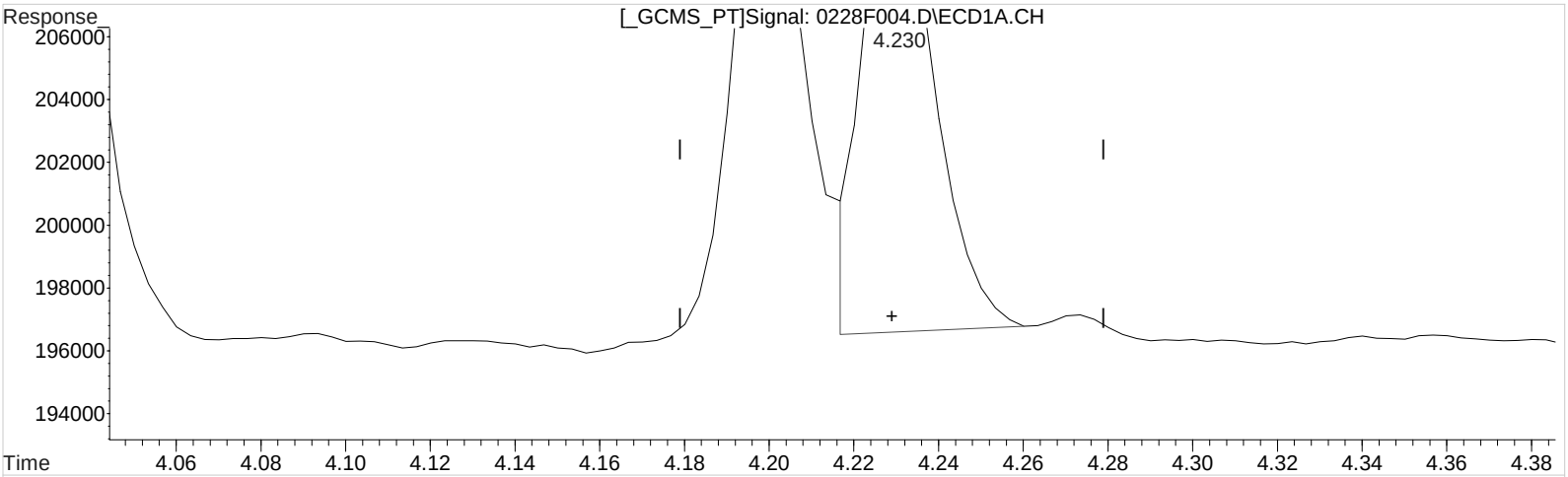
Quantitation Report (Qedit)

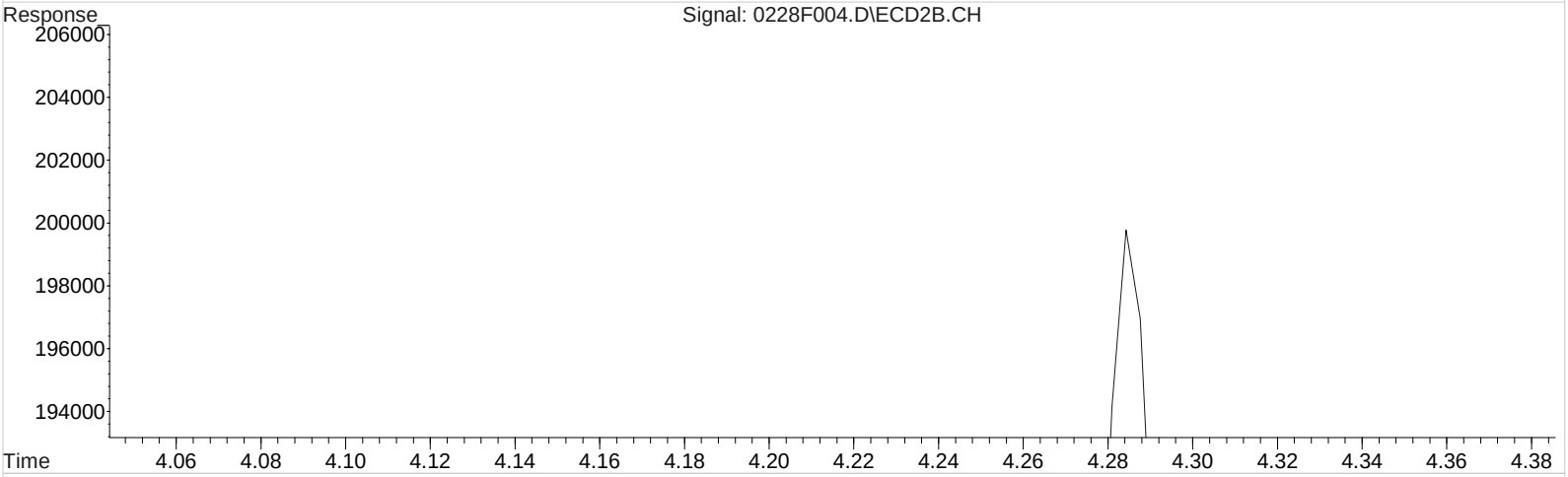
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.230min 0.644 ug/L

response 175885

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.844min 1.245 ug/L

response 233780

(+) = Expected Retention Time

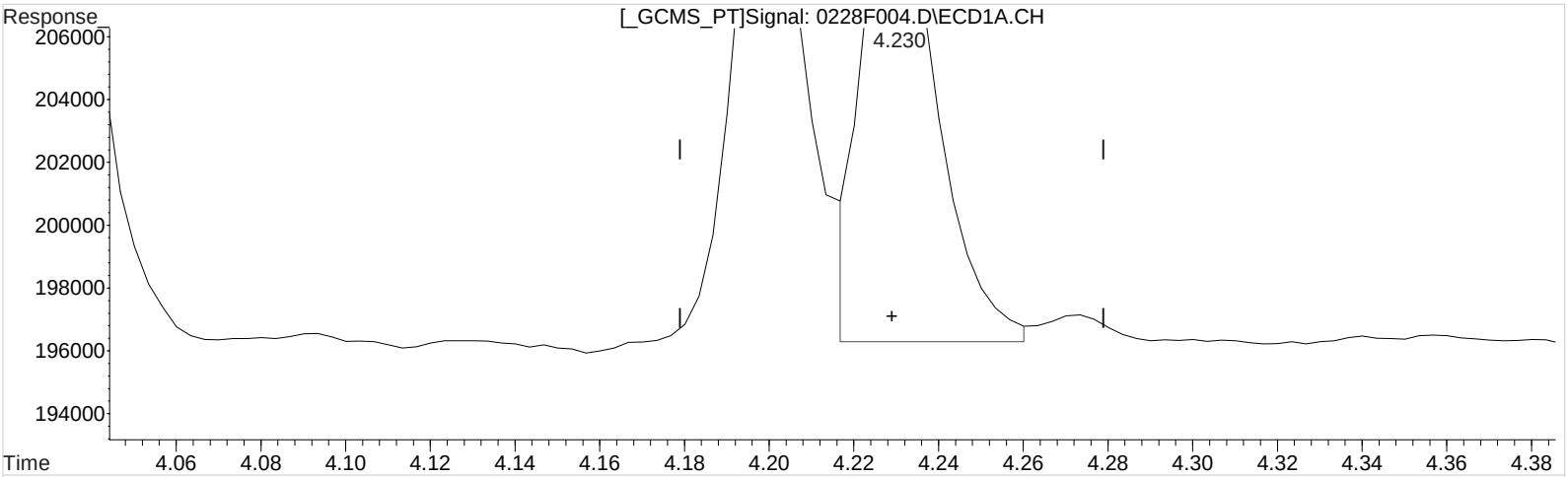
Quantitation Report (Qedit)

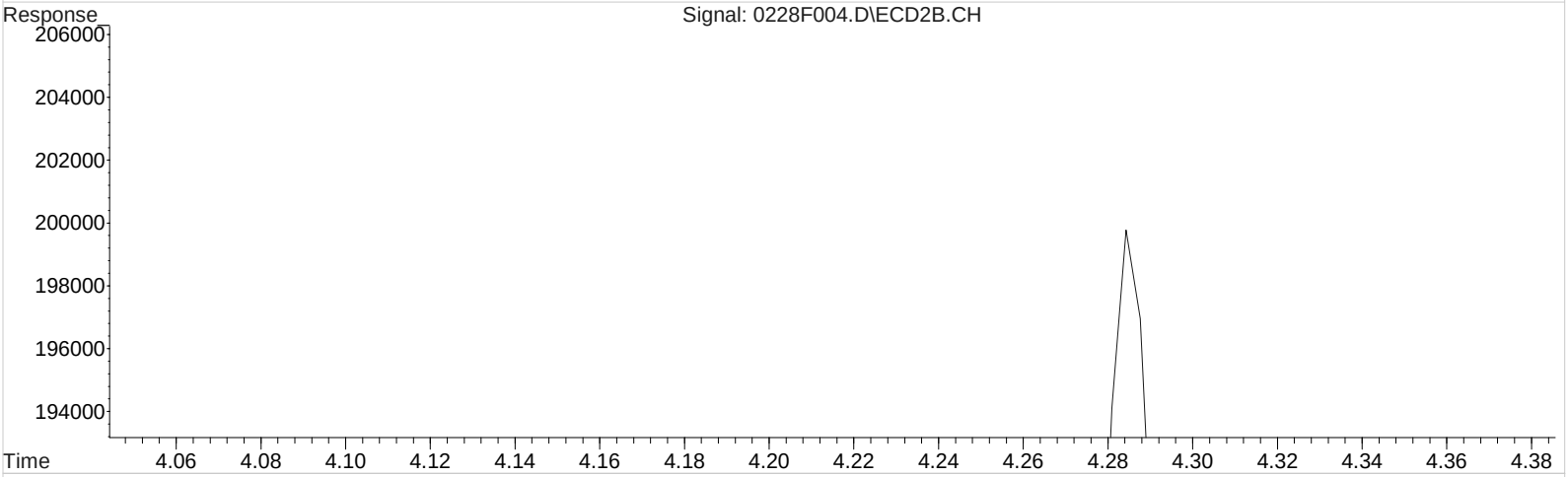
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.230min 0.709 ug/L m

response 185206

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.844min 1.245 ug/L

response 233780

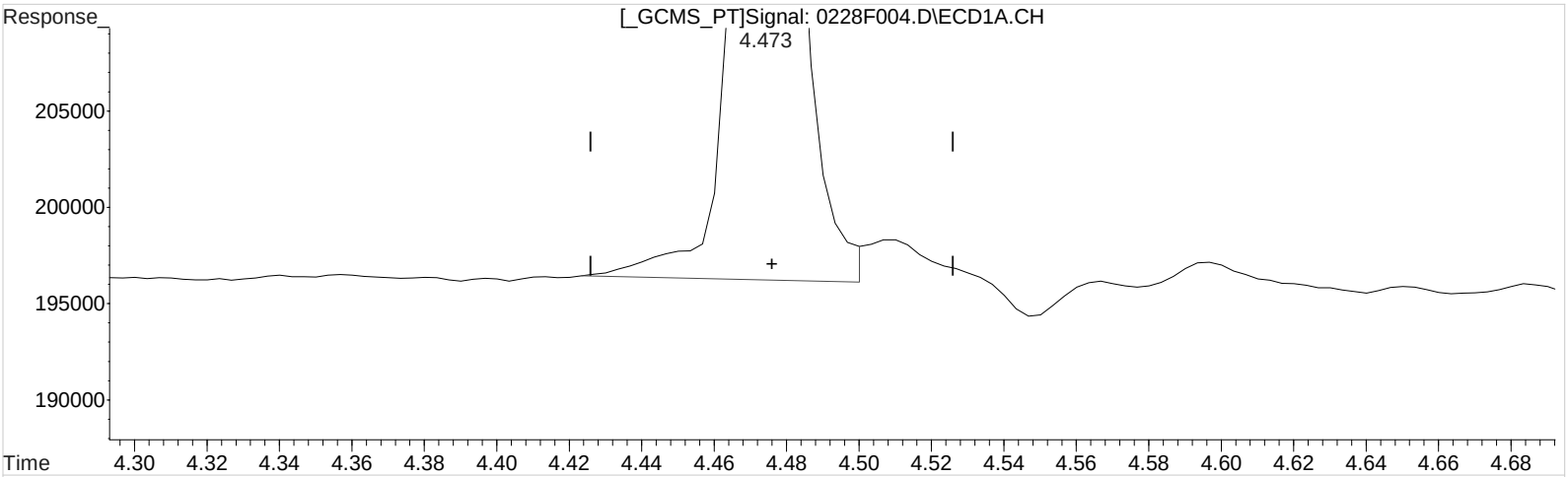
(+) = Expected Retention Time

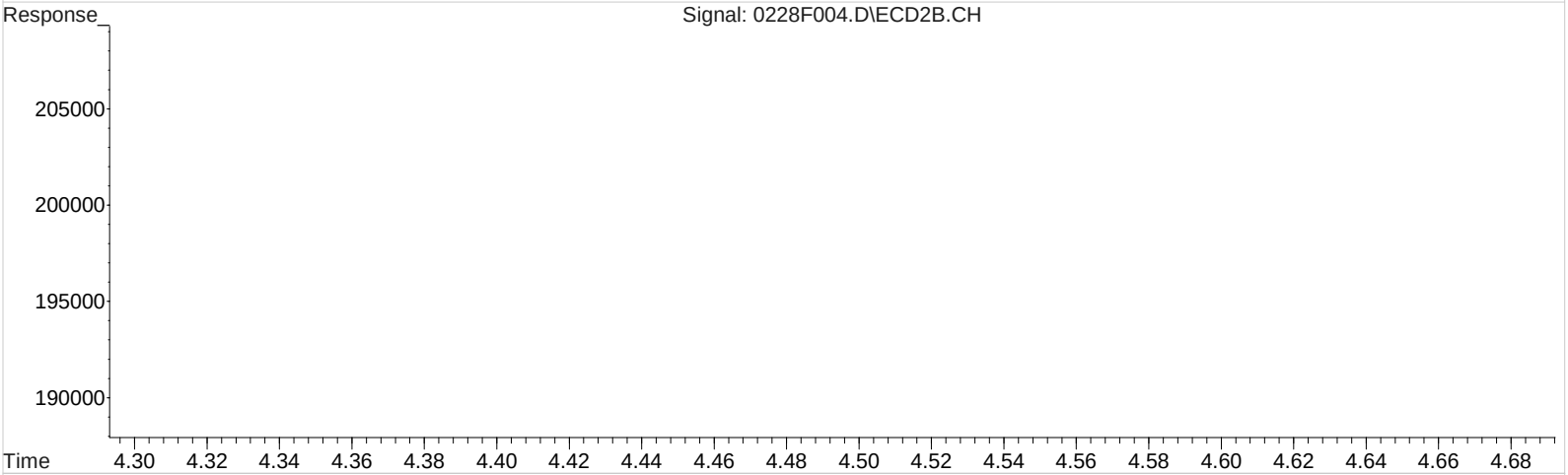
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.319 ug/L

response 627943

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

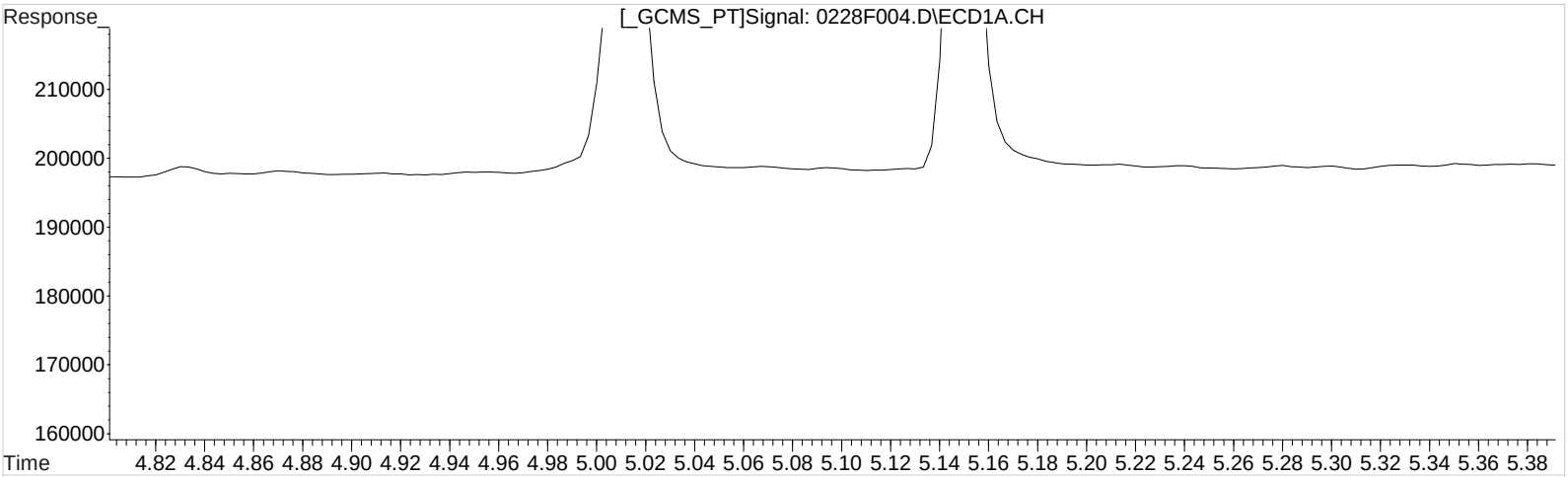
(+) = Expected Retention Time

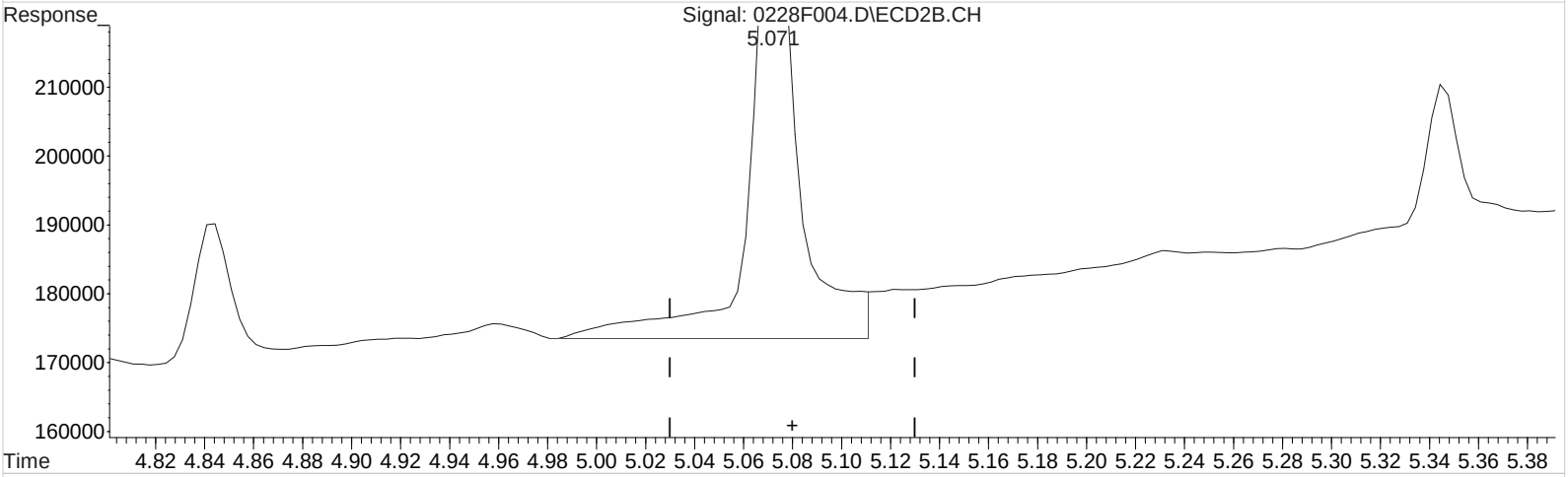
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

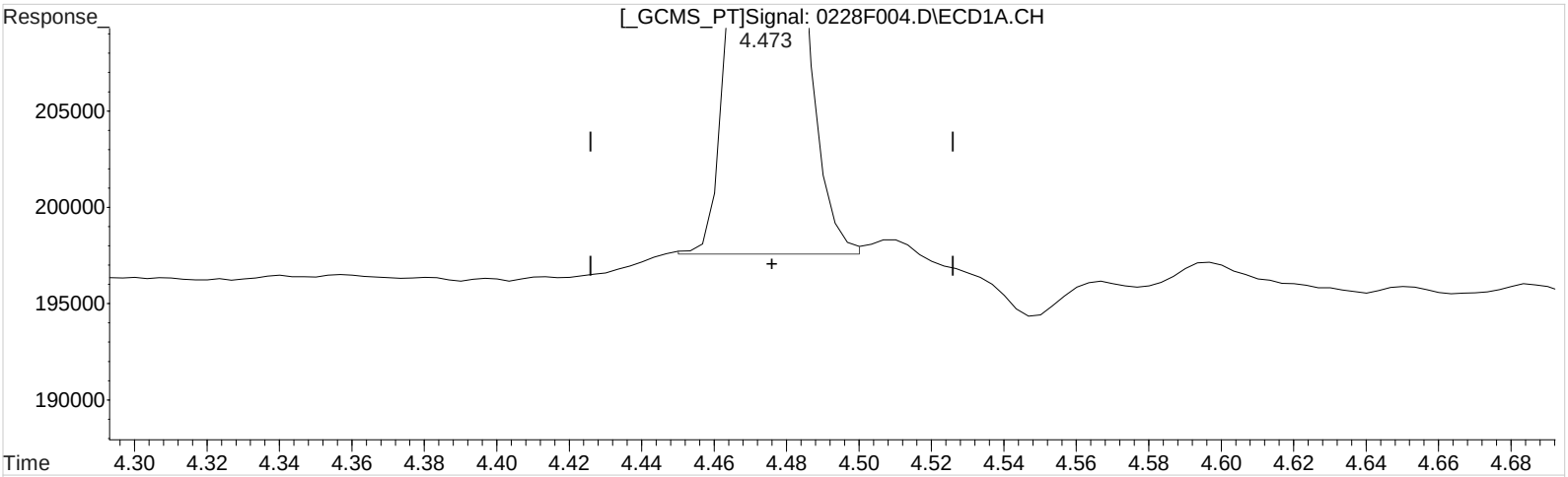
(+) = Expected Retention Time

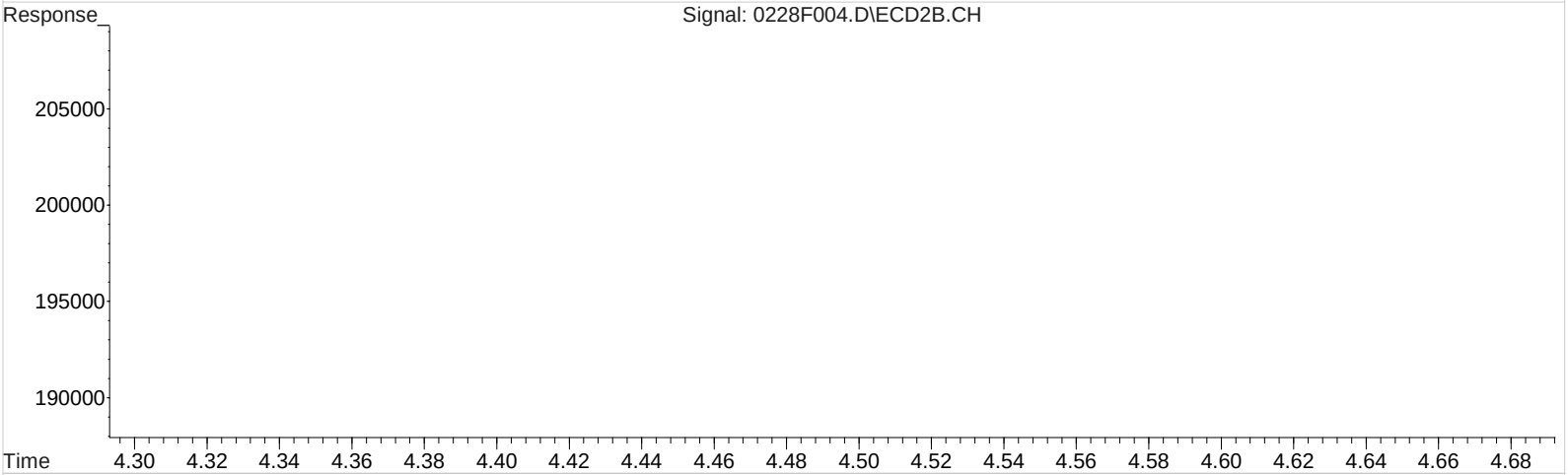
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

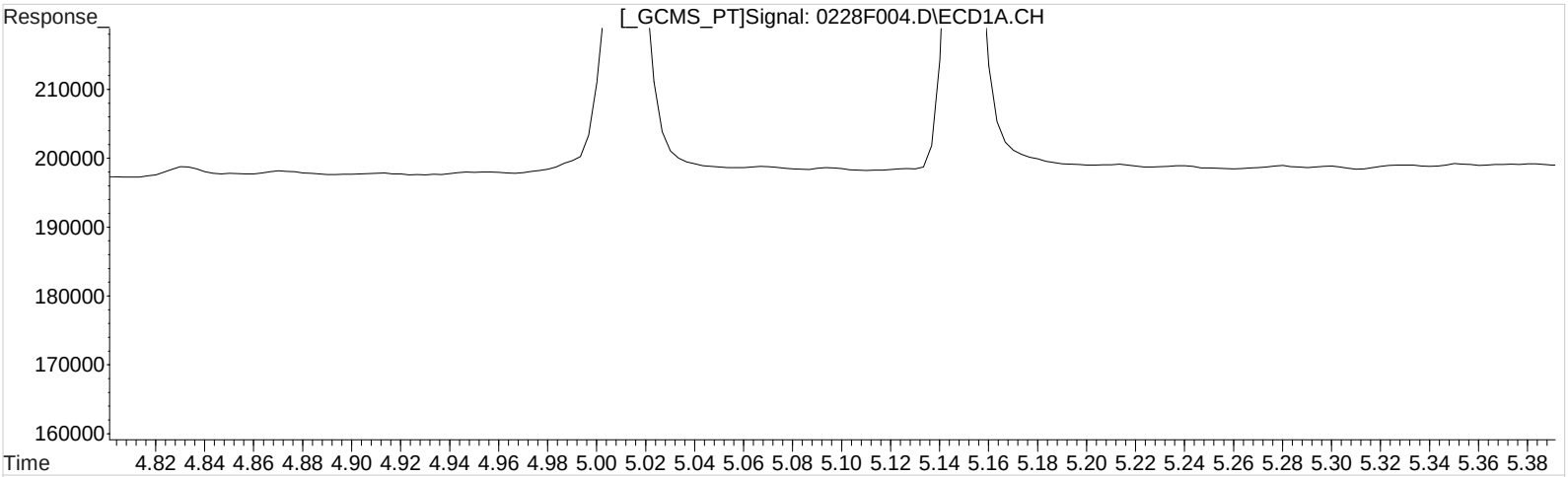
(+) = Expected Retention Time

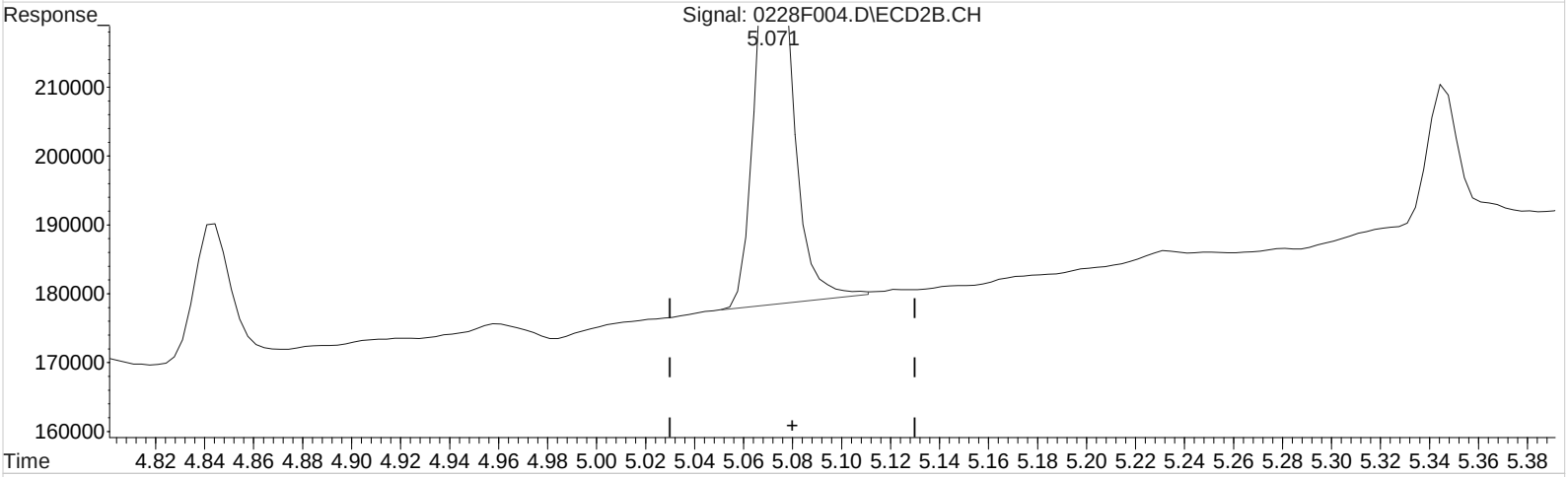
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.048 ug/L m

response 646609

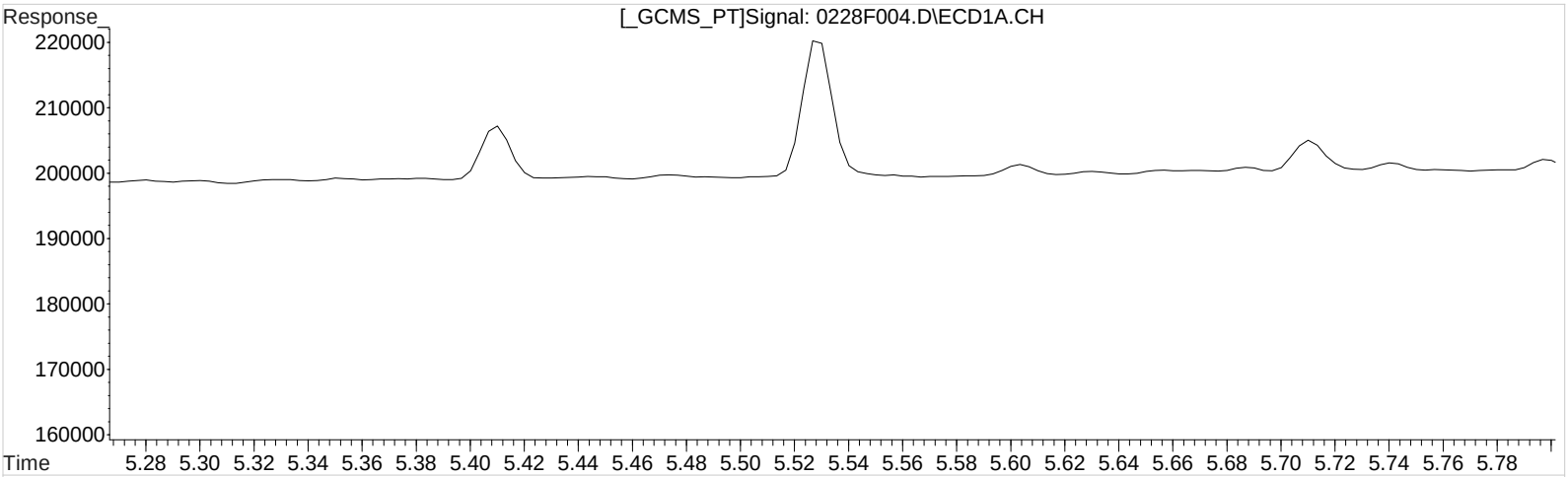
(+) = Expected Retention Time

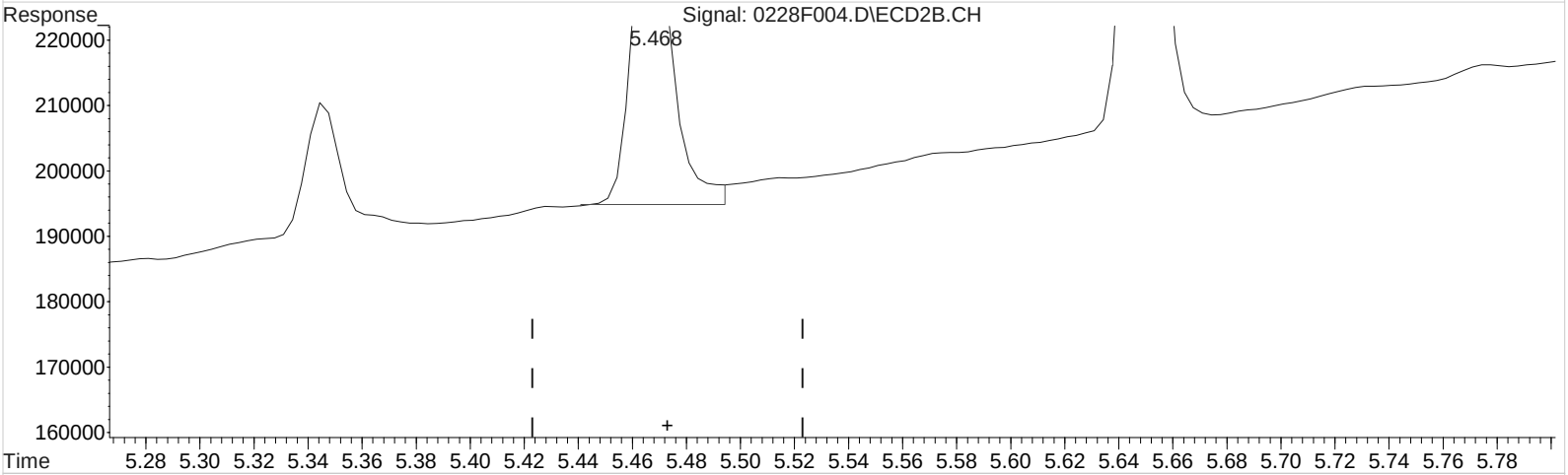
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.013min 0.771 ug/L

response 599618

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.468min 1.232 ug/L

response 508652

(+) = Expected Retention Time

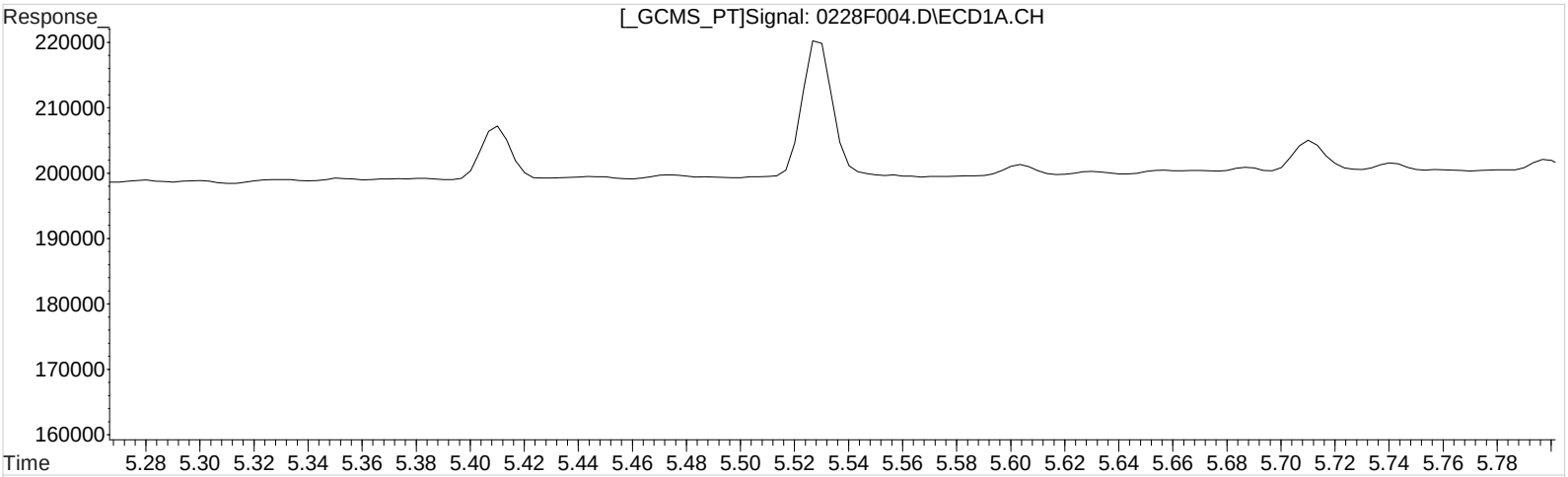
Quantitation Report (Qedit)

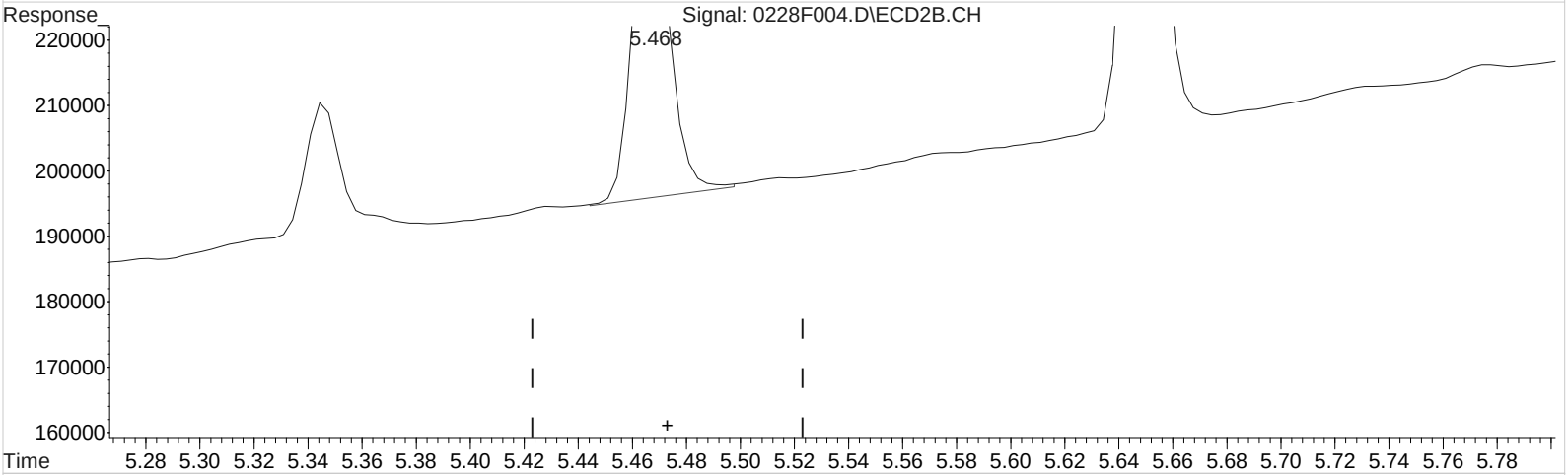
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.013min 0.771 ug/L

response 599618

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.468min 1.152 ug/L m

response 475513

(+) = Expected Retention Time

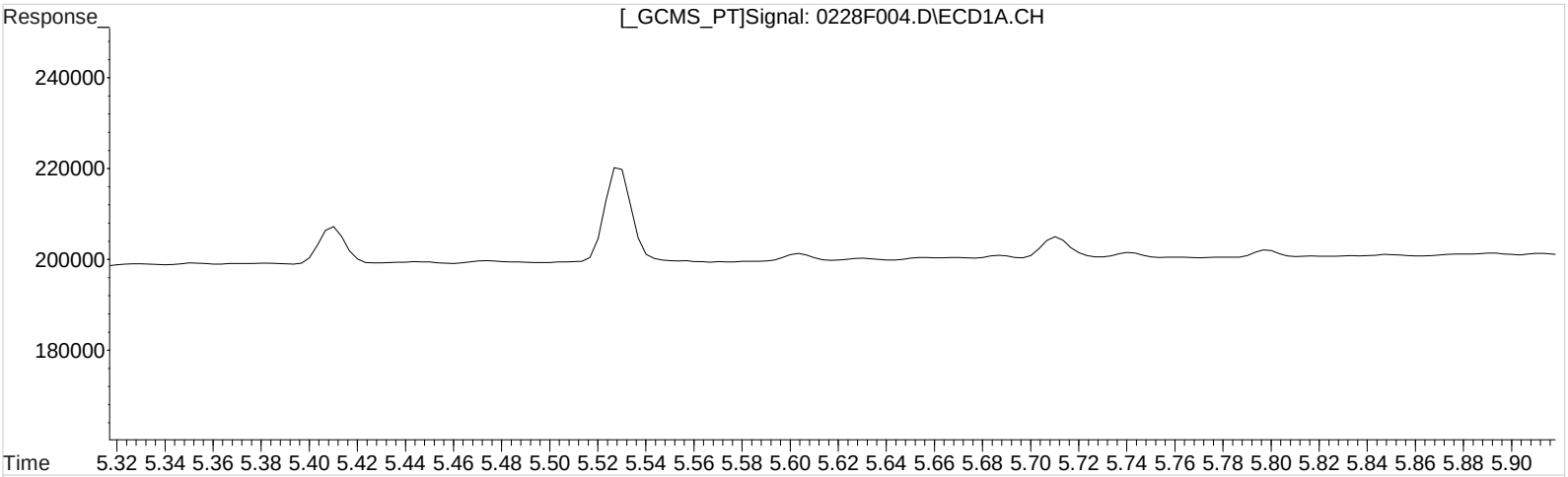
Quantitation Report (Qedit)

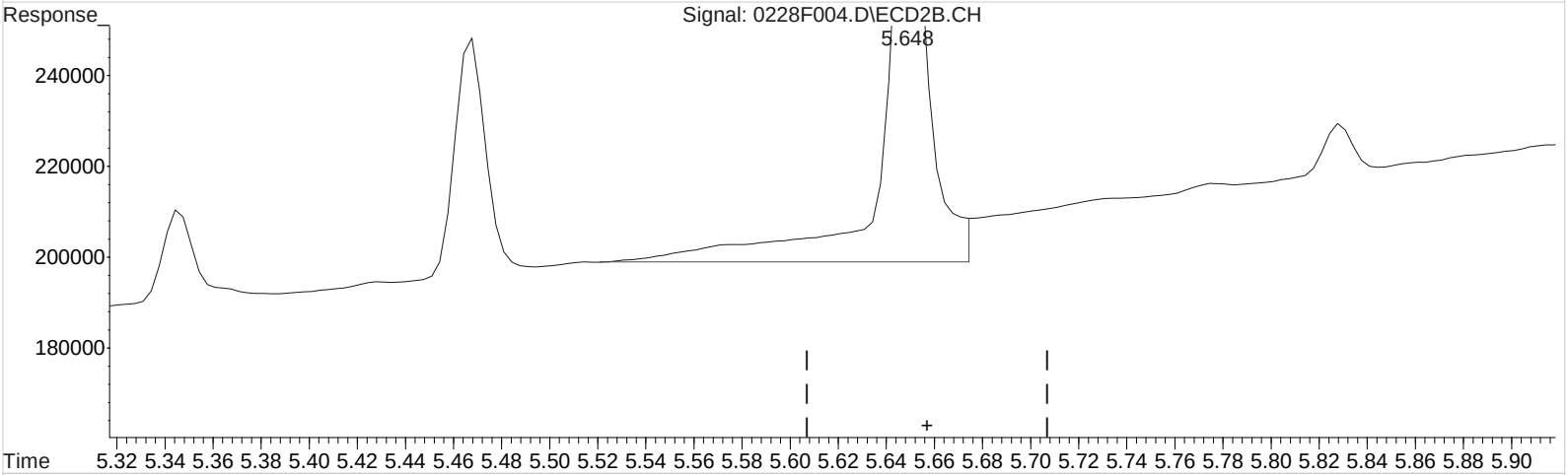
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.150min 0.493 ug/L

response 673174

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.648min 1.785 ug/L

response 1226970

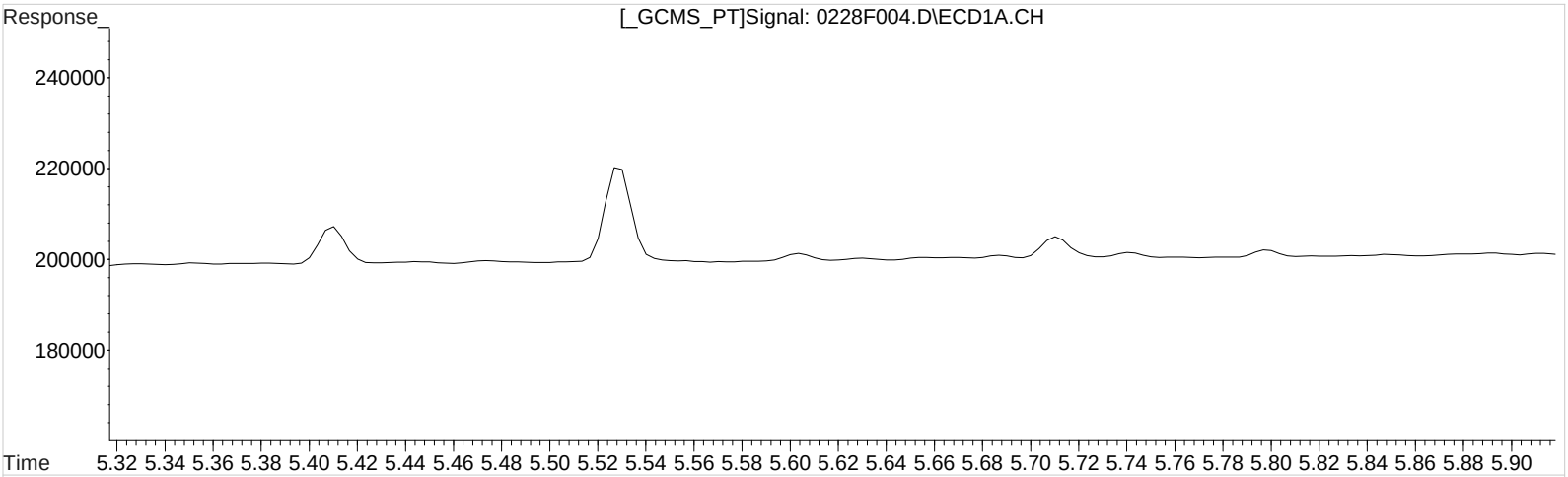
(+) = Expected Retention Time

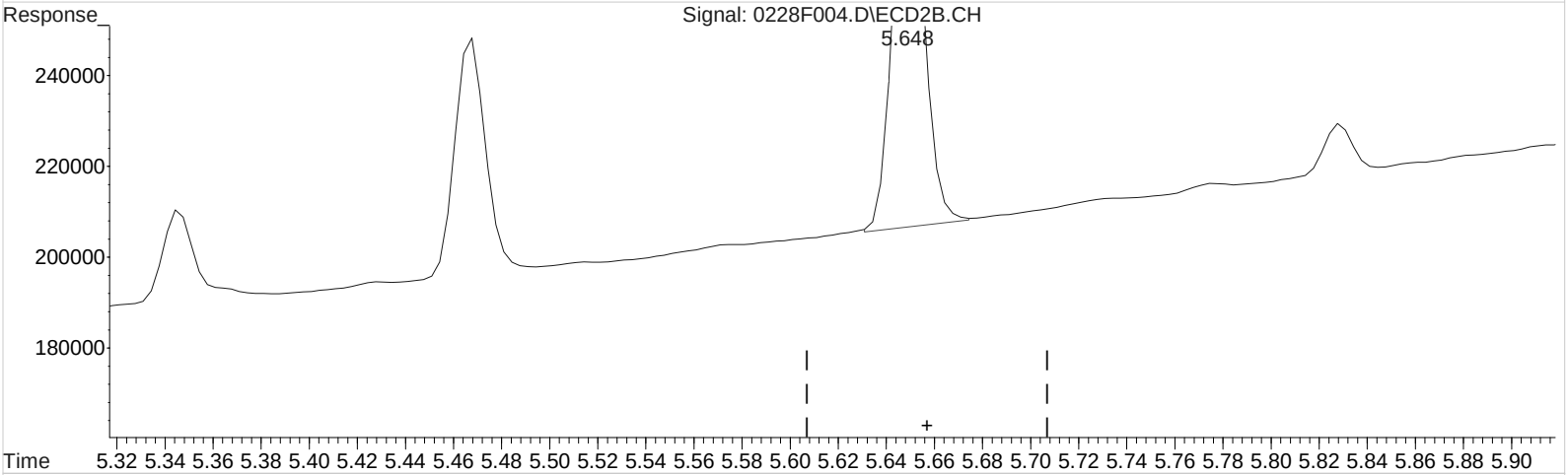
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.150min 0.493 ug/L

response 673174

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.648min 1.149 ug/L m

response 789810

(+) = Expected Retention Time

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -87.82 X² + 4.342E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	6.732E5	02	5.000	5.679E5	03	10.000	5.372E5	04	25.000	4.948E5
05	50.000	4.691E5	06	100.000	4.496E5	07	250.000	4.103E5	08	500.000	3.739E5
09	1000.000	3.511E5	10	2.500	6.128E5						

2,3,4,5-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -268.7 X² + 3.077E5 X + 3.627E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	02	4.715	3.979E5	03	9.431	3.696E5	04	23.577	3.259E5
05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5	10	2.358	4.756E5

2,3,5,6-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -316.9 X² + 4.391E5 X + 2.523E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	02	4.715	5.28E5	03	9.431	4.935E5	04	23.577	4.478E5
05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5	10	2.358	5.749E5

2,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -146.2 X² + 1.398E5 X + 1.234E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	02	4.669	1.8E5	03	9.338	1.735E5	04	23.345	1.484E5
05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5	10	2.334	2.006E5

2,4,6-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9995**	**Y= -245.7 X² + 3.136E5 X + 2.021E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	02	4.669	3.846E5	03	9.338	3.638E5	04	23.345	3.225E5
05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5	10	2.334	4.078E5

3,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -166.3 X² + 1.479E5 X + 8.837E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	02	4.669	1.823E5	03	9.338	1.696E5	04	23.345	1.515E5
05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5	10	2.334	1.988E5

3,4-Dichlorophenol	**Quadratic**	**1/X**	**COD = 1.0000**	**Y= -15.47 X² + 1.592E4 X + 8.759E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.529E4	02	4.605	1.749E4	03	9.209	1.718E4	04	23.023	1.584E4
05	46.046	1.558E4	06	92.091	1.446E4	07	230.230	1.241E4	10	2.302	1.966E4

3,5-Dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9982**	**Y= -14.62 X² + 1.118E4 X + 7.47E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	1.798E4	02	4.605	1.407E4	03	9.209	1.255E4	04	23.023	1.076E4
05	46.046	1.147E4	06	92.091	9.36E3	07	230.230	7.904E3	10	2.302	1.374E4

Pentachlorophenol (PCP)	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -97.29 X² + 4.57E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	02	4.750	5.978E5	03	9.501	5.654E5	04	23.752	5.208E5
05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5	08	475.030	3.936E5
09	950.060	3.695E5	10	2.375	6.451E5						

4-Bromo-2,6-dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9994**	**Y= -70.25 X² + 3.43E5 X + 2.985E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	02	5.000	4.356E5	03	10.000	4.141E5	04	25.000	3.754E5
05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5	08	500.000	2.979E5
09	1000.000	2.755E5	10	2.500	4.672E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.555	**-44.5**	02	5.000	5.55	11.0	03	10.000	11.4	14.0
04	25.000	27.6	10.6	05	50.000	53.6	7.2	06	100.000	105	4.8
07	250.000	248	-0.9	08	500.000	475	-5.0	09	1000.000	1020	1.6
10	2.500	2.53	1.4								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.770	-18.3	02	4.715	4.94	4.7	03	9.431	10.2	8.6
04	23.577	24.3	3.1	05	47.153	46.9	-0.6	06	94.307	91.6	-2.8
07	235.770	237	0.6	10	2.358	2.47	4.8				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.738	-21.7	02	4.715	5.11	8.5	03	9.431	10.1	7.1
04	23.577	23.9	1.3	05	47.153	47.4	0.6	06	94.307	91.5	-3.0
07	235.770	237	0.5	10	2.358	2.52	6.8				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.634	**-32.1**	02	4.669	5.16	10.4	03	9.338	10.8	15.9
04	23.345	24.5	5.1	05	46.690	46.1	-1.2	06	93.379	88.6	-5.1
07	233.450	236	1.2	10	2.334	2.47	6.0				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.732	-21.6	02	4.669	5.10	9.3	03	9.338	10.3	10.0
04	23.345	23.8	2.0	05	46.690	47.3	1.2	06	93.379	89.5	-4.1
07	233.450	235	0.8	10	2.334	2.39	2.6				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.655	-29.8	02	4.669	5.19	11.1	03	9.338	10.2	9.6
04	23.345	24.0	2.7	05	46.690	47.4	1.5	06	93.379	88.5	-5.2
07	233.450	236	1.2	10	2.334	2.55	9.2				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.914	-0.8	02	4.605	4.53	-1.6	03	9.209	9.47	2.9
04	23.023	22.9	-0.7	05	46.046	46.6	1.3	06	92.091	91.2	-1.0
07	230.230	231	0.2	10	2.302	2.30	-0.2				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.814	-11.6	02	4.605	5.16	12.1	03	9.209	9.80	6.4
04	23.023	22.1	-3.9	05	46.046	49.8	8.2	06	92.091	86.2	-6.4
07	230.230	233	1.3	10	2.302	2.17	-5.8				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	0.527	**-44.5**	02	4.750	5.27	11.0	03	9.501	10.8	14.0
04	23.752	26.3	10.6	05	47.503	50.9	7.2	06	95.006	99.5	4.8
07	237.520	235	-0.9	08	475.030	452	-5.0	09	950.060	966	1.6
10	2.375	2.41	1.4								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.643	**-35.7**	02	5.000	5.49	9.7	03	10.000	11.2	12.3
04	25.000	26.6	6.5	05	50.000	53.3	6.6	06	100.000	102	1.6
07	250.000	251	0.2	08	500.000	481	-3.9	09	1000.000	1010	1.2
10	2.500	2.54	1.5								

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D\0228F004c.d	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D\0228F006c.d	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D\0228F007c.d	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D\0228F008c.d	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D\0228F009c.d	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D\0228F010c.d	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D\0228F011c.d	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D\0228F012c.d	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D\0228F013c.d	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D\0228F014c.d	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte	Curve Fit	Weighting

2,3,4,5,6-Pentachloroanisole

Average RF **RSD = 9.583** **Average RF = 6.462E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	7.909E5	02	5.000	6.542E5	03	10.000	6.532E5	04	25.000	6.151E5
05	50.000	6.083E5	06	100.000	5.984E5	07	250.000	5.996E5	08	500.000	6.052E5
09	1000.000	6.245E5	10	2.500	7.13E5						

2,3,4,5-Tetrachlorophenol

Average RF **RSD = 12.29** **Average RF = 4.159E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	02	4.715	4.353E5	03	9.431	4.108E5	04	23.577	3.904E5
05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5	10	2.358	4.73E5

2,3,5,6-Tetrachlorophenol

Average RF **RSD = 6.587** **Average RF = 6.037E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	02	4.715	5.882E5	03	9.431	6.075E5	04	23.577	5.816E5
05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5	10	2.358	6.377E5

2,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9997** **Y= -73.44 X² + 1.777E5 X + 1.058E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	02	4.669	2.059E5	03	9.338	2.015E5	04	23.345	1.829E5
05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5	10	2.334	2.293E5

2,4,6-Trichlorophenol

Average RF **RSD = 4.634** **Average RF = 4.082E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	02	4.669	4.004E5	03	9.338	4.124E5	04	23.345	3.941E5
05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5	10	2.334	4.267E5

3,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9998** **Y= -63.92 X² + 1.7E5 X + 9.004E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	02	4.669	1.919E5	03	9.338	1.89E5	04	23.345	1.732E5
05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5	10	2.334	2.115E5

3,4-Dichlorophenol

Average RF **RSD = 10.82** **Average RF = 2.169E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.356E4	02	4.605	2.28E4	03	9.209	2.378E4	04	23.023	2.153E4
05	46.046	2.119E4	06	92.091	1.915E4	07	230.230	1.751E4	10	2.302	2.4E4

3,5-Dichlorophenol

Quadratic **1/X** **COD = 0.9996** **Y= -14.71 X² + 1.578E4 X + 8.463E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.299E4	02	4.605	1.798E4	03	9.209	1.82E4	04	23.023	1.612E4
05	46.046	1.537E4	06	92.091	1.408E4	07	230.230	1.249E4	10	2.302	1.928E4

Pentachlorophenol (PCP)

Average RF **RSD = 9.573** **Average RF = 6.805E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	02	4.750	6.912E5	03	9.501	6.875E5	04	23.752	6.474E5
05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5	08	475.030	6.37E5
09	950.060	6.573E5	10	2.375	7.52E5						

4-Bromo-2,6-dichlorophenol

Average RF **RSD = 5.968** **Average RF = 4.216E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	02	5.000	3.777E5	03	10.000	4.048E5	04	25.000	4.138E5
05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5	08	500.000	4.395E5
09	1000.000	4.542E5	10	2.500	3.934E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.22	22.4	02	5.000	5.06	1.2	03	10.000	10.1	1.1
04	25.000	23.8	-4.8	05	50.000	47.1	-5.9	06	100.000	92.6	-7.4
07	250.000	232	-7.2	08	500.000	468	-6.4	09	1000.000	966	-3.4
10	2.500	2.76	10.3								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.14	21.2	02	4.715	4.93	4.7	03	9.431	9.31	-1.2
04	23.577	22.1	-6.1	05	47.153	43.3	-8.3	06	94.307	83.5	-11.5
07	235.770	206	-12.5	10	2.358	2.68	13.7				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.07	13.6	02	4.715	4.59	-2.6	03	9.431	9.49	0.6
04	23.577	22.7	-3.7	05	47.153	45.9	-2.6	06	94.307	89.1	-5.6
07	235.770	223	-5.4	10	2.358	2.49	5.6				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.799	-14.5	02	4.669	4.82	3.3	03	9.338	10.0	7.4
04	23.345	23.7	1.3	05	46.690	47.3	1.3	06	93.379	90.7	-2.9
07	233.450	234	0.4	10	2.334	2.42	3.6				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	1.01	8.7	02	4.669	4.58	-1.9	03	9.338	9.43	1.0
04	23.345	22.5	-3.5	05	46.690	46.6	-0.2	06	93.379	89.0	-4.7
07	233.450	224	-4.0	10	2.334	2.44	4.5				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.846	-9.5	02	4.669	4.75	1.7	03	9.338	9.88	5.9
04	23.345	23.5	0.5	05	46.690	47.5	1.7	06	93.379	91.1	-2.4
07	233.450	234	0.3	10	2.334	2.38	1.8				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	1.00	8.6	02	4.605	4.84	5.1	03	9.209	10.1	9.6
04	23.023	22.9	-0.7	05	46.046	45.0	-2.3	06	92.091	81.3	-11.7
07	230.230	186	-19.3	10	2.302	2.55	10.6				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.806	-12.4	02	4.605	4.73	2.8	03	9.209	10.2	10.6
04	23.023	23.5	2.1	05	46.046	46.3	0.6	06	92.091	89.0	-3.3
07	230.230	232	0.7	10	2.302	2.28	-0.9				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	1.16	22.2	02	4.750	4.82	1.6	03	9.501	9.60	1.0
04	23.752	22.6	-4.9	05	47.503	44.7	-5.9	06	95.006	87.9	-7.4
07	237.520	220	-7.3	08	475.030	445	-6.4	09	950.060	918	-3.4
10	2.375	2.62	10.5								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.975	-2.5	02	5.000	4.48	-10.4	03	10.000	9.60	-4.0
04	25.000	24.5	-1.8	05	50.000	52.4	4.9	06	100.000	103	3.0
07	250.000	264	5.5	08	500.000	521	4.2	09	1000.000	1080	7.7
10	2.500	2.33	-6.7								

Initial Calibration Verification Summary Report

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-1701

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Quadratic	50	58.215	ug/L	16.4	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.125	ug/L	6.3	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.742	ug/L	7.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.950	ug/L	7.0	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	47.208	ug/L	1.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.502	ug/L	6.0	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	50.405	ug/L	9.5	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	54.814	ug/L	19.0	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Quadratic	47.5030	55.309	ug/L	16.4	<= 20

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-35

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Average RF	50	51.424	ug/L	2.8	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	46.743	ug/L	-0.9	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	47.890	ug/L	1.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	50.676	ug/L	8.5	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Average RF	46.69	46.729	ug/L	0.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	48.393	ug/L	3.6	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Average RF	46.0460	46.475	ug/L	0.9	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	48.925	ug/L	6.3	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Average RF	47.5030	48.834	ug/L	2.8	<= 20

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:10:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.031	4.715	2177979	1888328	5.516	4.344
		Target Compounds						
1)		3,4-Dichl...	3.138	3.832	80562	104986	4.505m	4.752
2)		3,5-Dichl...	3.378	4.089	64800	82809	5.639m	5.025
3)		2,4,6-Tri...	3.474	4.289	1795636	1869642	5.068	4.483
5)		2,4,5-Tri...	4.201	4.782	840314	961190	5.239	4.809
6)		3,4,5-Tri...	4.231	4.845	851278	896194	5.313	4.774
7)	M	2,3,5,6-T...	4.478	5.075	2489684	2773207	5.230	4.493m
8)	M	2,3,4,5-T...	5.014	5.469	1875877	2052365	4.930m	4.970
9)	M	Pentachlo...	5.151	5.649	2839370	3283089	5.309	4.775m
10)		Pentachlo...	5.151	5.649	2839370	3271189	5.588	5.010m

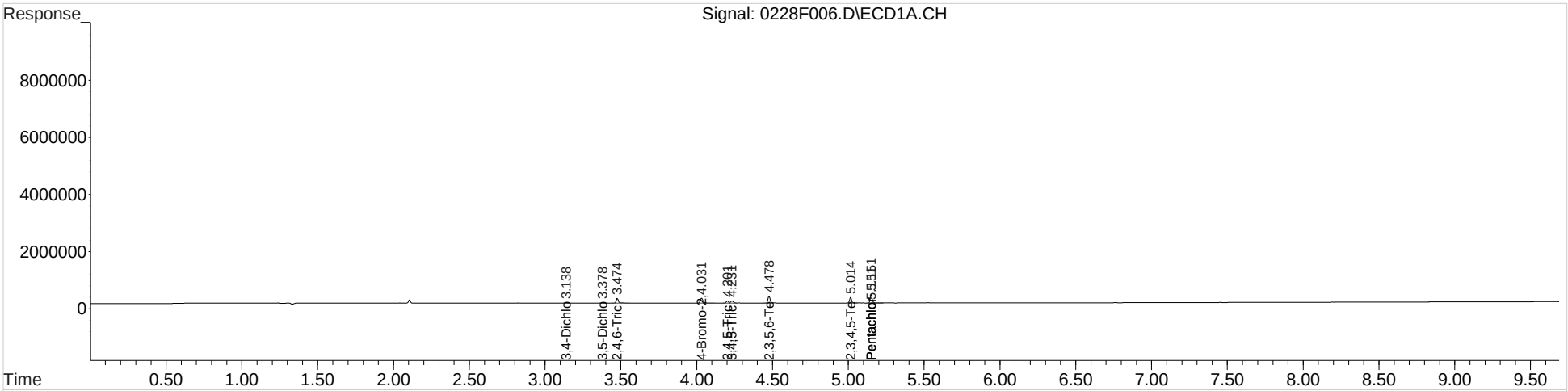
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:10:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



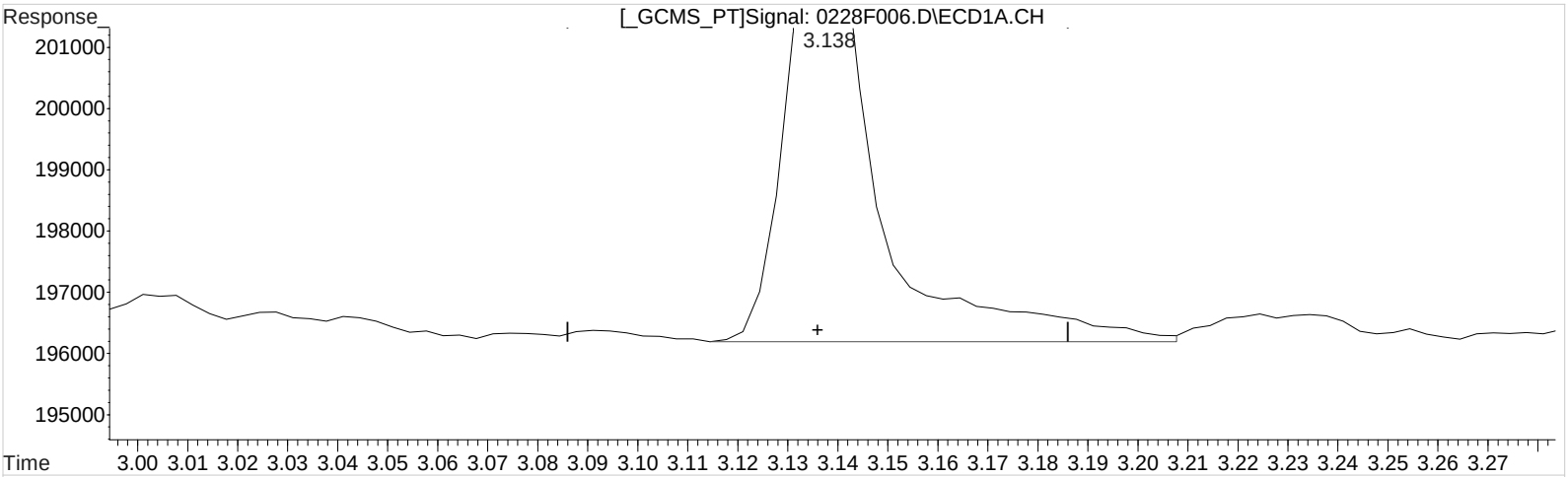
Quantitation Report (Qedit)

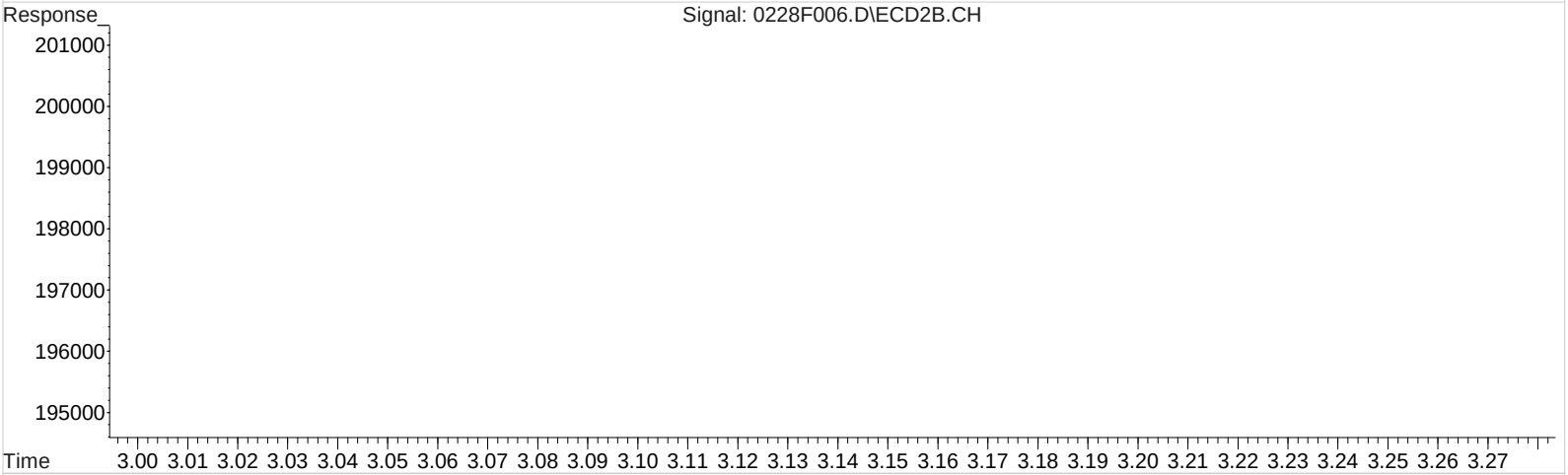
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.138min 5.274 ug/L

response 92393

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.832min 4.752 ug/L

response 104986

(+) = Expected Retention Time

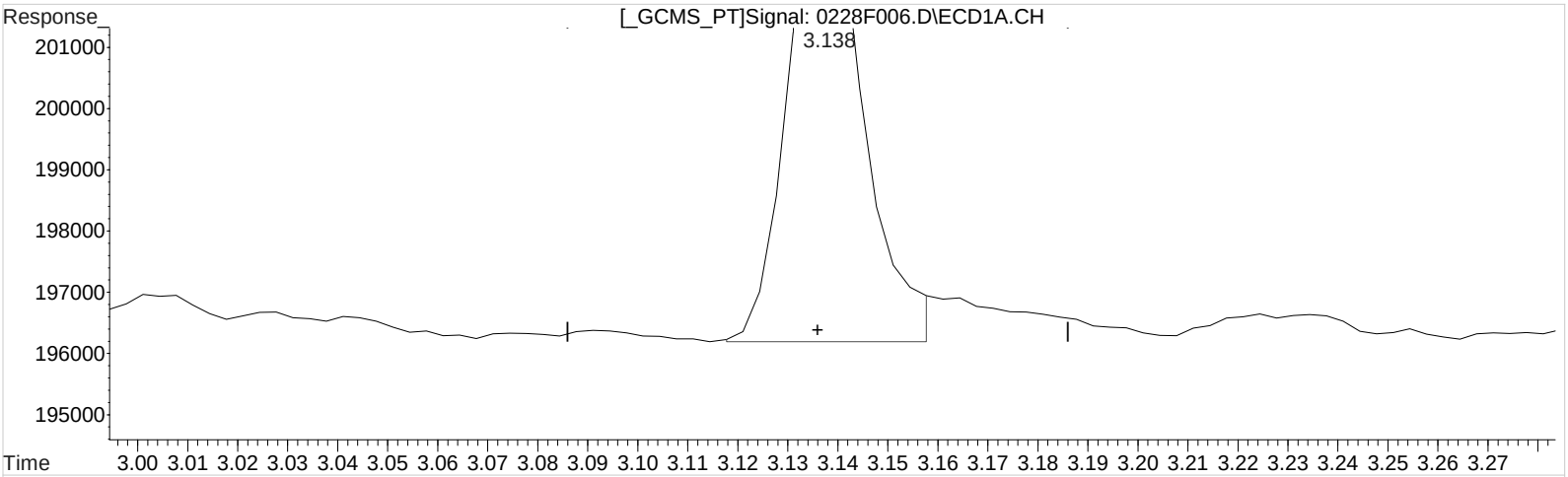
Quantitation Report (Qedit)

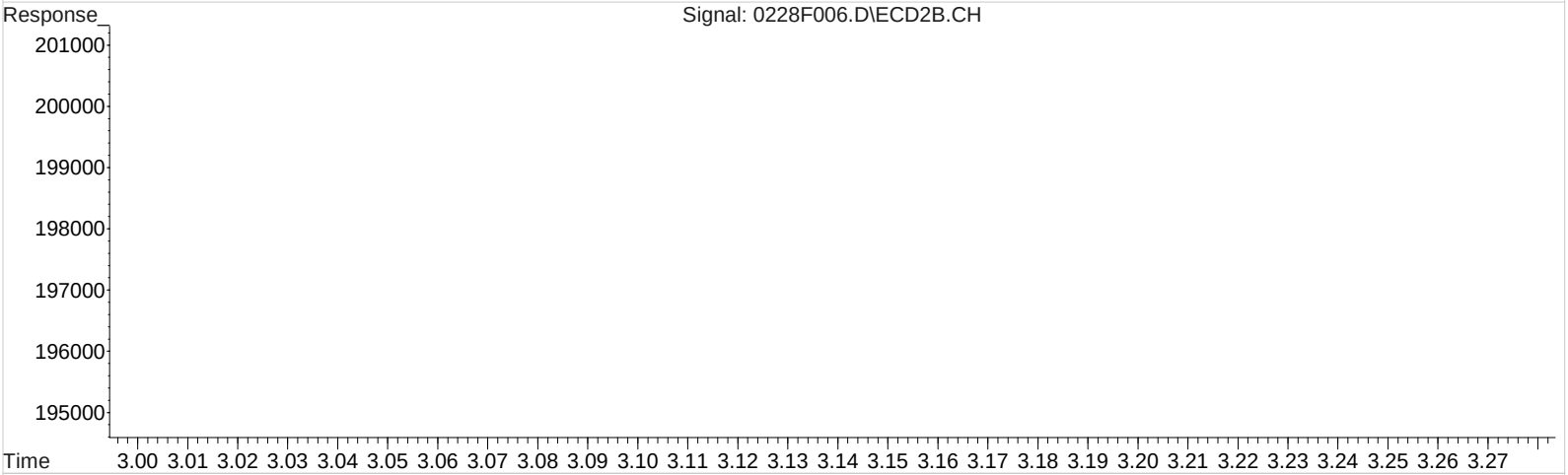
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.138min 4.505 ug/L m

response 80562

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.832min 4.752 ug/L

response 104986

(+) = Expected Retention Time

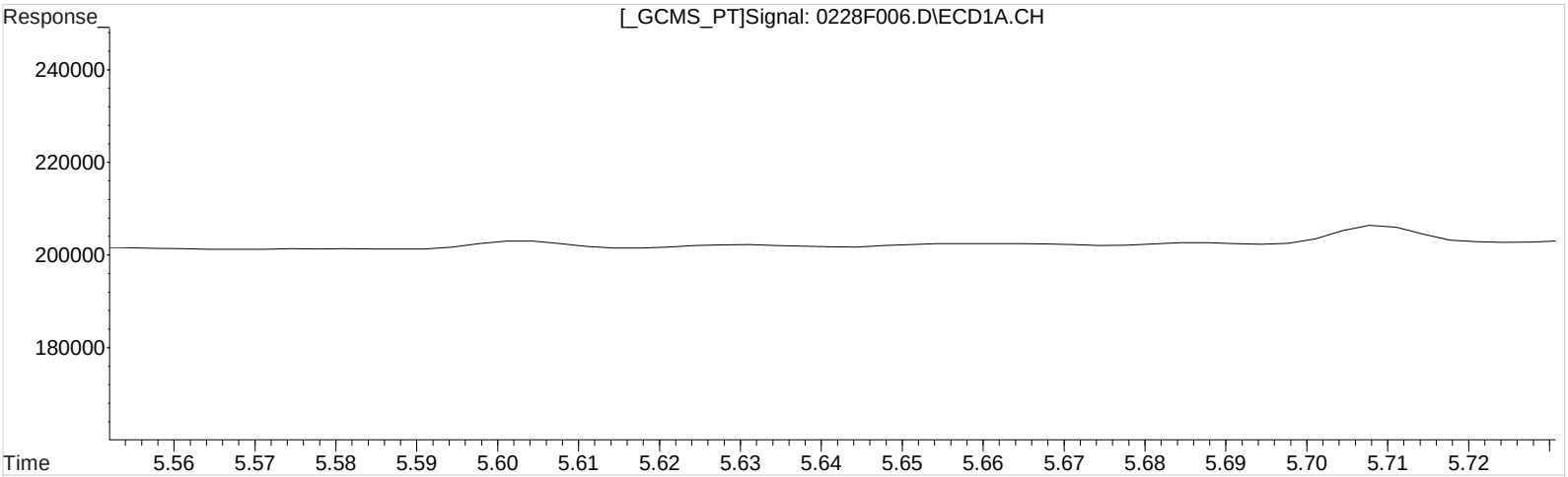
Quantitation Report (Qedit)

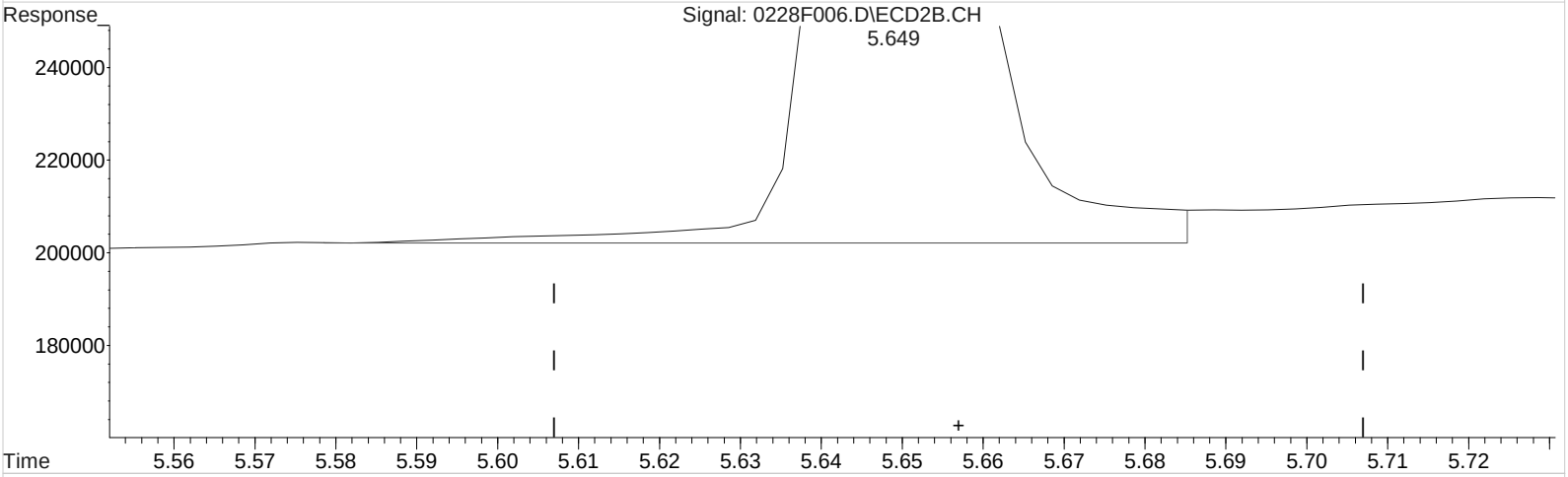
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.151min 5.588 ug/L

response 2839370

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.649min 5.332 ug/L

response 3480960

(+) = Expected Retention Time

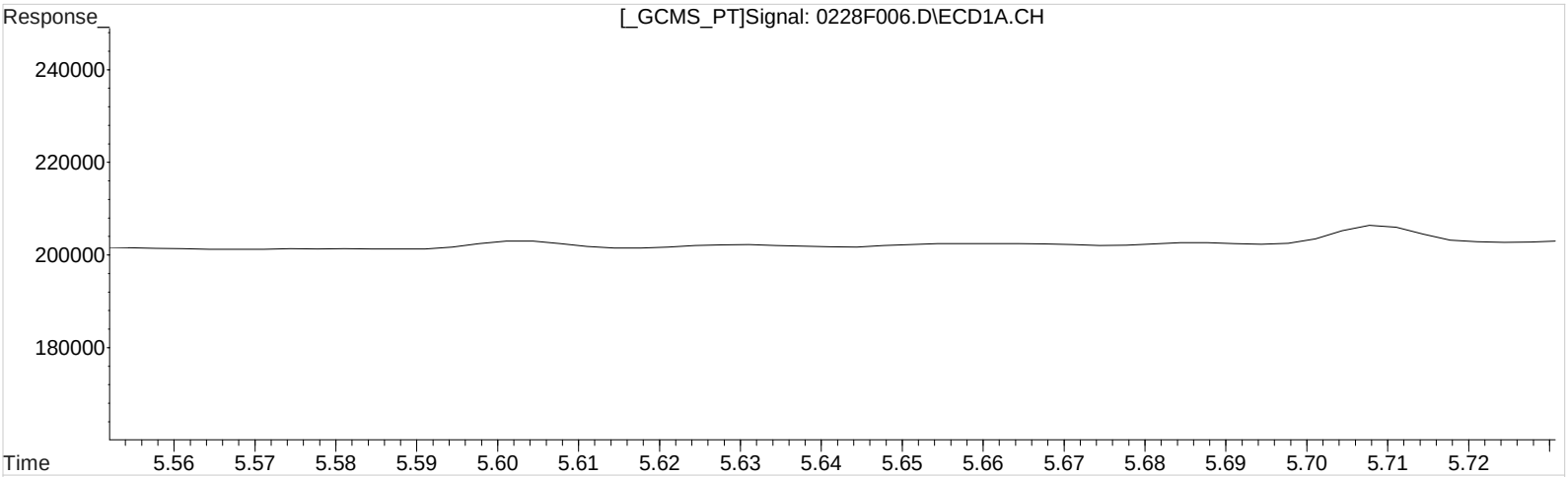
Quantitation Report (Qedit)

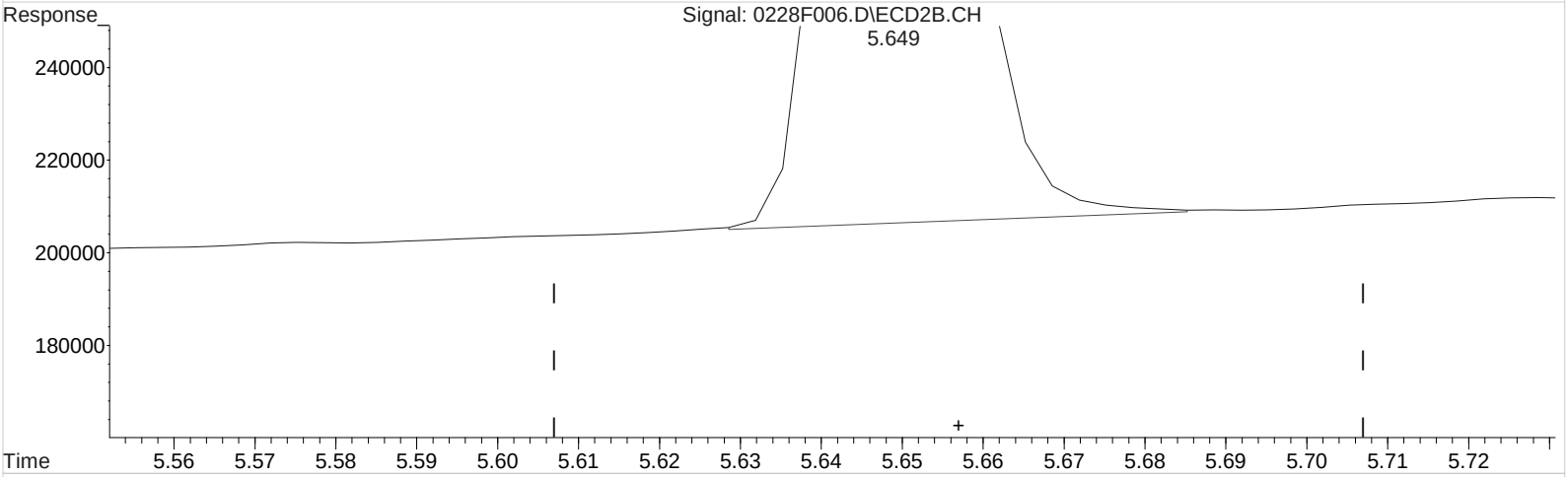
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.151min 5.588 ug/L

response 2839370

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.649min 5.010 ug/L m

response 3271189

(+) = Expected Retention Time

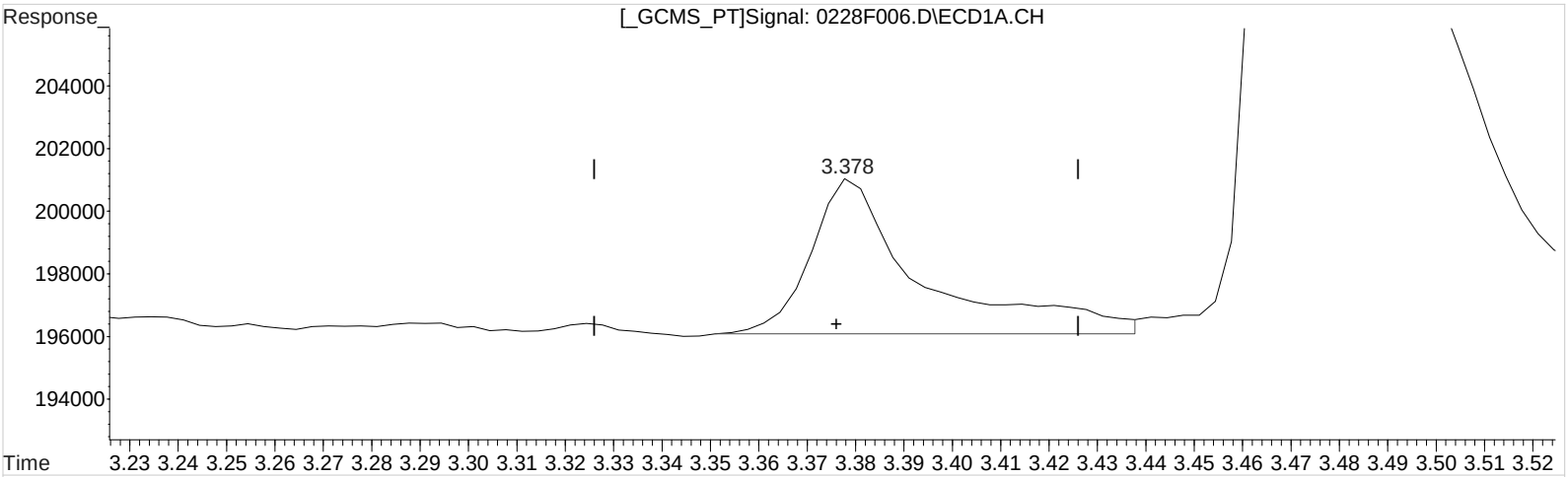
Quantitation Report (Qedit)

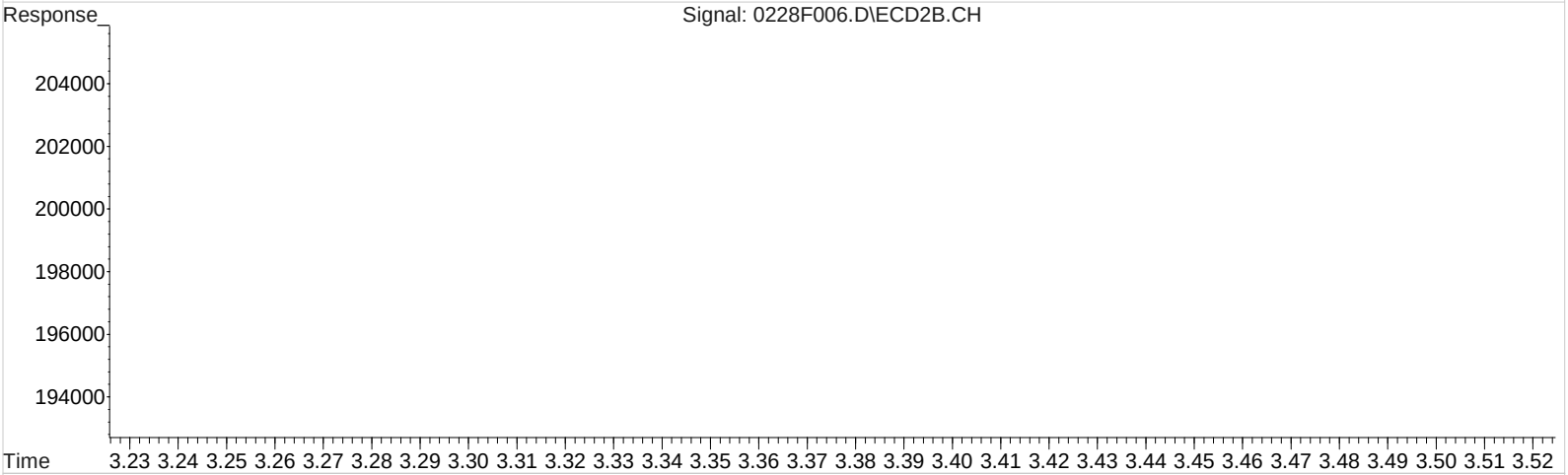
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 6.986 ug/L

response 78818

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 5.025 ug/L

response 82809

(+) = Expected Retention Time

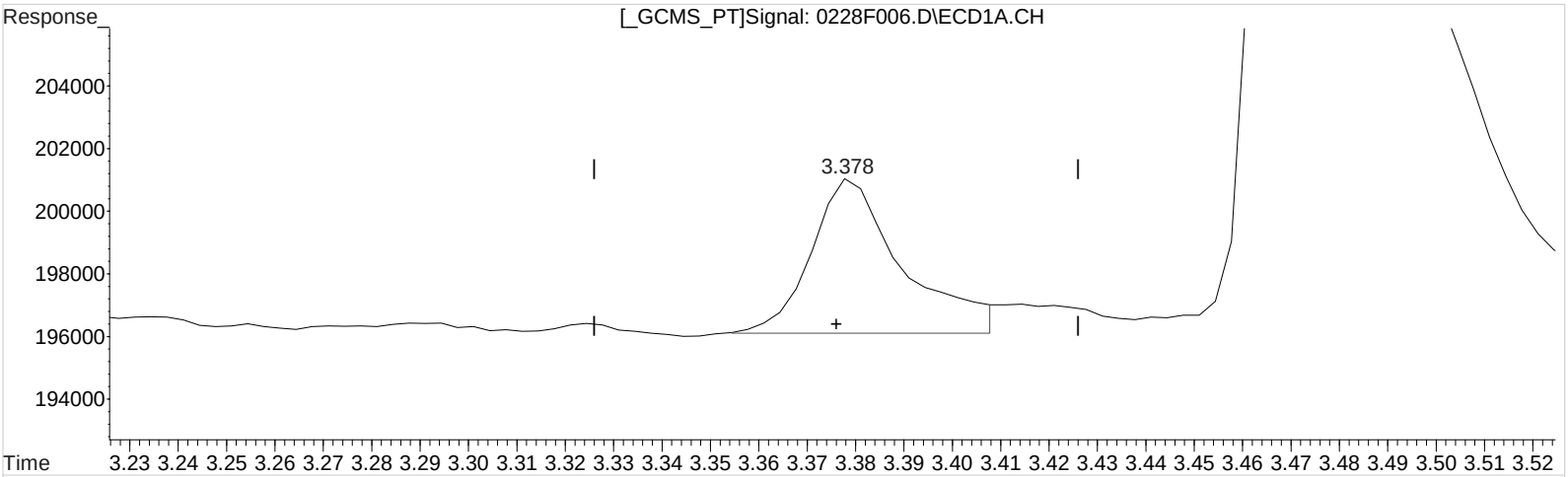
Quantitation Report (Qedit)

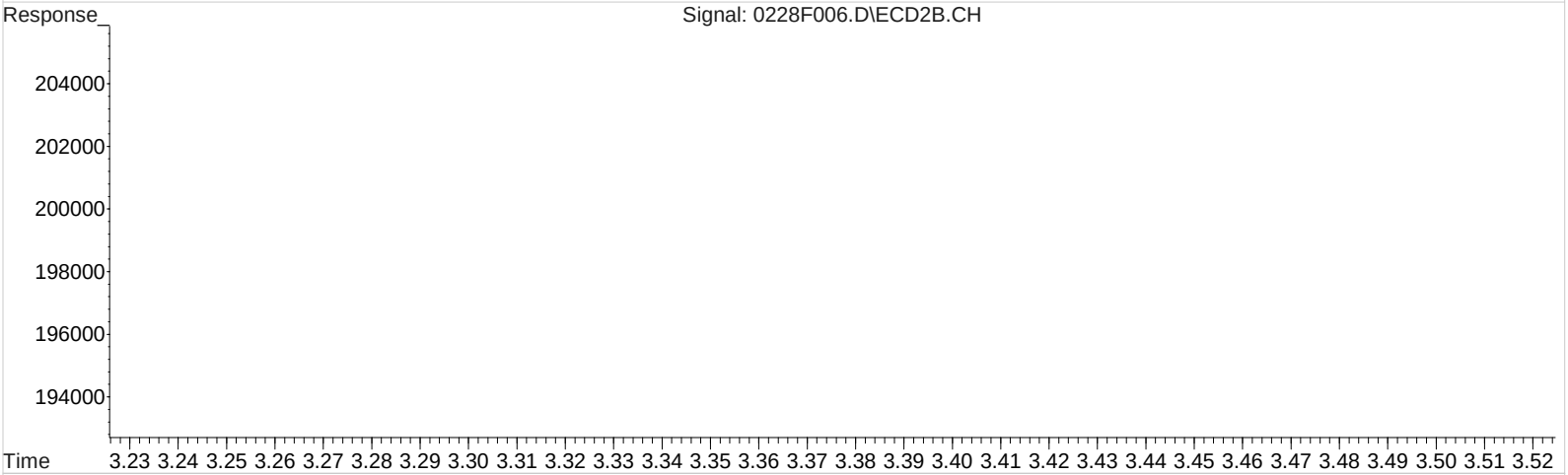
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 5.639 ug/L m

response 64800

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 5.025 ug/L

response 82809

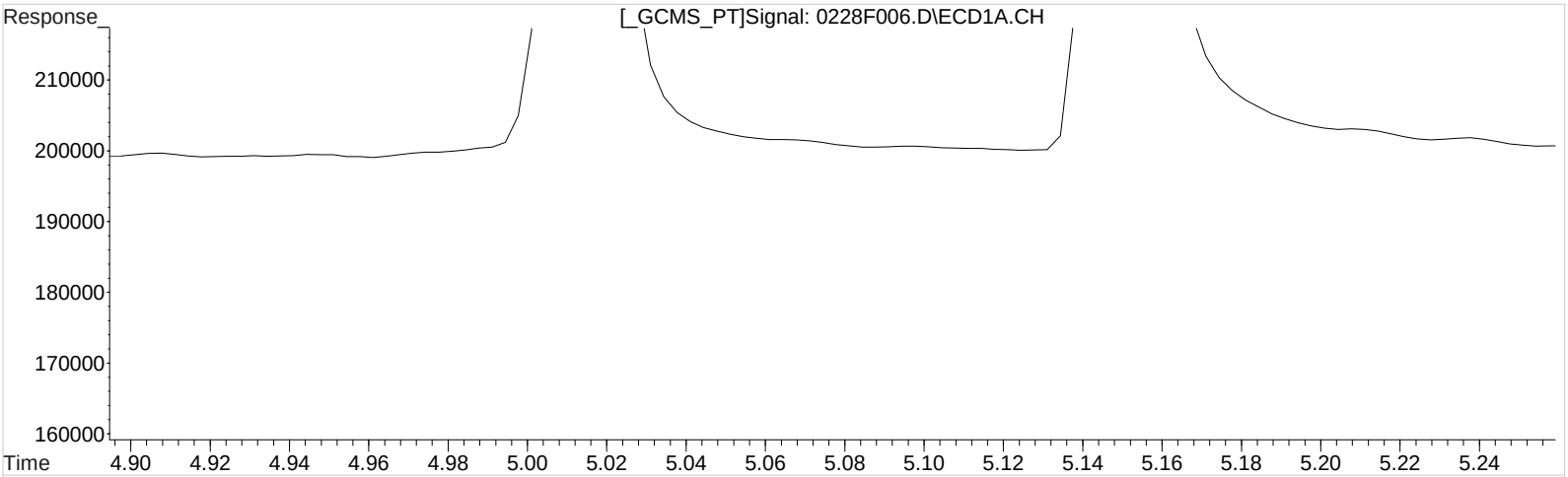
(+) = Expected Retention Time

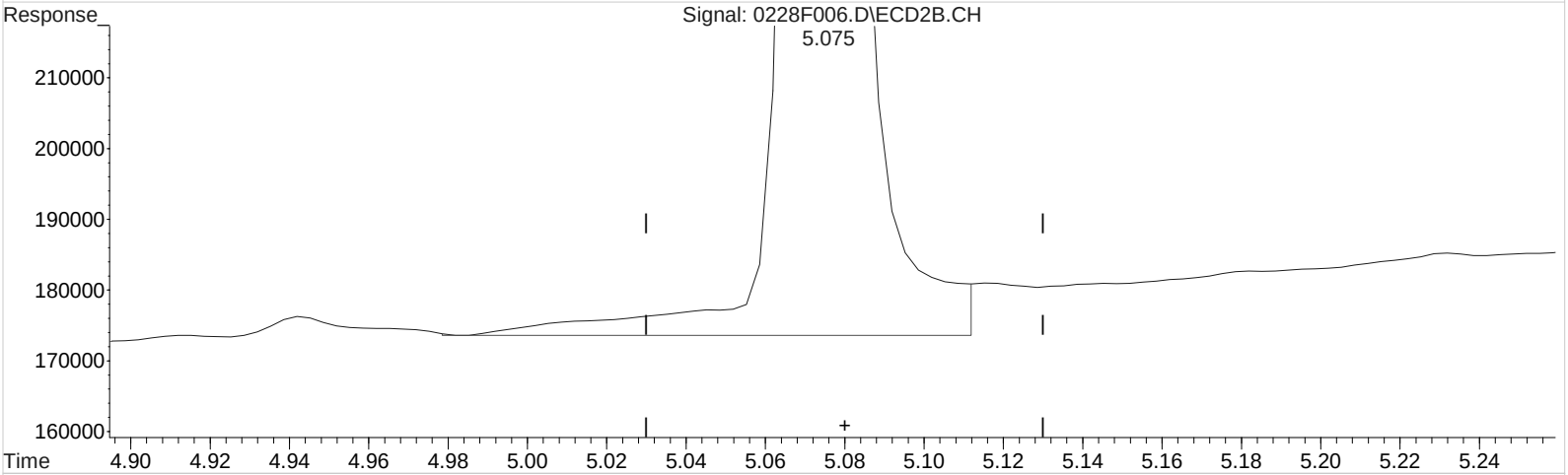
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 5.230 ug/L

response 2489684

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.075min 4.942 ug/L

response 3050029

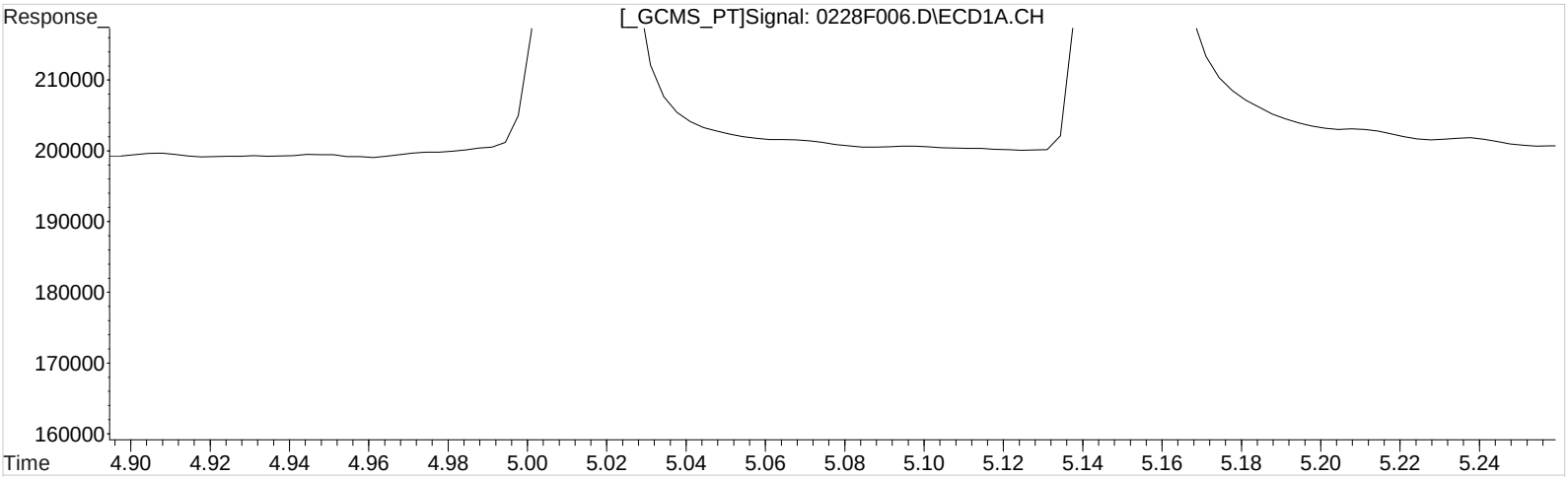
(+) = Expected Retention Time

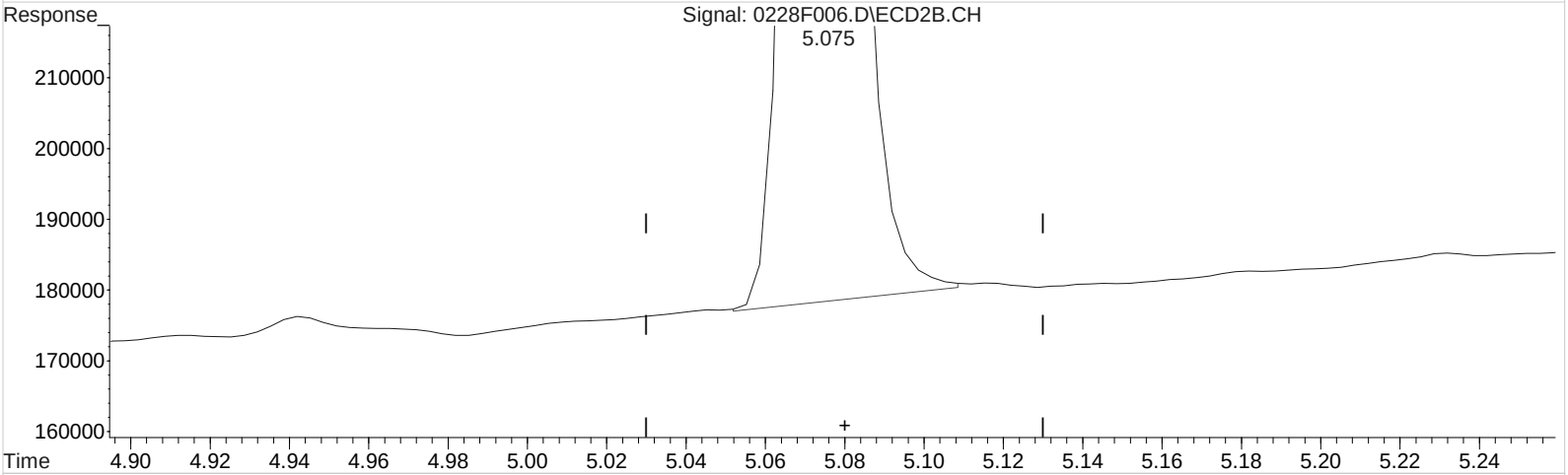
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 5.230 ug/L

response 2489684

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.075min 4.493 ug/L m

response 2773207

(+) = Expected Retention Time

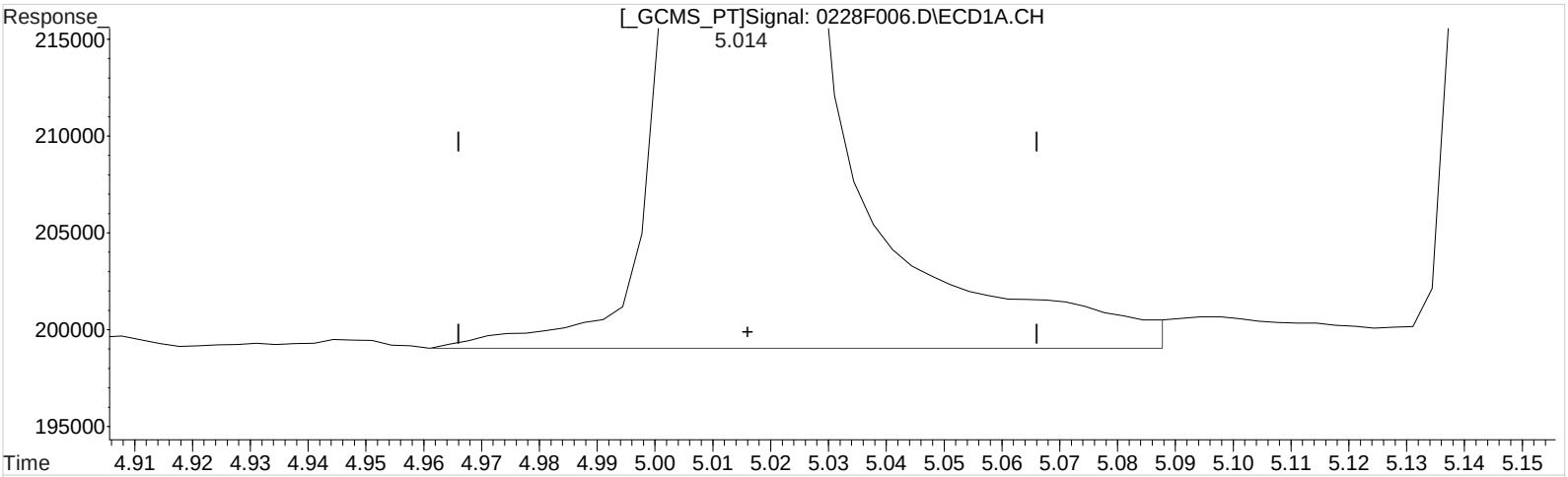
Quantitation Report (Qedit)

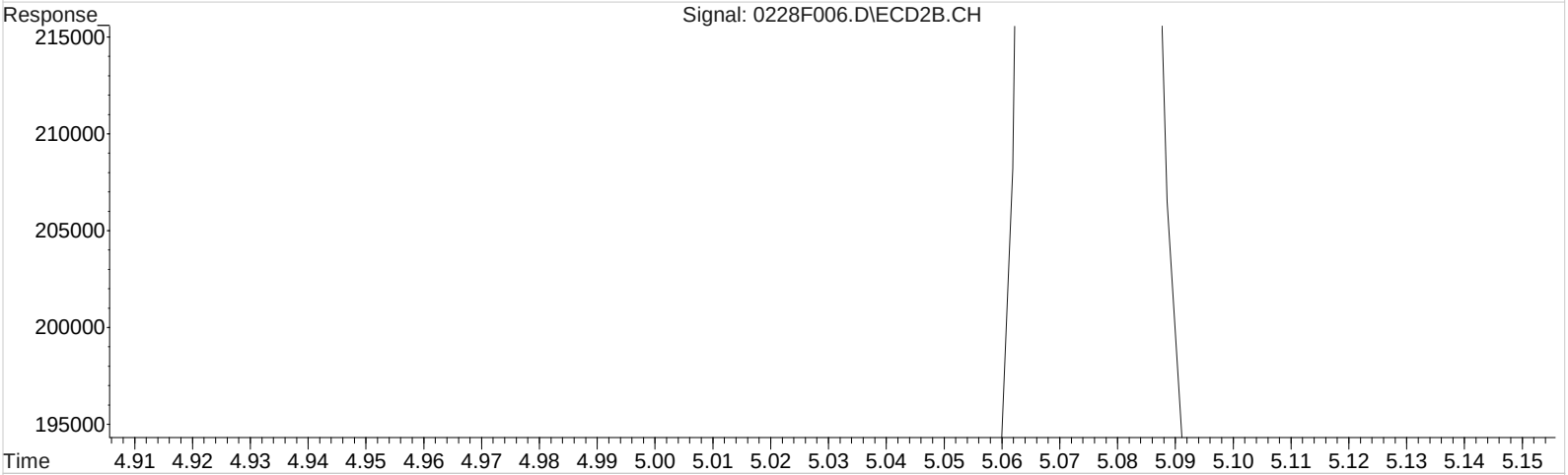
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.014min 5.252 ug/L

response 1974382

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.469min 4.970 ug/L

response 2052365

(+) = Expected Retention Time

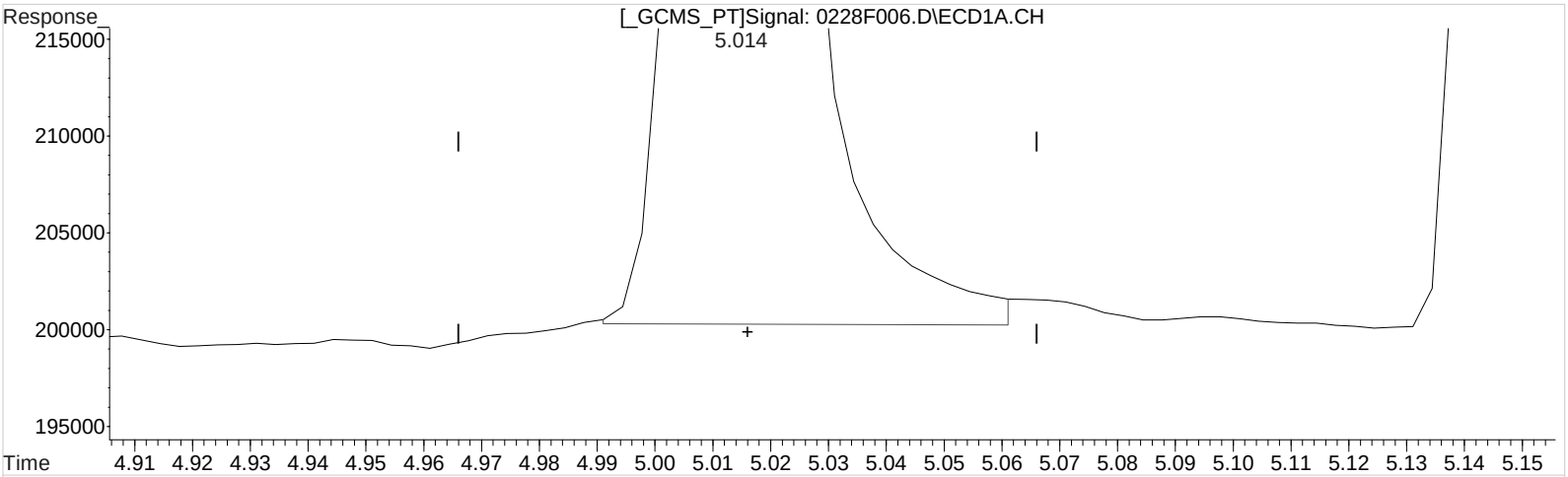
Quantitation Report (Qedit)

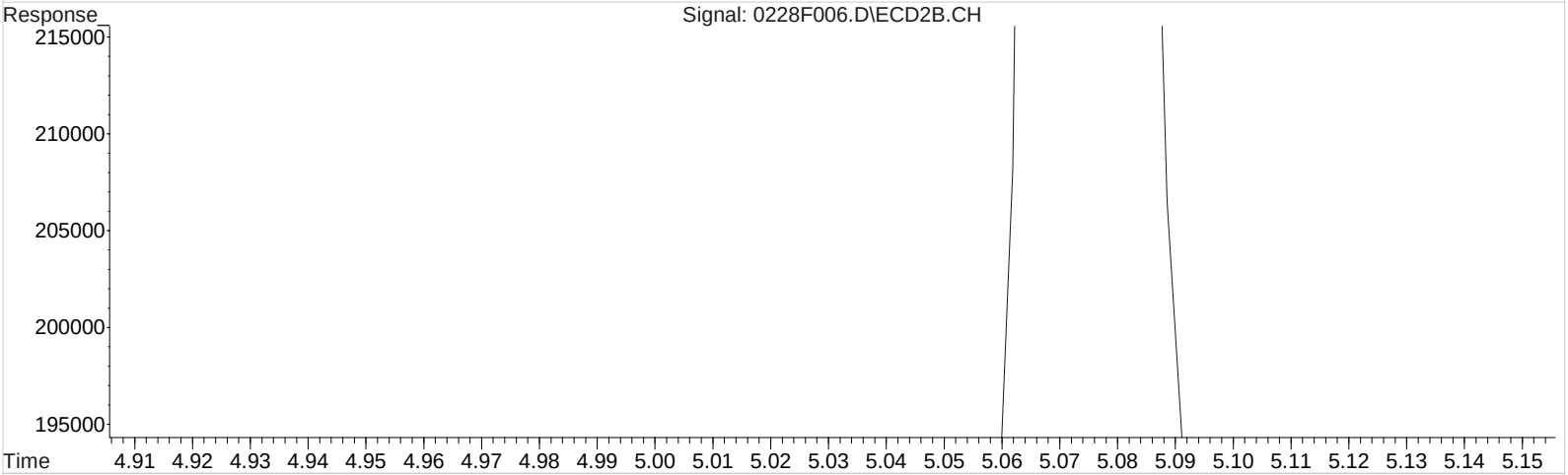
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.014min 4.930 ug/L m

response 1875877

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.469min 4.970 ug/L

response 2052365

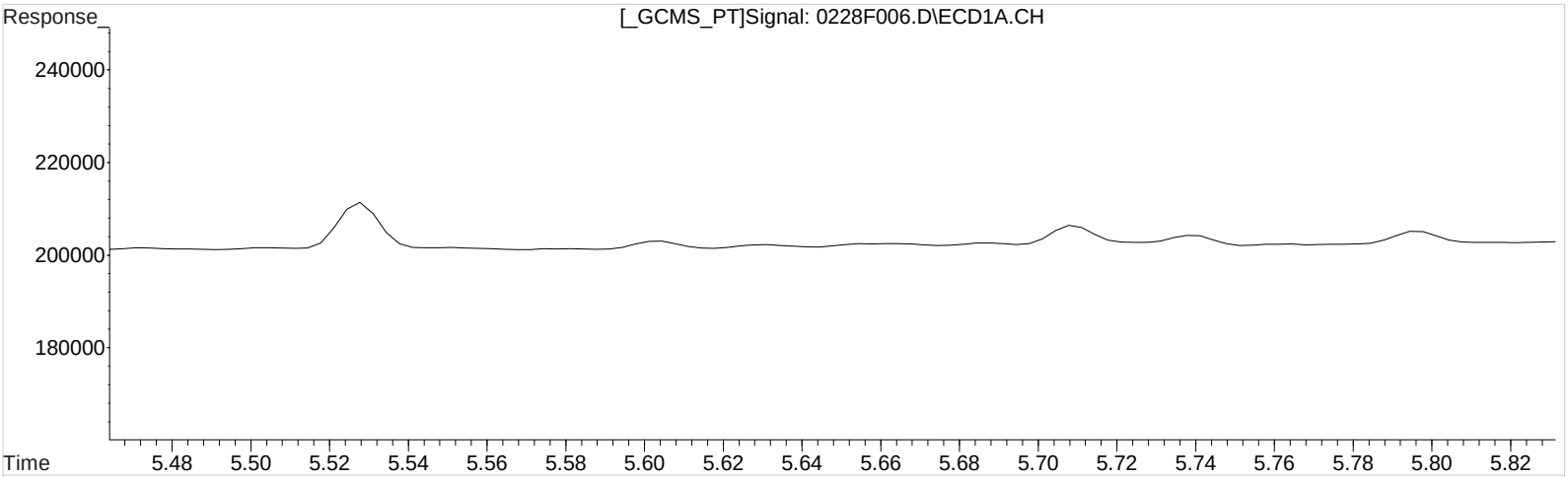
(+) = Expected Retention Time

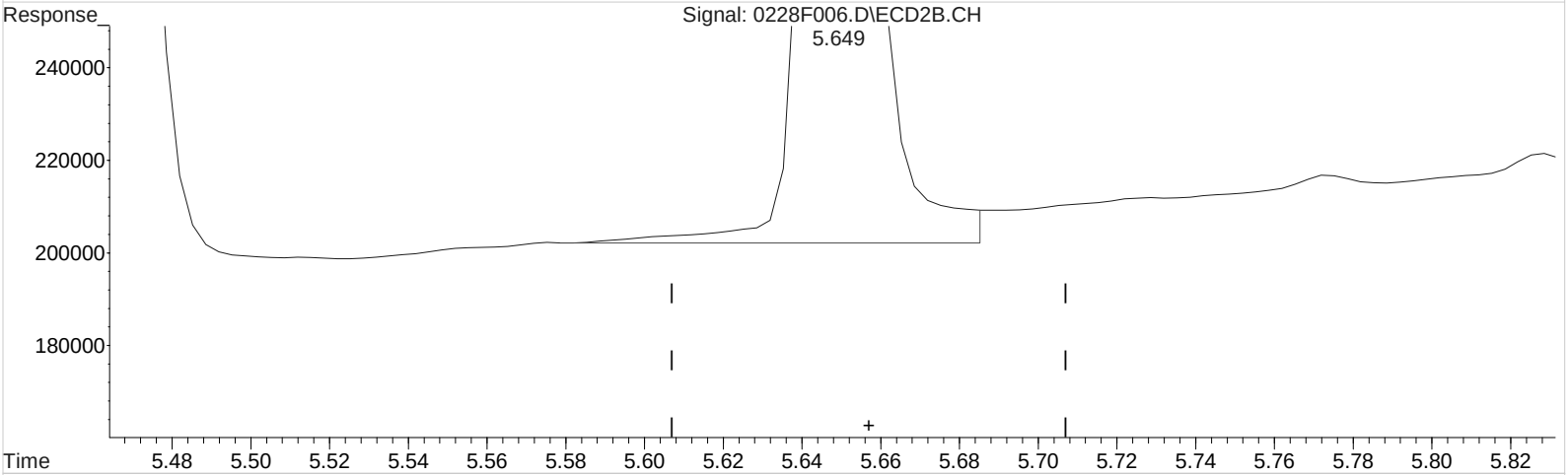
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.151min 5.309 ug/L

response 2839370

(9) Pentachlorophenol #2 (M)

5.649min 5.063 ug/L

response 3480960

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

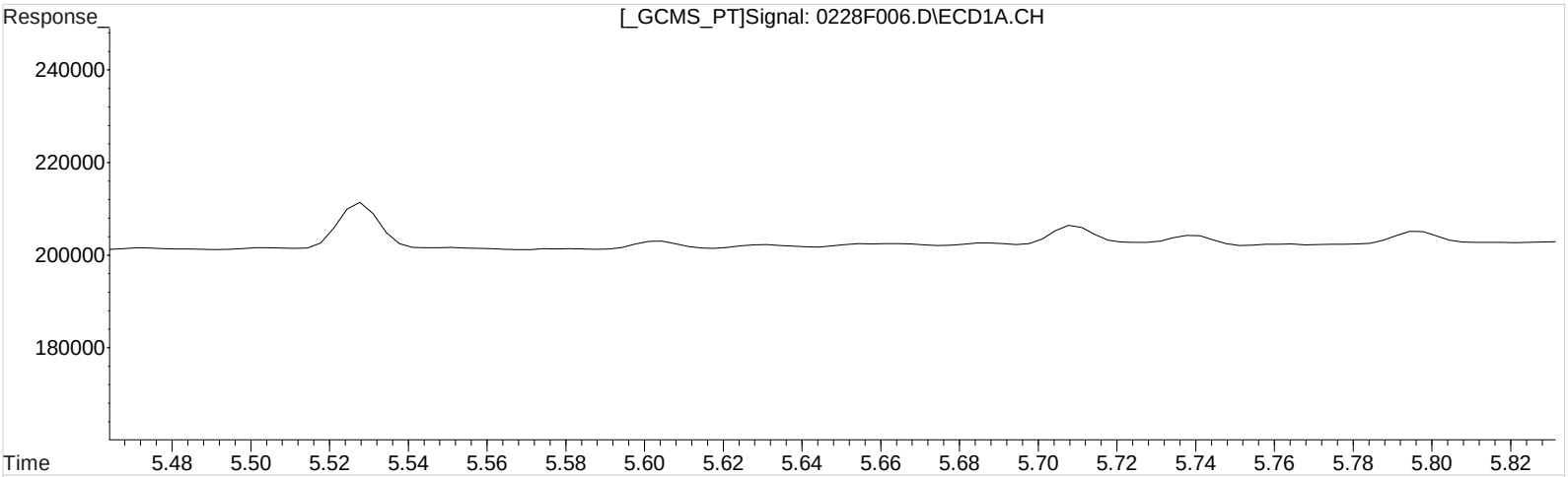
Quantitation Report (Qedit)

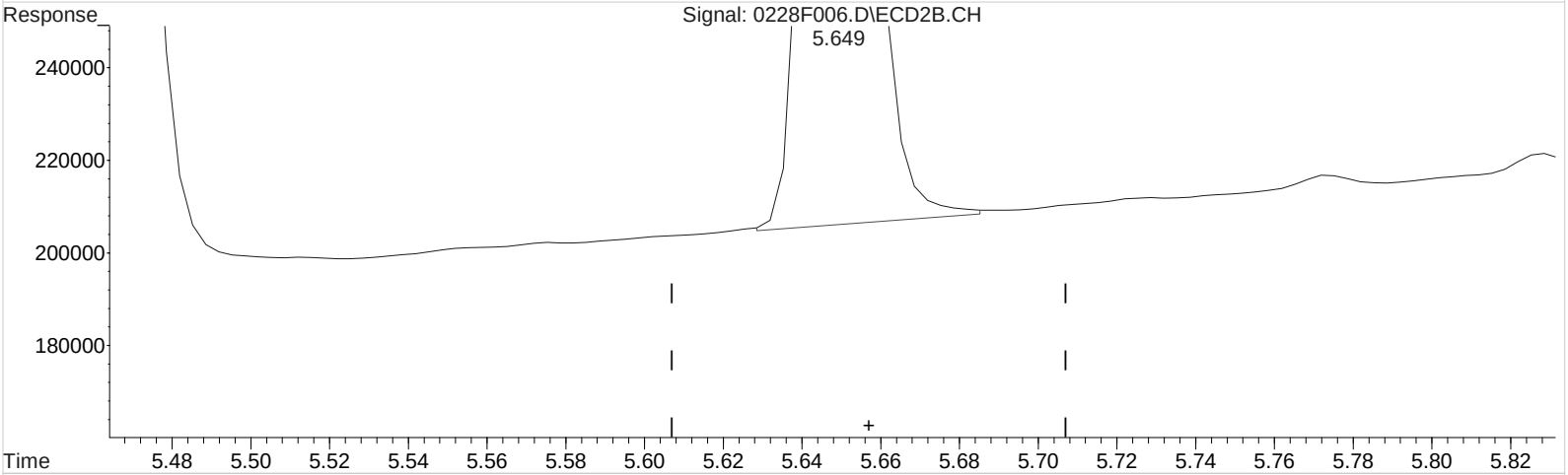
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.151min 5.309 ug/L

response 2839370

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.649min 4.775 ug/L m

response 3283089

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:31:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.033	4.717	4141410	4048056	11.304	9.312
		Target Compounds						
1)		3,4-Dichl...	3.136	3.831	158218	219018	9.573m	9.913
2)		3,5-Dichl...	3.380	4.087	115610	167574	10.545m	10.169
3)		2,4,6-Tri...	3.476	4.291	3397194	3850826	10.122	9.233
5)		2,4,5-Tri...	4.203	4.784	1619859	1881218	10.889	9.413
6)		3,4,5-Tri...	4.233	4.847	1583734	1764529	10.435m	9.401
7)	M	2,3,5,6-T...	4.476	5.077	4654510	5729619	9.778m	9.283
8)	M	2,3,4,5-T...	5.020	5.474	3486028	3874012	10.225m	9.382m
9)	M	Pentachlo...	5.156	5.657	5372015	6532395	10.950	9.501
10)		Pentachlo...	5.156	5.657	5372015	6532395	11.526	10.005

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

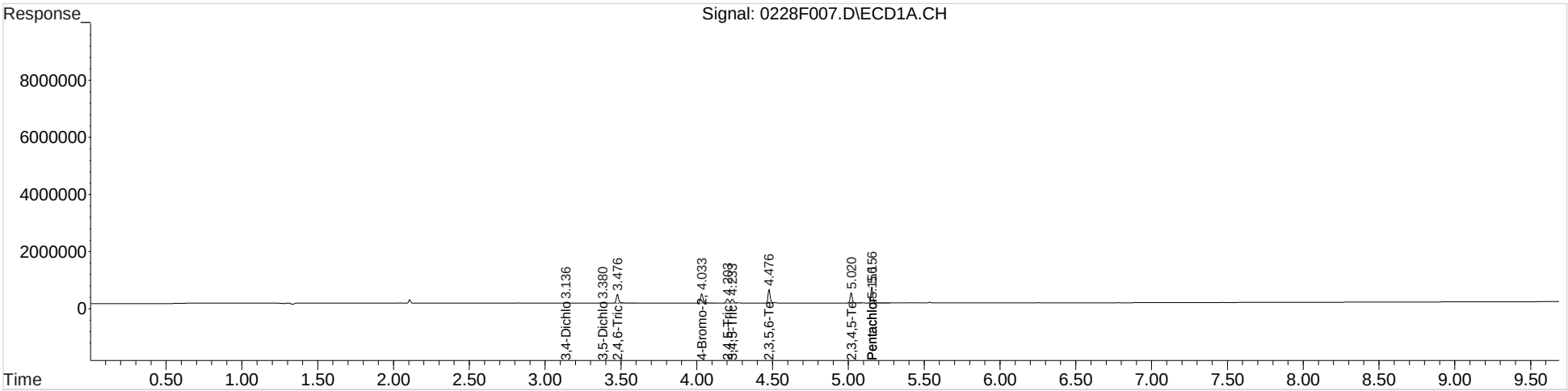
1st JMS 02/28/19
2nd MC 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:31:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



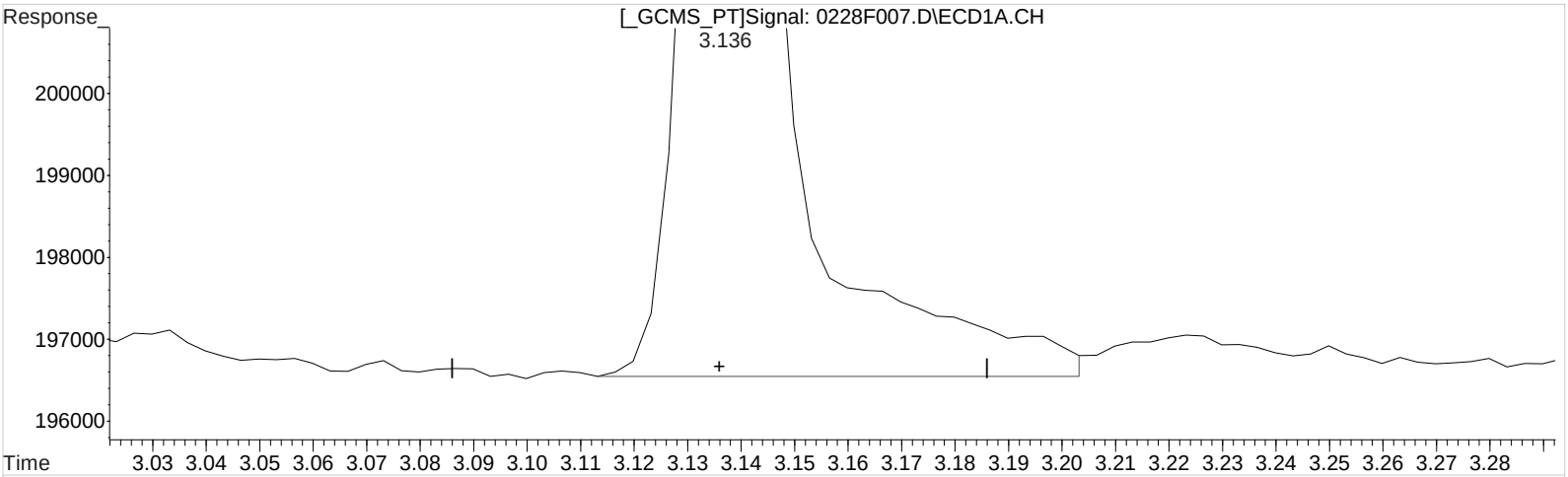
Quantitation Report (Qedit)

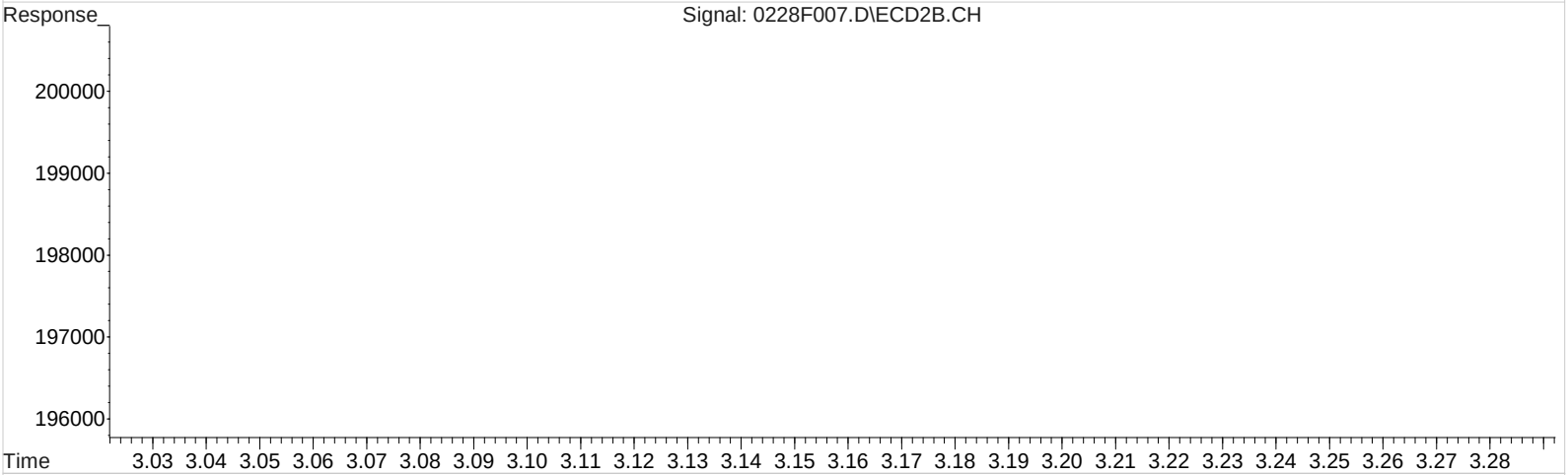
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.136min 10.715 ug/L

response 175614

(1) 3,4-Dichlorophenol #2

3.831min 9.913 ug/L

response 219018

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

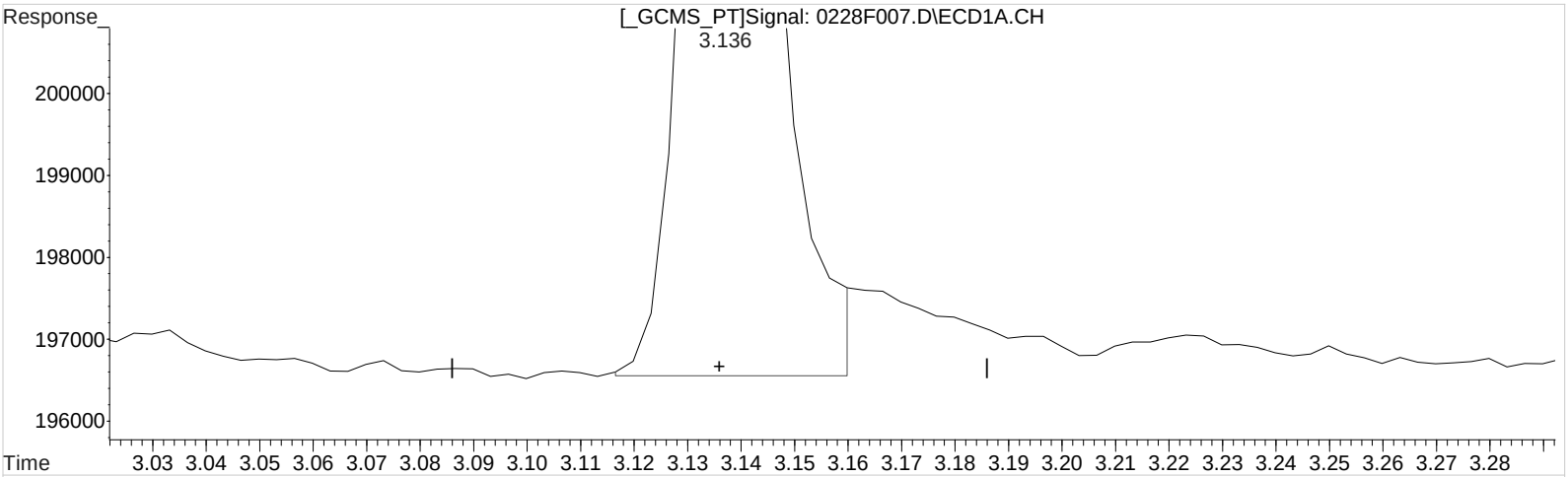
Quantitation Report (Qedit)

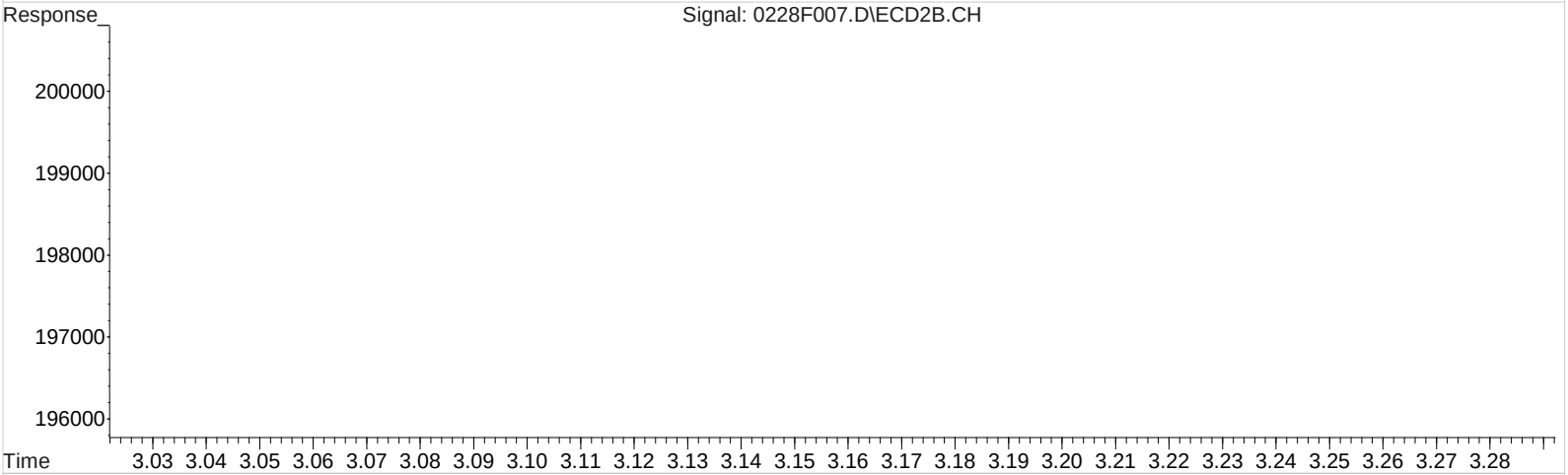
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.136min 9.573 ug/L m

response 158218

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 9.913 ug/L

response 219018

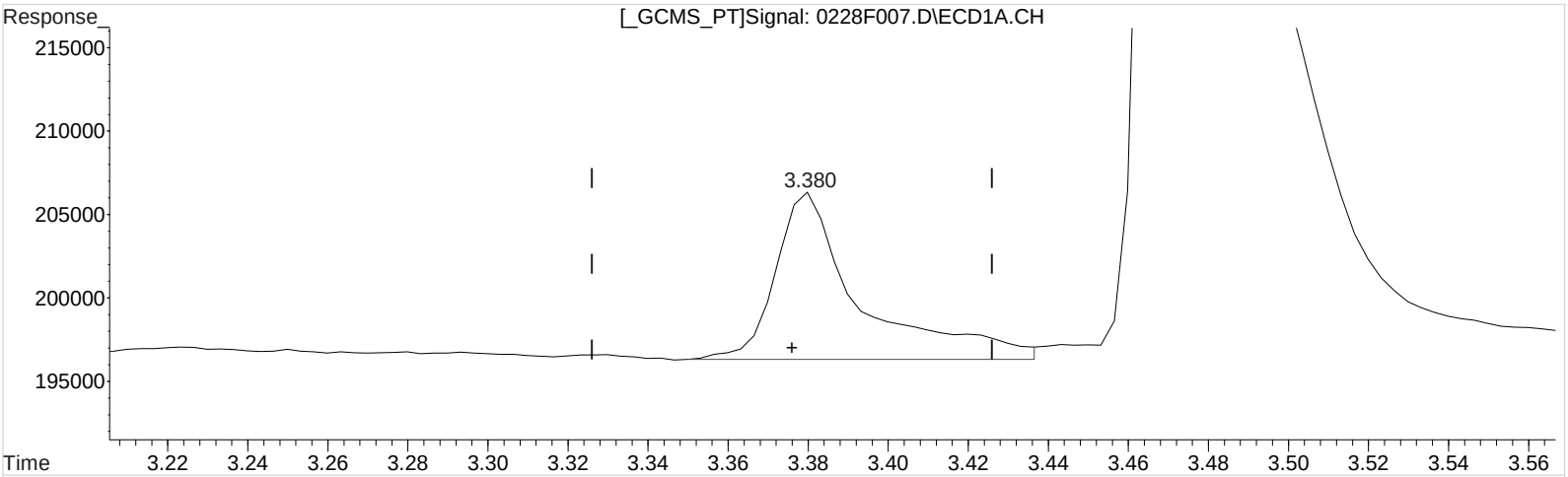
(+) = Expected Retention Time

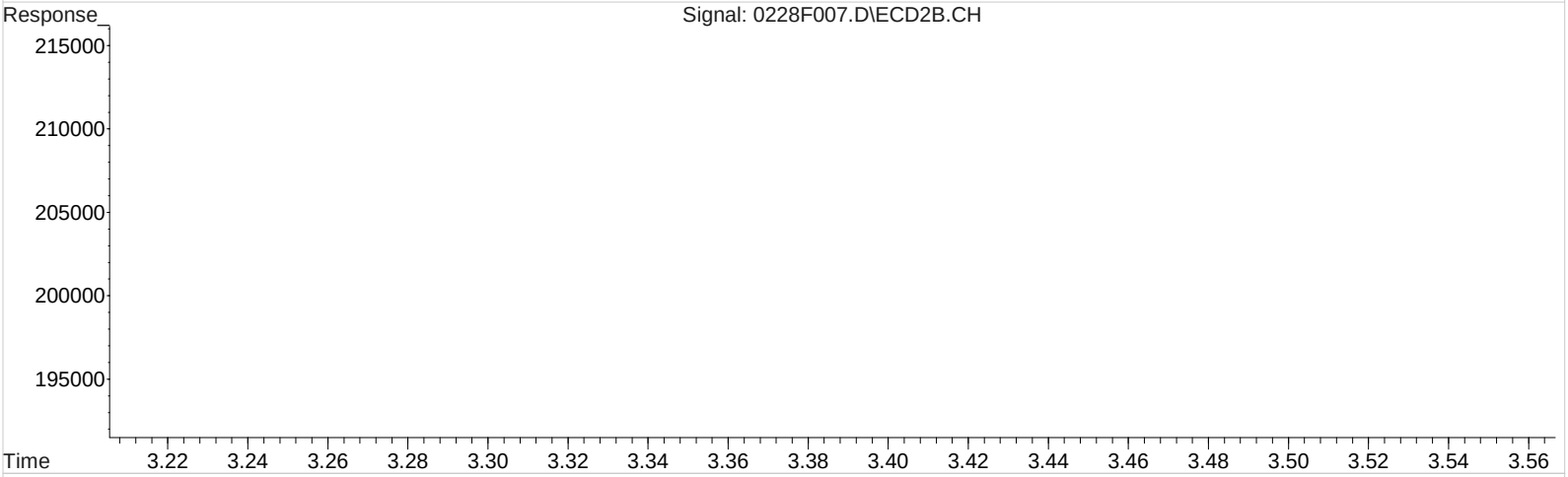
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 13.605 ug/L

response 146982

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.087min 10.169 ug/L

response 167574

(+) = Expected Retention Time

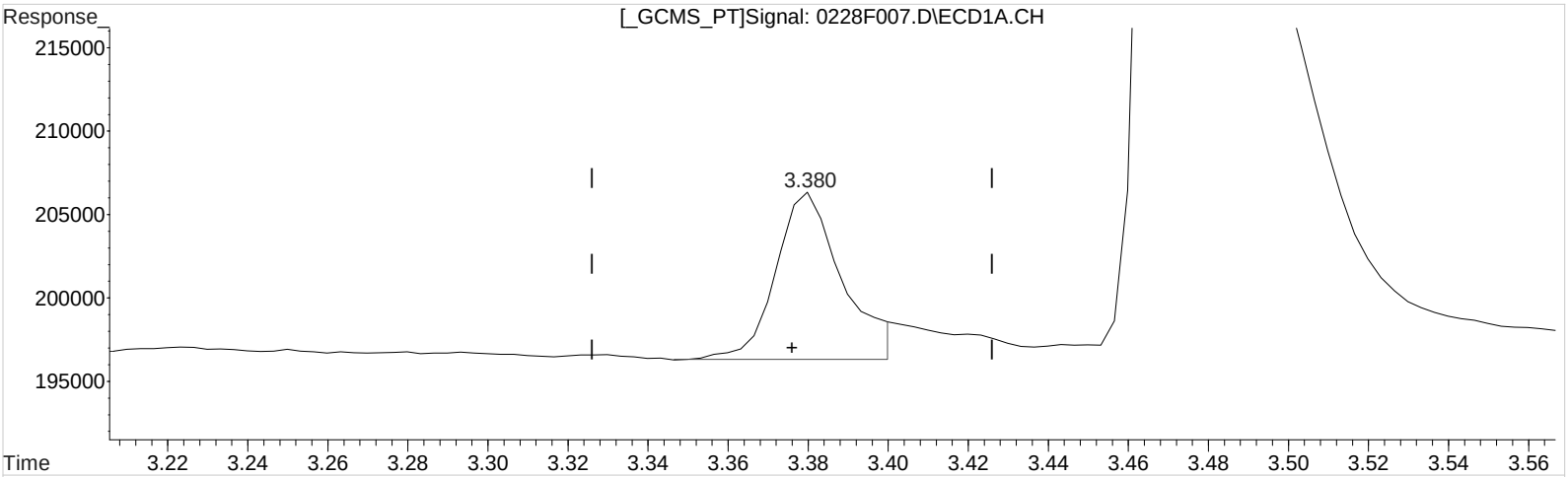
Quantitation Report (Qedit)

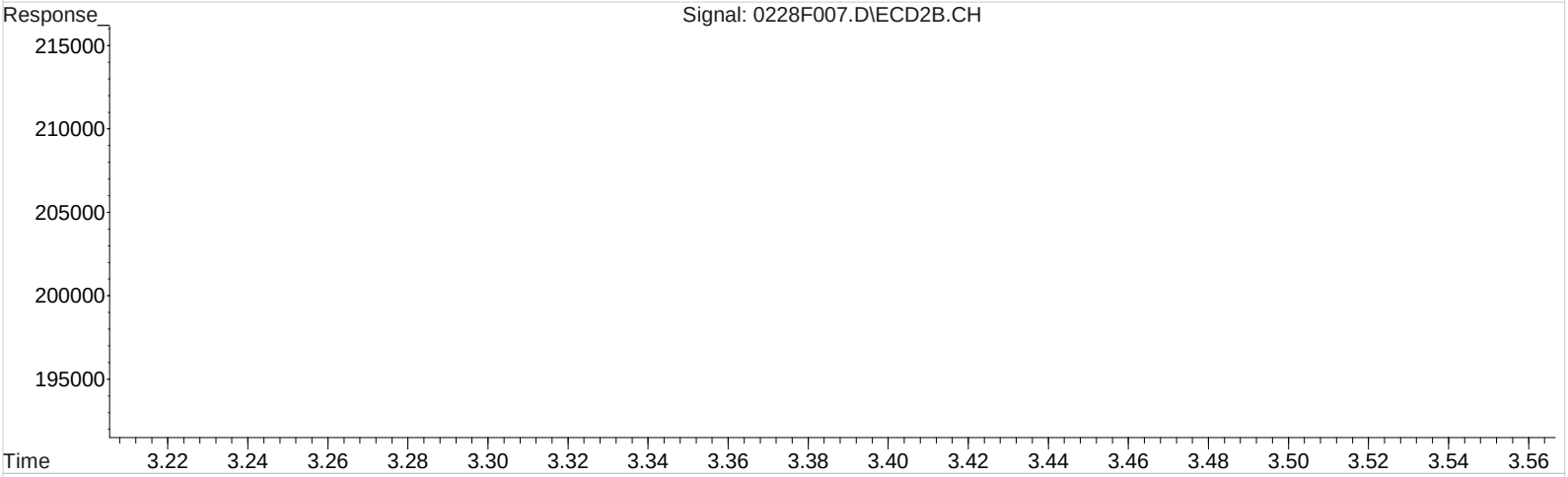
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 10.545 ug/L m

response 115610

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.087min 10.169 ug/L

response 167574

(+) = Expected Retention Time

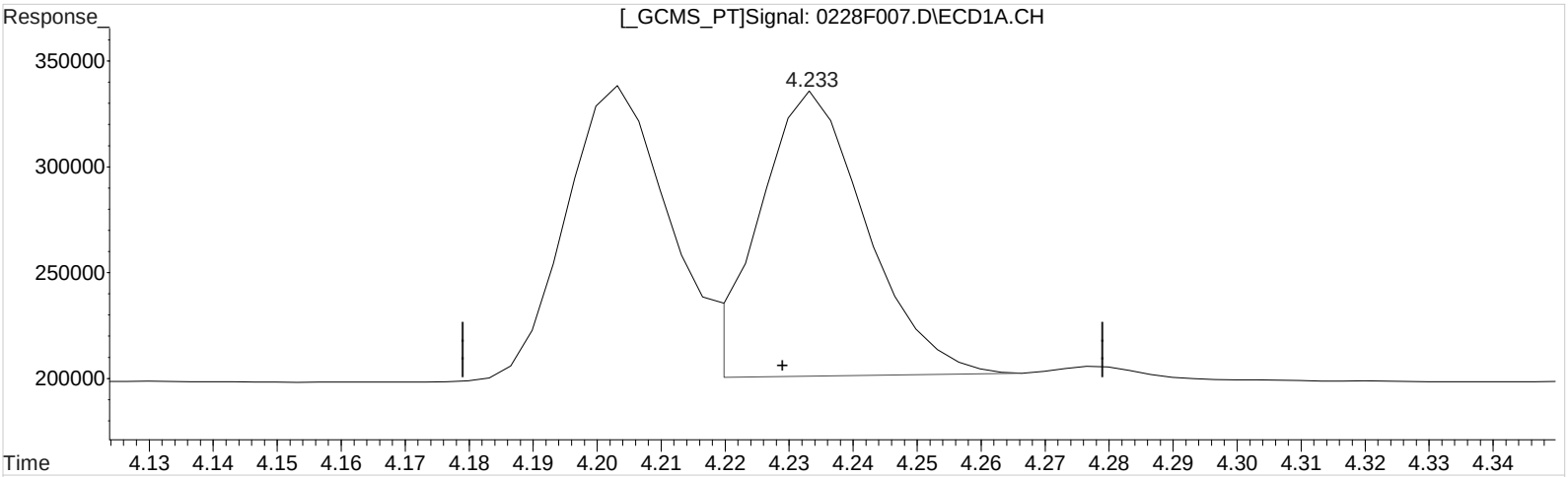
Quantitation Report (Qedit)

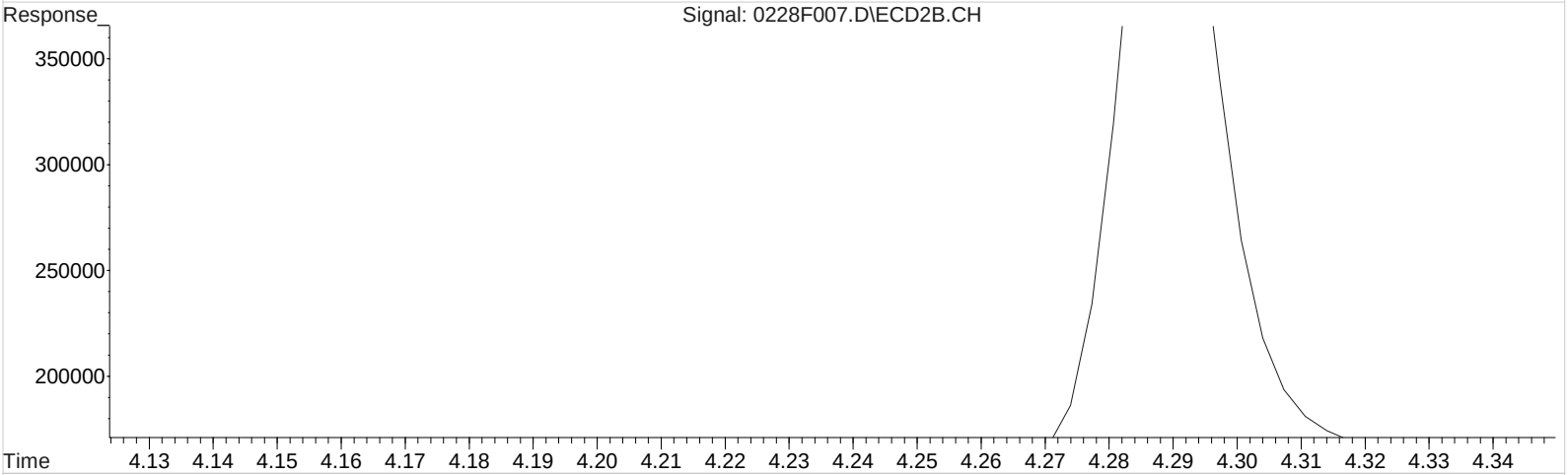
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 9.891 ug/L

response 1506370

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 9.401 ug/L

response 1764529

(+) = Expected Retention Time

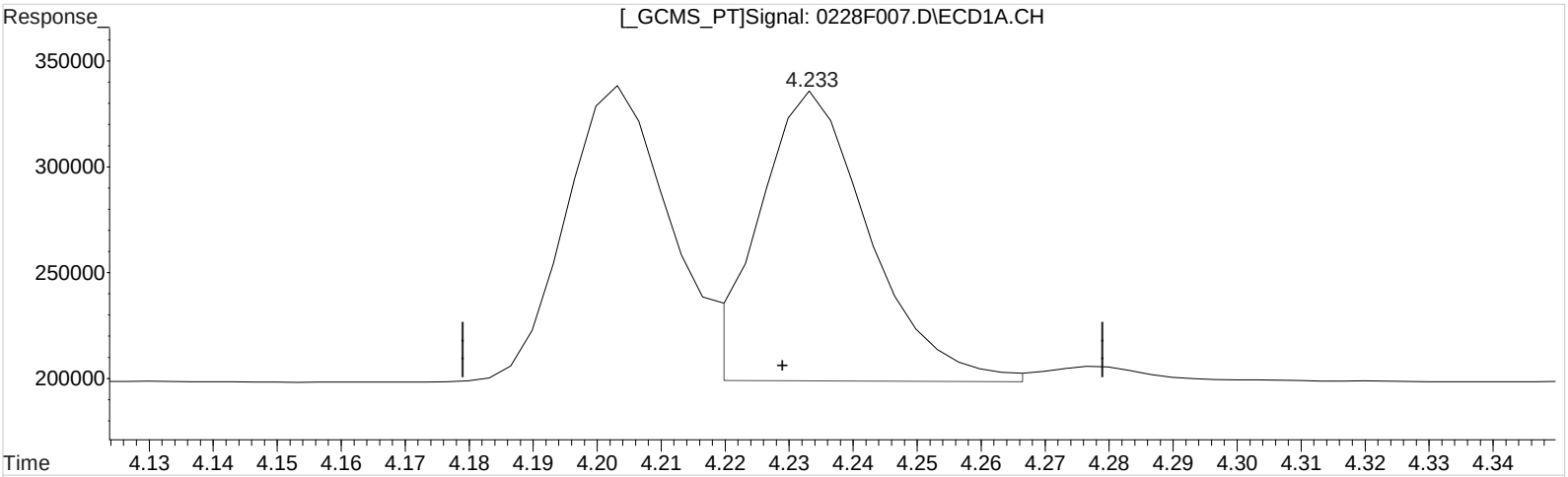
Quantitation Report (Qedit)

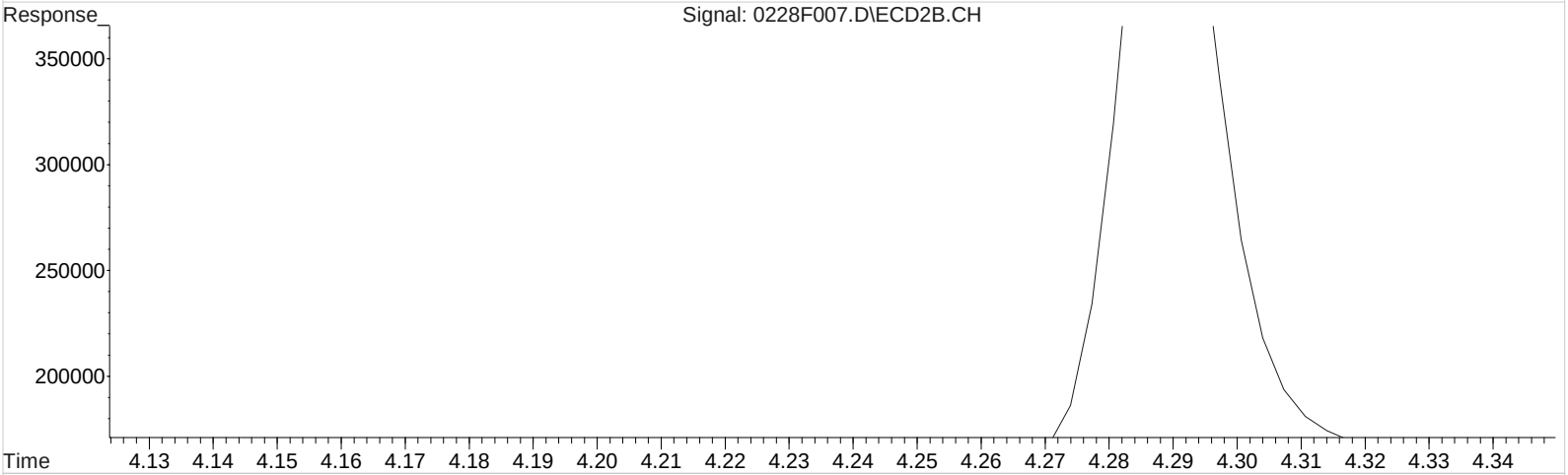
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 10.435 ug/L m

response 1583734

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 9.401 ug/L

response 1764529

(+) = Expected Retention Time

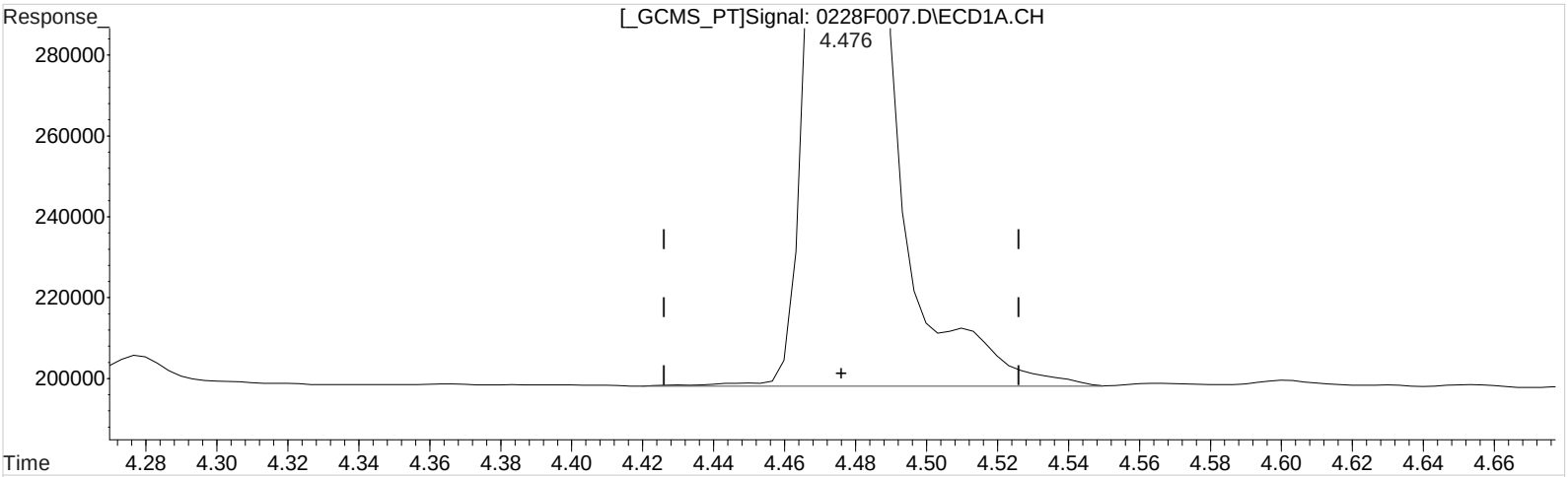
Quantitation Report (Qedit)

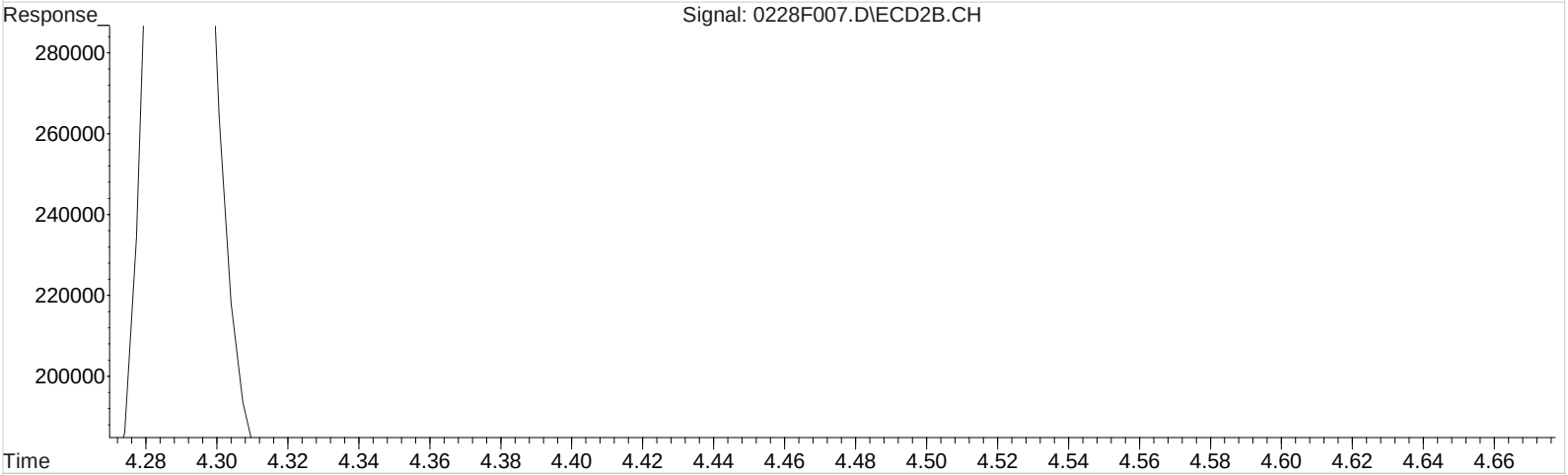
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.476min 10.180 ug/L

response 4845604

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.077min 9.283 ug/L

response 5729619

(+) = Expected Retention Time

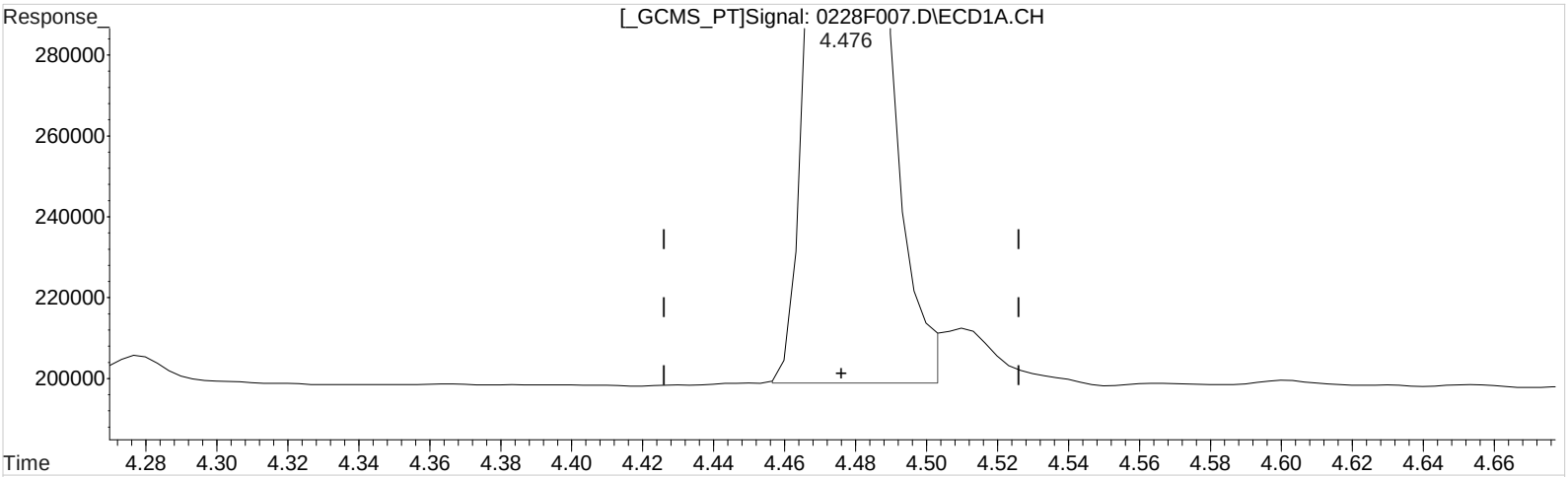
Quantitation Report (Qedit)

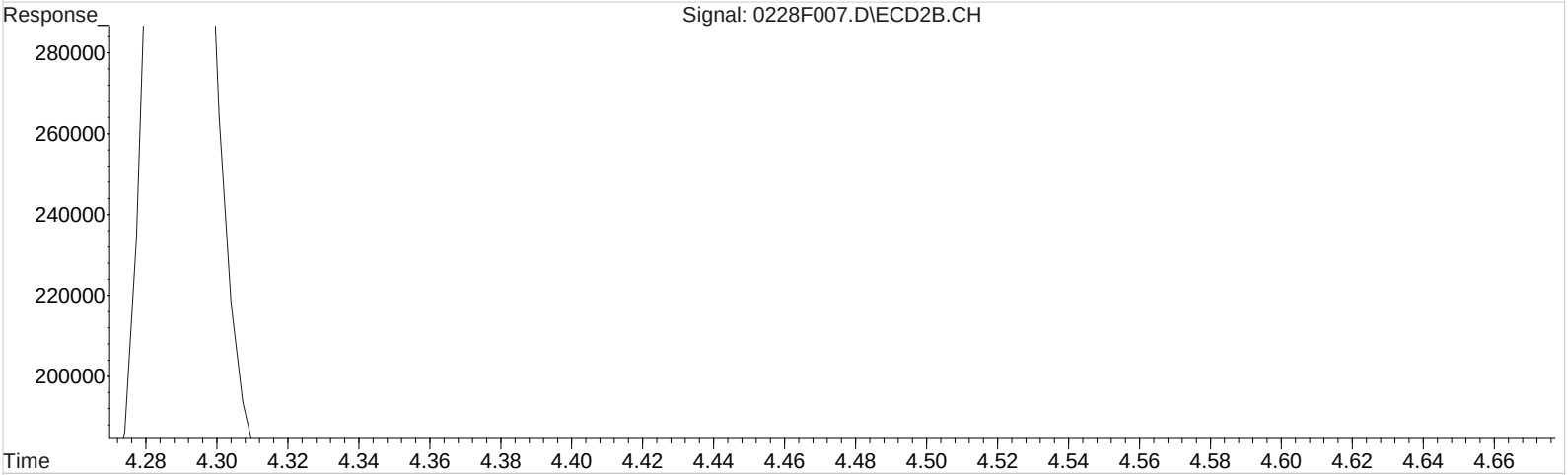
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.476min 9.778 ug/L m

response 4654510

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.077min 9.283 ug/L

response 5729619

(+) = Expected Retention Time

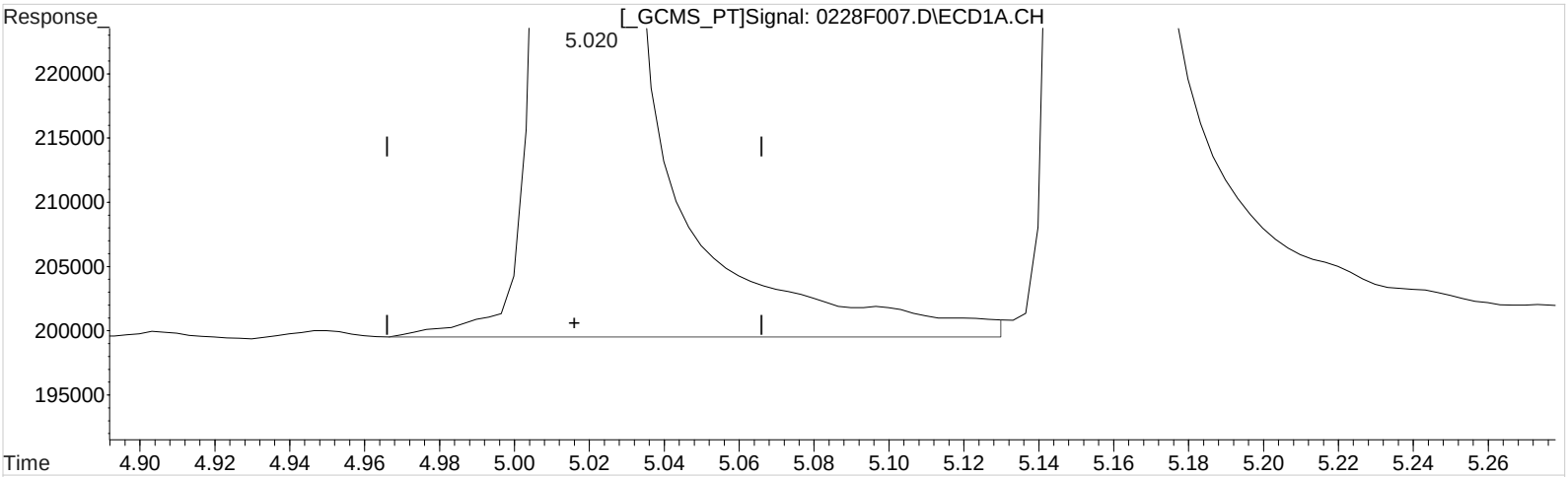
Quantitation Report (Qedit)

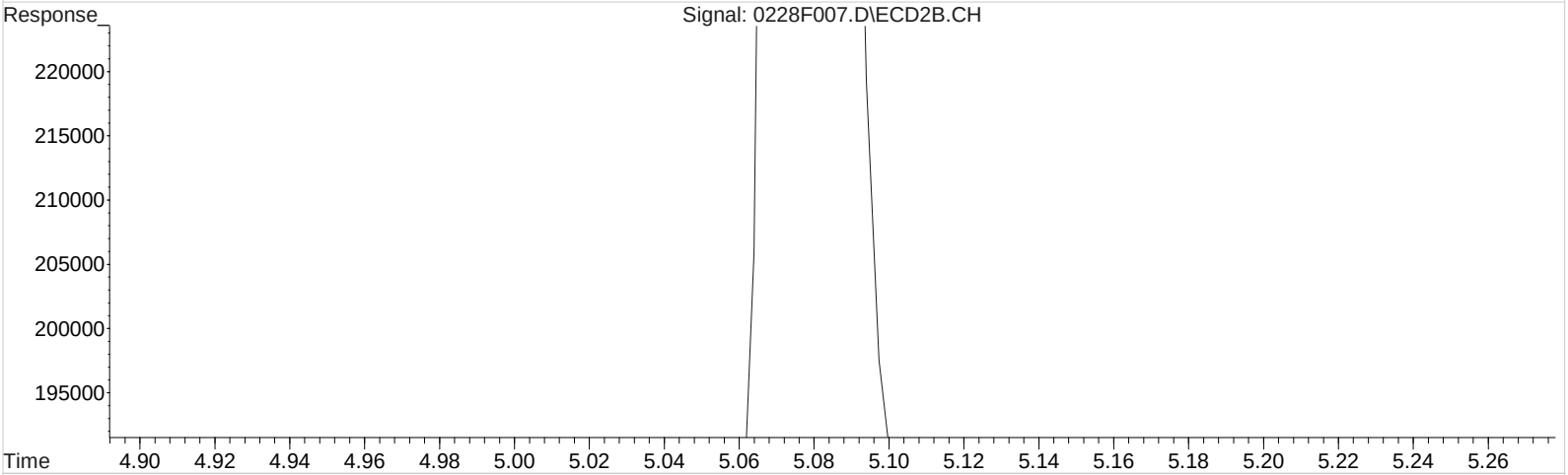
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.552 ug/L

response 3584964

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

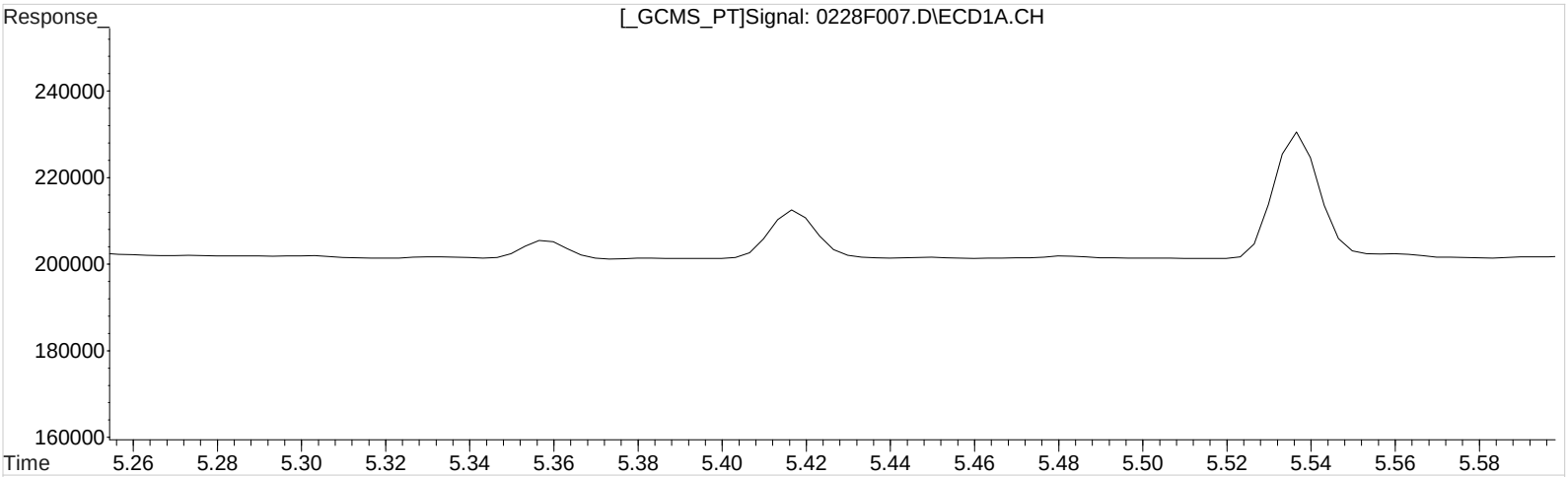
(+) = Expected Retention Time

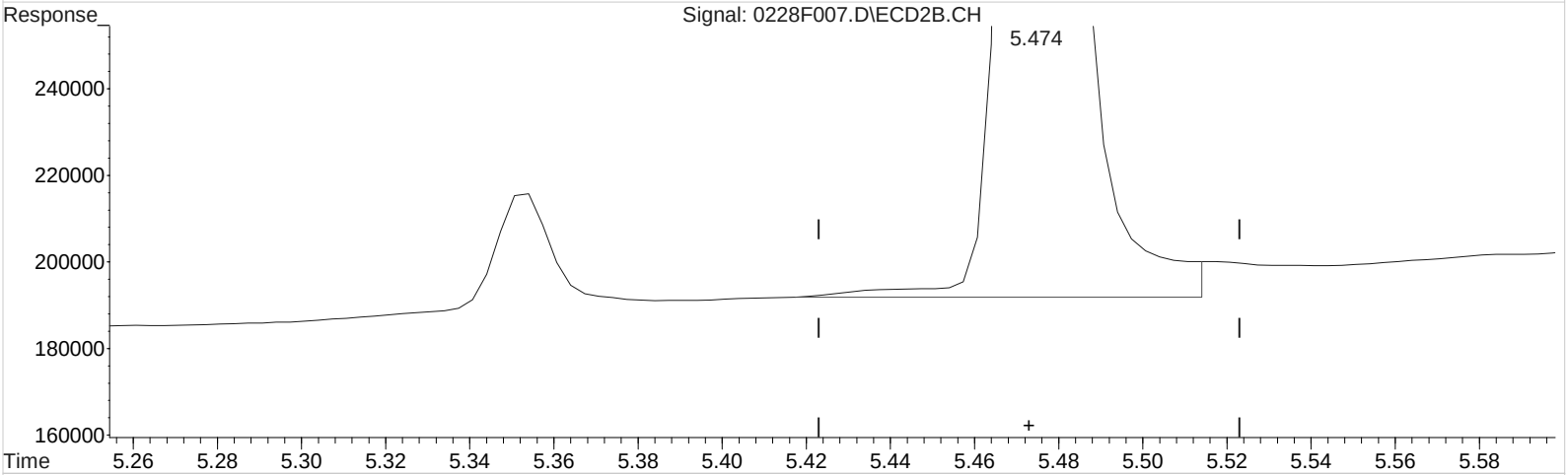
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

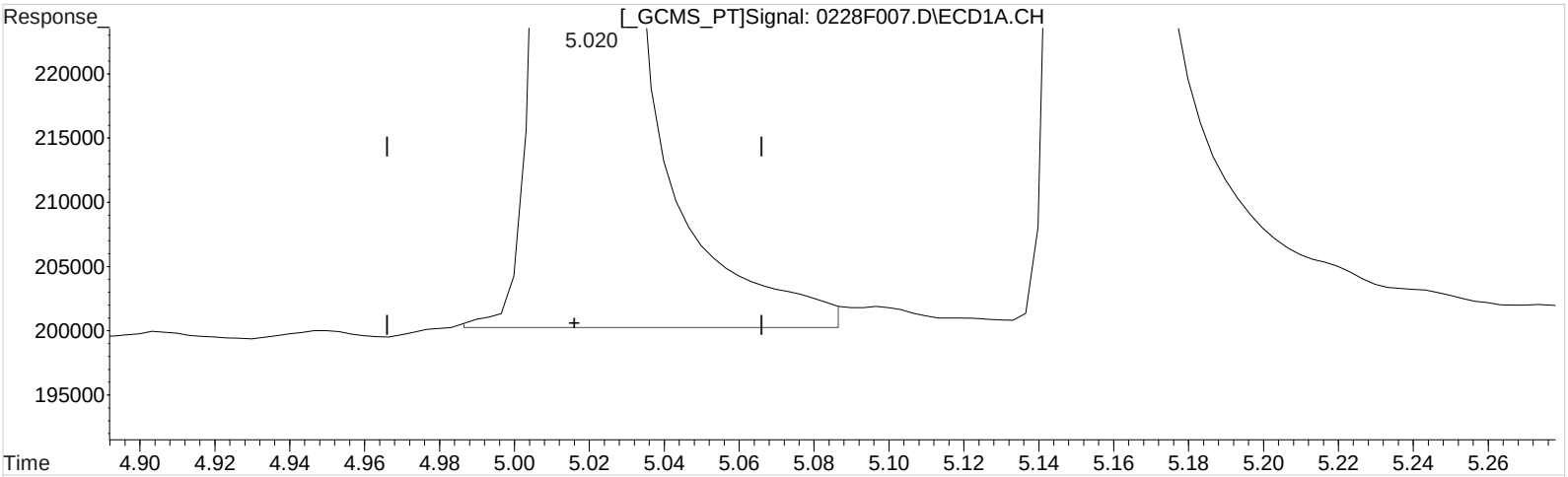
(+) = Expected Retention Time

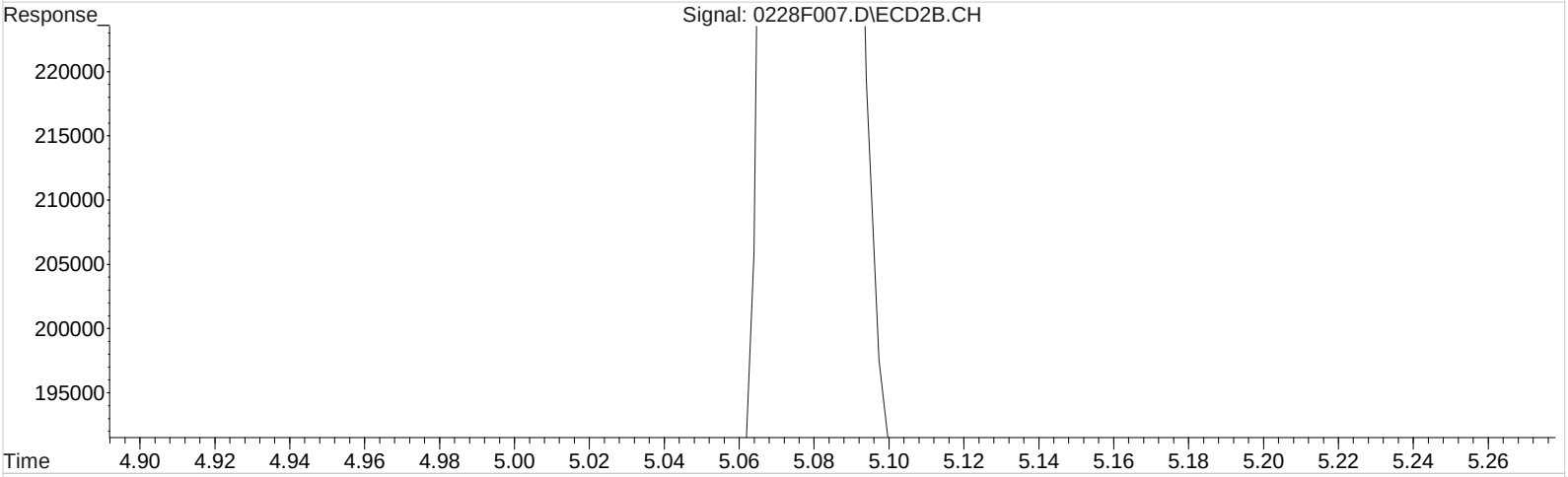
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

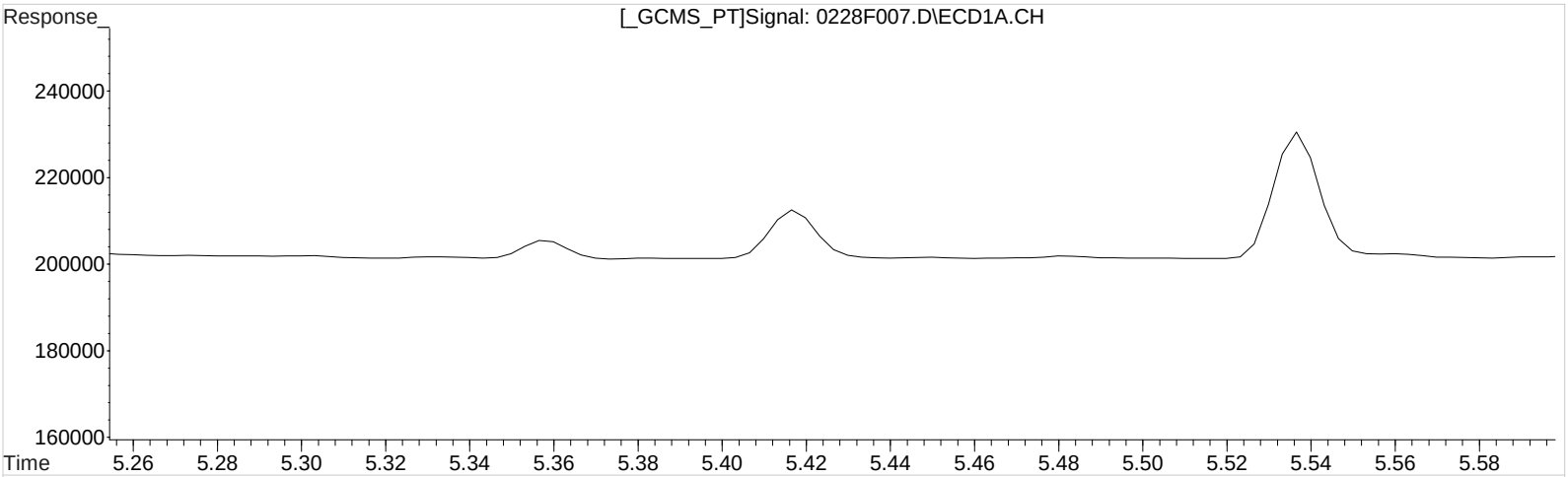
(+) = Expected Retention Time

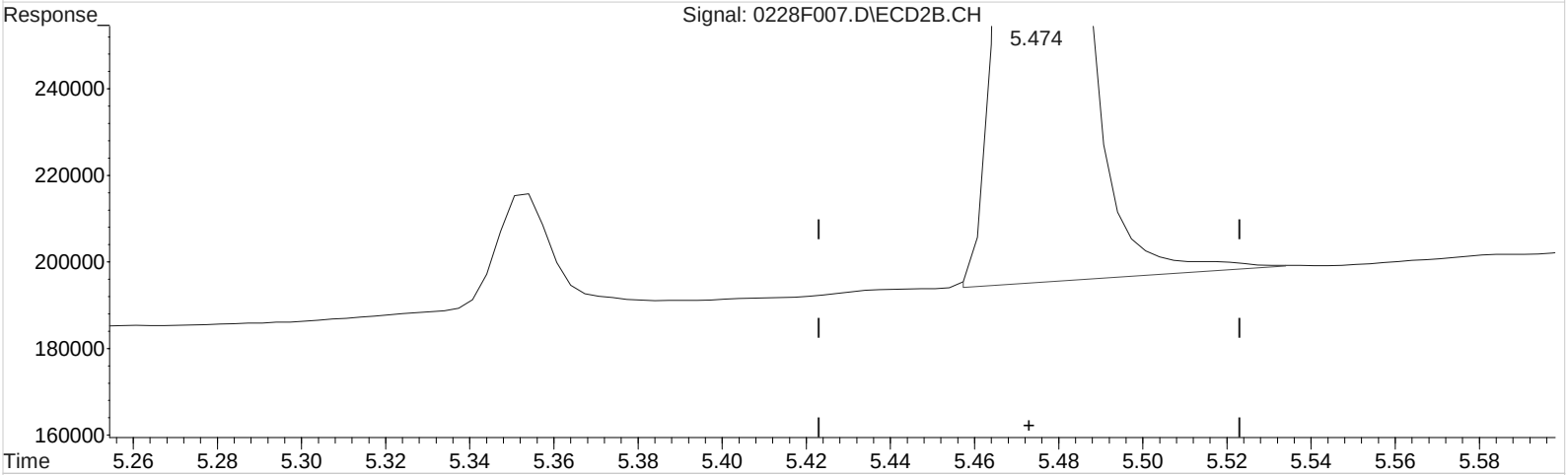
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.382 ug/L m

response 3874012

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.033	4.720	9384726	10345828	26.823	23.800
		Target Compounds						
1)		3,4-Dichl...	3.139	3.833	364718	495787	23.304m	22.440
2)		3,5-Dichl...	3.379	4.090	247686	371212	23.594m	22.526
3)		2,4,6-Tri...	3.476	4.290	7528057	9199994	23.385	22.059
5)		2,4,5-Tri...	4.203	4.783	3465348	4268979	24.581	21.360
6)		3,4,5-Tri...	4.233	4.847	3537210	4043017	24.409m	21.539
7)	M	2,3,5,6-T...	4.476	5.080	10557180	13711688	22.178	22.215
8)	M	2,3,4,5-T...	5.019	5.477	7682979	9204669	24.286	22.291
9)	M	Pentachlo...	5.156	5.660	12370956	15378050	26.604	22.366
10)		Pentachlo...	5.156	5.660	12370956	15378050	28.002	23.554

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

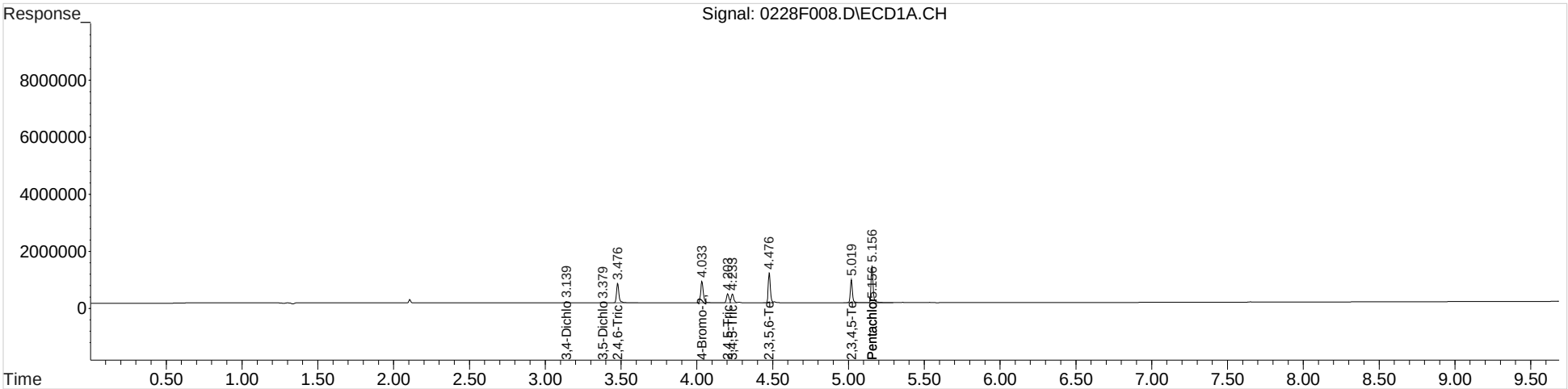
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



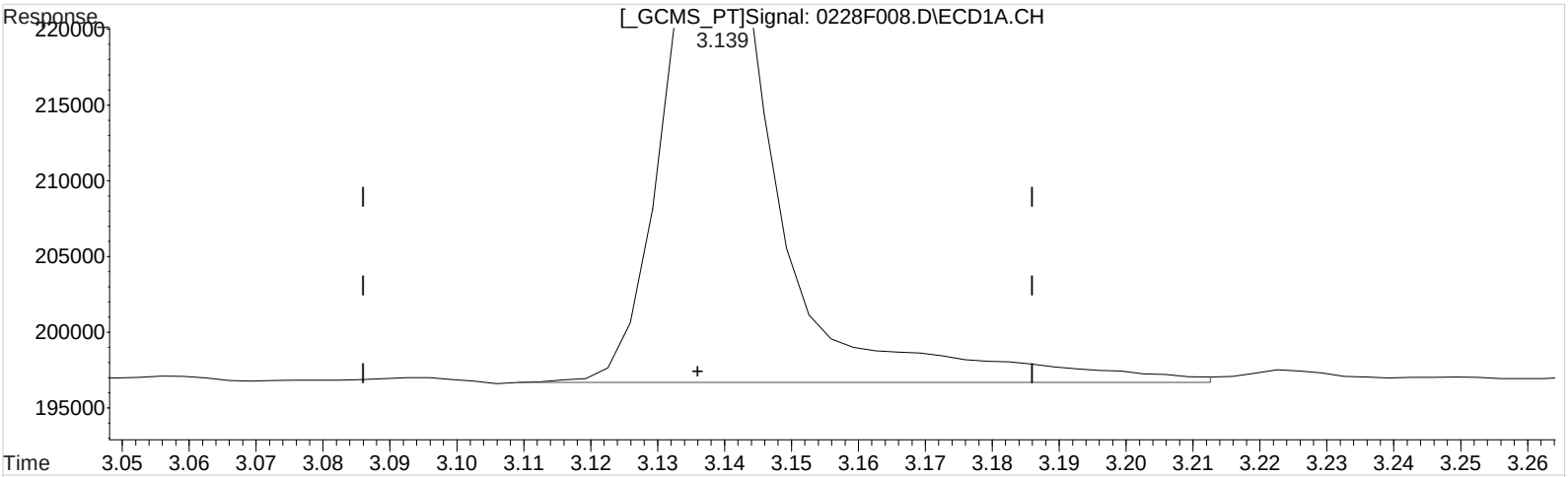
Quantitation Report (Qedit)

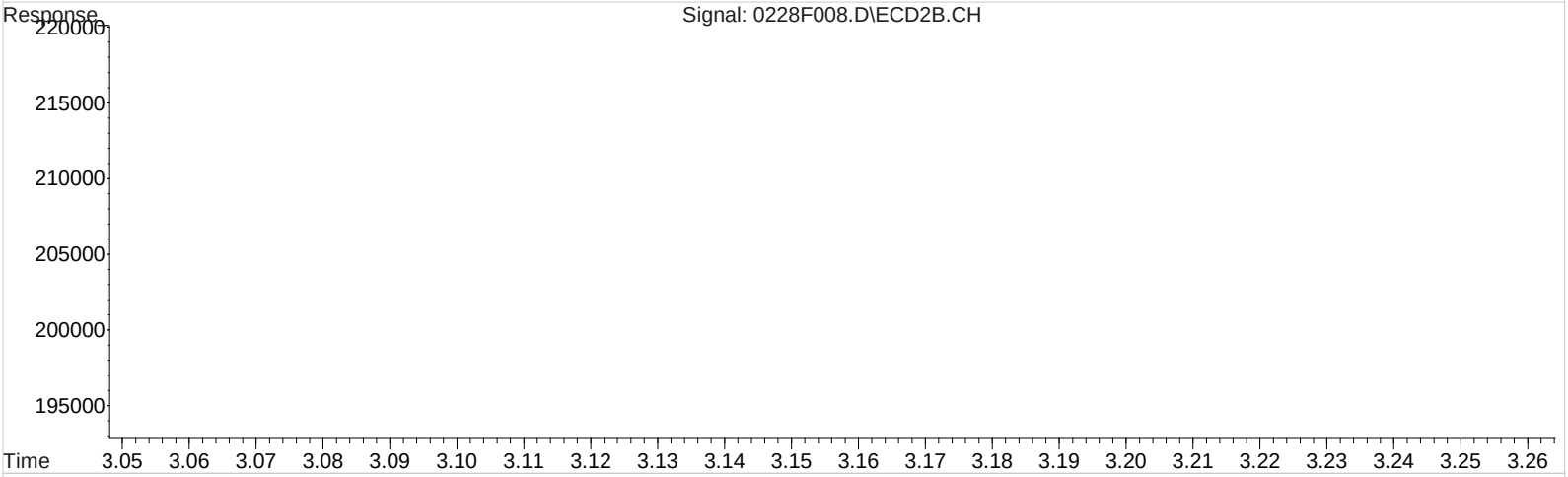
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 25.378 ug/L

response 395414

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 22.440 ug/L

response 495787

(+) = Expected Retention Time

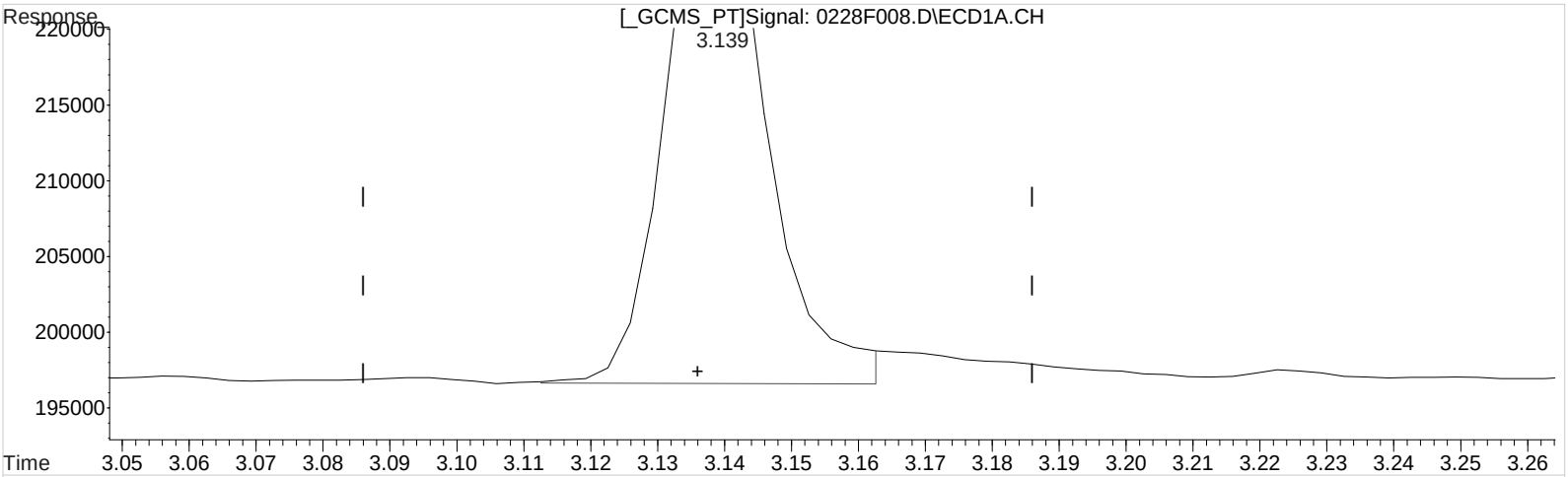
Quantitation Report (Qedit)

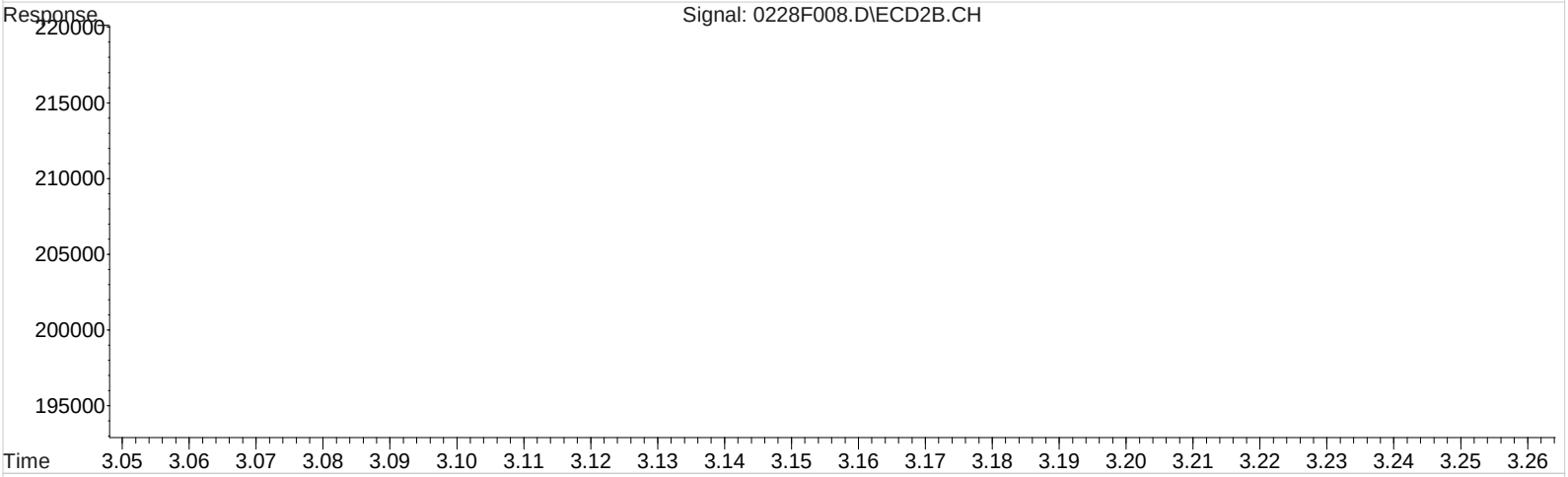
1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 23.304 ug/L m

response 364718

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 22.440 ug/L

response 495787

(+) = Expected Retention Time

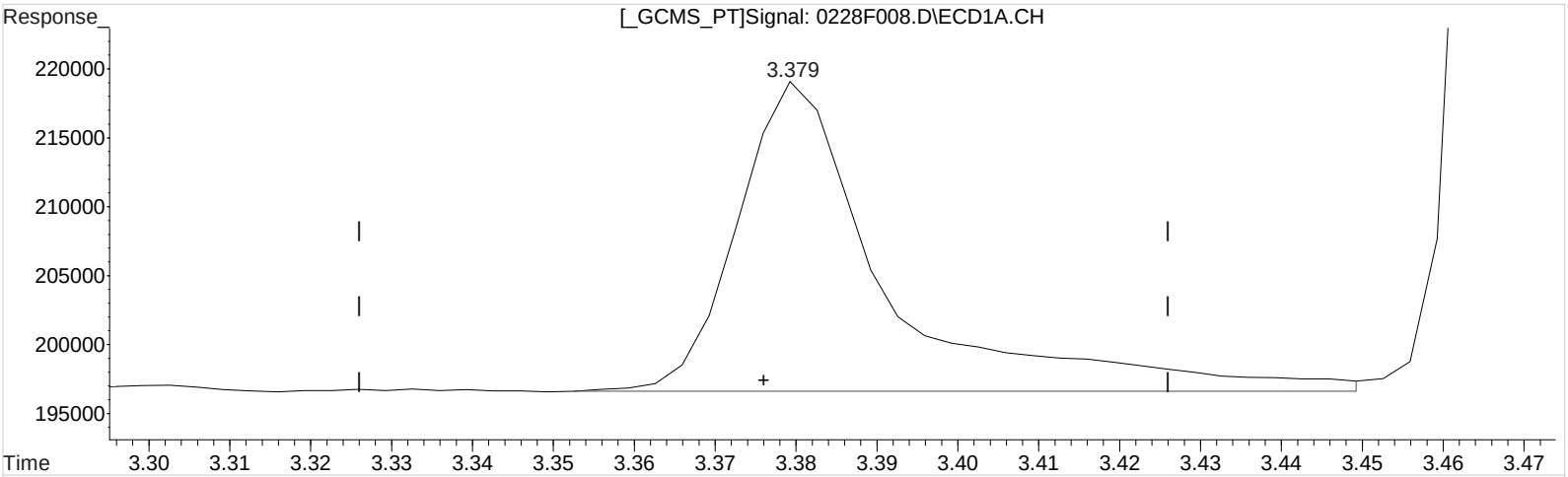
Quantitation Report (Qedit)

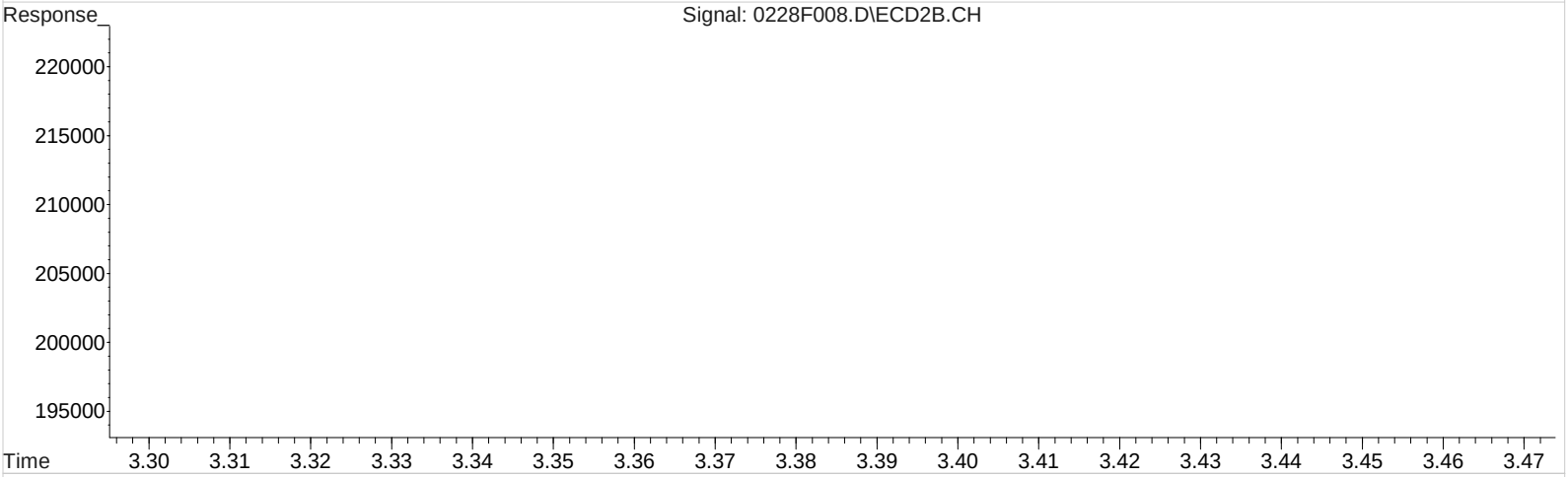
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 27.619 ug/L

response 287533

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 22.526 ug/L

response 371212

(+) = Expected Retention Time

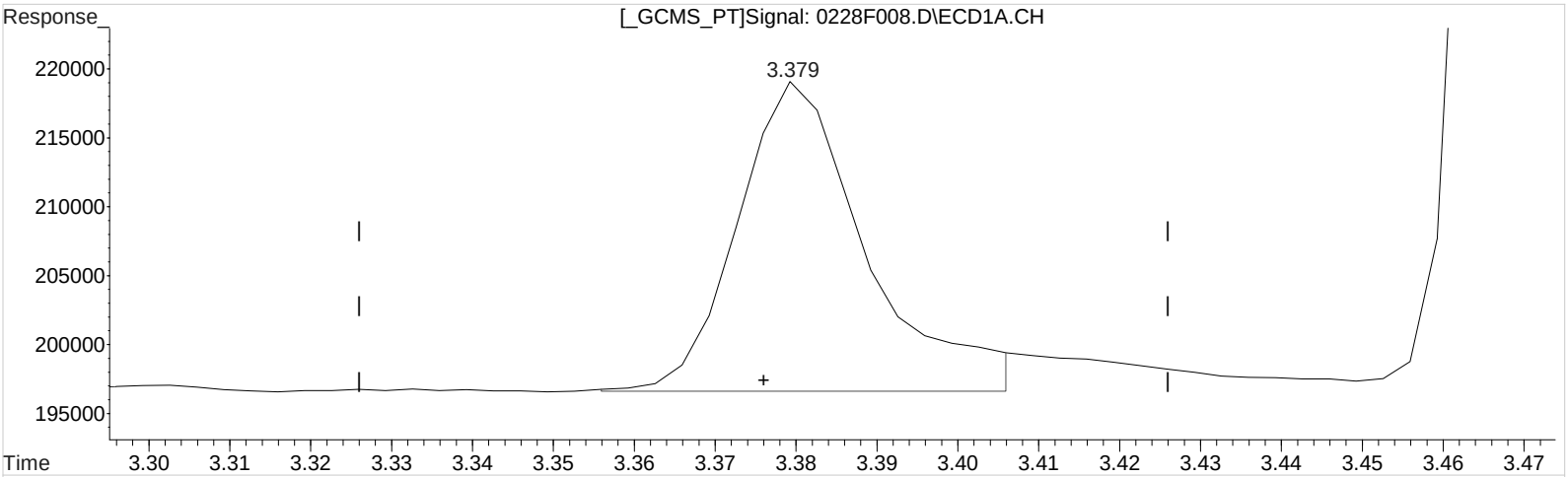
Quantitation Report (Qedit)

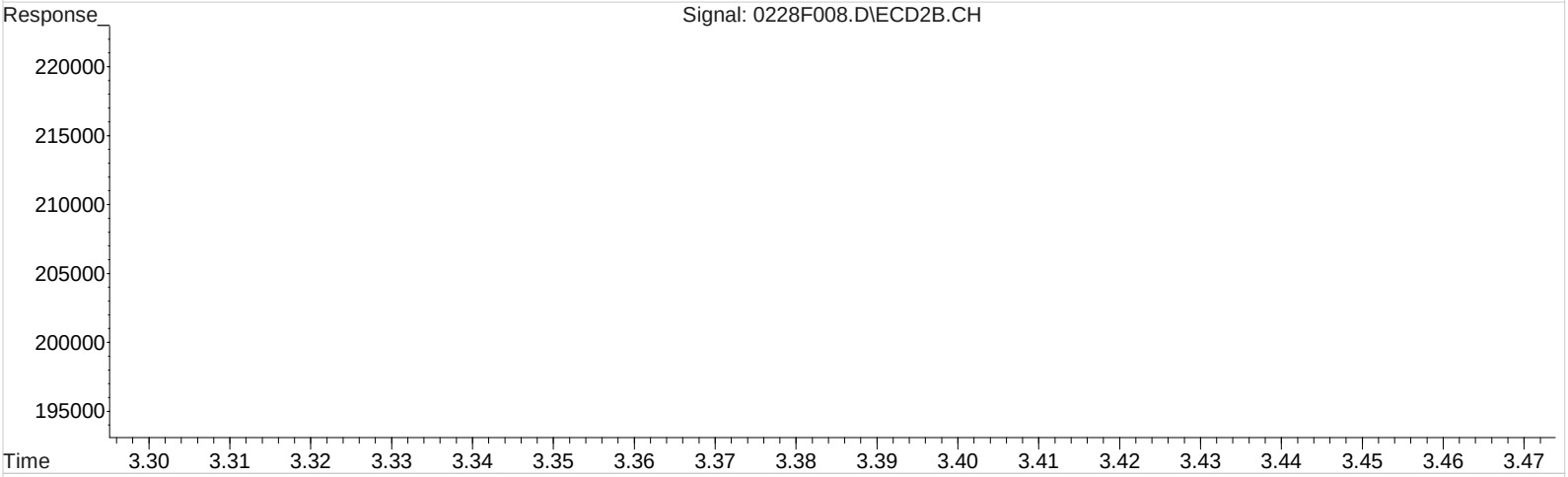
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 23.594 ug/L m

response 247686

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 22.526 ug/L

response 371212

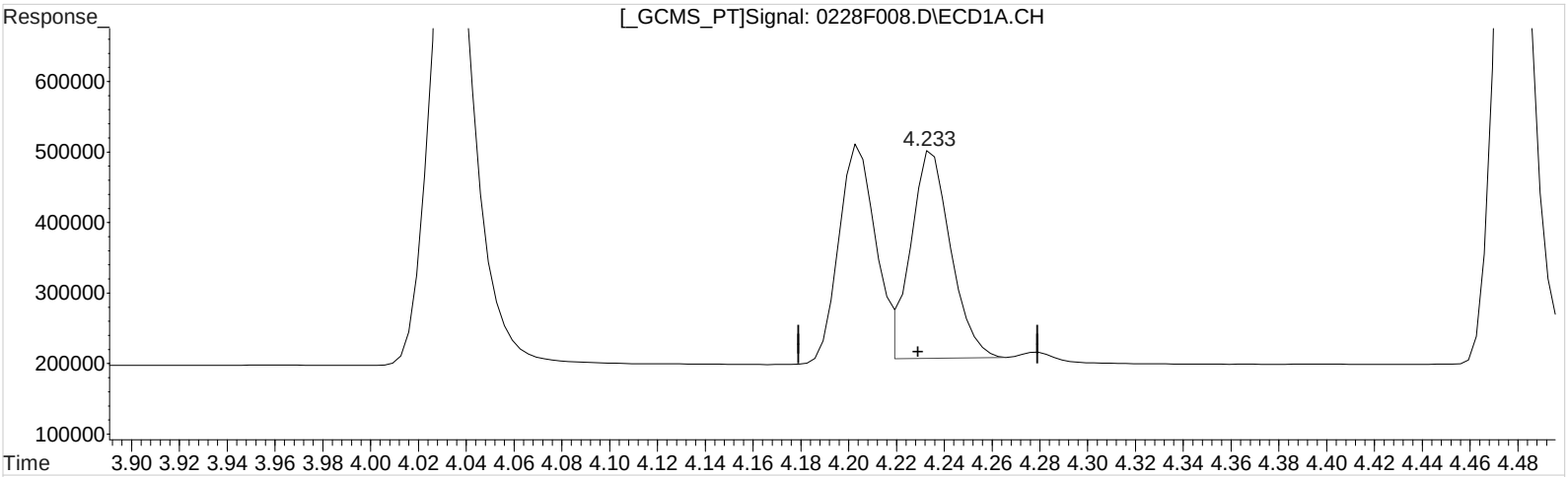
(+) = Expected Retention Time

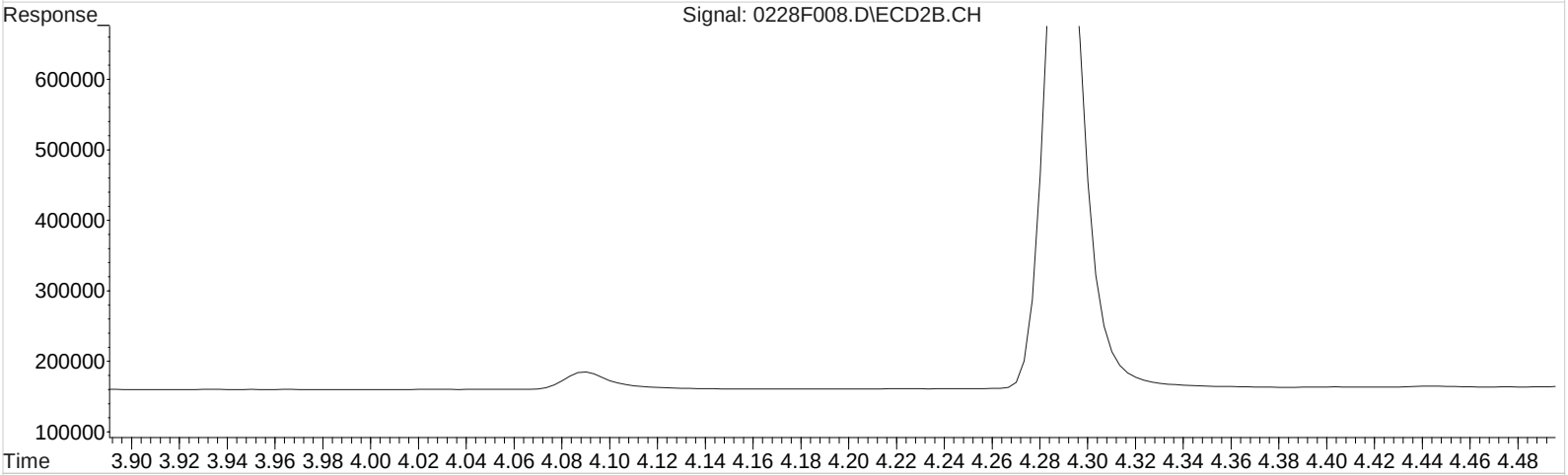
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 22.824 ug/L

response 3318986

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 21.539 ug/L

response 4043017

(+) = Expected Retention Time

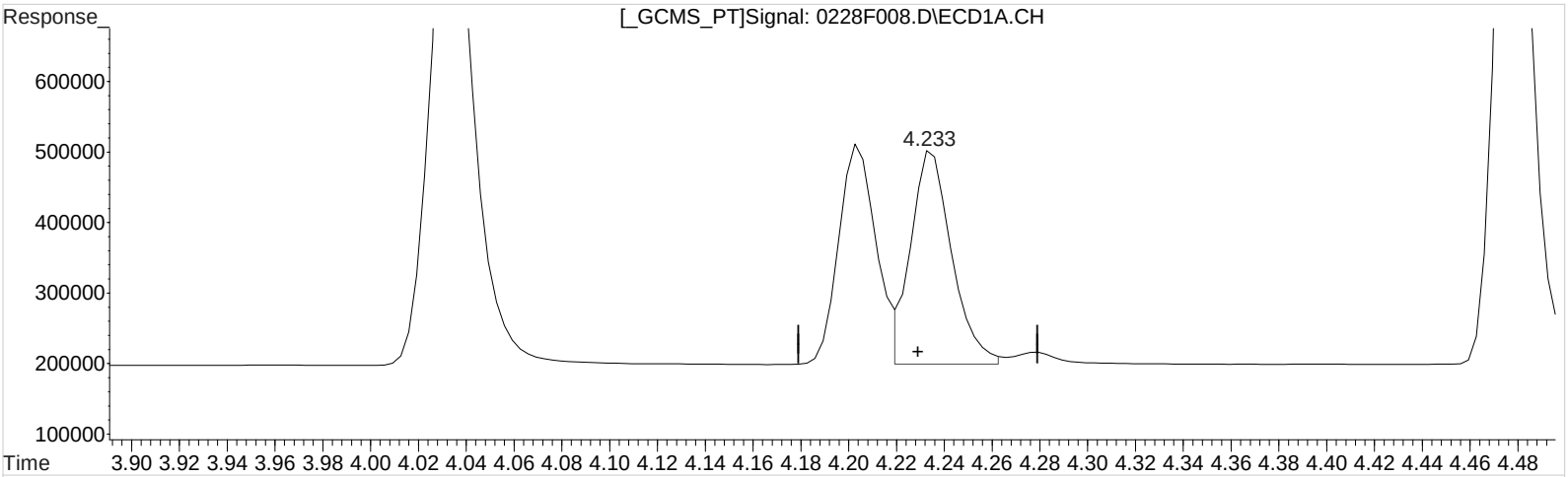
Quantitation Report (Qedit)

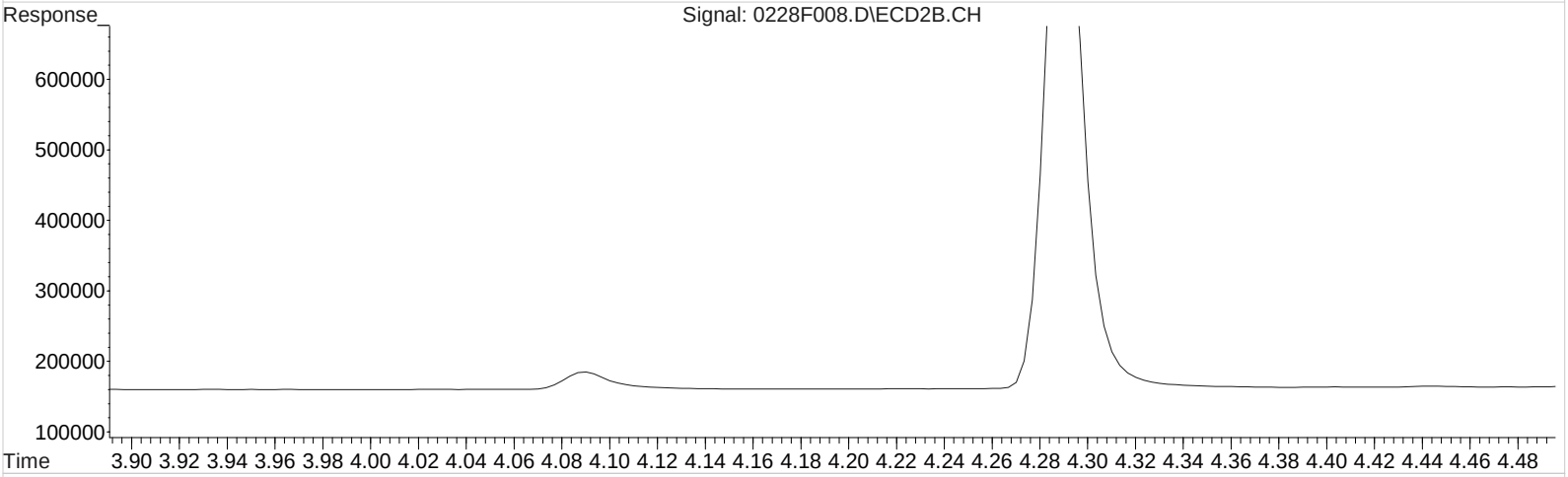
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 24.409 ug/L m

response 3537210

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 21.539 ug/L

response 4043017

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.034	4.718	18373800	22111030	53.653	50.866
		Target Compounds						
1)		3,4-Dichl...	3.137	3.831	717598	975860	47.710m	44.168
2)		3,5-Dichl...	3.380	4.088	527946	707614	52.883m	42.939
3)		2,4,6-Tri...	3.477	4.291	14477823	19027390	46.510	45.622
5)		2,4,5-Tri...	4.204	4.784	6258374	8346897	46.243	41.763
6)		3,4,5-Tri...	4.234	4.848	6723516	8022672	48.287m	42.741
7)	M	2,3,5,6-T...	4.477	5.078	20376062	27736415	42.806	44.938
8)	M	2,3,4,5-T...	5.017	5.474	14199642	17989254	46.931	43.566
9)	M	Pentachlo...	5.154	5.658	23456614	30413144	51.593	44.234
10)		Pentachlo...	5.154	5.658	23456614	30413144	54.305	46.582

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

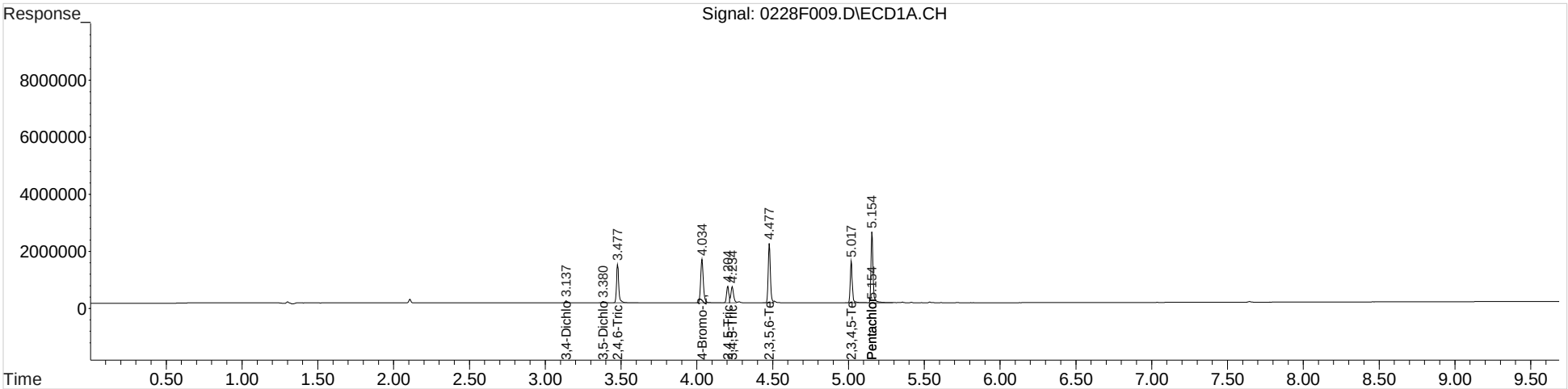
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



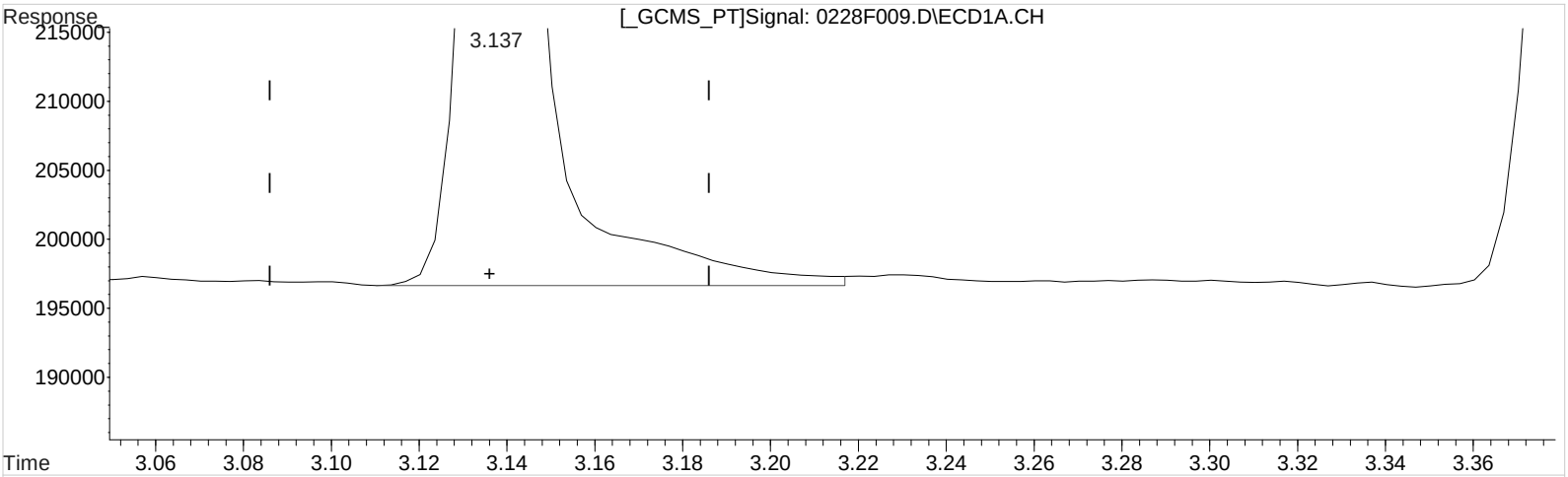
Quantitation Report (Qedit)

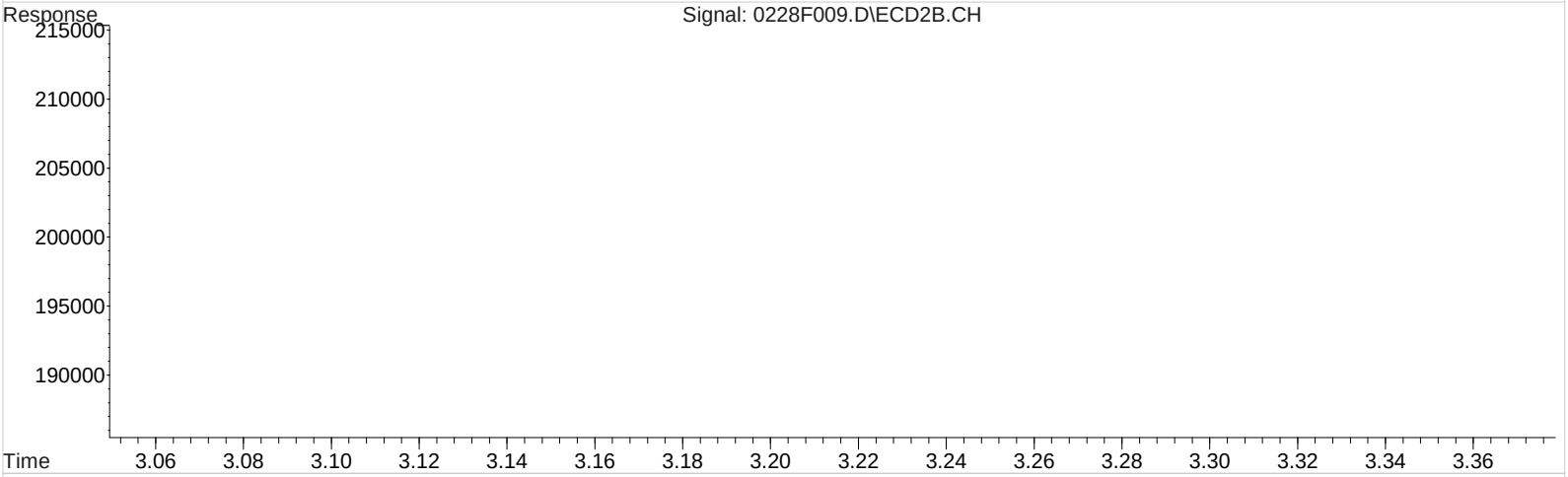
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 51.582 ug/L

response 771918

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 44.168 ug/L

response 975860

(+) = Expected Retention Time

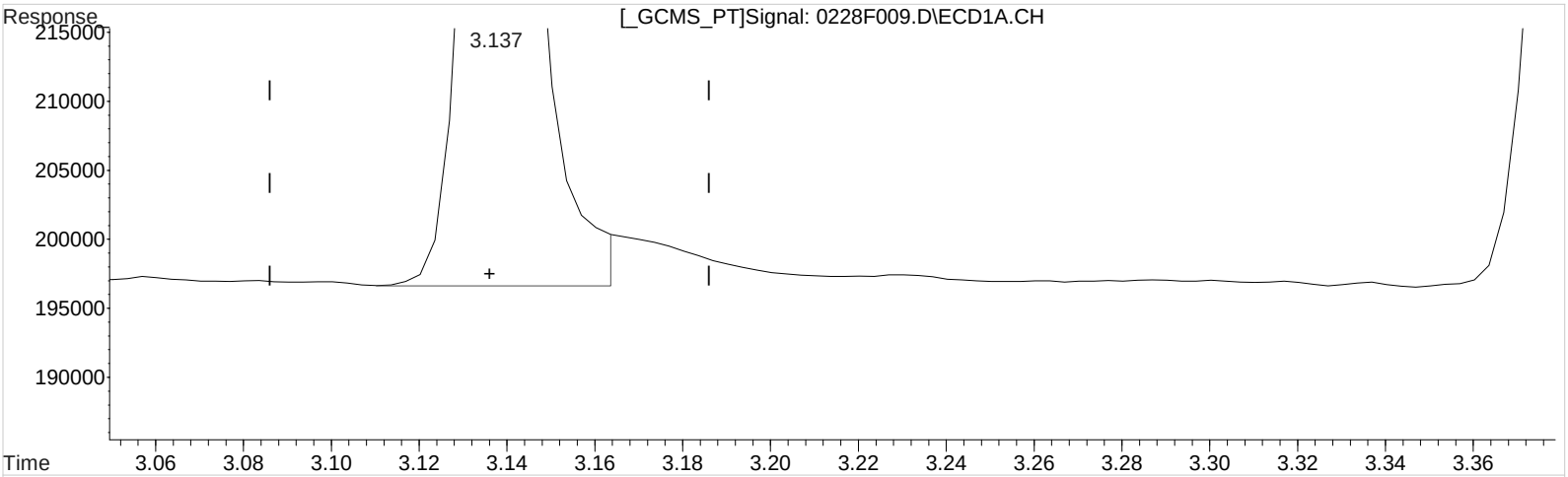
Quantitation Report (Qedit)

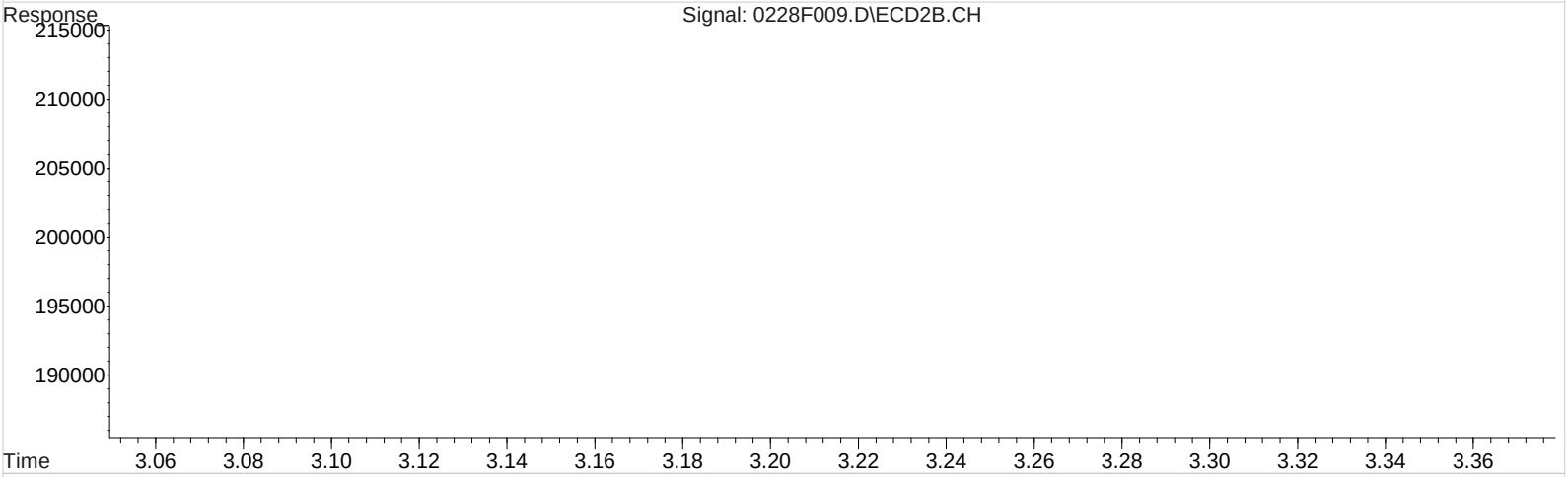
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 47.710 ug/L m

response 717598

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 44.168 ug/L

response 975860

(+) = Expected Retention Time

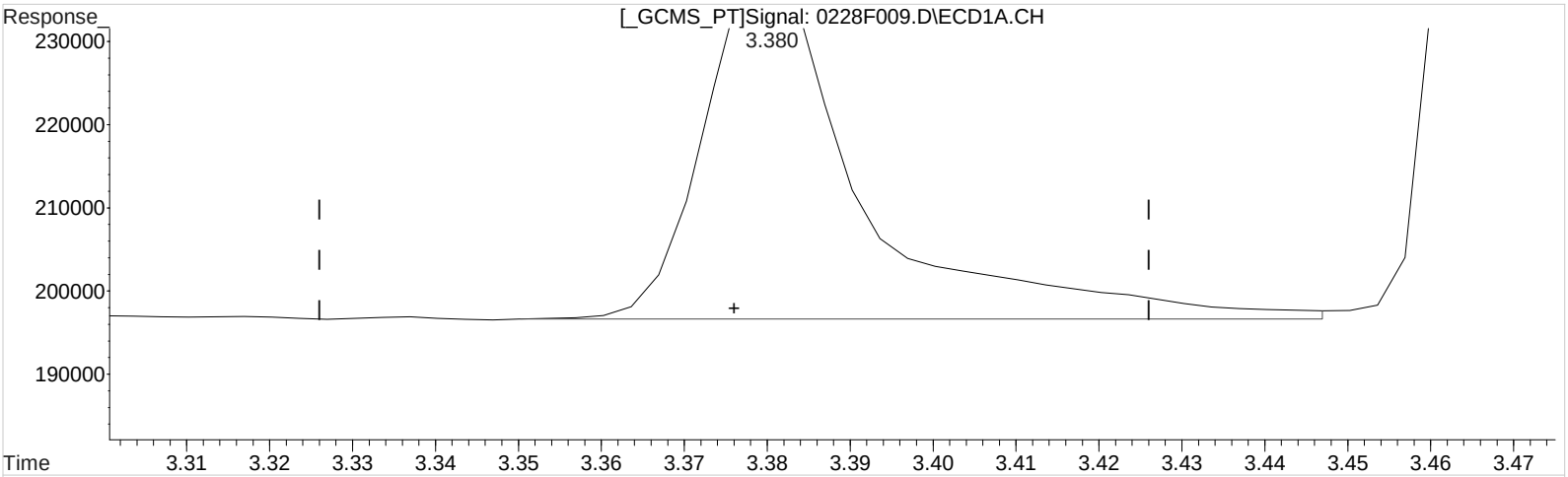
Quantitation Report (Qedit)

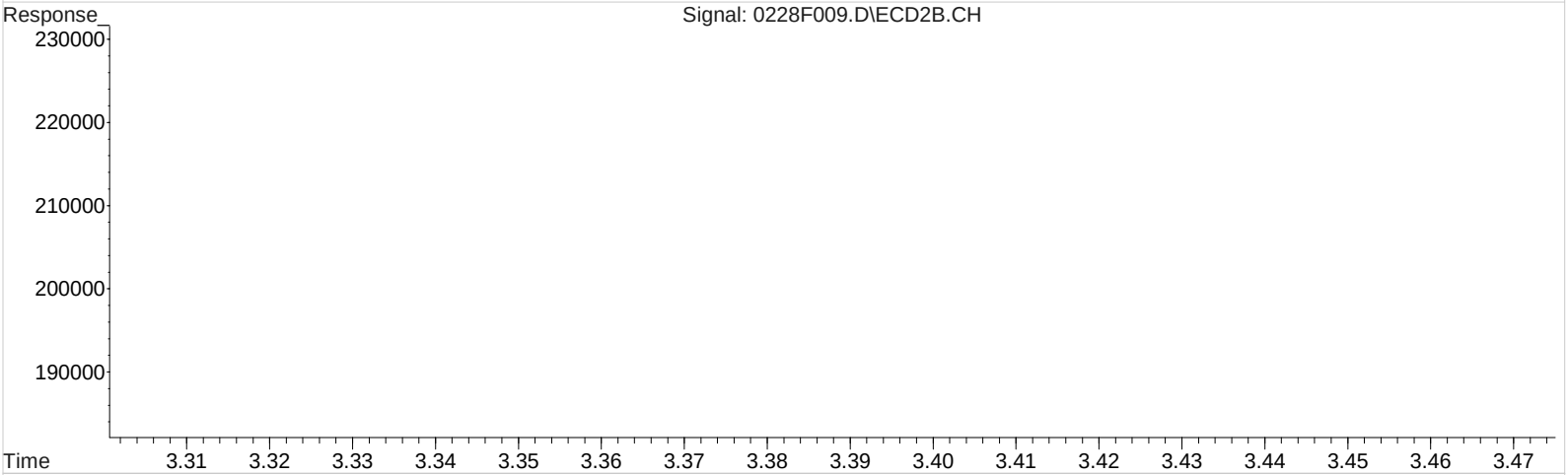
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 55.786 ug/L

response 554512

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 42.939 ug/L

response 707614

(+) = Expected Retention Time

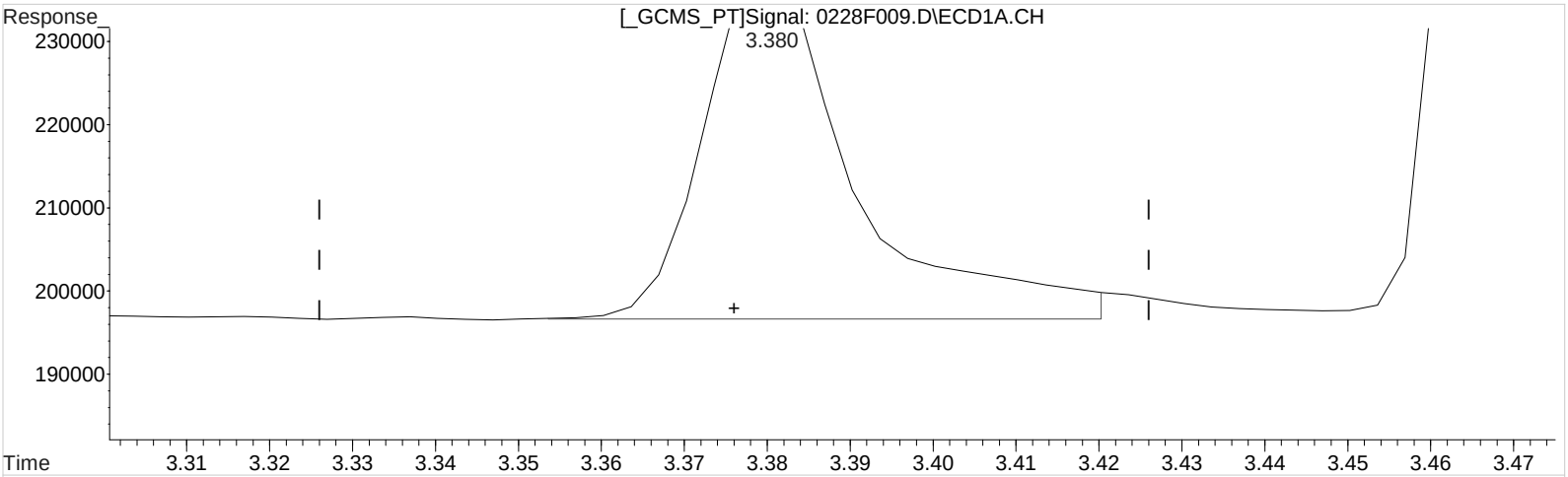
Quantitation Report (Qedit)

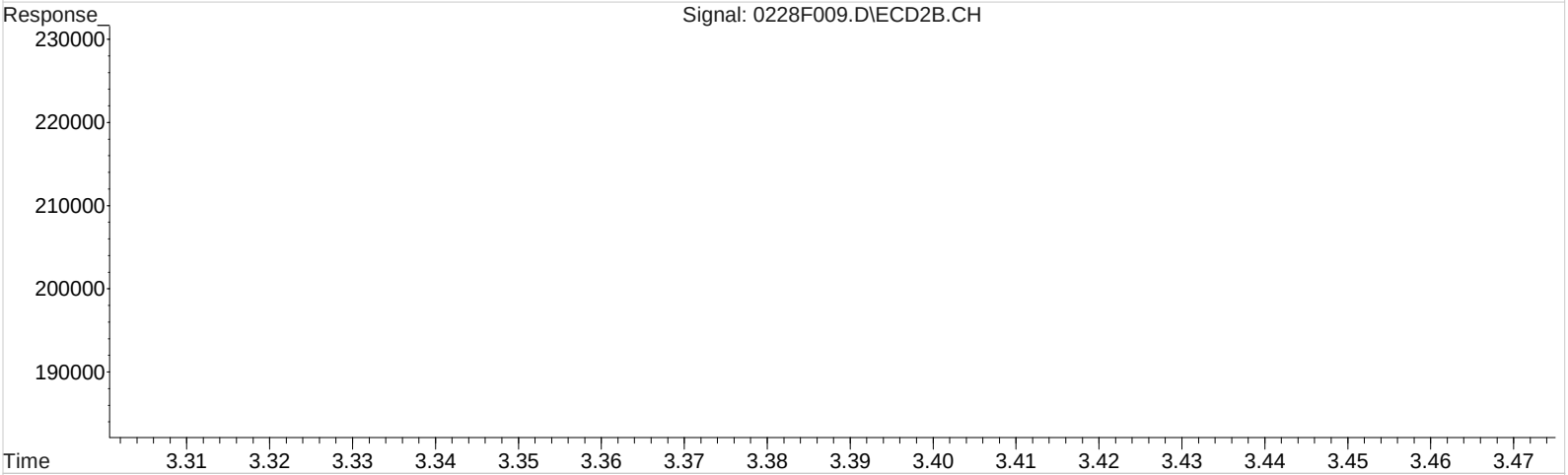
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 52.883 ug/L m

response 527946

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 42.939 ug/L

response 707614

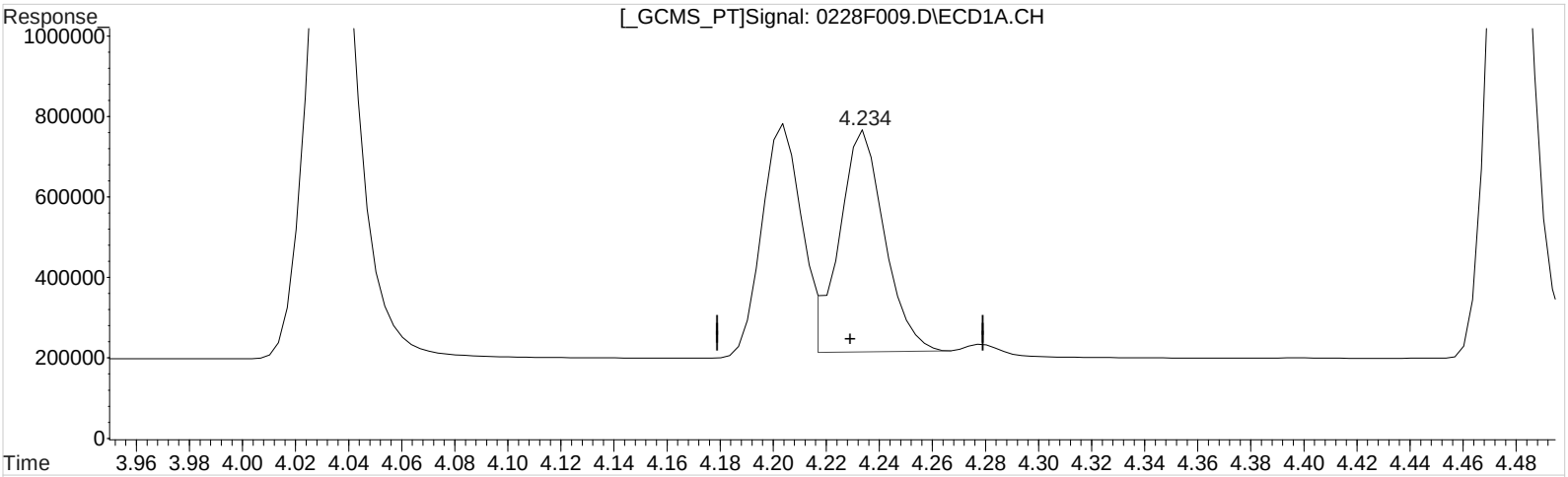
(+) = Expected Retention Time

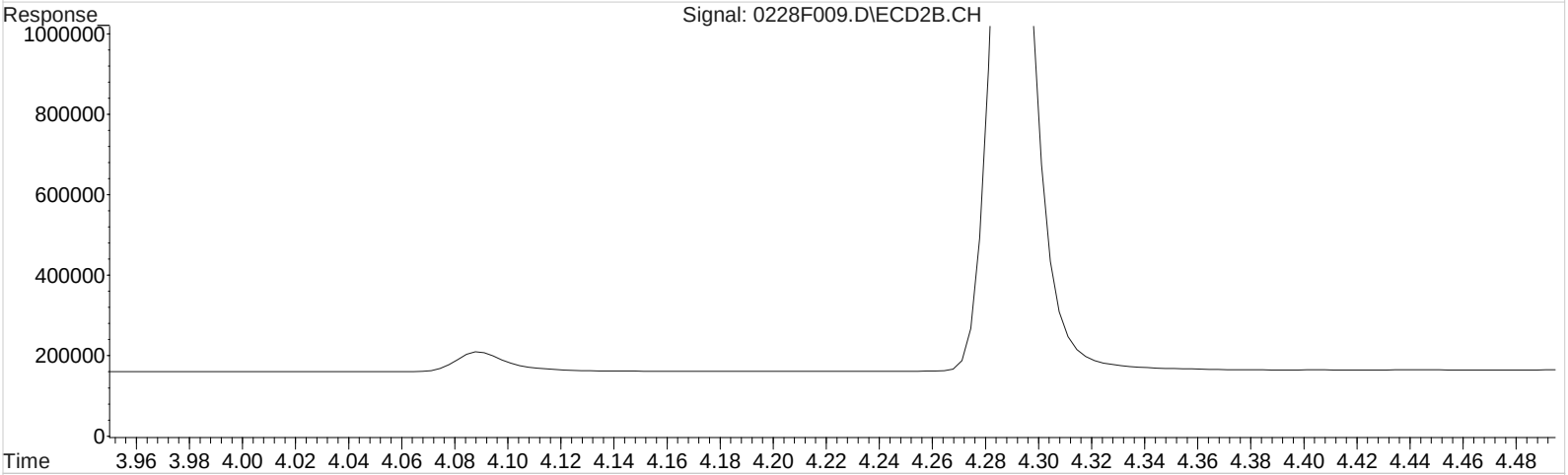
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.234min 45.176 ug/L

response 6319301

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.848min 42.741 ug/L

response 8022672

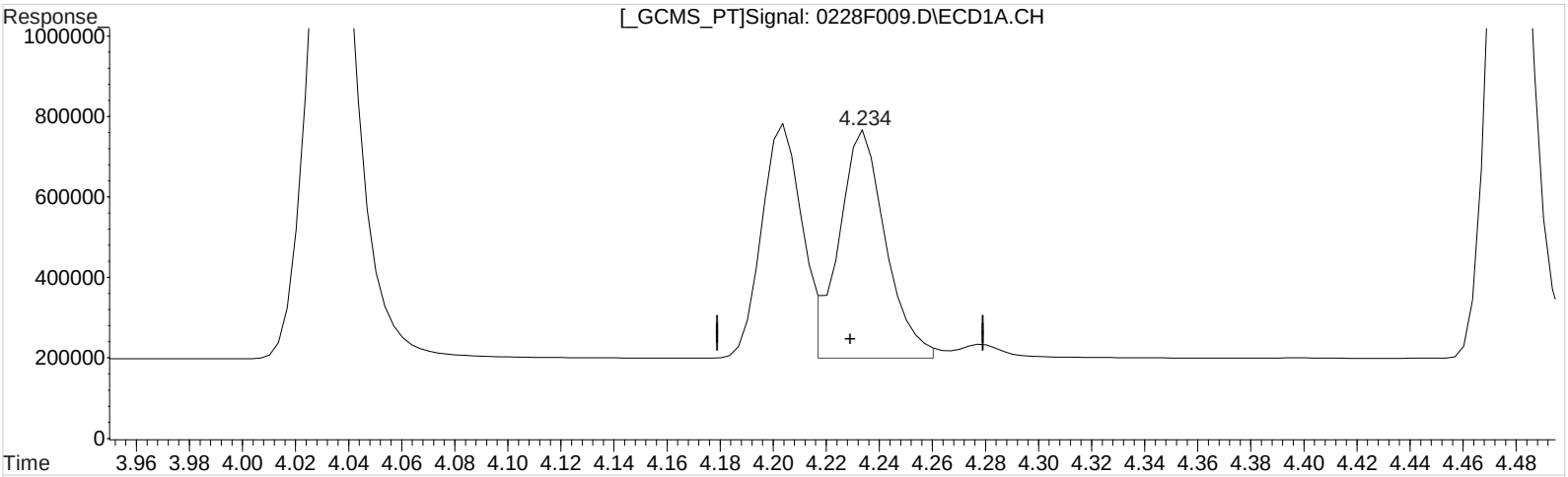
(+) = Expected Retention Time

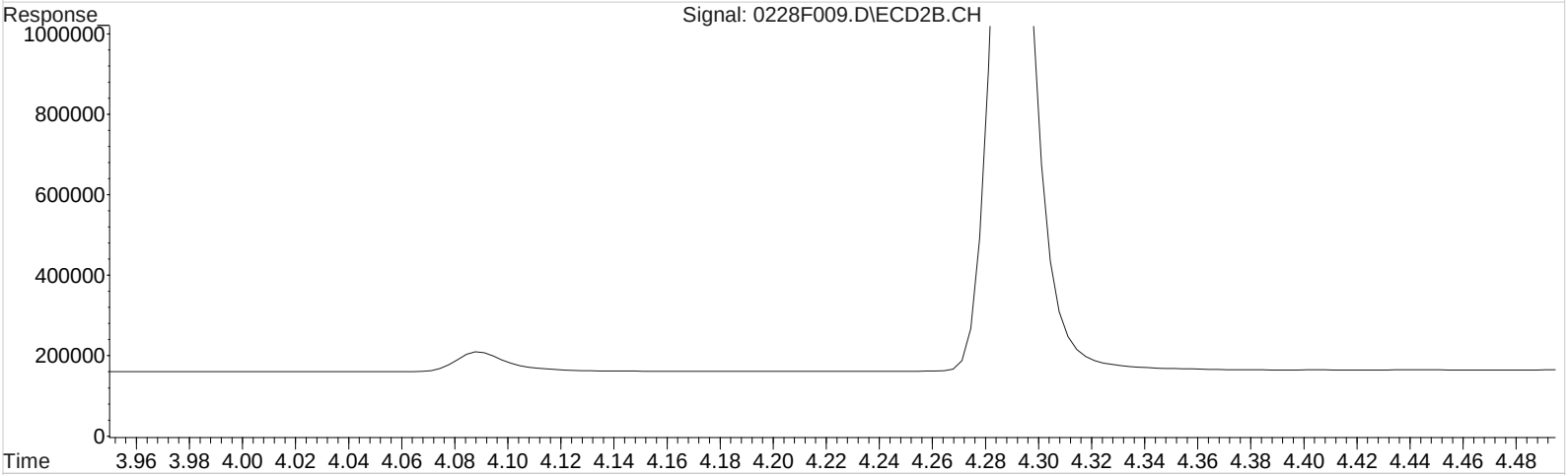
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.234min 48.287 ug/L m

response 6723516

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.848min 42.741 ug/L

response 8022672

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:22:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.032	4.719	34413155	43435506	102.249	99.922
	Target Compounds						
1)	3,4-Dichl...	3.138	3.833	1331525	1763970	93.560	79.838
2)	3,5-Dichl...	3.378	4.089	862010	1296503	91.350m	78.674
3)	2,4,6-Tri...	3.478	4.289	26311215	36325037	88.628	87.097
5)	2,4,5-Tri...	4.202	4.783	11366036	15617448	89.447	78.141
6)	3,4,5-Tri...	4.232	4.846	11877626	15048739	90.412	80.172
7) M	2,3,5,6-T...	4.478	5.079	37783526	53764292	79.375	87.108
8) M	2,3,4,5-T...	5.018	5.476	26302592	34720321	92.085	84.084
9) M	Pentachlo...	5.155	5.659	44955036	59841010	100.762	87.035
10)	Pentachlo...	5.155	5.659	44955036	59841010	106.058	91.655

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

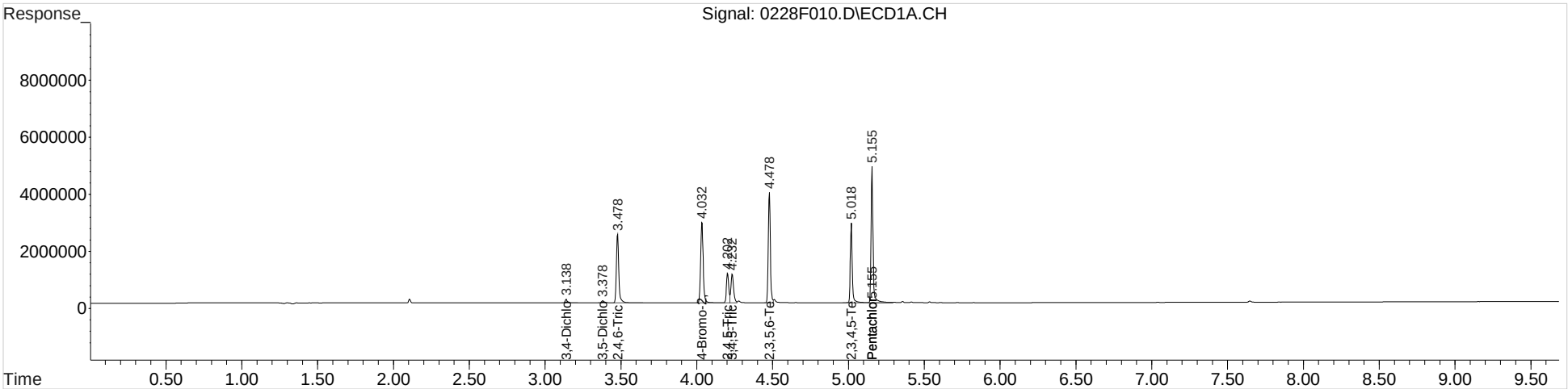
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:22:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

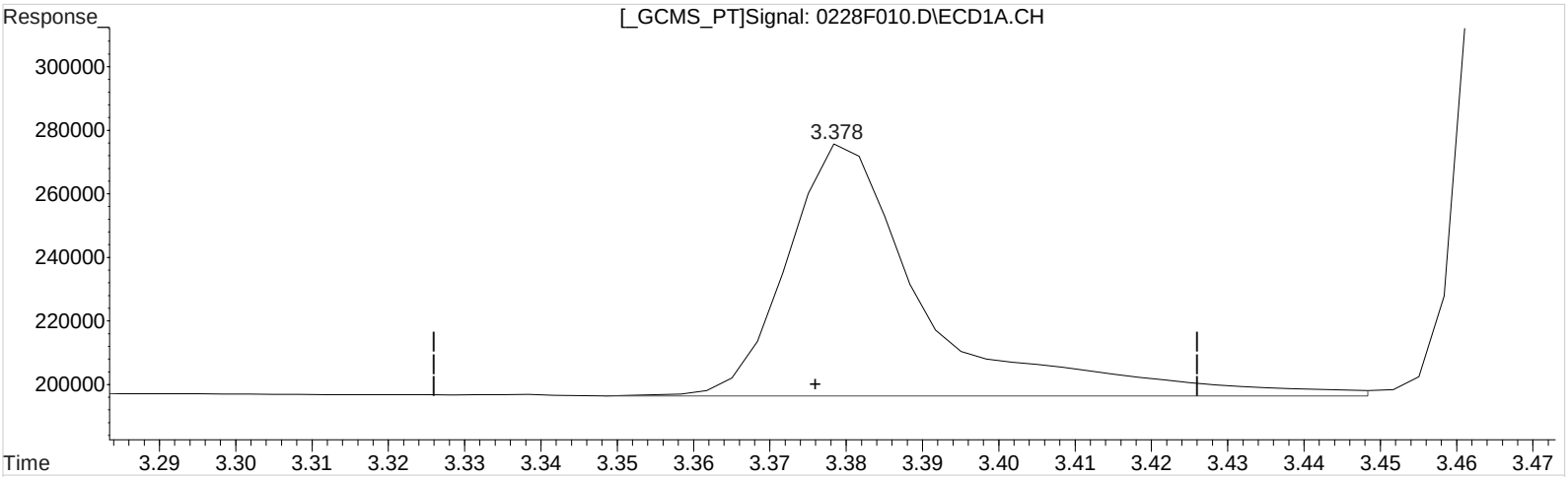


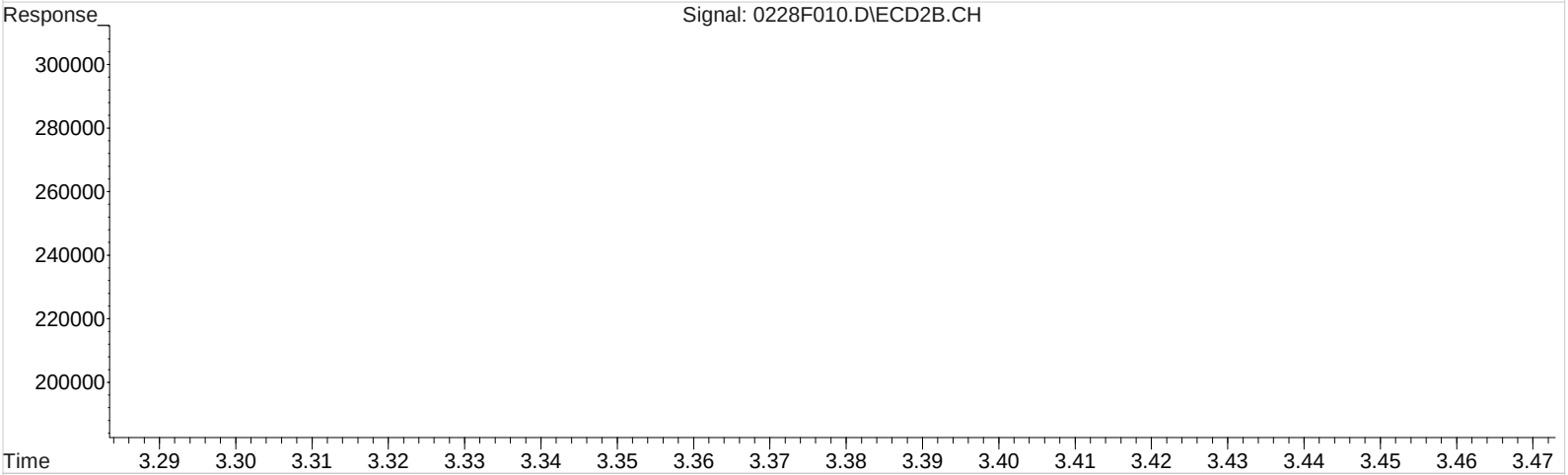
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 107.753 ug/L

response 992711

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 78.674 ug/L

response 1296503

(+) = Expected Retention Time

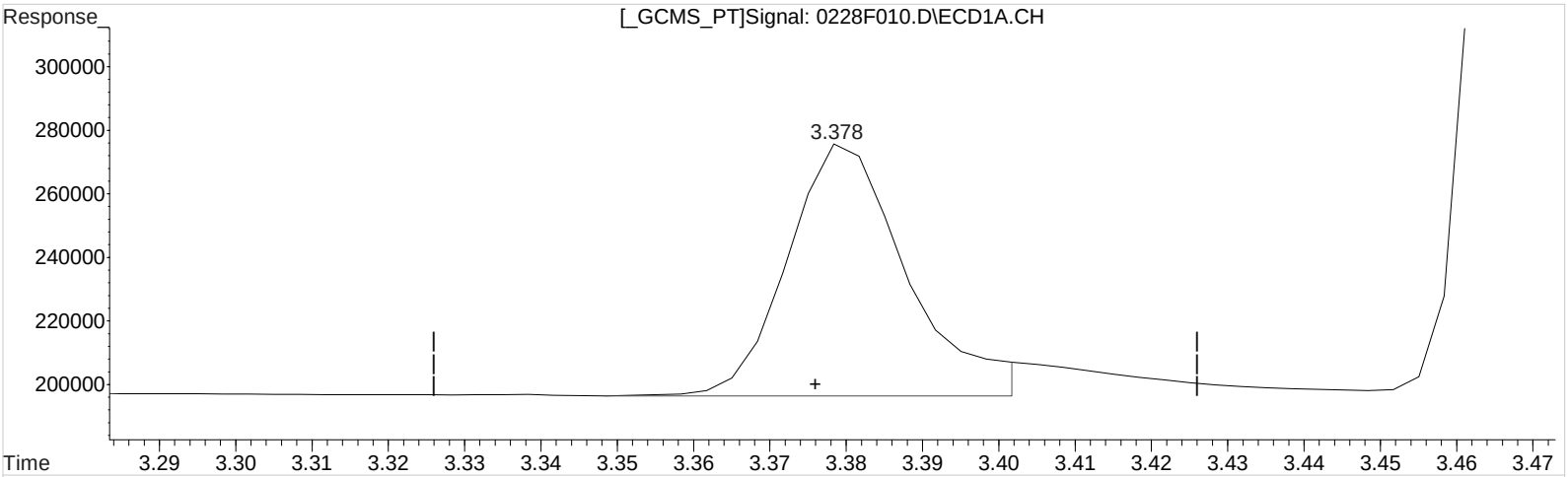
Quantitation Report (Qedit)

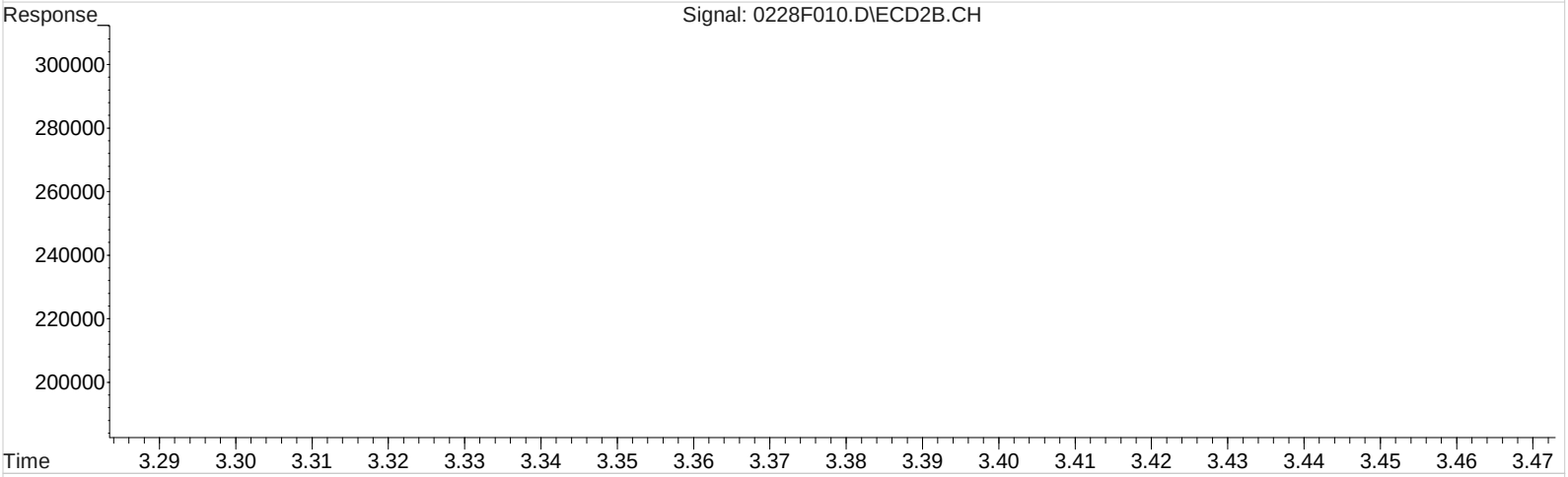
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 91.350 ug/L m

response 862010

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 78.674 ug/L

response 1296503

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:40:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.032	4.720	81814734	111.2E6	251.811	255.909	
		Target Compounds							
1)		3,4-Dichl...	3.139	3.833	2857364	4032207	239.203m	182.500	
2)		3,5-Dichl...	3.379	4.090	1819808	2874954	247.123m	174.458	#
3)		2,4,6-Tri...	3.479	4.290	60385111	91468356	241.870	219.315	
5)		2,4,5-Tri...	4.202	4.783	24998272	37739444	250.979	188.827	
6)		3,4,5-Tri...	4.232	4.846	25742104	36413226	245.950m	193.992	
7)	M	2,3,5,6-T...	4.479	5.076	86546934	134.6E6	181.817	218.076	
8)	M	2,3,4,5-T...	5.016	5.473	58240789	85792304	243.632	207.768	
9)	M	Pentachlo...	5.152	5.656	102.6E6	149.9E6	237.563	218.038	
10)		Pentachlo...	5.152	5.656	102.6E6	149.9E6	250.048	229.611	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

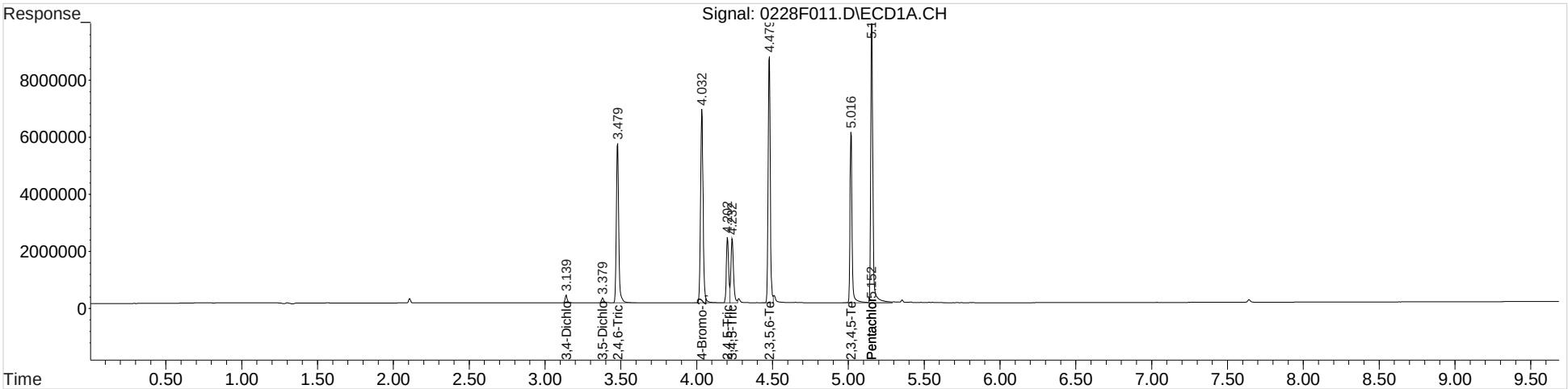
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:40:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

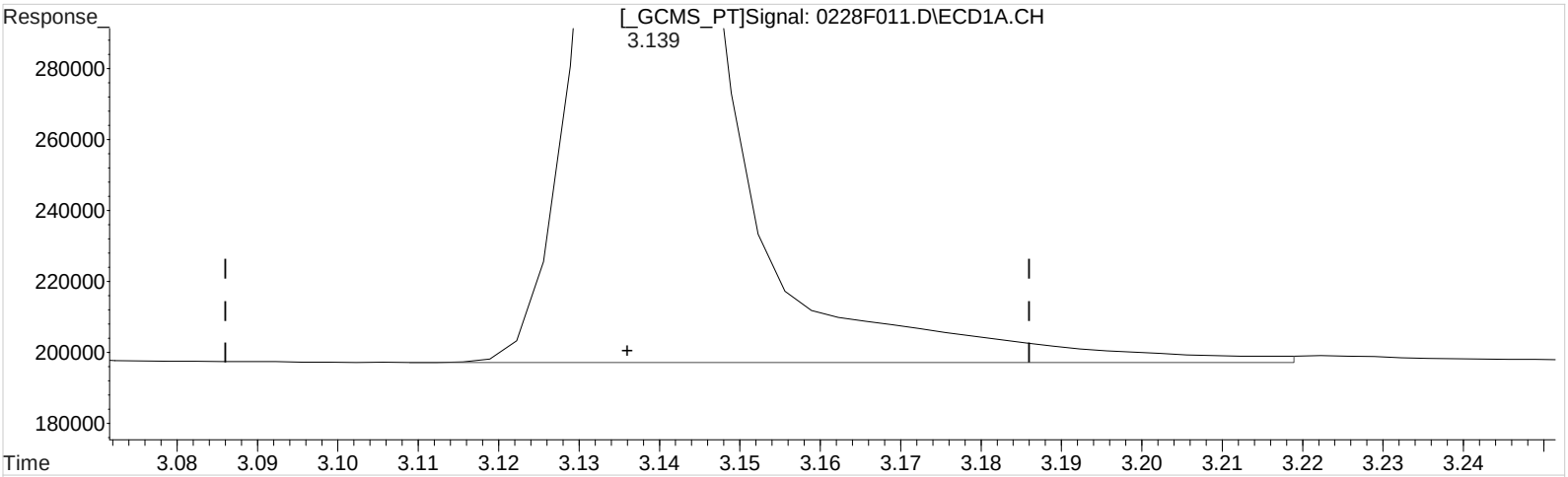


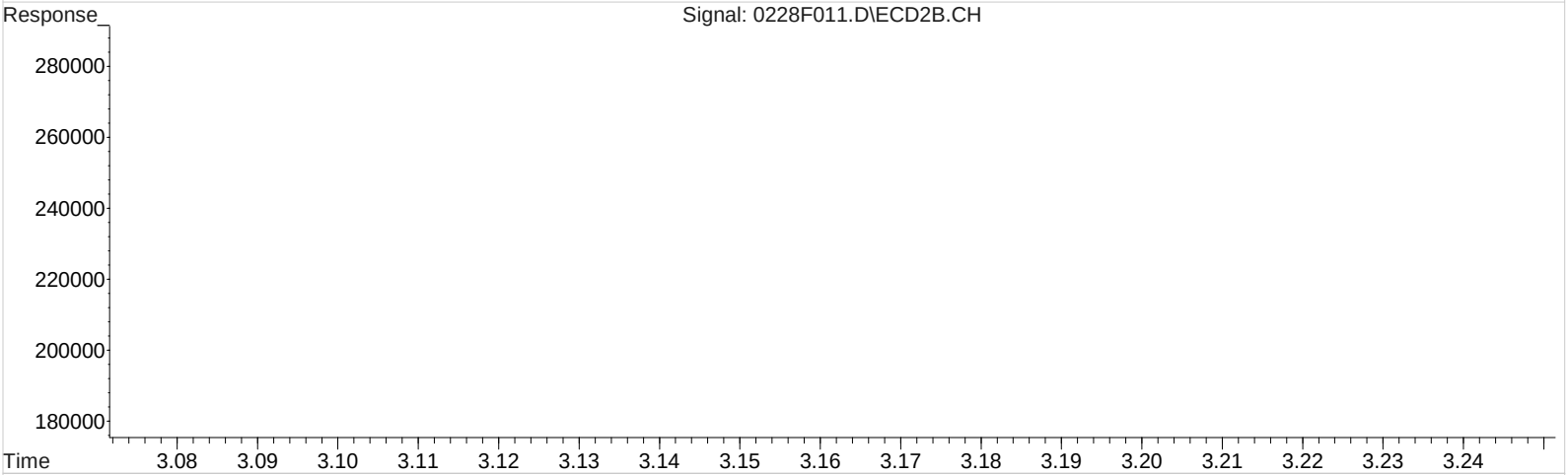
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 239.087 ug/L

response 2856406

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 182.500 ug/L

response 4032207

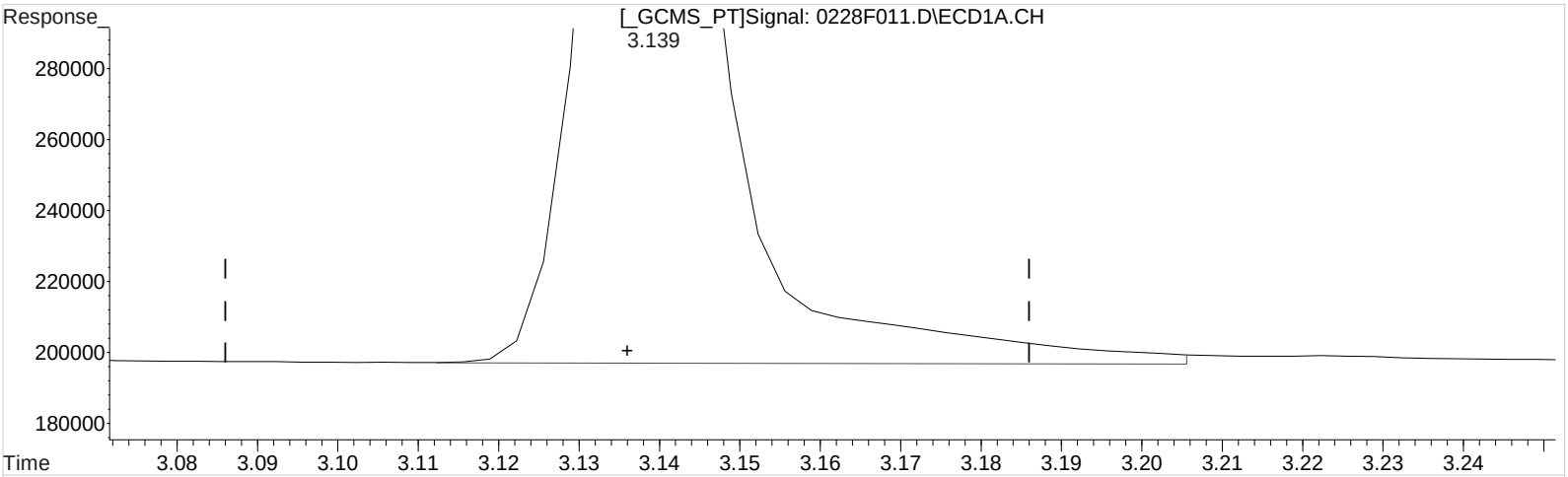
(+) = Expected Retention Time

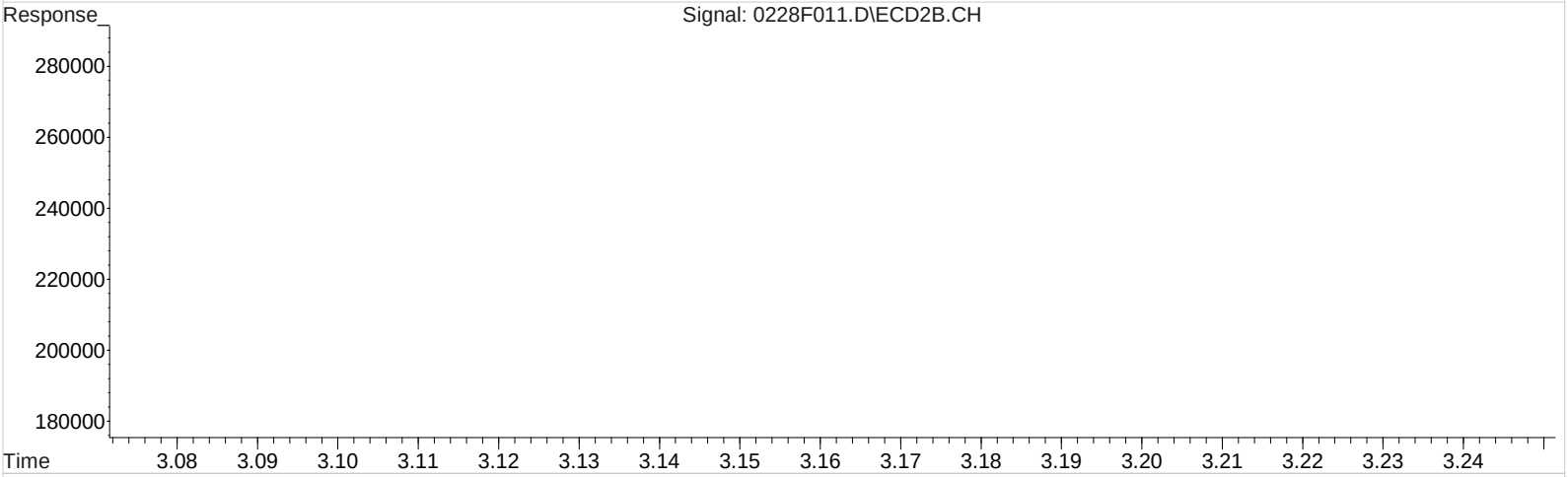
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 239.203 ug/L m

response 2857364

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 182.500 ug/L

response 4032207

(+) = Expected Retention Time

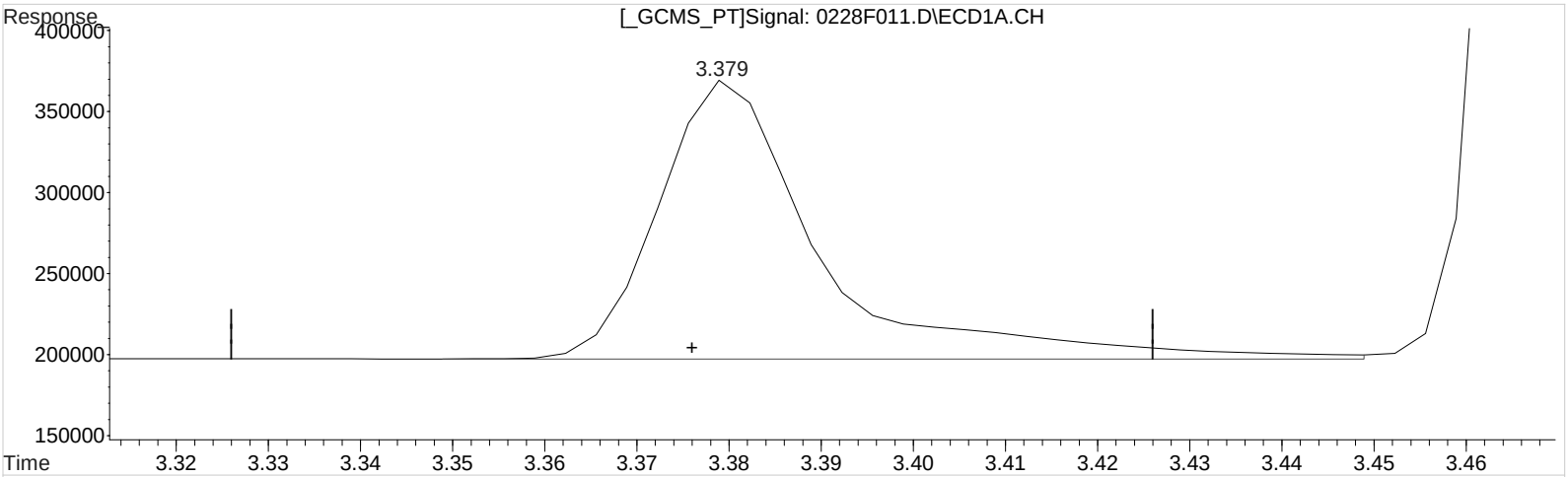
Quantitation Report (Qedit)

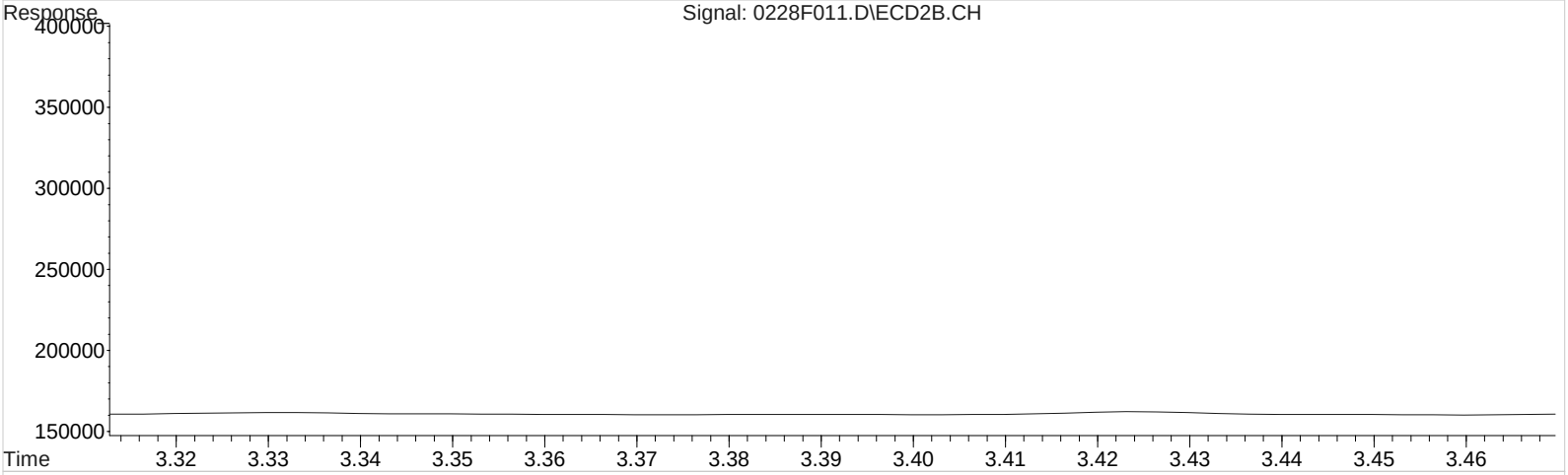
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 331.758 ug/L

response 2074587

(2) 3,5-Dichlorophenol #2

4.090min 174.458 ug/L

response 2874954

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

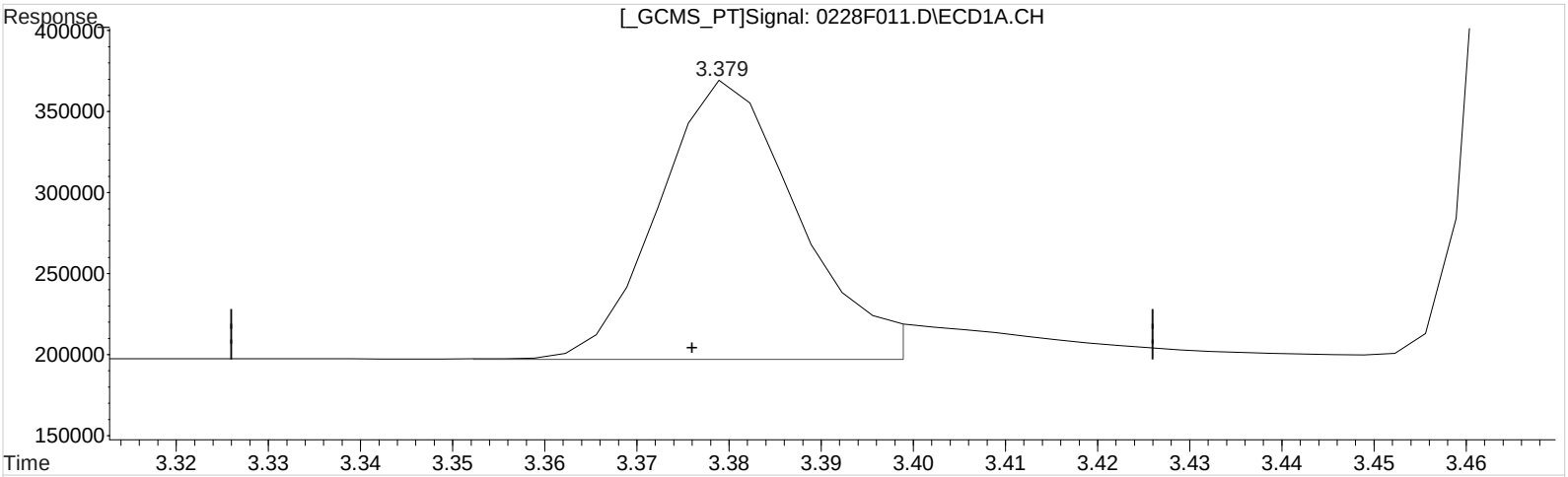
Quantitation Report (Qedit)

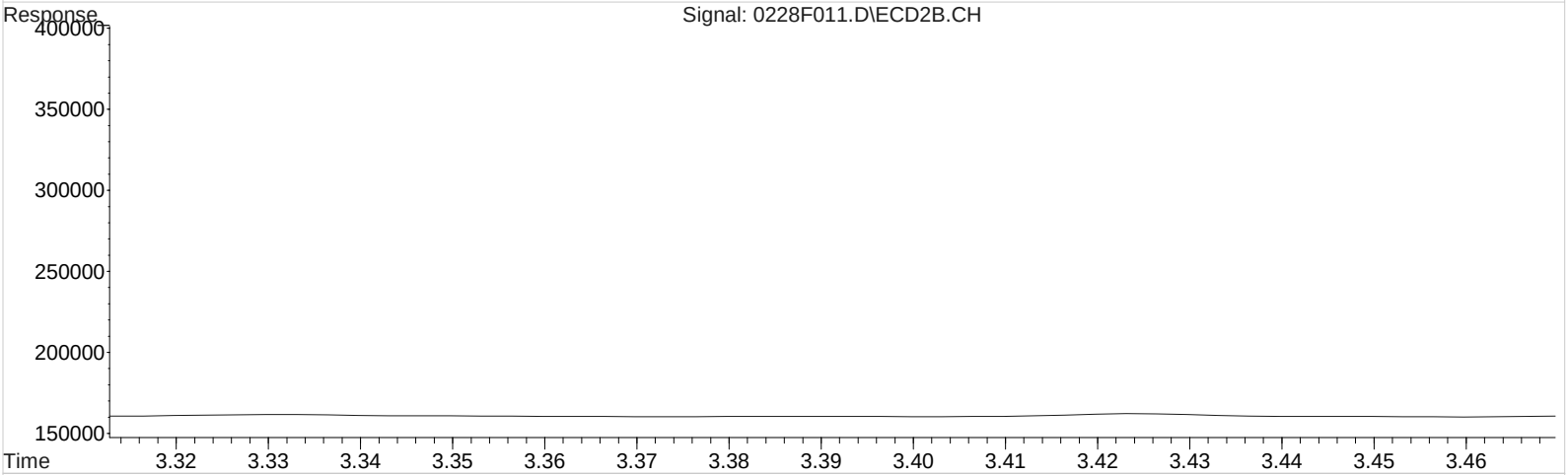
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 247.123 ug/L m

response 1819808

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 174.458 ug/L

response 2874954

(+) = Expected Retention Time

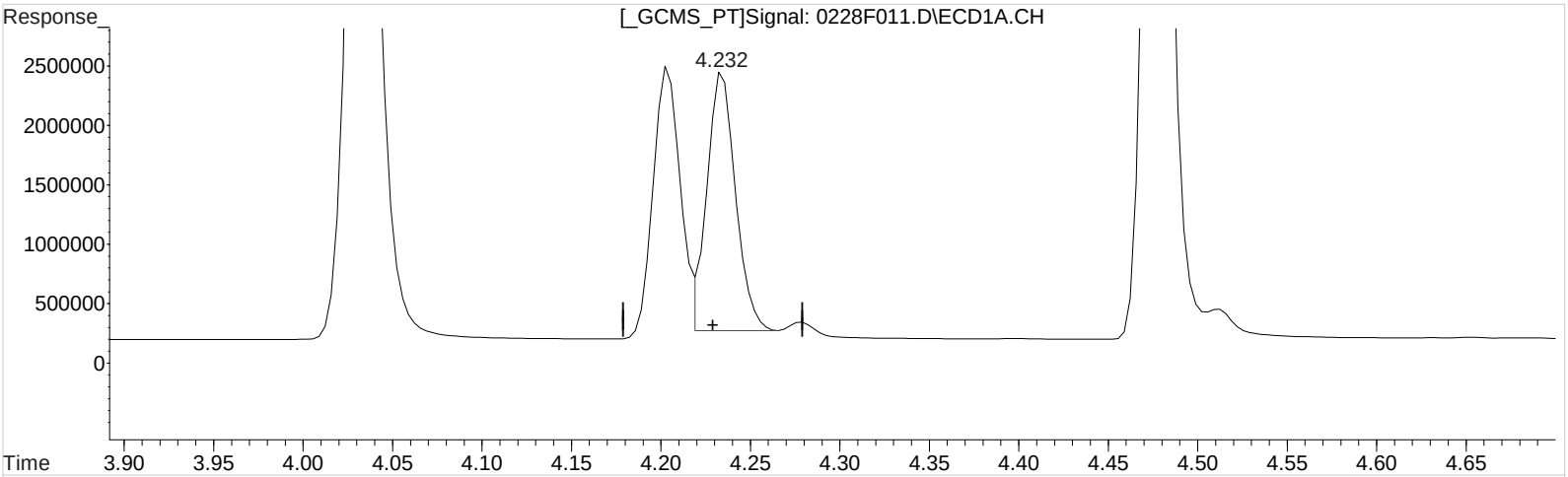
Quantitation Report (Qedit)

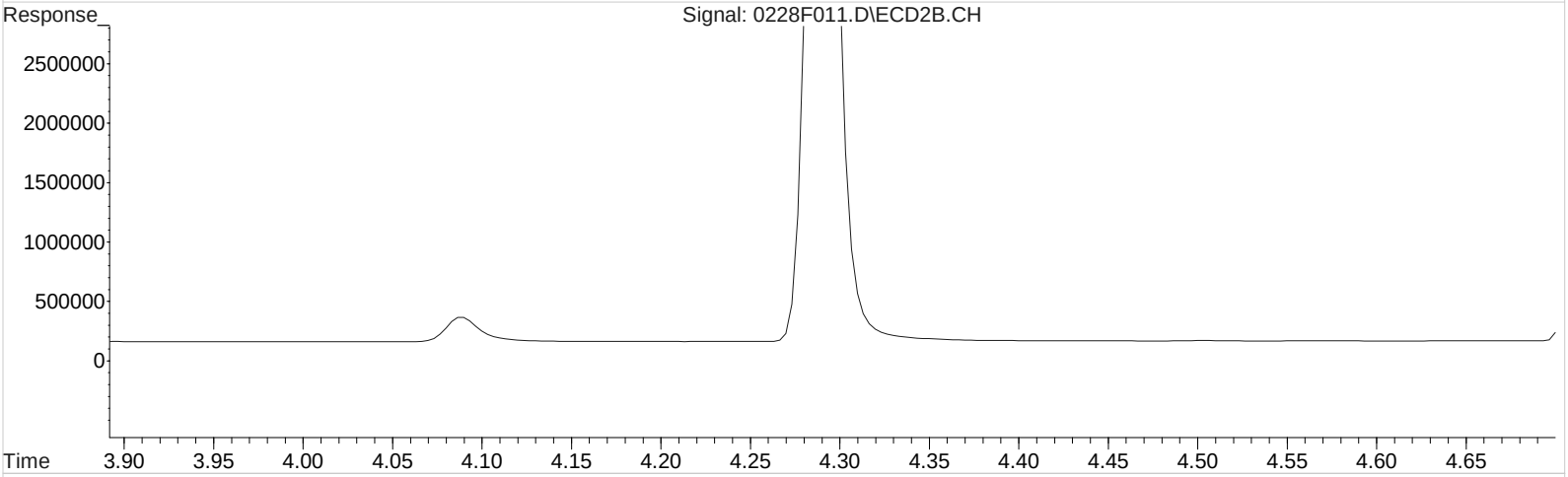
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min 214.424 ug/L

response 23588772

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.846min 193.992 ug/L

response 36413226

(+) = Expected Retention Time

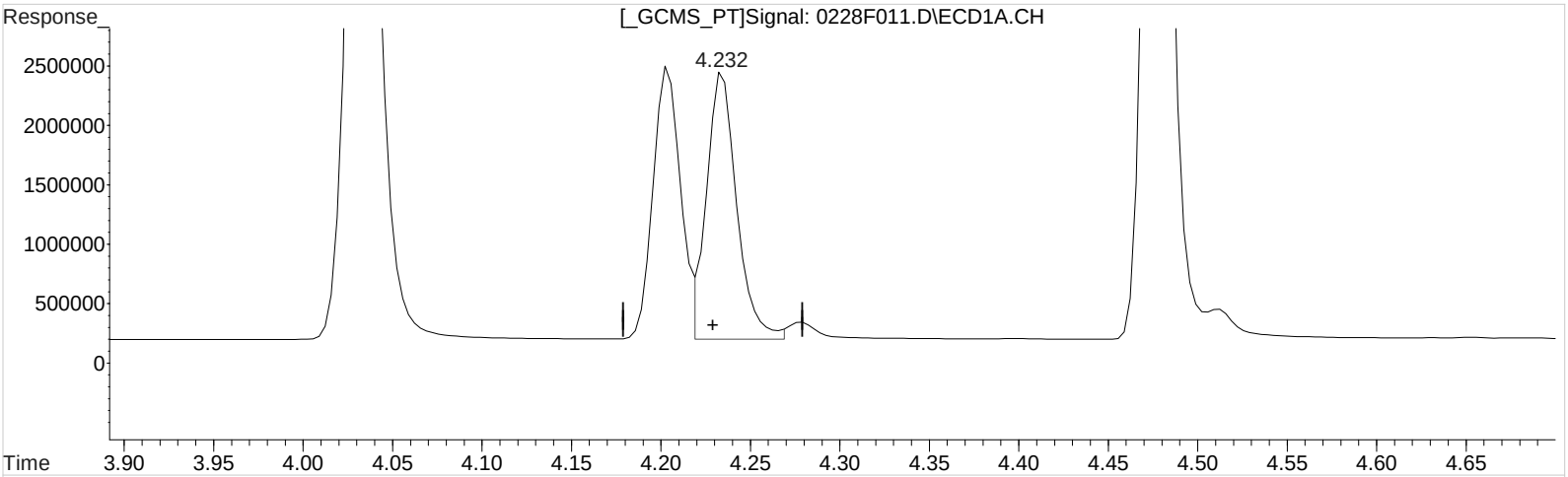
Quantitation Report (Qedit)

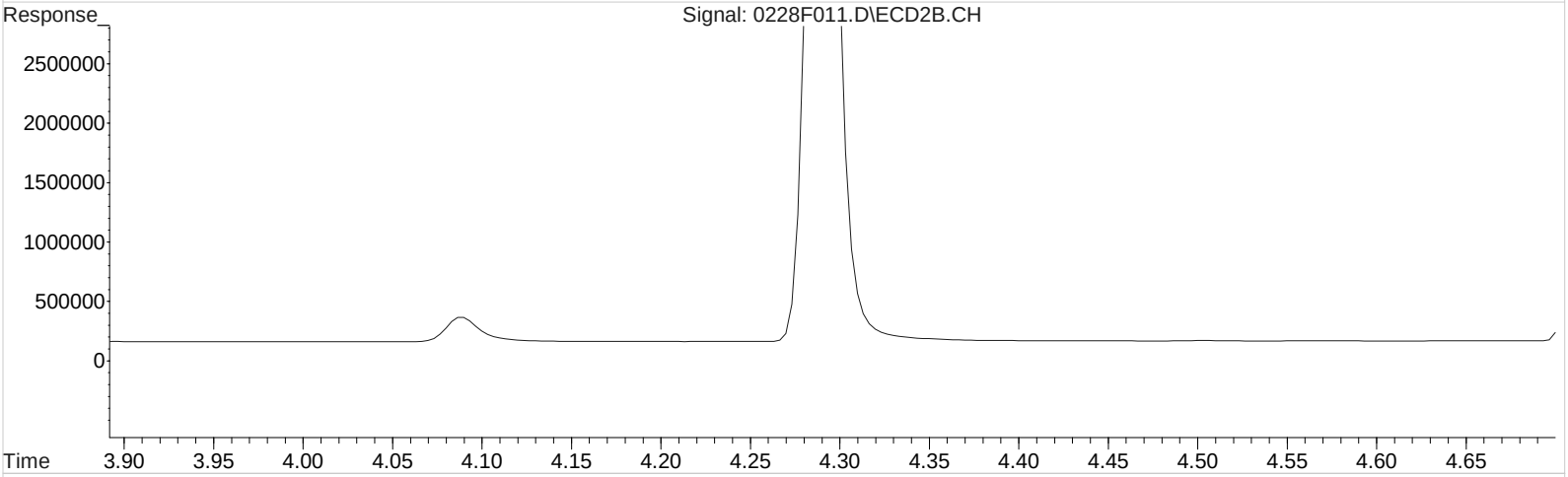
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min 245.950 ug/L m

response 25742104

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.846min 193.992 ug/L

response 36413226

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:02:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.034	4.718	148.9E6	219.7E6	481.796	505.496
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D. d
9)	M	Pentachlo...	5.154	5.658	187.0E6	302.6E6	453.396	440.083
10)		Pentachlo...	5.154	5.658	187.0E6	302.6E6	477.226	463.441

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

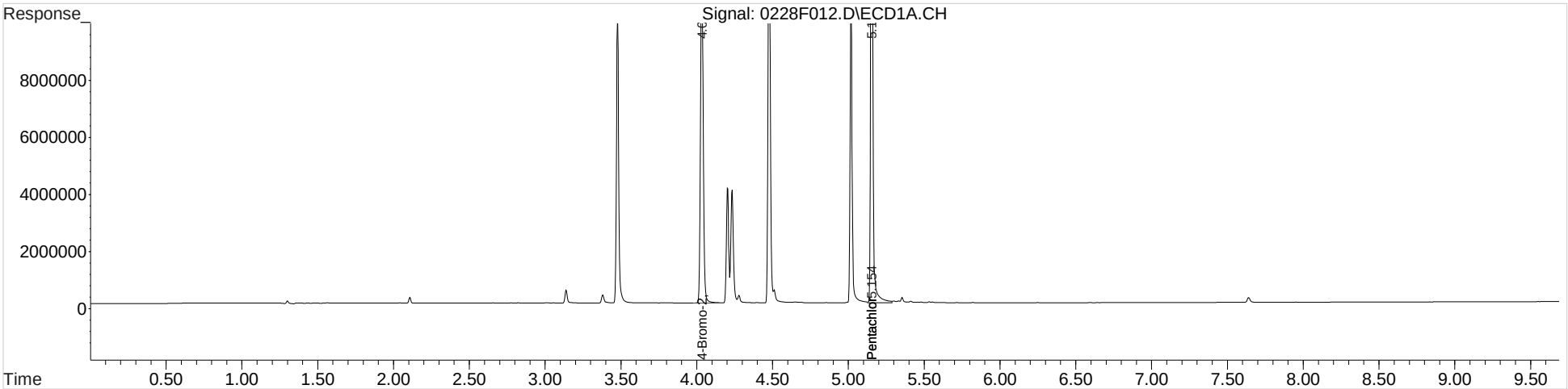
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:02:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



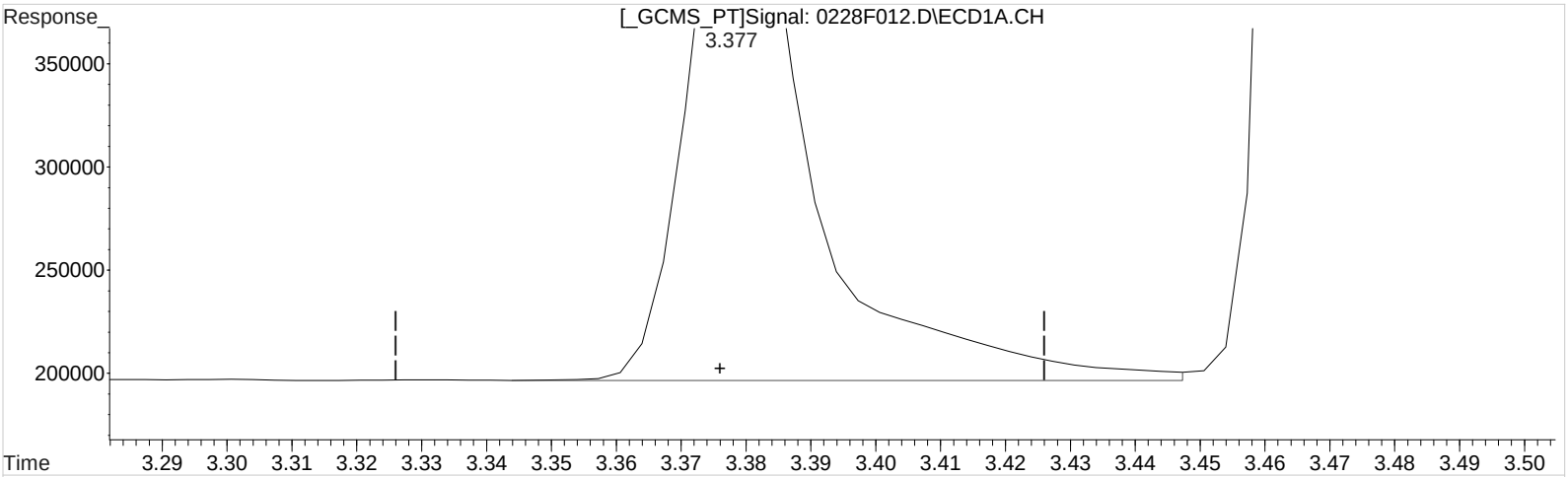
Quantitation Report (Qedit)

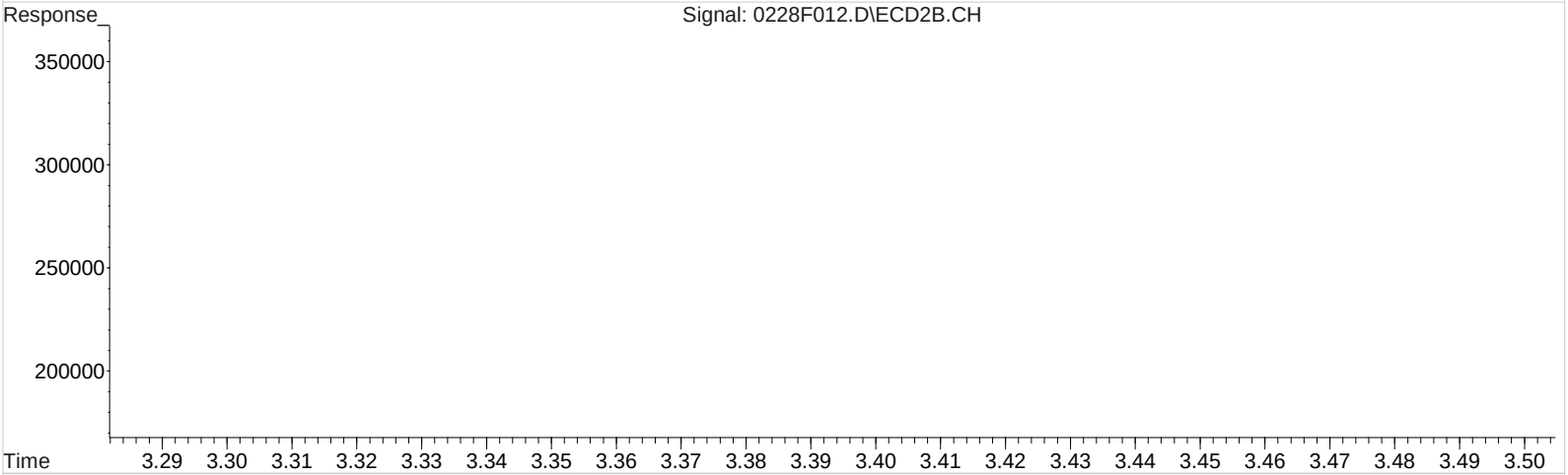
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:57:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min -1.000 ug/L

response 3515486

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 308.529 ug/L

response 5084362

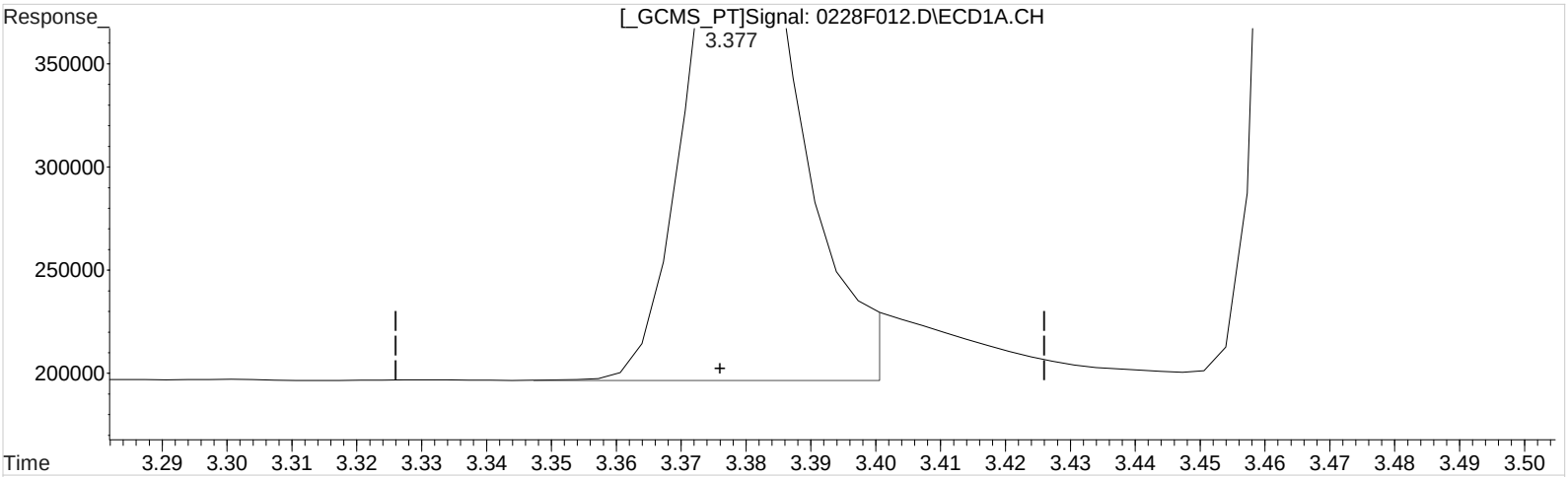
(+) = Expected Retention Time

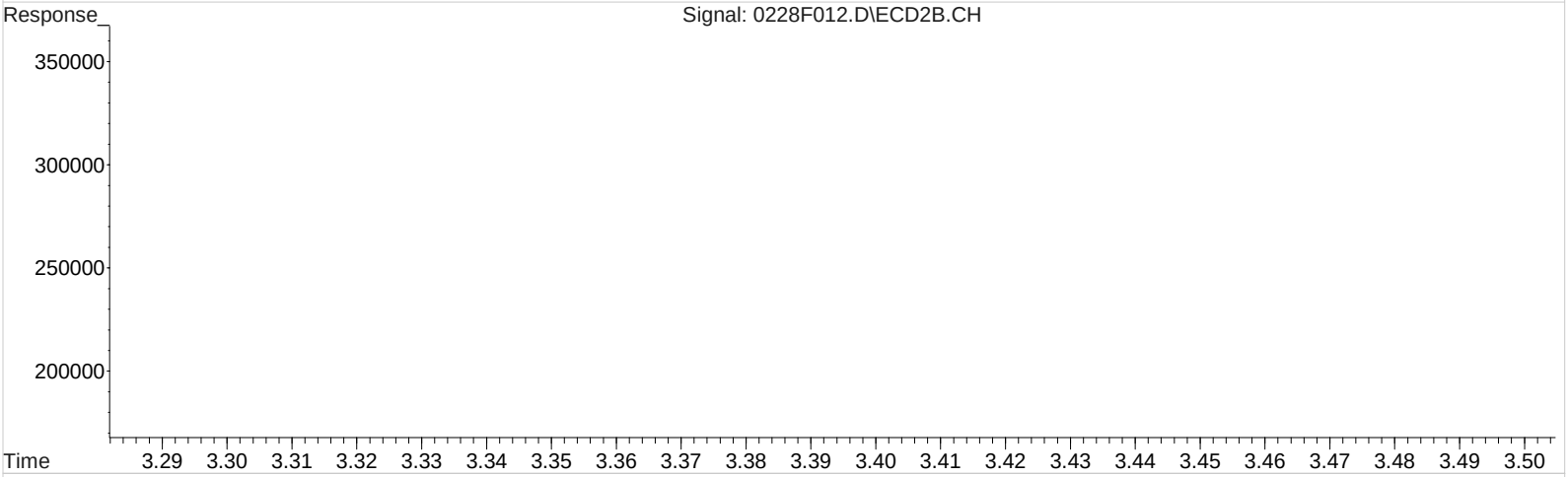
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:57:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min -1.000 ug/L m

response 3148268

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 308.529 ug/L

response 5084362

(+) = Expected Retention Time

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:03:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.032	4.720	275.5E6	454.2E6	1004.956	1044.829
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D. d
9)	M	Pentachlo...	5.152	5.657	351.1E6	624.5E6	951.331	908.276
10)		Pentachlo...	5.152	5.657	351.1E6	624.5E6	1001.338	956.483

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

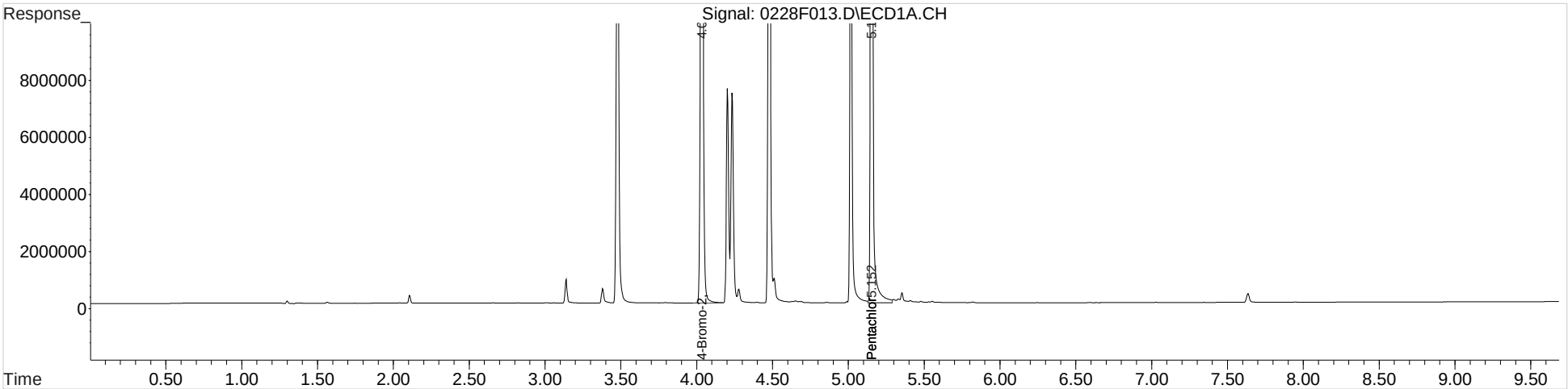
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:03:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



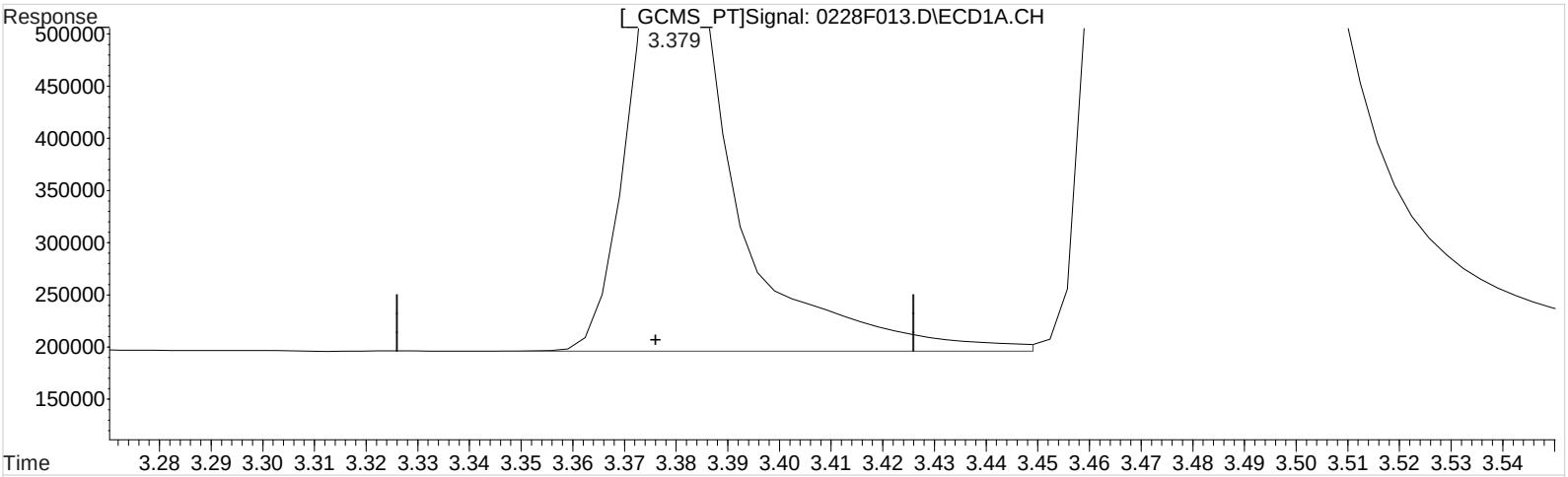
Quantitation Report (Qedit)

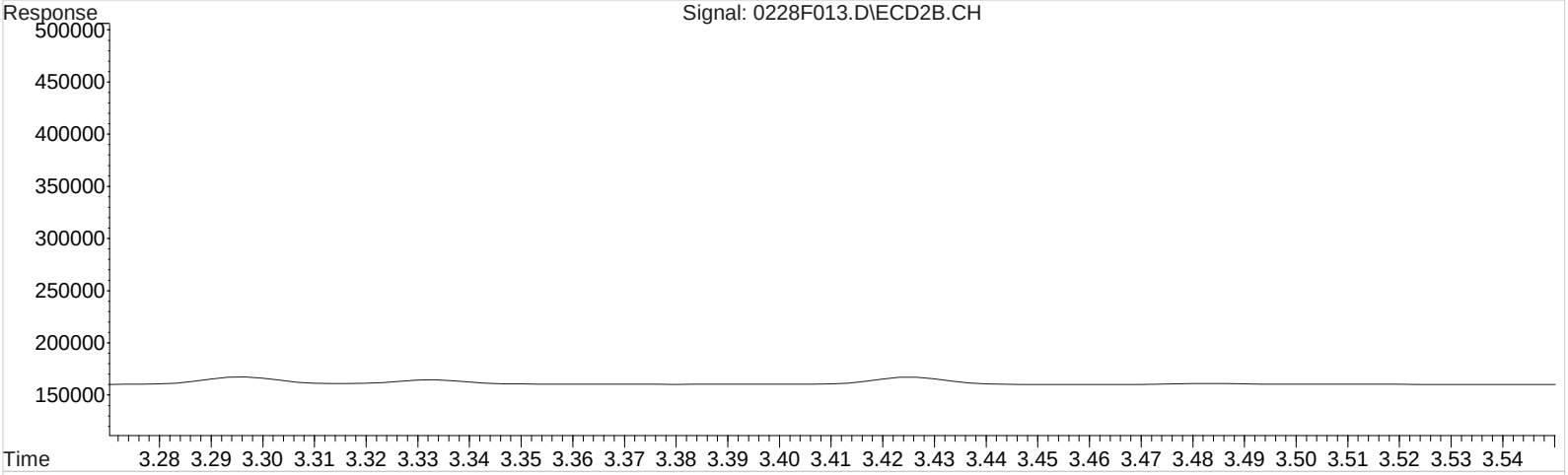
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min -1.000 ug/L

response 6094712

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 574.054 ug/L

response 9460033

(+) = Expected Retention Time

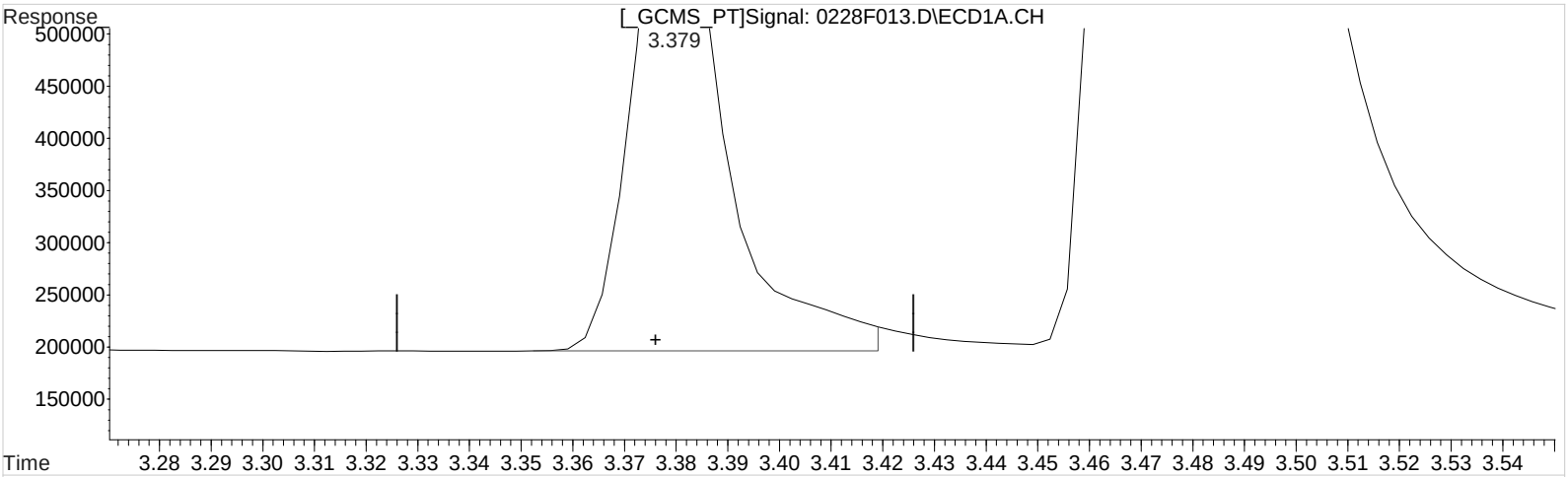
Quantitation Report (Qedit)

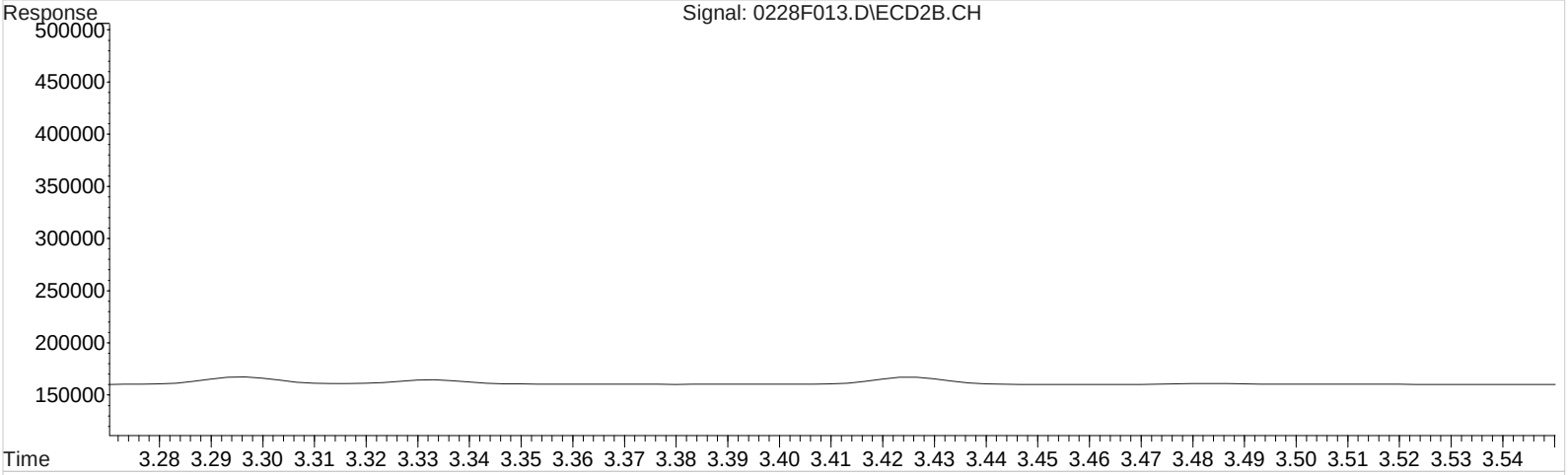
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min -1.000 ug/L m

response 5889814

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 574.054 ug/L

response 9460033

(+) = Expected Retention Time

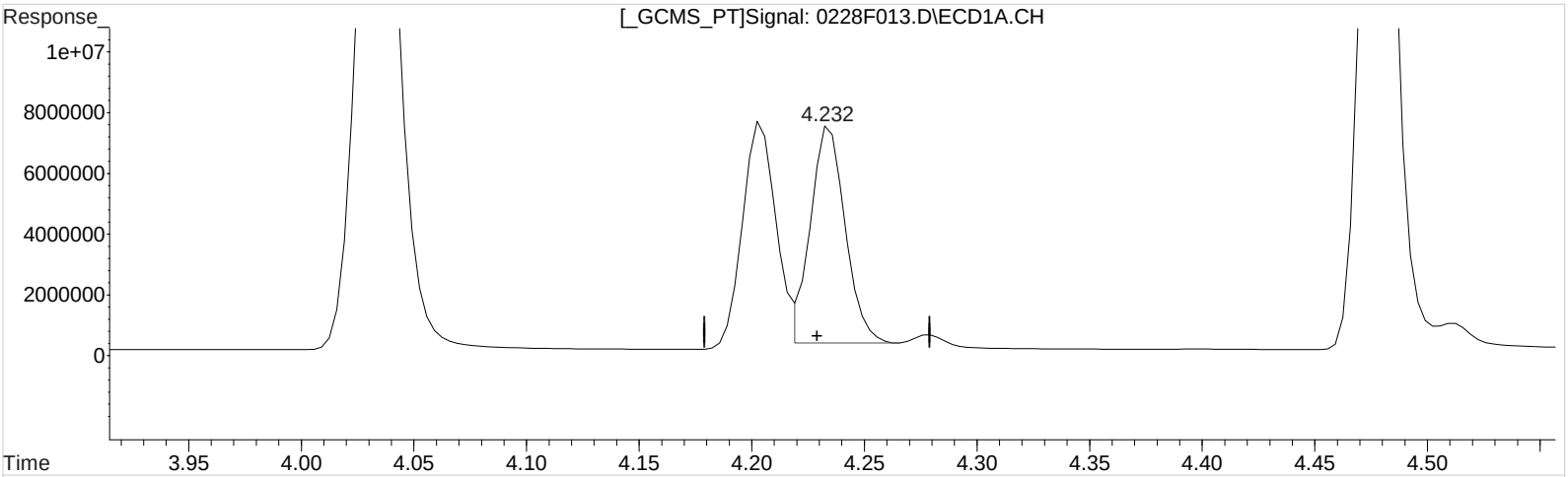
Quantitation Report (Qedit)

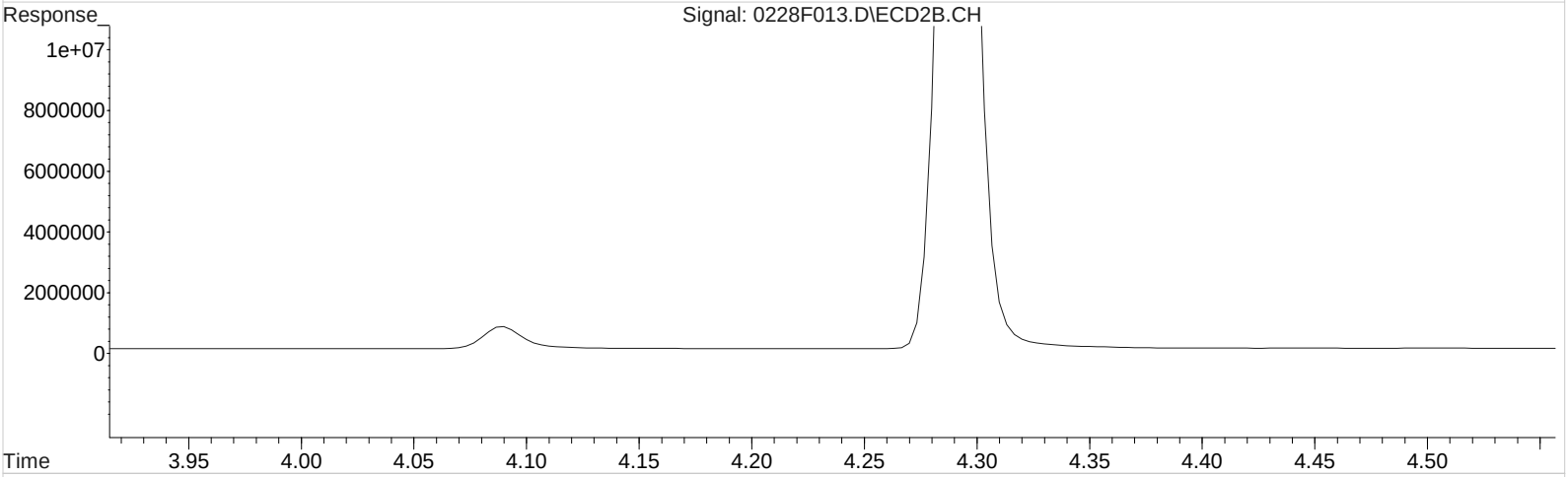
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min -1.000 ug/L

response 74934079

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 737.496 ug/L

response 138431346

(+) = Expected Retention Time

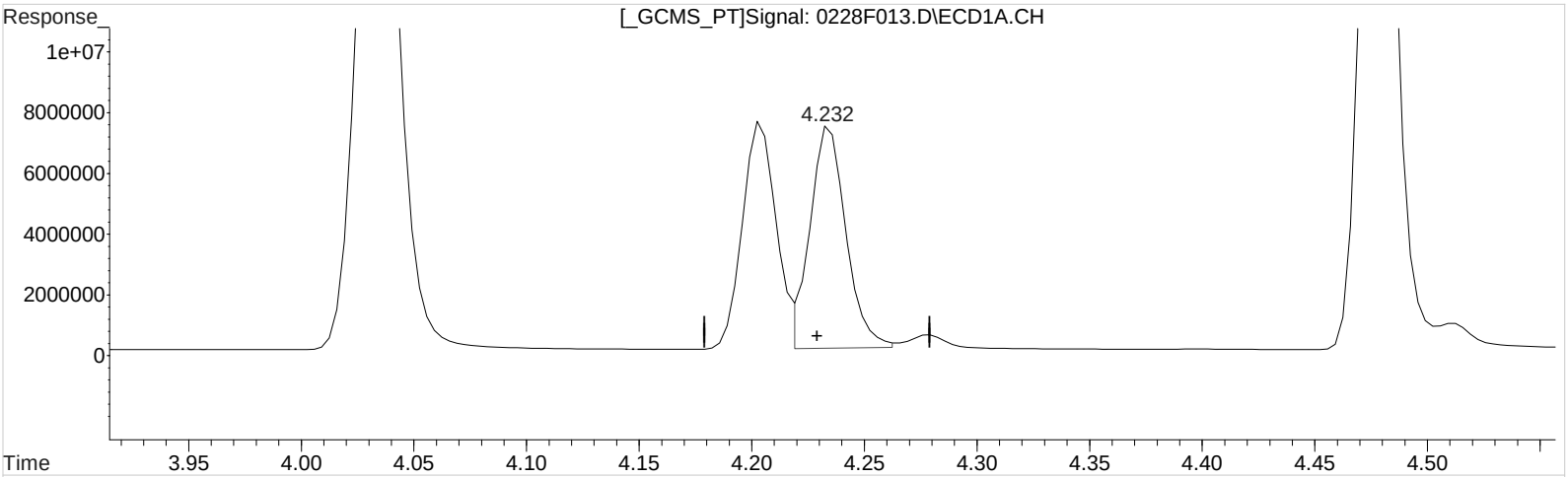
Quantitation Report (Qedit)

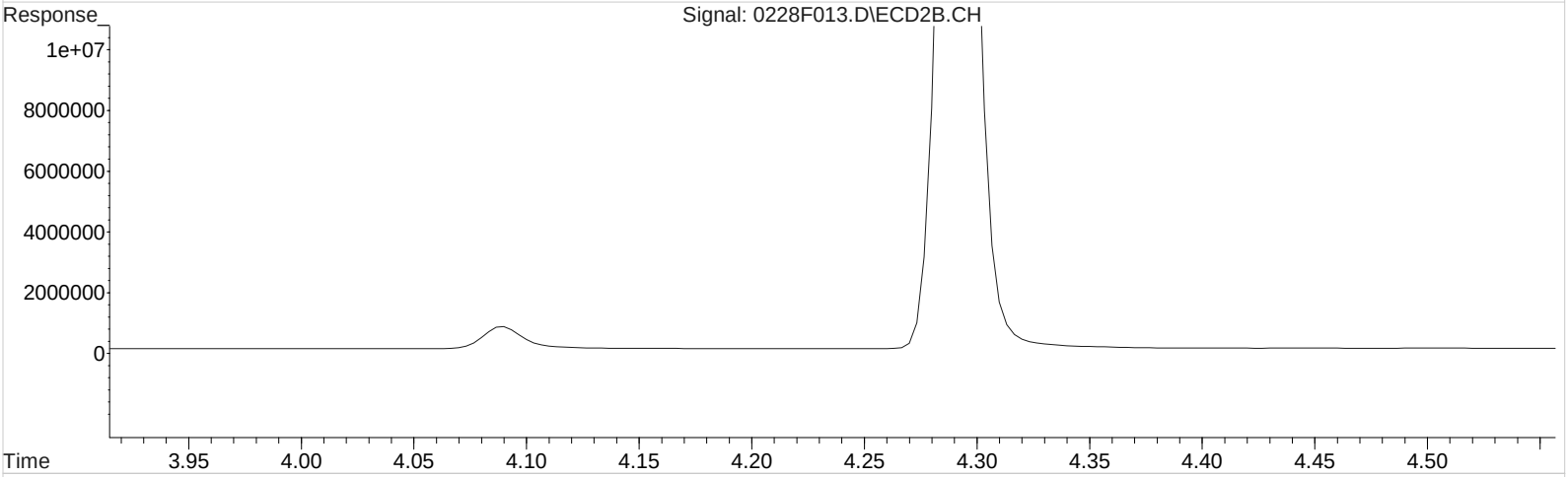
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min -1.000 ug/L m

response 79254186

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 737.496 ug/L

response 138431346

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:00:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.035	4.719	1168028	983474	2.544	2.262
		Target Compounds						
1)		3,4-Dichl...	3.138	3.832	45256	55247	2.218	2.501
2)		3,5-Dichl...	3.378	4.089	31638	44372	2.469m	2.693
3)		2,4,6-Tri...	3.478	4.289	951850	996024	2.425	2.388
5)		2,4,5-Tri...	4.205	4.785	468262	535226	2.569	2.678
6)		3,4,5-Tri...	4.235	4.849	464016	493606	2.630	2.630
7)	M	2,3,5,6-T...	4.478	5.079	1355696	1503718	2.848	2.436m
8)	M	2,3,4,5-T...	5.018	5.472	1121382	1115328	2.467m	2.701
9)	M	Pentachlo...	5.155	5.655	1532111	1786099	2.401	2.598m
10)		Pentachlo...	5.155	5.655	1532111	1782521	2.528	2.730m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

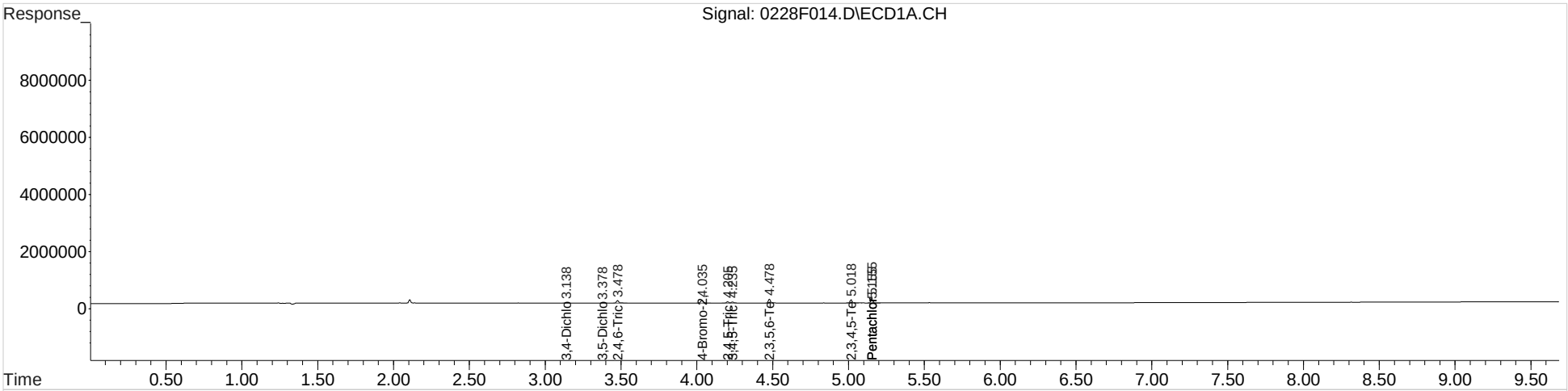
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:00:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



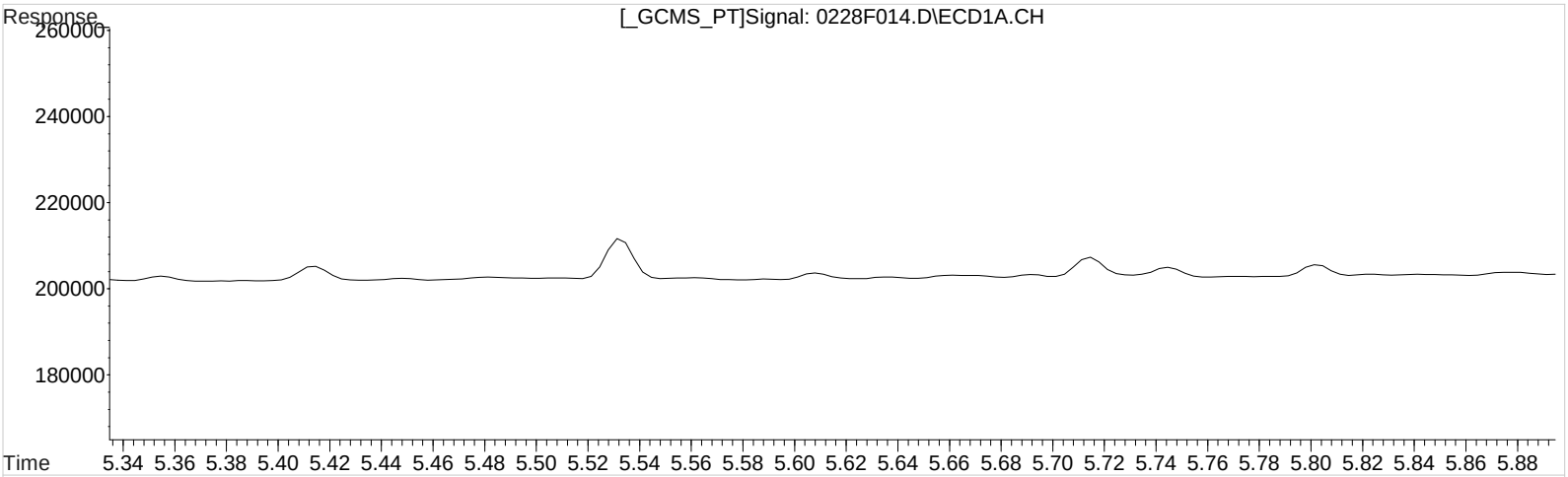
Quantitation Report (Qedit)

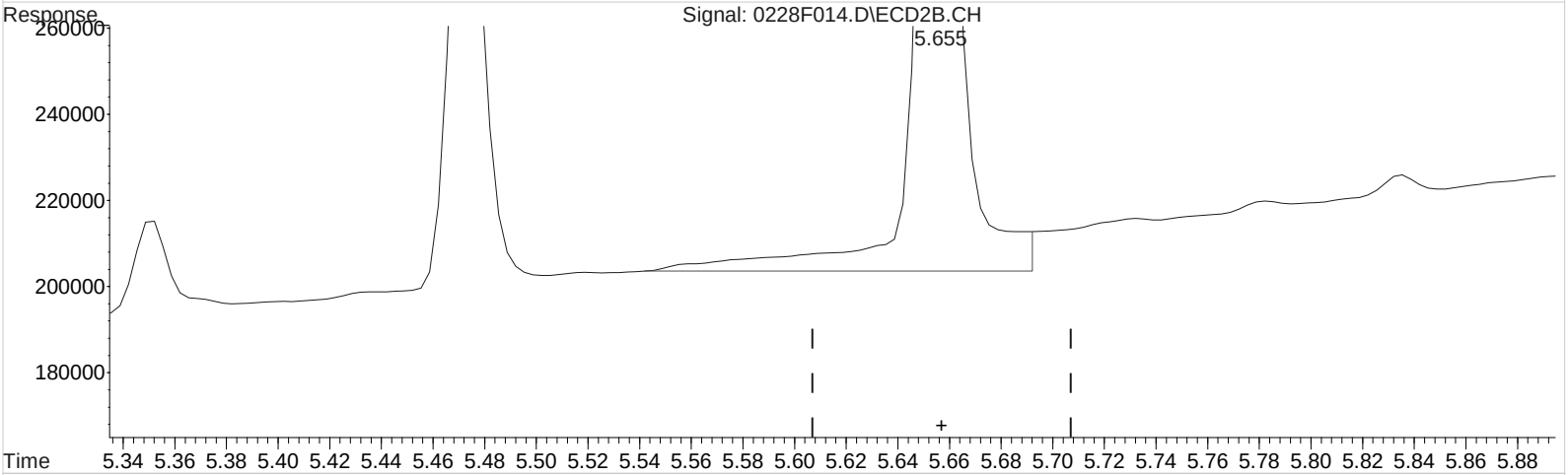
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.155min 2.528 ug/L

response 1532111

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.655min 3.364 ug/L

response 2196034

(+) = Expected Retention Time

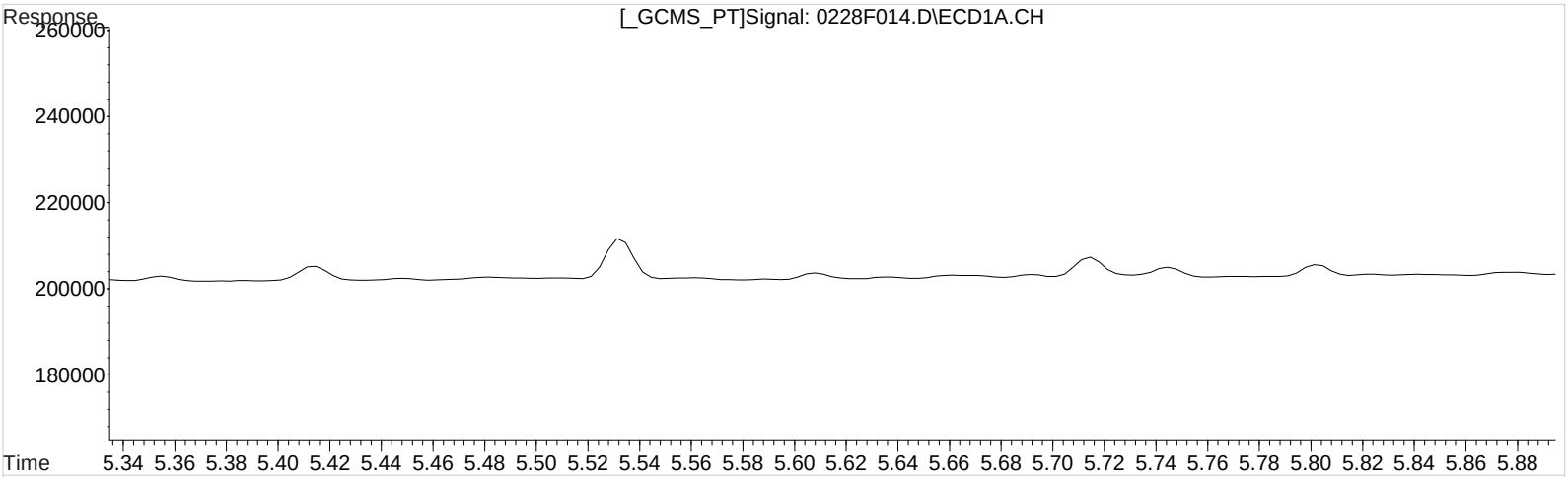
Quantitation Report (Qedit)

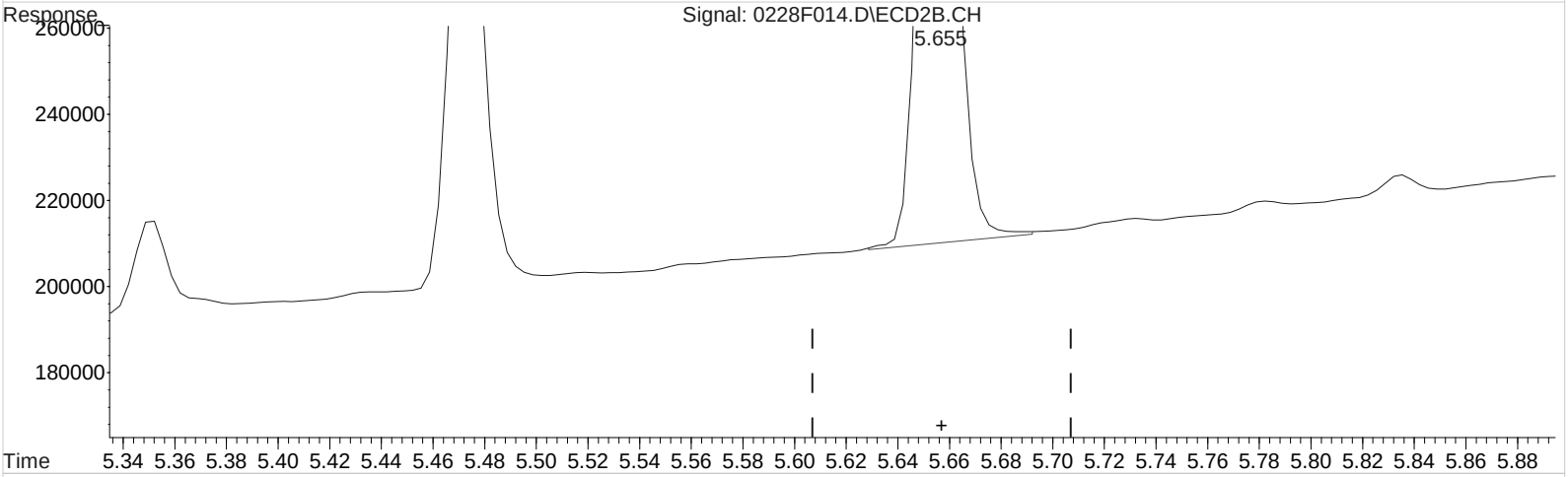
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.155min 2.528 ug/L

response 1532111

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.655min 2.730 ug/L m

response 1782521

(+) = Expected Retention Time

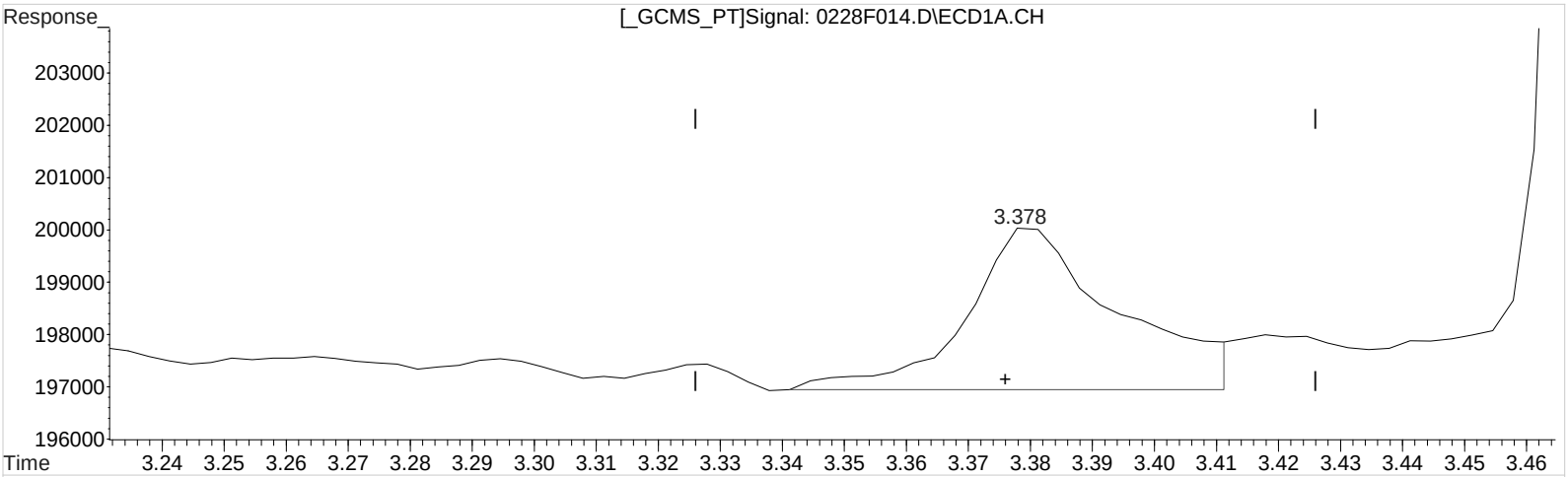
Quantitation Report (Qedit)

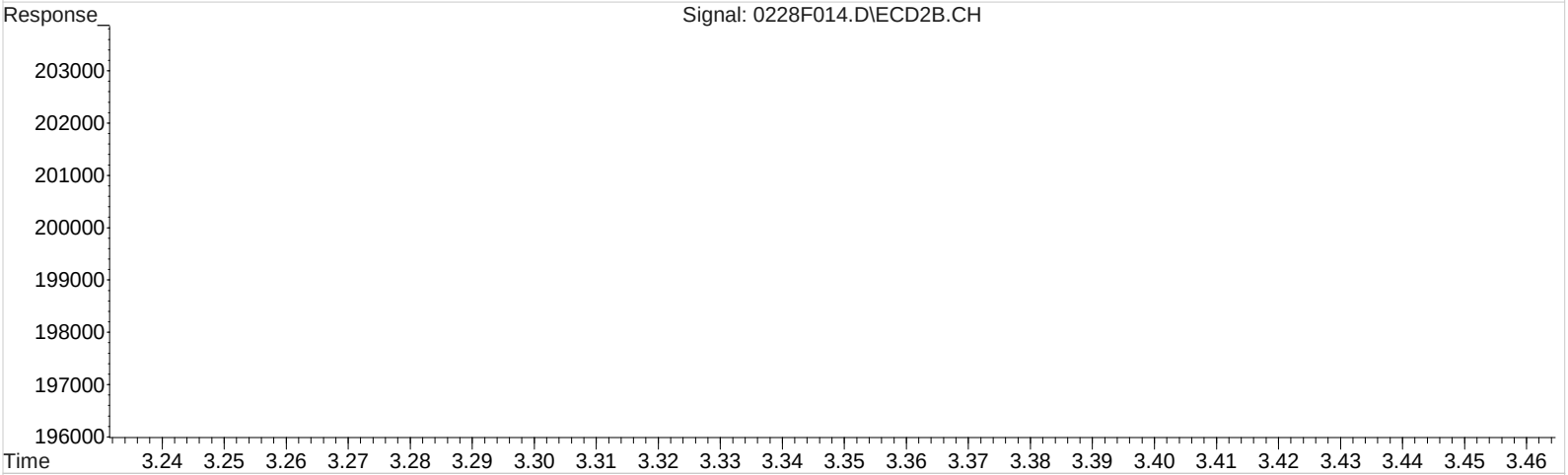
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 4.540 ug/L

response 53339

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 2.693 ug/L

response 44372

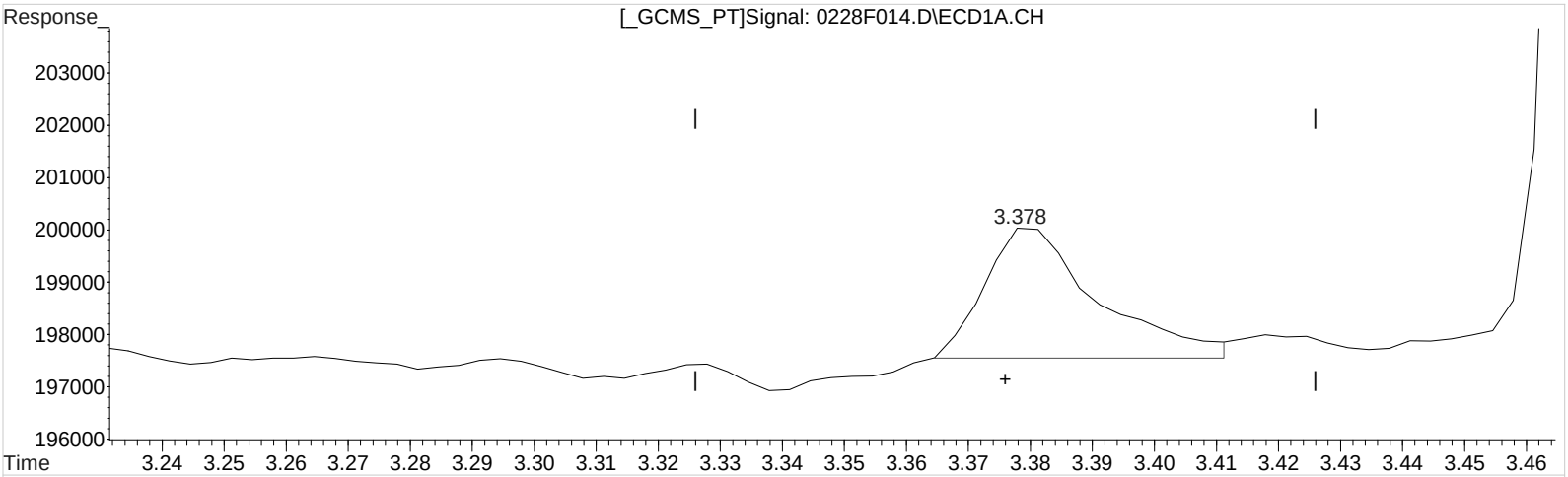
(+) = Expected Retention Time

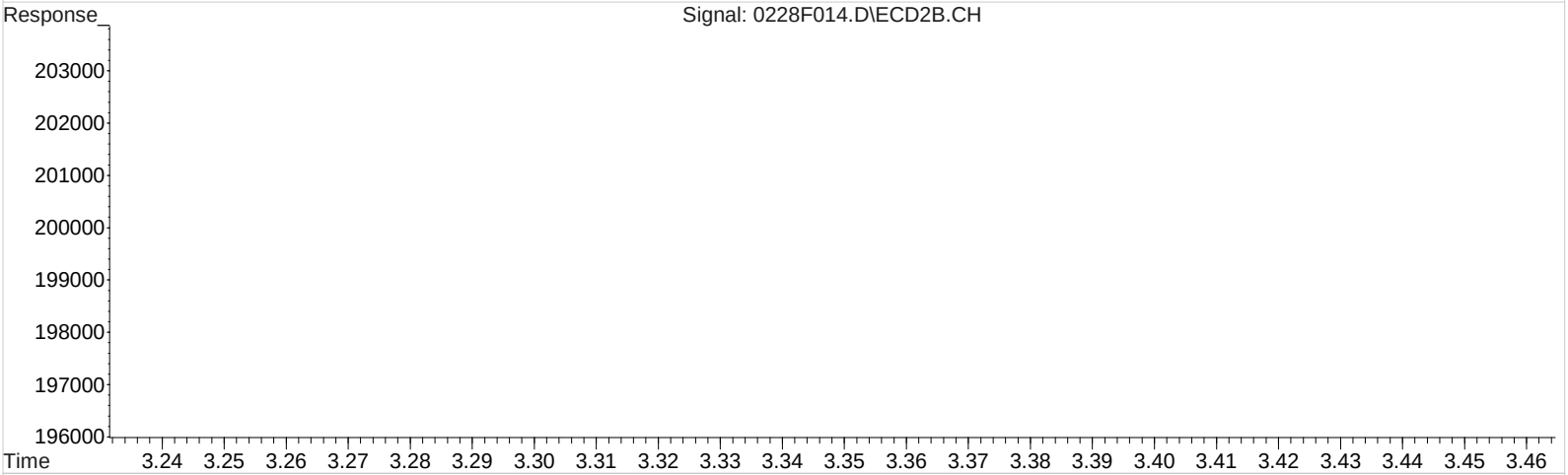
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 2.469 ug/L m

response 31638

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 2.693 ug/L

response 44372

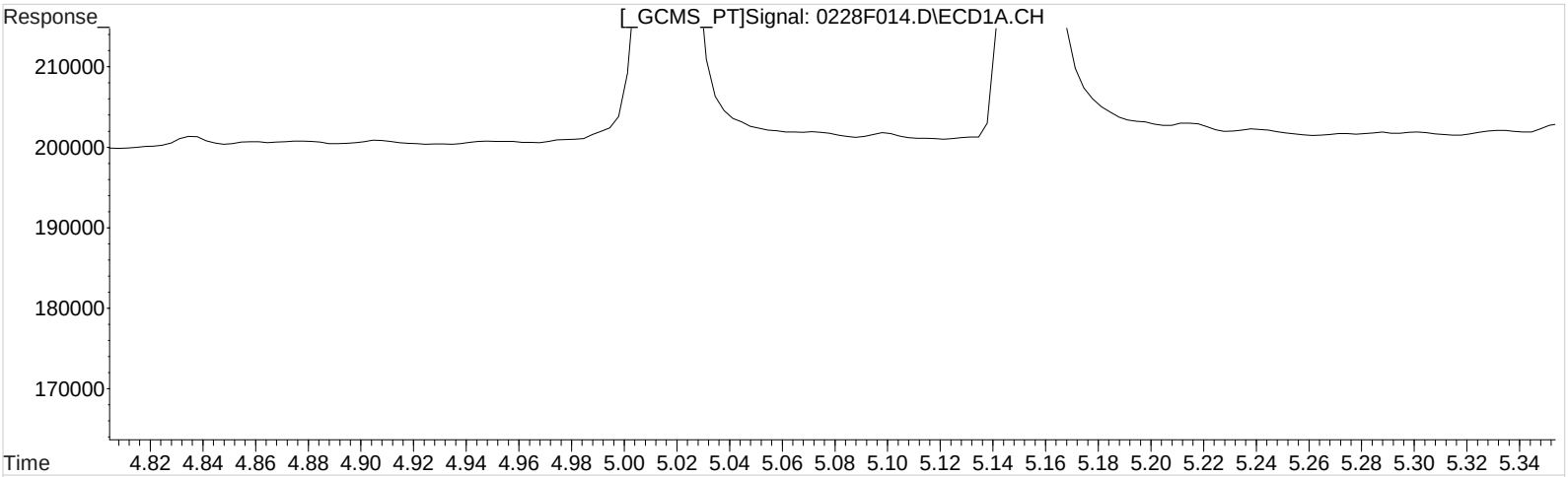
(+) = Expected Retention Time

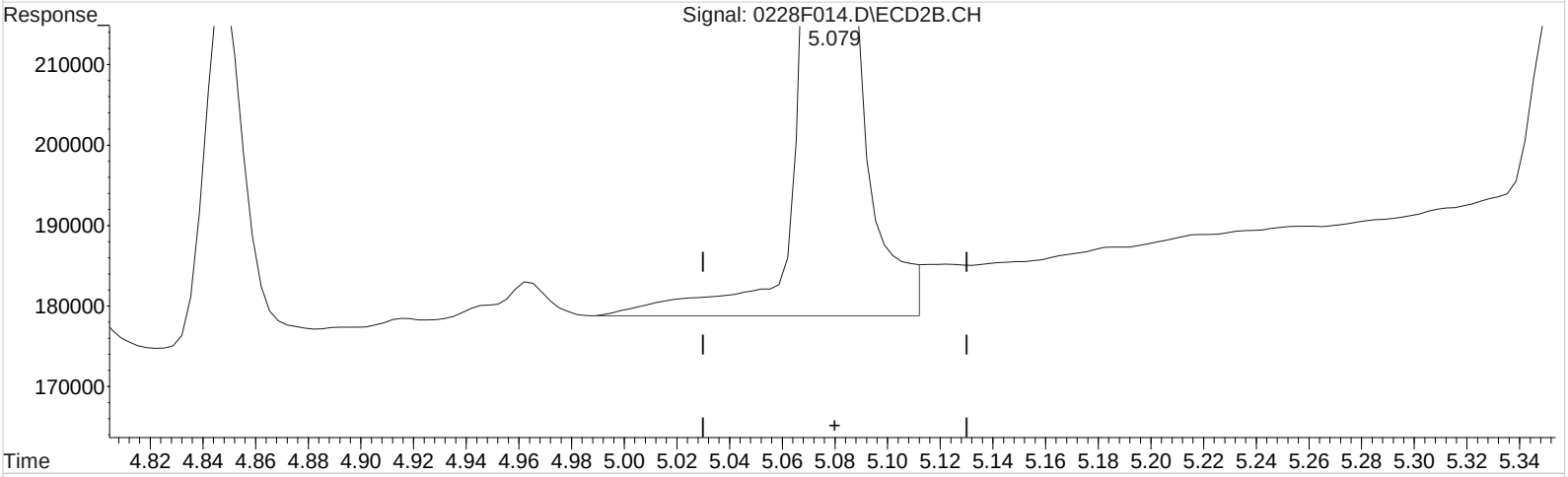
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 2.848 ug/L

response 1355696

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.079min 2.775 ug/L

response 1712944

(+) = Expected Retention Time

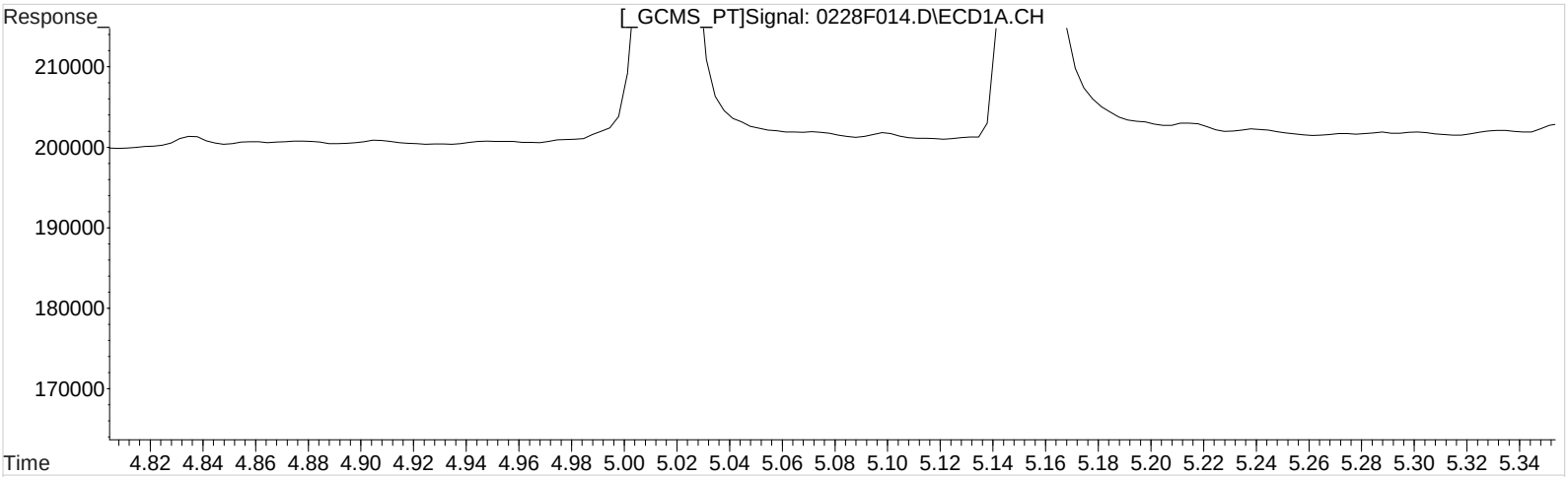
Quantitation Report (Qedit)

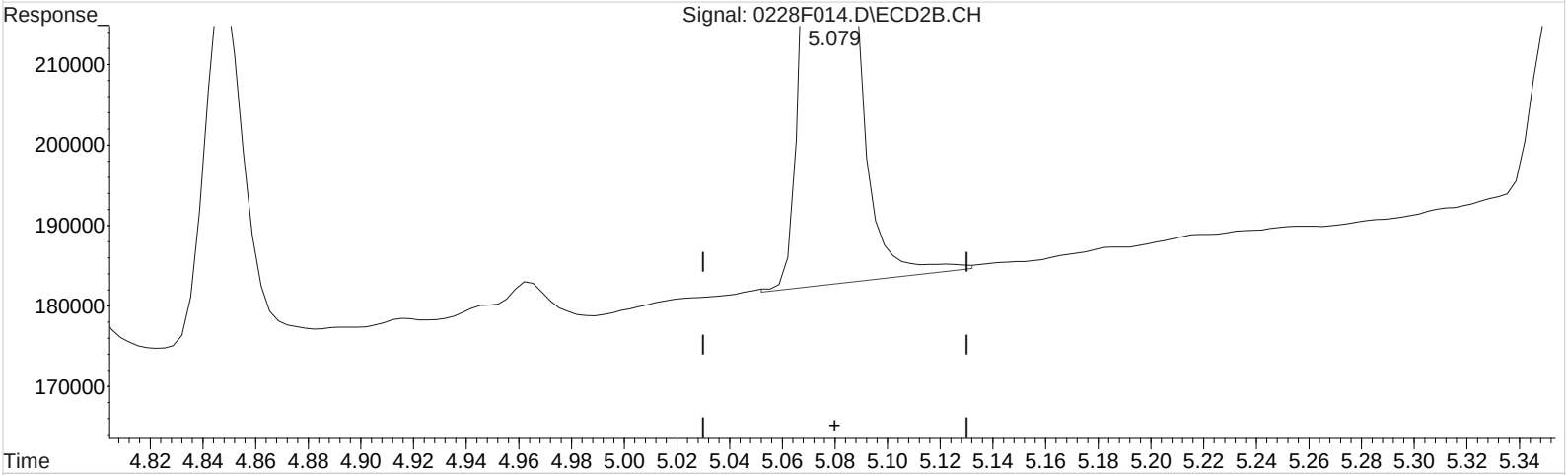
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 2.848 ug/L

response 1355696

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.079min 2.436 ug/L m

response 1503718

(+) = Expected Retention Time

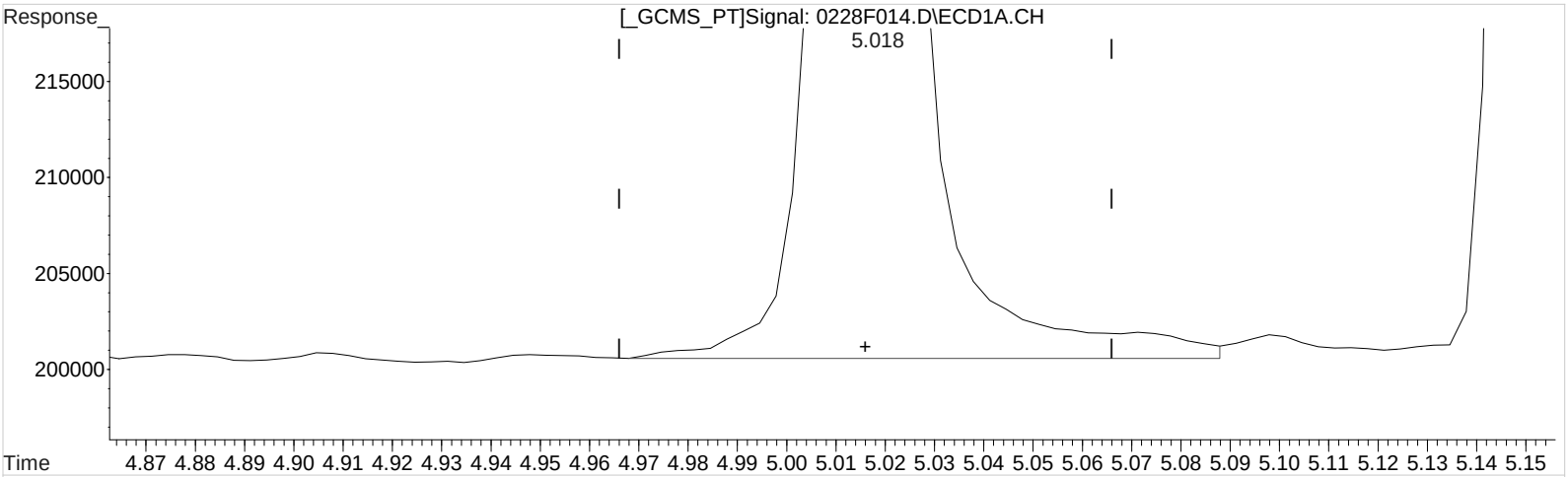
Quantitation Report (Qedit)

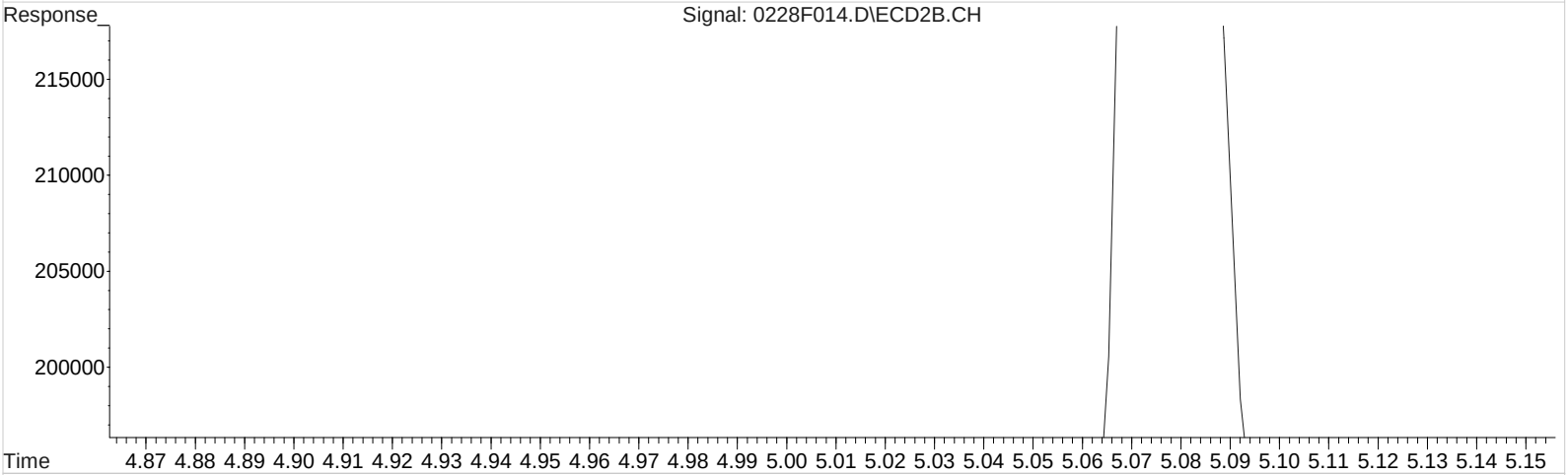
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.018min 2.609 ug/L

response 1164930

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.472min 2.701 ug/L

response 1115328

(+) = Expected Retention Time

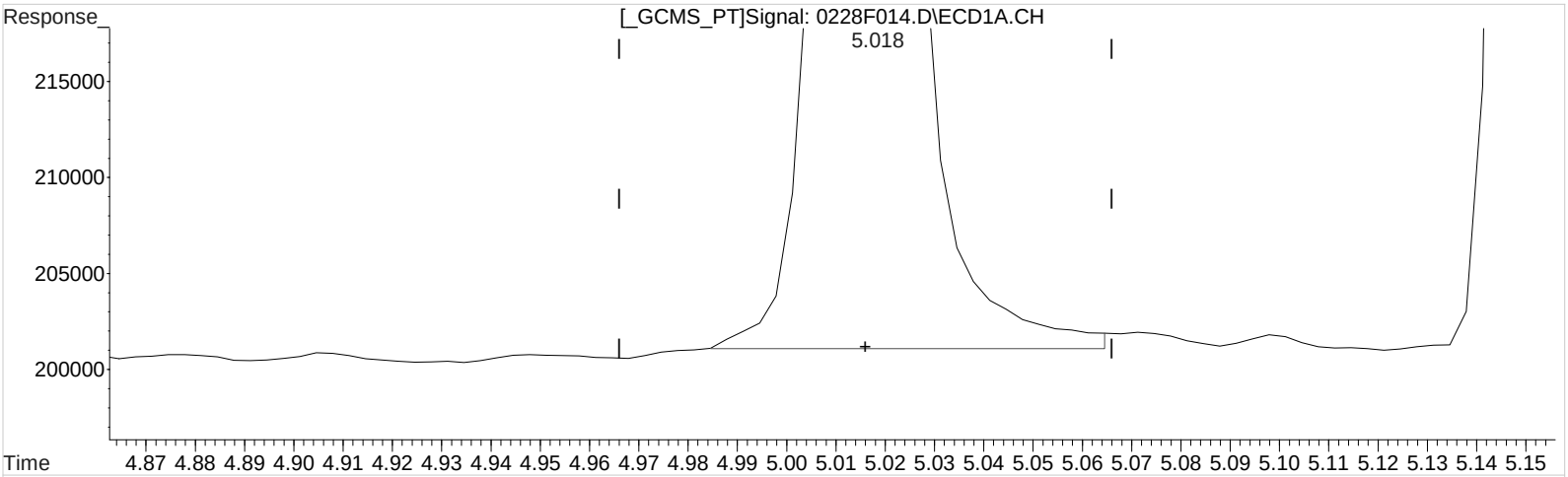
Quantitation Report (Qedit)

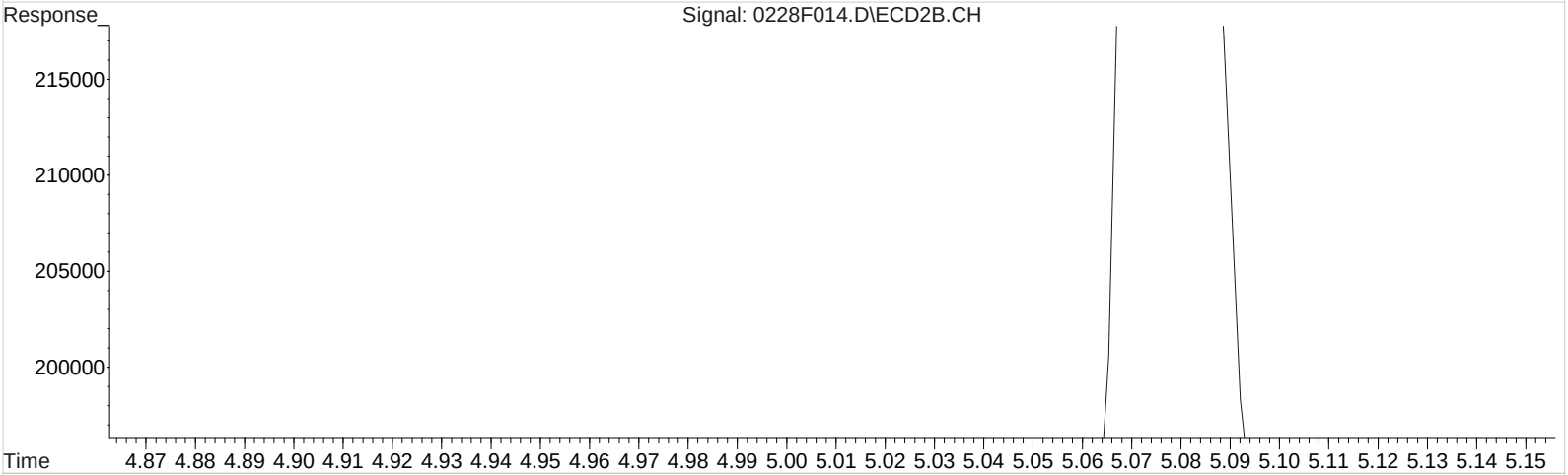
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.018min 2.467 ug/L m

response 1121382

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.472min 2.701 ug/L

response 1115328

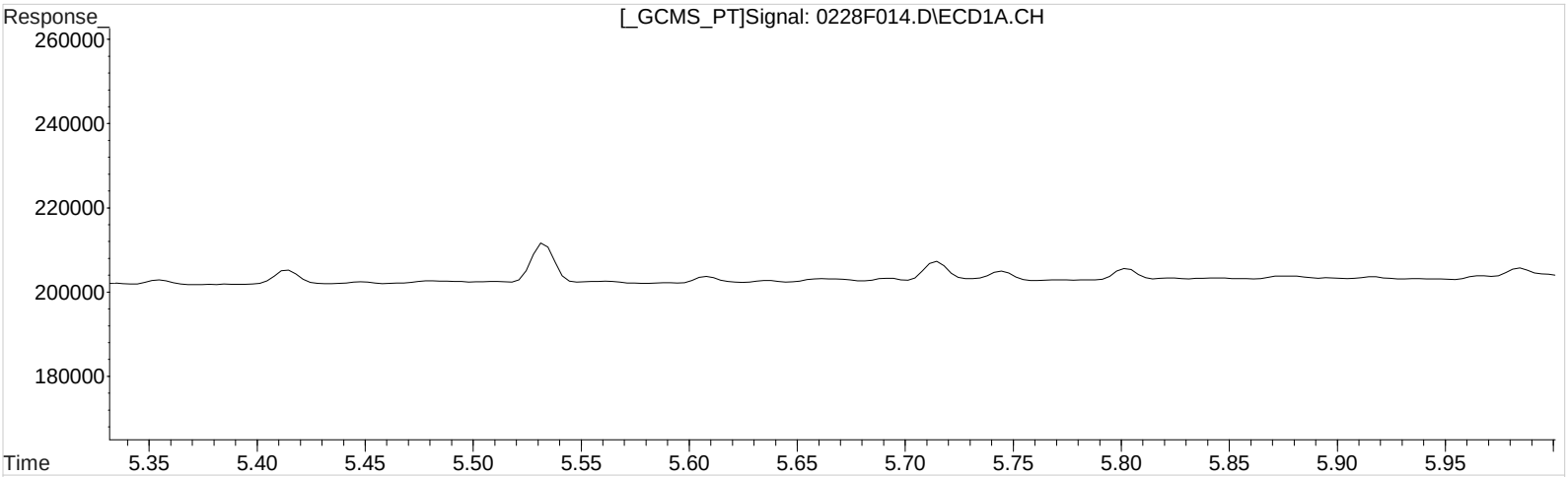
(+) = Expected Retention Time

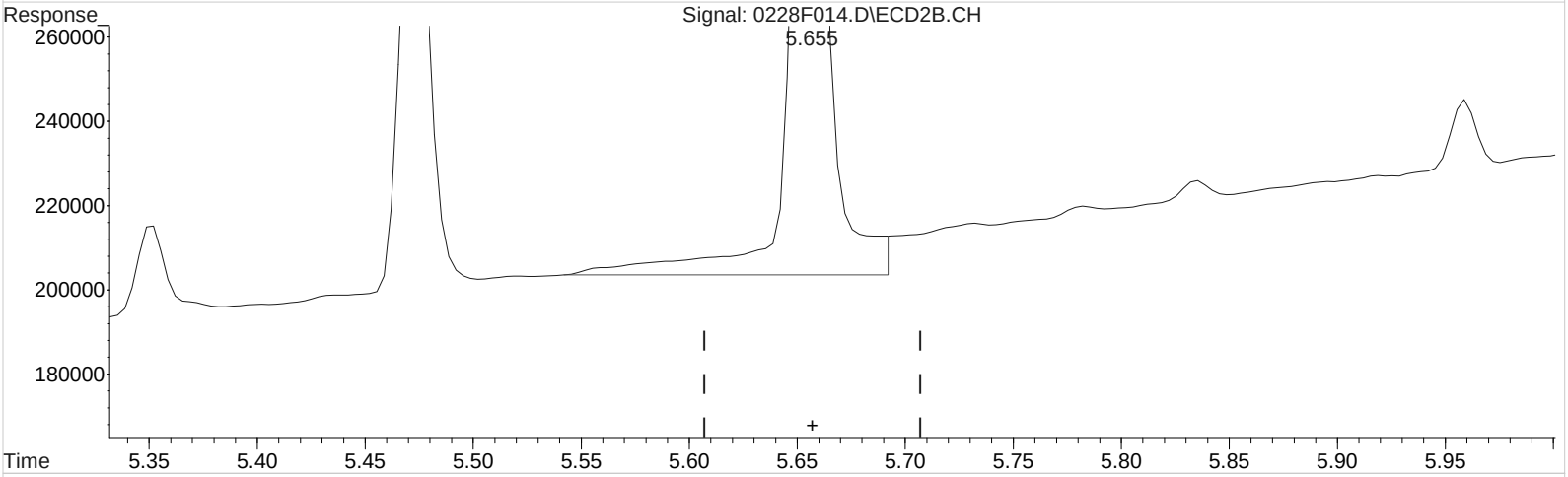
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.155min 2.401 ug/L

response 1532111

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.655min 3.194 ug/L

response 2196034

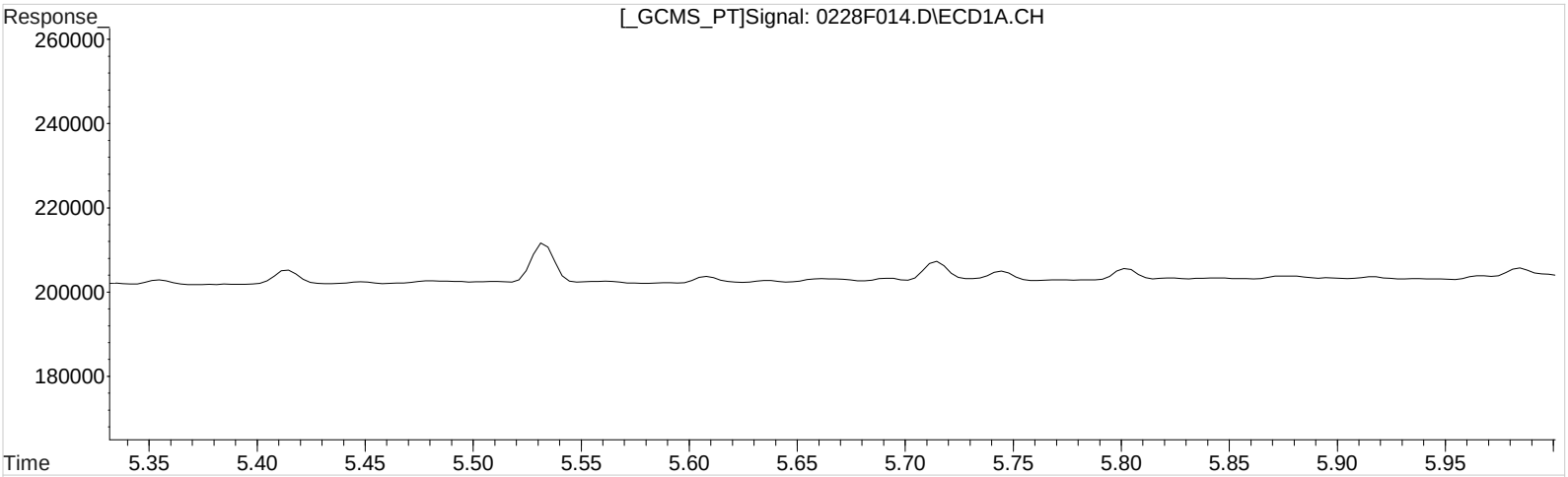
(+) = Expected Retention Time

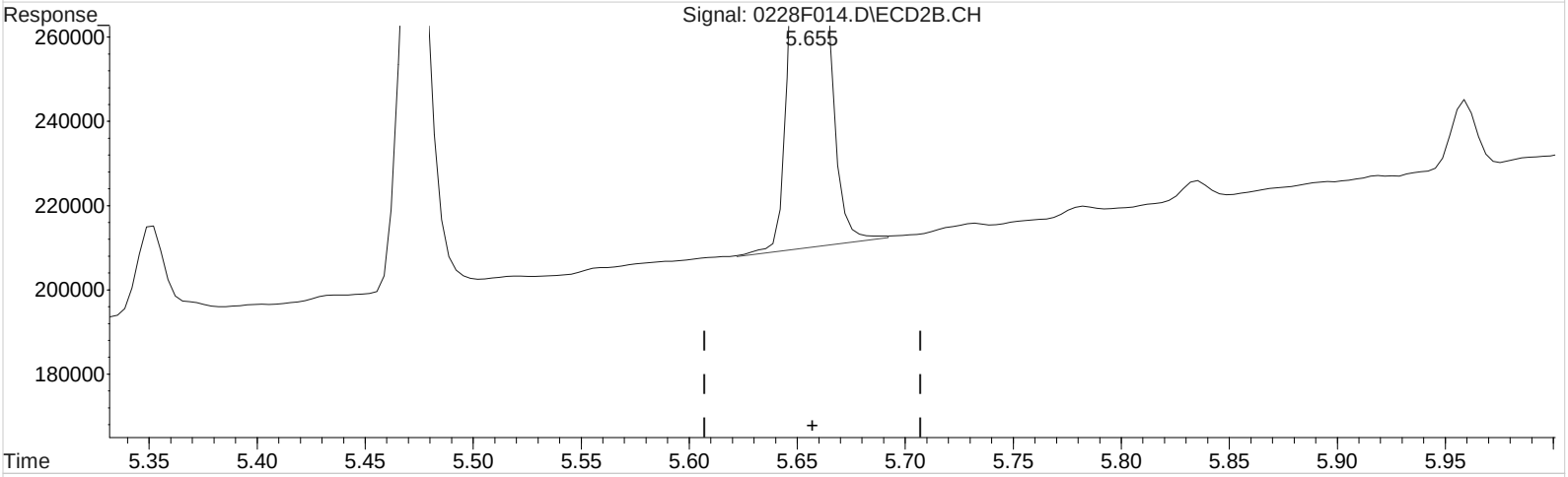
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.155min 2.401 ug/L

response 1532111

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.655min 2.598 ug/L m

response 1786099

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 12:00 pm Operator: MC
Sample : PENTA01-95D ICV Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:59:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	3.139	3.833	771944	1008155	50.405	46.475
2)		3,5-Dichl...	3.379	4.090	576261	745111	54.814	48.925
3)		2,4,6-Tri...	3.479	4.290	14461186	19074371	47.208	46.729
5)		2,4,5-Tri...	4.202	4.783	6741744	8923551	49.950	50.676
6)		3,4,5-Tri...	4.232	4.846	7001162	8168830	49.502	48.393
7)	M	2,3,5,6-T...	4.479	5.076	21719554	28913168	50.742	47.890
8)	M	2,3,4,5-T...	5.019	5.473	15112649	19440727	50.125	46.743
9)	M	Pentachlo...	5.152	5.656	25413518	33232162	55.308	48.834
10)		Pentachlo...	5.152	5.656	25413518	33232162	58.215	51.424

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

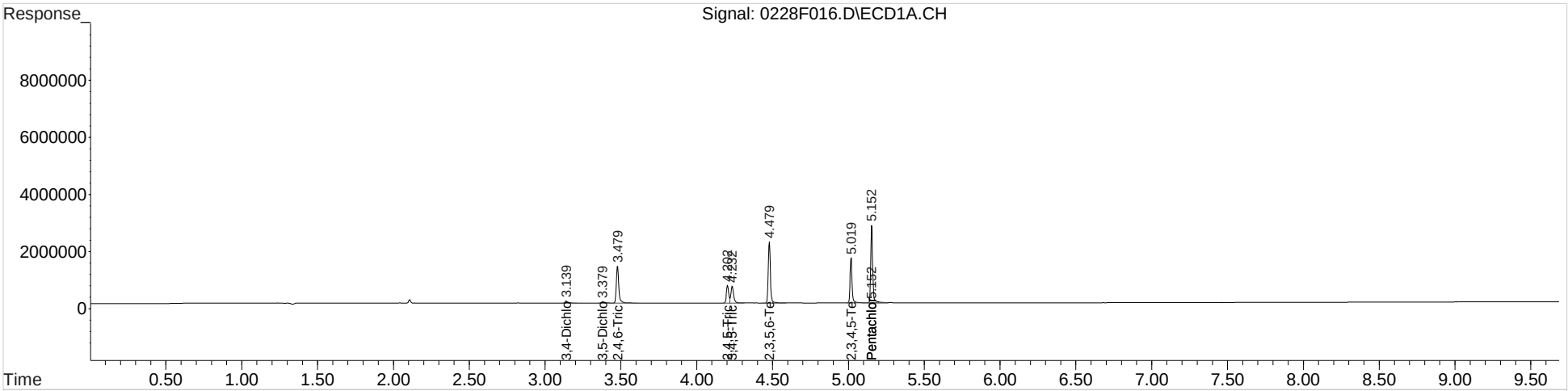
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 12:00 pm Operator: MC
Sample : PENTA01-95D ICV Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:59:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\061219\
Pre-Seq Cmd:
Post-Seq Cmd:

cal: KC1900082

Run# 639031

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0612F001	PENTHOT2	PRIMER
2	IB	100	0612F002	PENTHOT2	PRIMER
3	CCV	1	0612F003	PENTHOT2	CCV 50PPB PENTA01-97M
4	IB	2	0612F004	PENTHOT2	IB
5	MB	3	0612F005	PENTHOT2	KQ1907799-04 MB
6	LCS	4	0612F006	PENTHOT2	KQ1907799-03 LCS
7	SMPL	5	0612F007	PENTHOT2	K1905228-001
8	SMPL	6	0612F008	PENTHOT2	K1905228-002
9	SMPL	7	0612F009	PENTHOT2	K1905228-003 @5X
10	SMPL	8	0612F010	PENTHOT2	K1905228-004 @5X
11	SMPL	9	0612F011	PENTHOT2	K1905228-005
12	MS	10	0612F012	PENTHOT2	K1905228-005 MS
13	DMS	11	0612F013	PENTHOT2	K1905228-005 DMS
14	CCV	1	0612F014	PENTHOT2	CCV 50PPB PENTA01-97M
15	IB	2	0612F015	PENTHOT2	IB
16	MB	12	0612F016	PENTHOT2	KQ1907798-04 MB
17	LCS	13	0612F017	PENTHOT2	KQ1907798-03 LCS
18	SMPL	14	0612F018	PENTHOT2	K1905144-001
19	SMPL	15	0612F019	PENTHOT2	K1905144-002
20	SMPL	16	0612F020	PENTHOT2	K1905145-003 @20X
21	SMPL	17	0612F021	PENTHOT2	K1905213-001
22	SMPL	18	0612F022	PENTHOT2	K1905213-002 @5X — NR, 1X
23	SMPL	19	0612F023	PENTHOT2	K1905213-003 - also 5X
24	SMPL	40	0612F024	PENTHOT2	K1905213-002
25	SMPL	20	0612F025	PENTHOT2	K1905213-004 @20X
26	MS	21	0612F026	PENTHOT2	K1905213-004 MS @20X
27	DMS	22	0612F027	PENTHOT2	K1905213-004 DMS @20X
28	CCV	1	0612F028	PENTHOT2	CCV 50PPB PENTA01-97M
29	IB	2	0612F029	PENTHOT2	IB
30	MB	23	0612F030	PENTHOT2	KQ1907733-04 MB
31	LCS	24	0612F031	PENTHOT2	KQ1907733-03 LCS
32	SMPL	25	0612F032	PENTHOT2	K1905143-001 @10X
33	MS	26	0612F033	PENTHOT2	K1905143-001 MS @10X
34	DMS	27	0612F034	PENTHOT2	K1905143-001 DMS @10X
35	SMPL	28	0612F035	PENTHOT2	K1905143-002 @20X
36	SMPL	29	0612F036	PENTHOT2	K1905143-003 @20X
37	SMPL	30	0612F037	PENTHOT2	K1905143-004 @10X
38	SMPL	31	0612F038	PENTHOT2	K1905143-005 @20X
39	SMPL	32	0612F039	PENTHOT2	K1905143-006 @10X
40	SMPL	33	0612F040	PENTHOT2	K1905143-007 @20X
41	SMPL	34	0612F041	PENTHOT2	K1905143-008 @20X
42	CCV	1	0612F042	PENTHOT2	CCV 50PPB PENTA01-97M
43	IB	2	0612F043	PENTHOT2	IB

Last Modified: Wed Jun 12 15:45:04 2019

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Line	Type	Vial	DataFile	Method	Sample Name
44	SMPL	35	0612F044	PENTHOT2	K1905143-009 @20X
45	SMPL	36	0612F045	PENTHOT2	K1905143-010 @10X
46	SMPL	41	0612F046	PENTHOT2	K1905213-003 @5X
47	CCV	1	0612F047	PENTHOT2	CCV 50PPB PENTA01-97M
48	IB	2	0612F048	PENTHOT2	IB

DILUTION LOG

LAB ID.	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	DATE	By:	Solvent Lot #	COMMENTS / **Ext. Date**
K1905228-003	100 uL	500 uL	5X	6/12/19	MC	ISO DR253	
K1905228-004	100 uL	500 uL	5X				
K1905145-003	50 uL	1 mL	20X				
K1905213-002	100 uL	500 uL	5X				
K1905213-004	50 uL	1 mL	20X				
K1905213-004 MS/DMS	50 uL	1 mL	20X				
K1905143-001	100 uL	1 mL	10X				
K1905143-001 MS/DMS	100 uL	1 mL	10X				
K1905143-002	50 uL	1 mL	20X				
K1905143-003	50 uL	1 mL	20X				
K1905143-004	100 uL	1 mL	10X				
K1905143-005	50 uL	1 mL	20X				
K1905143-006	100 uL	1 mL	10X				
K1905143-007	50 uL	1 mL	20X				
K1905143-008	50 uL	1 mL	20X				
K1905143-009	50 uL	1 mL	20X				
K1905143-010	100 uL	1 mL	10X				
K1905213-003	100 uL	500 uL	5X				

ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
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F : +1 360 636 1068
www.alsglobal.com

June 24, 2019

Analytical Report for Service Request No: K1905450

Randy Pratt
JH Baxter & Company
85 N Baxter Rd
Eugene, OR 97402

RE: Arlington Landfill Wells / Landfill Program

Dear Randy,

Enclosed are the results of the sample(s) submitted to our laboratory June 11, 2019
For your reference, these analyses have been assigned our service request number **K1905450.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3350. You may also contact me via email at Kelley.Lovejoy@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Kelley Lovejoy

Kelley Lovejoy
Project Manager

ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
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    Chlorinated Phenolics
    Polycyclic Aromatic Hydrocarbons byGC/MS SIM

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: JH Baxter & Company
Project: Arlington Landfill Wells
Sample Matrix: Water

Service Request: K1905450
Date Received: 06/11/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Four water samples were received for analysis at ALS Environmental on 06/11/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

Method 8270D, Polycyclic Aromatic Hydrocarbons by GC/MS SIM 06/19/2019: The control criteria were exceeded for surrogates in samples RIV-GPO-3-HC, RIV-GUA-2-HC, OSH-5-HC, and RIV-GPO-2-HC. Since the problem may indicate a potential bias in the analytical batch, all associated field samples were re-extracted and re-analyzed past the recommended hold time. The surrogates met control criteria for the re-analysis. The data from the reanalysis is reported and flagged to indicate the problem.

Method 8270D, Polycyclic Aromatic Hydrocarbons by GC/MS SIM 06/19/2019: The Relative Percent Difference (RPD) for several analytes in the replicate matrix spike analyses of sample OSH-3-HC was outside control criteria. All spike recoveries in the MS, DMS, and associated Laboratory Control Sample (LCS) were within acceptance limits, indicating the analytical batch was in control. No further corrective action was appropriate.

Semivoa GC:

Method 8151A Modified, Chlorinated Phenolics06/18/2019: The upper control criterion was exceeded for Pentachlorophenol (PCP) in Continuing Calibration Verification (CCV) KQ1908531-02. The field samples analyzed in this sequence did not contain Pentachlorophenol (PCP) in question. Since the apparent problem indicated a potential high bias, the data quality was not affected. No further corrective action was required.

Approved by Kelley Lovejoy Date 06/24/2019

Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

K1905450

SR# _____

ALS

1317 South 13th, Kelso, WA 98626 (360) 577-7222 FAX (360) 636-1068

PAGE _____ OF _____

0H	7D	28D									180D	7D

Project Name: JH Baxter - Arlington Project Number: _____

Project Manager: _____ Company: JH Baxter

Company/Address: 85 N Baxter Rd Phone: 541-689-3801

City, State, Zip: Eugene, OR 97402 FAX: 541-689-0769

Sampler's Signature: _____

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	Analysis Requested: SM 4500-H+ B / Ph	8270 D / PAH SIM	120.1 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	6020A / AS D	8151 A Modified / PCP only	REMARKS
HCMW-7				water	1													X	PMP program
MW-15	6/9/19	1504		water	2		X											~~X~~	SI Program
MW-16				water	2		X											X	SI Program
MW-17	6/9/19	1750		water	2		X											~~X~~	SI Program
MW-18				water	2		X											X	SI Program
MW-2	6/9/19	1620		water	2		X											~~X~~	SI Program
MW-22				water	1													X	PMP program
MW-23				water	1													X	PMP program
MW-24				water	1													X	PMP program
MW-25				water	1													X	PMP program
MW-26				water	1													X	PMP program

TURNAROUND REQUIREMENTS

____ 24 hr ____ 48 hr ____ 5 day

__X__ Standard (21 days)

____ Provide FAX Preliminary Results

Requested Report Date: _____

REPORT REQUIREMENTS

_____ I. Routine Report: Results, Method Blank, Surrogate, as required

_____ II. Report Dup., MS, MSD as required

_____ III. Data Validation Report (includes raw data)

__X__ IV. CLP Deliverable Report

_____ V. EDD

Comments/Special Instructions:

PAH samples have 2 - 500ml amber bottles

Josh BALE

Questions? - Please Call ~~Steven Kuhlmeier~~ @ GSI Water Solutions 971-200-8529

Invoice Information

P.O. # _____

Bill to: JH Baxter & Co

San Mateo CA,94402

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Printed Name: Matt Hansen	Printed Name: KMorrison	Printed Name:	Printed Name:
Firm: JH Baxter	Firm: ALS	Firm:	Firm:
Date/Time: 6/10/19 1400	Date/Time: 6/11/19 0910	Date/Time:	Date/Time:

K1905450

ALS

1317 South 13th, Kelso, WA 98626 (360) 577-7222 FAX (360) 636-1068

SR# ______________

PAGE ______ OF ______

Project Name: JH Baxter - Arlington Project Number: ______________

Project Manager: ______________ Company: JH Baxter

Company/Address: 85 N Baxter Rd Phone: 541-689-3801

City, State, Zip: Eugene, OR 97402 FAX: 541-689-0769

Sampler's Signature: ______________

						0H	7D	28D								180D		7D	
						Analysis Requested													
Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	SM 4500-H+ B / Ph	8270 D / PAH SIM	120.1 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	6020A / AS D	8151 A Modified / PCP only	REMARKS
MW - 27				water	1													X	PMP program
MW - 28				water	1													X	PMP program
MW - 29				water	1													X	PMP program
MW - 30				water	2		X											X	SI program
MW - 31				water	1													X	PMP program
MW - 32				water	1													X	PMP program
MW - 33				water	1													X	PMP program
MW - 34				water	1													X	PMP program
MW - 35	6/9/19	1700		water	2		X											X	PMP program
MW - 36				water	2		X											X	SI program
MW - 37				water	2		X											X	SI program

TURNAROUND REQUIREMENTS

____ 24 hr ____ 48 hr ____ 5 day

__X__ Standard (21 days)

____ Provide FAX Preliminary Results

Requested Report Date: ______________

REPORT REQUIREMENTS

____ I. Routine Report: Results, Method Blank, Surrogate, as required

____ II. Report Dup., MS, MSD as required

____ III. Data Validation Report (includes raw data)

__X__ IV. CLP Deliverable Report

____ V. EDD

Comments/Special Instructions:

PAH samples have 2 - 500ml amber bottles

Josh Bale

Questions? - Please Call ~~Steven Kuhlmeier~~ @ GSI Water Solutions 971-200-8529

Invoice Information

P.O. # ______________

Bill to: JH Baxter & Co
San Mateo CA,94402

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: [signature]	Signature: [signature]	Signature:	Signature:
Printed Name: Matt Hansen	Printed Name: K Moreno	Printed Name:	Printed Name:
Firm: JH Baxter	Firm: ALS	Firm:	Firm:
Date/Time: 6/10/19 1400	Date/Time: 6/11/19 0910	Date/Time:	Date/Time:

PC KL

Cooler Receipt and Preservation Form

Client J H Baxter Service Request K19 05450

Received: 6-11-2019 Opened: 6-11-2019 By: KM Unloaded: 6-11-2019 By: KL

1. Samples were received via? *USPS* (*Fed Ex*) *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other*_____ *NA*
3. Were custody seals on coolers? NA Y (N) If yes, how many and where?_____
   If present, were custody seals intact? Y (N) If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID (NA)	Tracking Number NA	Filed
-0.3	-0.3	N/A	N/A	0	370		480832302635	

4. Packing material: *Inserts* *Baggies* (*Bubble Wrap*) *Gel Packs* (*Wet Ice*) *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA (Y) N
   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y (N)
11. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
12. Was C12/Res negative? NA (Y) N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions:

Rec'd 2 containers for MW-35, not 3

Chlorinated Phenolics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/09/19 17:00
Sample Matrix:	Water	**Date Received:**	06/11/19 09:10
Sample Name:	MW-35	**Units:**	ug/L
Lab Code:	K1905450-004	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/18/19 17:13	6/14/19	*

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	80	55 - 130	06/18/19 17:13	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KQ1908343-04	**Basis:**	NA

Chlorinated Phenolics

Analysis Method: 8151A Modified
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Pentachlorophenol (PCP)	ND U	0.50	0.071	1	06/18/19 16:36	6/14/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromo-2,6-dichlorophenol	76	55 - 130	06/18/19 16:36	

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905450
Date Collected: 06/09/19 17:00
Date Received: 6/11/19

Sample Name: MW-35
Lab Code: KQ1908343-01

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	6.15	7.32	17		1	06/18/19 17:32

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905450
Date Collected: 06/09/19 17:00
Date Received: 6/11/19

Sample Name: MW-35
Lab Code: KQ1908343-02

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	6.14	7.74	23		1	06/18/19 17:50

Confirmation Results

Client: JH Baxter & Company
Project: Arlington Landfill Wells/Landfill Program
SRM Matrix: Water

Service Request: K1905450
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: KQ1908343-03

Units: ug/L
Basis: NA

Chlorinated Phenolics

Analytical Method: 8151A Modified
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol (PCP)	0.071	6.03	7.25	18		1	06/18/19 16:55

Client: JH Baxter & Company **Service Request:** K1905450

Project: Arlington Landfill Wells/Landfill Program

Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Chlorinated Phenolics

Analysis Method: 8151A Modified

Extraction Method: Method

Sample Name	Lab Code	4-Bromo-2,6-dichlorophenol 55-130
MW-35	K1905450-004	80
Method Blank	KQ1908343-04	76
Lab Control Sample	KQ1908343-03	72
MW-35	KQ1908343-01	75
MW-35	KQ1908343-02	77

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/09/19
Sample Matrix:	Water	**Date Received:**	06/11/19
		Date Analyzed:	06/18/19
		Date Extracted:	06/14/19

Duplicate Matrix Spike Summary
Chlorinated Phenolics

Sample Name:	MW-35	**Units:**	ug/L
Lab Code:	K1905450-004	**Basis:**	NA
Analysis Method:	8151A Modified		
Prep Method:	Method		

		Matrix Spike KQ1908343-01			Duplicate Matrix Spike KQ1908343-02					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Pentachlorophenol (PCP)	ND U	6.15	10.0	61	6.14	10.0	61	22-136	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/18/19
Sample Matrix:	Water	**Date Extracted:**	06/14/19

Lab Control Sample Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Units:**	ug/L
Prep Method:	Method	**Basis:**	NA
		Analysis Lot:	639854

Lab Control Sample
KQ1908343-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Pentachlorophenol (PCP)	6.03	10.0	60	42-110

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/18/19 16:36
Sample Matrix:	Water	**Date Extracted:**	06/14/19

Method Blank Summary
Chlorinated Phenolics

Sample Name:	Method Blank	**Instrument ID:**	K-GC-28
Lab Code:	KQ1908343-04	**File ID:**	J:\GC28\Data\061819B\0618F005.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	639854
Prep Method:	Method	**Extraction Lot:**	338716

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1908343-03	J:\GC28\Data\061819B\0618F006.D\	06/18/19 16:55
MW-35	K1905450-004	J:\GC28\Data\061819B\0618F007.D\	06/18/19 17:13
MW-35MS	KQ1908343-01	J:\GC28\Data\061819B\0618F008.D\	06/18/19 17:32
MW-35DMS	KQ1908343-02	J:\GC28\Data\061819B\0618F009.D\	06/18/19 17:50

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/18/19 16:55
Sample Matrix:	Water	**Date Extracted:**	06/14/19

Lab Control Sample Summary
Chlorinated Phenolics

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-28
Lab Code:	KQ1908343-03	**File ID:**	J:\GC28\Data\061819B\0618F006.D\
Analysis Method:	8151A Modified	**Analysis Lot:**	639854
Prep Method:	Method	**Extraction Lot:**	338716

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1908343-04	J:\GC28\Data\061819B\0618F005.D\	06/18/19 16:36
MW-35	K1905450-004	J:\GC28\Data\061819B\0618F007.D\	06/18/19 17:13
MW-35MS	KQ1908343-01	J:\GC28\Data\061819B\0618F008.D\	06/18/19 17:32
MW-35DMS	KQ1908343-02	J:\GC28\Data\061819B\0618F009.D\	06/18/19 17:50

Client: JH Baxter & Company
Project: Arlington Landfill Wells

Service Request: K1905450
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-1701

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Analyte

4-Bromo-2,6-dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	10	2.500	4.672E5	02	5.000	4.356E5	03	10.000	4.141E5
04	25.000	3.754E5	05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5
08	500.000	2.979E5	09	1000.000	2.755E5						

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	10	2.375	6.451E5	02	4.750	5.978E5	03	9.501	5.654E5
04	23.752	5.208E5	05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5
08	475.030	3.936E5	09	950.060	3.695E5						

Client: JH Baxter & Company
Project: Arlington Landfill Wells

Service Request: K1905450
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-1701

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
4-Bromo-2,6-dichlorophenol	SURR	Quadratic	COD	0.9994	≥0.99	3.824E5	
Pentachlorophenol (PCP)	TRG	Quadratic	COD	0.9990	≥0.99	5.2E5	

Client: JH Baxter & Company
Project: Arlington Landfill Wells

Service Request: K1905450
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-35

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Analyte

4-Bromo-2,6-dichlorophenol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	10	2.500	3.934E5	02	5.000	3.777E5	03	10.000	4.048E5
04	25.000	4.138E5	05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5
08	500.000	4.395E5	09	1000.000	4.542E5						

Pentachlorophenol (PCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	10	2.375	7.52E5	02	4.750	6.912E5	03	9.501	6.875E5
04	23.752	6.474E5	05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5
08	475.030	6.37E5	09	950.060	6.573E5						

Client: JH Baxter & Company
Project: Arlington Landfill Wells

Service Request: K1905450
Calibration Date: 2/28/2019

Initial Calibration Summary
Chlorinated Phenolics

Calibration ID: KC1900082
Instrument ID: K-GC-28

Signal ID: Rtx-35

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
4-Bromo-2,6-dichlorophenol	SURR	Average RF	% RSD	6.0	≤20	4.216E5	
Pentachlorophenol (PCP)	TRG	Average RF	% RSD	9.6	≤20	6.805E5	

Client: JH Baxter & Company **Service Request:** K1905450
Project: Arlington Landfill Wells **Calibration Date:** 2/28/2019

Initial Calibration Verification Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-1701
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900082-11	PENTA01-95D ICV	J:\GC28\Data\022819CAL\0228F016.D	02/28/2019 12:00

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	55.3	5.2E5	5.35E5	16.43	±20	Quadratic

Client: JH Baxter & Company **Service Request:** K1905450
Project: Arlington Landfill Wells **Calibration Date:** 2/28/2019

Initial Calibration Verification Summary
Chlorinated Phenolics

Calibration ID: KC1900082 **Signal ID:** Rtx-35
Instrument ID: K-GC-28

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900082-11	PENTA01-95D ICV	J:\GC28\Data\022819CAL\0228F016.D	02/28/2019 12:00

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	48.8	6.805E5	6.996E5	2.80	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/18/19 15:59

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061819B\0618F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	639854
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	49.5	6.805E5	7.087E5	4.1	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	50.8	4.216E5	4.284E5	1.6	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/18/19 15:59

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061819B\0618F003.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	639854
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	56.1	5.2E5	5.429E5	NA	18.2	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	56.3	3.824E5	3.876E5	NA	12.6	±20	Quadratic

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/18/19 18:09

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061819B\0618F010.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-35	**Analysis Lot:**	639854
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	47.2	6.805E5	6.759E5	-0.7	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	48.2	4.216E5	4.06E5	-3.7	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/18/19 18:09

Continuing Calibration Verification (CCV) Summary
Chlorinated Phenolics

Analysis Method:	8151A Modified	**Calibration Date:**	2/28/2019
File ID:	J:\GC28\Data\061819B\0618F010.D\	**Calibration ID:**	KC1900082
Signal ID:	Rtx-1701	**Analysis Lot:**	639854
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Pentachlorophenol (PCP)	47.5	59.2	5.2E5	5.718E5	NA	24.7*	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50.0	59.1	3.824E5	4.066E5	NA	18.2	±20	Quadratic

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QA/QC Report

Client: JH Baxter & Company **Service Request:**K1905450
Project: Arlington Landfill Wells/Landfill Program

Analysis Run Log
Chlorinated Phenolics

Analysis Method: 8151A Modified **Analysis Lot:**639854
Instrument ID:K-GC-28

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\GC28\Data\061819B\0618F003.D\	Continuing Calibration Verification	KQ1908531-01	6/18/2019	15:59:00	
J:\GC28\Data\061819B\0618F004.D\	Continuing Calibration Blank	KQ1908531-03	6/18/2019	16:17:00	
J:\GC28\Data\061819B\0618F005.D\	Method Blank	KQ1908343-04	6/18/2019	16:36:00	
J:\GC28\Data\061819B\0618F006.D\	Lab Control Sample	KQ1908343-03	6/18/2019	16:55:00	
J:\GC28\Data\061819B\0618F007.D\	MW-35	K1905450-004	6/18/2019	17:13:00	
J:\GC28\Data\061819B\0618F008.D\	MW-35 MS	KQ1908343-01	6/18/2019	17:32:00	
J:\GC28\Data\061819B\0618F009.D\	MW-35 DMS	KQ1908343-02	6/18/2019	17:50:00	
J:\GC28\Data\061819B\0618F010.D\	Continuing Calibration Verification	KQ1908531-02	6/18/2019	18:09:00	
J:\GC28\Data\061819B\0618F011.D\	Continuing Calibration Blank	KQ1908531-04	6/18/2019	18:27:00	

Prep Summary Report

Client: JH Baxter & Company **Service Request:**K1905450
Project: Arlington Landfill Wells/Landfill Program
Sample Matrix: Water

Chlorinated Phenolics

Prep Method: Method **Extraction Lot:** 338716
Analytical Method: 8151A Modified **Extraction Date:** 06/14/19 11:59

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
MW-35	K1905450-004	6/9/19	6/11/19	5 mL	1 mL	
Matrix Spike	KQ1908343-01MS	6/9/19	6/11/19	5 mL	1 mL	
Duplicate Matrix Spike	KQ1908343-02DMS	6/9/19	6/11/19	5 mL	1 mL	
Lab Control Sample	KQ1908343-03LCS	NA	NA	5 mL	1 mL	
Method Blank	KQ1908343-04MB	NA	NA	5 mL	1 mL	

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/09/19 18:04
Sample Matrix:	Water	**Date Received:**	06/11/19 09:10
Sample Name:	MW-15	**Units:**	ug/L
Lab Code:	K1905450-001	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0022**	**J**	0.020	0.0013	1	06/19/19 04:03	6/12/19	
Acenaphthene	ND	U	0.020	0.0012	1	06/19/19 04:03	6/12/19	
Acenaphthylene	ND	U	0.020	0.0011	1	06/19/19 04:03	6/12/19	
Anthracene	ND	U	0.020	0.00082	1	06/19/19 04:03	6/12/19	
Benz(a)anthracene	**0.0017**	**J**	0.020	0.00097	1	06/19/19 04:03	6/12/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	06/19/19 04:03	6/12/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	06/19/19 04:03	6/12/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	06/19/19 04:03	6/12/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	06/19/19 04:03	6/12/19	
Chrysene	ND	U	0.020	0.00076	1	06/19/19 04:03	6/12/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	06/19/19 04:03	6/12/19	
Dibenzofuran	ND	U	0.020	0.00096	1	06/19/19 04:03	6/12/19	
Fluoranthene	ND	U	0.020	0.00082	1	06/19/19 04:03	6/12/19	
Fluorene	ND	U	0.020	0.0011	1	06/19/19 04:03	6/12/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	06/19/19 04:03	6/12/19	
Naphthalene	**0.0038**	**J**	0.020	0.0014	1	06/19/19 04:03	6/12/19	
Phenanthrene	**0.0052**	**J**	0.020	0.0011	1	06/19/19 04:03	6/12/19	
Pyrene	ND	U	0.020	0.0010	1	06/19/19 04:03	6/12/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	90	42 - 133	06/19/19 04:03	
Fluorene-d10	105	42 - 131	06/19/19 04:03	
Terphenyl-d14	98	32 - 129	06/19/19 04:03	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/09/19 17:38
Sample Matrix:	Water	**Date Received:**	06/11/19 09:10
Sample Name:	MW-17	**Units:**	ug/L
Lab Code:	K1905450-002	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0031**	**J**	0.020	0.0013	1	06/19/19 04:31	6/12/19	
Acenaphthene	ND	U	0.020	0.0012	1	06/19/19 04:31	6/12/19	
Acenaphthylene	ND	U	0.020	0.0011	1	06/19/19 04:31	6/12/19	
Anthracene	ND	U	0.020	0.00082	1	06/19/19 04:31	6/12/19	
Benz(a)anthracene	**0.0020**	**J**	0.020	0.00097	1	06/19/19 04:31	6/12/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	06/19/19 04:31	6/12/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	06/19/19 04:31	6/12/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	06/19/19 04:31	6/12/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	06/19/19 04:31	6/12/19	
Chrysene	ND	U	0.020	0.00076	1	06/19/19 04:31	6/12/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	06/19/19 04:31	6/12/19	
Dibenzofuran	ND	U	0.020	0.00096	1	06/19/19 04:31	6/12/19	
Fluoranthene	ND	U	0.020	0.00082	1	06/19/19 04:31	6/12/19	
Fluorene	ND	U	0.020	0.0011	1	06/19/19 04:31	6/12/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	06/19/19 04:31	6/12/19	
Naphthalene	**0.0046**	**J**	0.020	0.0014	1	06/19/19 04:31	6/12/19	
Phenanthrene	**0.0055**	**J**	0.020	0.0011	1	06/19/19 04:31	6/12/19	
Pyrene	ND	U	0.020	0.0010	1	06/19/19 04:31	6/12/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	97	42 - 133	06/19/19 04:31	
Fluorene-d10	114	42 - 131	06/19/19 04:31	
Terphenyl-d14	101	32 - 129	06/19/19 04:31	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/09/19 16:20
Sample Matrix:	Water	**Date Received:**	06/11/19 09:10
Sample Name:	MW-2	**Units:**	ug/L
Lab Code:	K1905450-003	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0021**	**J**	0.020	0.0013	1	06/19/19 22:08	6/12/19	
Acenaphthene	ND	U	0.020	0.0012	1	06/19/19 22:08	6/12/19	
Acenaphthylene	ND	U	0.020	0.0011	1	06/19/19 22:08	6/12/19	
Anthracene	ND	U	0.020	0.00082	1	06/19/19 22:08	6/12/19	
Benz(a)anthracene	**0.0018**	**J**	0.020	0.00097	1	06/19/19 22:08	6/12/19	
Benzo(a)pyrene	**0.015**	**J**	0.020	0.0011	1	06/19/19 22:08	6/12/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	06/19/19 22:08	6/12/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	06/19/19 22:08	6/12/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	06/19/19 22:08	6/12/19	
Chrysene	ND	U	0.020	0.00076	1	06/19/19 22:08	6/12/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	06/19/19 22:08	6/12/19	
Dibenzofuran	ND	U	0.020	0.00096	1	06/19/19 22:08	6/12/19	
Fluoranthene	ND	U	0.020	0.00082	1	06/19/19 22:08	6/12/19	
Fluorene	**0.0020**	**J**	0.020	0.0011	1	06/19/19 22:08	6/12/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	06/19/19 22:08	6/12/19	
Naphthalene	**0.0031**	**J**	0.020	0.0014	1	06/19/19 22:08	6/12/19	
Phenanthrene	**0.0054**	**J**	0.020	0.0011	1	06/19/19 22:08	6/12/19	
Pyrene	ND	U	0.020	0.0010	1	06/19/19 22:08	6/12/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	83	42 - 133	06/19/19 22:08	
Fluorene-d10	97	42 - 131	06/19/19 22:08	
Terphenyl-d14	87	32 - 129	06/19/19 22:08	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	06/09/19 17:00
Sample Matrix:	Water	**Date Received:**	06/11/19 09:10
Sample Name:	MW-35	**Units:**	ug/L
Lab Code:	K1905450-004	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	**0.0023**	**J**	0.024	0.0016	1	06/19/19 22:35	6/12/19	
Acenaphthene	**0.0015**	**J**	0.024	0.0015	1	06/19/19 22:35	6/12/19	
Acenaphthylene	ND	U	0.024	0.0014	1	06/19/19 22:35	6/12/19	
Anthracene	ND	U	0.024	0.00099	1	06/19/19 22:35	6/12/19	
Benz(a)anthracene	**0.0023**	**J**	0.024	0.0012	1	06/19/19 22:35	6/12/19	
Benzo(a)pyrene	**0.013**	**J**	0.024	0.0014	1	06/19/19 22:35	6/12/19	
Benzo(b)fluoranthene	ND	U	0.024	0.0010	1	06/19/19 22:35	6/12/19	
Benzo(g,h,i)perylene	ND	U	0.024	0.0011	1	06/19/19 22:35	6/12/19	
Benzo(k)fluoranthene	ND	U	0.024	0.0012	1	06/19/19 22:35	6/12/19	
Chrysene	ND	U	0.024	0.00092	1	06/19/19 22:35	6/12/19	
Dibenz(a,h)anthracene	ND	U	0.024	0.0016	1	06/19/19 22:35	6/12/19	
Dibenzofuran	**0.0021**	**J**	0.024	0.0012	1	06/19/19 22:35	6/12/19	
Fluoranthene	ND	U	0.024	0.00099	1	06/19/19 22:35	6/12/19	
Fluorene	ND	U	0.024	0.0014	1	06/19/19 22:35	6/12/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.024	0.0011	1	06/19/19 22:35	6/12/19	
Naphthalene	**0.0030**	**J**	0.024	0.0017	1	06/19/19 22:35	6/12/19	
Phenanthrene	**0.0071**	**J**	0.024	0.0014	1	06/19/19 22:35	6/12/19	
Pyrene	ND	U	0.024	0.0012	1	06/19/19 22:35	6/12/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	90	42 - 133	06/19/19 22:35	
Fluorene-d10	105	42 - 131	06/19/19 22:35	
Terphenyl-d14	97	32 - 129	06/19/19 22:35	

Analytical Report

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KQ1908183-04	**Basis:**	NA

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3511

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	ND	U	0.020	0.0013	1	06/18/19 17:52	6/12/19	
Acenaphthene	ND	U	0.020	0.0012	1	06/18/19 17:52	6/12/19	
Acenaphthylene	ND	U	0.020	0.0011	1	06/18/19 17:52	6/12/19	
Anthracene	ND	U	0.020	0.00082	1	06/18/19 17:52	6/12/19	
Benz(a)anthracene	**0.0017**	**J**	0.020	0.00097	1	06/18/19 17:52	6/12/19	
Benzo(a)pyrene	ND	U	0.020	0.0011	1	06/18/19 17:52	6/12/19	
Benzo(b)fluoranthene	ND	U	0.020	0.00083	1	06/18/19 17:52	6/12/19	
Benzo(g,h,i)perylene	ND	U	0.020	0.00086	1	06/18/19 17:52	6/12/19	
Benzo(k)fluoranthene	ND	U	0.020	0.00094	1	06/18/19 17:52	6/12/19	
Chrysene	ND	U	0.020	0.00076	1	06/18/19 17:52	6/12/19	
Dibenz(a,h)anthracene	ND	U	0.020	0.0013	1	06/18/19 17:52	6/12/19	
Dibenzofuran	**0.0018**	**J**	0.020	0.00096	1	06/18/19 17:52	6/12/19	
Fluoranthene	ND	U	0.020	0.00082	1	06/18/19 17:52	6/12/19	
Fluorene	ND	U	0.020	0.0011	1	06/18/19 17:52	6/12/19	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.00089	1	06/18/19 17:52	6/12/19	
Naphthalene	**0.0014**	**J**	0.020	0.0014	1	06/18/19 17:52	6/12/19	
Phenanthrene	**0.0046**	**J**	0.020	0.0011	1	06/18/19 17:52	6/12/19	
Pyrene	ND	U	0.020	0.0010	1	06/18/19 17:52	6/12/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Fluoranthene-d10	92	42 - 133	06/18/19 17:52	
Fluorene-d10	108	42 - 131	06/18/19 17:52	
Terphenyl-d14	90	32 - 129	06/18/19 17:52	

Client: JH Baxter & Company **Service Request:** K1905450

Project: Arlington Landfill Wells/Landfill Program

Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: 8270D

Extraction Method: EPA 3511

Sample Name	Lab Code	Fluoranthene-d10 42-133	Fluorene-d10 42-131	Terphenyl-d14 32-129
MW-15	K1905450-001	90	105	98
MW-17	K1905450-002	97	114	101
MW-2	K1905450-003	83	97	87
MW-35	K1905450-004	90	105	97
Method Blank	KQ1908183-04	92	108	90
Lab Control Sample	KQ1908183-03	91	104	95

Client: JH Baxter & Company **Service Request:** K1905450
Project: Arlington Landfill Wells/Landfill Program **Date Analyzed:** 06/18/19 17:24

Internal Standard Area and RT SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\061819\0618F028.D\ **Lab Code:** KQ1908547-01
Instrument ID: K-MS-14 **Analysis Lot:** 639897
Analysis Method: 8270D **Signal ID:** 1

		Acenaphthene-d10		Chrysene-d12		Naphthalene-d8	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Result ==>	25,450	6.27	73,294	10.00	51,355	4.71
	Upper Limit ==>	50,900	6.77	146,588	10.50	102,710	5.21
	Lower Limit ==>	12,725	5.77	36,647	9.50	25,678	4.21
Associated Analyses							
Method Blank	KQ1908183-04	35798	6.27	85801	10.00	65725	4.72
Lab Control Sample	KQ1908183-03	36451	6.27	86219	10.01	72451	4.73
MW-15	K1905450-001	36494	6.27	81309	10.00	68138	4.72
MW-17	K1905450-002	34827	6.27	76863	10.00	64672	4.72

Client: JH Baxter & Company **Service Request:**K1905450
Project: Arlington Landfill Wells/Landfill Program **Date Analyzed:**06/18/19 17:24

Internal Standard Area and RT SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\061819\0618F028.D\ **Lab Code:**KQ1908547-01
Instrument ID: K-MS-14 **Analysis Lot:**639897
Analysis Method: 8270D **Signal ID:**1

		Perylene-d12		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**
	Result ==>	82,663	13.00	42,705	7.50
	Upper Limit ==>	165,326	13.50	85,410	8.00
	Lower Limit ==>	41,332	12.50	21,353	7.00
Associated Analyses					
Method Blank	KQ1908183-04	94772	13.00	68458	7.50
Lab Control Sample	KQ1908183-03	104290	13.02	72018	7.51
MW-15	K1905450-001	97148	13.01	70512	7.51
MW-17	K1905450-002	91445	13.00	67430	7.51

Client: JH Baxter & Company **Service Request:** K1905450
Project: Arlington Landfill Wells/Landfill Program **Date Analyzed:** 06/19/19 19:23

Internal Standard Area and RT SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\061919\0619F027.D\ **Lab Code:** KQ1908603-01
Instrument ID: K-MS-14 **Analysis Lot:** 640092
Analysis Method: 8270D **Signal ID:** 1

		Acenaphthene-d10		Chrysene-d12		Naphthalene-d8	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Result ==>	27,844	6.27	75,286	10.00	57,117	4.72
	Upper Limit ==>	55,688	6.77	150,572	10.50	114,234	5.22
	Lower Limit ==>	13,922	5.77	37,643	9.50	28,559	4.22
Associated Analyses							
MW-2	K1905450-003	37283	6.27	88054	10.00	68243	4.72
MW-35	K1905450-004	38364	6.27	89180	10.00	70475	4.72

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: JH Baxter & Company **Service Request:**K1905450
Project: Arlington Landfill Wells/Landfill Program **Date Analyzed:**06/19/19 19:23

Internal Standard Area and RT SUMMARY
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\061919\0619F027.D\ **Lab Code:**KQ1908603-01
Instrument ID: K-MS-14 **Analysis Lot:**640092
Analysis Method: 8270D **Signal ID:**1

		Perylene-d12		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**
	Result ==>	88,581	13.01	50,451	7.50
	Upper Limit ==>	177,162	13.51	100,902	8.00
	Lower Limit ==>	44,291	12.51	25,226	7.00
Associated Analyses					
MW-2	K1905450-003	103380	13.00	71575	7.50
MW-35	K1905450-004	104404	13.00	73482	7.51

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/18/19
Sample Matrix:	Water	**Date Extracted:**	06/12/19

Lab Control Sample Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method:	8270D	**Units:**	ug/L
Prep Method:	EPA 3511	**Basis:**	NA
		Analysis Lot:	639897

Lab Control Sample
KQ1908183-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
2-Methylnaphthalene	2.56	2.78	92	48-120
Acenaphthene	2.65	2.78	95	63-121
Acenaphthylene	2.65	2.78	96	58-124
Anthracene	2.80	2.78	101	68-127
Benz(a)anthracene	2.71	2.78	97	74-124
Benzo(a)pyrene	2.64	2.78	95	75-131
Benzo(b)fluoranthene	2.70	2.78	97	73-136
Benzo(g,h,i)perylene	2.47	2.78	89	63-127
Benzo(k)fluoranthene	2.59	2.78	93	74-134
Chrysene	2.63	2.78	95	74-132
Dibenz(a,h)anthracene	2.36	2.78	85	59-135
Dibenzofuran	2.69	2.78	97	56-132
Fluoranthene	2.24	2.78	81	70-127
Fluorene	2.73	2.78	98	68-121
Indeno(1,2,3-cd)pyrene	2.53	2.78	91	63-136
Naphthalene	2.52	2.78	91	52-115
Phenanthrene	2.57	2.78	93	64-126
Pyrene	2.86	2.78	103	72-127

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/18/19 17:52
Sample Matrix:	Water	**Date Extracted:**	06/12/19

Method Blank Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Sample Name:	Method Blank	**Instrument ID:**	K-MS-14
Lab Code:	KQ1908183-04	**File ID:**	J:\MS14\DATA\061819\0618F029.D\
Analysis Method:	8270D	**Analysis Lot:**	639897,640092
Prep Method:	EPA 3511	**Extraction Lot:**	338543

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1908183-03	J:\MS14\DATA\061819\0618F040.D\	06/18/19 22:58
MW-15	K1905450-001	J:\MS14\DATA\061819\0618F051.D\	06/19/19 04:03
MW-17	K1905450-002	J:\MS14\DATA\061819\0618F052.D\	06/19/19 04:31
MW-2	K1905450-003	J:\MS14\DATA\061919\0619F033.D\	06/19/19 22:08
MW-35	K1905450-004	J:\MS14\DATA\061919\0619F034.D\	06/19/19 22:35

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/18/19 22:58
Sample Matrix:	Water	**Date Extracted:**	06/12/19

Lab Control Sample Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Sample Name:	Lab Control Sample	**Instrument ID:**	K-MS-14
Lab Code:	KQ1908183-03	**File ID:**	J:\MS14\DATA\061819\0618F040.D\
Analysis Method:	8270D	**Analysis Lot:**	639897,640092
Prep Method:	EPA 3511	**Extraction Lot:**	338543

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1908183-04	J:\MS14\DATA\061819\0618F029.D\	06/18/19 17:52
MW-15	K1905450-001	J:\MS14\DATA\061819\0618F051.D\	06/19/19 04:03
MW-17	K1905450-002	J:\MS14\DATA\061819\0618F052.D\	06/19/19 04:31
MW-2	K1905450-003	J:\MS14\DATA\061919\0619F033.D\	06/19/19 22:08
MW-35	K1905450-004	J:\MS14\DATA\061919\0619F034.D\	06/19/19 22:35

Client: JH Baxter & Company **Service Request:**K1905450
Project: Arlington Landfill Wells/Landfill Program **Date Analyzed:**06/18/19 16:56

Tune Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\061819\0618F027.D\ **Analytical Method:** 8270D
Instrument ID: K-MS-14 **Analysis Lot:** 639897

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	25.15	110737	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	29.22	128682	Pass
70	69	0	2	0.57	732	Pass
127	198	10	80	39.50	173928	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	39.79	440341	Pass
199	198	5	9	6.66	29346	Pass
275	198	10	60	37.17	163685	Pass
365	442	1	50	2.00	22119	Pass
441	443	0.01	100	74.16	160698	Pass
442	442	30	100	100.00	1106730	Pass
443	442	15	24	19.58	216682	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	KQ1908547-01	J:\MS14\DATA\061819\0618F028.D\	06/18/19 17:24	
Method Blank	KQ1908183-04	J:\MS14\DATA\061819\0618F029.D\	06/18/19 17:52	
Lab Control Sample	KQ1908183-03	J:\MS14\DATA\061819\0618F040.D\	06/18/19 22:58	
MW-15	K1905450-001	J:\MS14\DATA\061819\0618F051.D\	06/19/19 04:03	
MW-17	K1905450-002	J:\MS14\DATA\061819\0618F052.D\	06/19/19 04:31	

Client: JH Baxter & Company **Service Request:**K1905450
Project: Arlington Landfill Wells/Landfill Program **Date Analyzed:**06/19/19 18:55

Tune Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

File ID: J:\MS14\DATA\061919\0619F026.D\ **Analytical Method:** 8270D
Instrument ID: K-MS-14 **Analysis Lot:** 640092

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	25.60	118898	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	29.37	136429	Pass
70	69	0	2	0.55	744	Pass
127	198	10	80	39.70	184394	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	39.51	464512	Pass
199	198	5	9	6.79	31546	Pass
275	198	10	60	37.75	175349	Pass
365	442	1	50	2.06	24229	Pass
441	443	0.01	100	73.64	170104	Pass
442	442	30	100	100.00	1175701	Pass
443	442	15	24	19.65	230986	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	KQ1908603-01	J:\MS14\DATA\061919\0619F027.D\	06/19/19 19:23	
MW-2	K1905450-003	J:\MS14\DATA\061919\0619F033.D\	06/19/19 22:08	
MW-35	K1905450-004	J:\MS14\DATA\061919\0619F034.D\	06/19/19 22:35	

Client: JH Baxter & Company **Service Request:** K1905450
Project: Arlington Landfill Wells **Calibration Date:** 6/17/2019

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900232 **Signal ID:** 1
Instrument ID: K-MS-14

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900232-01	SIM-PAH @ 0.004ug/mL SVM61-6B	J:\MS14\DATA\061719\0617F008.D	06/17/2019 09:58
02	KC1900232-02	SIM-PAH @ 0.008ug/mL SVM61-6C	J:\MS14\DATA\061719\0617F009.D	06/17/2019 10:26
03	KC1900232-03	SIM-PAH @ 0.02ug/mL SVM61-6D	J:\MS14\DATA\061719\0617F010.D	06/17/2019 10:54
04	KC1900232-04	SIM-PAH @ 0.1ug/mL SVM61-6E	J:\MS14\DATA\061719\0617F011.D	06/17/2019 11:22
05	KC1900232-05	SIM-PAH @ 0.2ug/mL SVM61-6F	J:\MS14\DATA\061719\0617F012.D	06/17/2019 11:50
06	KC1900232-06	SIM-PAH @ 0.4ug/mL SVM61-6G	J:\MS14\DATA\061719\0617F013.D	06/17/2019 12:17
07	KC1900232-07	SIM-PAH @ 1.0ug/mL SVM61-6H	J:\MS14\DATA\061719\0617F014.D	06/17/2019 12:46
08	KC1900232-08	SIM-PAH @ 1.6ug/mL SVM61-6I	J:\MS14\DATA\061719\0617F015.D	06/17/2019 13:14
09	KC1900232-09	SIM-PAH @ 2.0ug/mL SVM61-6J	J:\MS14\DATA\061719\0617F016.D	06/17/2019 13:42

Analyte

2-Methylnaphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	0.7645	02	8.000	0.7452	03	20.000	0.7555	04	100.000	0.7403
05	200.000	0.7129	06	400.000	0.6966	07	1000.000	0.6553	08	1600.000	0.6586
09	2000.000	0.6418									

Acenaphthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.327	02	8.000	1.266	03	20.000	1.29	04	100.000	1.304
05	200.000	1.272	06	400.000	1.298	07	1000.000	1.248	08	1600.000	1.264
09	2000.000	1.226									

Acenaphthylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	2.357	02	8.000	2.196	03	20.000	2.105	04	100.000	2.122
05	200.000	2.096	06	400.000	2.136	07	1000.000	2.085	08	1600.000	2.107
09	2000.000	2.039									

Anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.161	02	8.000	1.163	03	20.000	1.17	04	100.000	1.195
05	200.000	1.148	06	400.000	1.175	07	1000.000	1.15	08	1600.000	1.161
09	2000.000	1.126									

Benz(a)anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.287	02	8.000	1.246	03	20.000	1.201	04	100.000	1.208
05	200.000	1.206	06	400.000	1.258	07	1000.000	1.285	08	1600.000	1.304
09	2000.000	1.278									

Benzo(a)pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.126	02	8.000	1.082	03	20.000	1.069	04	100.000	1.057
05	200.000	1.042	06	400.000	1.068	07	1000.000	1.04	08	1600.000	1.056

Client: JH Baxter & Company **Service Request:** K1905450
Project: Arlington Landfill Wells **Calibration Date:** 6/17/2019

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900232 **Signal ID:** 1
Instrument ID: K-MS-14

Analyte

Benzo(a)pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	2000.000	1.023									

Benzo(b)fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.14	02	8.000	1.129	03	20.000	1.146	04	100.000	1.189
05	200.000	1.202	06	400.000	1.242	07	1000.000	1.183	08	1600.000	1.202
09	2000.000	1.161									

Benzo(g,h,i)perylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.344	02	8.000	1.337	03	20.000	1.354	04	100.000	1.343
05	200.000	1.303	06	400.000	1.262	07	1000.000	1.078	08	1600.000	1.02
09	2000.000	0.95									

Benzo(k)fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.118	02	8.000	1.14	03	20.000	1.136	04	100.000	1.183
05	200.000	1.186	06	400.000	1.184	07	1000.000	1.126	08	1600.000	1.132
09	2000.000	1.095									

Chrysene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.184	02	8.000	1.176	03	20.000	1.197	04	100.000	1.203
05	200.000	1.192	06	400.000	1.21	07	1000.000	1.195	08	1600.000	1.222
09	2000.000	1.199									

Dibenz(a,h)anthracene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.136	02	8.000	1.172	03	20.000	1.236	04	100.000	1.296
05	200.000	1.279	06	400.000	1.245	07	1000.000	1.117	08	1600.000	1.095
09	2000.000	1.02									

Dibenzofuran

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.972	02	8.000	1.966	03	20.000	2.013	04	100.000	2.041
05	200.000	1.979	06	400.000	1.993	07	1000.000	1.982	08	1600.000	1.919
09	2000.000	1.855									

Fluoranthene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.636	02	8.000	1.669	03	20.000	1.678	04	100.000	1.66
05	200.000	1.553	06	400.000	1.557	07	1000.000	1.686	08	1600.000	1.736
09	2000.000	1.686									

Fluoranthene-d10

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.323	02	8.000	1.38	03	20.000	1.339	04	100.000	1.303

Client: JH Baxter & Company **Service Request:** K1905450
Project: Arlington Landfill Wells **Calibration Date:** 6/17/2019

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900232 **Signal ID:** 1
Instrument ID: K-MS-14

Analyte

Fluoranthene-d10

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	200.000	1.24	06	400.000	1.292	07	1000.000	1.45	08	1600.000	1.512
09	2000.000	1.466									

Fluorene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.548	02	8.000	1.54	03	20.000	1.468	04	100.000	1.472
05	200.000	1.437	06	400.000	1.461	07	1000.000	1.399	08	1600.000	1.412
09	2000.000	1.376									

Fluorene-d10

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.179	02	8.000	1.134	03	20.000	1.097	04	100.000	1.094
05	200.000	1.066	06	400.000	1.099	07	1000.000	1.064	08	1600.000	1.079
09	2000.000	1.053									

Indeno(1,2,3-cd)pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.068	02	8.000	1.031	03	20.000	1.083	04	100.000	1.116
05	200.000	1.112	06	400.000	1.104	07	1000.000	0.9799	08	1600.000	0.9629
09	2000.000	0.9022									

Naphthalene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.079	02	8.000	1.191	03	20.000	1.168	04	100.000	1.138
05	200.000	1.112	06	400.000	1.122	07	1000.000	1.089	08	1600.000	1.097
09	2000.000	1.07									

Phenanthrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.286	02	8.000	1.272	03	20.000	1.228	04	100.000	1.233
05	200.000	1.195	06	400.000	1.231	07	1000.000	1.196	08	1600.000	1.199
09	2000.000	1.168									

Pyrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	1.269	02	8.000	1.256	03	20.000	1.213	04	100.000	1.118
05	200.000	1.053	06	400.000	1.051	07	1000.000	1.187	08	1600.000	1.275
09	2000.000	1.275									

Terphenyl-d14

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	4.000	0.9105	02	8.000	0.9217	03	20.000	0.9015	04	100.000	0.8587
05	200.000	0.8214	06	400.000	0.8367	07	1000.000	0.8537	08	1600.000	0.8754
09	2000.000	0.8483									

Client: JH Baxter & Company **Service Request:** K1905450
Project: Arlington Landfill Wells **Calibration Date:** 6/17/2019

Initial Calibration Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900232 **Signal ID:** 1
Instrument ID: K-MS-14

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
2-Methylnaphthalene	TRG	Average RF	% RSD	6.6	≤20	0.7079	0.40
Acenaphthene	TRG	Average RF	% RSD	2.4	≤20	1.277	0.90
Acenaphthylene	TRG	Average RF	% RSD	4.3	≤20	2.138	0.90
Anthracene	TRG	Average RF	% RSD	1.7	≤20	1.161	0.70
Benz(a)anthracene	TRG	Average RF	% RSD	3.2	≤20	1.253	0.80
Benzo(a)pyrene	TRG	Average RF	% RSD	2.8	≤20	1.062	0.70
Benzo(b)fluoranthene	TRG	Average RF	% RSD	3.1	≤20	1.177	0.70
Benzo(g,h,i)perylene	TRG	Average RF	% RSD	13.1	≤20	1.221	0.50
Benzo(k)fluoranthene	TRG	Average RF	% RSD	2.8	≤20	1.145	0.70
Chrysene	TRG	Average RF	% RSD	1.2	≤20	1.198	0.70
Dibenz(a,h)anthracene	TRG	Average RF	% RSD	7.9	≤20	1.177	0.40
Dibenzofuran	TRG	Average RF	% RSD	2.7	≤20	1.969	0.80
Fluoranthene	TRG	Average RF	% RSD	3.7	≤20	1.651	0.60
Fluoranthene-d10	SURR	Average RF	% RSD	6.7	≤20	1.367	0.01
Fluorene	TRG	Average RF	% RSD	4.1	≤20	1.457	0.90
Fluorene-d10	SURR	Average RF	% RSD	3.6	≤20	1.096	0.01
Indeno(1,2,3-cd)pyrene	TRG	Average RF	% RSD	7.3	≤20	1.04	0.50
Naphthalene	TRG	Average RF	% RSD	3.7	≤20	1.118	0.70
Phenanthrene	TRG	Average RF	% RSD	3.1	≤20	1.223	0.70
Pyrene	TRG	Average RF	% RSD	7.8	≤20	1.188	0.60
Terphenyl-d14	SURR	Average RF	% RSD	4.0	≤20	0.8698	0.01

Client: JH Baxter & Company **Service Request:** K1905450
Project: Arlington Landfill Wells **Calibration Date:** 6/17/2019

Initial Calibration Verification Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Calibration ID: KC1900232 **Signal ID:** 1
Instrument ID: K-MS-14

#	Lab Code	Sample Name	File Location	Acquisition Date
10	KC1900232-10	SIM-PAH ICV @ 0.4ug/mL SVM61-6K	J:\MS14\DATA\061719\0617F017.D	06/17/2019 14:10

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
2-Methylnaphthalene	400	363	7.079E-1	6.42E-1	-9.303	±30	Average RF
Acenaphthene	400	365	1.277E0	1.166E0	-8.708	±30	Average RF
Acenaphthylene	400	387	2.138E0	2.066E0	-3.368	±30	Average RF
Anthracene	400	388	1.161E0	1.125E0	-3.102	±30	Average RF
Benz(a)anthracene	400	374	1.253E0	1.171E0	-6.559	±30	Average RF
Benzo(a)pyrene	400	387	1.062E0	1.028E0	-3.271	±30	Average RF
Benzo(b)fluoranthene	400	403	1.177E0	1.187E0	0.823	±30	Average RF
Benzo(g,h,i)perylene	400	328	1.221E0	1.002E0	-17.973	±30	Average RF
Benzo(k)fluoranthene	400	399	1.145E0	1.142E0	-0.249	±30	Average RF
Chrysene	400	363	1.198E0	1.087E0	-9.267	±30	Average RF
Dibenz(a,h)anthracene	400	345	1.177E0	1.014E0	-13.853	±30	Average RF
Dibenzofuran	400	344	1.969E0	1.694E0	-13.954	±30	Average RF
Fluoranthene	400	377	1.651E0	1.555E0	-5.809	±30	Average RF
Fluorene	400	377	1.457E0	1.372E0	-5.862	±30	Average RF
Indeno(1,2,3-cd)pyrene	400	384	1.04E0	9.972E-1	-4.083	±30	Average RF
Naphthalene	400	380	1.118E0	1.062E0	-5.062	±30	Average RF
Phenanthrene	400	365	1.223E0	1.116E0	-8.735	±30	Average RF
Pyrene	400	334	1.188E0	9.925E-1	-16.483	±30	Average RF

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Fluoranthene-d10	400	391	1.367E0	1.336E0	-2.264	±30	Average RF
Fluorene-d10	400	410	1.096E0	1.124E0	2.49	±30	Average RF
Terphenyl-d14	400	403	8.698E-1	8.765E-1	0.774	±30	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/18/19 17:24

Continuing Calibration Verification (CCV) Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method:	8270D	**Calibration Date:**	6/17/2019
File ID:	J:\MS14\DATA\061819\0618F028.D\	**Calibration ID:**	KC1900232
Signal ID:	1	**Analysis Lot:**	639897
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2-Methylnaphthalene	400	435	0.7079	0.7691	8.7	NA	±20	Average RF
Acenaphthene	400	435	1.2771	1.3903	8.9	NA	±20	Average RF
Acenaphthylene	400	424	2.1381	2.2682	6.1	NA	±20	Average RF
Anthracene	400	426	1.161	1.2378	6.6	NA	±20	Average RF
Benz(a)anthracene	400	425	1.2528	1.3304	6.2	NA	±20	Average RF
Benzo(a)pyrene	400	428	1.0625	1.1365	7.0	NA	±20	Average RF
Benzo(b)fluoranthene	400	458	1.1771	1.3468	14.4	NA	±20	Average RF
Benzo(g,h,i)perylene	400	423	1.2212	1.2907	5.7	NA	±20	Average RF
Benzo(k)fluoranthene	400	446	1.1445	1.2771	11.6	NA	±20	Average RF
Chrysene	400	425	1.1975	1.2713	6.2	NA	±20	Average RF
Dibenz(a,h)anthracene	400	422	1.1773	1.2414	5.4	NA	±20	Average RF
Dibenzofuran	400	435	1.9689	2.1425	8.8	NA	±20	Average RF
Fluoranthene	400	414	1.6512	1.7069	3.4	NA	±20	Average RF
Fluorene	400	432	1.457	1.5726	7.9	NA	±20	Average RF
Indeno(1,2,3-cd)pyrene	400	429	1.0397	1.115	7.2	NA	±20	Average RF
Naphthalene	400	433	1.1184	1.2105	8.2	NA	±20	Average RF
Phenanthrene	400	428	1.2231	1.3074	6.9	NA	±20	Average RF
Pyrene	400	364	1.1884	1.0815	-9.0	NA	±20	Average RF

Client:	JH Baxter & Company	**Service Request:**	K1905450
Project:	Arlington Landfill Wells/Landfill Program	**Date Analyzed:**	06/19/19 19:23

Continuing Calibration Verification (CCV) Summary
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method:	8270D	**Calibration Date:**	6/17/2019
File ID:	J:\MS14\DATA\061919\0619F027.D\	**Calibration ID:**	KC1900232
Signal ID:	1	**Analysis Lot:**	640092
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2-Methylnaphthalene	400	430	0.7079	0.7616	7.6	NA	±20	Average RF
Acenaphthene	400	435	1.2771	1.3876	8.6	NA	±20	Average RF
Acenaphthylene	400	424	2.1381	2.2665	6.0	NA	±20	Average RF
Anthracene	400	436	1.161	1.2653	9.0	NA	±20	Average RF
Benz(a)anthracene	400	427	1.2528	1.336	6.6	NA	±20	Average RF
Benzo(a)pyrene	400	423	1.0625	1.1248	5.9	NA	±20	Average RF
Benzo(b)fluoranthene	400	450	1.1771	1.3249	12.6	NA	±20	Average RF
Benzo(g,h,i)perylene	400	431	1.2212	1.3152	7.7	NA	±20	Average RF
Benzo(k)fluoranthene	400	436	1.1445	1.2471	9.0	NA	±20	Average RF
Chrysene	400	424	1.1975	1.2696	6.0	NA	±20	Average RF
Dibenz(a,h)anthracene	400	411	1.1773	1.21	2.8	NA	±20	Average RF
Dibenzofuran	400	441	1.9689	2.169	10.2	NA	±20	Average RF
Fluoranthene	400	457	1.6512	1.8871	14.3	NA	±20	Average RF
Fluorene	400	434	1.457	1.5801	8.5	NA	±20	Average RF
Indeno(1,2,3-cd)pyrene	400	428	1.0397	1.1128	7.0	NA	±20	Average RF
Naphthalene	400	429	1.1184	1.1988	7.2	NA	±20	Average RF
Phenanthrene	400	431	1.2231	1.3177	7.7	NA	±20	Average RF
Pyrene	400	459	1.1884	1.3644	14.8	NA	±20	Average RF

Client: JH Baxter & Company **Service Request:**K1905450
Project: Arlington Landfill Wells/Landfill Program

Analysis Run Log
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: **Analysis Lot:**639897
Instrument ID:K-MS-14

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\MS14\DATA\061819\0618F027.D\	ZZZZZZZ	ZZZZZZZ	6/18/2019	16:56:00	
J:\MS14\DATA\061819\0618F028.D\	Continuing Calibration Verification	KQ1908547-01	6/18/2019	17:24:00	
J:\MS14\DATA\061819\0618F029.D\	Method Blank	KQ1908183-04	6/18/2019	17:52:00	
J:\MS14\DATA\061819\0618F030.D\	ZZZZZZZ	ZZZZZZZ	6/18/2019	18:20:00	
J:\MS14\DATA\061819\0618F031.D\	ZZZZZZZ	ZZZZZZZ	6/18/2019	18:48:00	
J:\MS14\DATA\061819\0618F032.D\	ZZZZZZZ	ZZZZZZZ	6/18/2019	19:15:00	
J:\MS14\DATA\061819\0618F033.D\	ZZZZZZZ	ZZZZZZZ	6/18/2019	19:43:00	
J:\MS14\DATA\061819\0618F034.D\	ZZZZZZZ	ZZZZZZZ	6/18/2019	20:11:00	
J:\MS14\DATA\061819\0618F035.D\	ZZZZZZZ	ZZZZZZZ	6/18/2019	20:39:00	
J:\MS14\DATA\061819\0618F036.D\	ZZZZZZZ	ZZZZZZZ	6/18/2019	21:06:00	
J:\MS14\DATA\061819\0618F037.D\	ZZZZZZZ	ZZZZZZZ	6/18/2019	21:34:00	
J:\MS14\DATA\061819\0618F038.D\	ZZZZZZZ	ZZZZZZZ	6/18/2019	22:02:00	
J:\MS14\DATA\061819\0618F039.D\	ZZZZZZZ	ZZZZZZZ	6/18/2019	22:30:00	
J:\MS14\DATA\061819\0618F040.D\	Lab Control Sample	KQ1908183-03	6/18/2019	22:58:00	
J:\MS14\DATA\061819\0618F041.D\	ZZZZZZZ	ZZZZZZZ	6/18/2019	23:26:00	
J:\MS14\DATA\061819\0618F042.D\	ZZZZZZZ	ZZZZZZZ	6/18/2019	23:54:00	
J:\MS14\DATA\061819\0618F043.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	00:21:00	
J:\MS14\DATA\061819\0618F044.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	00:49:00	
J:\MS14\DATA\061819\0618F045.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	01:17:00	
J:\MS14\DATA\061819\0618F046.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	01:45:00	
J:\MS14\DATA\061819\0618F047.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	02:12:00	
J:\MS14\DATA\061819\0618F048.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	02:40:00	
J:\MS14\DATA\061819\0618F049.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	03:08:00	
J:\MS14\DATA\061819\0618F050.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	03:35:00	
J:\MS14\DATA\061819\0618F051.D\	MW-15	K1905450-001	6/19/2019	04:03:00	
J:\MS14\DATA\061819\0618F052.D\	MW-17	K1905450-002	6/19/2019	04:31:00	

Client: JH Baxter & Company **Service Request:**K1905450
Project: Arlington Landfill Wells/Landfill Program

Analysis Run Log
Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Analysis Method: **Analysis Lot:**640092
Instrument ID:K-MS-14

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\MS14\DATA\061919\0619F026.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	18:55:00	
J:\MS14\DATA\061919\0619F026.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	18:55:00	
J:\MS14\DATA\061919\0619F027.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	19:23:00	
J:\MS14\DATA\061919\0619F027.D\	Continuing Calibration Verification	KQ1908603-01	6/19/2019	19:23:00	
J:\MS14\DATA\061919\0619F028.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	19:50:00	
J:\MS14\DATA\061919\0619F029.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	20:18:00	
J:\MS14\DATA\061919\0619F030.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	20:45:00	
J:\MS14\DATA\061919\0619F031.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	21:13:00	
J:\MS14\DATA\061919\0619F032.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	21:40:00	
J:\MS14\DATA\061919\0619F033.D\	MW-2	K1905450-003	6/19/2019	22:08:00	
J:\MS14\DATA\061919\0619F034.D\	MW-35	K1905450-004	6/19/2019	22:35:00	
J:\MS14\DATA\061919\0619F035.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	23:03:00	
J:\MS14\DATA\061919\0619F036.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	23:31:00	
J:\MS14\DATA\061919\0619F037.D\	ZZZZZZZ	ZZZZZZZ	6/19/2019	23:58:00	
J:\MS14\DATA\061919\0619F038.D\	ZZZZZZZ	ZZZZZZZ	6/20/2019	00:26:00	
J:\MS14\DATA\061919\0619F039.D\	ZZZZZZZ	ZZZZZZZ	6/20/2019	00:54:00	
J:\MS14\DATA\061919\0619F040.D\	ZZZZZZZ	ZZZZZZZ	6/20/2019	01:22:00	
J:\MS14\DATA\061919\0619F041.D\	ZZZZZZZ	ZZZZZZZ	6/20/2019	01:50:00	
J:\MS14\DATA\061919\0619F042.D\	ZZZZZZZ	ZZZZZZZ	6/20/2019	02:17:00	
J:\MS14\DATA\061919\0619F043.D\	ZZZZZZZ	ZZZZZZZ	6/20/2019	02:45:00	
J:\MS14\DATA\061919\0619F044.D\	ZZZZZZZ	ZZZZZZZ	6/20/2019	03:13:00	
J:\MS14\DATA\061919\0619F045.D\	ZZZZZZZ	ZZZZZZZ	6/20/2019	03:41:00	
J:\MS14\DATA\061919\0619F046.D\	ZZZZZZZ	ZZZZZZZ	6/20/2019	04:08:00	
J:\MS14\DATA\061919\0619F047.D\	ZZZZZZZ	ZZZZZZZ	6/20/2019	04:36:00	

Prep Summary Report

Client: JH Baxter & Company **Service Request:** K1905450
Project: Arlington Landfill Wells/Landfill Program
Sample Matrix: Water

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

Prep Method: EPA 3511 **Extraction Lot:** 338543
Analytical Method: 8270D **Extraction Date:** 06/12/19 14:14

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
MW-15	K1905450-001	6/9/19	6/11/19	450 mL	2 mL	
MW-17	K1905450-002	6/9/19	6/11/19	450 mL	2 mL	
MW-2	K1905450-003	6/9/19	6/11/19	450 mL	2 mL	
MW-35	K1905450-004	6/9/19	6/11/19	375.0000 mL	2 mL	
Lab Control Sample	KQ1908183-03LCS	NA	NA	450 mL	2 mL	
Method Blank	KQ1908183-04MB	NA	NA	450 mL	2 mL	

Raw Data

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Chlorinated Phenolics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 338716
Team: Semivoa GC/WVANDERHOFF
Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method
Status: Prepped
Prep Date/Time: 6/14/19 11:59

Number of Copies to make: 1

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1905450-004	MW-35	.03	8151A Modified/PCP		Water	5mL	1.00mL	
2	KQ1908343-01	K1905450-004 MS	.03	8151A Modified/PCP		Liquid	5mL	1.00mL	
3	KQ1908343-02	K1905450-004 DMS	.03	8151A Modified/PCP		Liquid	5mL	1.00mL	
4	KQ1908343-03	LCS		8151A Modified/PCP		Liquid	5mL	1.00mL	
5	KQ1908343-04	MB		8151A Modified/PCP		Liquid	5mL	1.00mL	

Spiking Solutions

Name: 8151M Penta Matrix Spike Inventory ID 197895 Logbook Ref: Penta01-95L Expires On: 09/20/2019

KQ1908343-01 100.00µL KQ1908343-02 100.00µL KQ1908343-03 100.00µL

Name: 8151M Penta Surrogate Inventory ID 199349 Logbook Ref: Penta01-97J Expires On: 11/13/2019

K1905450-004 100.00µL KQ1908343-01 100.00µL KQ1908343-02 100.00µL KQ1908343-03 100.00µL KQ1908343-04 100.00µL

Preparation Steps

Step:	Extraction	Step:	Derivitization	Step:	Final Volume
Started:	6/14/19 11:59	Started:	6/18/19 14:06	Started:	6/18/19 14:39
Finished:	6/14/19 12:19	Finished:	6/18/19 14:39	Finished:	6/18/19 14:50
By:	WVANDERHOFF	By:	WVANDERHOFF	By:	WVANDERHOFF
Comments		Comments		Comments	

Comments:

Reviewed By: MC Date: 6.19.19

Chain of Custody

Relinquished By: Date: 6-18-19

Received By: MC Date: 6-18-19

Extracts Examined: Yes / No

Preparation Information Benchsheet

Prep Run#: 338716
Team: Semivoa GC/WVANDERHOFF
Number of Copies to make: 1

Prep WorkFlow: OrgExtPcpAq7
Prep Method: Method [redacted]

Status: Draft
Prep Date/Time: 6/14/19 11:19 AM

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. ml.	pH	Int. Vol ml.	Final Vol ml.	Surr Amt µl	Spike Amt µl
1	**K1905450-004**	MW-35	.03	-	8151A Modified / PCP	Water	5	<2		1	100	-
2	**KQ1908343-01**	K1905450-004 MS	.03	-	8151A Modified / PCP	Liquid	5	<2		1		100
3	**KQ1908343-02**	K1905450-004 DMS	.03	-	8151A Modified / PCP	Liquid	5	<2		1		
4	**KQ1908343-03**	LCS	—	—	8151A Modified / PCP	Liquid	5	<2		1		
5	**KQ1908343-04**	MB	—	—	8151A Modified / PCP	Liquid	5	<2		1		-

Comments:

Surrogate ID: 199,349-Penta01-97J 500ppb 100µl xp. 11-13-19 epp#28

Spike ID: 197,895-Penta01-95L 199,349-Penta01-97J 197,895-Penta01-95L 199,349-Penta01-97J 197,89
500ppb 100µl xp. 9-20-19 epp#28

Witnessed By: J. Dfine 6/14/19

Analyst: [illegible]

Assisted By:

Additional Prep Information for Method 8151M
Chlorinated Phenols "PCPs" in Water

Service Request # K1905450 **Work Group #** KQ1908343

1:1 Sulfuric Acid Lot # 7121159 Ethyl Ether Lot # DW176-452

Extraction Start (time/date/initial): 11:59 6-14-19 WS

Extraction Stop (time/date/initial): 12:19 6-14-19 WS

Storage Location (overnight): 25R Acidified Sulfate Lot # D703-87C

N-Evap (time/date/initial): 13:10 6-18-19 WS N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Derivatization Start (time/date/initial): 14:06 6-18-19 WS

Derivatization Stop (time/date/initial): 14:39 6-18-19 WS

Diazomethane Lot # D703-A18 Methanol Lot # DN615

Solvent Exchange to Iso-Octane (time/date/initial): 14:39 6-18-19 WS

Iso-Octane Lot # DM121 N-Evap Thermometer ID: DWB-012

Temp as measured: 22 °C Correction factor: 0.0 °C Adjusted temp: 22 °C

Pipette (1 mL) Lot # 28517645

Vial: red Vial Storage: pentz

Additional Comments:

Bench Sheet Review Check List

- ☐ Hold times met (if no, reason:)
- ☐ Prep date, time, method, department, product code correct in stealth
- ☐ Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
- ☐ Weights/Volumes and units correct on raw and final bench sheets
- ☐ Sample IDs have been checked - bottle numbers appended if required
- ☐ Names present for: started by, completed by, relinquished by, and witnessed by. Training circled.
- ☐ Extract storage recorded
- ☐ Additional prep sheet completely filled out (NA or line out blanks)
- ☐ All clean-ups have been noted on additional prep sheet
- ☐ Signed service request with Form V, if applicable, has been attached

1st MC 06/19/19
2nd UA 06/21/19

Validation Report

Data File: J:\GC28\Data\061819B\0618F007.D\
Lab ID: K1905450-004
RunType: N/A
Matrix: Water

Date Acquired: 6/18/19 17:13:00
Batch ID: 639854
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - Rtx-1701	Pentachlorophenol (PCP)	25		20	CCV+ND

Primary Review: _____

Printed: 6/19/19 8:51
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Secondary Review: _____

1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report

Data File:	J:\GC28\Data\061819B\0618F007.D\	**Instrument:**	K-GC-28
Acqu Date:	6/18/19 17:13:00	**Vial:**	5
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905450-004	**Raw Units:**	ug/L

Bottle ID:	K1905450-004.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/9/19	**Receive Date:**	6/11/19

Analysis Lot:	639854	**Prep Lot:**	338716	**Report Group:**	K1905450
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/14/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.64	16592387	16876542	47.978	40.032	96	80	80	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	1664056	0.000 CCV	2.445	0U	0.49J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/19/19
2nd UA 06/21/19

Data File : J:\GC28\Data\061819B\0618F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 5:13 pm Operator: MC
Sample : K1905450-004 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:46:46 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.021	4.644	16592387	16876542	47.978	40.032
	Target Compounds						
1)	3,4-Dichl...	0.000	3.744	0	59670	N.D.	2.751 #
2)	3,5-Dichl...	3.361	3.991	11709	20399	0.379	0.757 #
3)	2,4,6-Tri...	0.000	4.201	0	104736	N.D. d	0.257
5)	2,4,5-Tri...	4.168	0.000	566376	0	3.179	N.D. d#
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	0.000	5.007	0	253372	N.D. d	0.420
8) M	2,3,4,5-T...	0.000	5.377f	0	72838	N.D. d	0.175
9) M	Pentachlo...	0.000	5.607	0	1664056	N.D. d	2.445
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

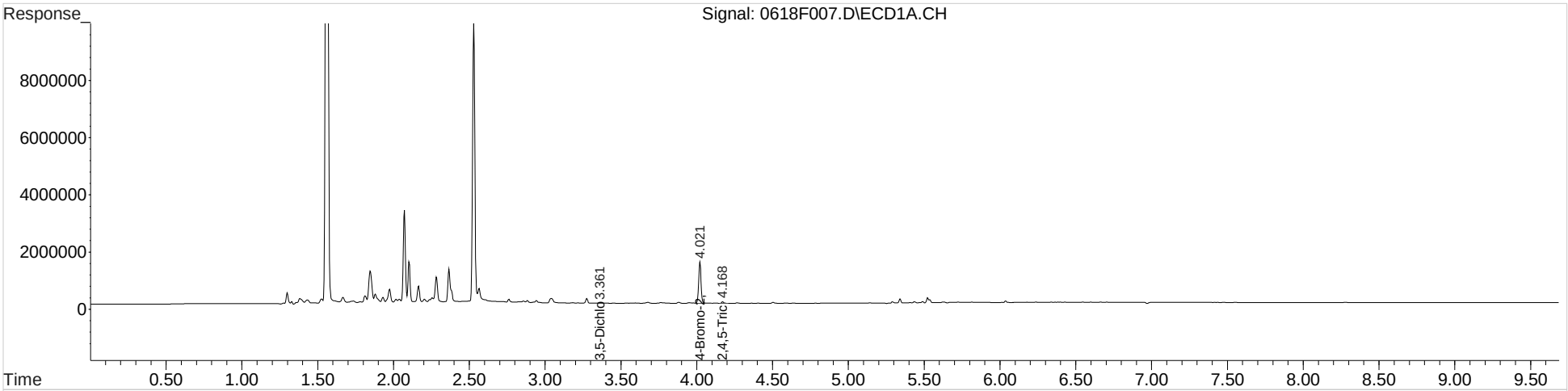
1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061819B\0618F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 5:13 pm Operator: MC
Sample : K1905450-004 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:46:46 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/19/19
2nd UA 06/21/19

Validation Report

Data File: J:\GC28\Data\061819B\0618F005.D\
Lab ID: KQ1908343-04
RunType: MB
Matrix: Water

Date Acquired: 6/18/19 16:36:00
Batch ID: 639854
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - Rtx-1701	Pentachlorophenol (PCP)	25		20	ND _ high bias

Primary Review: _____

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Secondary Review: _____

1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report

Data File:	J:\GC28\Data\061819B\0618F005.D\	**Instrument:**	K-GC-28
Acqu Date:	6/18/19 16:36:00	**Vial:**	9
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1908343-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/9/19	**Receive Date:**	6/11/19

Analysis Lot:	639854	**Prep Lot:**	338716	**Report Group:**	KQ1908343
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/14/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	15652362	16124573	45.184	38.248	90	76	76	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	727401	0.000 CCV	1.069	0U	0.21J	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/19/19
2nd UA 06/21/19

Data File : J:\GC28\Data\061819B\0618F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 4:36 pm Operator: MC
Sample : KQ1908343-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:46:13 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
4) S	4-Bromo-2...	4.020	4.646	15652362	16124573	45.184	38.248
	Target Compounds						
1)	3,4-Dichl...	0.000	3.742	0	105402	N.D.	4.859 #
2)	3,5-Dichl...	3.336f	3.989	22310	17860	1.330	0.596 #
3)	2,4,6-Tri...	0.000	4.199	0	92182	N.D. d	0.226
5)	2,4,5-Tri...	4.170	0.000	486842	0	2.607	N.D. d#
6)	3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7) M	2,3,5,6-T...	0.000	5.006	0	246762	N.D. d	0.409
8) M	2,3,4,5-T...	0.000	5.449f	0	170556	N.D. d	0.410
9) M	Pentachlo...	0.000	5.606	0	727401	N.D. d	1.069
10)	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

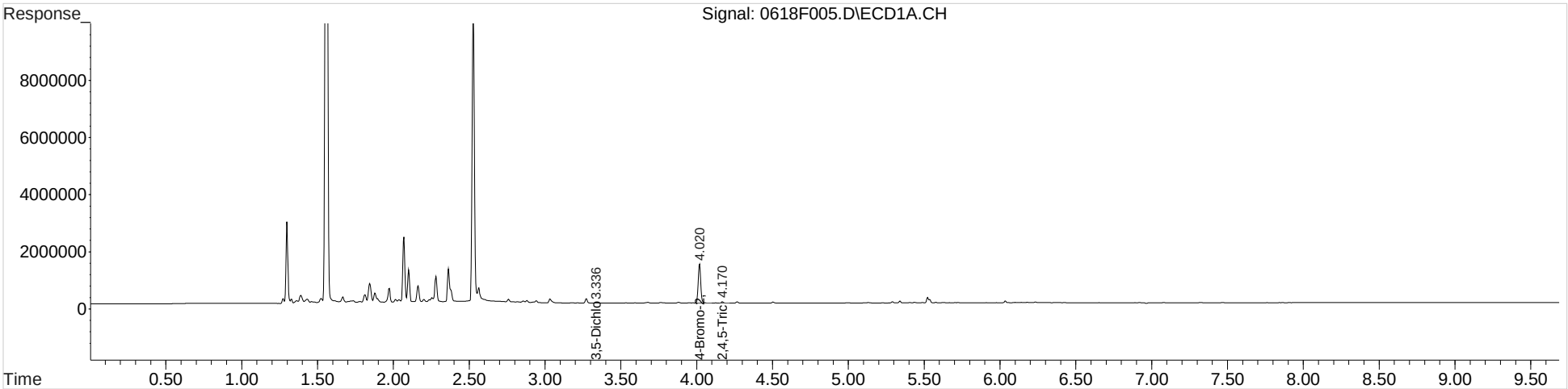
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st MC 06/19/19
2nd UA 06/21/19

Data File : J:\GC28\Data\061819B\0618F005.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 4:36 pm Operator: MC
Sample : KQ1908343-04 MB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:46:13 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/19/19
2nd UA 06/21/19

Validation Report

Data File: J:\GC28\Data\061819B\0618F006.D\
Lab ID: KQ1908343-03
RunType: LCS
Matrix: Water

Date Acquired: 6/18/19 16:55:00
Batch ID: 639854
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - Rtx-1701	Pentachlorophenol (PCP)	25		20	LCS rec. OK

Primary Review: _____

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Secondary Review: _____

1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report

Data File:	J:\GC28\Data\061819B\0618F006.D\	**Instrument:**	K-GC-28
Acqu Date:	6/18/19 16:55:00	**Vial:**	8
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1908343-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/9/19	**Receive Date:**	6/11/19

Analysis Lot:	639854	**Prep Lot:**	338716	**Report Group:**	KQ1908343
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/14/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.64	15016068	15202156	43.295	36.060	87	72	72	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15 +0.01	5.59 -0.01	16866380	20513250	36.236 CCV	30.144	7.25	6.03	**6.03**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/19/19
2nd UA 06/21/19

Data File : J:\GC28\Data\061819B\0618F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 4:55 pm Operator: MC
Sample : KQ1908343-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:46:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.019	4.645	15016068	15202156	43.295	36.060	
		Target Compounds							
1)		3,4-Dichl...	3.129	3.735	337011	448831	21.048	20.691	
2)		3,5-Dichl...	3.369	3.985	31949	166192	2.196	10.093	#
3)		2,4,6-Tri...	3.465	4.201	9447434	10928355	30.191	26.773	
5)		2,4,5-Tri...	4.192	4.711	4466279	4281582	32.145	23.728	#
6)		3,4,5-Tri...	4.222	4.775	3496894	3683546	23.680	21.305	
7)	M	2,3,5,6-T...	4.469	5.011	14424750	18432403	33.062	30.531	
8)	M	2,3,4,5-T...	5.009	5.411	9577908	11261610	30.772	27.077	
9)	M	Pentachlo...	5.145	5.595	16866380	20513250	36.236	30.144	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

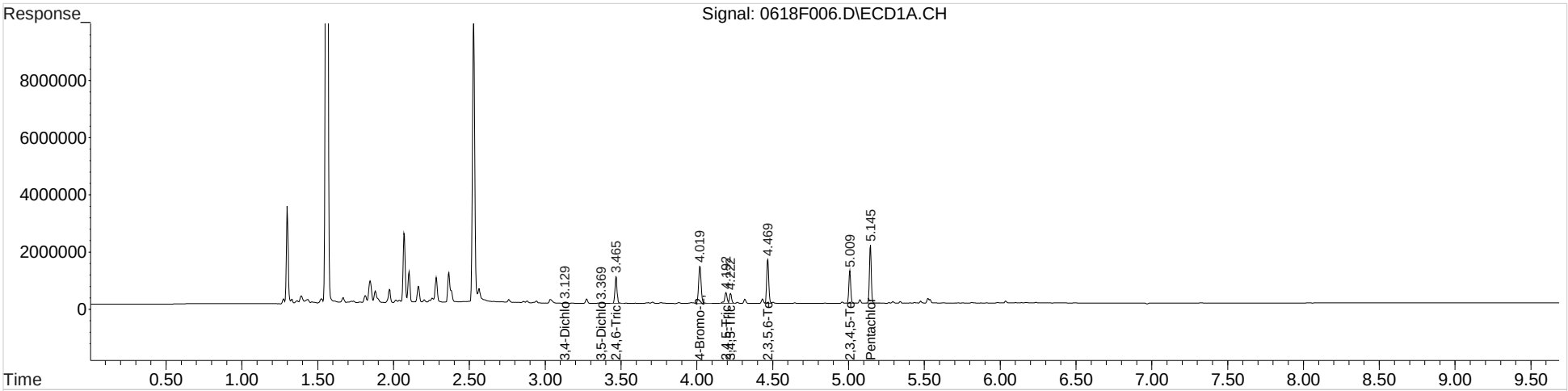
1st MC 06/19/19
2nd UA 06/21/19

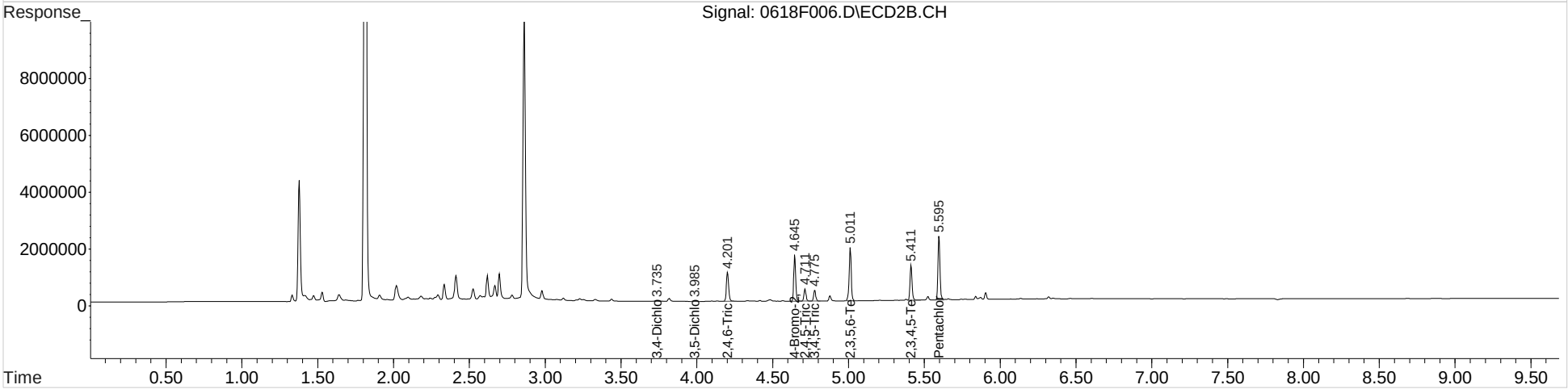
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061819B\0618F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 4:55 pm Operator: MC
Sample : KQ1908343-03 LCS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:46:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 06/19/19
2nd UA 06/21/19

Validation Report

Data File: J:\GC28\Data\061819B\0618F008.D\
Lab ID: KQ1908343-01
RunType: MS
Matrix: Water

Date Acquired: 6/18/19 17:32:00
Batch ID: 639854
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - Rtx-1701	Pentachlorophenol (PCP)	25		20	CCV+ND

Primary Review: _____

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Secondary Review: _____

1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report

Data File:	J:\GC28\Data\061819B\0618F008.D\	**Instrument:**	K-GC-28
Acqu Date:	6/18/19 17:32:00	**Vial:**	6
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1908343-01	**Raw Units:**	ug/L

Bottle ID:	K1905450-004.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/9/19	**Receive Date:**	6/11/19

Analysis Lot:	639854	**Prep Lot:**	338716	**Report Group:**	KQ1908343
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/14/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	15767134	15723840	45.525	37.297	91	75	75	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	17026020	20924362	36.591 CCV	30.748	7.32	6.15	**6.15**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/19/19
2nd UA 06/21/19

Data File : J:\GC28\Data\061819B\0618F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 5:32 pm Operator: MC
Sample : K1905450-004 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:47:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.021	4.647	15767134	15723840	45.525	37.297	
		Target Compounds							
1)		3,4-Dichl...	3.131	3.737	357370	459313	22.383	21.174	
2)		3,5-Dichl...	3.371	3.987	37130	173030	2.663	10.535	#
3)		2,4,6-Tri...	3.467	4.203	10230846	11538805	32.819	28.268	
5)		2,4,5-Tri...	4.191	4.713	4644206	4516518	33.512	25.078	#
6)		3,4,5-Tri...	4.224	4.780	3705844	3851555	25.175	22.309	
7)	M	2,3,5,6-T...	4.467	5.013	15136094	18960386	34.765	31.405	
8)	M	2,3,4,5-T...	5.007	5.413	10048374	11379491	32.390	27.361	
9)	M	Pentachlo...	5.144	5.597	17026020	20924362	36.591	30.748	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

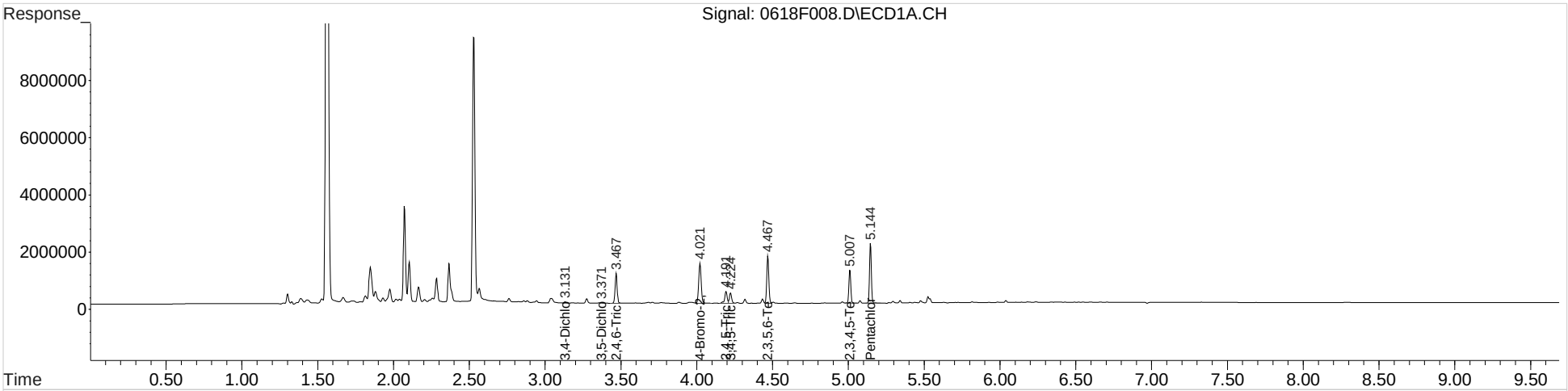
1st MC 06/19/19
2nd UA 06/21/19

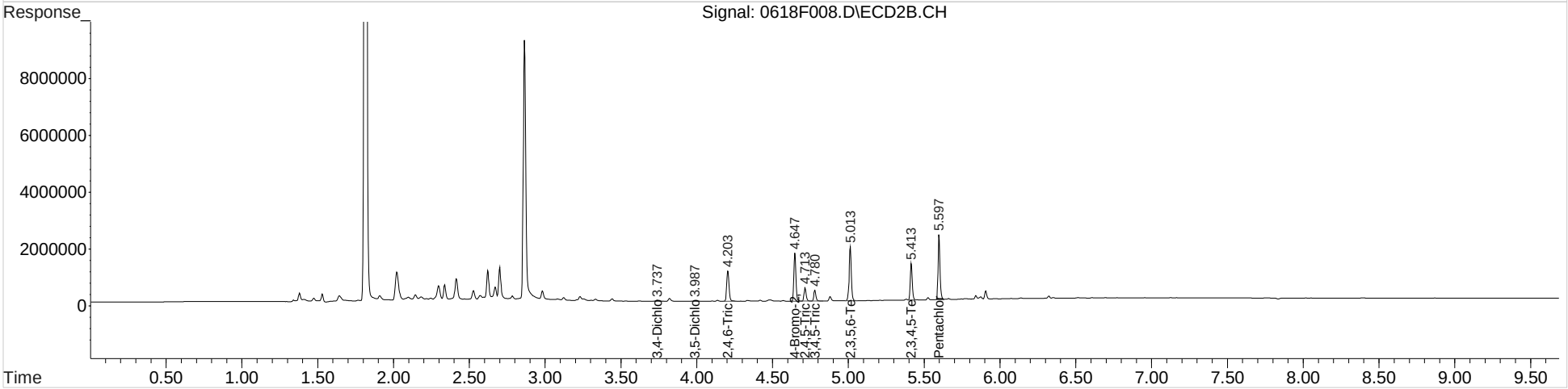
Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061819B\0618F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 5:32 pm Operator: MC
Sample : K1905450-004 MS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:47:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





1st MC 06/19/19
2nd UA 06/21/19

Validation Report

Data File: J:\GC28\Data\061819B\0618F009.D\
Lab ID: KQ1908343-02
RunType: DMS
Matrix: Water

Date Acquired: 6/18/19 17:50:00
Batch ID: 639854
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - Rtx-1701	Pentachlorophenol (PCP)	25		20	CCV+ND

Primary Review: _____

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Secondary Review: _____

1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report

Data File:	J:\GC28\Data\061819B\0618F009.D\	**Instrument:**	K-GC-28
Acqu Date:	6/18/19 17:50:00	**Vial:**	7
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1908343-02	**Raw Units:**	ug/L

Bottle ID:	K1905450-004.03	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/9/19	**Receive Date:**	6/11/19

Analysis Lot:	639854	**Prep Lot:**	338716	**Report Group:**	KQ1908343
Analysis	8151A Modified	**Prep Method:**	Method		
		Prep Date:	6/14/19		

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	4.02 +0.01	4.65 +0.01	16834477	16257108	48.698	38.562	97	77	77	55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	5.15 +0.01	5.60	17979506	20885477	38.711 CCV	30.691	7.74	6.14	**6.14**	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/19/19
2nd UA 06/21/19

Data File : J:\GC28\Data\061819B\0618F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 5:50 pm Operator: MC
Sample : K1905450-004 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:47:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.022	4.648	16834477	16257108	48.698	38.562	
		Target Compounds							
1)		3,4-Dichl...	3.132	3.738	360094	444358	22.562	20.484	
2)		3,5-Dichl...	3.369	3.991	40475	154449	2.964	9.335	#
3)		2,4,6-Tri...	3.469	4.208	10335784	11466372	33.171	28.091	
5)		2,4,5-Tri...	4.192	4.715	4919157	4643650	35.632	25.808	#
6)		3,4,5-Tri...	4.225	4.778	3909104	3892961	26.635	22.557	
7)	M	2,3,5,6-T...	4.469	5.015	15446975	18651908	35.511	30.894	
8)	M	2,3,4,5-T...	5.009	5.415	10514322	11658262	33.998	28.031	
9)	M	Pentachlo...	5.145	5.598	17979506	20885477	38.711	30.691	
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

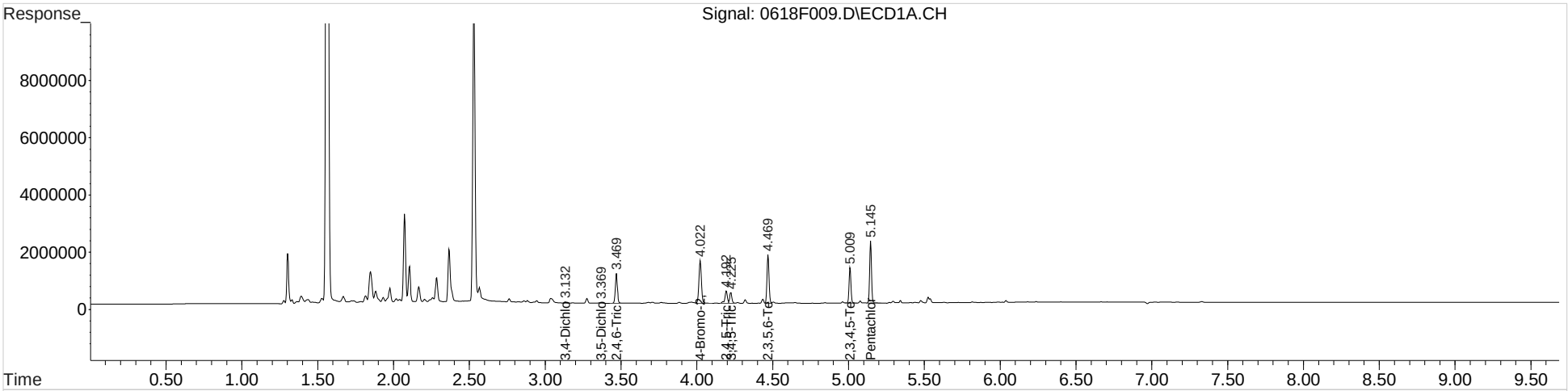
1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061819B\0618F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 5:50 pm Operator: MC
Sample : K1905450-004 DMS Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:47:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/19/19
2nd UA 06/21/19

Validation Report

Data File: J:\GC28\Data\061819B\0618F004.D\
Lab ID: KQ1908531-03
RunType: CCB
Matrix: Water

Date Acquired: 6/18/19 16:17:00
Batch ID: 639854
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - Rtx-1701	Pentachlorophenol (PCP)	25		20	ND _ high bias

Primary Review: _____

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Secondary Review: _____

1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report

Data File:	J:\GC28\Data\061819B\0618F004.D\	**Instrument:**	K-GC-28
Acqu Date:	6/18/19 16:17:00	**Vial:**	3
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908531-03	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/9/19	**Receive Date:**	6/11/19

Analysis Lot:	639854	**Prep Lot:**		**Report Group:**	KQ1908531
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	4.69 +0.05	0	16072	0.000	0.038				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	5.61 +0.01	0	39162	0.000 CCV	0.058	0U	0.012U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/19/19
2nd UA 06/21/19

Data File : J:\GC28\Data\061819B\0618F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 4:17 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:44:54 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.685f	0	16072	N.D.	0.038 #
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D.	N.D.
2)		3,5-Dichl...	0.000	0.000	0	0	N.D.	N.D.
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	4.999	0	3960	N.D. d	0.007
8)	M	2,3,4,5-T...	0.000	5.382f	0	4875	N.D. d	0.012
9)	M	Pentachlo...	0.000	5.612	0	39162	N.D.	0.058 #
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

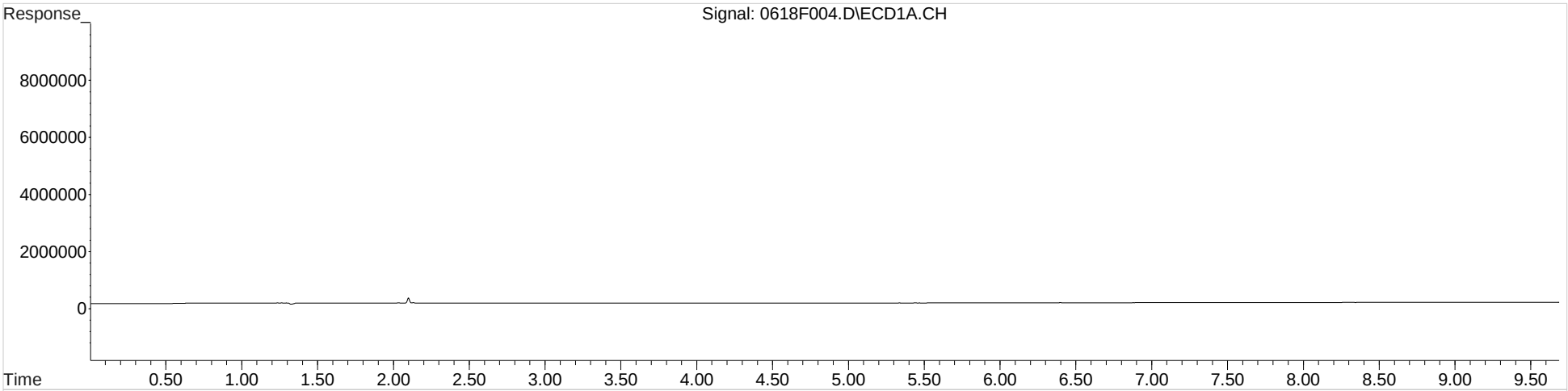
1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061819B\0618F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 4:17 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:44:54 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/19/19
2nd UA 06/21/19

Validation Report

Data File: J:\GC28\Data\061819B\0618F011.D\
Lab ID: KQ1908531-04
RunType: CCB
Matrix: Water

Date Acquired: 6/18/19 18:27:00
Batch ID: 639854
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Surrogates	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - Rtx-1701	Pentachlorophenol (PCP)	25		20	ND _ high bias

Primary Review: _____

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Secondary Review: _____

1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report

Data File:	J:\GC28\Data\061819B\0618F011.D\	**Instrument:**	K-GC-28
Acqu Date:	6/18/19 18:27:00	**Vial:**	4
Run Type:	CCB	**Dilution:**	1
Lab ID:	KQ1908531-04	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/9/19	**Receive Date:**	6/11/19

Analysis Lot:	639854	**Prep Lot:**		**Report Group:**	KQ1908531
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
4-Bromo-2,6-dichlorophenol	0.00	0.00	0	0	0.000	0.000				55 - 130	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Pentachlorophenol (PCP)	0.00	0.00	0	0	0.000[CCV]	0.000	0U	0U	0.071 U	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/19/19
2nd UA 06/21/19

Data File : J:\GC28\Data\061819B\0618F011.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 6:27 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:47:35 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D.	N.D.
2)		3,5-Dichl...	0.000	0.000	0	0	N.D.	N.D.
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D.	N.D. d
7)	M	2,3,5,6-T...	0.000	4.998	0	3404	N.D. d	0.006
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D.
9)	M	Pentachlo...	0.000	0.000	0	0	N.D. d	N.D.
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

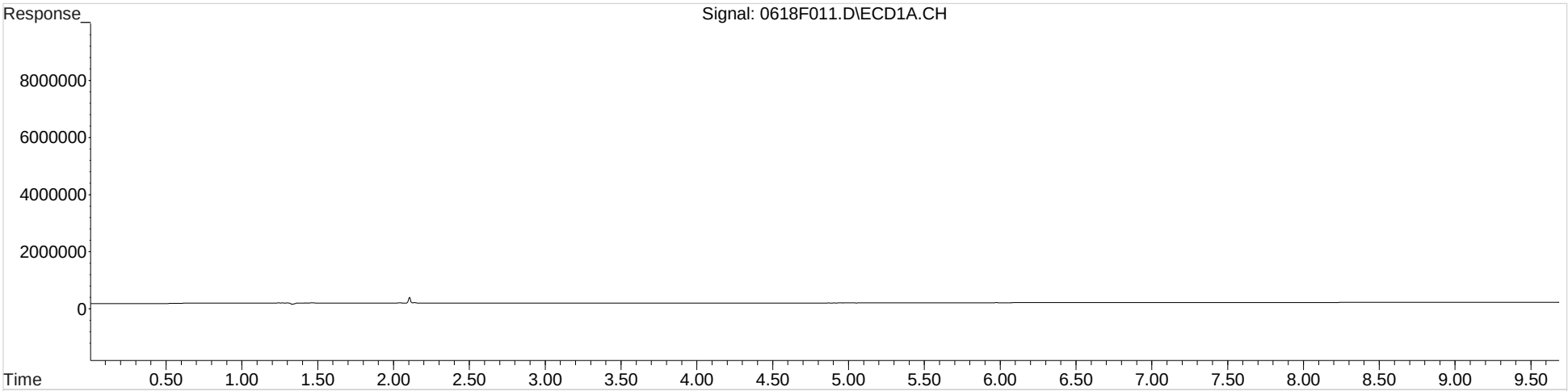
1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061819B\0618F011.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 6:27 pm Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:47:35 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



1st MC 06/19/19
2nd UA 06/21/19

Validation Report

Data File: J:\GC28\Data\061819B\0618F003.D\
Lab ID: KQ1908531-01
RunType: CCV
Matrix: Water

Date Acquired: 6/18/19 15:59:00
Batch ID: 639854
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report

Data File:	J:\GC28\Data\061819B\0618F003.D\	**Instrument:**	K-GC-28
Acqu Date:	6/18/19 15:59:00	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908531-01	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/9/19	**Receive Date:**	6/11/19

Analysis Lot:	639854	**Prep Lot:**		**Report Group:**	KQ1908531
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.01	4.64	19380276	21421656	56.284	50.813			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.14	5.60	25785422	33664262	56.142	49.469	56.1	49.5	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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Quantitation Report (QT Reviewed)

1st MC 06/19/19
2nd UA 06/21/19

Data File : J:\GC28\Data\061819B\0618F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 3:59 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:44:23 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.013	4.642	19380276	21421656	56.284	50.813
		Target Compounds						
1)		3,4-Dichl...	3.123	3.725	853534	1184332	56.121	54.597
2)		3,5-Dichl...	3.363	3.979	503010	768742	47.251m	50.576
3)		2,4,6-Tri...	3.463	4.195	15869496	20365245	52.077	49.892
5)		2,4,5-Tri...	4.186	4.709	7329571	8945580	54.671	50.805
6)		3,4,5-Tri...	4.216	4.772	7183981	8561575	50.896	50.792
7)	M	2,3,5,6-T...	4.463	5.009	23078696	30389422	54.091	50.336
8)	M	2,3,4,5-T...	5.006	5.409	15105644	19864247	50.100	47.761
9)	M	Pentachlo...	5.143	5.595	25785422	33664262	56.142	49.469
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

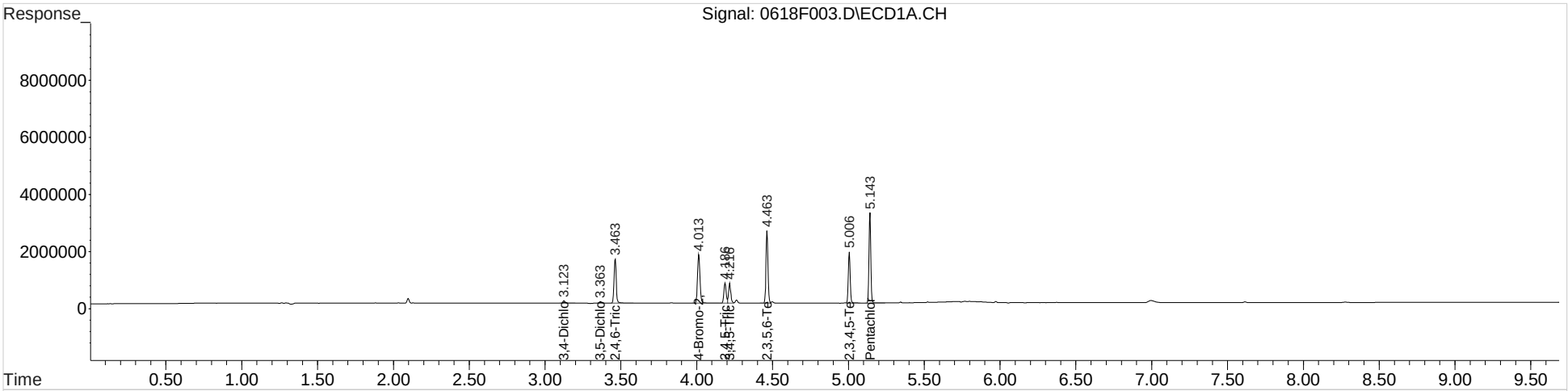
1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061819B\0618F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 3:59 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:44:23 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



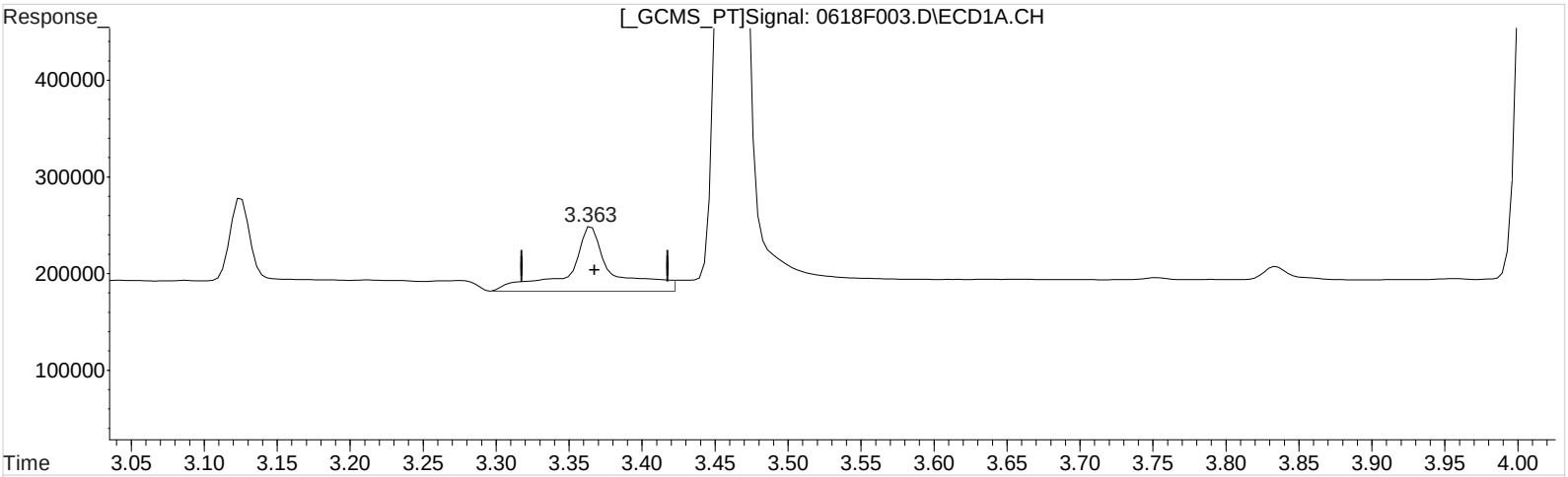
Quantitation Report (Qedit)

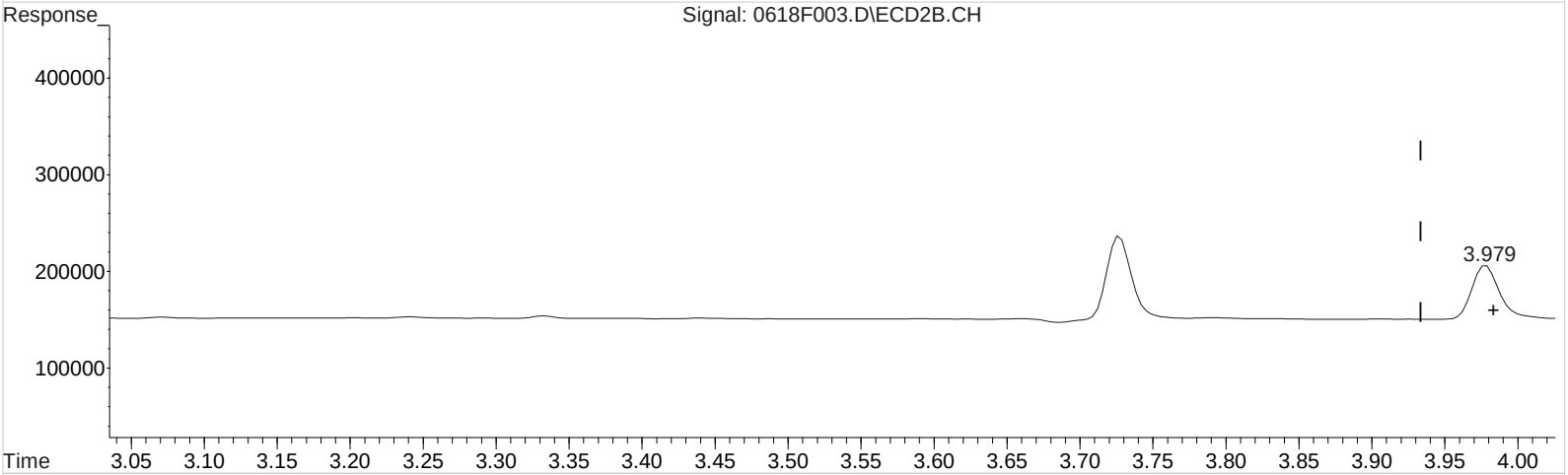
1st MC 06/19/19
2nd UA 06/21/19

Data File : J:\GC28\Data\061819B\0618F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 3:59 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:29:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.363min 156.271 ug/L

response 1397324

Manual Integration:

Before

06/19/19

(2) 3,5-Dichlorophenol #2

3.979min 50.576 ug/L

response 768742

(+) = Expected Retention Time

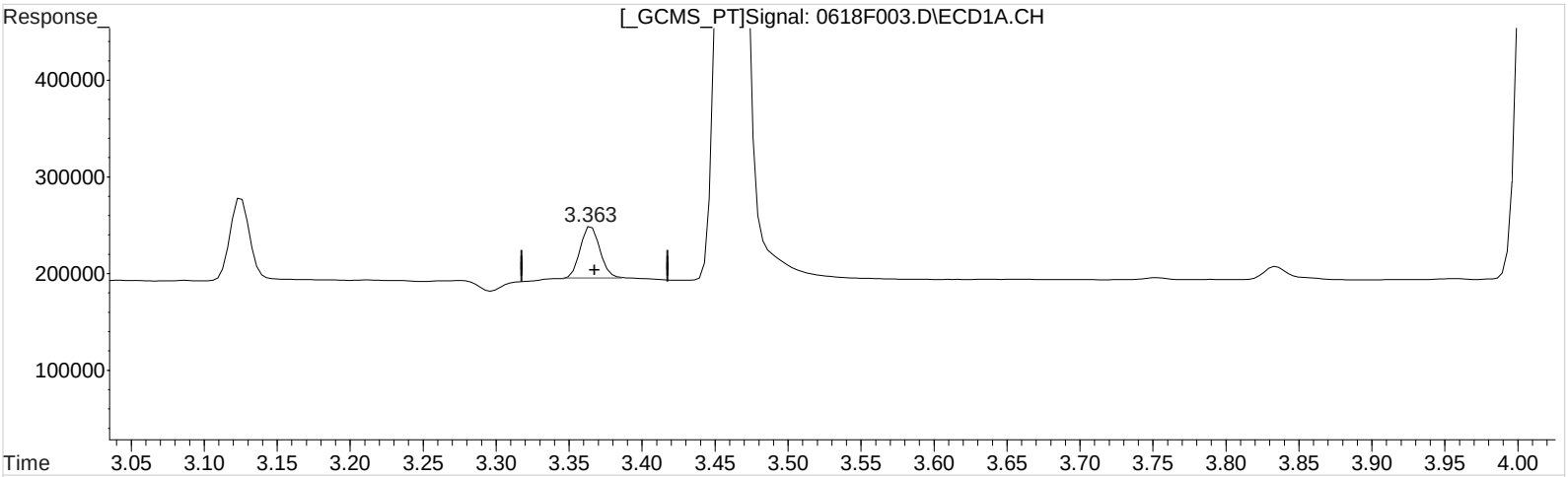
Quantitation Report (Qedit)

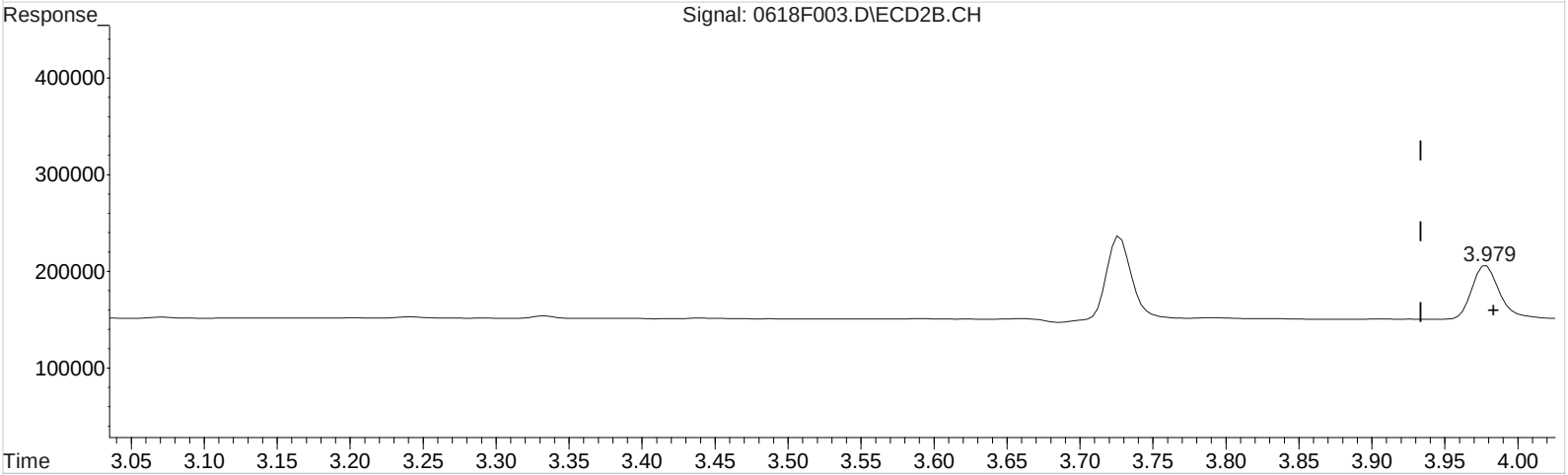
1st MC 06/19/19
2nd UA 06/21/19

Data File : J:\GC28\Data\061819B\0618F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 3:59 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:29:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.363min 47.251 ug/L m

response 503010

Manual Integration:

After

Baseline/Shoulder

06/19/19

(2) 3,5-Dichlorophenol #2

3.979min 50.576 ug/L

response 768742

(+) = Expected Retention Time

1st MC 06/19/19
2nd UA 06/21/19

Validation Report

Data File: J:\GC28\Data\061819B\0618F010.D\
Lab ID: KQ1908531-02
RunType: CCV
Matrix: Water

Date Acquired: 6/18/19 18:09:00
Batch ID: 639854
Analysis Method: 8151A Modified/PCP

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Printed: 6/19/19 8:51
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Secondary Review: _____

1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report

Data File:	J:\GC28\Data\061819B\0618F010.D\	**Instrument:**	K-GC-28
Acqu Date:	6/18/19 18:09:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908531-02	**Raw Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PCP	**Collect Date:**	6/9/19	**Receive Date:**	6/11/19

Analysis Lot:	639854	**Prep Lot:**		**Report Group:**	KQ1908531
Analysis	8151A Modified	**Prep Method:**			
		Prep Date:			

Title:	Chlorinated Phenolics	**Calibration ID:**	KC1900082
		Report List ID:	18595

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
4-Bromo-2,6-dichlorophenol	4.02	4.65	20328394	20300088	59.115	48.152			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Pentachlorophenol (PCP)	5.15	5.60	27162232	32105309	59.230	47.178	59.2	47.2	Y

Prep Amount:	5 mL	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/19/19 8:51
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061819B\0618F010.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 6:09 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:45:30 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.022	4.648	20328394	20300088	59.115	48.152
		Target Compounds						
1)		3,4-Dichl...	3.132	3.738	887414	1149162	58.516	52.975
2)		3,5-Dichl...	3.372	3.991	516824	737004	48.664m	48.360
3)		2,4,6-Tri...	3.469	4.208	16798663	19408360	55.312	47.548
5)		2,4,5-Tri...	4.195	4.715	7572360	8608736	56.637	48.828
6)		3,4,5-Tri...	4.225	4.781	7798381	8240036	55.616	48.828
7)	M	2,3,5,6-T...	4.469	5.015	24378510	28926404	57.309	47.912
8)	M	2,3,4,5-T...	5.012	5.415	16785768	18900776	56.118	45.444
9)	M	Pentachlo...	5.145	5.598	27162232	32105309	59.230	47.178
10)		Pentachlo...	0.000	0.000	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st MC 06/19/19
2nd UA 06/21/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\061819B\0618F010.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
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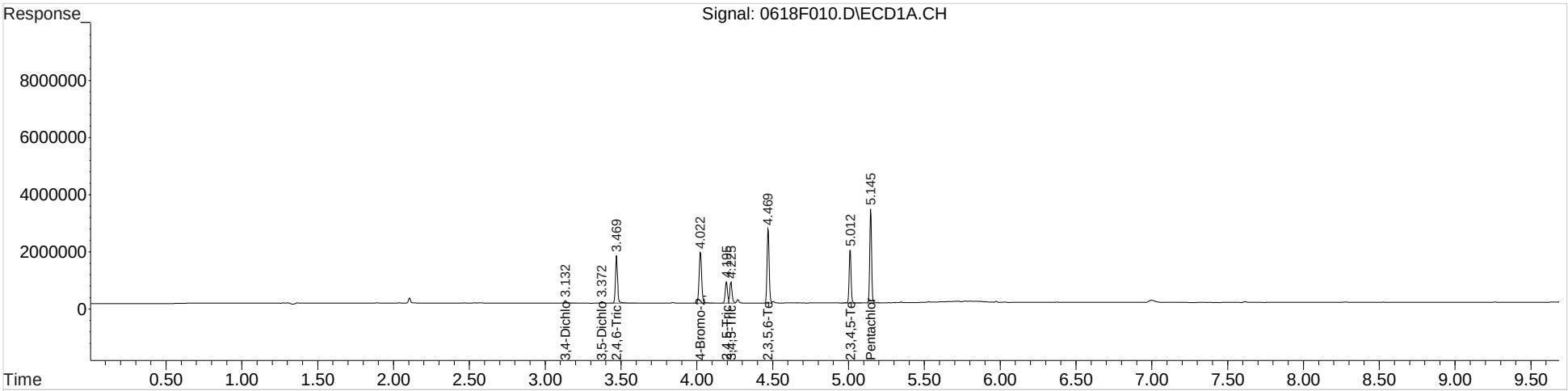
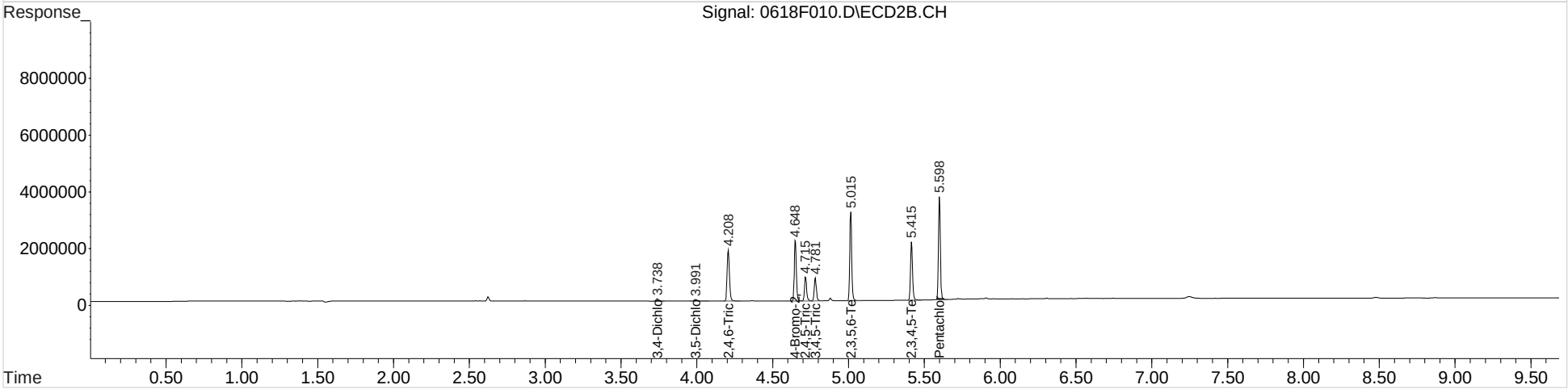
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





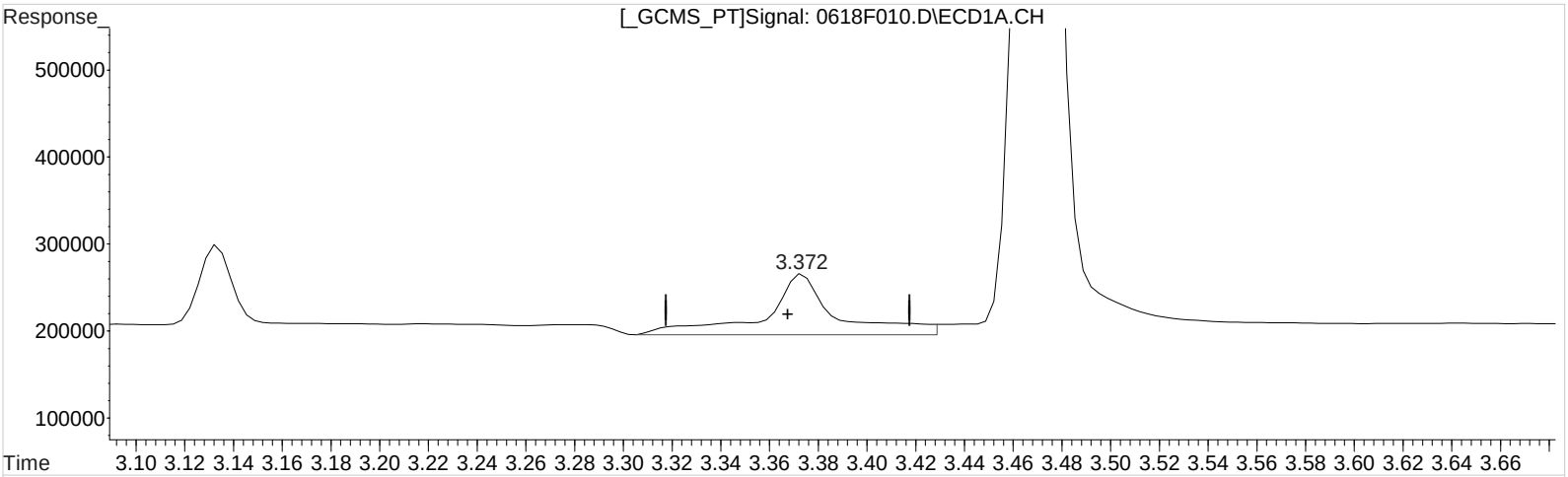
Quantitation Report (Qedit)

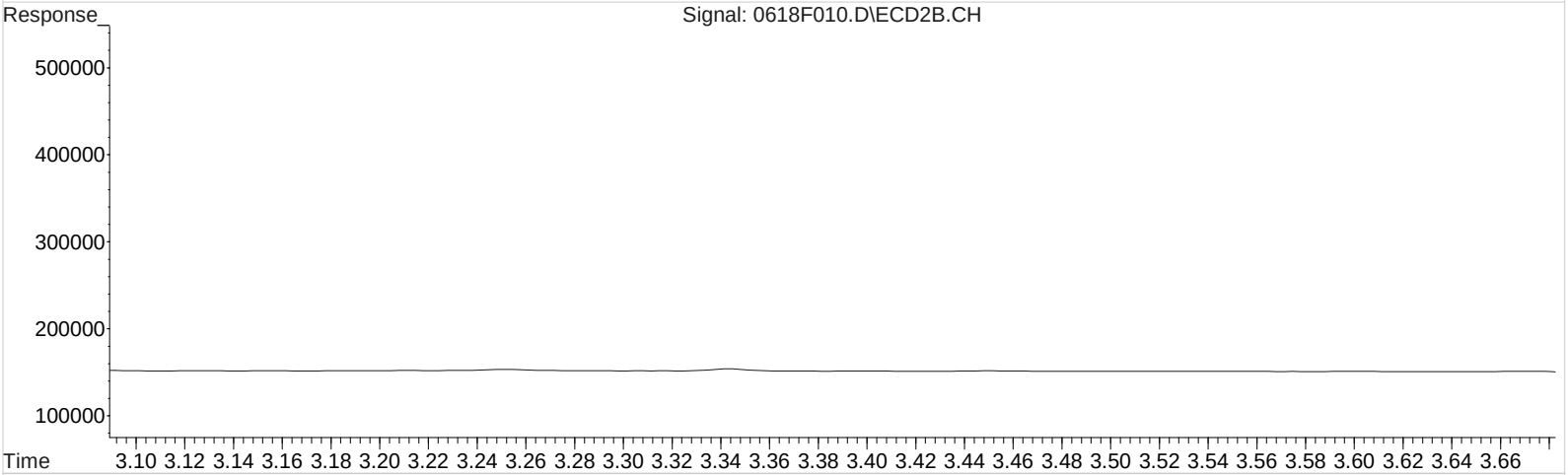
1st MC 06/19/19
2nd UA 06/21/19

Data File : J:\GC28\Data\061819B\0618F010.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 6:09 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Jun 19 08:30:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.372min 164.795 ug/L

response 1452606

Manual Integration:

Before

06/19/19

(2) 3,5-Dichlorophenol #2

3.991min 48.360 ug/L

response 737004

(+) = Expected Retention Time

Quantitation Report (Qedit)

1st MC 06/19/19
2nd UA 06/21/19

Data File : J:\GC28\Data\061819B\0618F010.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 18 Jun 2019 6:09 pm Operator: MC
Sample : CCV 50PPB PENTA01-97M Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
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Quant Time: Jun 19 08:30:19 2019
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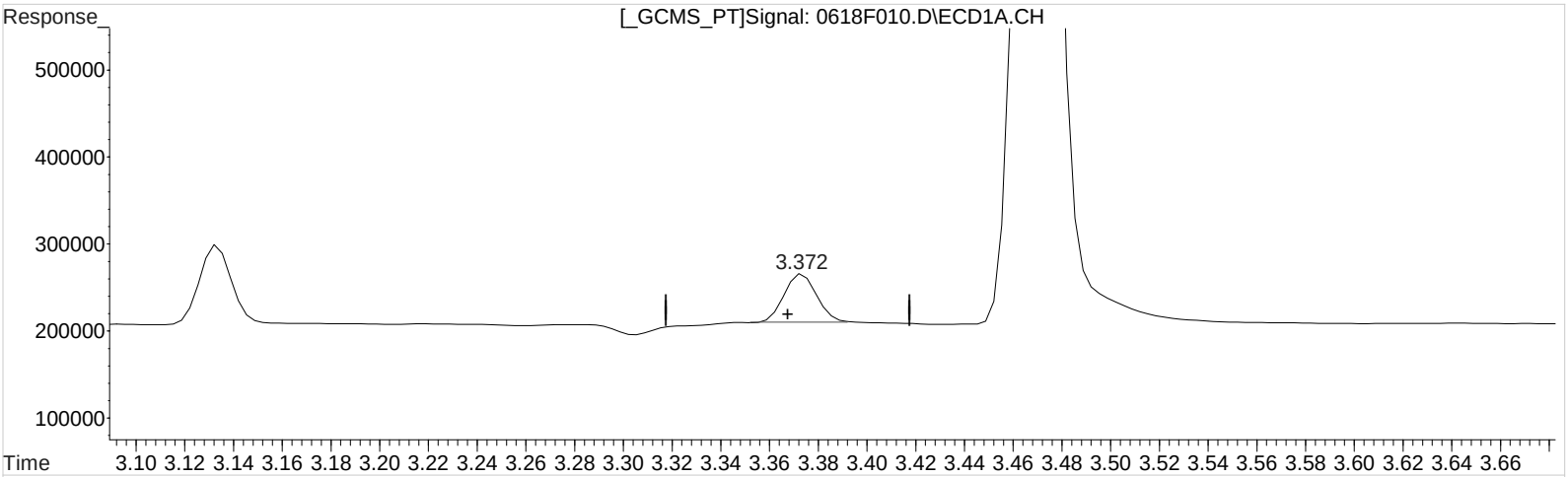
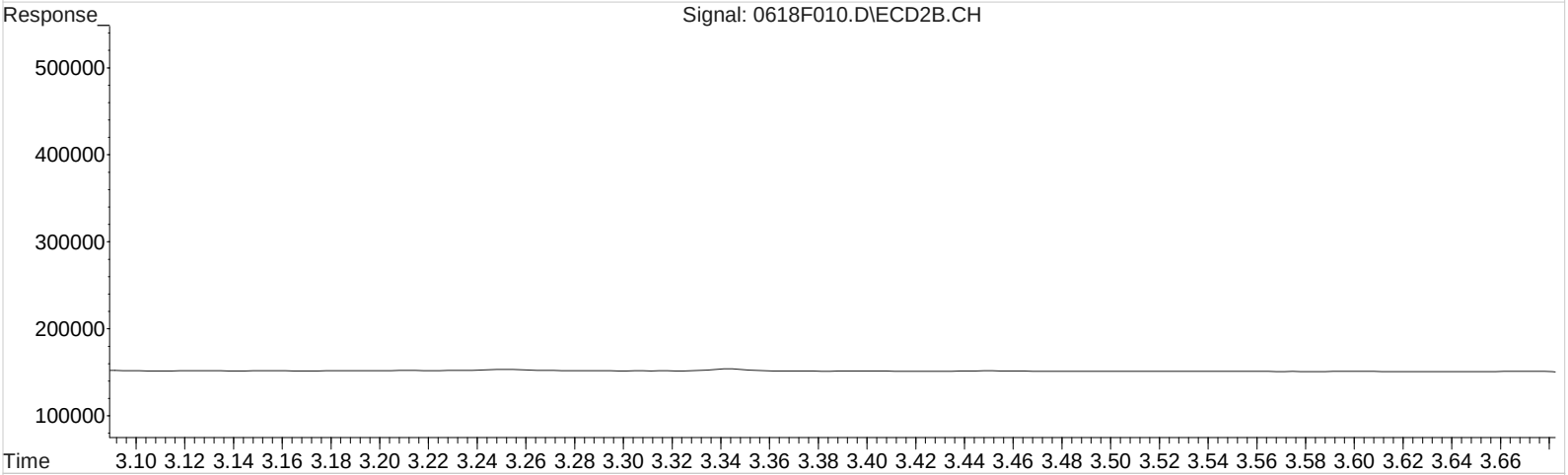
Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Fri May 17 10:12:19 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.372min 48.664 ug/L m

response 516824

Manual Integration:

After

Baseline/Shoulder

06/19/19

(2) 3,5-Dichlorophenol #2

3.991min 48.360 ug/L

response 737004

(+) = Expected Retention Time

Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\022819CAL\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0228F001	PENTHOT2	PRIMER
2	IB	100	0228F002	PENTHOT2	PRIMER
3	ICAL	1	0228F003	PENTHOT2	IB
4	ICAL	2	0228F004	PENTHOT2	PENTA01-94T 1.0
5	ICAL	NR 3	0228F005	PENTHOT2	PENTA01-94S 2.5 - bad injection
6	ICAL	4	0228F006	PENTHOT2	PENTA01-94R 5.0
7	ICAL	5	0228F007	PENTHOT2	PENTA01-94Q 10
8	ICAL	6	0228F008	PENTHOT2	PENTA01-94P 25
9	ICAL	7	0228F009	PENTHOT2	PENTA01-94O 50
10	ICAL	8	0228F010	PENTHOT2	PENTA01-94N 100
11	ICAL	9	0228F011	PENTHOT2	PENTA01-94M 250
12	ICAL	10	0228F012	PENTHOT2	PENTA01-95G 500
13	ICAL	11	0228F013	PENTHOT2	PENTA01-95H 1000
14	ICAL	3	0228F014	PENTHOT2	PENTA01-94S 2.5 ok
15	IB	1	0228F015	PENTHOT2	IB
16	ICAL	12	0228F016	PENTHOT2	PENTA01-95D ICV

KC1900082
2/28/19

Last Modified: Thu Feb 28 10:29:05 2019 Page: 1

ALS-Kelso
Initial Calibration Checklist GC

Method: 8151M
ICAL ID or Date: KC000821
Instrument: GC28

Primary	Secondary	
☑	☑	The new ICAL is saved with a unique ID.
☑	☑	ICAL was performed continuously (i.e. not interrupted by maintenance event).
☑	☐	All analytes in blank are < ½ MRL.
☑	☑	ICAL contains minimum number of concentrations.
☑	☑	No internal levels excluded for any analytes.
☑	☑	Retention times updated using a midpoint of the calibration. Secondary reviewer double check peak IDs.
☑	☑	Calibration files quantitated with new method.
☑	☑	Check integrations. Primary reviewer must check all integrations electronically. Secondary reviewer will check low point and high point electronically.
☑	☑	ICAL files added to calibration table.
☑	☑	The average RF or COD meets method criteria for all analytes.
☑	☑	ICV is quantitated against new ICAL.
☑	☑	ICV meets method criteria.
☑	☐	Linked in ~~Stealth~~ UMS to an appropriate method. An appropriate method will be one that contains all analytes that were analyzed.
☑	☑	All calibration reports included: ICAL SUMMARY, ICAL DETAILED, ICV SUMMARY.
☑	☑	Enviroquant/Target responses match those in Stealth.
☑	☑	All quant reports and manual integrations initialed and dated.

Data packet should be in the following order: Sequence log, Calibration Review, Stealth ICAL reports, and quant reports.

Primary: _____ Date: 2/28/19

Secondary: _____ Date: 2/28/19

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -87.82 X² + 4.342E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	6.732E5	02	5.000	5.679E5	03	10.000	5.372E5	04	25.000	4.948E5
05	50.000	4.691E5	06	100.000	4.496E5	07	250.000	4.103E5	08	500.000	3.739E5
09	1000.000	3.511E5	10	2.500	6.128E5						

2,3,4,5-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -268.7 X² + 3.077E5 X + 3.627E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	02	4.715	3.979E5	03	9.431	3.696E5	04	23.577	3.259E5
05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5	10	2.358	4.756E5

2,3,5,6-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -316.9 X² + 4.391E5 X + 2.523E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	02	4.715	5.28E5	03	9.431	4.935E5	04	23.577	4.478E5
05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5	10	2.358	5.749E5

2,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -146.2 X² + 1.398E5 X + 1.234E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	02	4.669	1.8E5	03	9.338	1.735E5	04	23.345	1.484E5
05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5	10	2.334	2.006E5

2,4,6-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9995**	**Y= -245.7 X² + 3.136E5 X + 2.021E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	02	4.669	3.846E5	03	9.338	3.638E5	04	23.345	3.225E5
05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5	10	2.334	4.078E5

3,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -166.3 X² + 1.479E5 X + 8.837E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	02	4.669	1.823E5	03	9.338	1.696E5	04	23.345	1.515E5
05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5	10	2.334	1.988E5

3,4-Dichlorophenol	**Quadratic**	**1/X**	**COD = 1.0000**	**Y= -15.47 X² + 1.592E4 X + 8.759E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.529E4	02	4.605	1.749E4	03	9.209	1.718E4	04	23.023	1.584E4
05	46.046	1.558E4	06	92.091	1.446E4	07	230.230	1.241E4	10	2.302	1.966E4

3,5-Dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9982**	**Y= -14.62 X² + 1.118E4 X + 7.47E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	1.798E4	02	4.605	1.407E4	03	9.209	1.255E4	04	23.023	1.076E4
05	46.046	1.147E4	06	92.091	9.36E3	07	230.230	7.904E3	10	2.302	1.374E4

Pentachlorophenol (PCP)	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -97.29 X² + 4.57E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	02	4.750	5.978E5	03	9.501	5.654E5	04	23.752	5.208E5
05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5	08	475.030	3.936E5
09	950.060	3.695E5	10	2.375	6.451E5						

4-Bromo-2,6-dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9994**	**Y= -70.25 X² + 3.43E5 X + 2.985E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	02	5.000	4.356E5	03	10.000	4.141E5	04	25.000	3.754E5
05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5	08	500.000	2.979E5
09	1000.000	2.755E5	10	2.500	4.672E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.555	**-44.5**	02	5.000	5.55	11.0	03	10.000	11.4	14.0
04	25.000	27.6	10.6	05	50.000	53.6	7.2	06	100.000	105	4.8
07	250.000	248	-0.9	08	500.000	475	-5.0	09	1000.000	1020	1.6
10	2.500	2.53	1.4								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.770	-18.3	02	4.715	4.94	4.7	03	9.431	10.2	8.6
04	23.577	24.3	3.1	05	47.153	46.9	-0.6	06	94.307	91.6	-2.8
07	235.770	237	0.6	10	2.358	2.47	4.8				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.738	-21.7	02	4.715	5.11	8.5	03	9.431	10.1	7.1
04	23.577	23.9	1.3	05	47.153	47.4	0.6	06	94.307	91.5	-3.0
07	235.770	237	0.5	10	2.358	2.52	6.8				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.634	**-32.1**	02	4.669	5.16	10.4	03	9.338	10.8	15.9
04	23.345	24.5	5.1	05	46.690	46.1	-1.2	06	93.379	88.6	-5.1
07	233.450	236	1.2	10	2.334	2.47	6.0				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.732	-21.6	02	4.669	5.10	9.3	03	9.338	10.3	10.0
04	23.345	23.8	2.0	05	46.690	47.3	1.2	06	93.379	89.5	-4.1
07	233.450	235	0.8	10	2.334	2.39	2.6				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.655	-29.8	02	4.669	5.19	11.1	03	9.338	10.2	9.6
04	23.345	24.0	2.7	05	46.690	47.4	1.5	06	93.379	88.5	-5.2
07	233.450	236	1.2	10	2.334	2.55	9.2				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.914	-0.8	02	4.605	4.53	-1.6	03	9.209	9.47	2.9
04	23.023	22.9	-0.7	05	46.046	46.6	1.3	06	92.091	91.2	-1.0
07	230.230	231	0.2	10	2.302	2.30	-0.2				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.814	-11.6	02	4.605	5.16	12.1	03	9.209	9.80	6.4
04	23.023	22.1	-3.9	05	46.046	49.8	8.2	06	92.091	86.2	-6.4
07	230.230	233	1.3	10	2.302	2.17	-5.8				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	0.527	**-44.5**	02	4.750	5.27	11.0	03	9.501	10.8	14.0
04	23.752	26.3	10.6	05	47.503	50.9	7.2	06	95.006	99.5	4.8
07	237.520	235	-0.9	08	475.030	452	-5.0	09	950.060	966	1.6
10	2.375	2.41	1.4								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.643	**-35.7**	02	5.000	5.49	9.7	03	10.000	11.2	12.3
04	25.000	26.6	6.5	05	50.000	53.3	6.6	06	100.000	102	1.6
07	250.000	251	0.2	08	500.000	481	-3.9	09	1000.000	1010	1.2
10	2.500	2.54	1.5								

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D\0228F004c.d	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D\0228F006c.d	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D\0228F007c.d	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D\0228F008c.d	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D\0228F009c.d	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D\0228F010c.d	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D\0228F011c.d	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D\0228F012c.d	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D\0228F013c.d	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D\0228F014c.d	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Average RF**		**RSD = 9.583**	**Average RF = 6.462E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	7.909E5	02	5.000	6.542E5	03	10.000	6.532E5	04	25.000	6.151E5
05	50.000	6.083E5	06	100.000	5.984E5	07	250.000	5.996E5	08	500.000	6.052E5
09	1000.000	6.245E5	10	2.500	7.13E5						

2,3,4,5-Tetrachlorophenol — Average RF — RSD = 12.29 — Average RF = 4.159E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	02	4.715	4.353E5	03	9.431	4.108E5	04	23.577	3.904E5
05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5	10	2.358	4.73E5

2,3,5,6-Tetrachlorophenol — Average RF — RSD = 6.587 — Average RF = 6.037E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	02	4.715	5.882E5	03	9.431	6.075E5	04	23.577	5.816E5
05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5	10	2.358	6.377E5

2,4,5-Trichlorophenol — Quadratic — 1/X — COD = 0.9997 — $Y = -73.44 X^2 + 1.777E5 X + 1.058E5$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	02	4.669	2.059E5	03	9.338	2.015E5	04	23.345	1.829E5
05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5	10	2.334	2.293E5

2,4,6-Trichlorophenol — Average RF — RSD = 4.634 — Average RF = 4.082E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	02	4.669	4.004E5	03	9.338	4.124E5	04	23.345	3.941E5
05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5	10	2.334	4.267E5

3,4,5-Trichlorophenol — Quadratic — 1/X — COD = 0.9998 — $Y = -63.92 X^2 + 1.7E5 X + 9.004E4$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	02	4.669	1.919E5	03	9.338	1.89E5	04	23.345	1.732E5
05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5	10	2.334	2.115E5

3,4-Dichlorophenol — Average RF — RSD = 10.82 — Average RF = 2.169E4

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.356E4	02	4.605	2.28E4	03	9.209	2.378E4	04	23.023	2.153E4
05	46.046	2.119E4	06	92.091	1.915E4	07	230.230	1.751E4	10	2.302	2.4E4

3,5-Dichlorophenol — Quadratic — 1/X — COD = 0.9996 — $Y = -14.71 X^2 + 1.578E4 X + 8.463E3$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.299E4	02	4.605	1.798E4	03	9.209	1.82E4	04	23.023	1.612E4
05	46.046	1.537E4	06	92.091	1.408E4	07	230.230	1.249E4	10	2.302	1.928E4

Pentachlorophenol (PCP) — Average RF — RSD = 9.573 — Average RF = 6.805E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	02	4.750	6.912E5	03	9.501	6.875E5	04	23.752	6.474E5
05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5	08	475.030	6.37E5
09	950.060	6.573E5	10	2.375	7.52E5						

4-Bromo-2,6-dichlorophenol — Average RF — RSD = 5.968 — Average RF = 4.216E5

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	02	5.000	3.777E5	03	10.000	4.048E5	04	25.000	4.138E5
05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5	08	500.000	4.395E5
09	1000.000	4.542E5	10	2.500	3.934E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.22	22.4	02	5.000	5.06	1.2	03	10.000	10.1	1.1
04	25.000	23.8	-4.8	05	50.000	47.1	-5.9	06	100.000	92.6	-7.4
07	250.000	232	-7.2	08	500.000	468	-6.4	09	1000.000	966	-3.4
10	2.500	2.76	10.3								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.14	21.2	02	4.715	4.93	4.7	03	9.431	9.31	-1.2
04	23.577	22.1	-6.1	05	47.153	43.3	-8.3	06	94.307	83.5	-11.5
07	235.770	206	-12.5	10	2.358	2.68	13.7				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.07	13.6	02	4.715	4.59	-2.6	03	9.431	9.49	0.6
04	23.577	22.7	-3.7	05	47.153	45.9	-2.6	06	94.307	89.1	-5.6
07	235.770	223	-5.4	10	2.358	2.49	5.6				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.799	-14.5	02	4.669	4.82	3.3	03	9.338	10.0	7.4
04	23.345	23.7	1.3	05	46.690	47.3	1.3	06	93.379	90.7	-2.9
07	233.450	234	0.4	10	2.334	2.42	3.6				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	1.01	8.7	02	4.669	4.58	-1.9	03	9.338	9.43	1.0
04	23.345	22.5	-3.5	05	46.690	46.6	-0.2	06	93.379	89.0	-4.7
07	233.450	224	-4.0	10	2.334	2.44	4.5				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.846	-9.5	02	4.669	4.75	1.7	03	9.338	9.88	5.9
04	23.345	23.5	0.5	05	46.690	47.5	1.7	06	93.379	91.1	-2.4
07	233.450	234	0.3	10	2.334	2.38	1.8				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	1.00	8.6	02	4.605	4.84	5.1	03	9.209	10.1	9.6
04	23.023	22.9	-0.7	05	46.046	45.0	-2.3	06	92.091	81.3	-11.7
07	230.230	186	-19.3	10	2.302	2.55	10.6				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.806	-12.4	02	4.605	4.73	2.8	03	9.209	10.2	10.6
04	23.023	23.5	2.1	05	46.046	46.3	0.6	06	92.091	89.0	-3.3
07	230.230	232	0.7	10	2.302	2.28	-0.9				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	1.16	22.2	02	4.750	4.82	1.6	03	9.501	9.60	1.0
04	23.752	22.6	-4.9	05	47.503	44.7	-5.9	06	95.006	87.9	-7.4
07	237.520	220	-7.3	08	475.030	445	-6.4	09	950.060	918	-3.4
10	2.375	2.62	10.5								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.975	-2.5	02	5.000	4.48	-10.4	03	10.000	9.60	-4.0
04	25.000	24.5	-1.8	05	50.000	52.4	4.9	06	100.000	103	3.0
07	250.000	264	5.5	08	500.000	521	4.2	09	1000.000	1080	7.7
10	2.500	2.33	-6.7								

Initial Calibration Verification Summary Report

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-1701

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Quadratic	50	58.215	ug/L	16.4	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.125	ug/L	6.3	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.742	ug/L	7.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.950	ug/L	7.0	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	47.208	ug/L	1.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.502	ug/L	6.0	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	50.405	ug/L	9.5	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	54.814	ug/L	19.0	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Quadratic	47.5030	55.309	ug/L	16.4	<= 20

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-35

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Average RF	50	51.424	ug/L	2.8	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	46.743	ug/L	-0.9	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	47.890	ug/L	1.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	50.676	ug/L	8.5	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Average RF	46.69	46.729	ug/L	0.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	48.393	ug/L	3.6	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Average RF	46.0460	46.475	ug/L	0.9	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	48.925	ug/L	6.3	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Average RF	47.5030	48.834	ug/L	2.8	<= 20

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:01 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:03:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	4.712	0	59380	N.D. d	0.137
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D.
2)		3,5-Dichl...	0.000	4.125f	0	25046	N.D.	1.520 #
3)		2,4,6-Tri...	0.000	4.292	0	32648	N.D. d	0.078
5)		2,4,5-Tri...	0.000	4.802	0	42050	N.D. d	0.210
6)		3,4,5-Tri...	0.000	4.832	0	55519	N.D. d	0.296
7)	M	2,3,5,6-T...	0.000	5.088	0	70520	N.D. d	0.114
8)	M	2,3,4,5-T...	0.000	5.452	0	131834	N.D. d	0.319
9)	M	Pentachlo...	0.000	5.685f	0	269600	N.D. d	0.392
10)		Pentachlo...	0.000	5.685f	0	269600	N.D. d	0.413

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

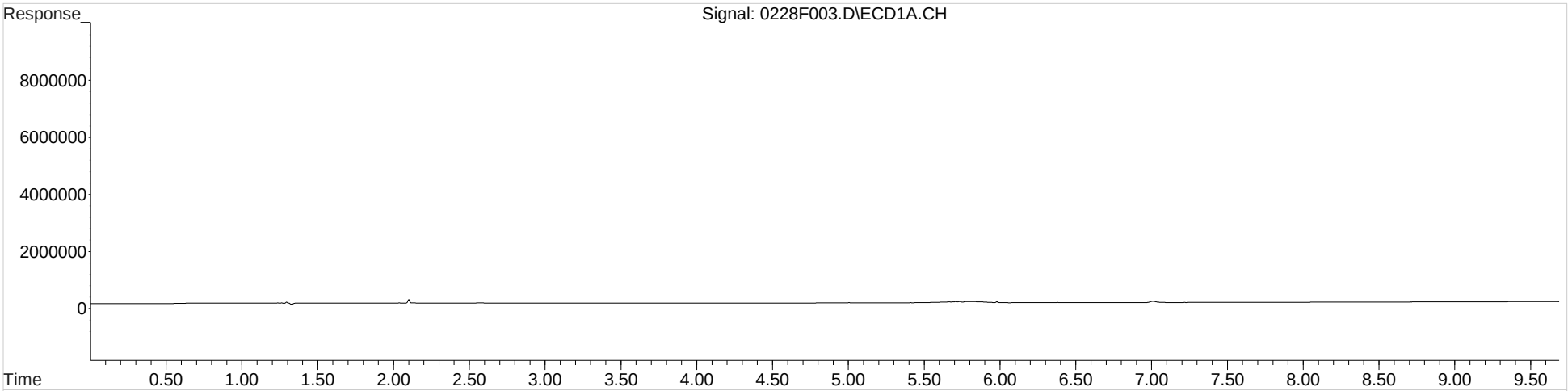
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F003.D Vial: 1
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:01 am Operator: MC
Sample : IB Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:03:20 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.027	4.714	519128	410904	0.637	0.945 #
		Target Compounds						
1)		3,4-Dichl...	3.137	3.824	23293	21701	0.801m	0.982m
2)		3,5-Dichl...	3.377	4.084	16564	21176	1.036m	1.285m
3)		2,4,6-Tri...	3.473	4.284	431646	414230	0.802	0.993
5)		2,4,5-Tri...	4.200	4.778	211915	247658	0.739	1.239 #
6)		3,4,5-Tri...	4.230	4.844	185206	233780	0.709m	1.245 #
7)	M	2,3,5,6-T...	4.473	5.071	576226	646609	1.211m	1.048m
8)	M	2,3,4,5-T...	5.013	5.468	599618	475513	0.771	1.152m#
9)	M	Pentachlo...	5.150	5.648	673174	789810	0.493	1.149m#
10)		Pentachlo...	5.150	5.648	673174	790854	0.519	1.211m#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

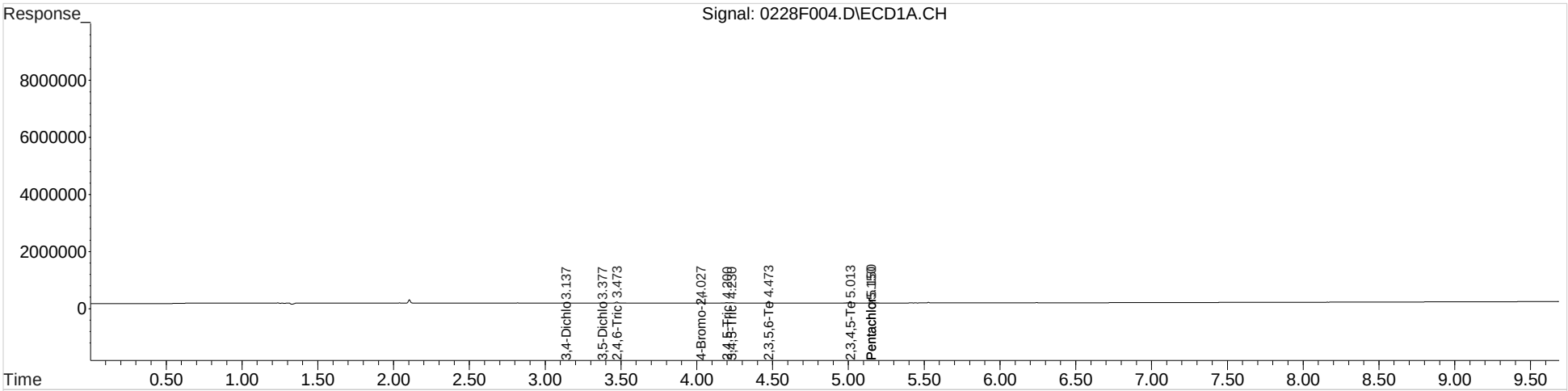
1st JMS 02/28/19
2nd MC 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:02:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

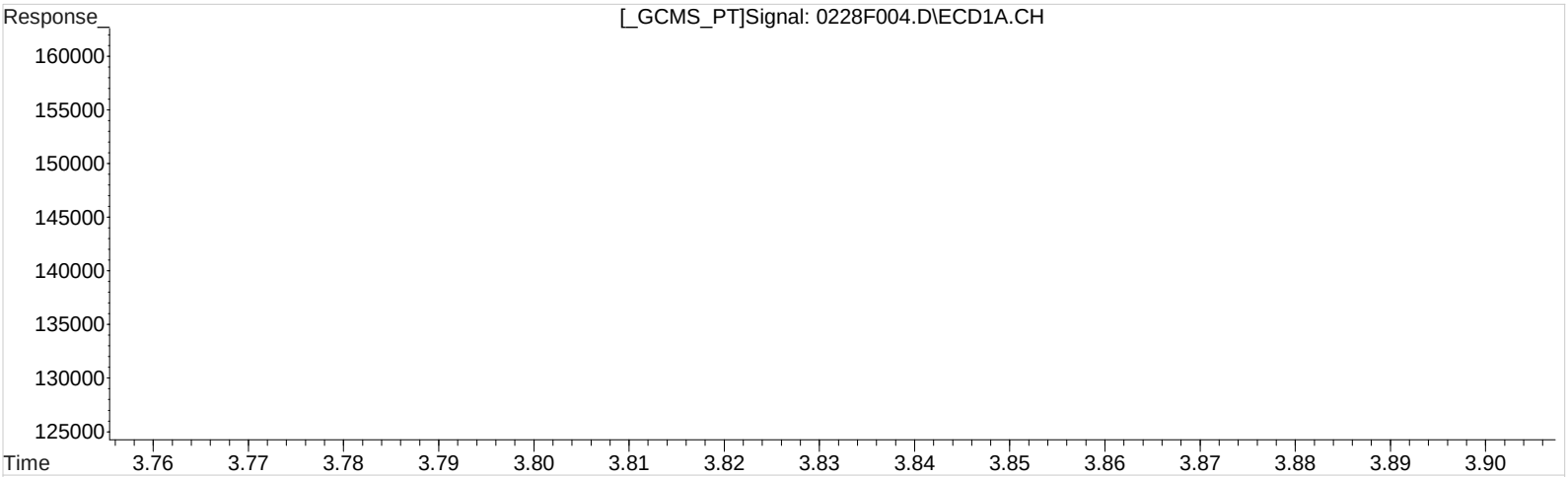


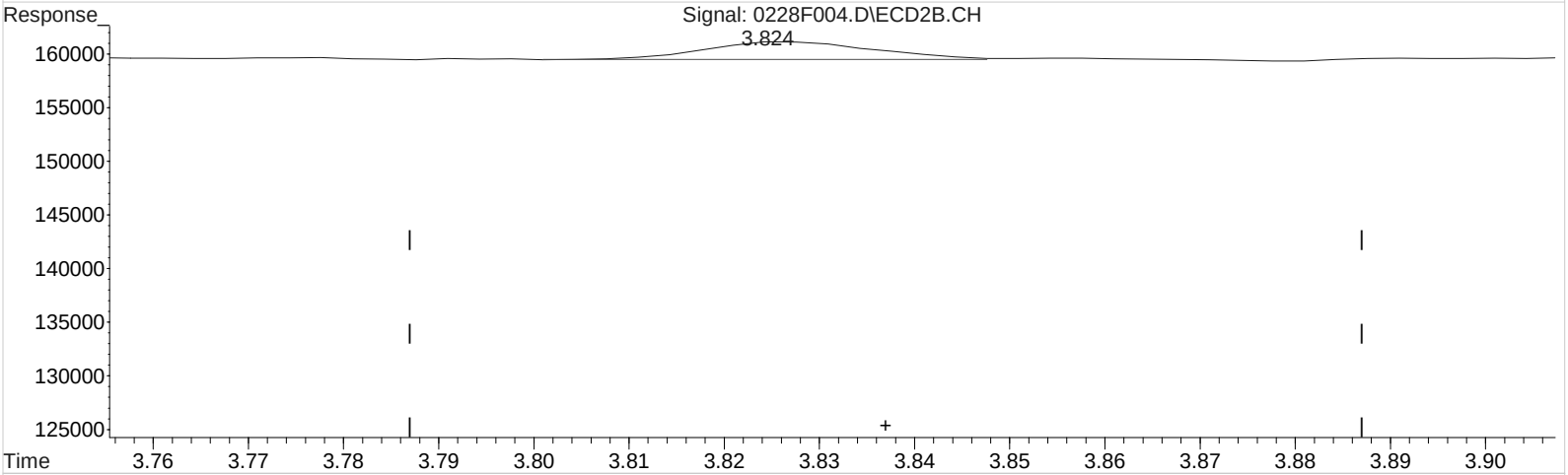
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.924 ug/L

response 20420

(+) = Expected Retention Time

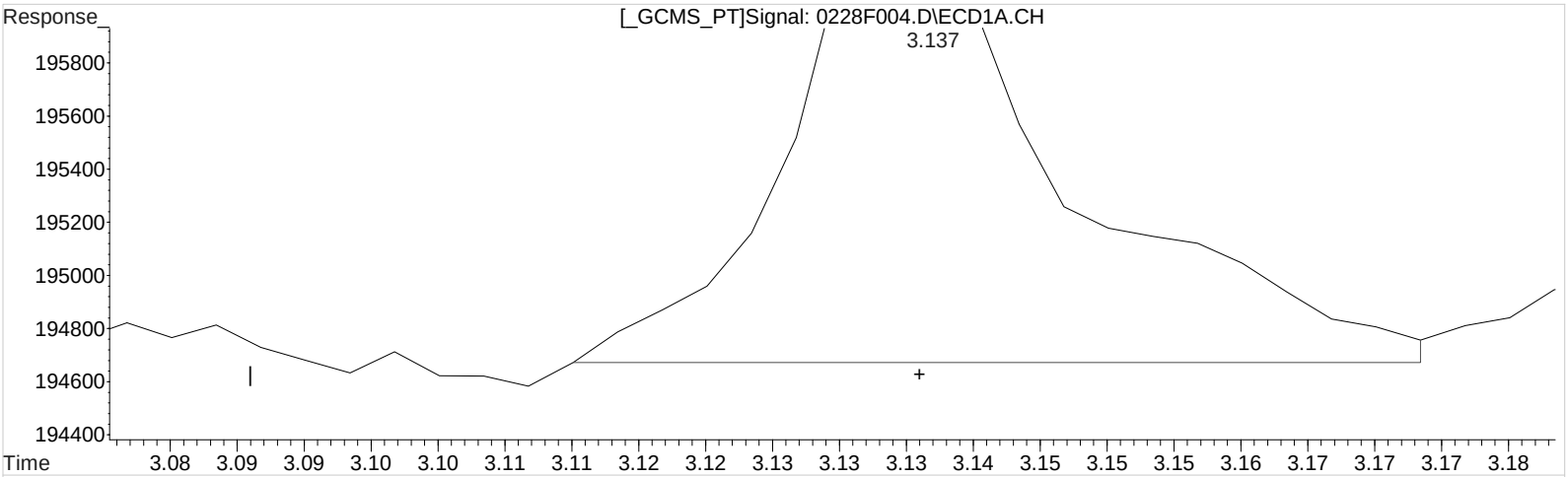
Quantitation Report (Qedit)

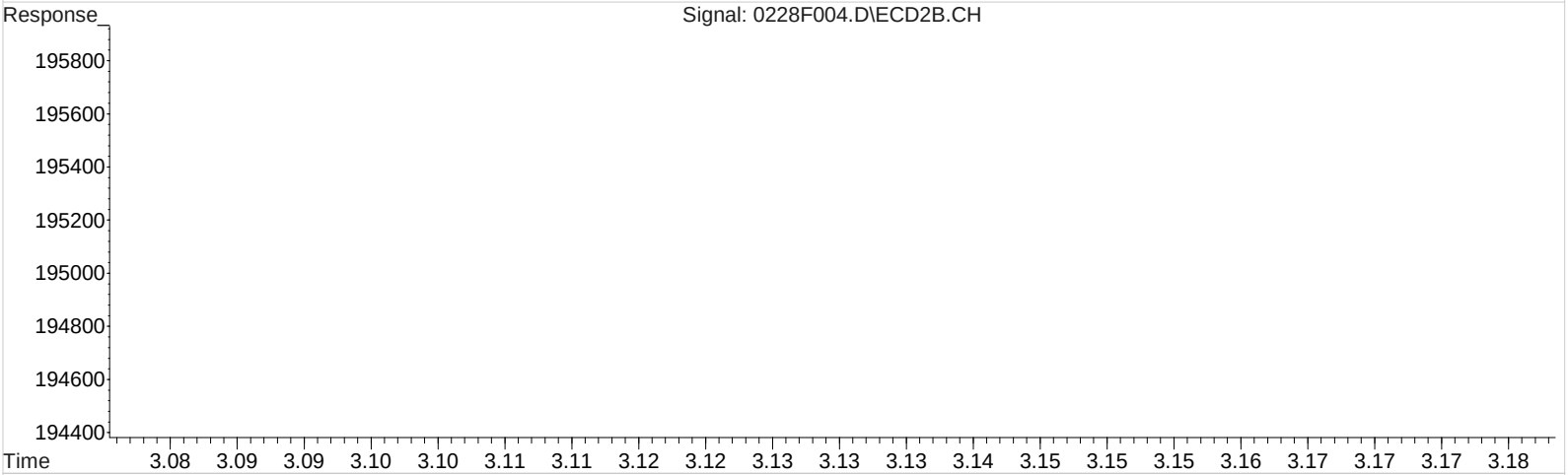
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

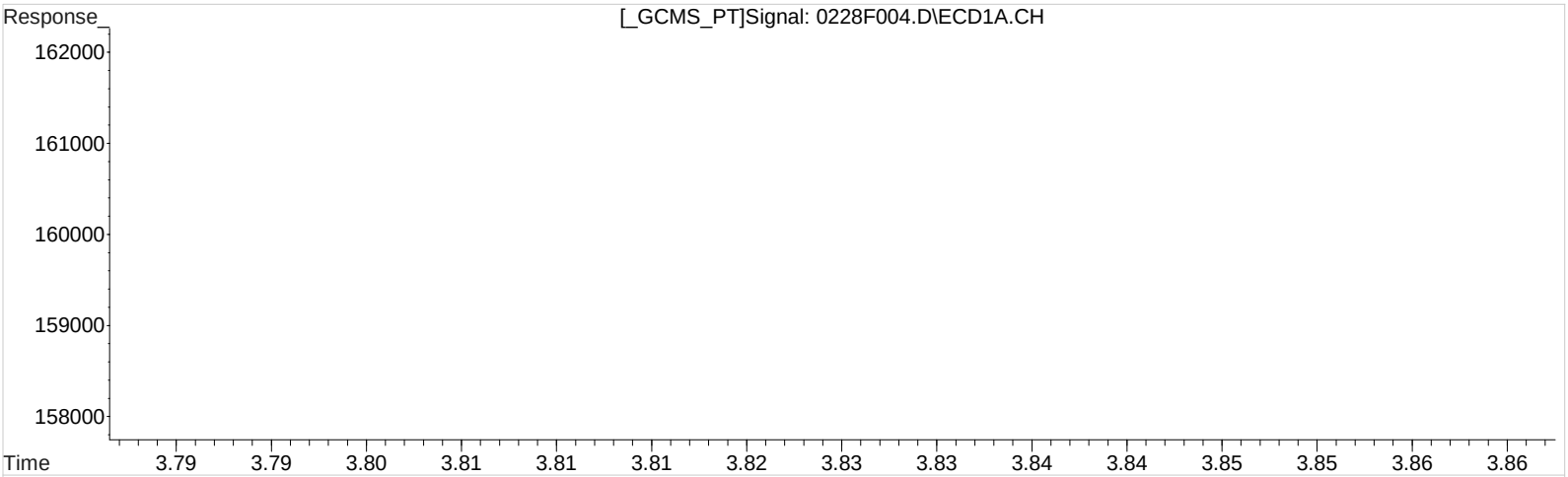
Quantitation Report (Qedit)

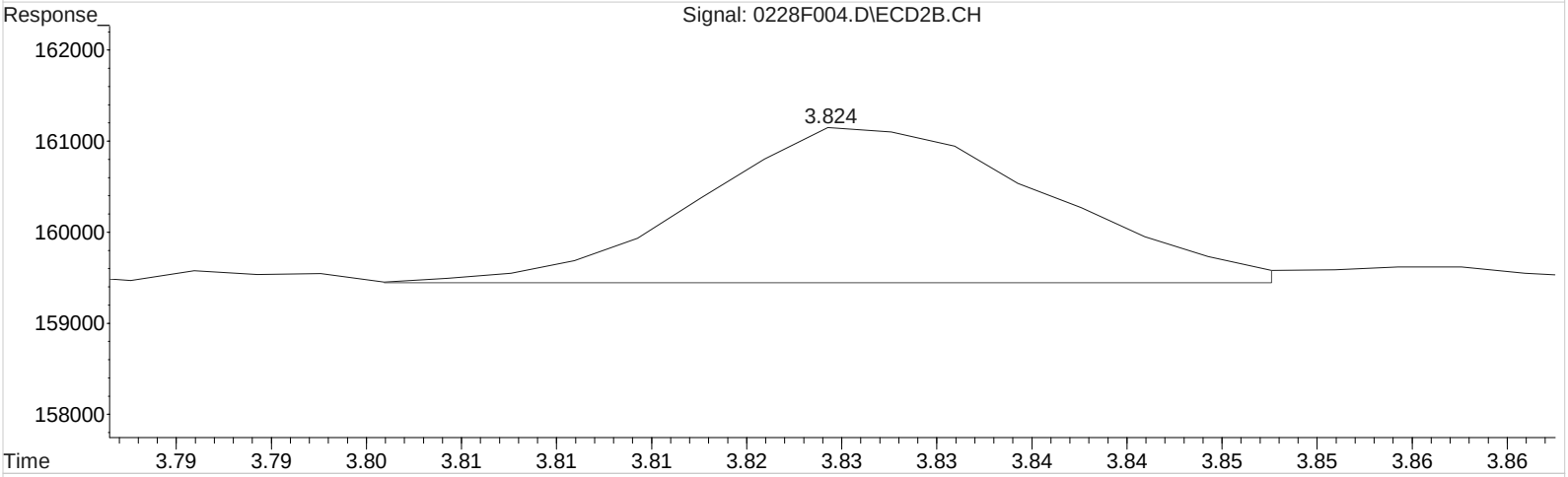
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.897 ug/L

response 24784

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

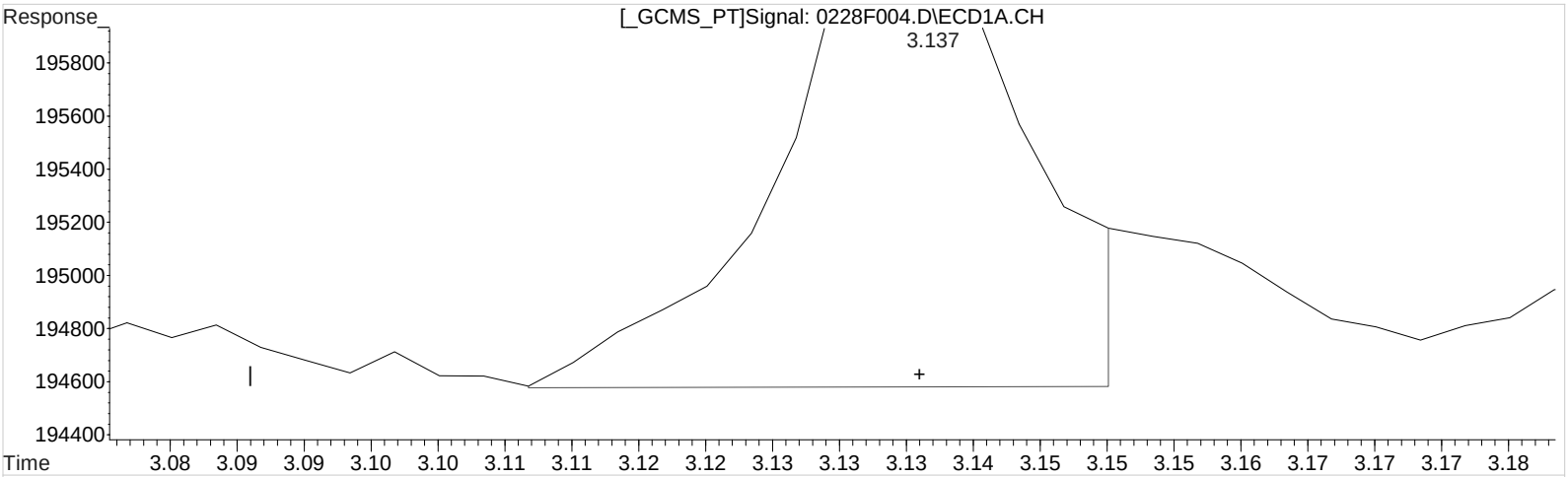
Quantitation Report (Qedit)

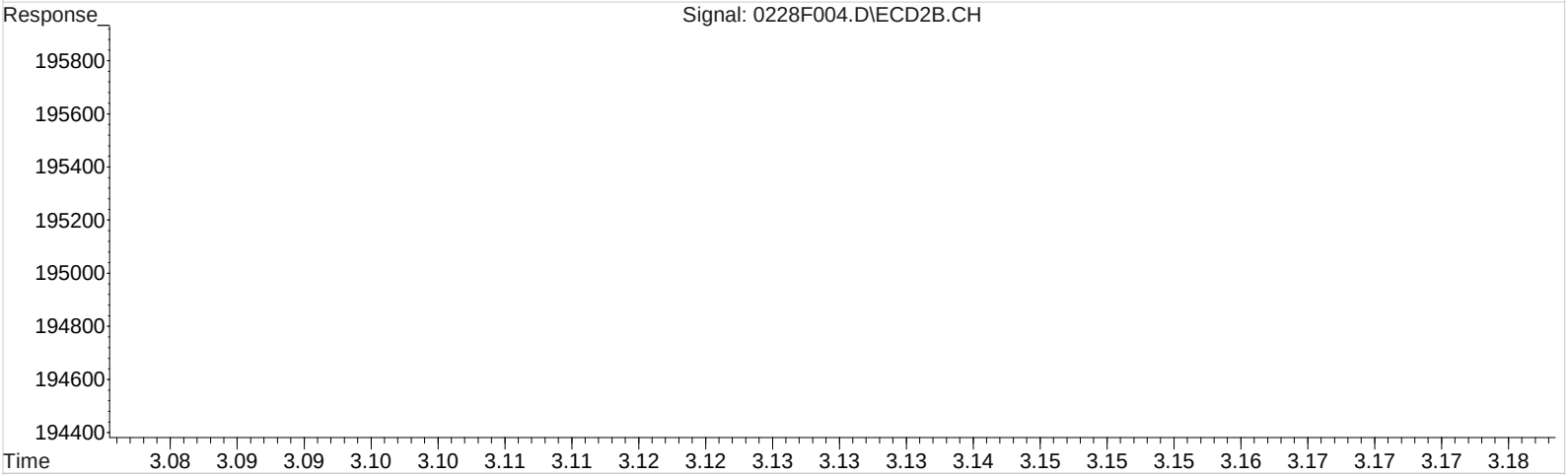
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 0.801 ug/L m

response 23293

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.824min 0.982 ug/L m

response 21701

(+) = Expected Retention Time

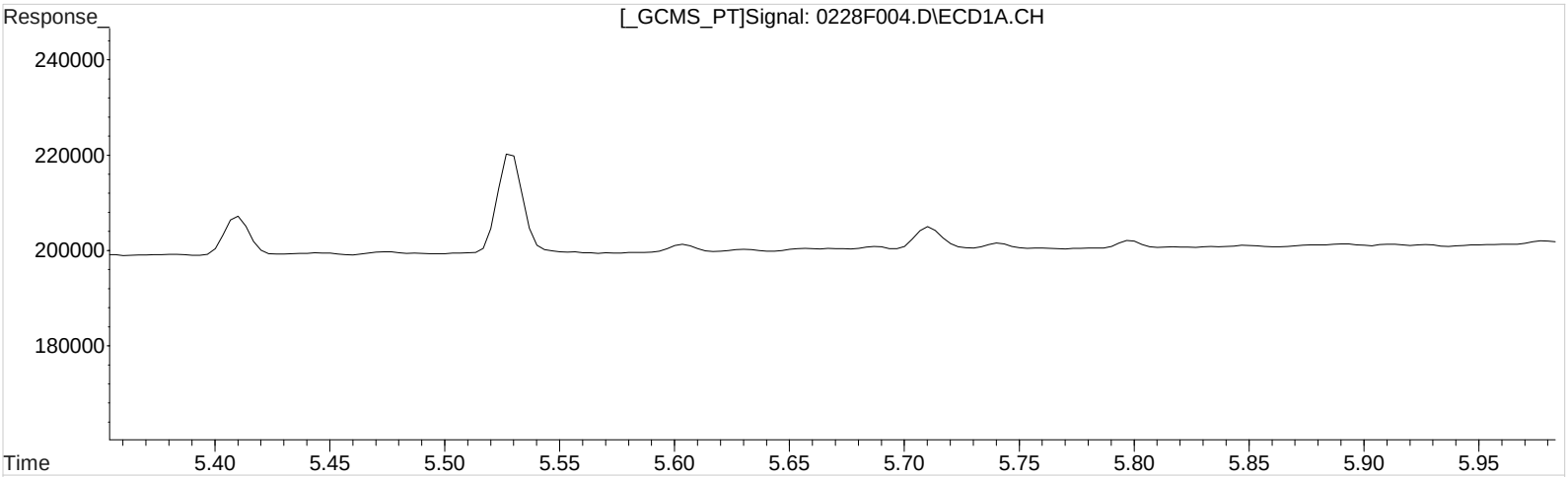
Quantitation Report (Qedit)

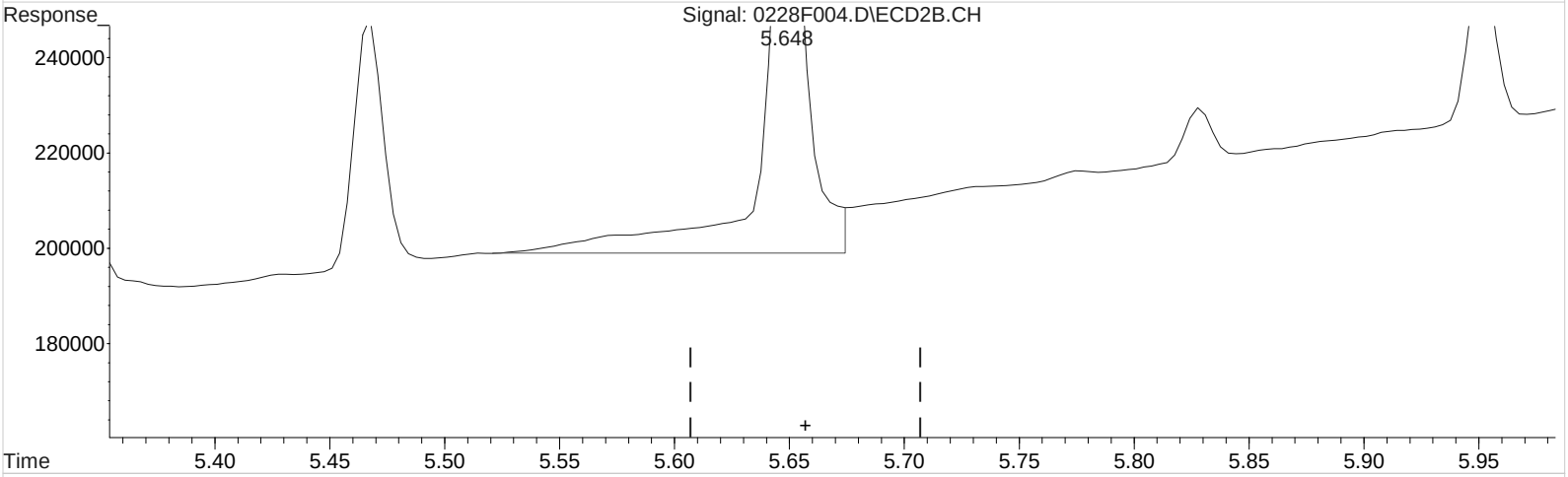
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.150min 0.519 ug/L

response 673174

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.648min 1.879 ug/L

response 1226970

(+) = Expected Retention Time

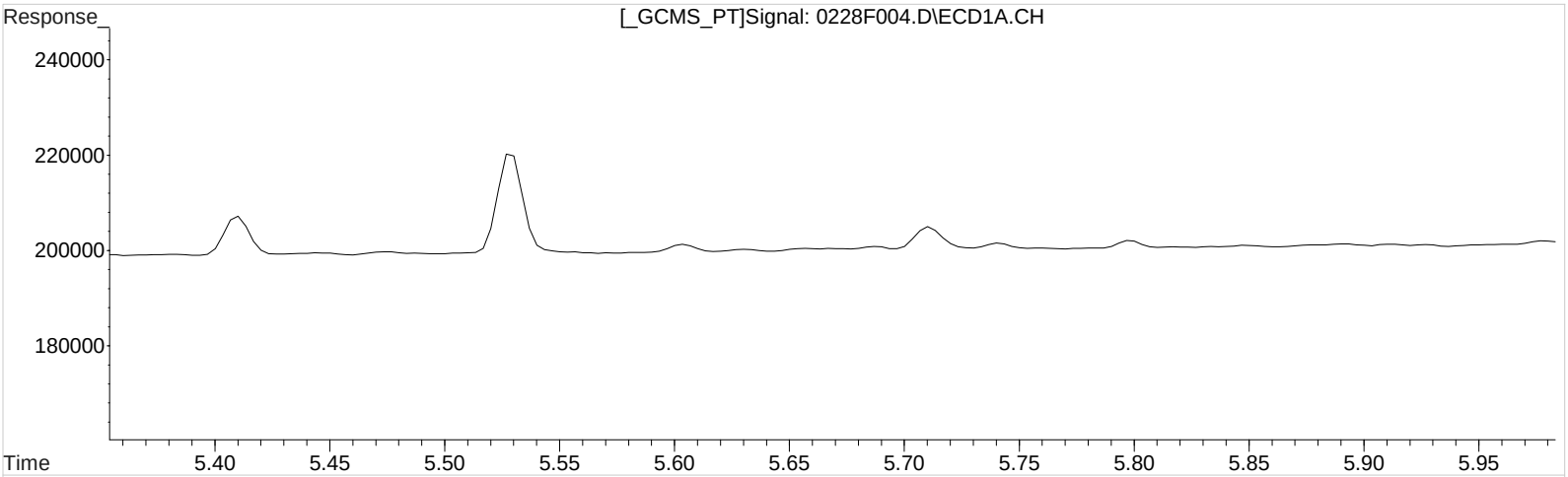
Quantitation Report (Qedit)

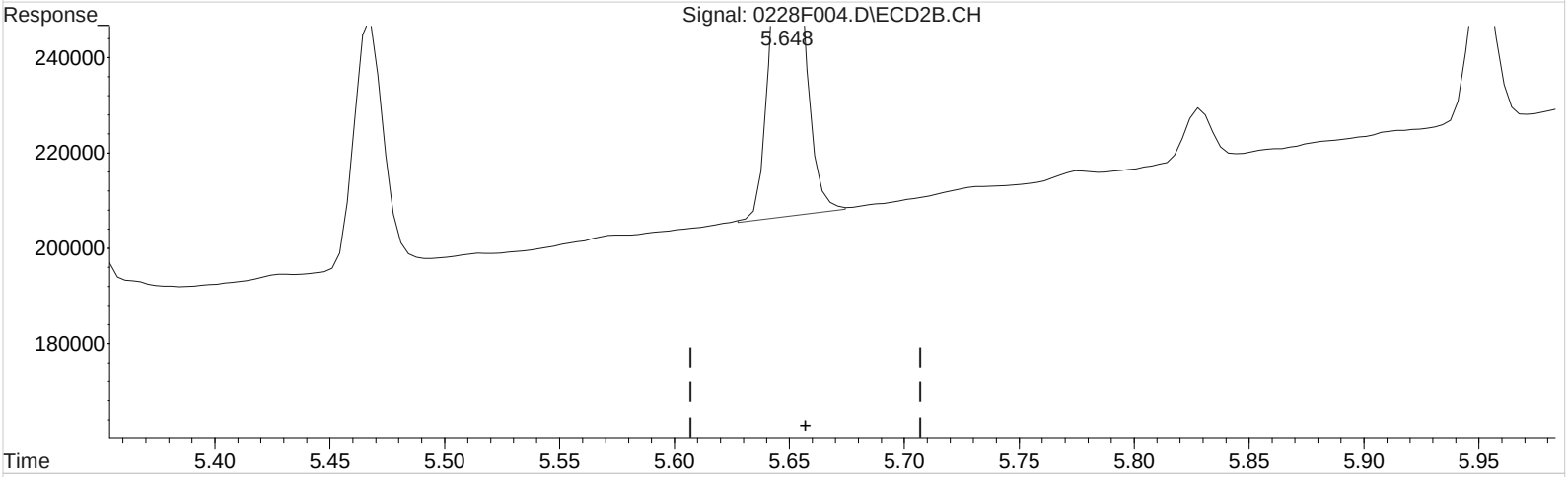
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.150min 0.519 ug/L

response 673174

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.648min 1.211 ug/L m

response 790854

(+) = Expected Retention Time

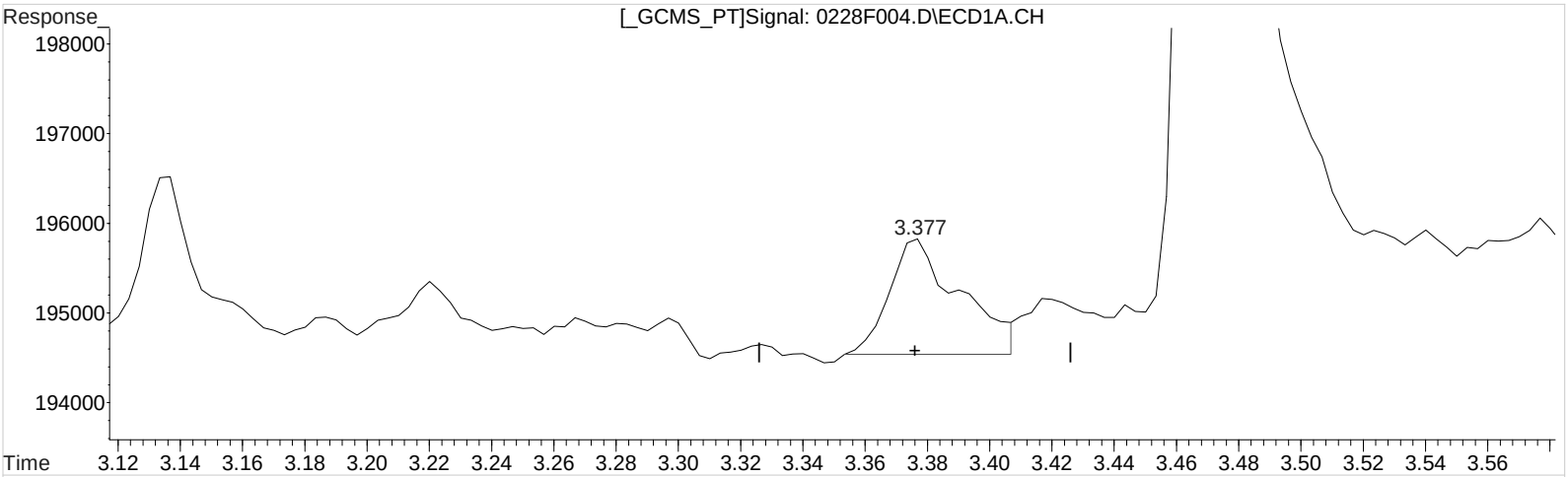
Quantitation Report (Qedit)

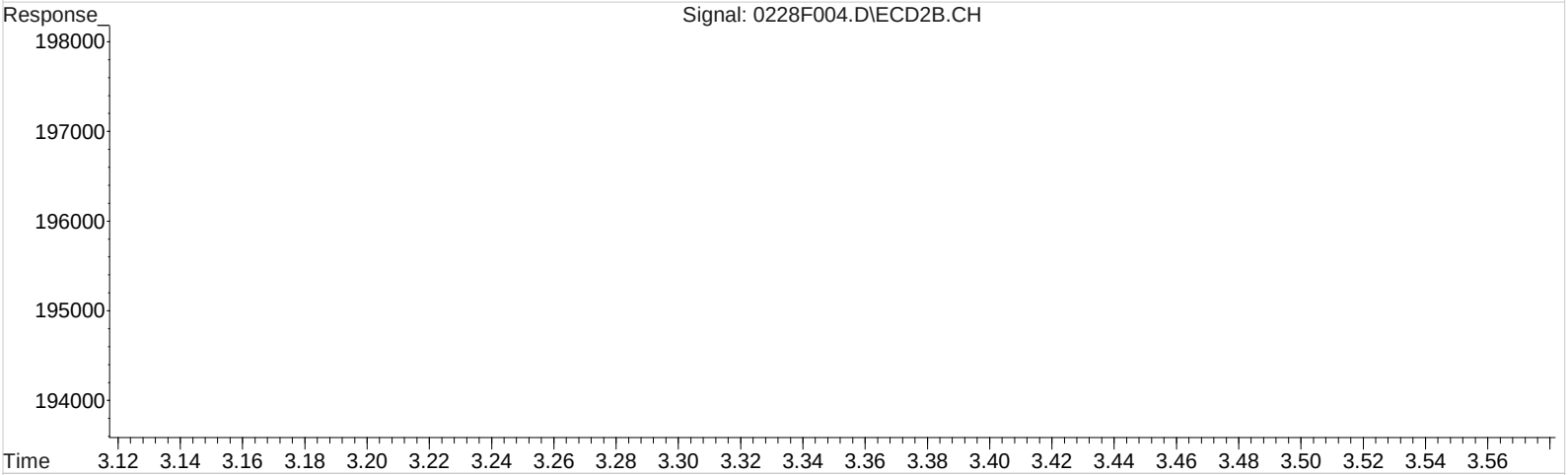
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.388 ug/L

response 20270

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

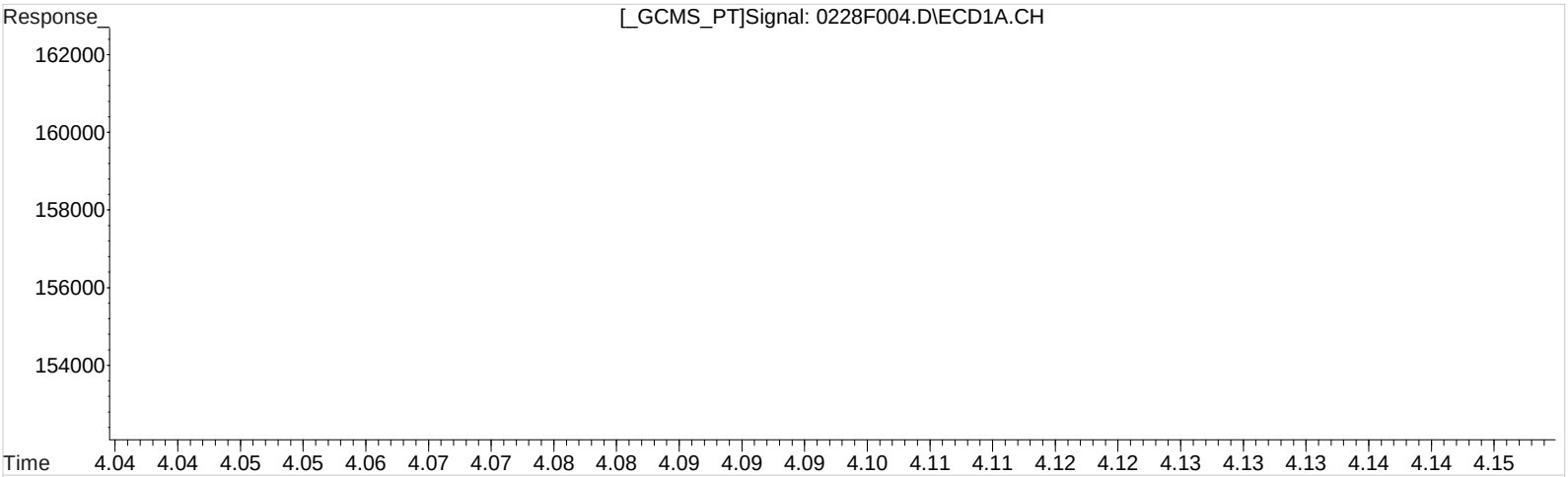
(+) = Expected Retention Time

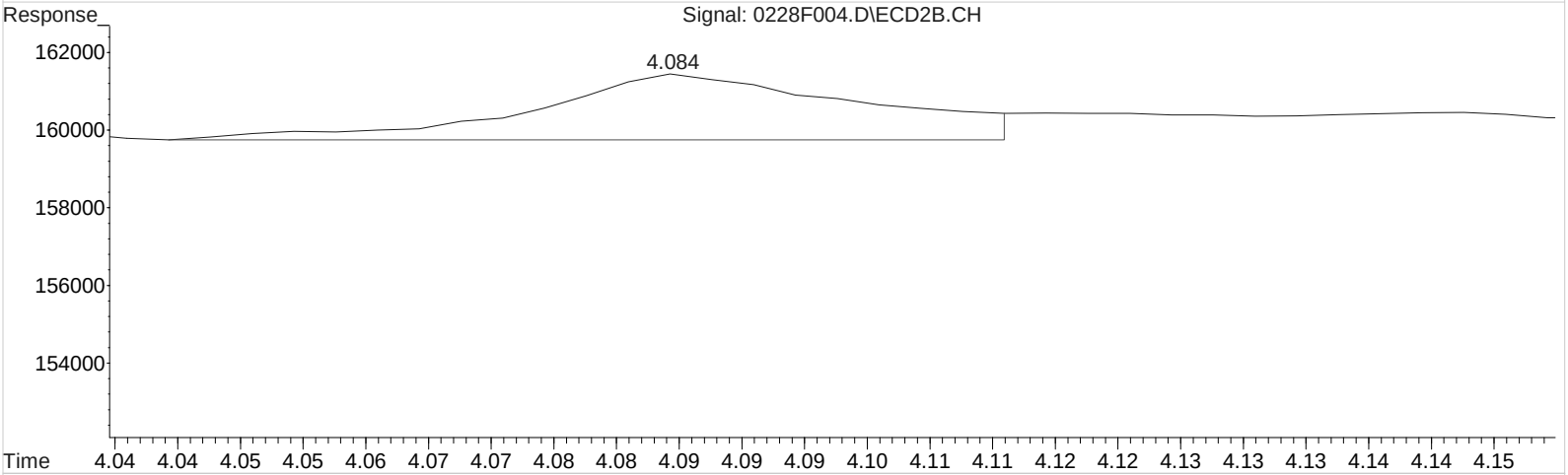
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

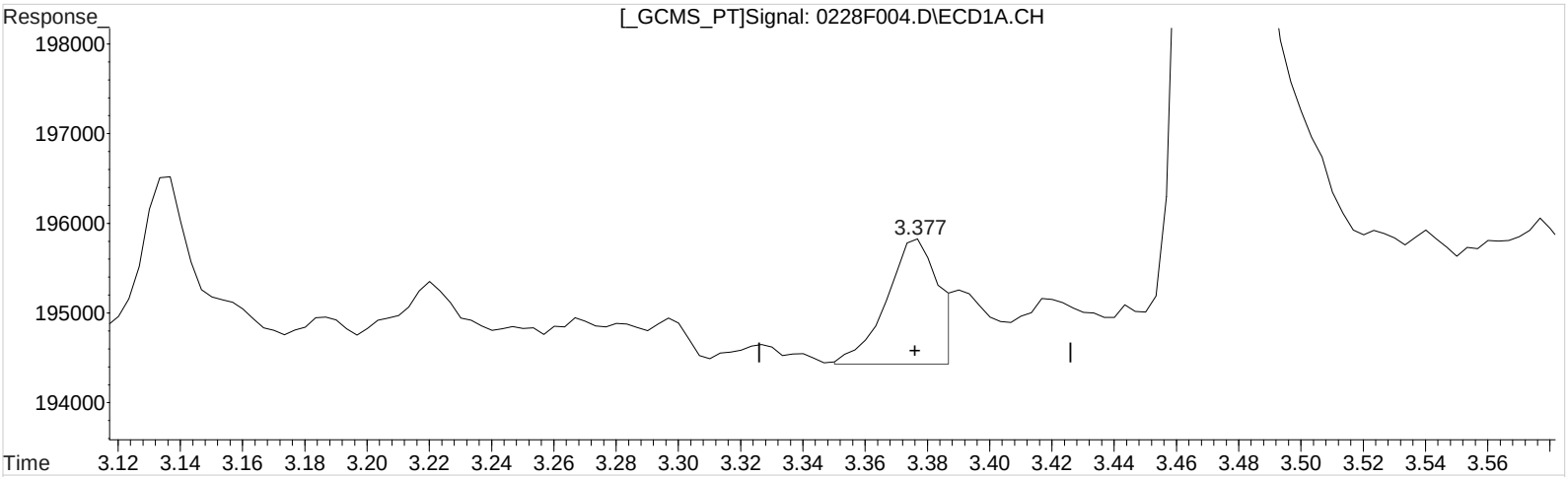
Quantitation Report (Qedit)

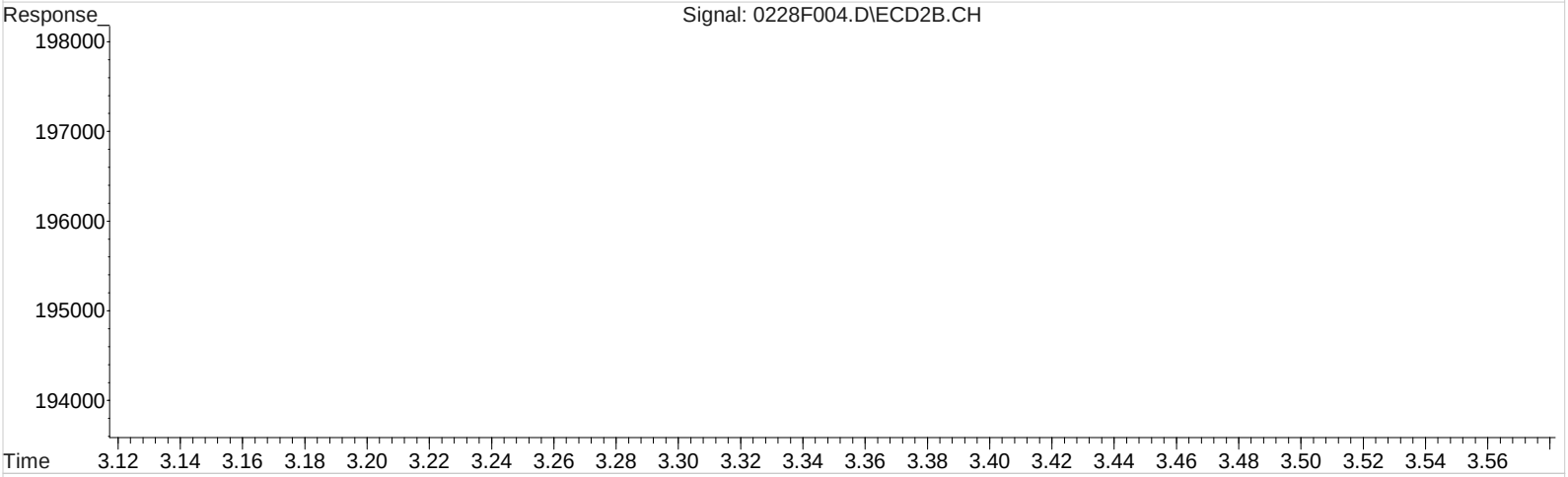
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.896 ug/L

response 31252

(+) = Expected Retention Time

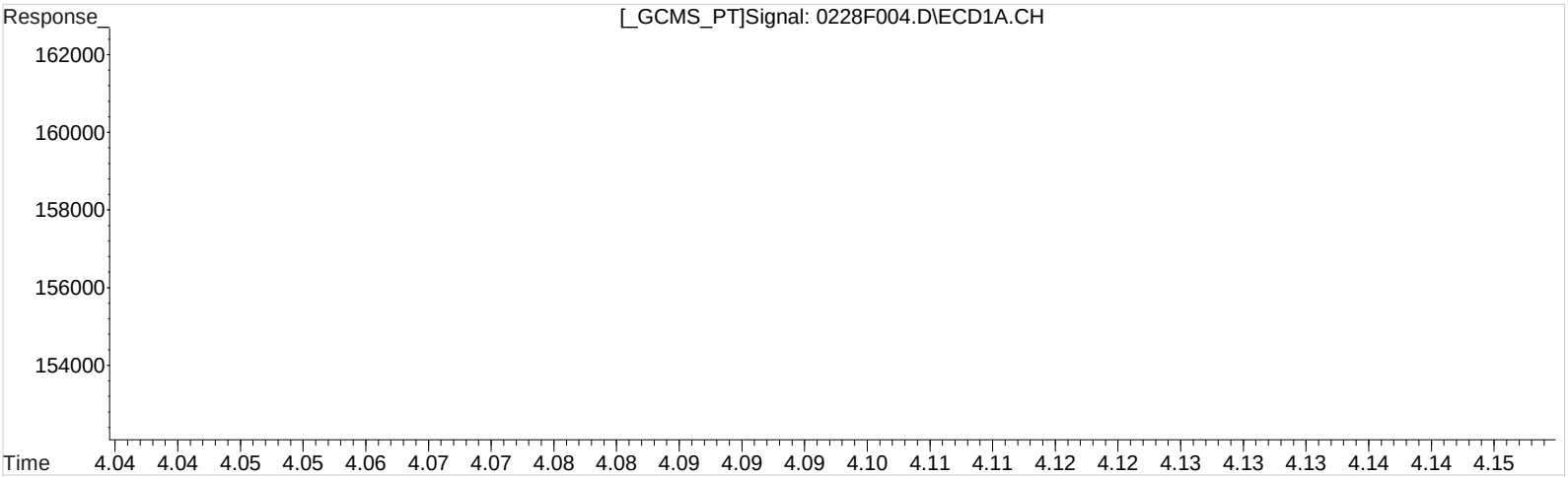
Quantitation Report (Qedit)

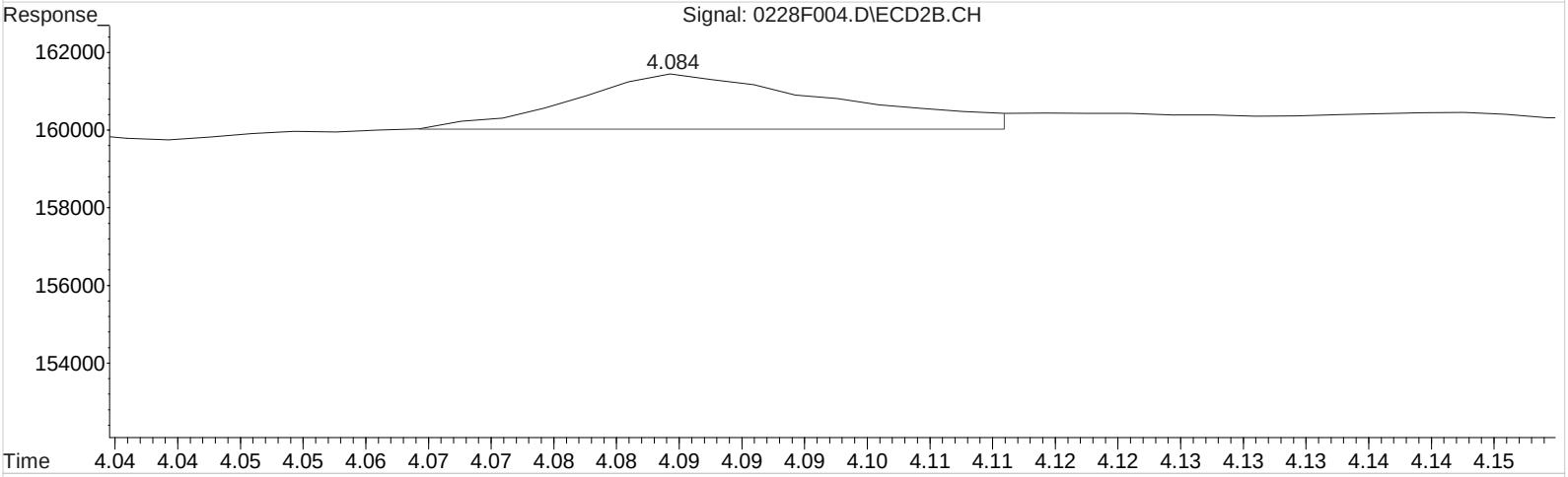
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min 1.036 ug/L m

response 16564

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.084min 1.285 ug/L m

response 21176

(+) = Expected Retention Time

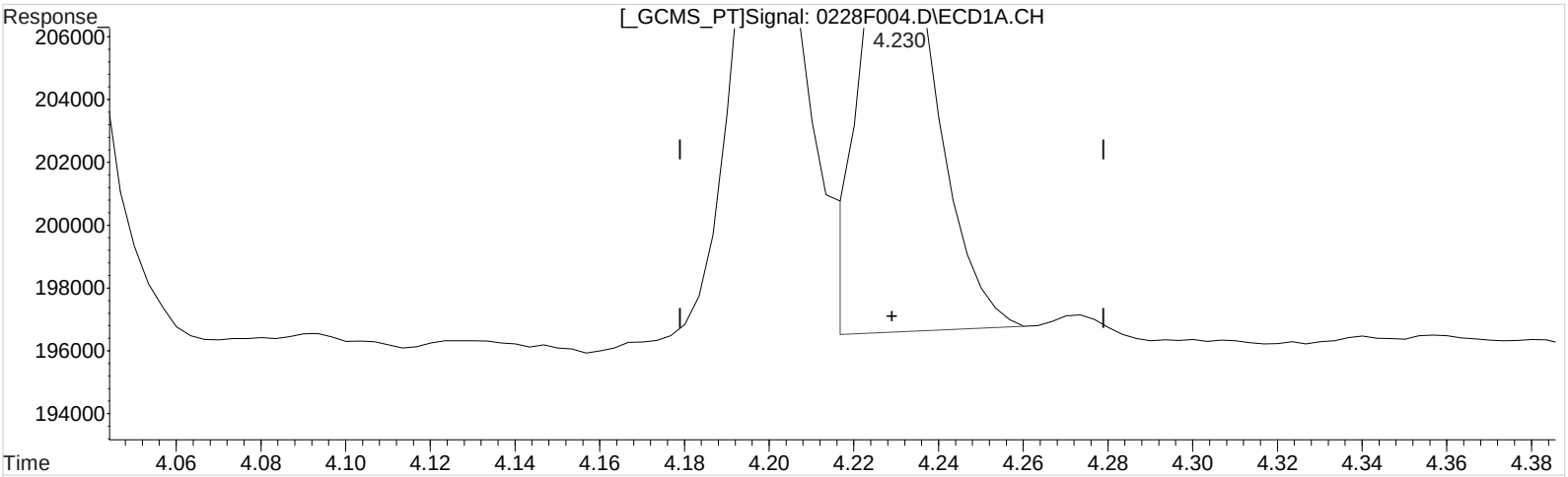
Quantitation Report (Qedit)

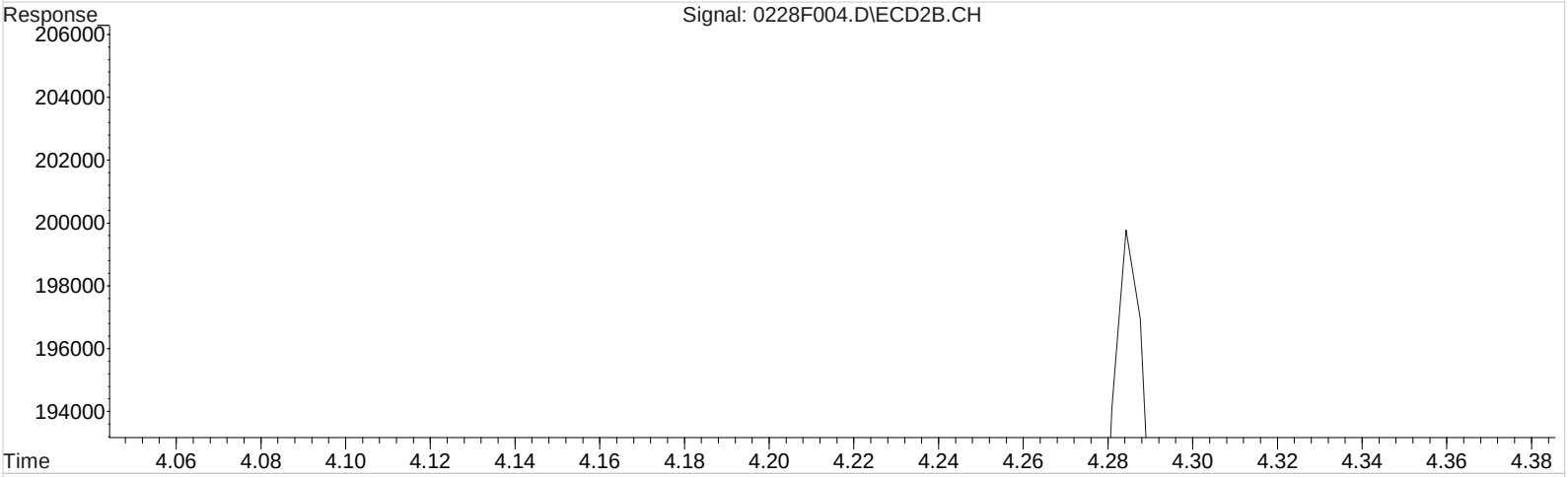
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.230min 0.644 ug/L

response 175885

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.844min 1.245 ug/L

response 233780

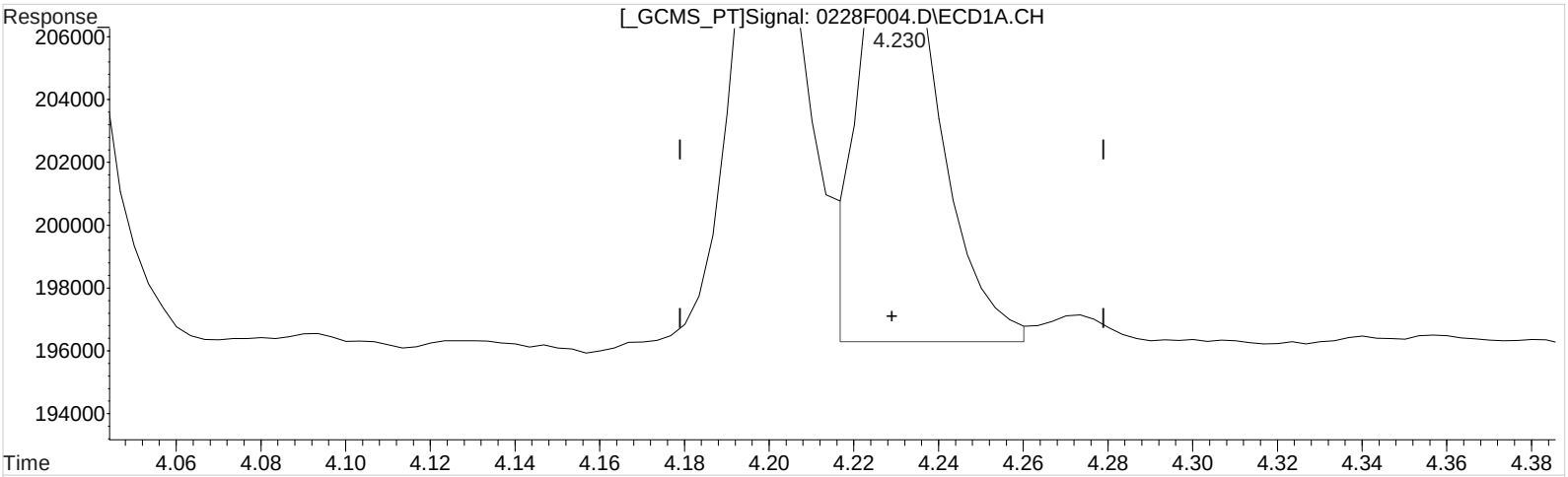
(+) = Expected Retention Time

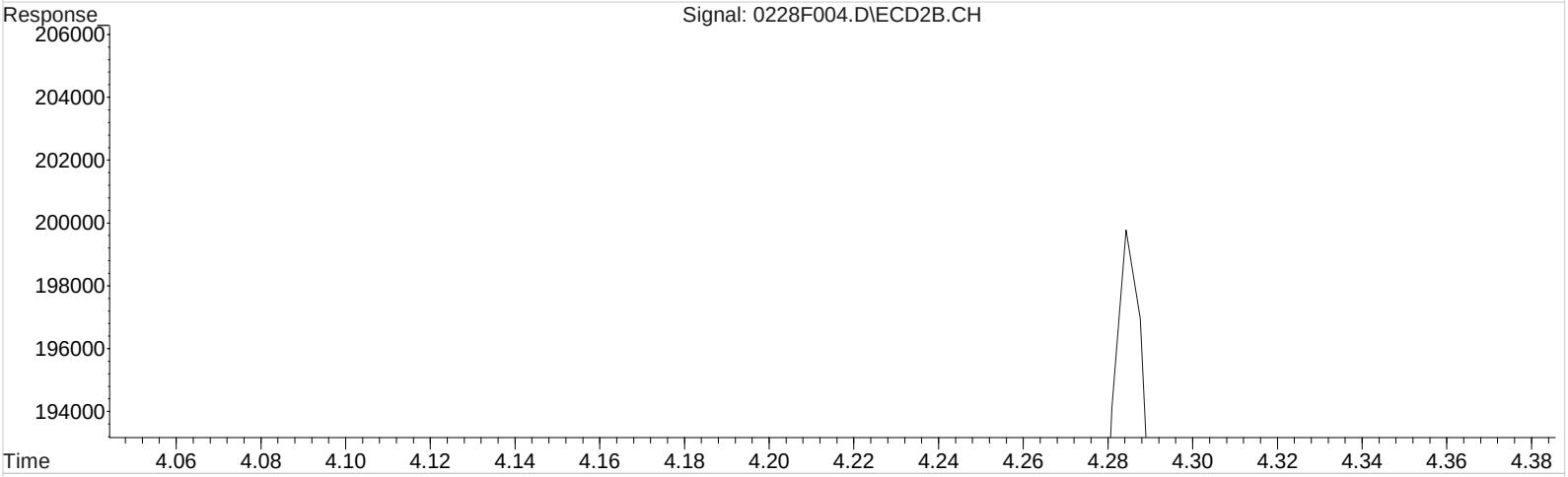
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.230min 0.709 ug/L m

response 185206

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.844min 1.245 ug/L

response 233780

(+) = Expected Retention Time

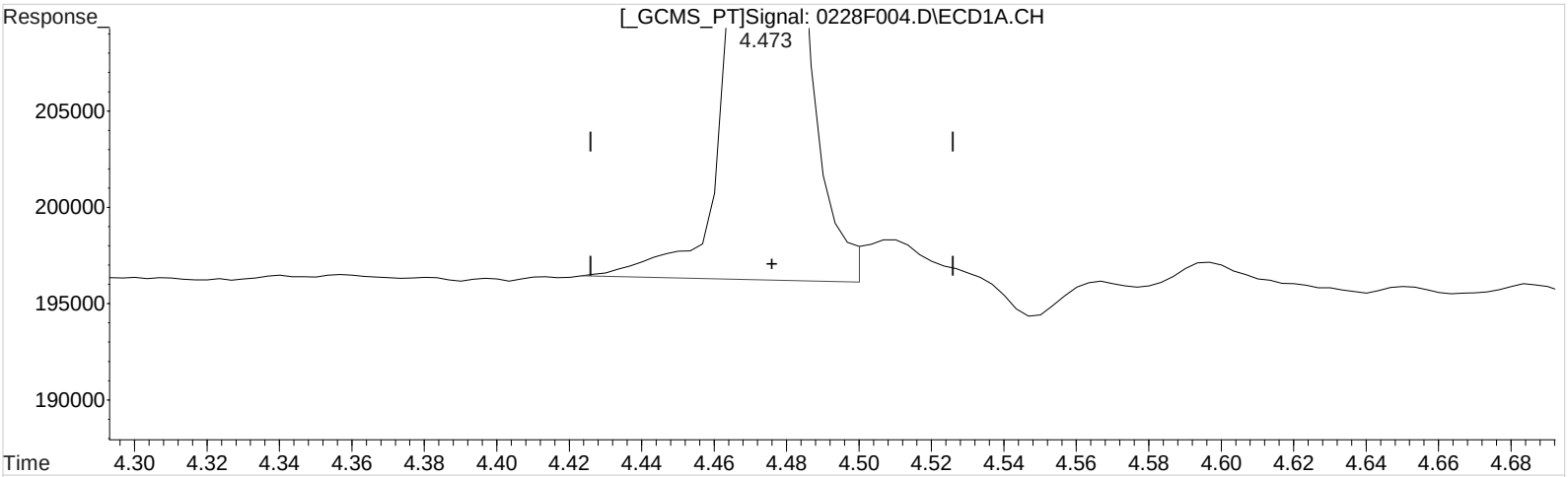
Quantitation Report (Qedit)

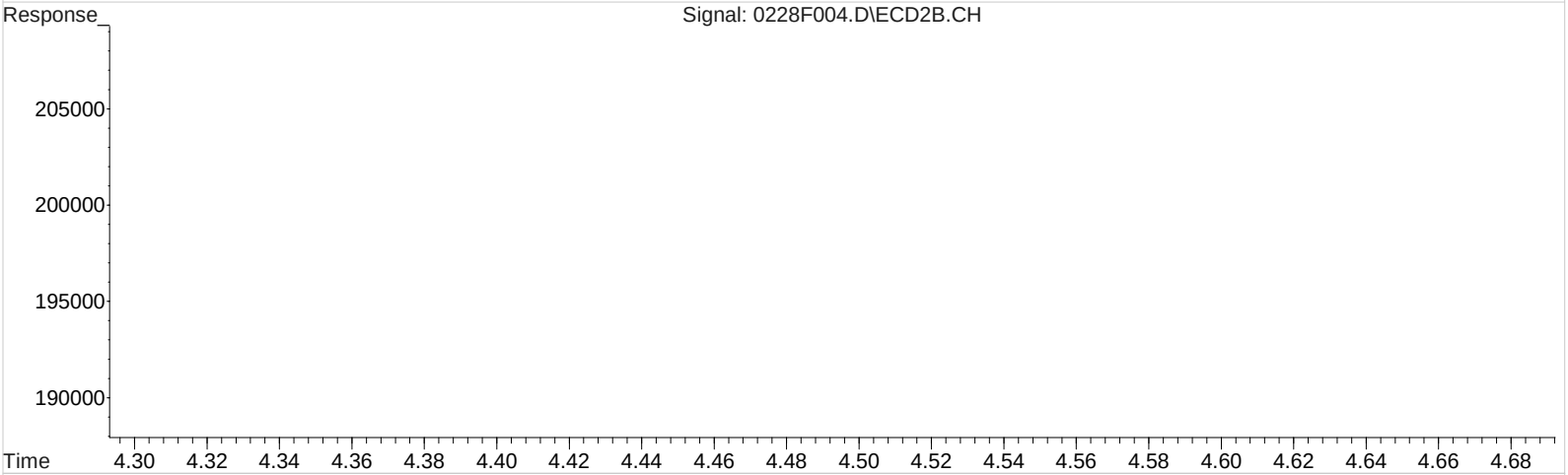
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.319 ug/L

response 627943

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

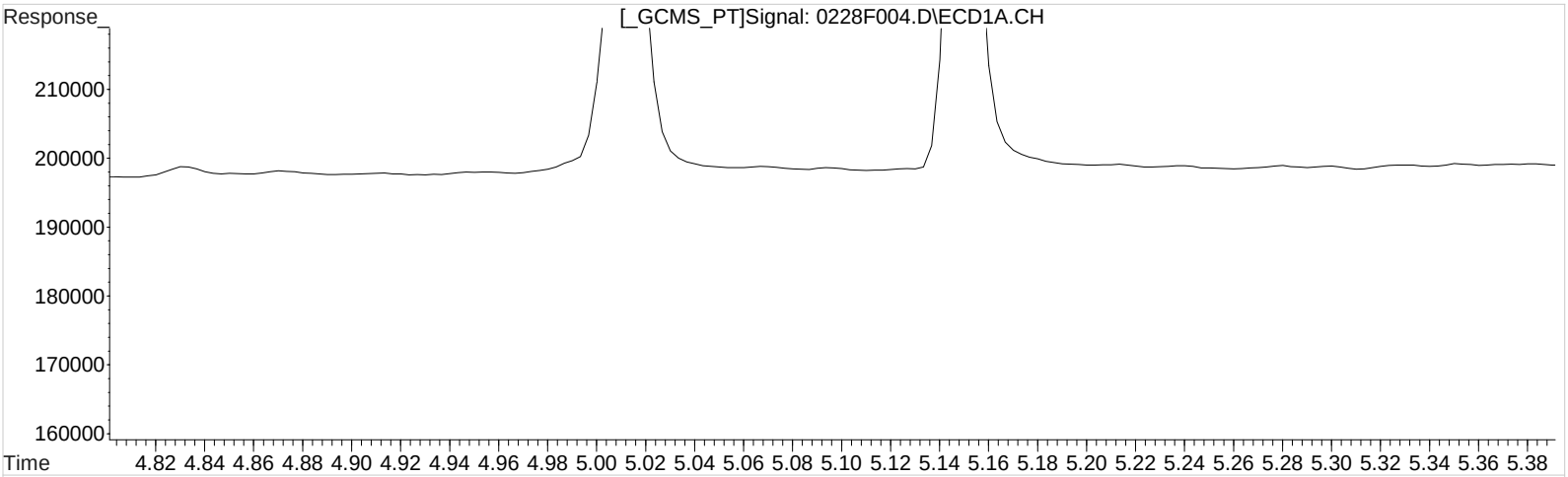
(+) = Expected Retention Time

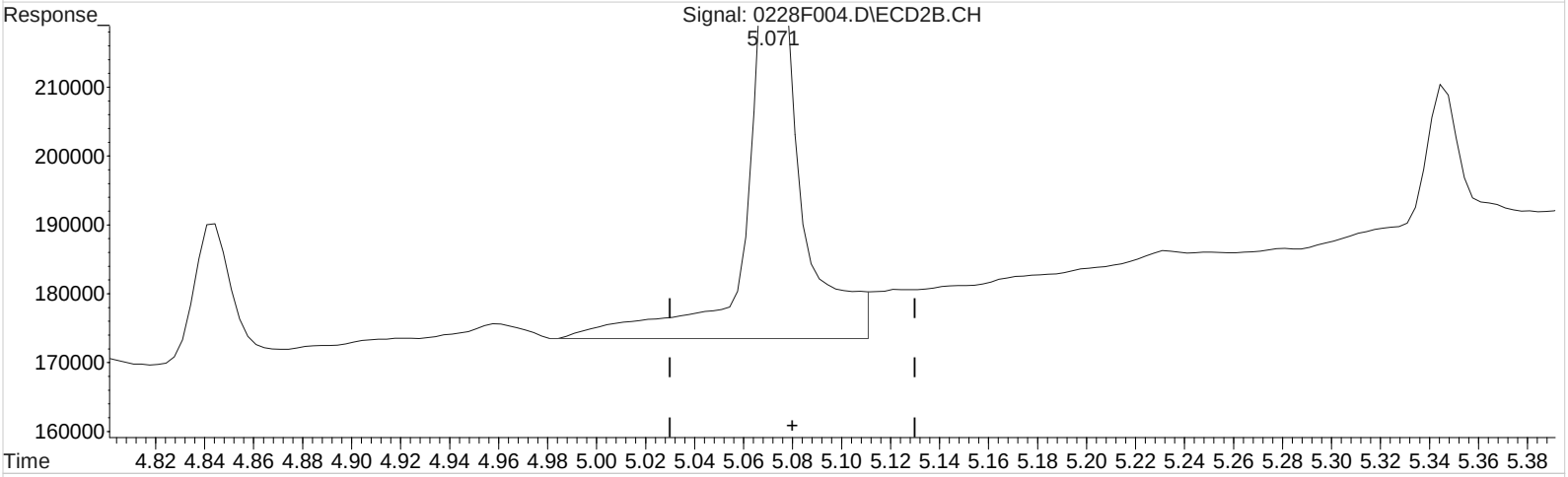
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

(+) = Expected Retention Time

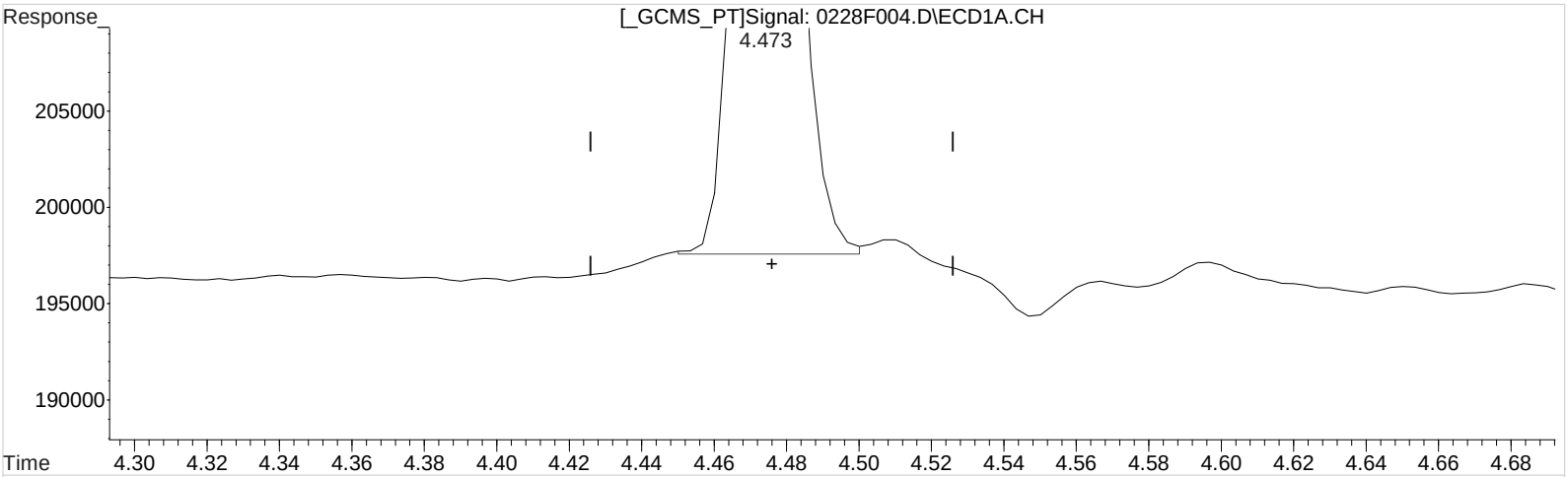
Quantitation Report (Qedit)

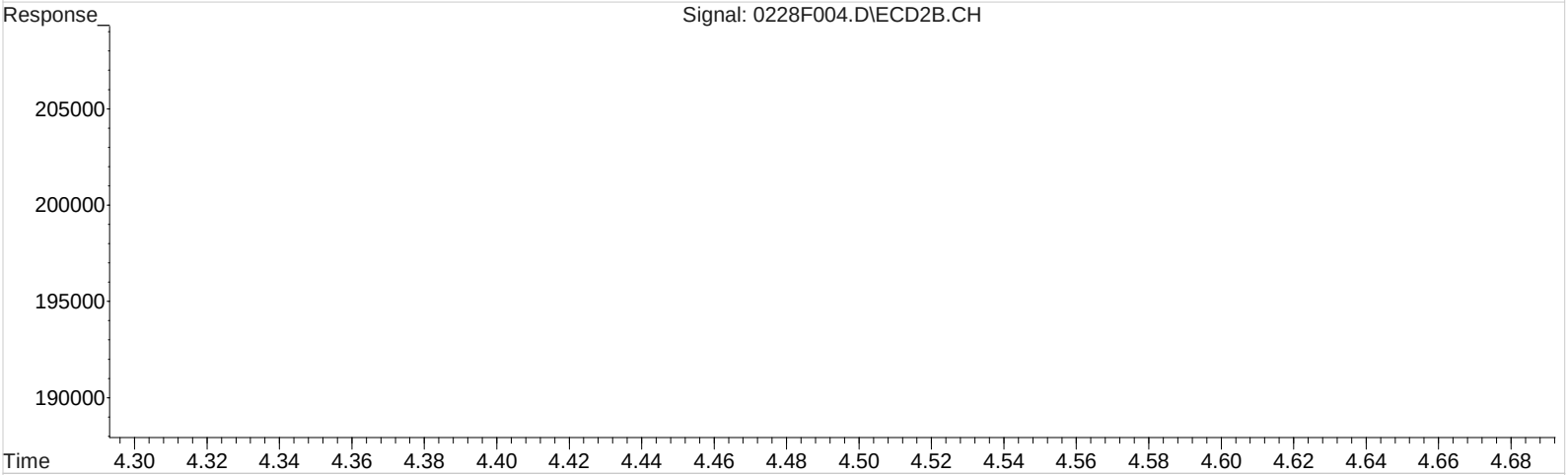
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.523 ug/L

response 940254

(+) = Expected Retention Time

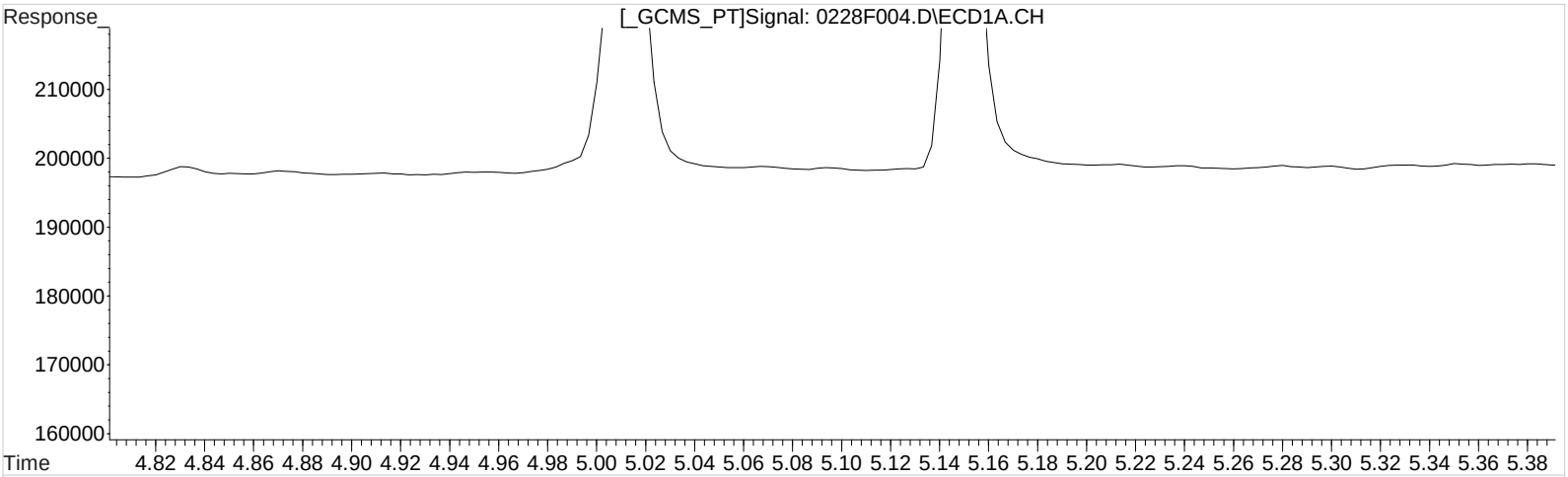
Quantitation Report (Qedit)

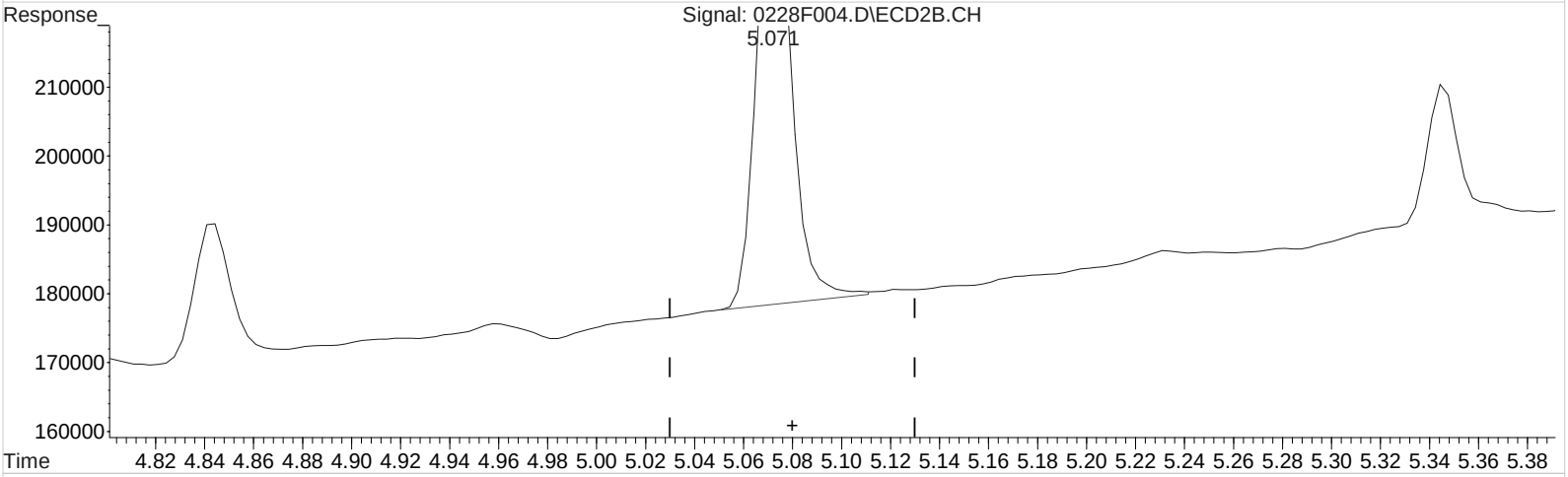
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.473min 1.211 ug/L m

response 576226

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.071min 1.048 ug/L m

response 646609

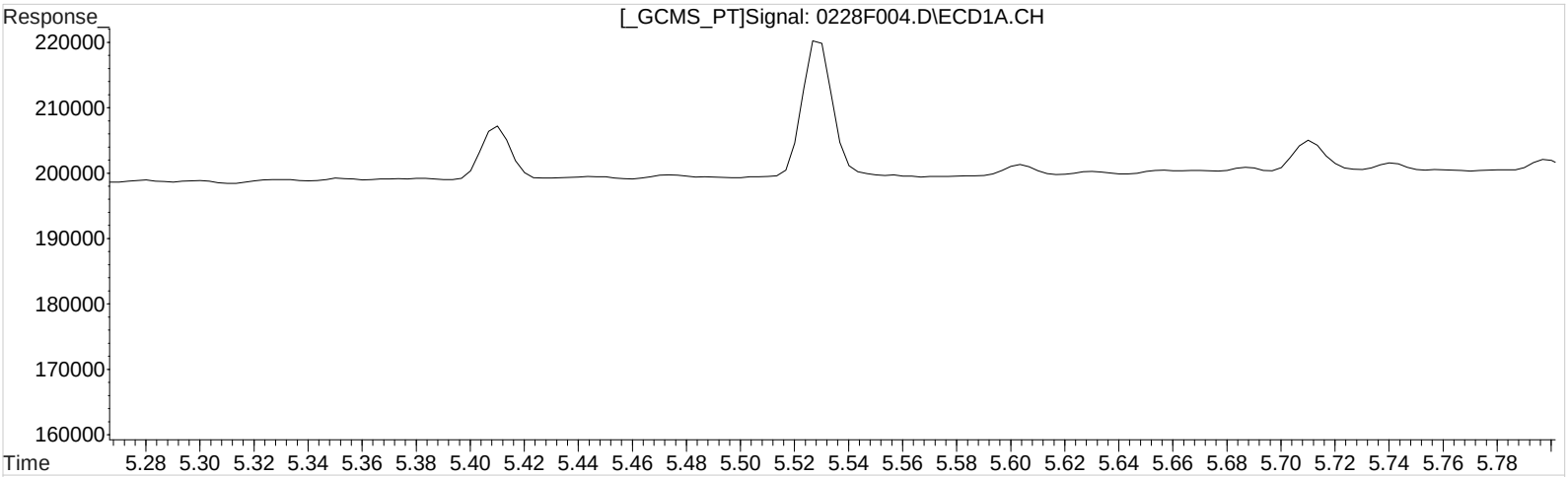
(+) = Expected Retention Time

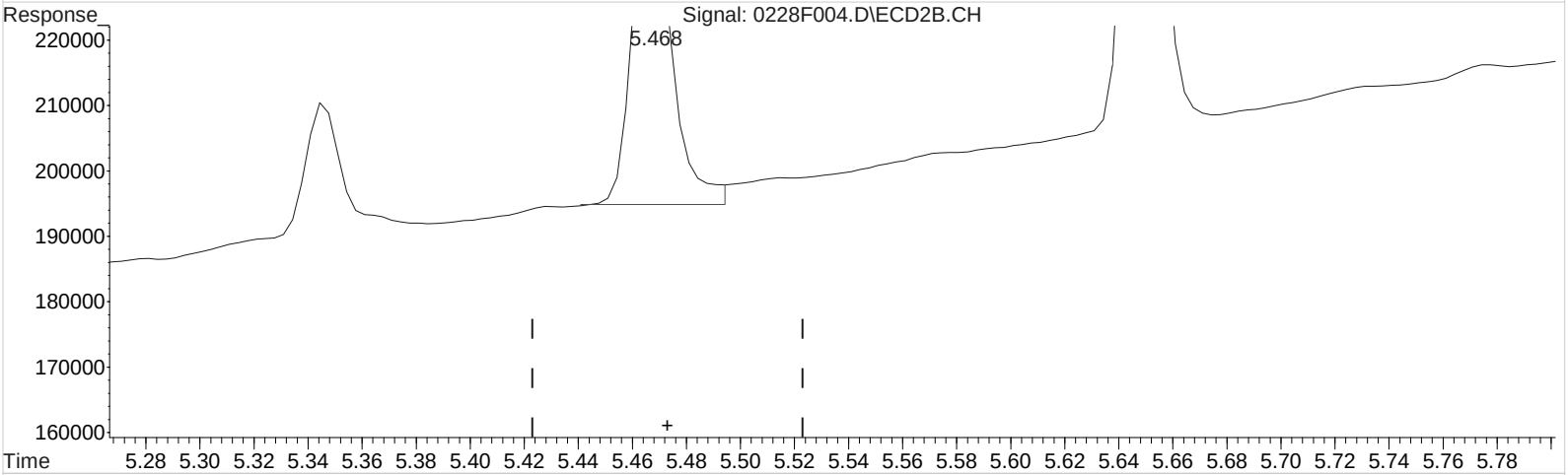
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.013min 0.771 ug/L

response 599618

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.468min 1.232 ug/L

response 508652

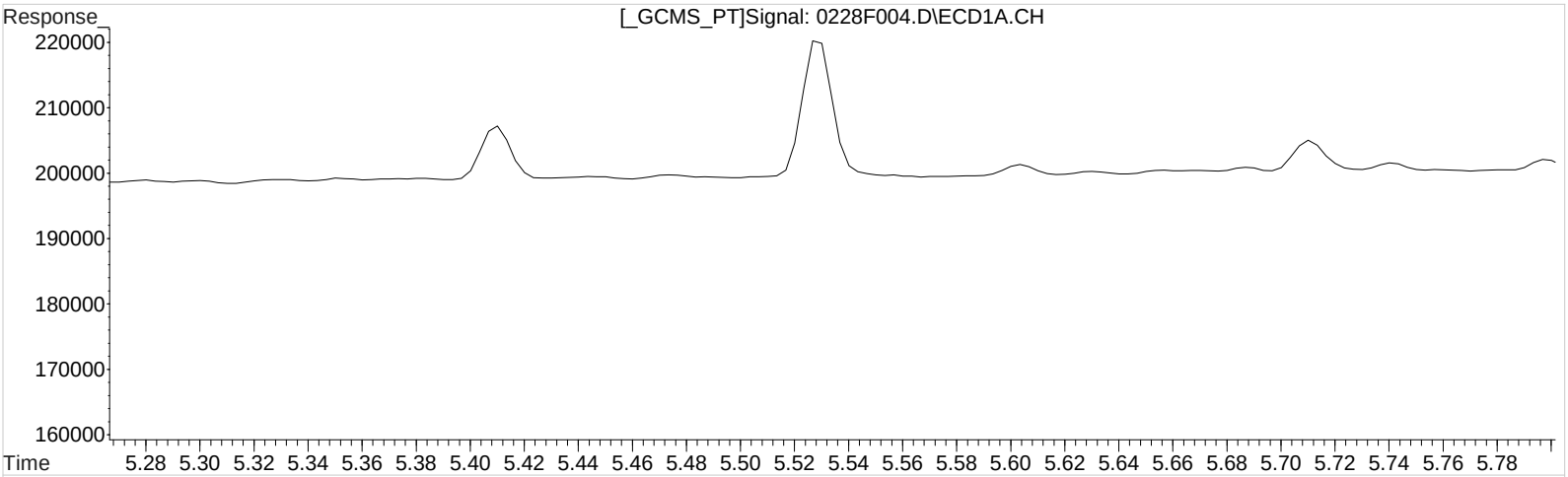
(+) = Expected Retention Time

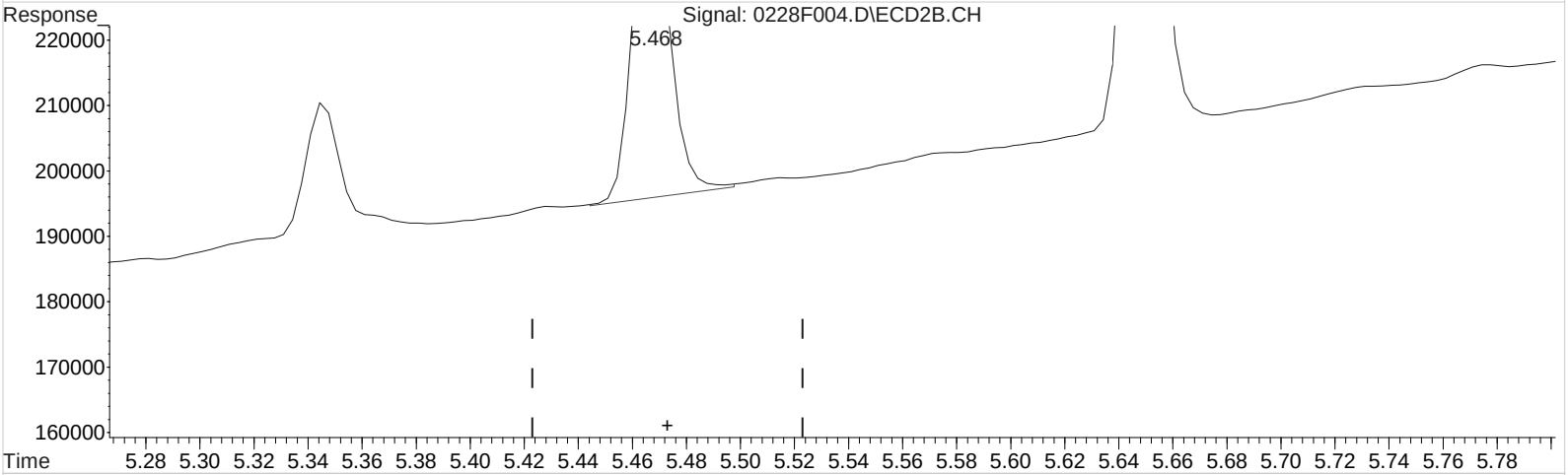
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.013min 0.771 ug/L

response 599618

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.468min 1.152 ug/L m

response 475513

(+) = Expected Retention Time

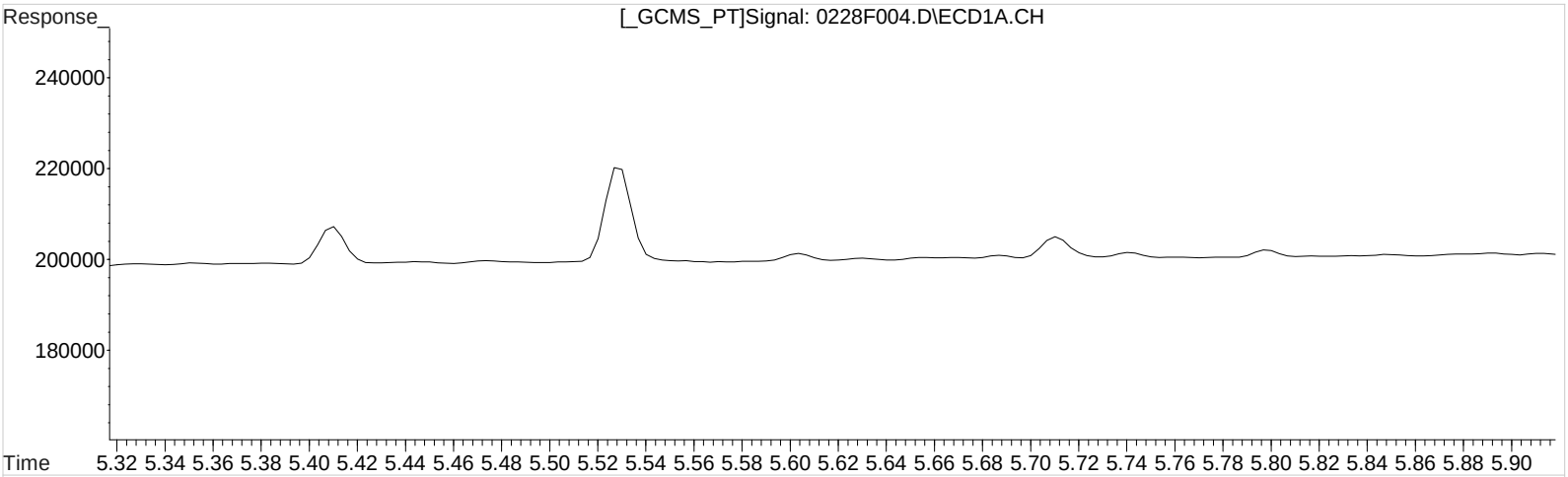
Quantitation Report (Qedit)

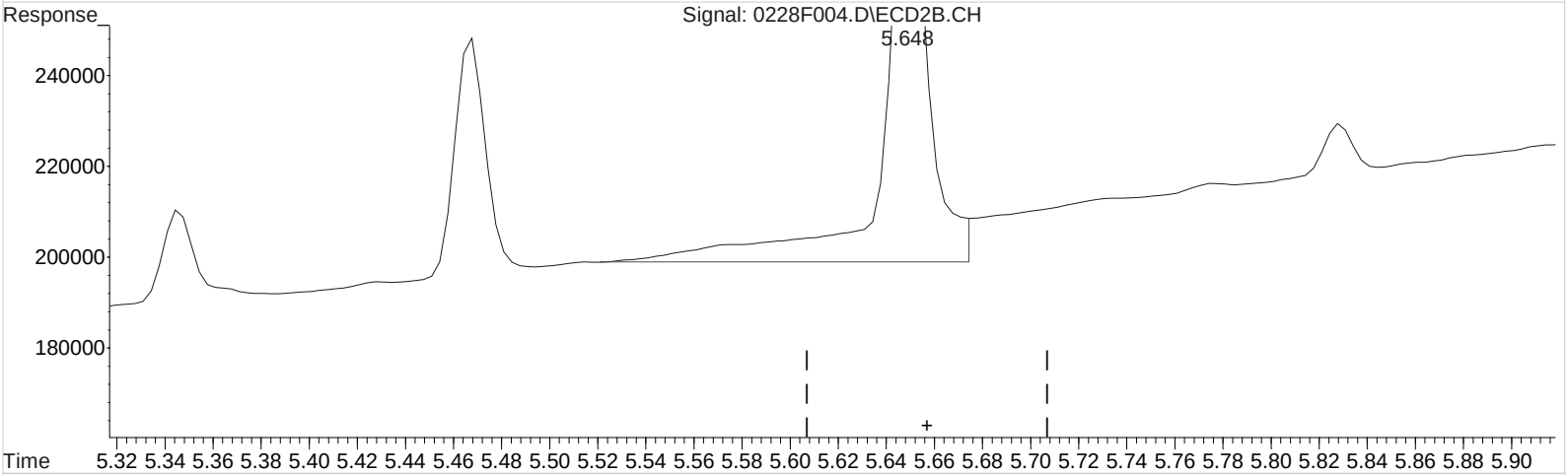
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.150min 0.493 ug/L

response 673174

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.648min 1.785 ug/L

response 1226970

(+) = Expected Retention Time

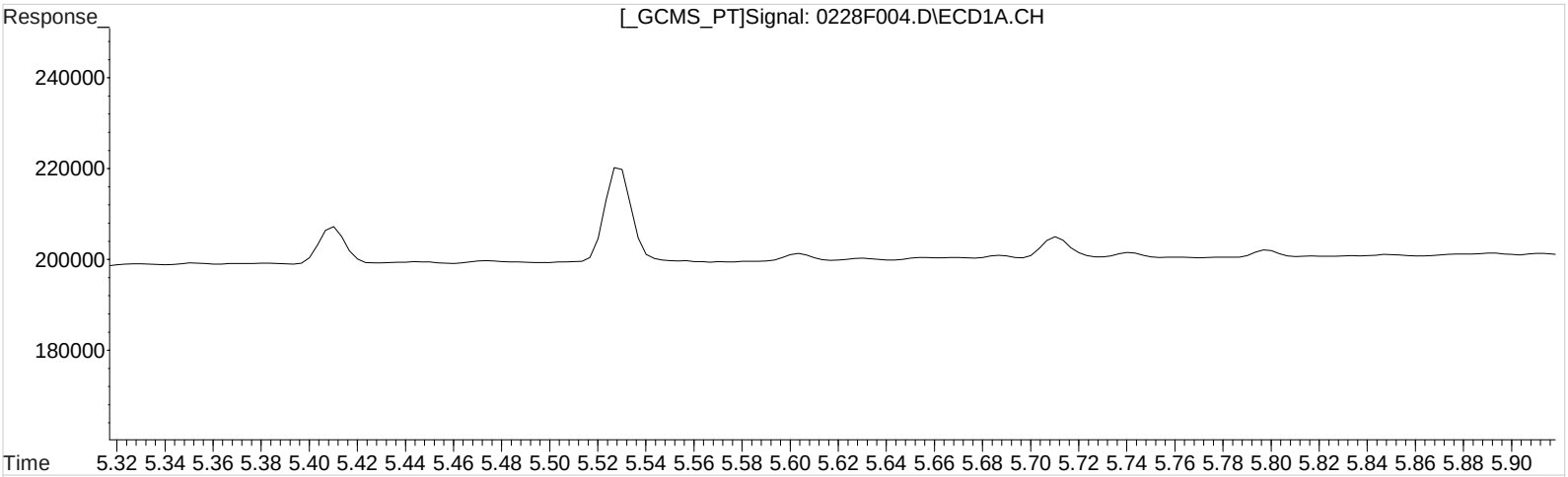
Quantitation Report (Qedit)

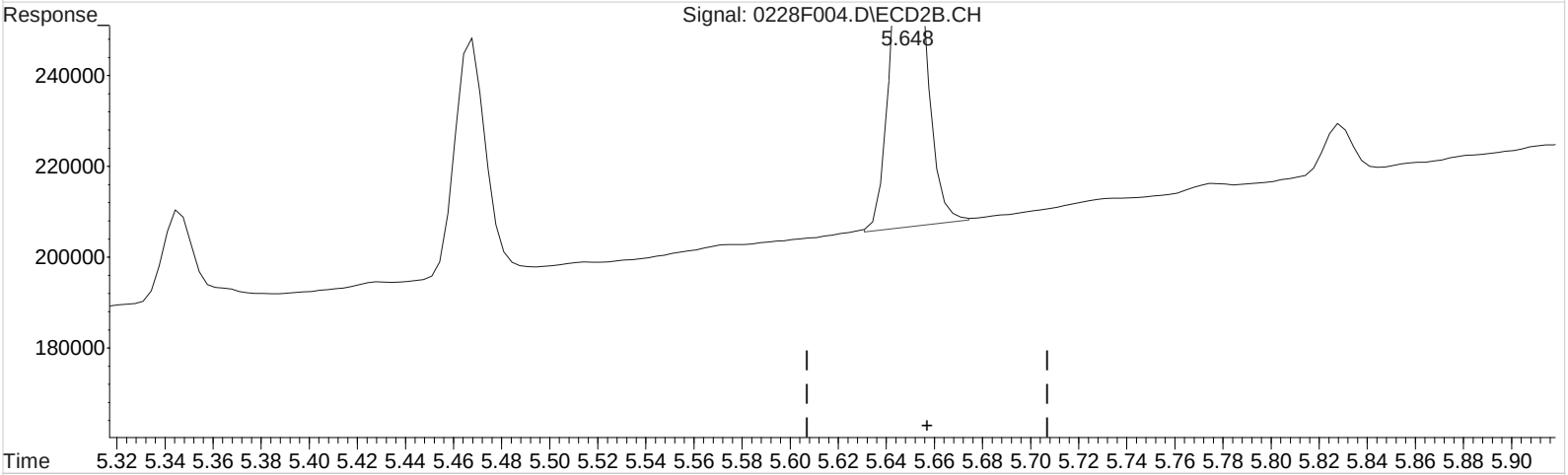
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F004.D Vial: 2
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:19 am Operator: MC
Sample : PENTA01-94T 1.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 08:58:25 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.150min 0.493 ug/L

response 673174

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.648min 1.149 ug/L m

response 789810

(+) = Expected Retention Time

1st JMS 02/28/19

2nd MC 02/28/19

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28

Column Name: Rtx-1701

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte	Curve Fit	Weighting		
2,3,4,5,6-Pentachloroanisole	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -87.82 X² + 4.342E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	6.732E5	02	5.000	5.679E5	03	10.000	5.372E5	04	25.000	4.948E5
05	50.000	4.691E5	06	100.000	4.496E5	07	250.000	4.103E5	08	500.000	3.739E5
09	1000.000	3.511E5	10	2.500	6.128E5						

2,3,4,5-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -268.7 X² + 3.077E5 X + 3.627E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.359E5	02	4.715	3.979E5	03	9.431	3.696E5	04	23.577	3.259E5
05	47.153	3.011E5	06	94.307	2.789E5	07	235.770	2.47E5	10	2.358	4.756E5

2,3,5,6-Tetrachlorophenol	**Quadratic**	**1/X**	**COD = 0.9997**	**Y= -316.9 X² + 4.391E5 X + 2.523E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.111E5	02	4.715	5.28E5	03	9.431	4.935E5	04	23.577	4.478E5
05	47.153	4.321E5	06	94.307	4.006E5	07	235.770	3.671E5	10	2.358	5.749E5

2,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -146.2 X² + 1.398E5 X + 1.234E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.269E5	02	4.669	1.8E5	03	9.338	1.735E5	04	23.345	1.484E5
05	46.690	1.34E5	06	93.379	1.217E5	07	233.450	1.071E5	10	2.334	2.006E5

2,4,6-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9995**	**Y= -245.7 X² + 3.136E5 X + 2.021E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.621E5	02	4.669	3.846E5	03	9.338	3.638E5	04	23.345	3.225E5
05	46.690	3.101E5	06	93.379	2.818E5	07	233.450	2.587E5	10	2.334	4.078E5

3,4,5-Trichlorophenol	**Quadratic**	**1/X**	**COD = 0.9991**	**Y= -166.3 X² + 1.479E5 X + 8.837E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	1.983E5	02	4.669	1.823E5	03	9.338	1.696E5	04	23.345	1.515E5
05	46.690	1.44E5	06	93.379	1.272E5	07	233.450	1.103E5	10	2.334	1.988E5

3,4-Dichlorophenol	**Quadratic**	**1/X**	**COD = 1.0000**	**Y= -15.47 X² + 1.592E4 X + 8.759E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.529E4	02	4.605	1.749E4	03	9.209	1.718E4	04	23.023	1.584E4
05	46.046	1.558E4	06	92.091	1.446E4	07	230.230	1.241E4	10	2.302	1.966E4

3,5-Dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9982**	**Y= -14.62 X² + 1.118E4 X + 7.47E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	1.798E4	02	4.605	1.407E4	03	9.209	1.255E4	04	23.023	1.076E4
05	46.046	1.147E4	06	92.091	9.36E3	07	230.230	7.904E3	10	2.302	1.374E4

Pentachlorophenol (PCP)	**Quadratic**	**1/X**	**COD = 0.9990**	**Y= -97.29 X² + 4.57E5 X + 4.324E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	7.086E5	02	4.750	5.978E5	03	9.501	5.654E5	04	23.752	5.208E5
05	47.503	4.938E5	06	95.006	4.732E5	07	237.520	4.319E5	08	475.030	3.936E5
09	950.060	3.695E5	10	2.375	6.451E5						

4-Bromo-2,6-dichlorophenol	**Quadratic**	**1/X**	**COD = 0.9994**	**Y= -70.25 X² + 3.43E5 X + 2.985E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	5.191E5	02	5.000	4.356E5	03	10.000	4.141E5	04	25.000	3.754E5
05	50.000	3.675E5	06	100.000	3.441E5	07	250.000	3.273E5	08	500.000	2.979E5
09	1000.000	2.755E5	10	2.500	4.672E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.555	**-44.5**	02	5.000	5.55	11.0	03	10.000	11.4	14.0
04	25.000	27.6	10.6	05	50.000	53.6	7.2	06	100.000	105	4.8
07	250.000	248	-0.9	08	500.000	475	-5.0	09	1000.000	1020	1.6
10	2.500	2.53	1.4								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.770	-18.3	02	4.715	4.94	4.7	03	9.431	10.2	8.6
04	23.577	24.3	3.1	05	47.153	46.9	-0.6	06	94.307	91.6	-2.8
07	235.770	237	0.6	10	2.358	2.47	4.8				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	0.738	-21.7	02	4.715	5.11	8.5	03	9.431	10.1	7.1
04	23.577	23.9	1.3	05	47.153	47.4	0.6	06	94.307	91.5	-3.0
07	235.770	237	0.5	10	2.358	2.52	6.8				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.634	**-32.1**	02	4.669	5.16	10.4	03	9.338	10.8	15.9
04	23.345	24.5	5.1	05	46.690	46.1	-1.2	06	93.379	88.6	-5.1
07	233.450	236	1.2	10	2.334	2.47	6.0				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.732	-21.6	02	4.669	5.10	9.3	03	9.338	10.3	10.0
04	23.345	23.8	2.0	05	46.690	47.3	1.2	06	93.379	89.5	-4.1
07	233.450	235	0.8	10	2.334	2.39	2.6				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.655	-29.8	02	4.669	5.19	11.1	03	9.338	10.2	9.6
04	23.345	24.0	2.7	05	46.690	47.4	1.5	06	93.379	88.5	-5.2
07	233.450	236	1.2	10	2.334	2.55	9.2				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.914	-0.8	02	4.605	4.53	-1.6	03	9.209	9.47	2.9
04	23.023	22.9	-0.7	05	46.046	46.6	1.3	06	92.091	91.2	-1.0
07	230.230	231	0.2	10	2.302	2.30	-0.2				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.814	-11.6	02	4.605	5.16	12.1	03	9.209	9.80	6.4
04	23.023	22.1	-3.9	05	46.046	49.8	8.2	06	92.091	86.2	-6.4
07	230.230	233	1.3	10	2.302	2.17	-5.8				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-1701

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	0.527	**-44.5**	02	4.750	5.27	11.0	03	9.501	10.8	14.0
04	23.752	26.3	10.6	05	47.503	50.9	7.2	06	95.006	99.5	4.8
07	237.520	235	-0.9	08	475.030	452	-5.0	09	950.060	966	1.6
10	2.375	2.41	1.4								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.643	**-35.7**	02	5.000	5.49	9.7	03	10.000	11.2	12.3
04	25.000	26.6	6.5	05	50.000	53.3	6.6	06	100.000	102	1.6
07	250.000	251	0.2	08	500.000	481	-3.9	09	1000.000	1010	1.2
10	2.500	2.54	1.5								

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1900082-01	PENTA01-94T 1.0	J:\GC28\Data\022819CAL\0228F004.D\0228F004c.d	02/28/2019 08:19
02	KC1900082-02	PENTA01-94R 5.0	J:\GC28\Data\022819CAL\0228F006.D\0228F006c.d	02/28/2019 08:56
03	KC1900082-03	PENTA01-94Q 10	J:\GC28\Data\022819CAL\0228F007.D\0228F007c.d	02/28/2019 09:14
04	KC1900082-04	PENTA01-94P 25	J:\GC28\Data\022819CAL\0228F008.D\0228F008c.d	02/28/2019 09:33
05	KC1900082-05	PENTA01-94O 50	J:\GC28\Data\022819CAL\0228F009.D\0228F009c.d	02/28/2019 09:51
06	KC1900082-06	PENTA01-94N 100	J:\GC28\Data\022819CAL\0228F010.D\0228F010c.d	02/28/2019 10:10
07	KC1900082-07	PENTA01-94M 250	J:\GC28\Data\022819CAL\0228F011.D\0228F011c.d	02/28/2019 10:28
08	KC1900082-08	PENTA01-95G 500	J:\GC28\Data\022819CAL\0228F012.D\0228F012c.d	02/28/2019 10:47
09	KC1900082-09	PENTA01-95H 1000	J:\GC28\Data\022819CAL\0228F013.D\0228F013c.d	02/28/2019 11:05
10	KC1900082-10	PENTA01-94S 2.5	J:\GC28\Data\022819CAL\0228F014.D\0228F014c.d	02/28/2019 11:23

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte	Curve Fit	Weighting

2,3,4,5,6-Pentachloroanisole

Average RF **RSD = 9.583** **Average RF = 6.462E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	7.909E5	02	5.000	6.542E5	03	10.000	6.532E5	04	25.000	6.151E5
05	50.000	6.083E5	06	100.000	5.984E5	07	250.000	5.996E5	08	500.000	6.052E5
09	1000.000	6.245E5	10	2.500	7.13E5						

2,3,4,5-Tetrachlorophenol

Average RF **RSD = 12.29** **Average RF = 4.159E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	5.043E5	02	4.715	4.353E5	03	9.431	4.108E5	04	23.577	3.904E5
05	47.153	3.815E5	06	94.307	3.682E5	07	235.770	3.639E5	10	2.358	4.73E5

2,3,5,6-Tetrachlorophenol

Average RF **RSD = 6.587** **Average RF = 6.037E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.943	6.857E5	02	4.715	5.882E5	03	9.431	6.075E5	04	23.577	5.816E5
05	47.153	5.882E5	06	94.307	5.701E5	07	235.770	5.709E5	10	2.358	6.377E5

2,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9997** **Y= -73.44 X² + 1.777E5 X + 1.058E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.652E5	02	4.669	2.059E5	03	9.338	2.015E5	04	23.345	1.829E5
05	46.690	1.788E5	06	93.379	1.672E5	07	233.450	1.617E5	10	2.334	2.293E5

2,4,6-Trichlorophenol

Average RF **RSD = 4.634** **Average RF = 4.082E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	4.435E5	02	4.669	4.004E5	03	9.338	4.124E5	04	23.345	3.941E5
05	46.690	4.075E5	06	93.379	3.89E5	07	233.450	3.918E5	10	2.334	4.267E5

3,4,5-Trichlorophenol

Quadratic **1/X** **COD = 0.9998** **Y= -63.92 X² + 1.7E5 X + 9.004E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.934	2.503E5	02	4.669	1.919E5	03	9.338	1.89E5	04	23.345	1.732E5
05	46.690	1.718E5	06	93.379	1.612E5	07	233.450	1.56E5	10	2.334	2.115E5

3,4-Dichlorophenol

Average RF **RSD = 10.82** **Average RF = 2.169E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.356E4	02	4.605	2.28E4	03	9.209	2.378E4	04	23.023	2.153E4
05	46.046	2.119E4	06	92.091	1.915E4	07	230.230	1.751E4	10	2.302	2.4E4

3,5-Dichlorophenol

Quadratic **1/X** **COD = 0.9996** **Y= -14.71 X² + 1.578E4 X + 8.463E3**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.921	2.299E4	02	4.605	1.798E4	03	9.209	1.82E4	04	23.023	1.612E4
05	46.046	1.537E4	06	92.091	1.408E4	07	230.230	1.249E4	10	2.302	1.928E4

Pentachlorophenol (PCP)

Average RF **RSD = 9.573** **Average RF = 6.805E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.950	8.314E5	02	4.750	6.912E5	03	9.501	6.875E5	04	23.752	6.474E5
05	47.503	6.402E5	06	95.006	6.299E5	07	237.520	6.312E5	08	475.030	6.37E5
09	950.060	6.573E5	10	2.375	7.52E5						

4-Bromo-2,6-dichlorophenol

Average RF **RSD = 5.968** **Average RF = 4.216E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	4.109E5	02	5.000	3.777E5	03	10.000	4.048E5	04	25.000	4.138E5
05	50.000	4.422E5	06	100.000	4.344E5	07	250.000	4.45E5	08	500.000	4.395E5
09	1000.000	4.542E5	10	2.500	3.934E5						

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Analyte

2,3,4,5,6-Pentachloroanisole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.22	22.4	02	5.000	5.06	1.2	03	10.000	10.1	1.1
04	25.000	23.8	-4.8	05	50.000	47.1	-5.9	06	100.000	92.6	-7.4
07	250.000	232	-7.2	08	500.000	468	-6.4	09	1000.000	966	-3.4
10	2.500	2.76	10.3								

2,3,4,5-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.14	21.2	02	4.715	4.93	4.7	03	9.431	9.31	-1.2
04	23.577	22.1	-6.1	05	47.153	43.3	-8.3	06	94.307	83.5	-11.5
07	235.770	206	-12.5	10	2.358	2.68	13.7				

2,3,5,6-Tetrachlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.943	1.07	13.6	02	4.715	4.59	-2.6	03	9.431	9.49	0.6
04	23.577	22.7	-3.7	05	47.153	45.9	-2.6	06	94.307	89.1	-5.6
07	235.770	223	-5.4	10	2.358	2.49	5.6				

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.799	-14.5	02	4.669	4.82	3.3	03	9.338	10.0	7.4
04	23.345	23.7	1.3	05	46.690	47.3	1.3	06	93.379	90.7	-2.9
07	233.450	234	0.4	10	2.334	2.42	3.6				

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	1.01	8.7	02	4.669	4.58	-1.9	03	9.338	9.43	1.0
04	23.345	22.5	-3.5	05	46.690	46.6	-0.2	06	93.379	89.0	-4.7
07	233.450	224	-4.0	10	2.334	2.44	4.5				

3,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.934	0.846	-9.5	02	4.669	4.75	1.7	03	9.338	9.88	5.9
04	23.345	23.5	0.5	05	46.690	47.5	1.7	06	93.379	91.1	-2.4
07	233.450	234	0.3	10	2.334	2.38	1.8				

3,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	1.00	8.6	02	4.605	4.84	5.1	03	9.209	10.1	9.6
04	23.023	22.9	-0.7	05	46.046	45.0	-2.3	06	92.091	81.3	-11.7
07	230.230	186	-19.3	10	2.302	2.55	10.6				

3,5-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.921	0.806	-12.4	02	4.605	4.73	2.8	03	9.209	10.2	10.6
04	23.023	23.5	2.1	05	46.046	46.3	0.6	06	92.091	89.0	-3.3
07	230.230	232	0.7	10	2.302	2.28	-0.9				

Initial Calibration - Detailed Report

Calibration ID: KC1900082 **Instrument ID:** K-GC-28
Column Name: Rtx-35

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.950	1.16	22.2	02	4.750	4.82	1.6	03	9.501	9.60	1.0
04	23.752	22.6	-4.9	05	47.503	44.7	-5.9	06	95.006	87.9	-7.4
07	237.520	220	-7.3	08	475.030	445	-6.4	09	950.060	918	-3.4
10	2.375	2.62	10.5								

4-Bromo-2,6-dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.975	-2.5	02	5.000	4.48	-10.4	03	10.000	9.60	-4.0
04	25.000	24.5	-1.8	05	50.000	52.4	4.9	06	100.000	103	3.0
07	250.000	264	5.5	08	500.000	521	4.2	09	1000.000	1080	7.7
10	2.500	2.33	-6.7								

Initial Calibration Verification Summary Report

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-1701

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Quadratic	50	58.215	ug/L	16.4	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.125	ug/L	6.3	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Quadratic	47.1530	50.742	ug/L	7.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.950	ug/L	7.0	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	47.208	ug/L	1.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	49.502	ug/L	6.0	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	50.405	ug/L	9.5	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	54.814	ug/L	19.0	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Quadratic	47.5030	55.309	ug/L	16.4	<= 20

Calibration ID:	KC1900082	**Instrument ID:**	K-GC-28
Datafile ID:	J:\GC28 \Data\022819CAL\0228F016.D	**Column Name:**	Rtx-35

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2,3,4,5,6-Pentachloroanisole	KC1900082-11	T	Average RF	50	51.424	ug/L	2.8	<= 20
2,3,4,5-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	46.743	ug/L	-0.9	<= 20
2,3,5,6-Tetrachlorophenol	KC1900082-11	T	Average RF	47.1530	47.890	ug/L	1.6	<= 20
2,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	50.676	ug/L	8.5	<= 20
2,4,6-Trichlorophenol	KC1900082-11	T	Average RF	46.69	46.729	ug/L	0.1	<= 20
3,4,5-Trichlorophenol	KC1900082-11	T	Quadratic	46.69	48.393	ug/L	3.6	<= 20
3,4-Dichlorophenol	KC1900082-11	T	Average RF	46.0460	46.475	ug/L	0.9	<= 20
3,5-Dichlorophenol	KC1900082-11	T	Quadratic	46.0460	48.925	ug/L	6.3	<= 20
Pentachlorophenol (PCP)	KC1900082-11	T	Average RF	47.5030	48.834	ug/L	2.8	<= 20

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:10:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.031	4.715	2177979	1888328	5.516	4.344
		Target Compounds						
1)		3,4-Dichl...	3.138	3.832	80562	104986	4.505m	4.752
2)		3,5-Dichl...	3.378	4.089	64800	82809	5.639m	5.025
3)		2,4,6-Tri...	3.474	4.289	1795636	1869642	5.068	4.483
5)		2,4,5-Tri...	4.201	4.782	840314	961190	5.239	4.809
6)		3,4,5-Tri...	4.231	4.845	851278	896194	5.313	4.774
7)	M	2,3,5,6-T...	4.478	5.075	2489684	2773207	5.230	4.493m
8)	M	2,3,4,5-T...	5.014	5.469	1875877	2052365	4.930m	4.970
9)	M	Pentachlo...	5.151	5.649	2839370	3283089	5.309	4.775m
10)		Pentachlo...	5.151	5.649	2839370	3271189	5.588	5.010m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

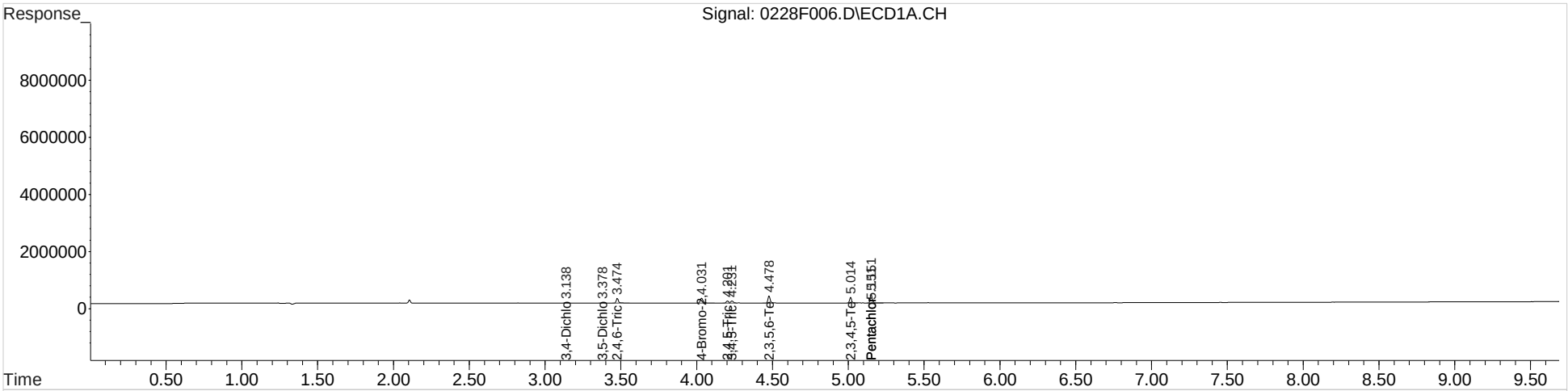
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:10:26 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



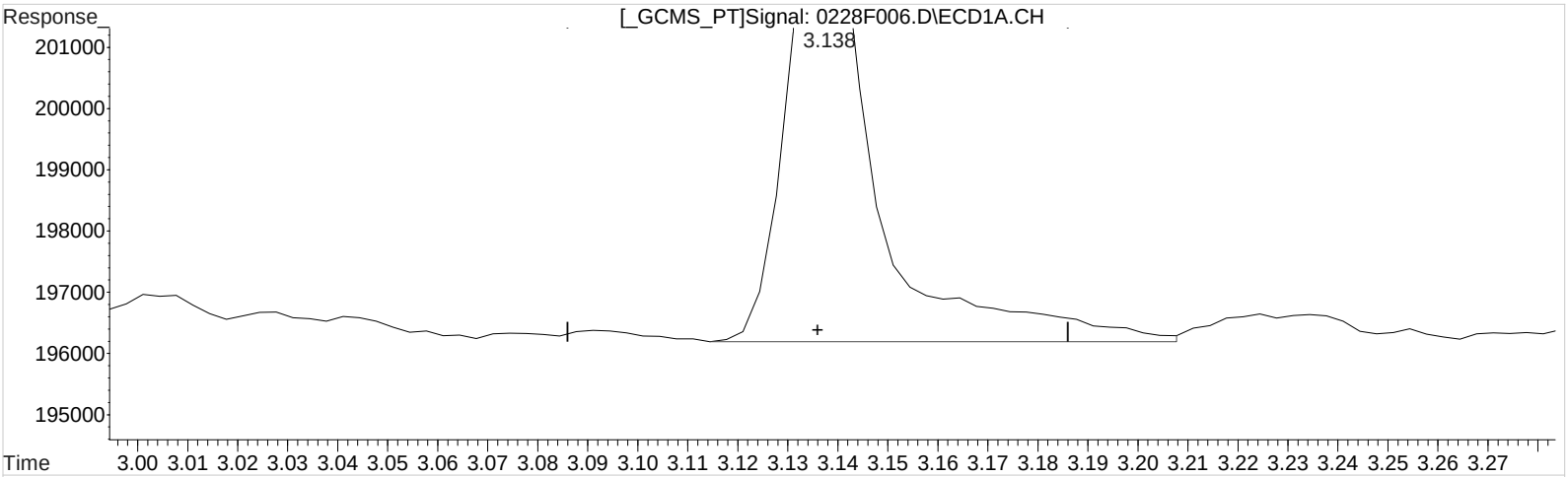
Quantitation Report (Qedit)

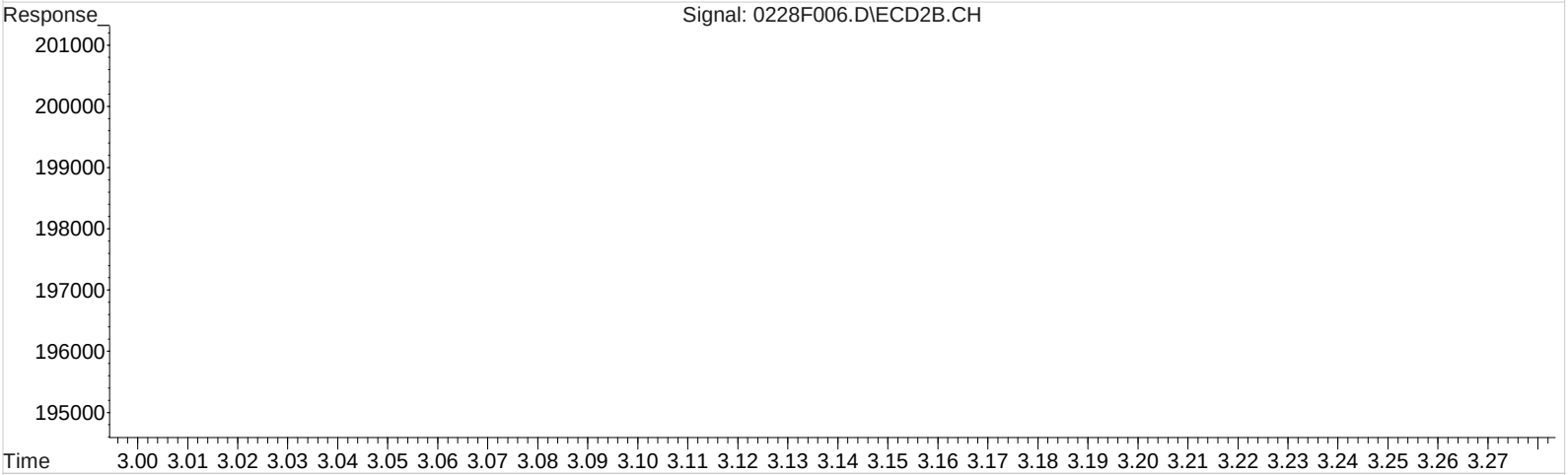
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.138min 5.274 ug/L

response 92393

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.832min 4.752 ug/L

response 104986

(+) = Expected Retention Time

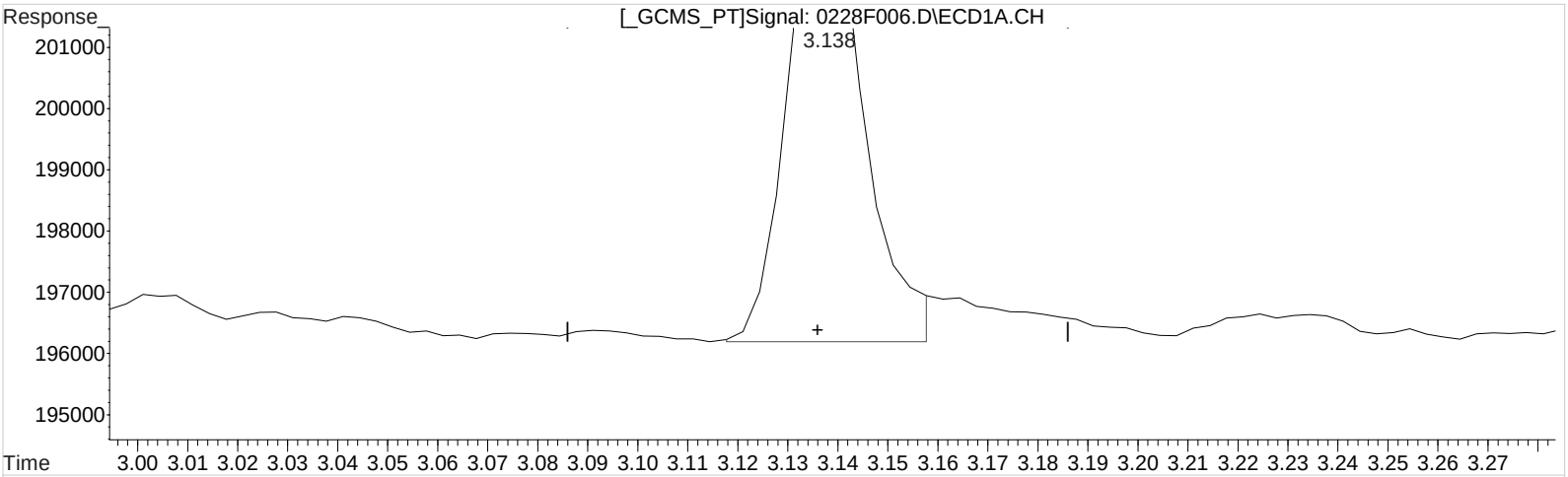
Quantitation Report (Qedit)

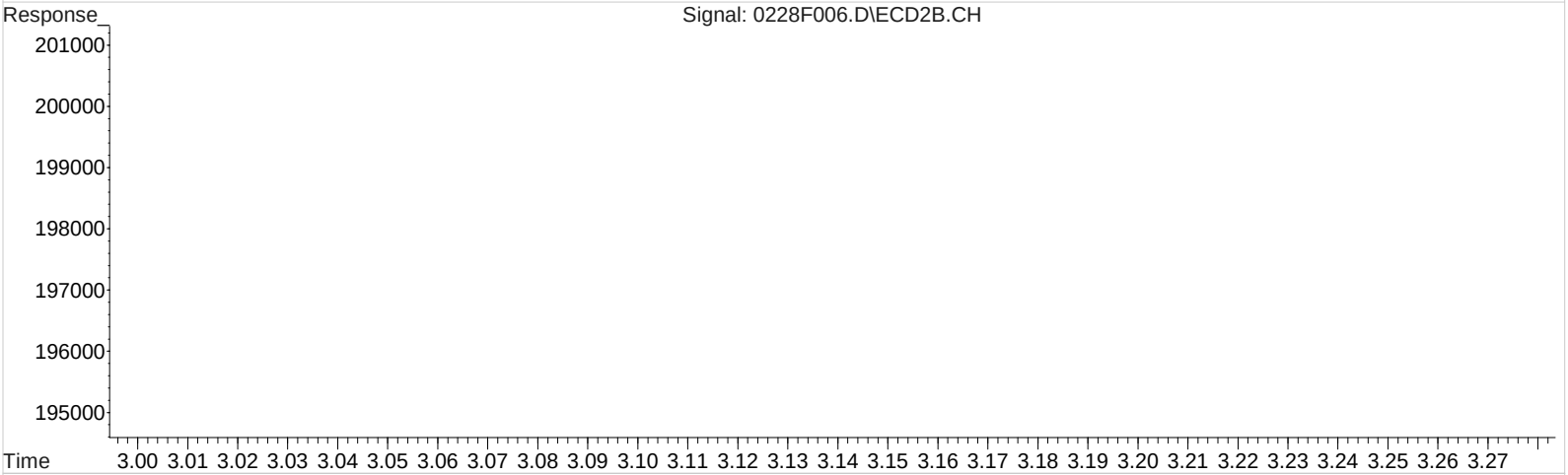
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.138min 4.505 ug/L m

response 80562

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.832min 4.752 ug/L

response 104986

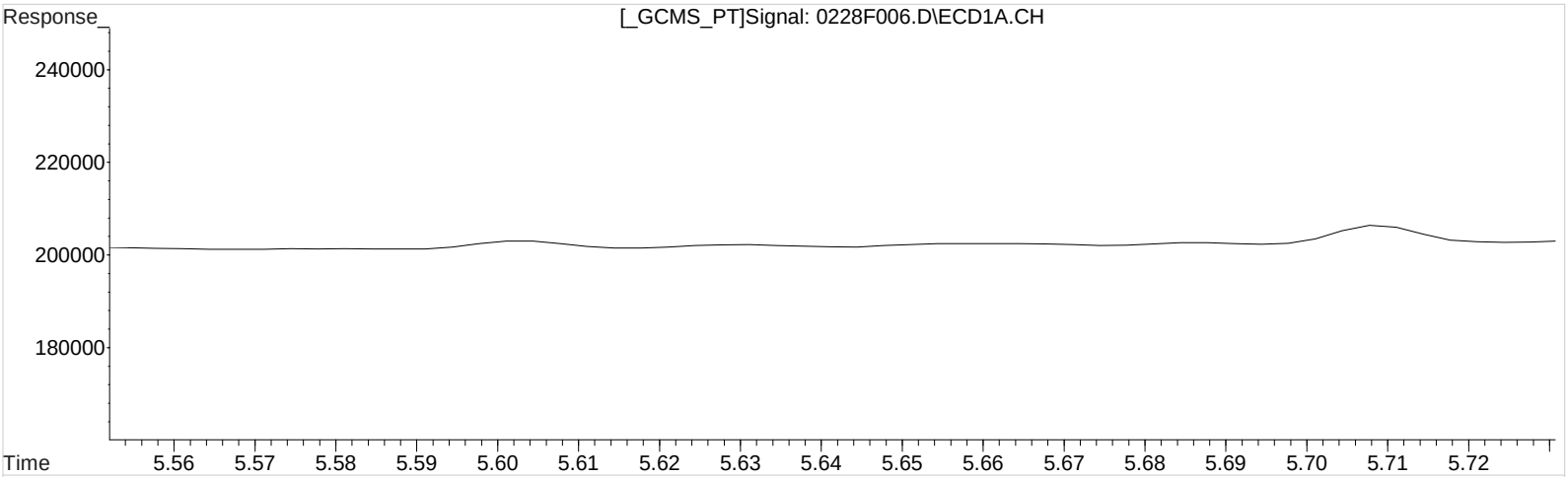
(+) = Expected Retention Time

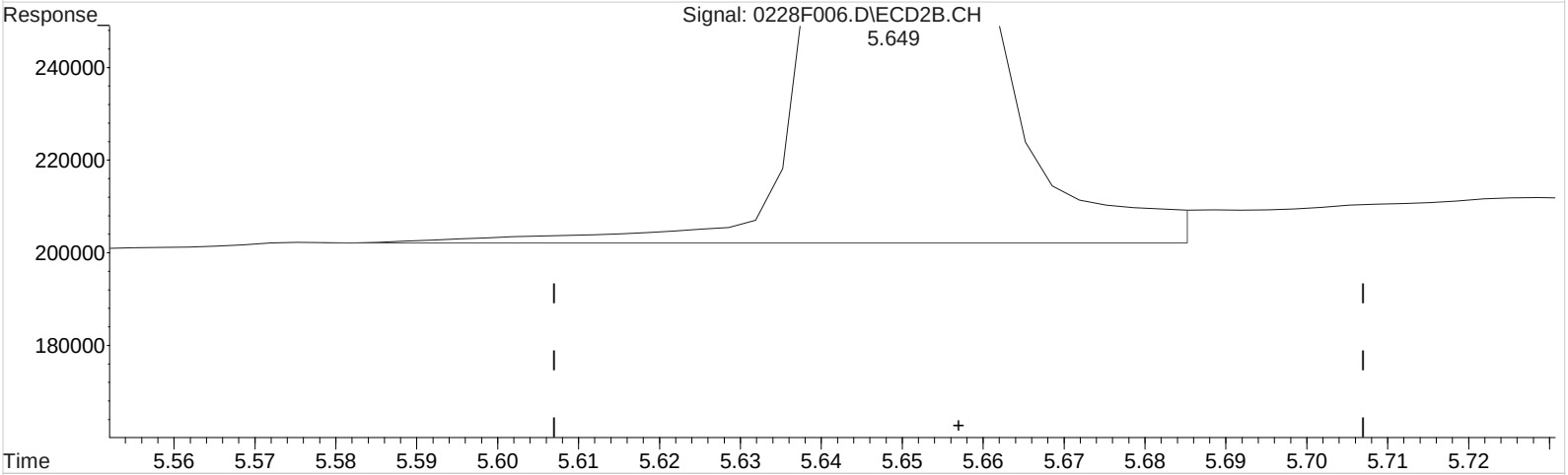
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.151min 5.588 ug/L

response 2839370

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.649min 5.332 ug/L

response 3480960

(+) = Expected Retention Time

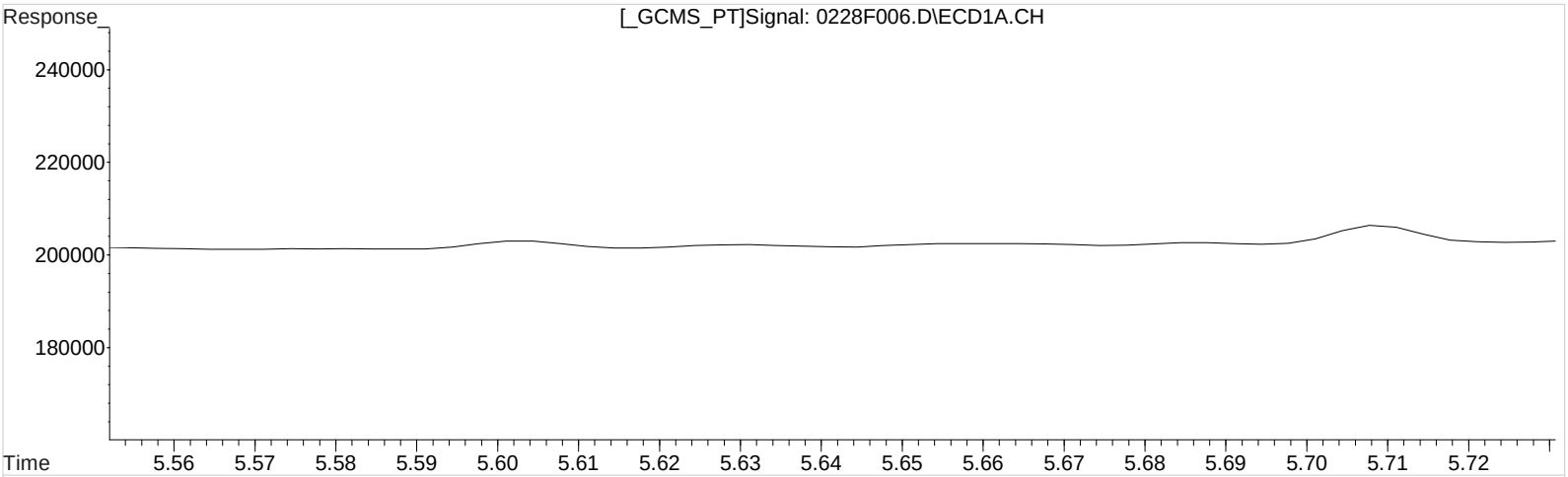
Quantitation Report (Qedit)

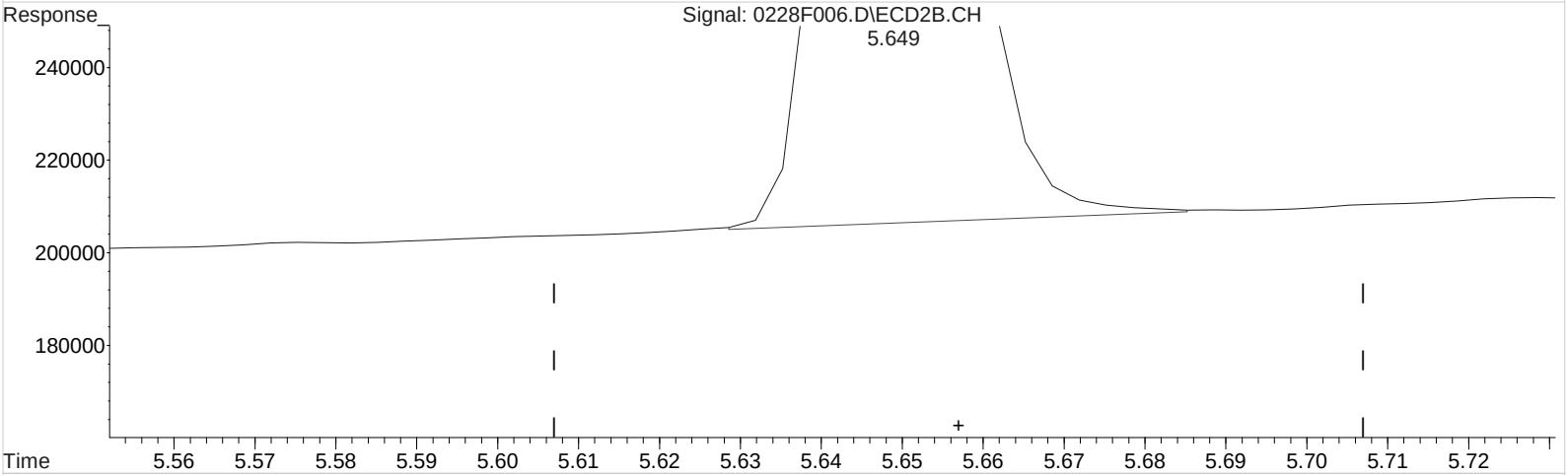
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.151min 5.588 ug/L

response 2839370

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.649min 5.010 ug/L m

response 3271189

(+) = Expected Retention Time

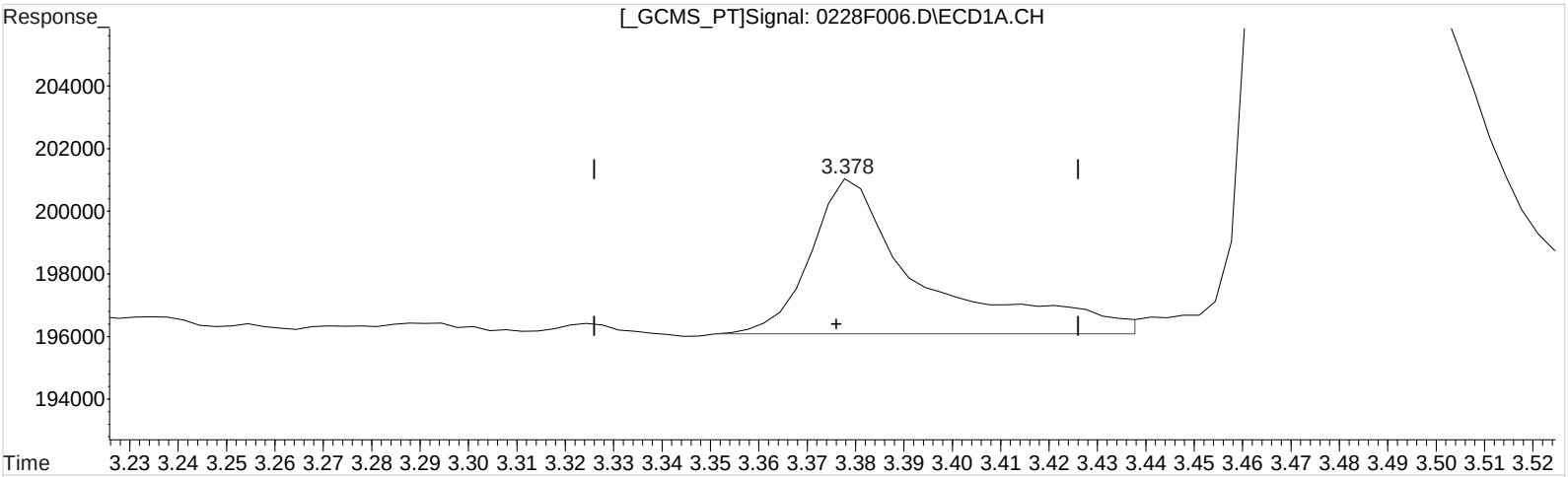
Quantitation Report (Qedit)

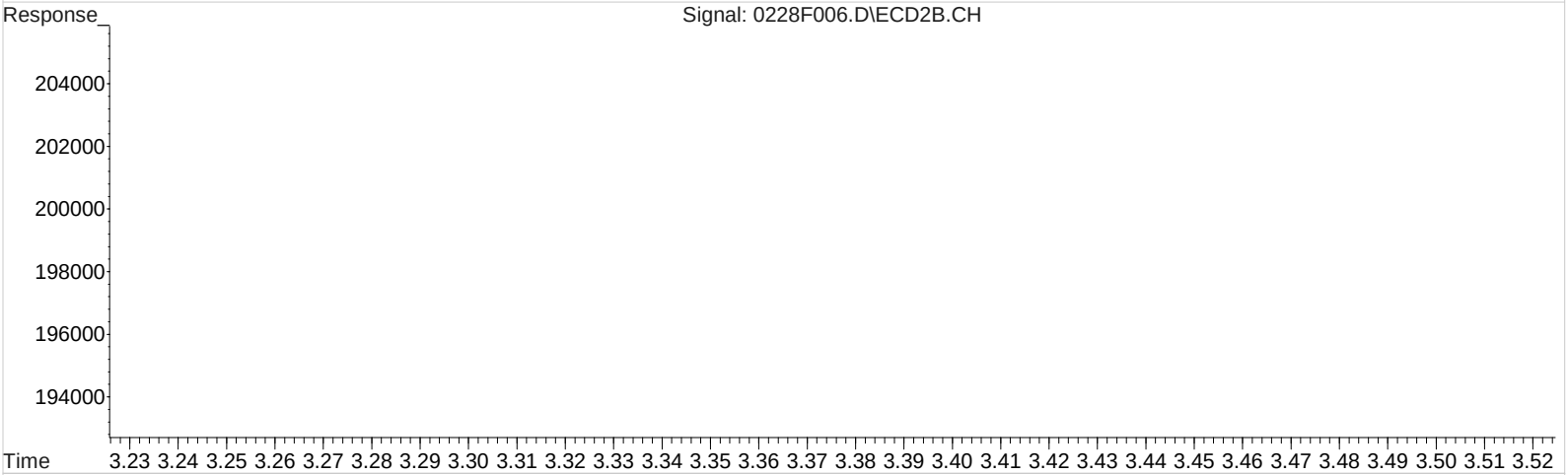
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 6.986 ug/L

response 78818

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 5.025 ug/L

response 82809

(+) = Expected Retention Time

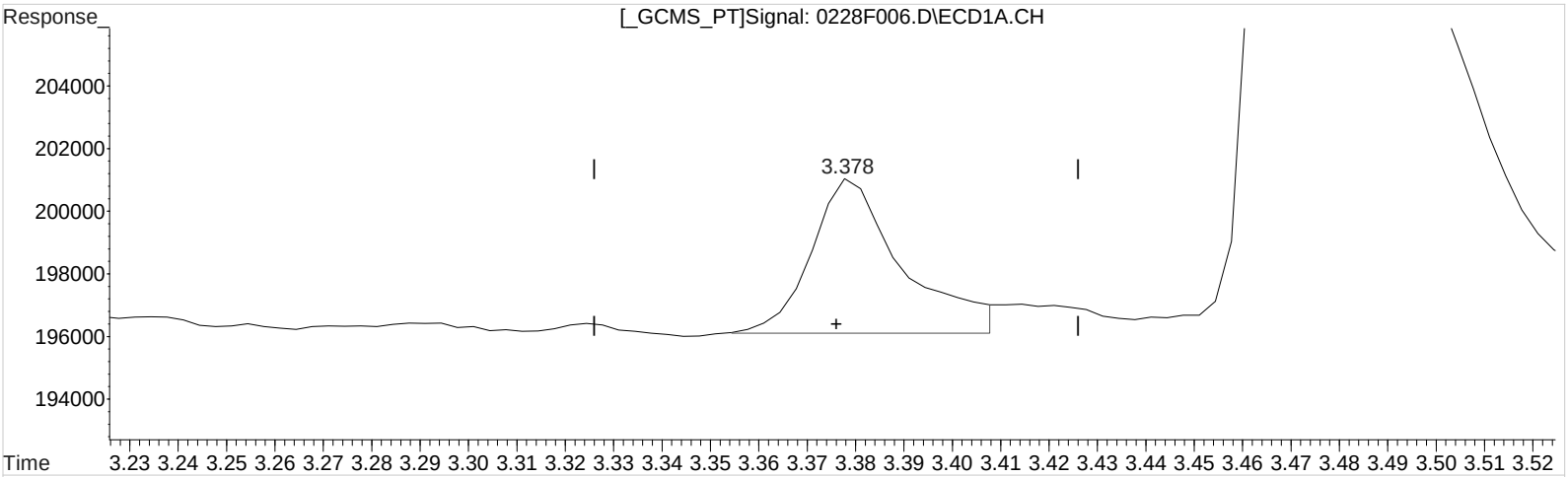
Quantitation Report (Qedit)

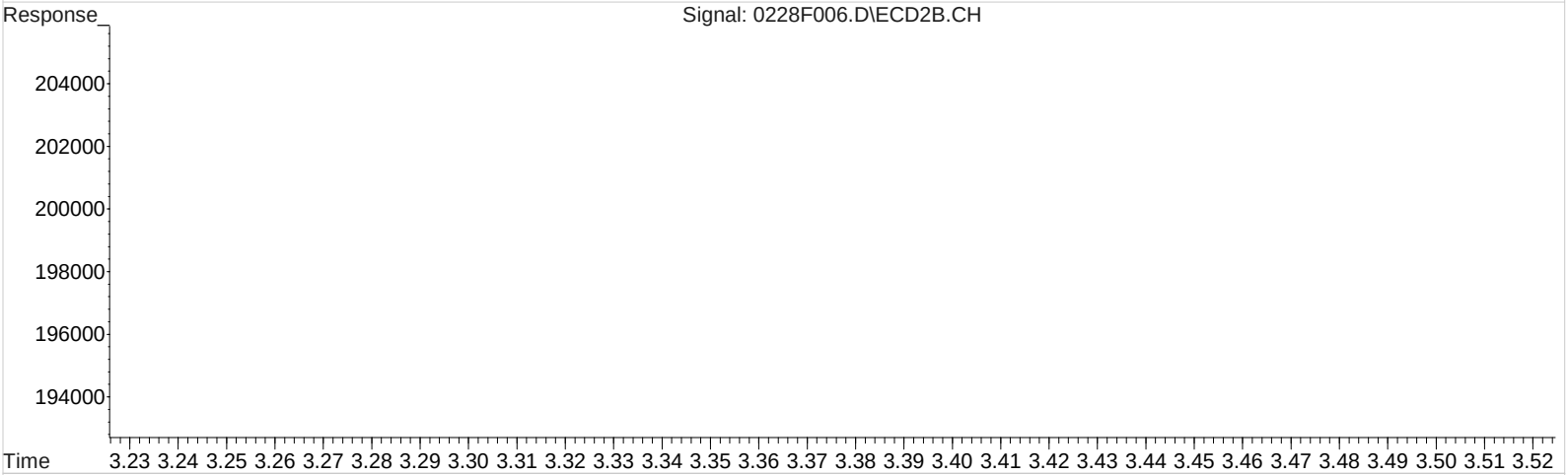
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 5.639 ug/L m

response 64800

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 5.025 ug/L

response 82809

(+) = Expected Retention Time

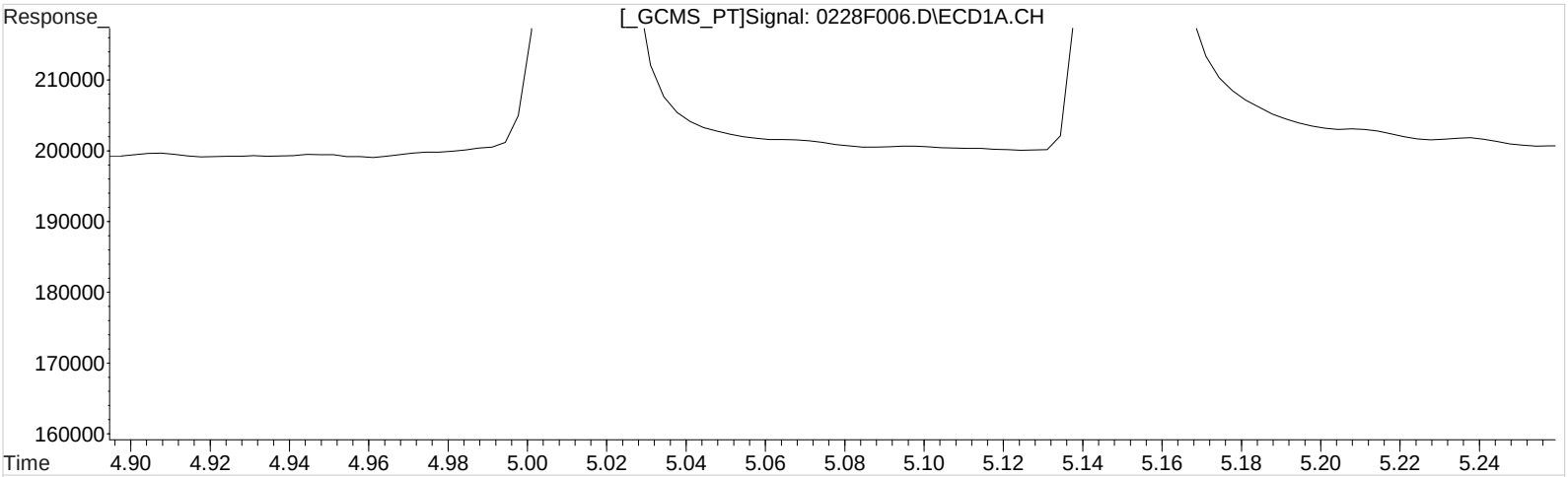
Quantitation Report (Qedit)

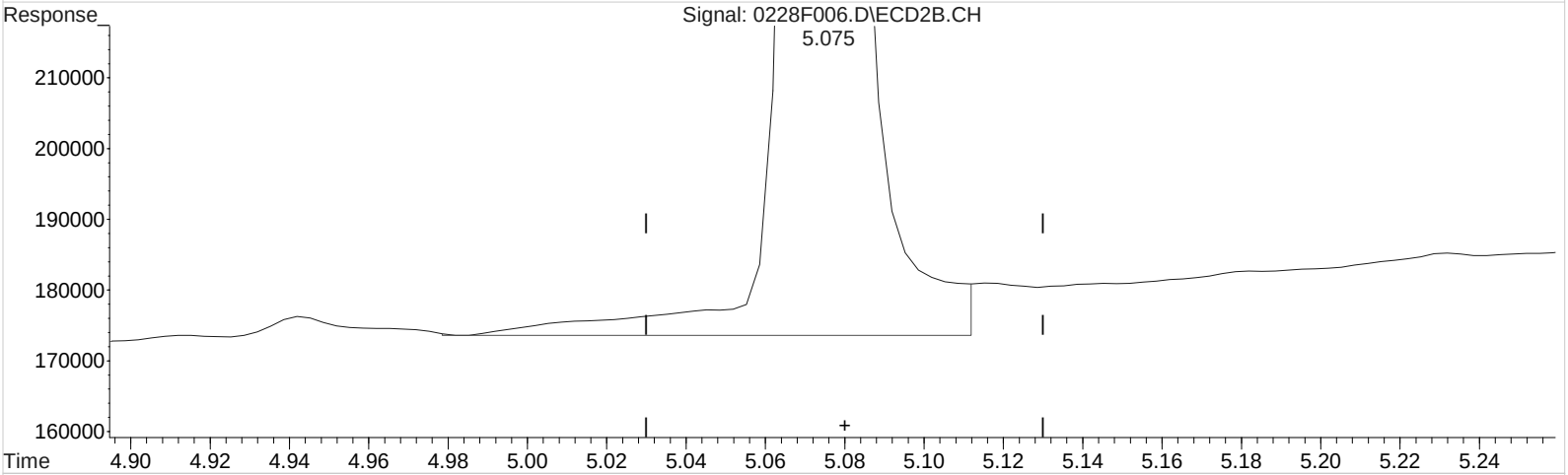
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 5.230 ug/L

response 2489684

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.075min 4.942 ug/L

response 3050029

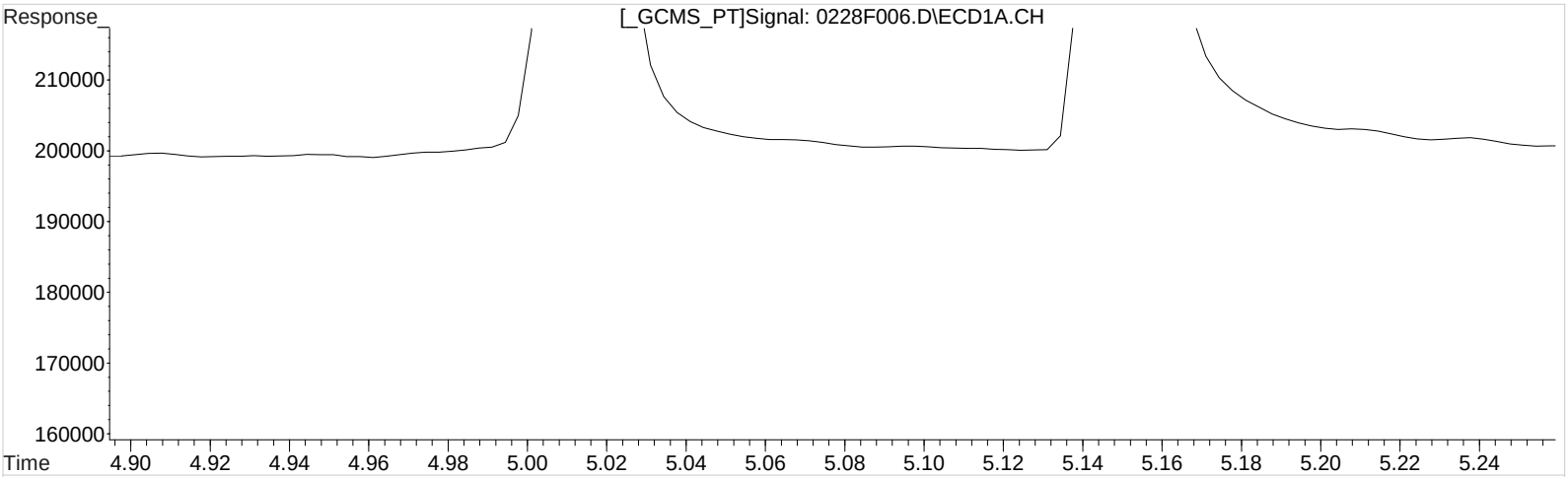
(+) = Expected Retention Time

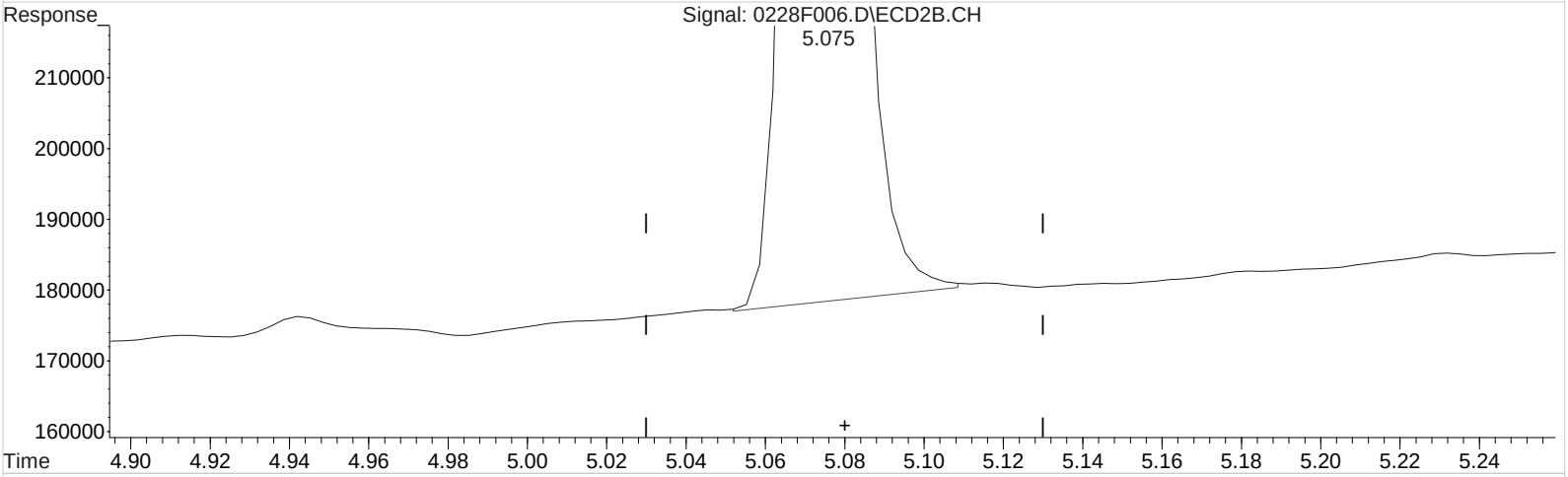
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 5.230 ug/L

response 2489684

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.075min 4.493 ug/L m

response 2773207

(+) = Expected Retention Time

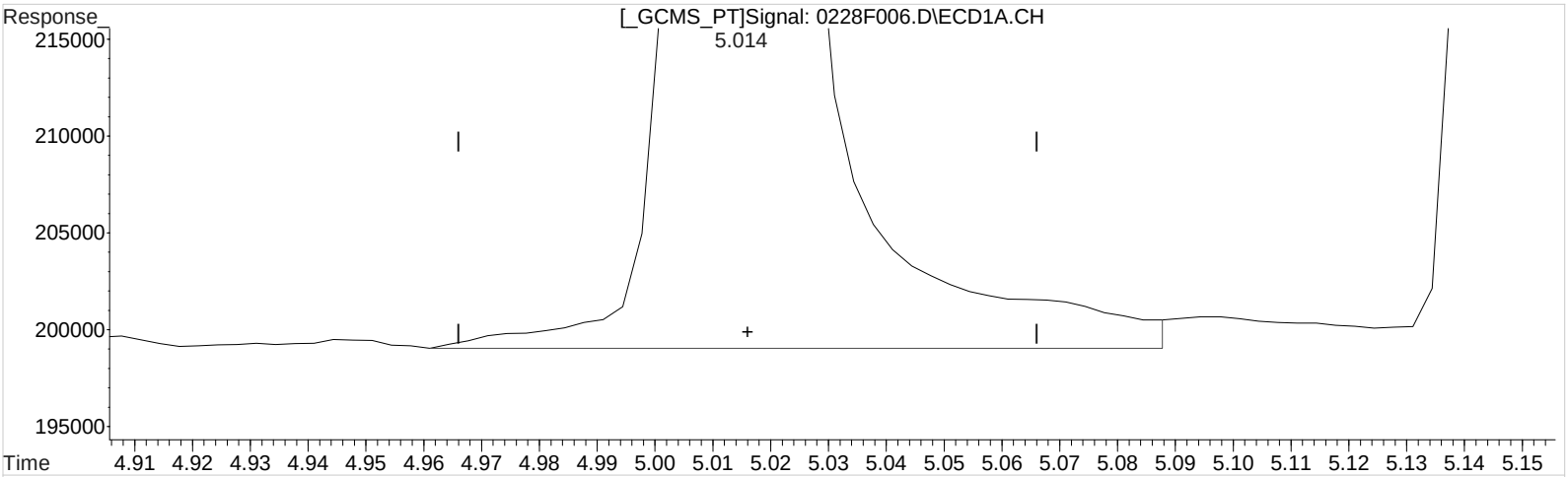
Quantitation Report (Qedit)

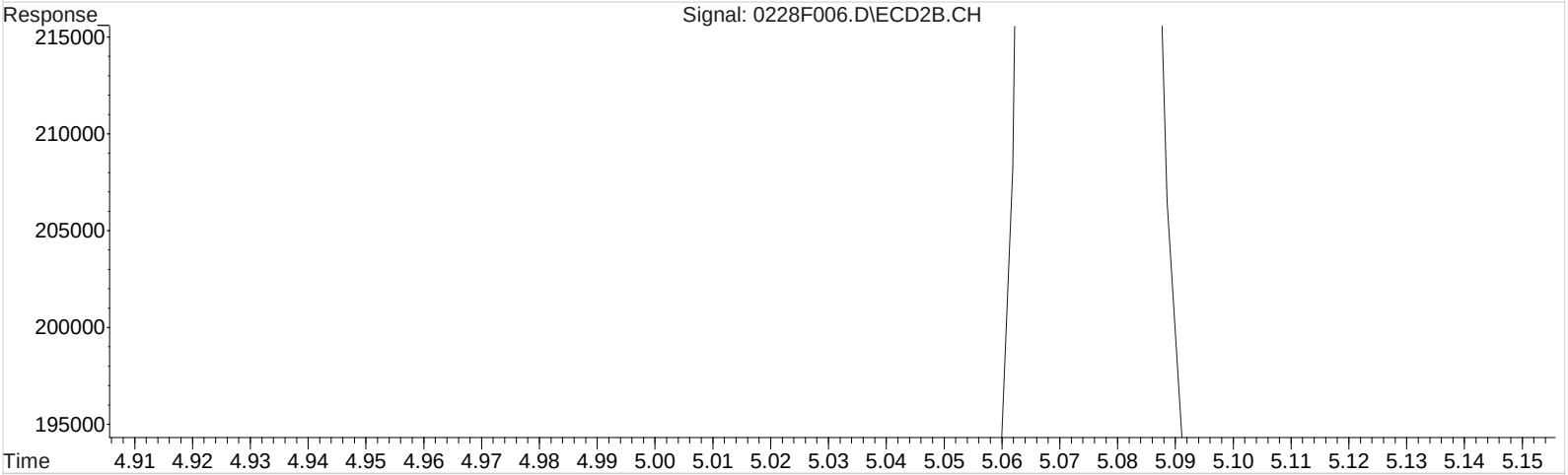
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.014min 5.252 ug/L

response 1974382

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.469min 4.970 ug/L

response 2052365

(+) = Expected Retention Time

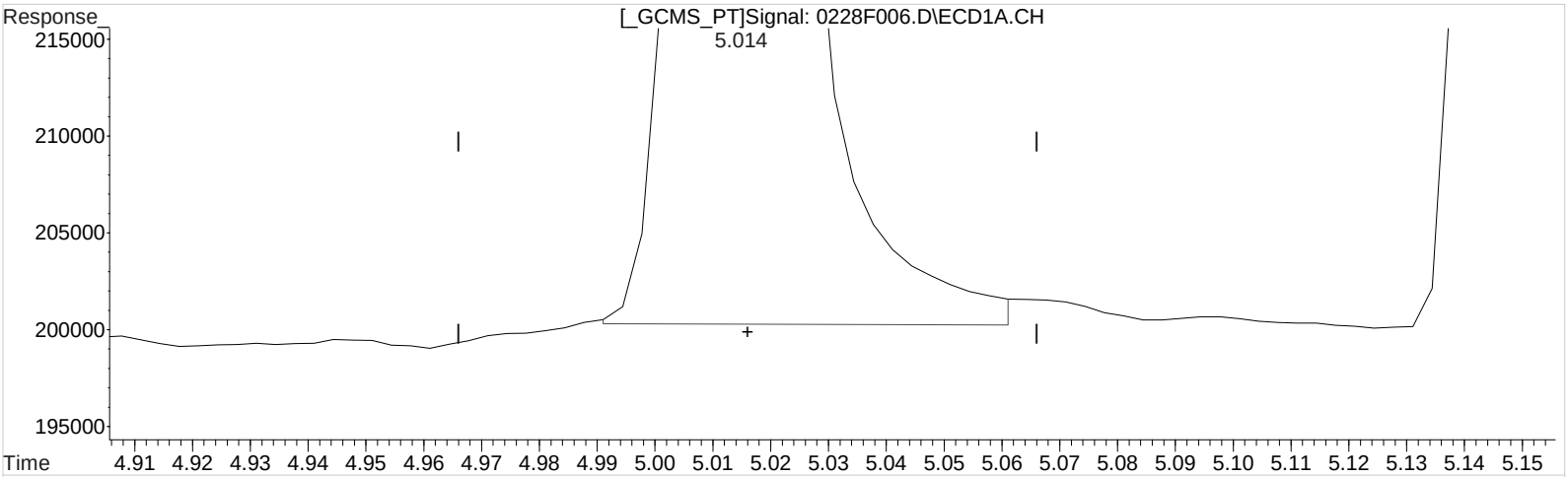
Quantitation Report (Qedit)

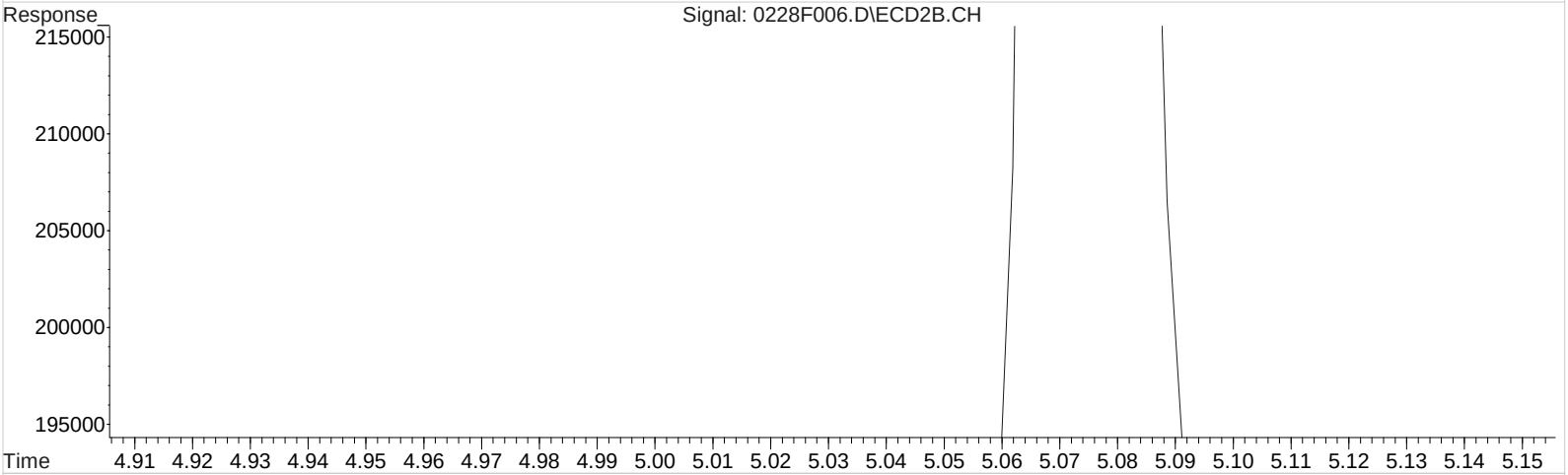
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.014min 4.930 ug/L m

response 1875877

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.469min 4.970 ug/L

response 2052365

(+) = Expected Retention Time

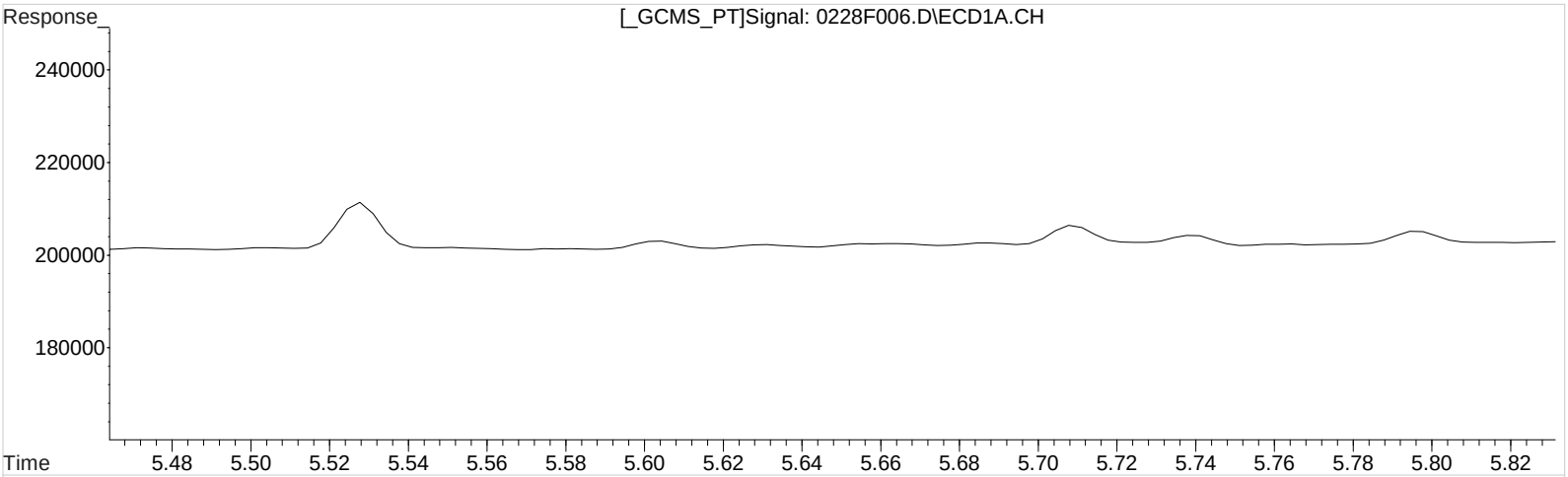
Quantitation Report (Qedit)

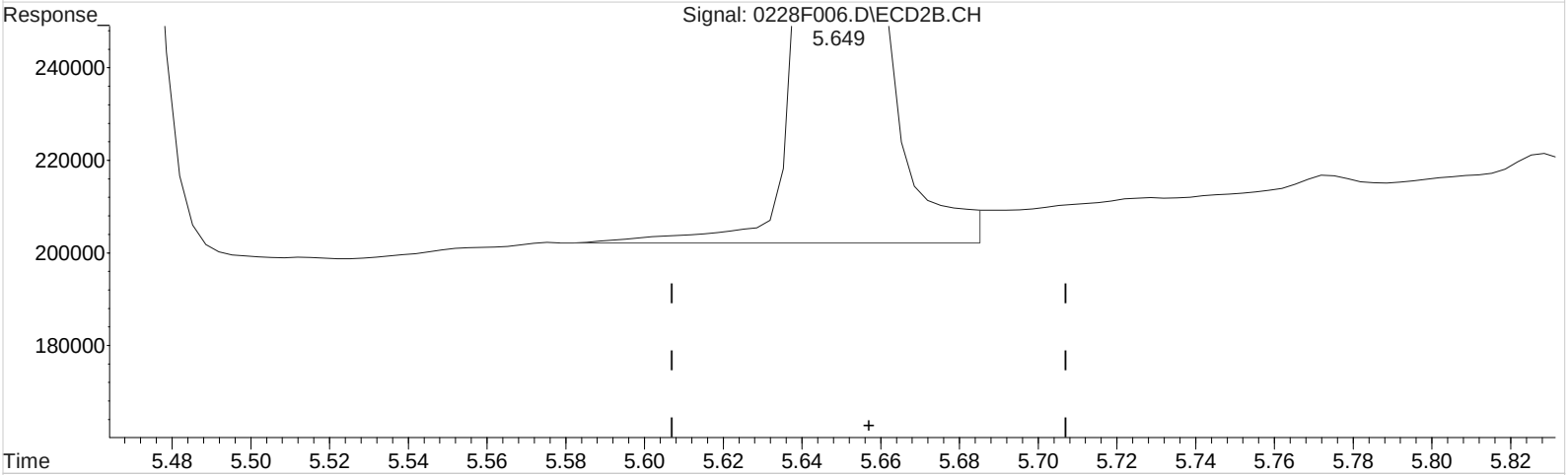
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.151min 5.309 ug/L

response 2839370

(9) Pentachlorophenol #2 (M)

5.649min 5.063 ug/L

response 3480960

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

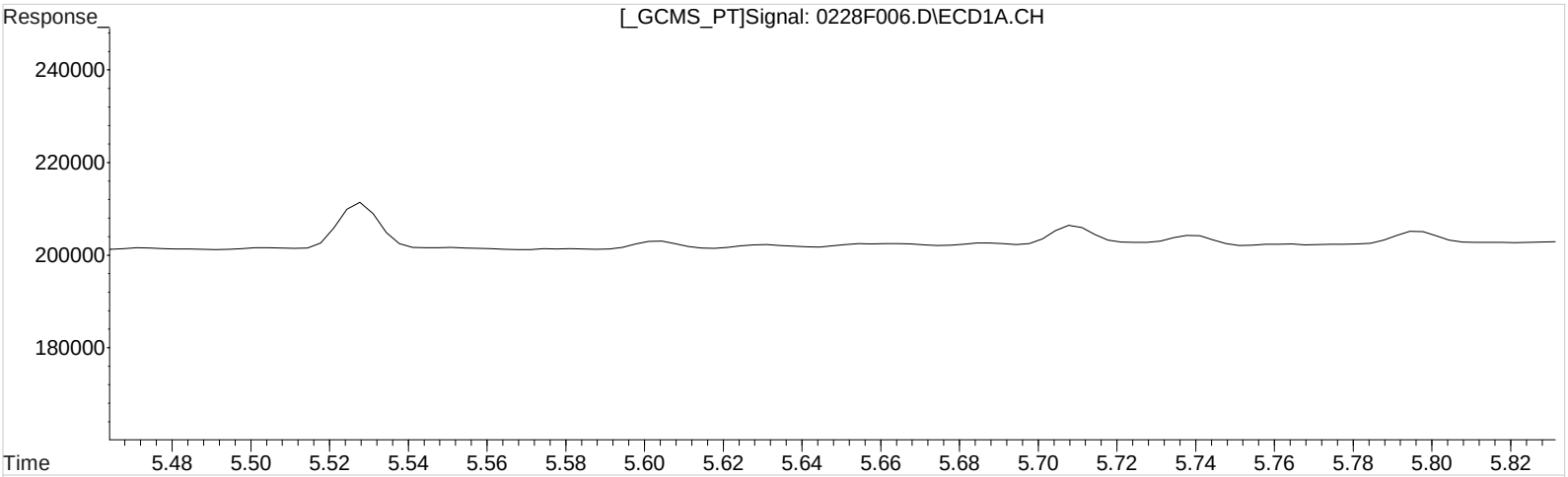
Quantitation Report (Qedit)

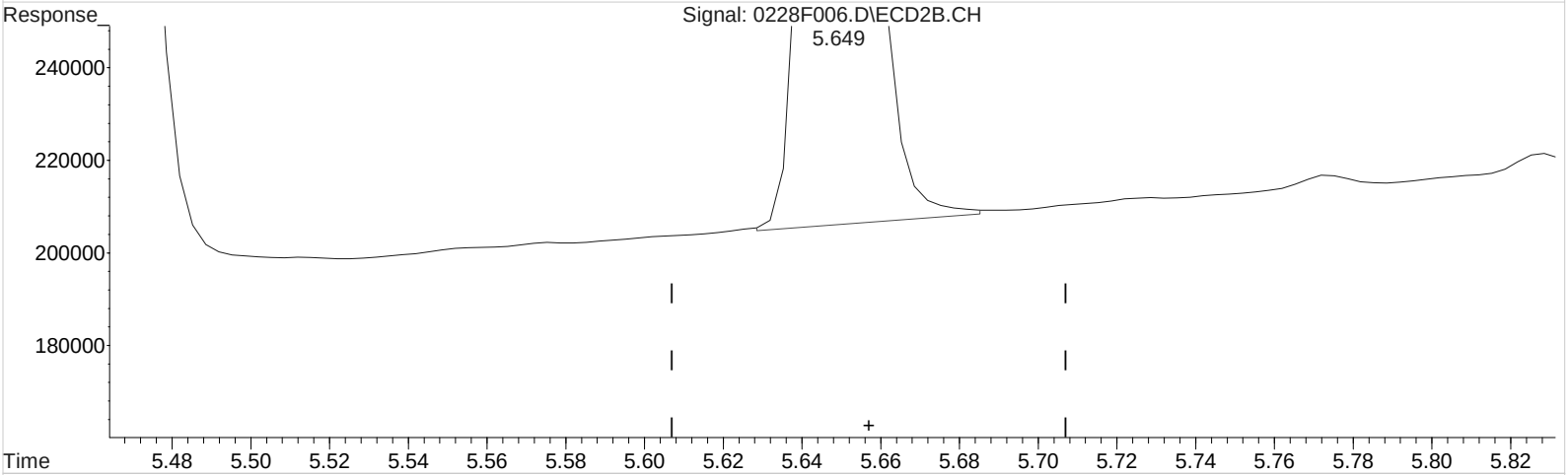
1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F006.D Vial: 4
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 8:56 am Operator: MC
Sample : PENTA01-94R 5.0 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:08:34 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.151min 5.309 ug/L

response 2839370

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.649min 4.775 ug/L m

response 3283089

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:31:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.033	4.717	4141410	4048056	11.304	9.312
		Target Compounds						
1)		3,4-Dichl...	3.136	3.831	158218	219018	9.573m	9.913
2)		3,5-Dichl...	3.380	4.087	115610	167574	10.545m	10.169
3)		2,4,6-Tri...	3.476	4.291	3397194	3850826	10.122	9.233
5)		2,4,5-Tri...	4.203	4.784	1619859	1881218	10.889	9.413
6)		3,4,5-Tri...	4.233	4.847	1583734	1764529	10.435m	9.401
7)	M	2,3,5,6-T...	4.476	5.077	4654510	5729619	9.778m	9.283
8)	M	2,3,4,5-T...	5.020	5.474	3486028	3874012	10.225m	9.382m
9)	M	Pentachlo...	5.156	5.657	5372015	6532395	10.950	9.501
10)		Pentachlo...	5.156	5.657	5372015	6532395	11.526	10.005

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

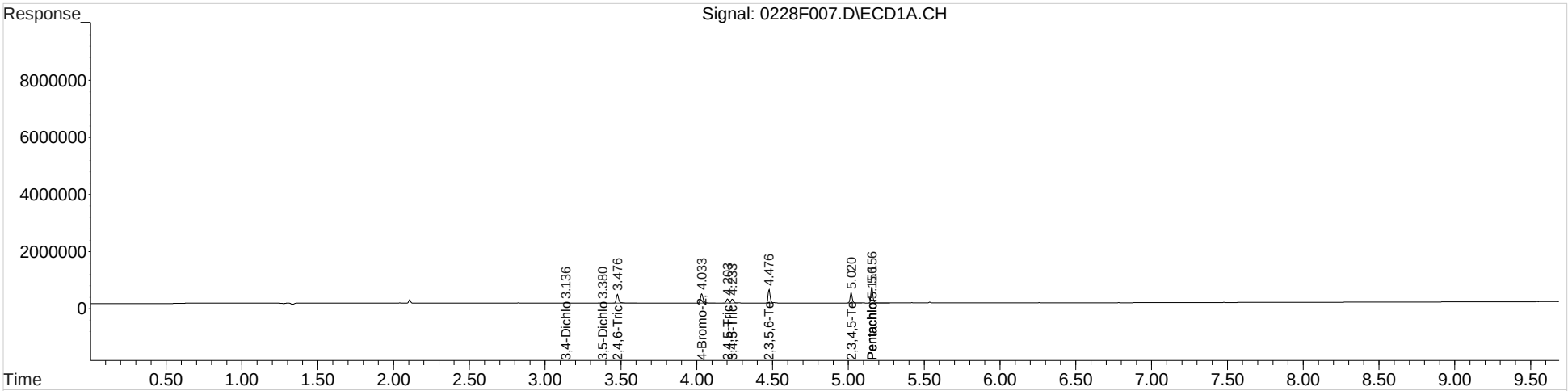
1st JMS 02/28/19
2nd MC 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:31:08 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



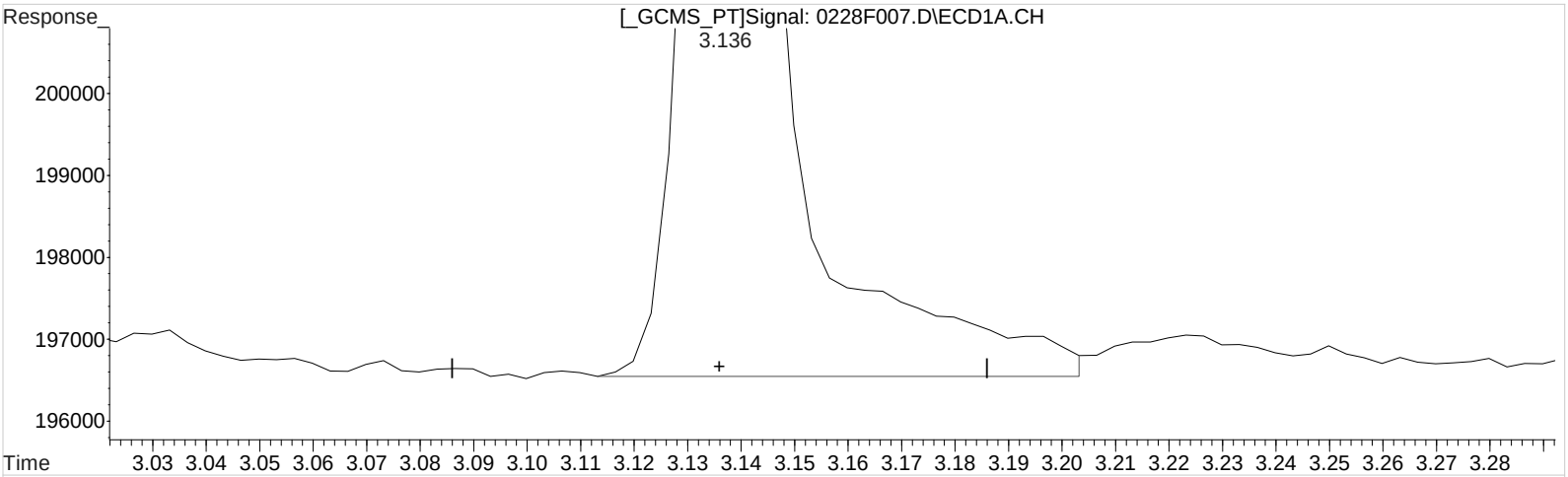
Quantitation Report (Qedit)

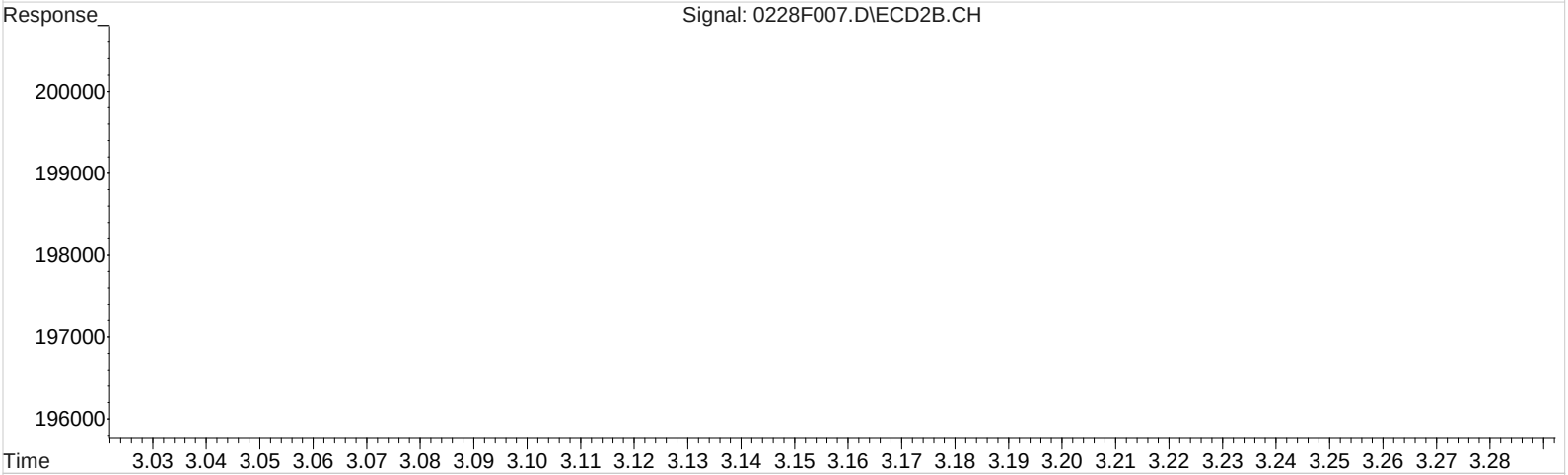
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.136min 10.715 ug/L

response 175614

(1) 3,4-Dichlorophenol #2

3.831min 9.913 ug/L

response 219018

Manual Integration:

Before

02/28/19

(+) = Expected Retention Time

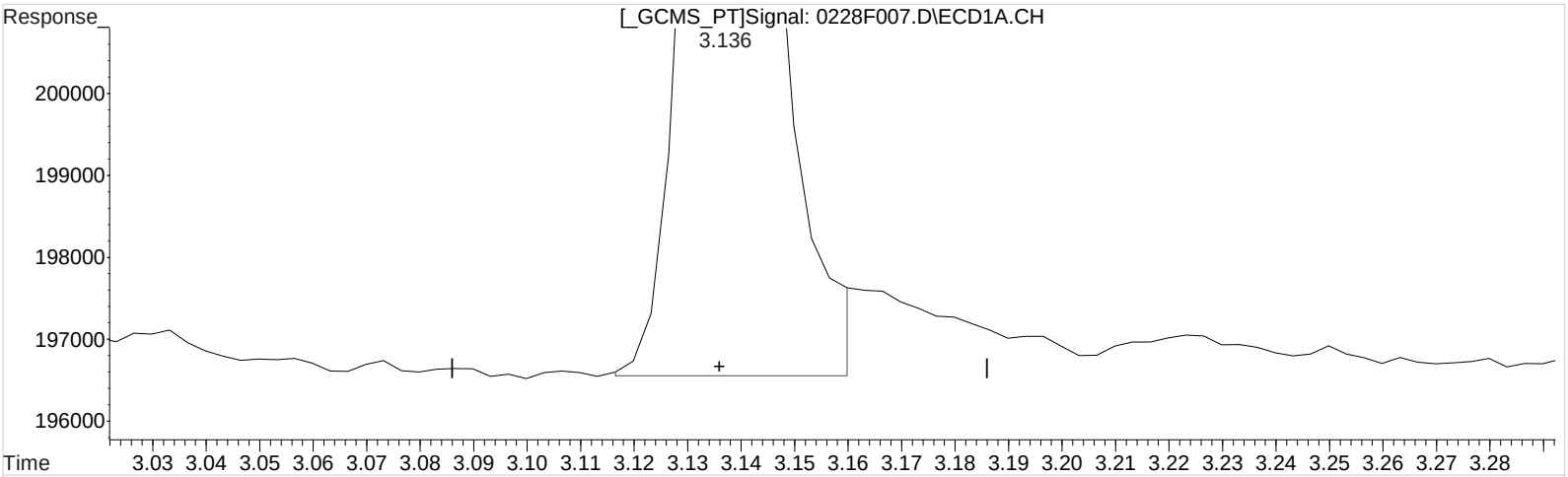
Quantitation Report (Qedit)

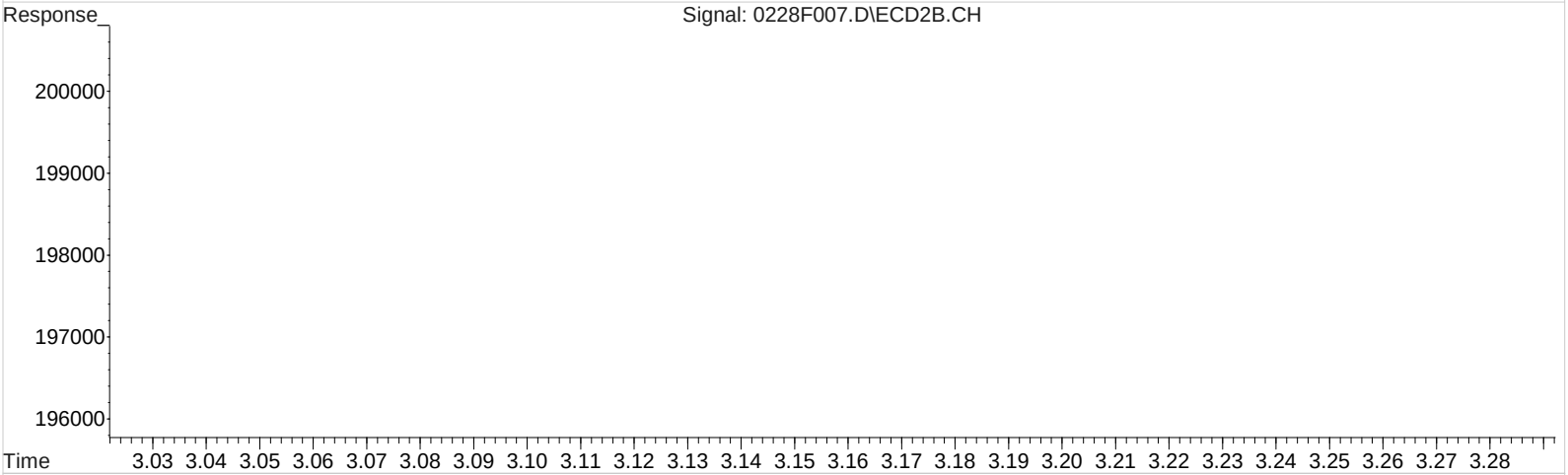
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.136min 9.573 ug/L m

response 158218

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 9.913 ug/L

response 219018

(+) = Expected Retention Time

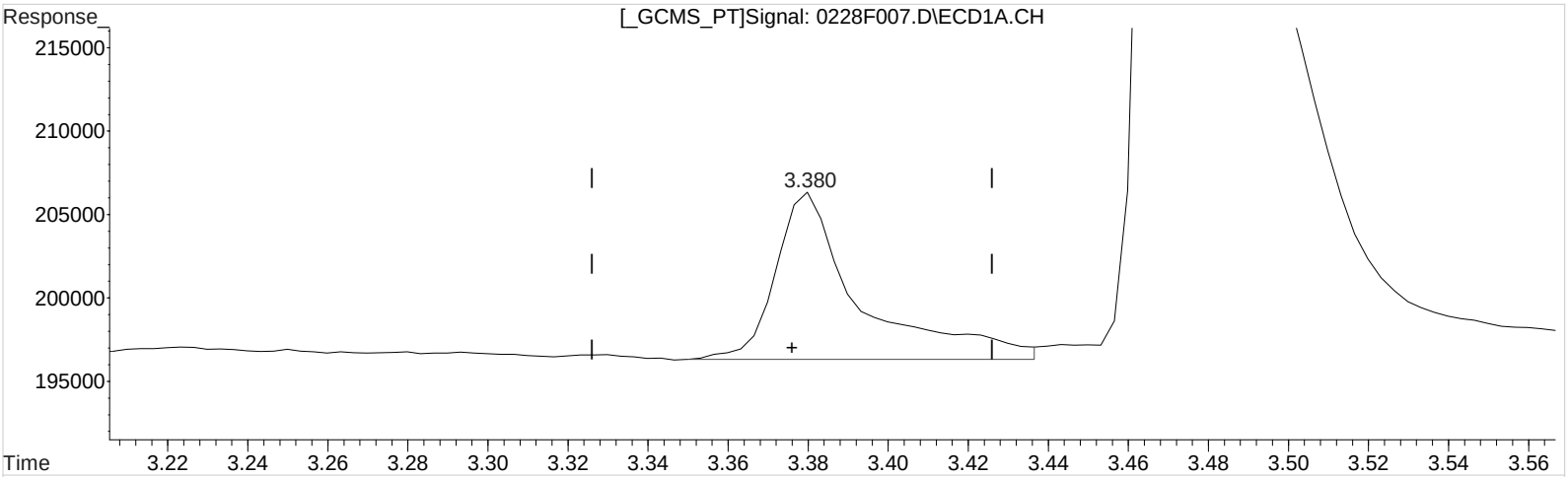
Quantitation Report (Qedit)

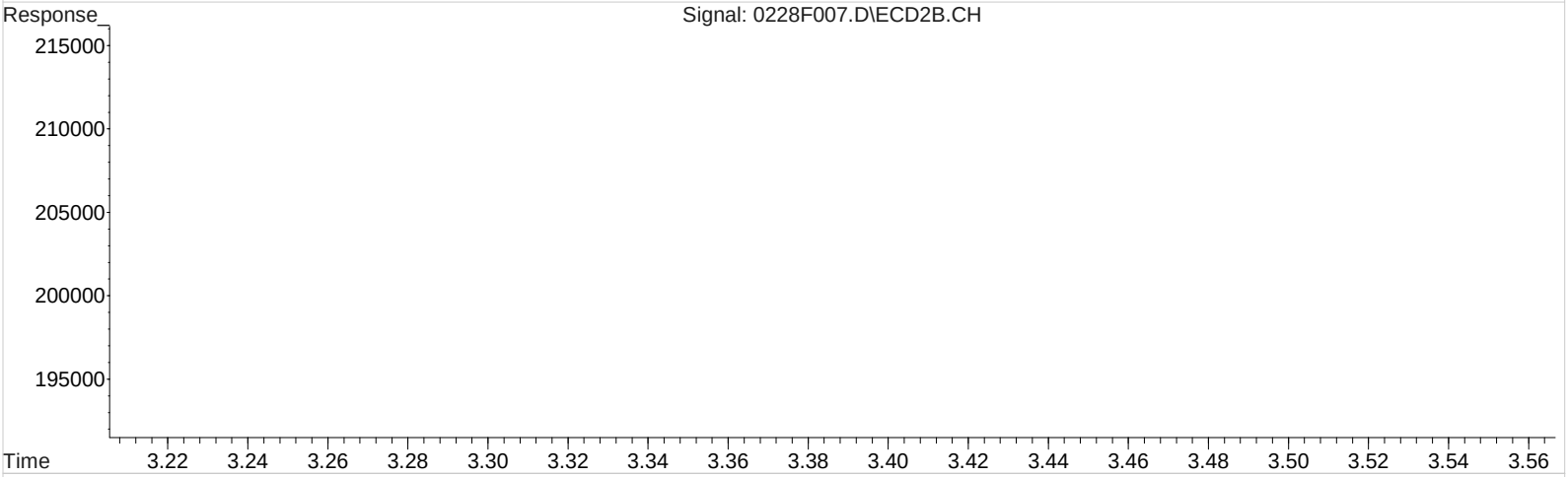
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 13.605 ug/L

response 146982

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.087min 10.169 ug/L

response 167574

(+) = Expected Retention Time

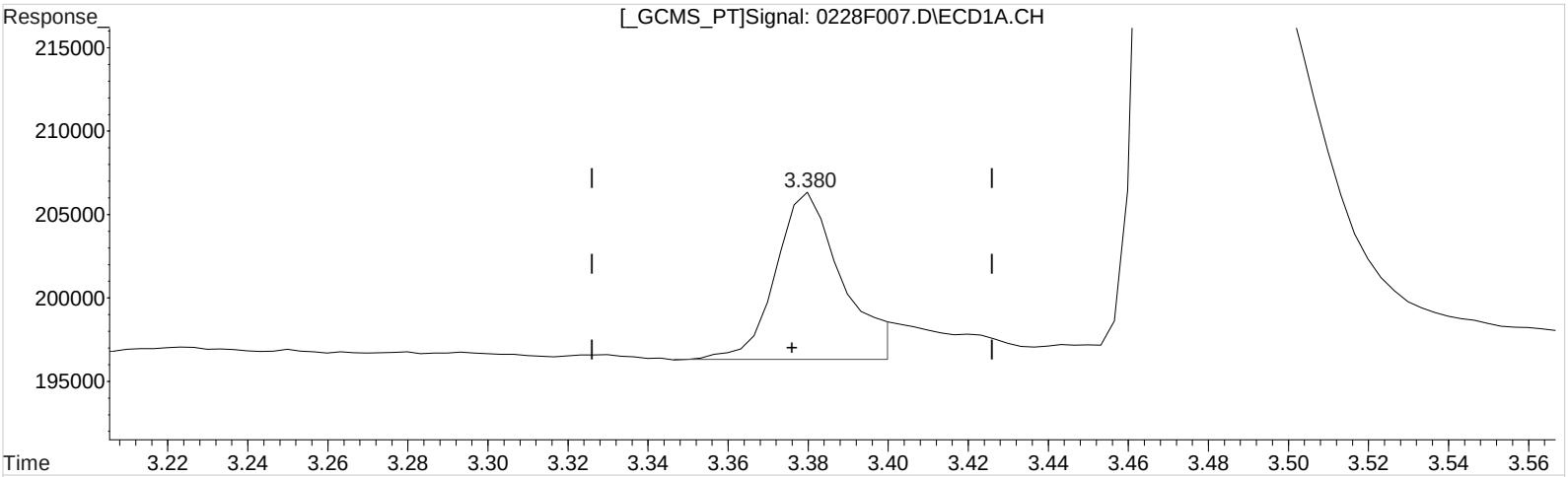
Quantitation Report (Qedit)

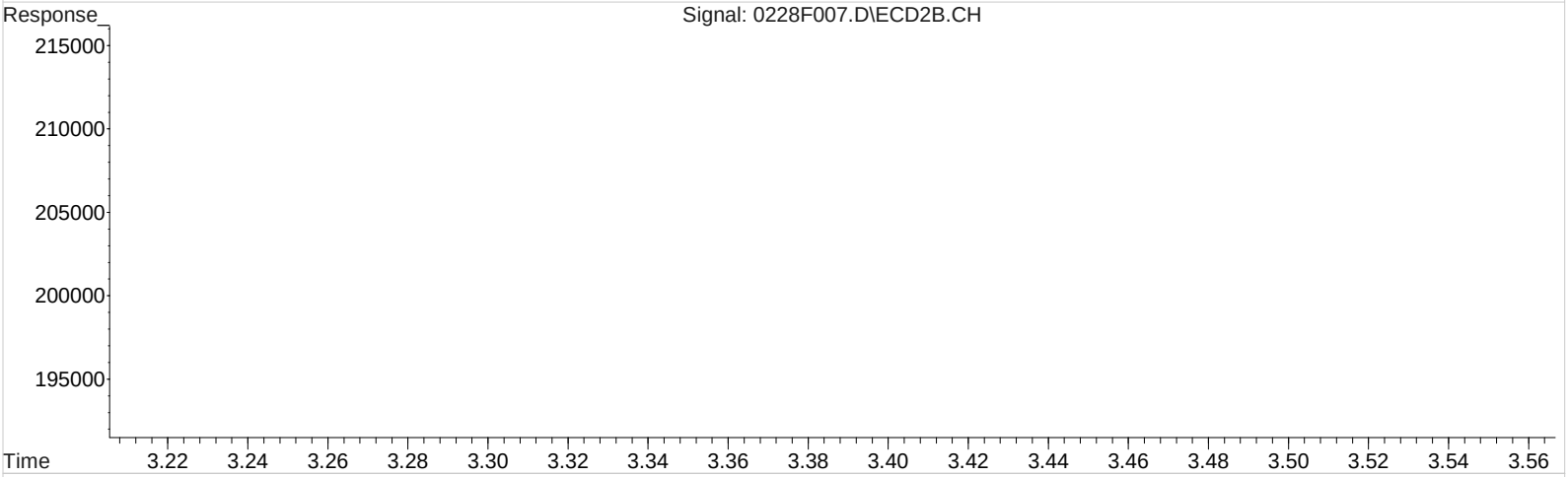
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 10.545 ug/L m

response 115610

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.087min 10.169 ug/L

response 167574

(+) = Expected Retention Time

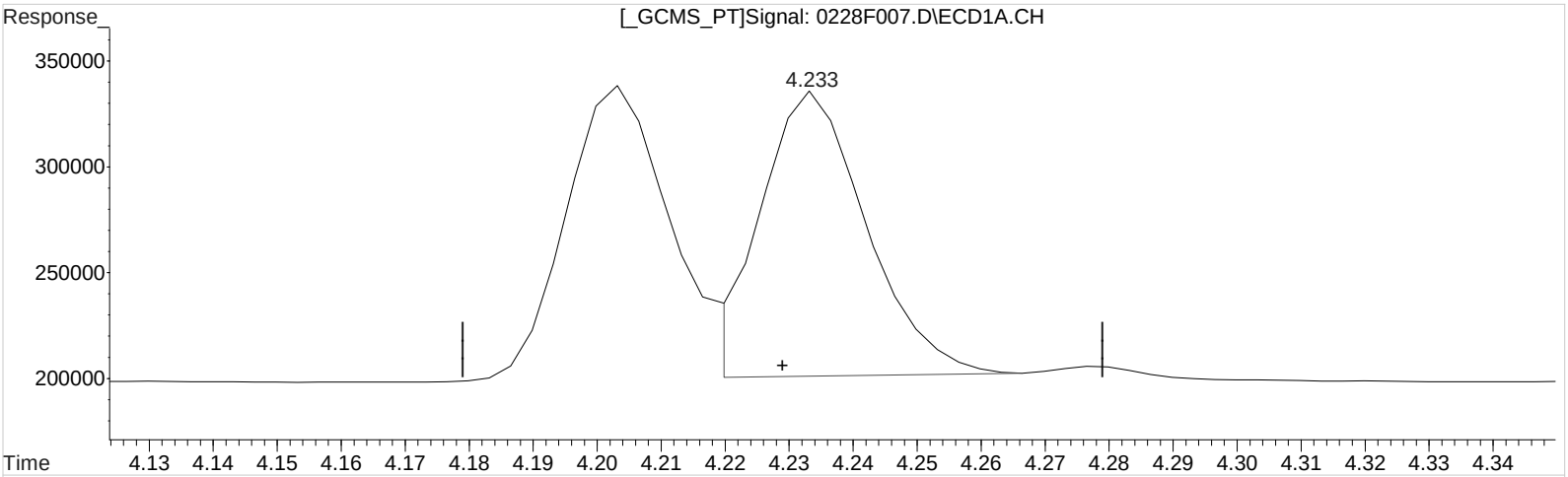
Quantitation Report (Qedit)

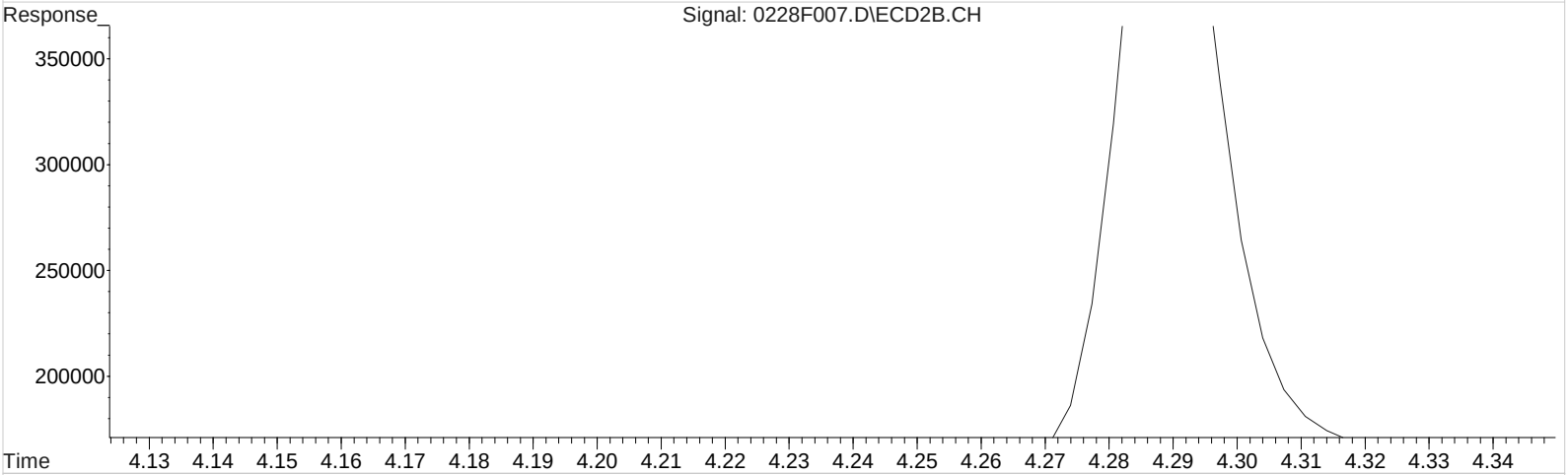
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 9.891 ug/L

response 1506370

(6) 3,4,5-Trichlorophenol #2

4.847min 9.401 ug/L

response 1764529

Manual Integration:

Before

02/28/19

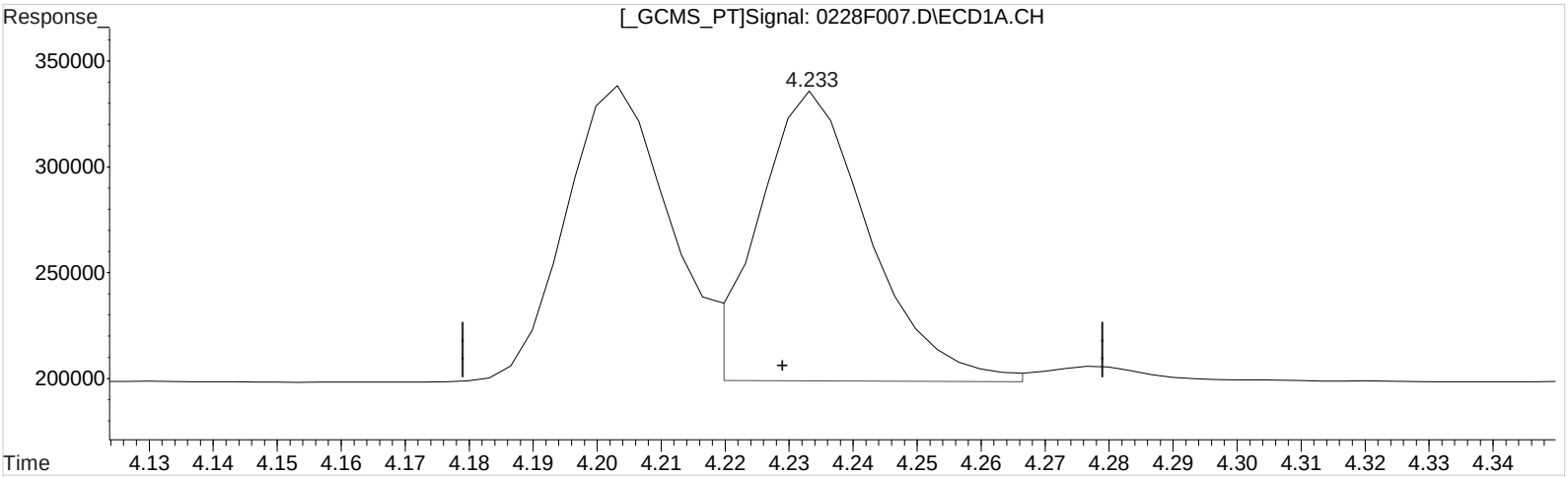
(+) = Expected Retention Time

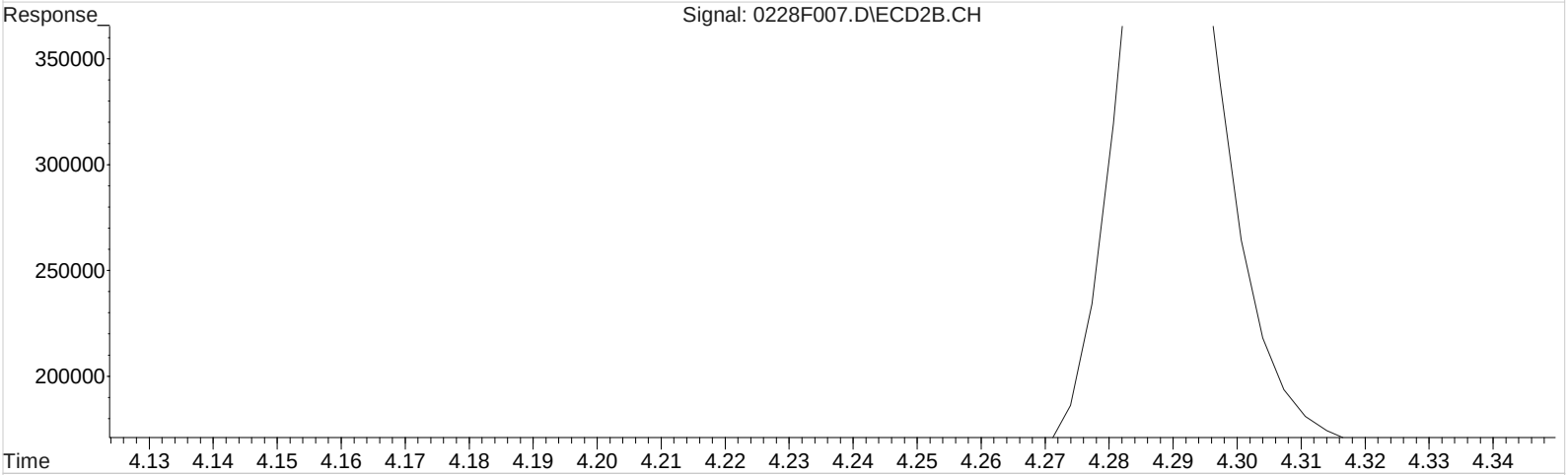
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 10.435 ug/L m

response 1583734

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 9.401 ug/L

response 1764529

(+) = Expected Retention Time

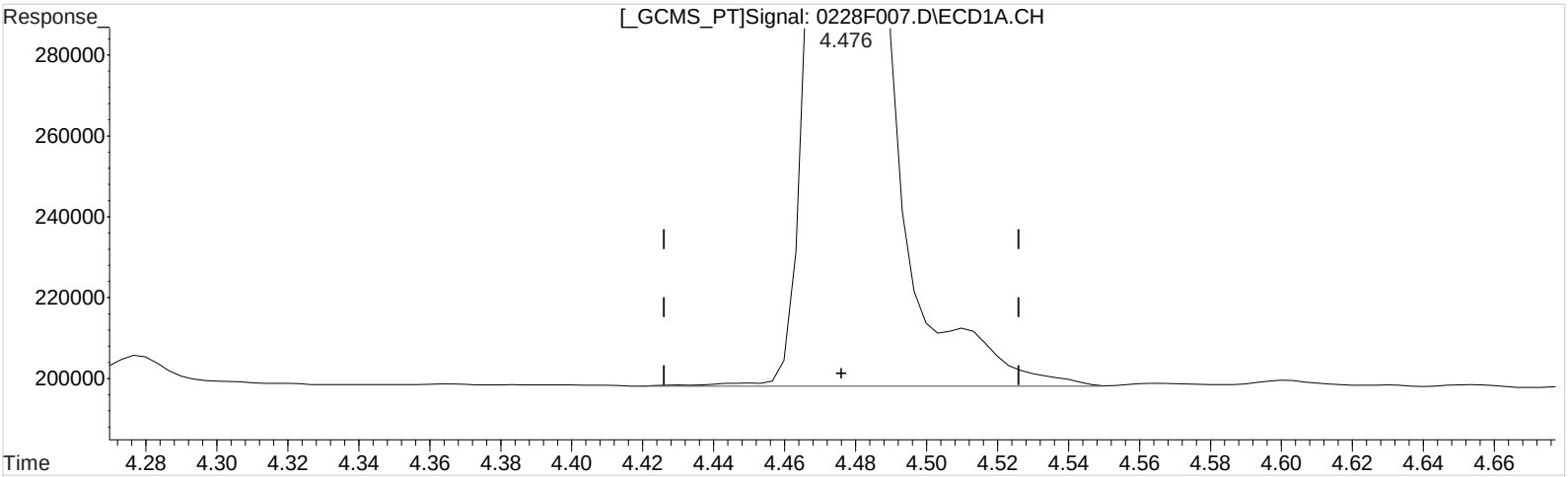
Quantitation Report (Qedit)

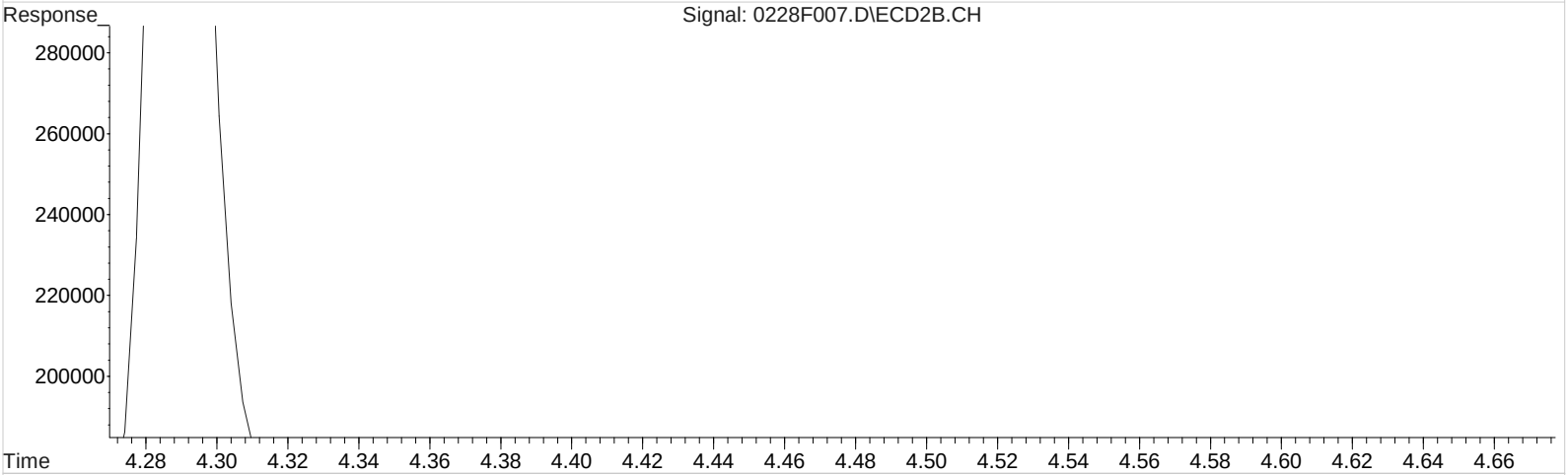
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.476min 10.180 ug/L

response 4845604

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.077min 9.283 ug/L

response 5729619

(+) = Expected Retention Time

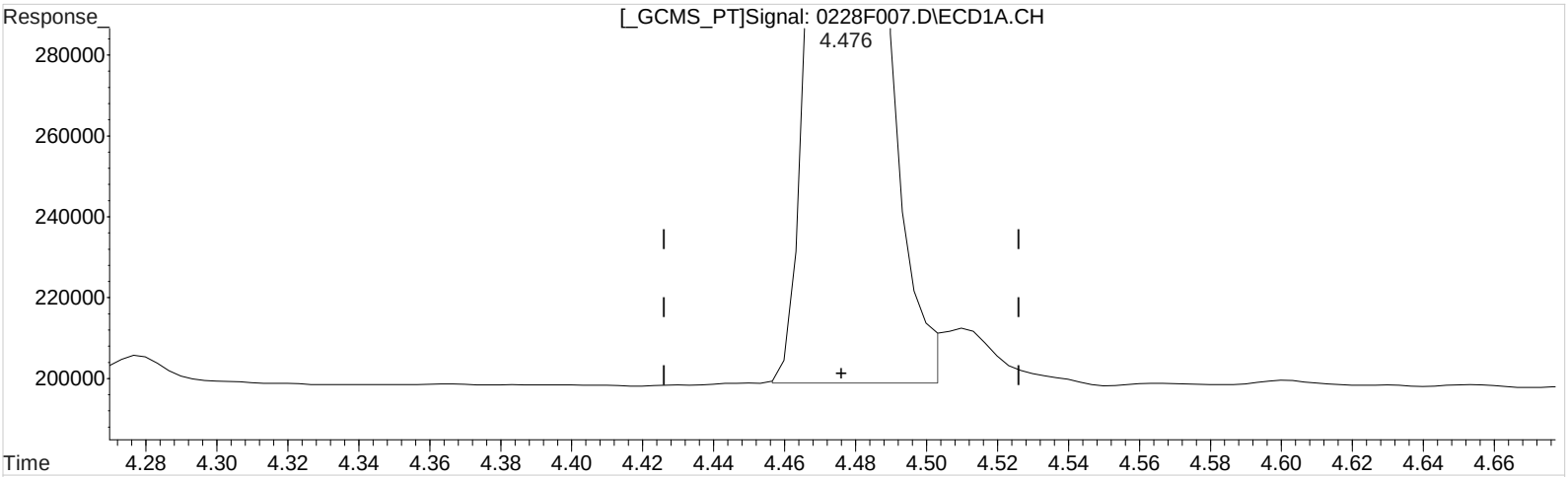
Quantitation Report (Qedit)

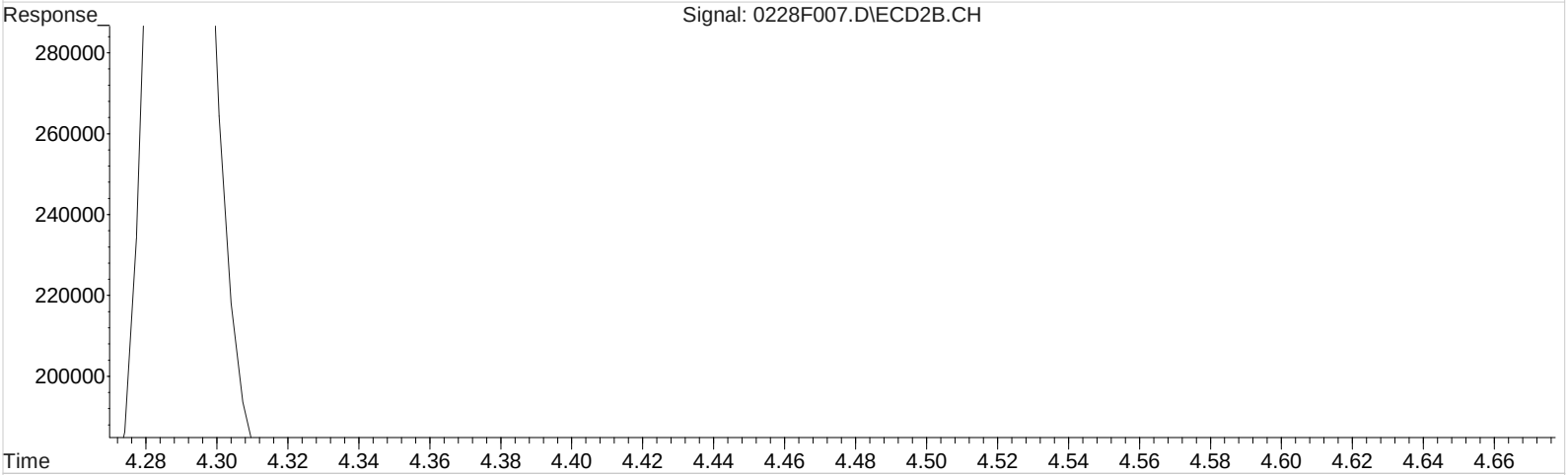
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.476min 9.778 ug/L m

response 4654510

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.077min 9.283 ug/L

response 5729619

(+) = Expected Retention Time

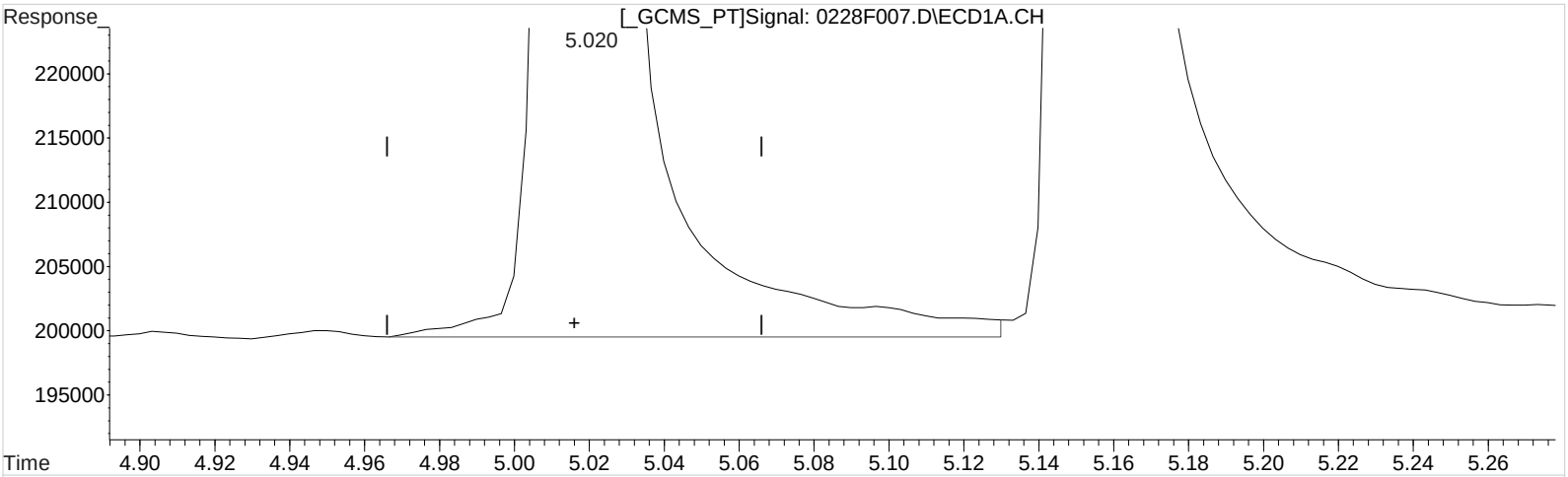
Quantitation Report (Qedit)

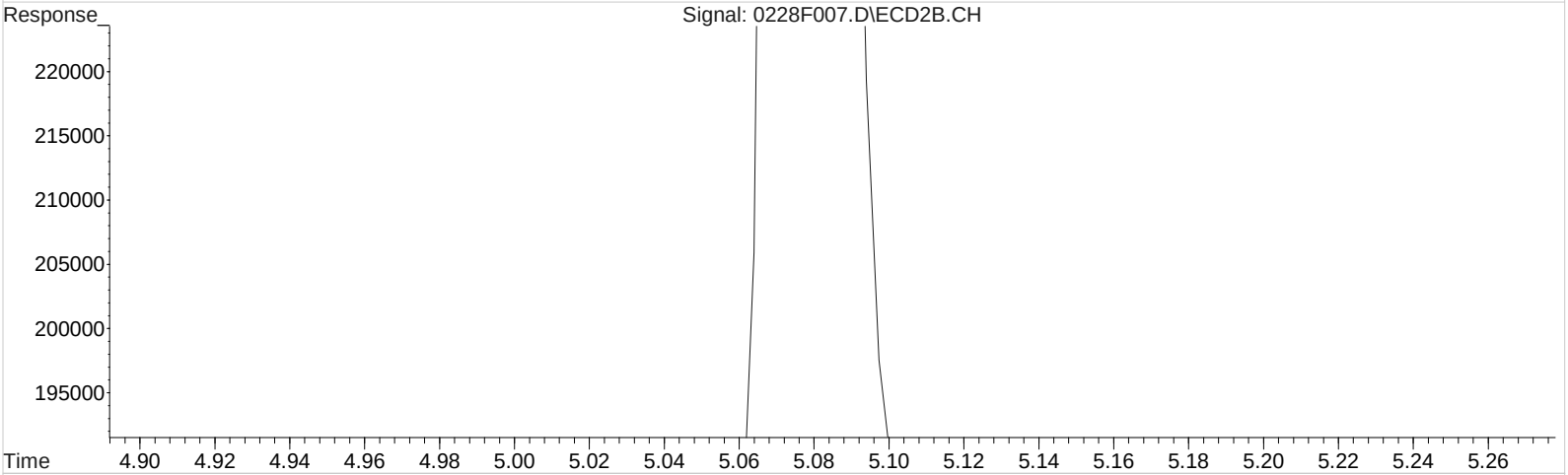
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.552 ug/L

response 3584964

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

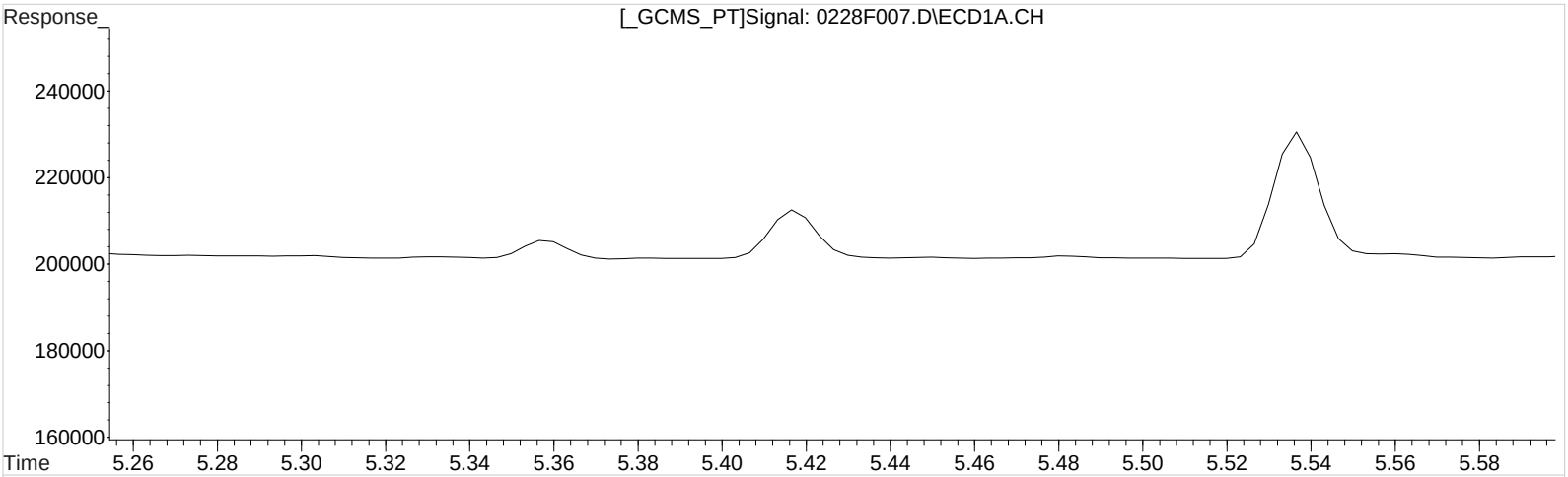
Quantitation Report (Qedit)

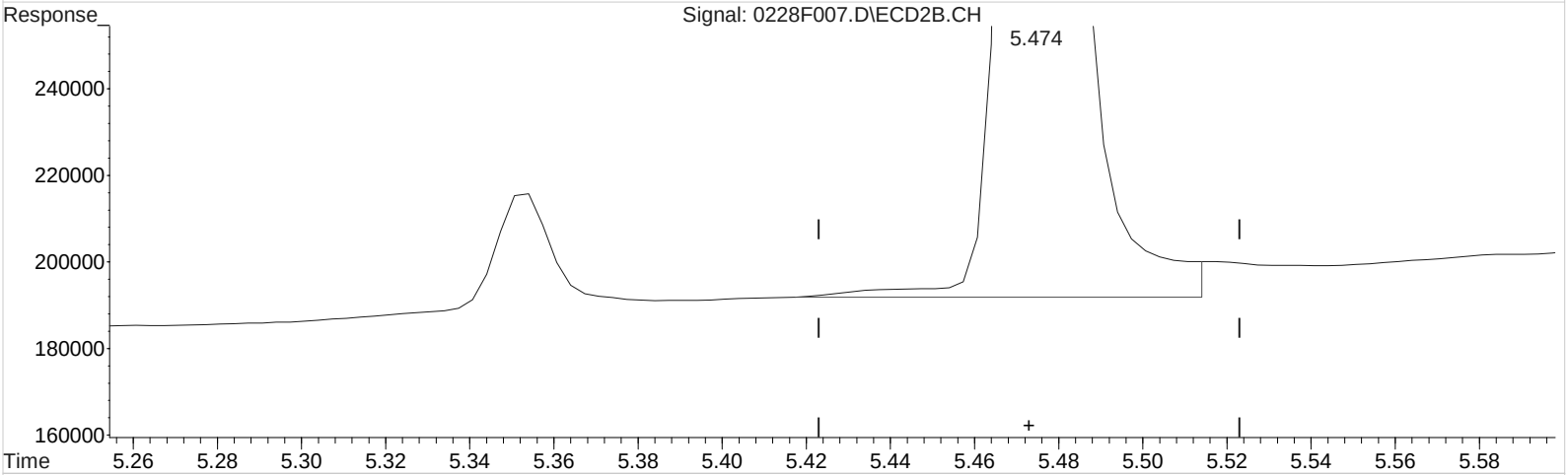
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

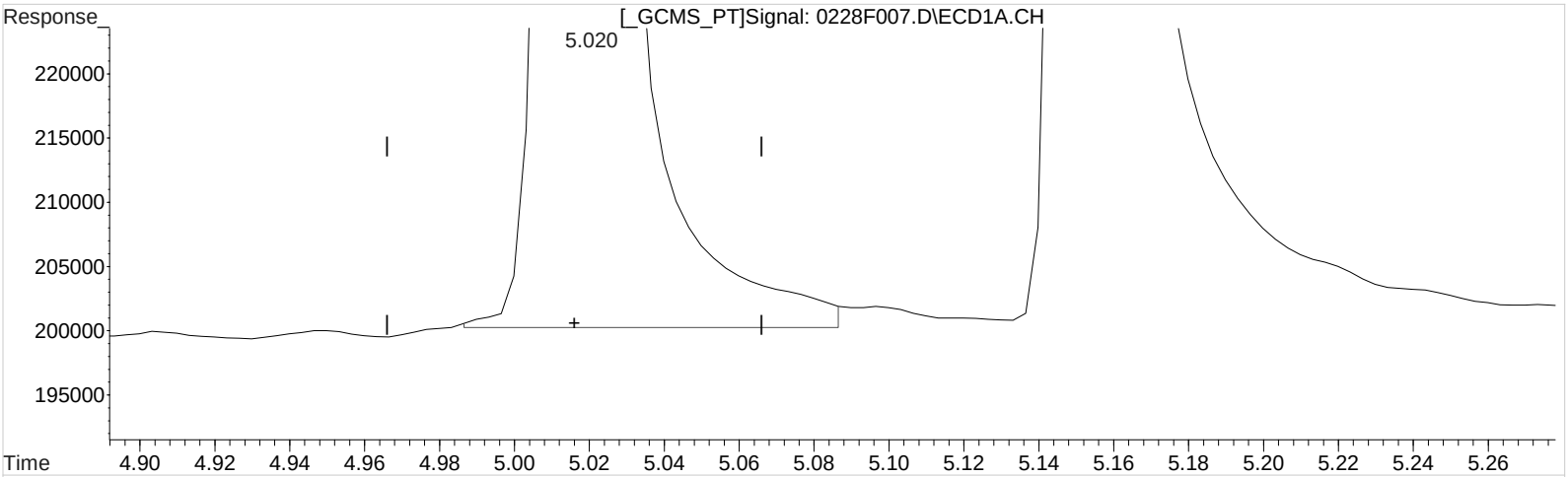
Quantitation Report (Qedit)

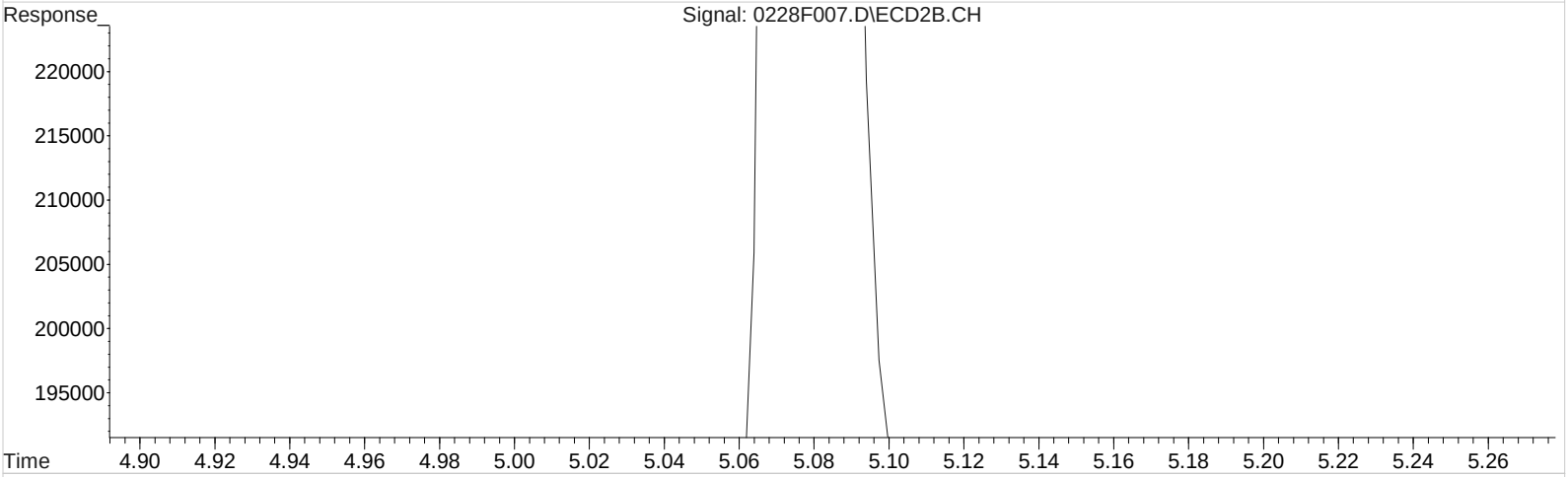
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.778 ug/L

response 4037515

(+) = Expected Retention Time

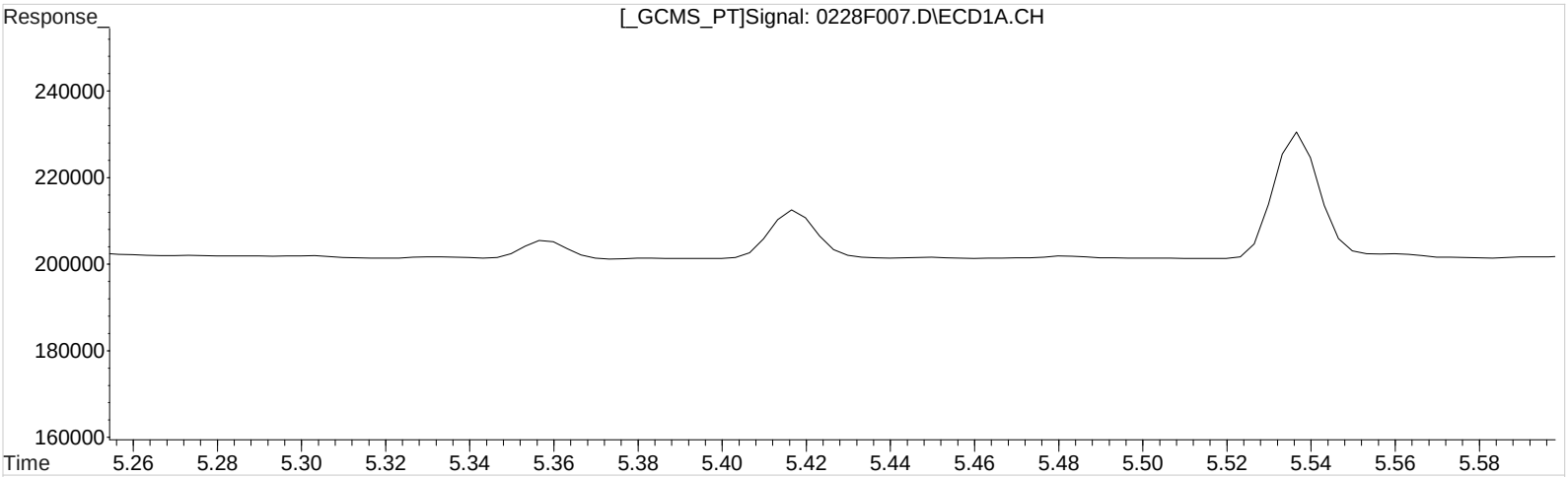
Quantitation Report (Qedit)

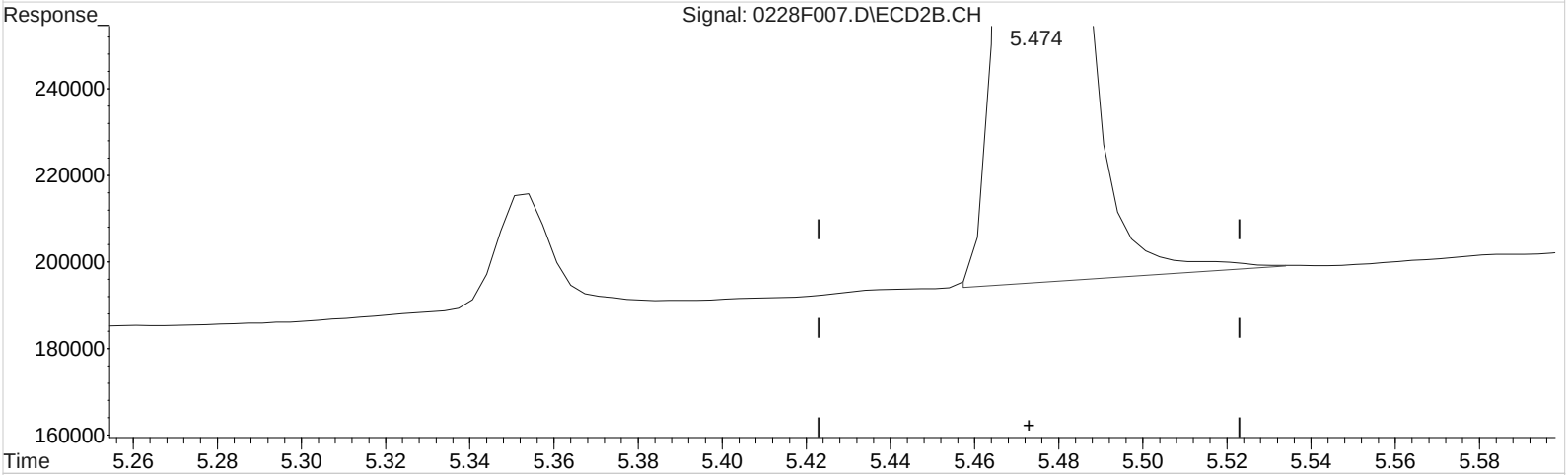
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F007.D Vial: 5
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:14 am Operator: MC
Sample : PENTA01-94Q 10 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 09:29:12 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.020min 10.225 ug/L m

response 3486028

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.474min 9.382 ug/L m

response 3874012

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.033	4.720	9384726	10345828	26.823	23.800
		Target Compounds						
1)		3,4-Dichl...	3.139	3.833	364718	495787	23.304m	22.440
2)		3,5-Dichl...	3.379	4.090	247686	371212	23.594m	22.526
3)		2,4,6-Tri...	3.476	4.290	7528057	9199994	23.385	22.059
5)		2,4,5-Tri...	4.203	4.783	3465348	4268979	24.581	21.360
6)		3,4,5-Tri...	4.233	4.847	3537210	4043017	24.409m	21.539
7)	M	2,3,5,6-T...	4.476	5.080	10557180	13711688	22.178	22.215
8)	M	2,3,4,5-T...	5.019	5.477	7682979	9204669	24.286	22.291
9)	M	Pentachlo...	5.156	5.660	12370956	15378050	26.604	22.366
10)		Pentachlo...	5.156	5.660	12370956	15378050	28.002	23.554

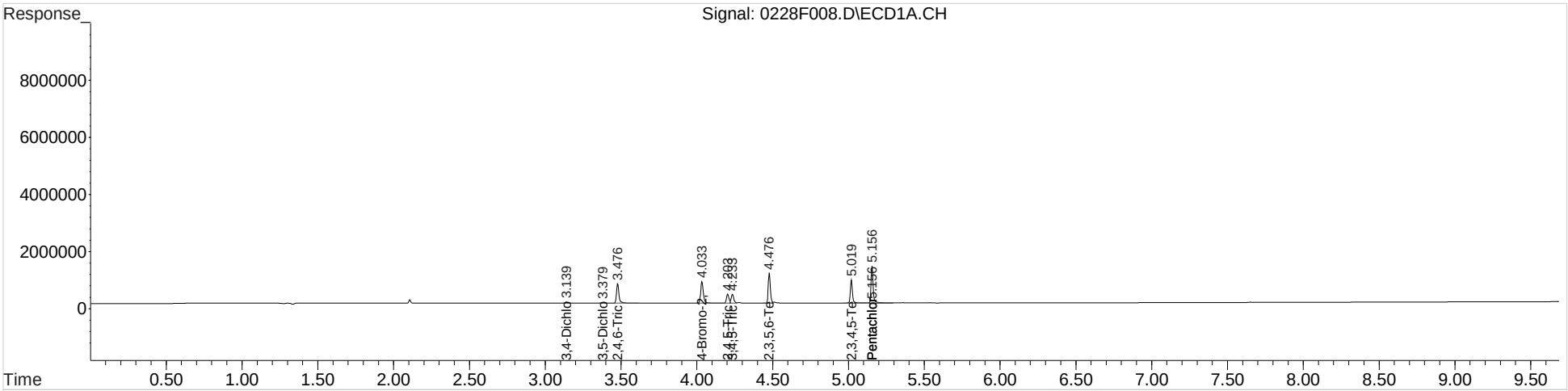
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:31 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



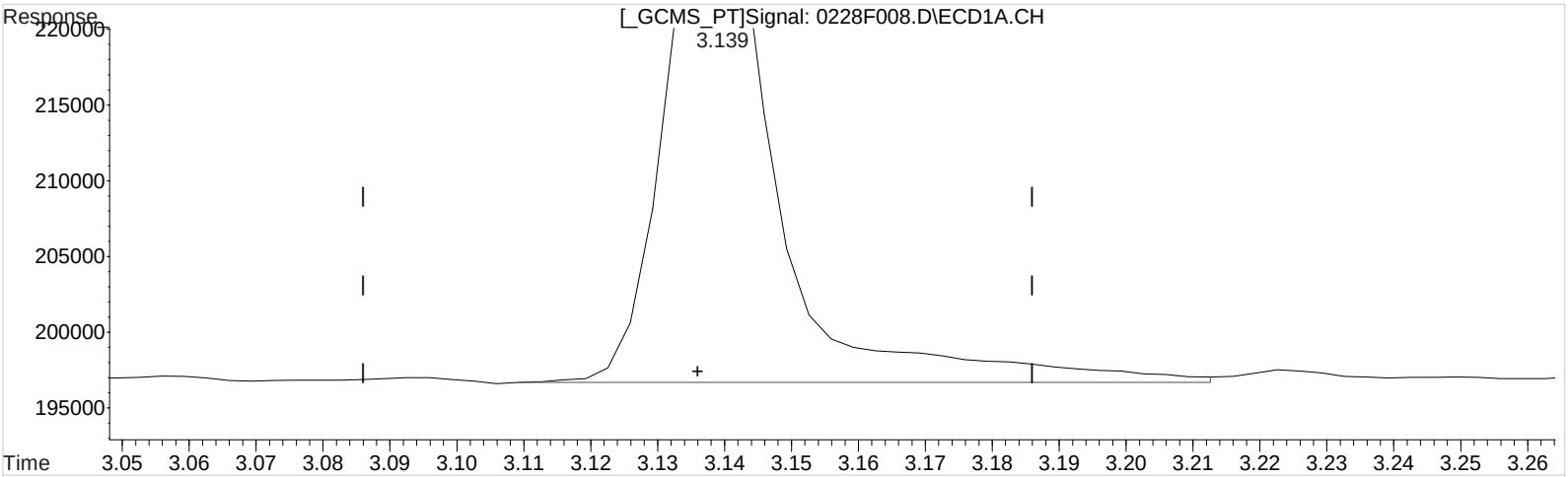
Quantitation Report (Qedit)

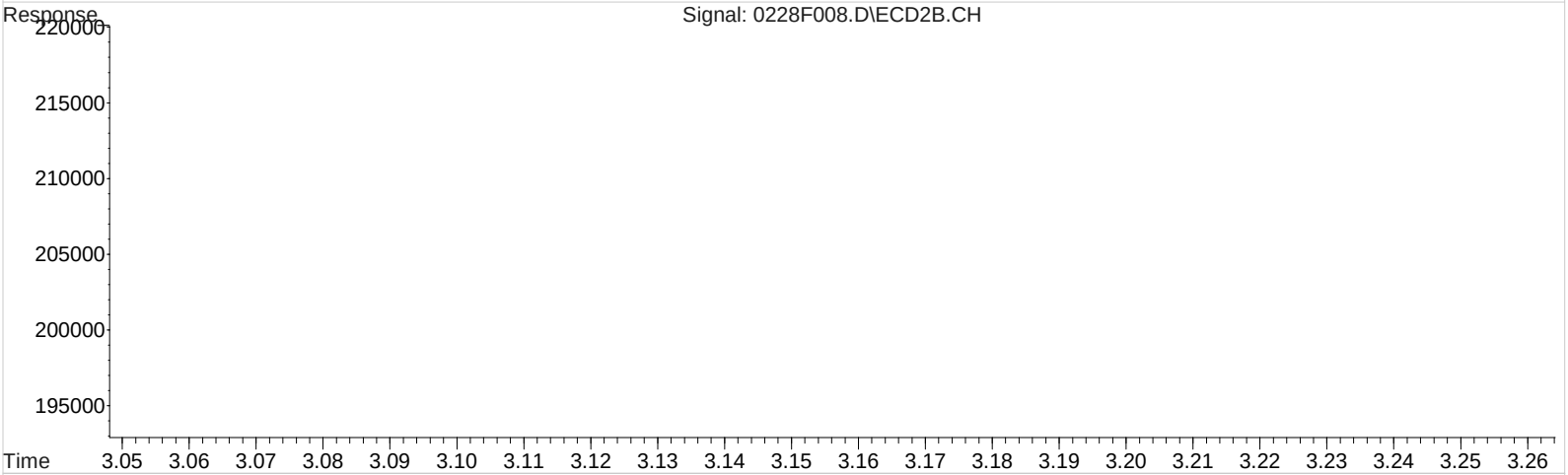
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 25.378 ug/L

response 395414

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 22.440 ug/L

response 495787

(+) = Expected Retention Time

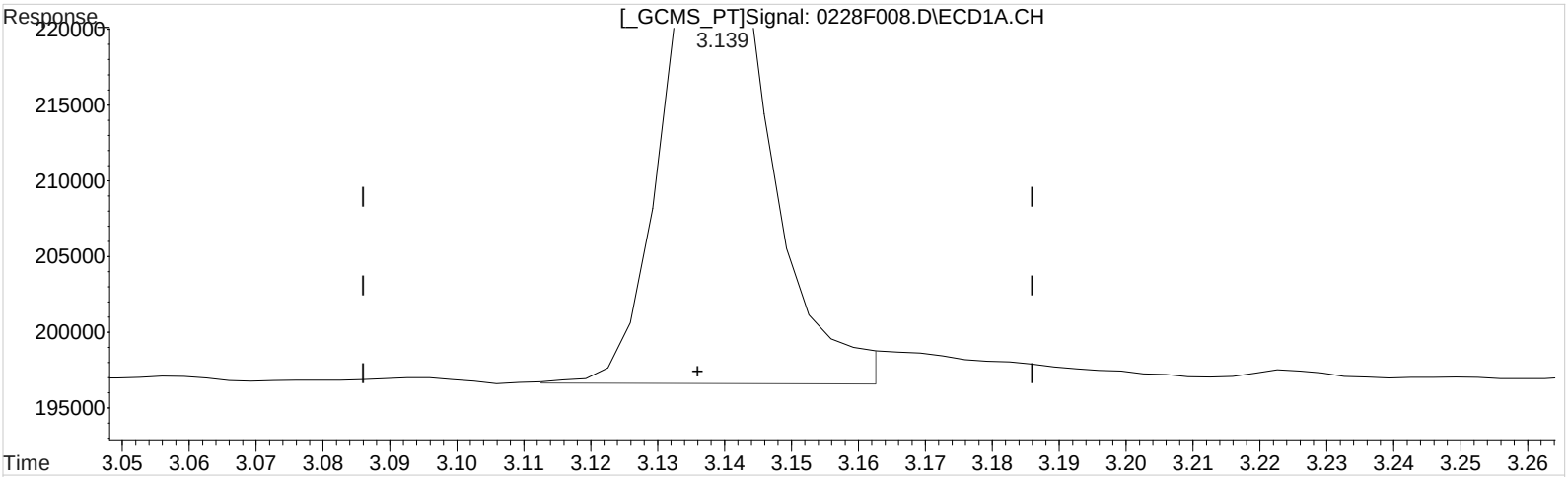
Quantitation Report (Qedit)

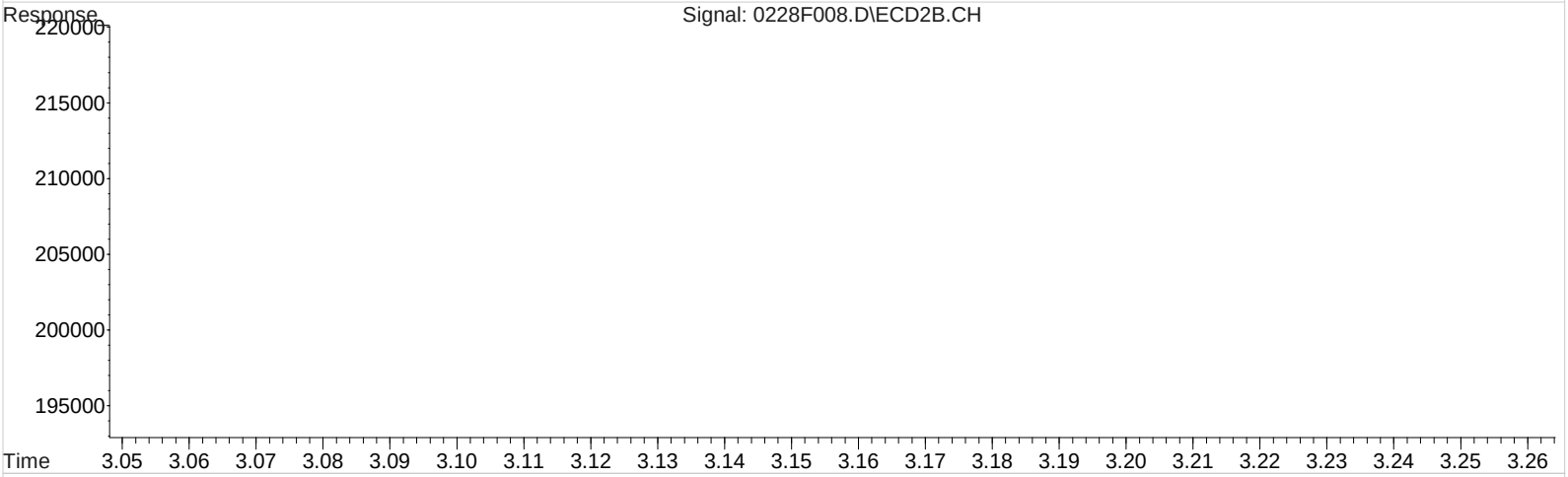
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 23.304 ug/L m

response 364718

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 22.440 ug/L

response 495787

(+) = Expected Retention Time

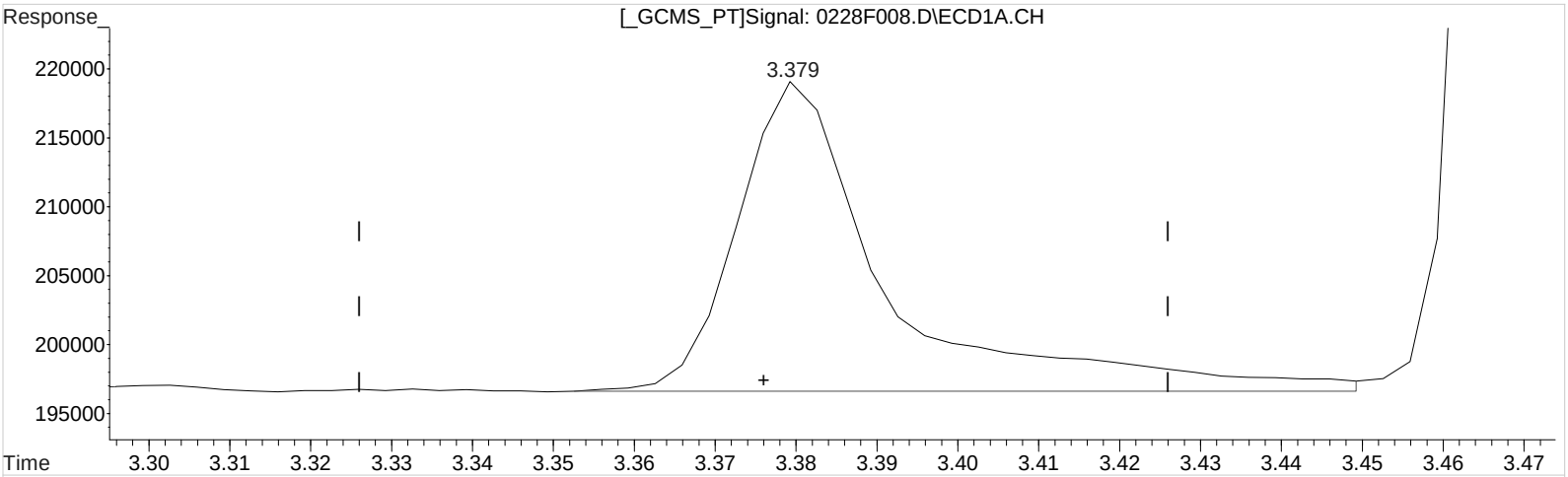
Quantitation Report (Qedit)

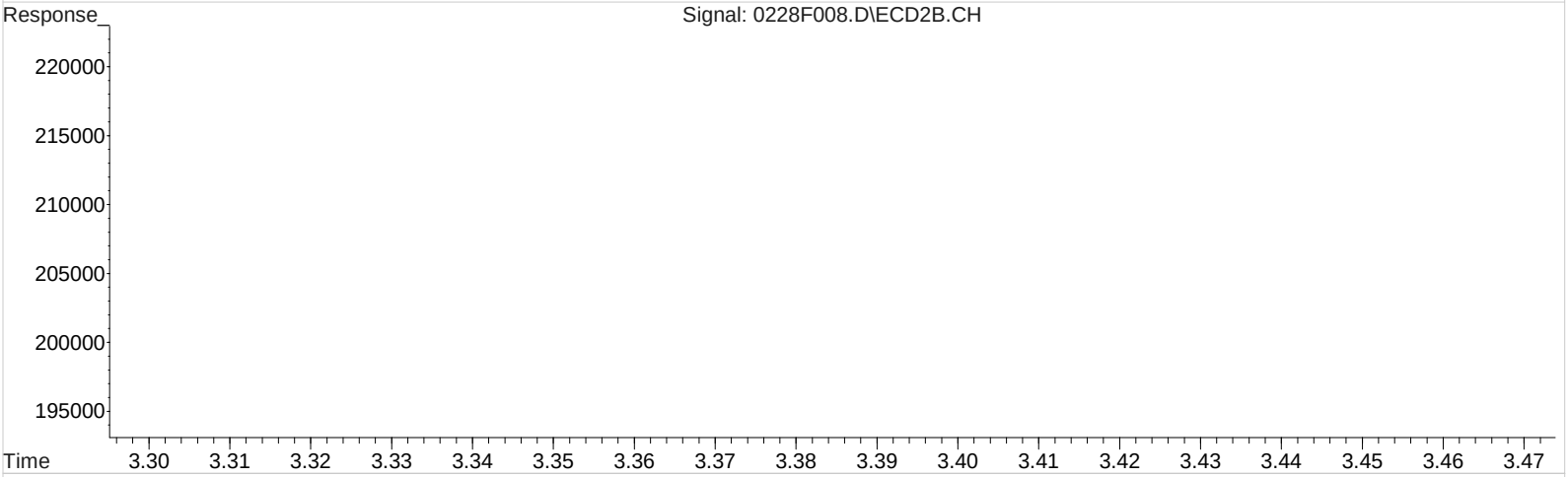
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 27.619 ug/L

response 287533

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 22.526 ug/L

response 371212

(+) = Expected Retention Time

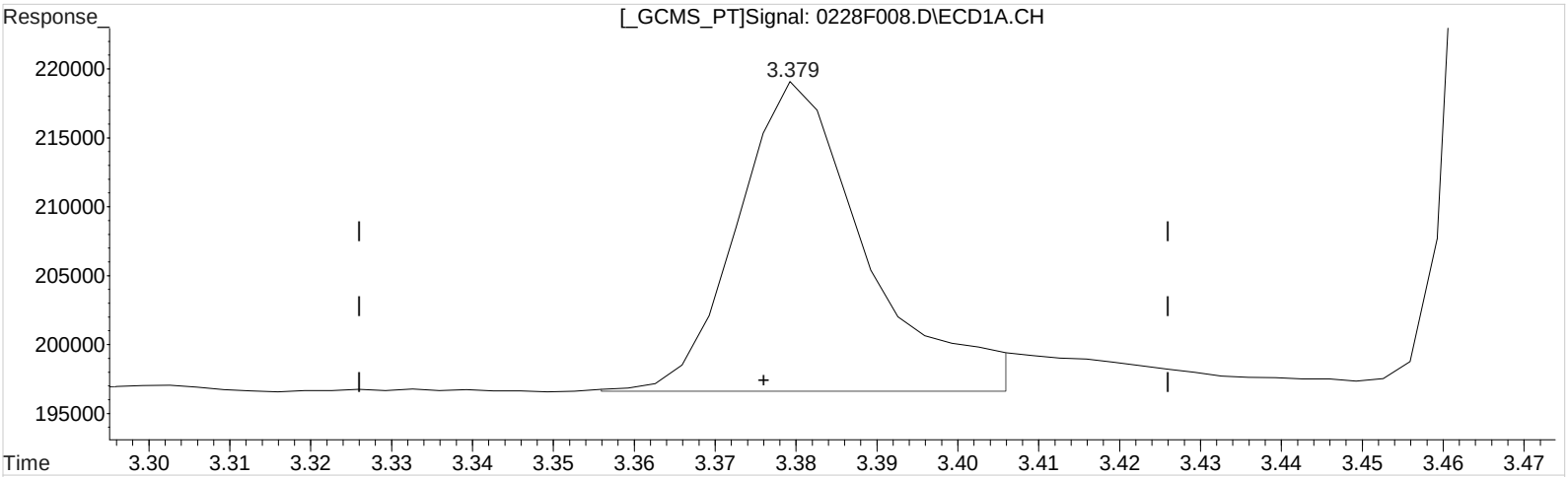
Quantitation Report (Qedit)

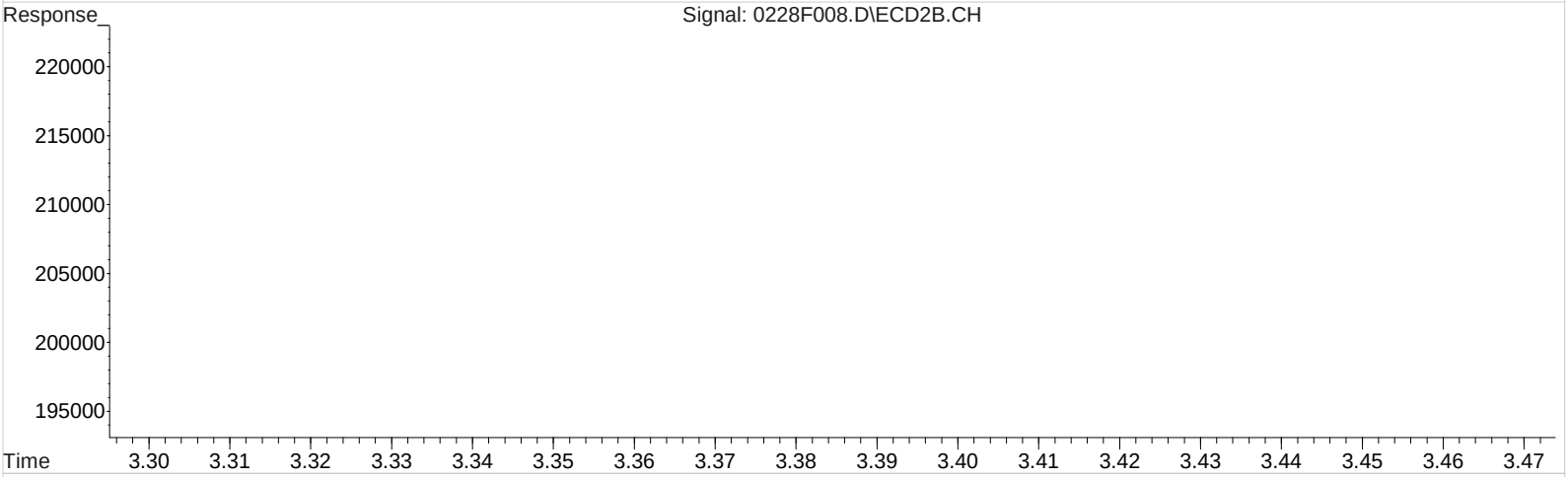
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 23.594 ug/L m

response 247686

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 22.526 ug/L

response 371212

(+) = Expected Retention Time

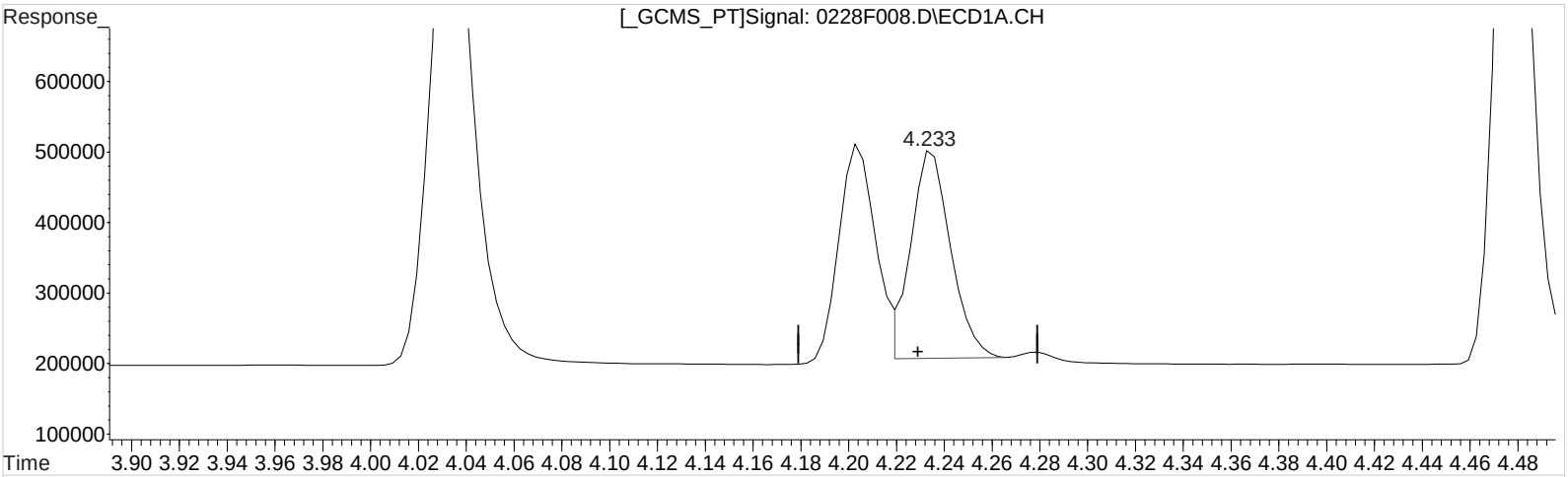
Quantitation Report (Qedit)

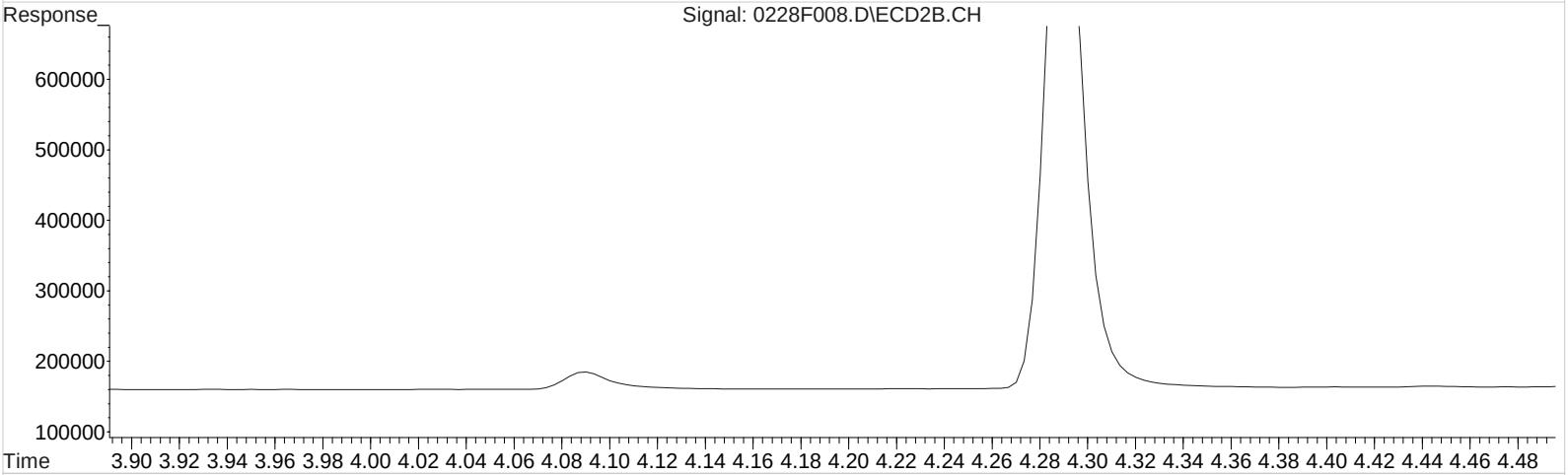
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 22.824 ug/L

response 3318986

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 21.539 ug/L

response 4043017

(+) = Expected Retention Time

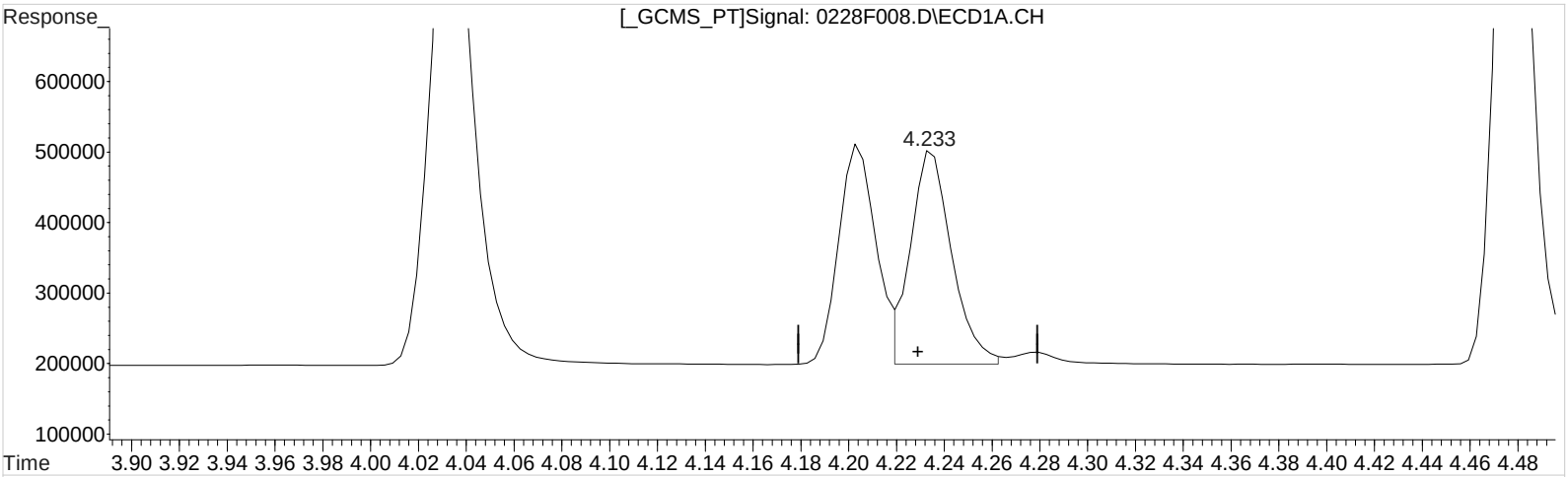
Quantitation Report (Qedit)

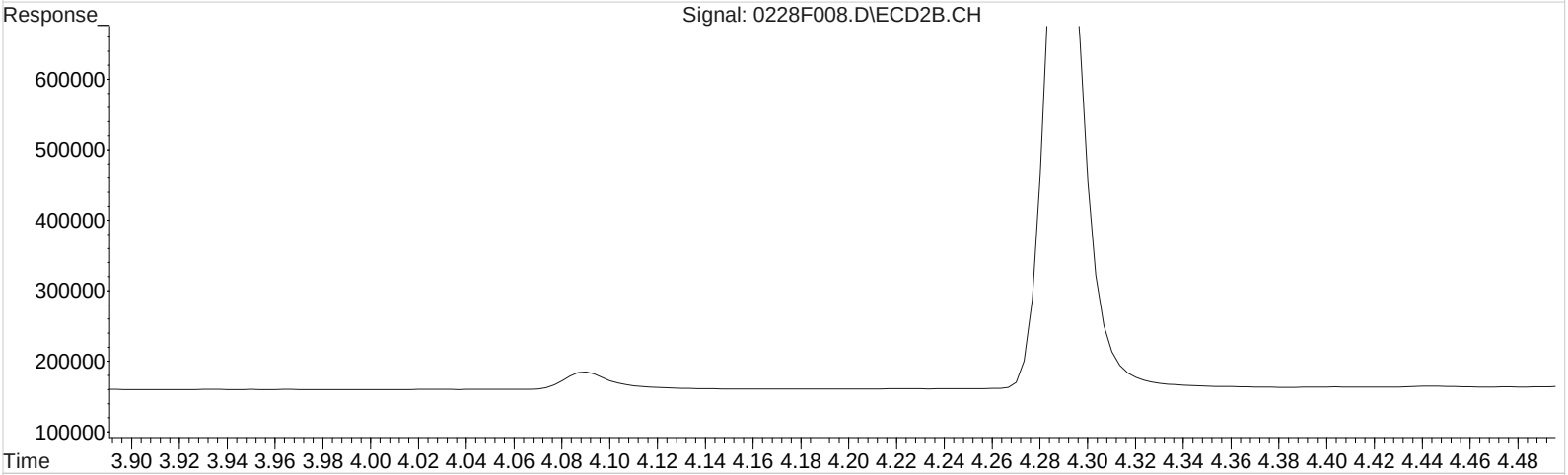
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F008.D Vial: 6
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:33 am Operator: MC
Sample : PENTA01-94P 25 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:16:58 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.233min 24.409 ug/L m

response 3537210

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 21.539 ug/L

response 4043017

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.034	4.718	18373800	22111030	53.653	50.866
		Target Compounds						
1)		3,4-Dichl...	3.137	3.831	717598	975860	47.710m	44.168
2)		3,5-Dichl...	3.380	4.088	527946	707614	52.883m	42.939
3)		2,4,6-Tri...	3.477	4.291	14477823	19027390	46.510	45.622
5)		2,4,5-Tri...	4.204	4.784	6258374	8346897	46.243	41.763
6)		3,4,5-Tri...	4.234	4.848	6723516	8022672	48.287m	42.741
7)	M	2,3,5,6-T...	4.477	5.078	20376062	27736415	42.806	44.938
8)	M	2,3,4,5-T...	5.017	5.474	14199642	17989254	46.931	43.566
9)	M	Pentachlo...	5.154	5.658	23456614	30413144	51.593	44.234
10)		Pentachlo...	5.154	5.658	23456614	30413144	54.305	46.582

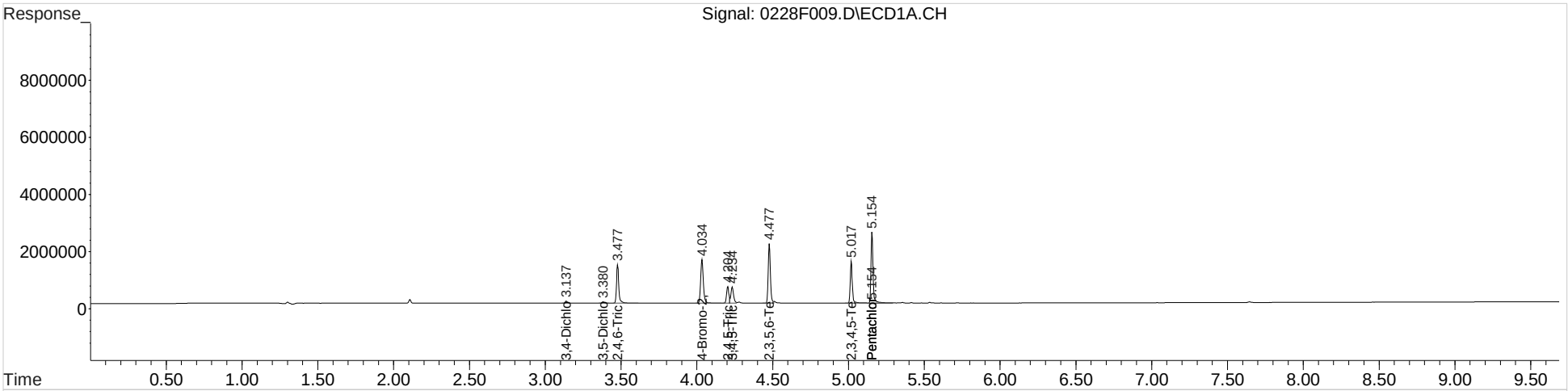
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



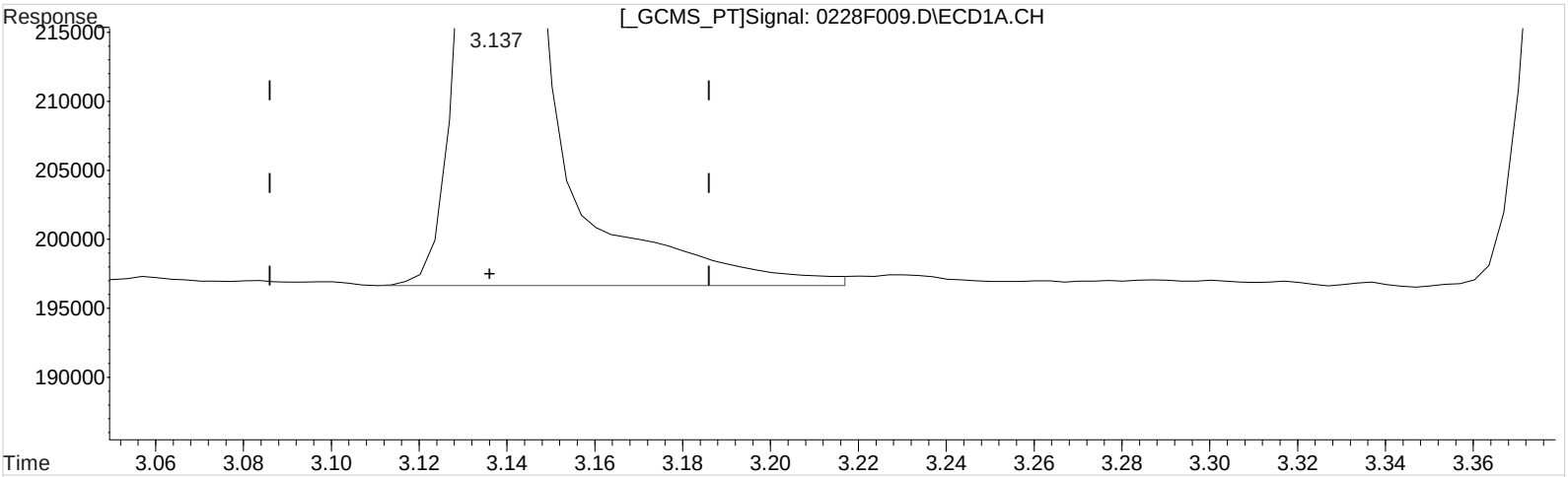
Quantitation Report (Qedit)

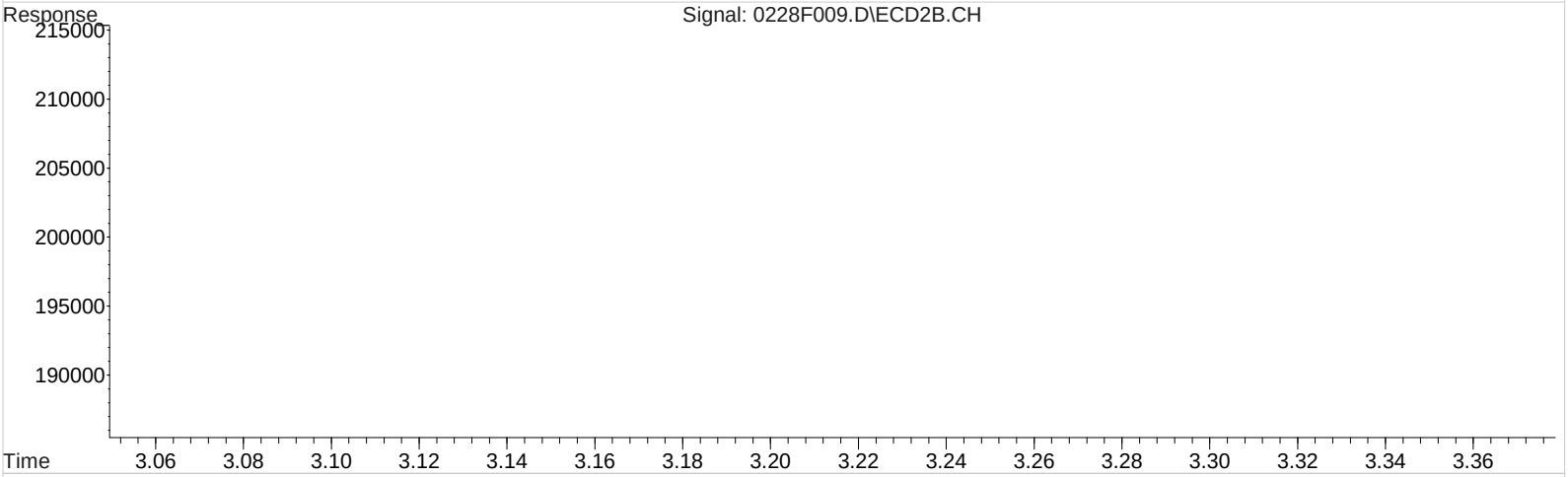
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 51.582 ug/L

response 771918

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 44.168 ug/L

response 975860

(+) = Expected Retention Time

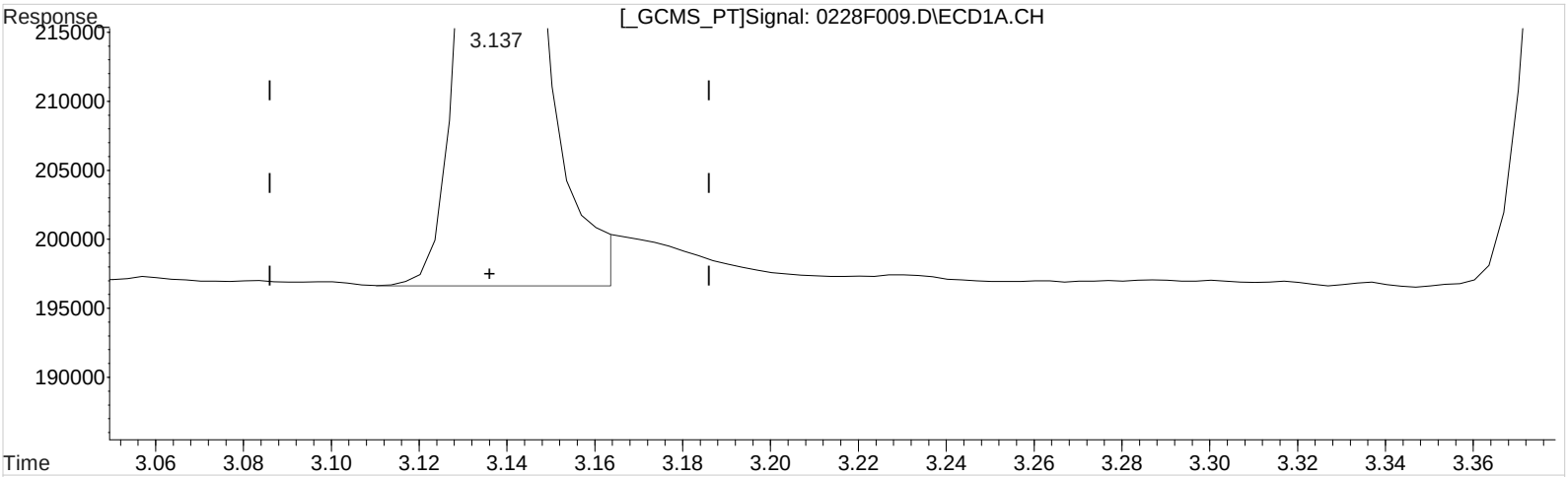
Quantitation Report (Qedit)

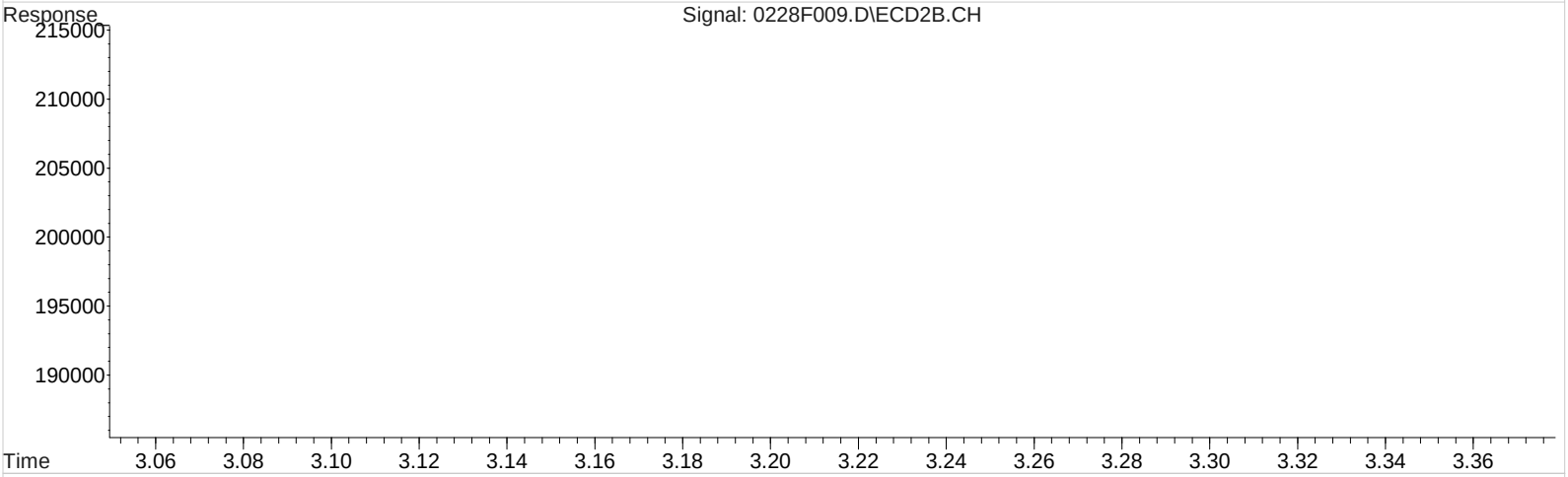
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.137min 47.710 ug/L m

response 717598

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.831min 44.168 ug/L

response 975860

(+) = Expected Retention Time

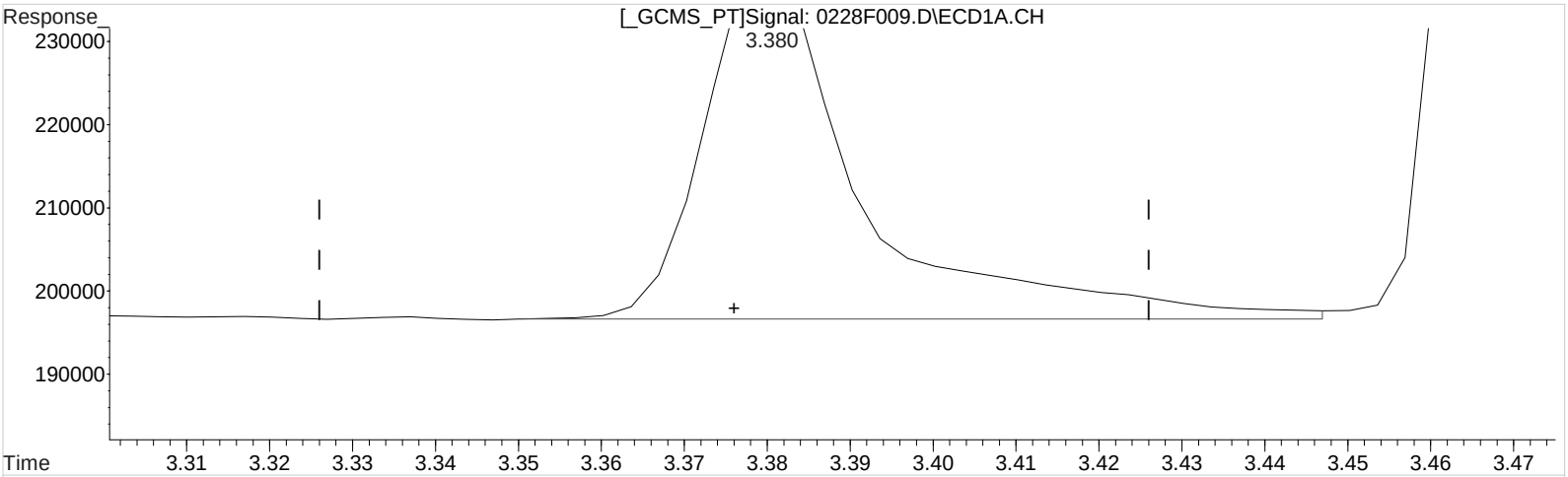
Quantitation Report (Qedit)

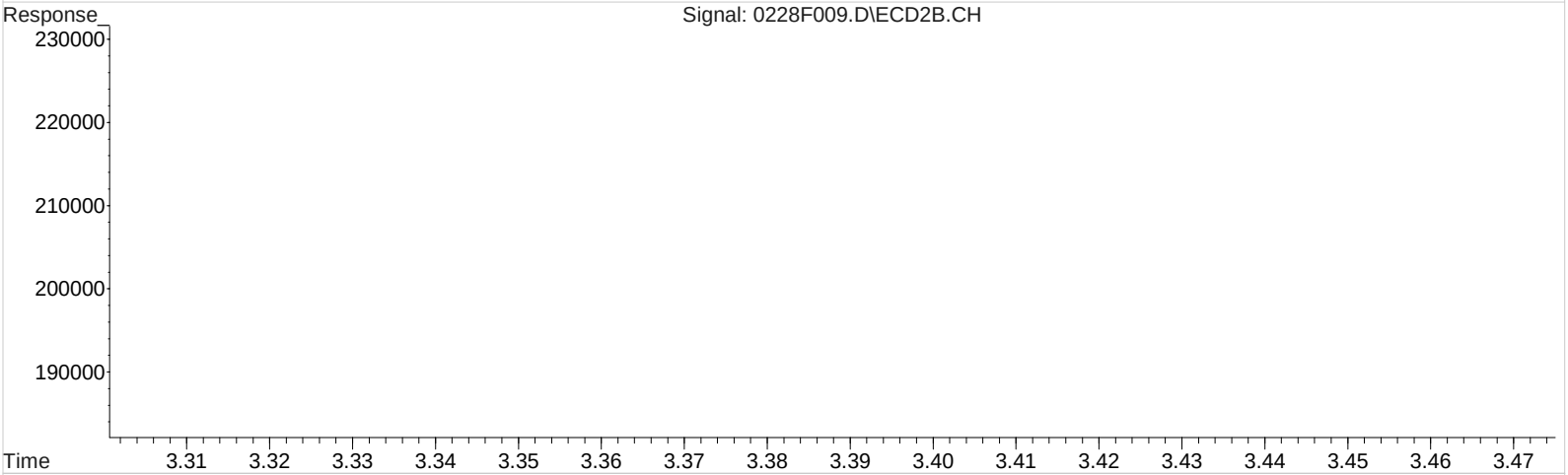
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 55.786 ug/L

response 554512

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 42.939 ug/L

response 707614

(+) = Expected Retention Time

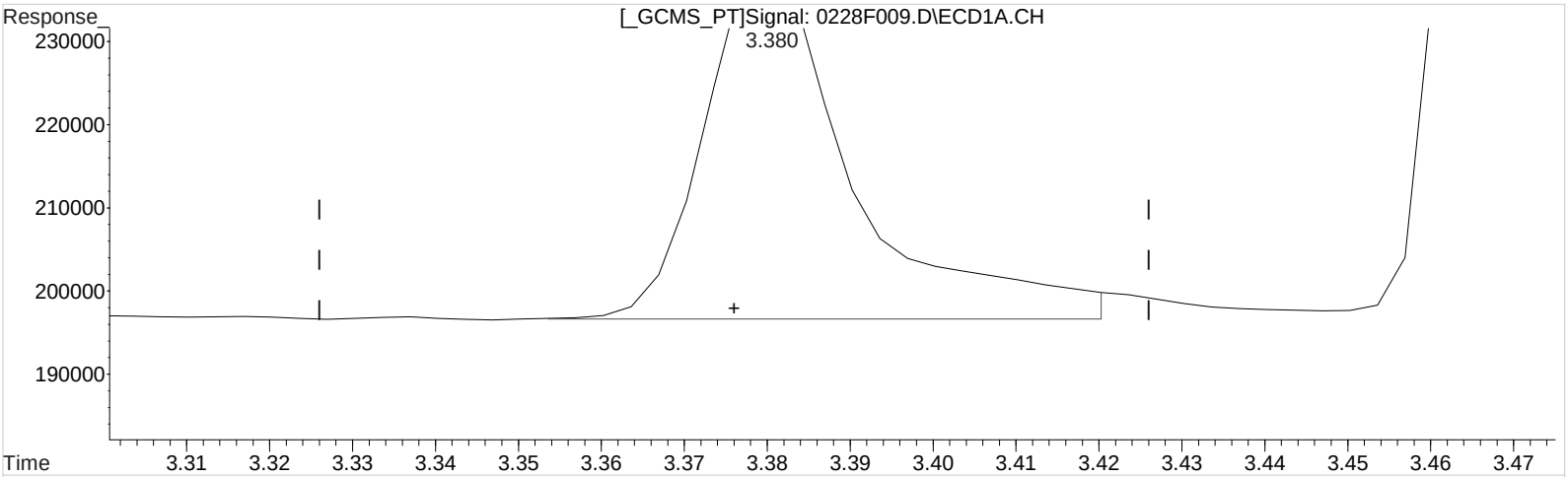
Quantitation Report (Qedit)

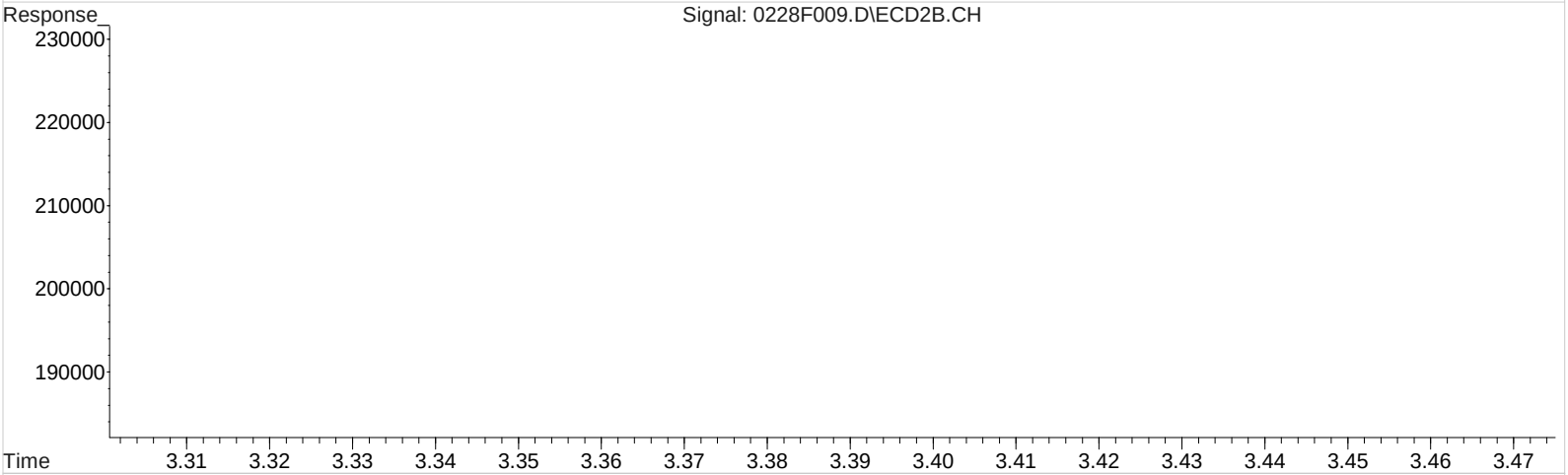
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.380min 52.883 ug/L m

response 527946

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 42.939 ug/L

response 707614

(+) = Expected Retention Time

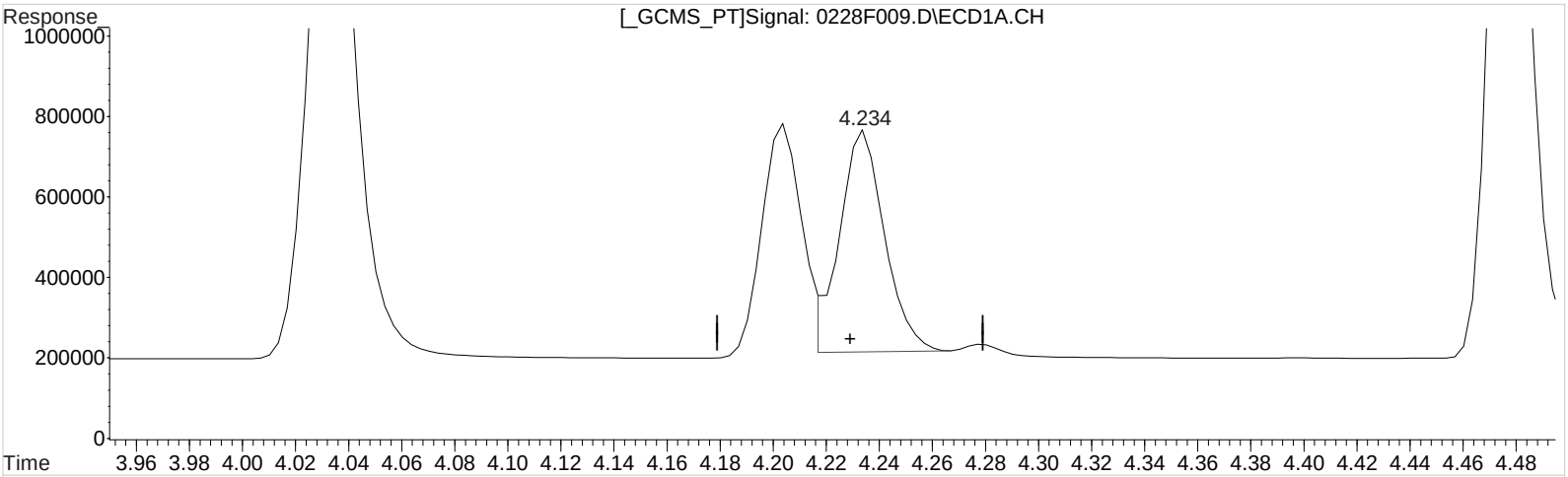
Quantitation Report (Qedit)

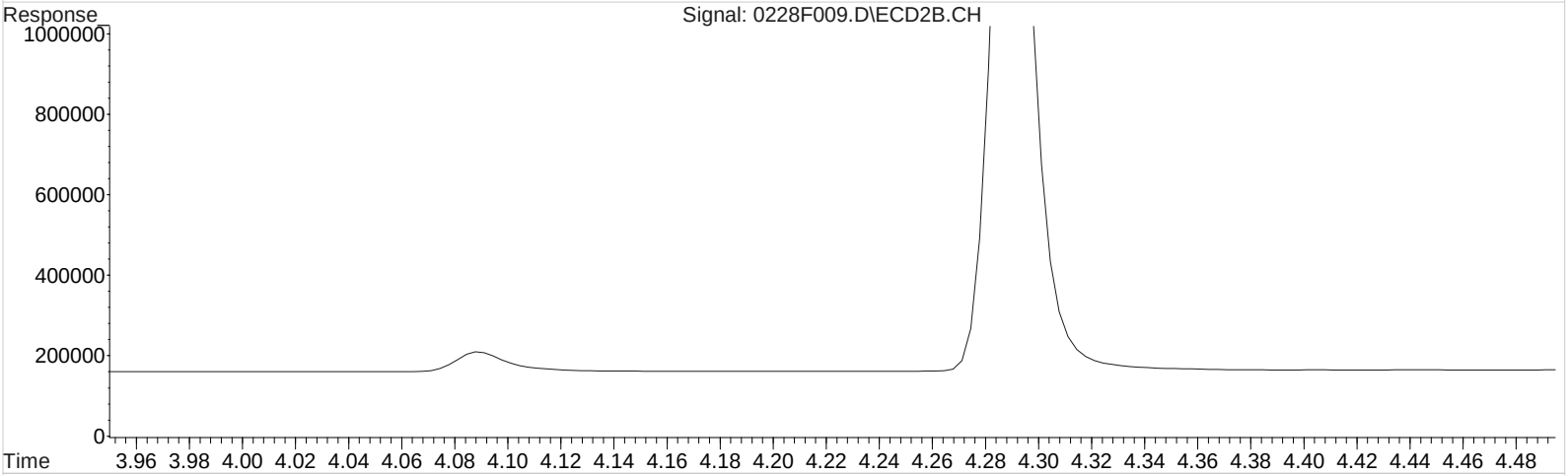
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.234min 45.176 ug/L

response 6319301

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.848min 42.741 ug/L

response 8022672

(+) = Expected Retention Time

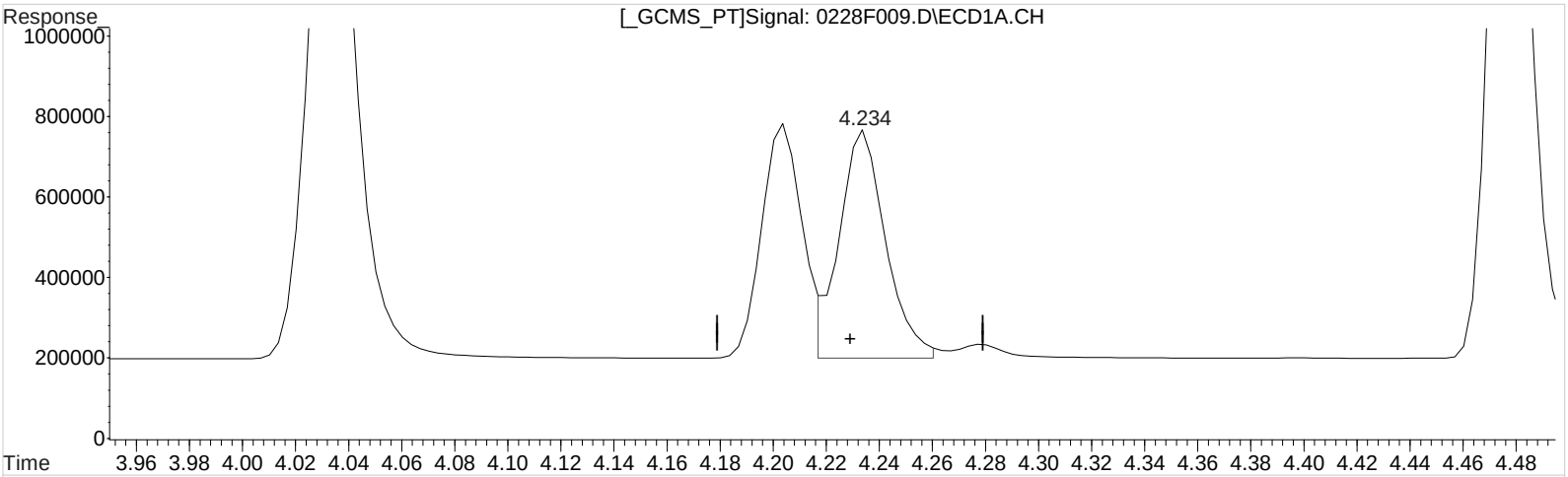
Quantitation Report (Qedit)

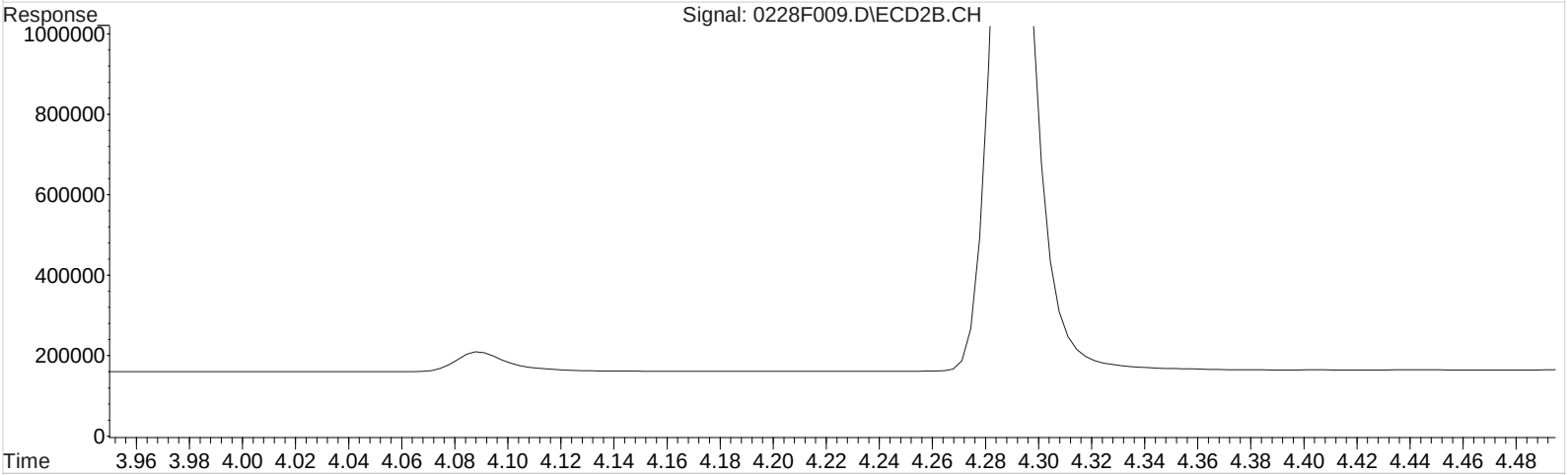
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F009.D Vial: 7
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 9:51 am Operator: MC
Sample : PENTA01-940 50 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:18:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.234min 48.287 ug/L m

response 6723516

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.848min 42.741 ug/L

response 8022672

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:22:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.032	4.719	34413155	43435506	102.249	99.922
		Target Compounds						
1)		3,4-Dichl...	3.138	3.833	1331525	1763970	93.560	79.838
2)		3,5-Dichl...	3.378	4.089	862010	1296503	91.350m	78.674
3)		2,4,6-Tri...	3.478	4.289	26311215	36325037	88.628	87.097
5)		2,4,5-Tri...	4.202	4.783	11366036	15617448	89.447	78.141
6)		3,4,5-Tri...	4.232	4.846	11877626	15048739	90.412	80.172
7)	M	2,3,5,6-T...	4.478	5.079	37783526	53764292	79.375	87.108
8)	M	2,3,4,5-T...	5.018	5.476	26302592	34720321	92.085	84.084
9)	M	Pentachlo...	5.155	5.659	44955036	59841010	100.762	87.035
10)		Pentachlo...	5.155	5.659	44955036	59841010	106.058	91.655

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

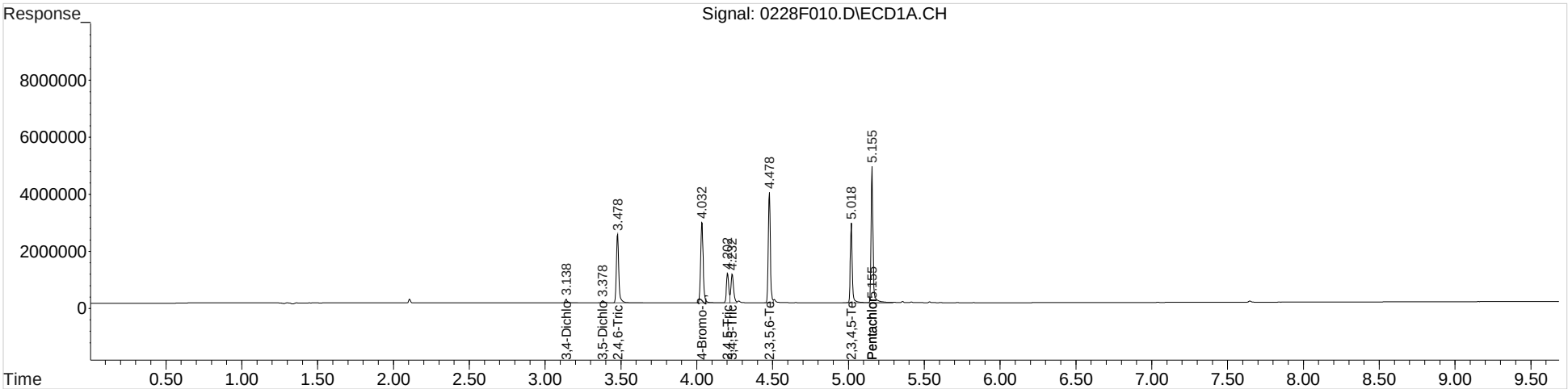
1st JMS 02/28/19
2nd MC 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:22:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



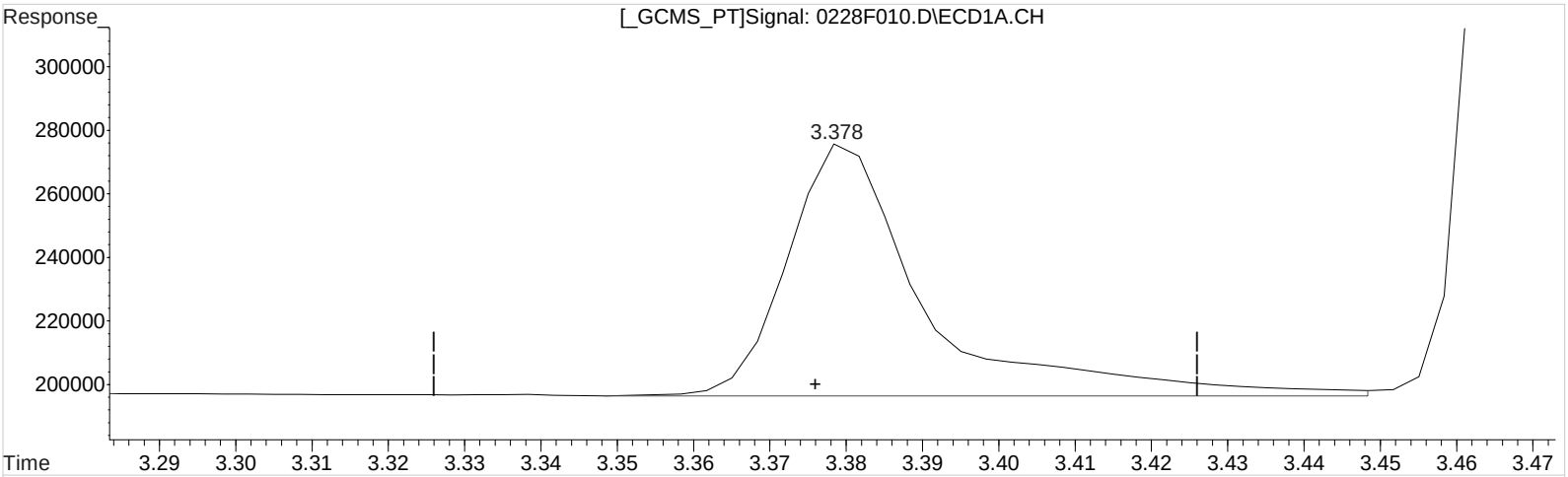
Quantitation Report (Qedit)

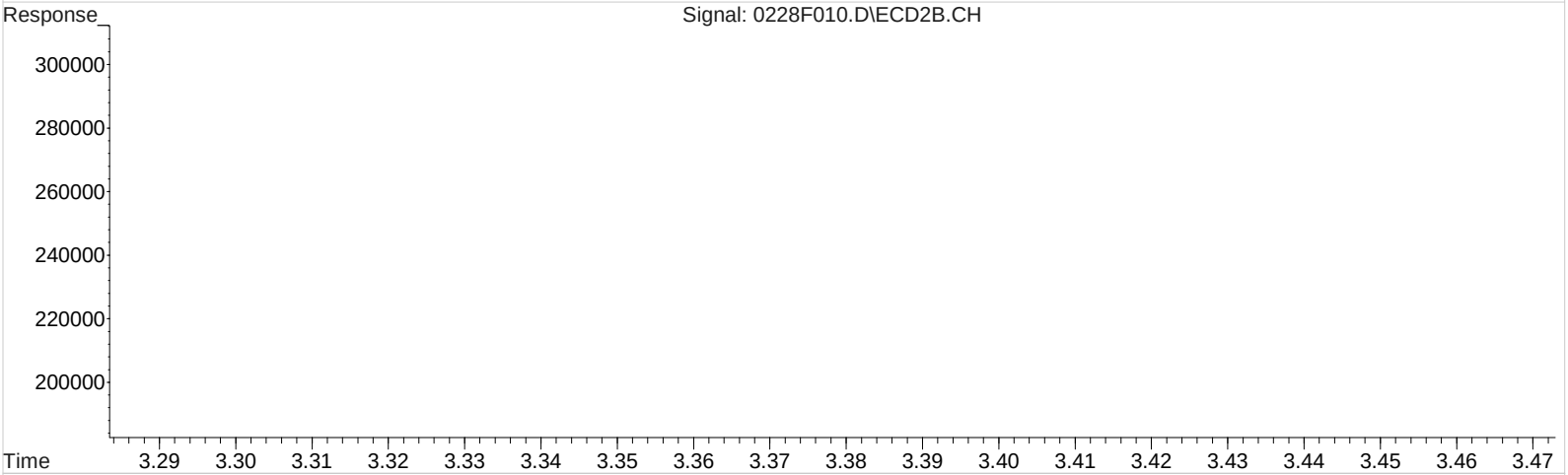
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 107.753 ug/L

response 992711

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 78.674 ug/L

response 1296503

(+) = Expected Retention Time

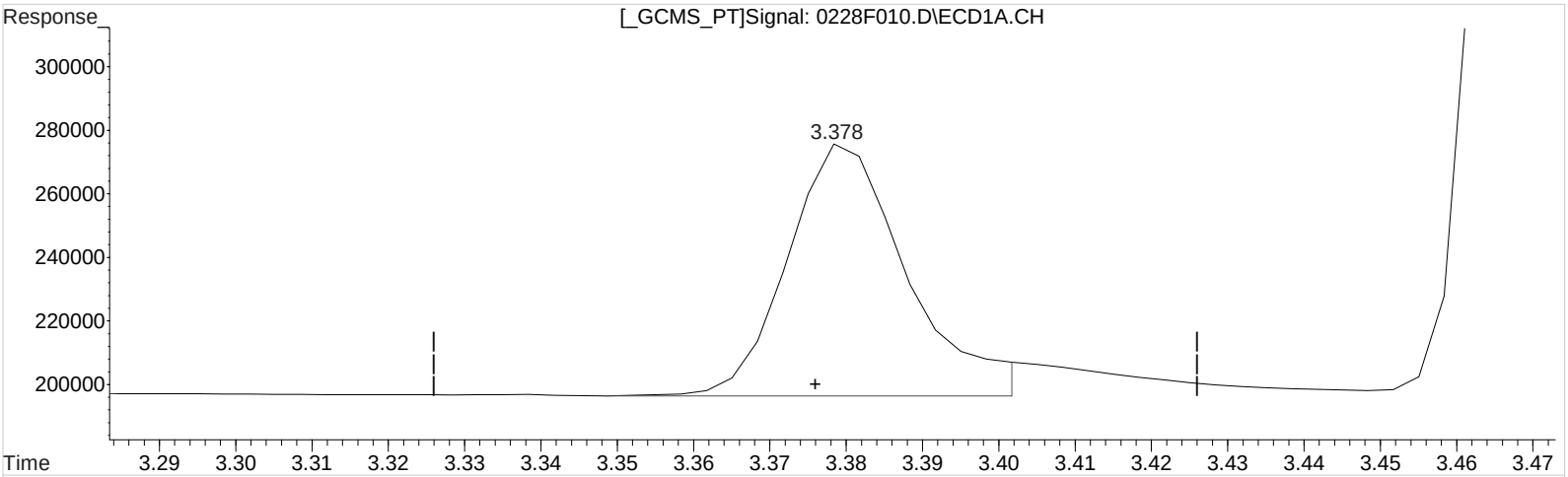
Quantitation Report (Qedit)

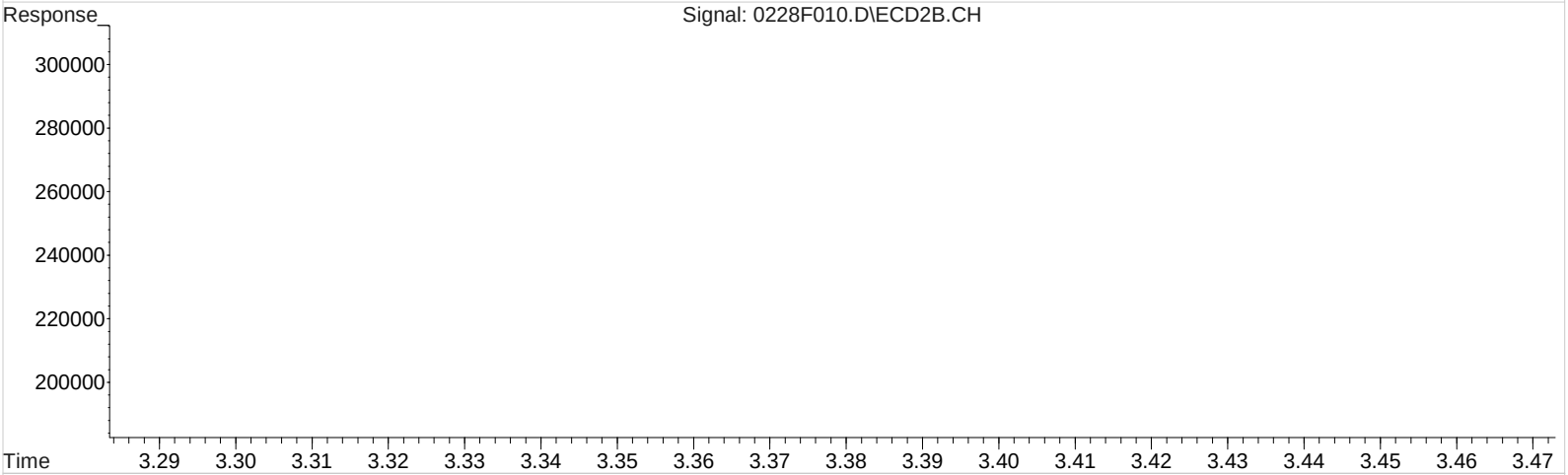
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F010.D Vial: 8
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:10 am Operator: MC
Sample : PENTA01-94N 100 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:21:47 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 91.350 ug/L m

response 862010

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 78.674 ug/L

response 1296503

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:40:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
		System Monitoring Compounds							
4)	S	4-Bromo-2...	4.032	4.720	81814734	111.2E6	251.811	255.909	
		Target Compounds							
1)		3,4-Dichl...	3.139	3.833	2857364	4032207	239.203m	182.500	
2)		3,5-Dichl...	3.379	4.090	1819808	2874954	247.123m	174.458	#
3)		2,4,6-Tri...	3.479	4.290	60385111	91468356	241.870	219.315	
5)		2,4,5-Tri...	4.202	4.783	24998272	37739444	250.979	188.827	
6)		3,4,5-Tri...	4.232	4.846	25742104	36413226	245.950m	193.992	
7)	M	2,3,5,6-T...	4.479	5.076	86546934	134.6E6	181.817	218.076	
8)	M	2,3,4,5-T...	5.016	5.473	58240789	85792304	243.632	207.768	
9)	M	Pentachlo...	5.152	5.656	102.6E6	149.9E6	237.563	218.038	
10)		Pentachlo...	5.152	5.656	102.6E6	149.9E6	250.048	229.611	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

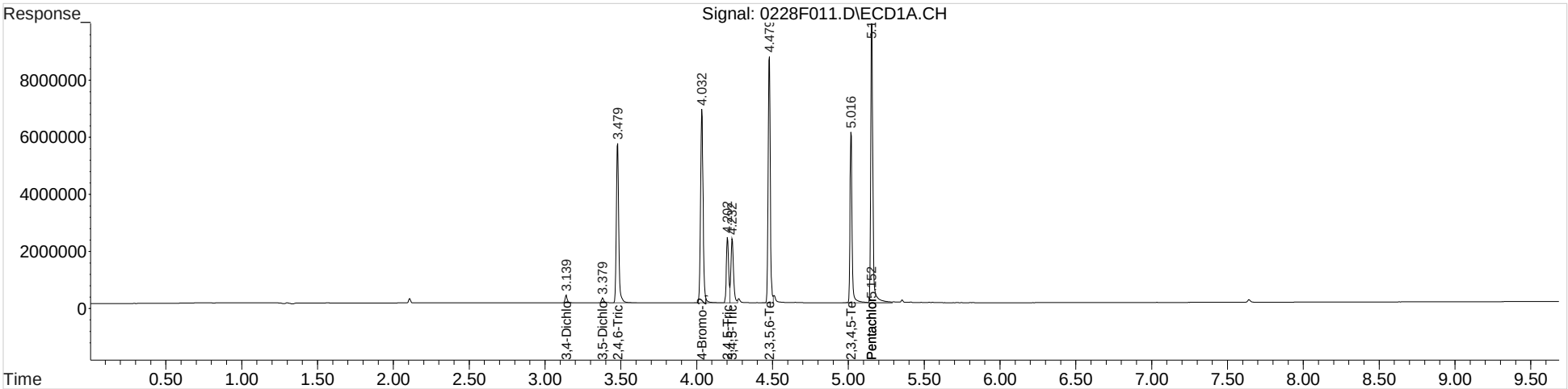
Quantitation Report (QT Reviewed)

1st 02/28/19
2nd 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:40:15 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



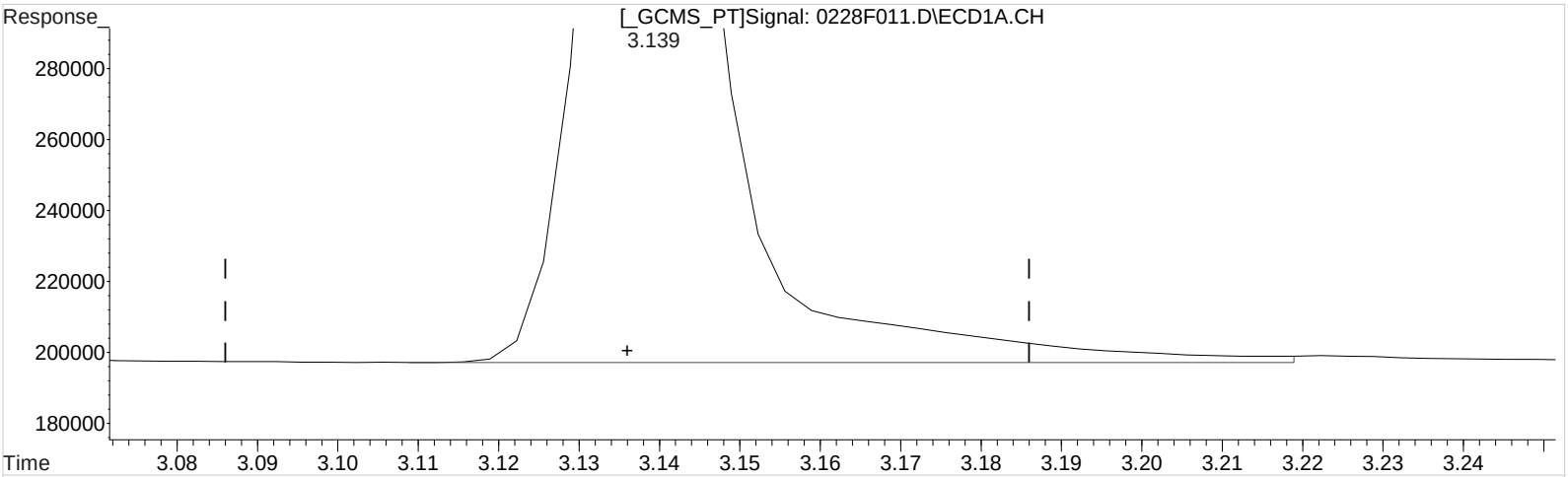
Quantitation Report (Qedit)

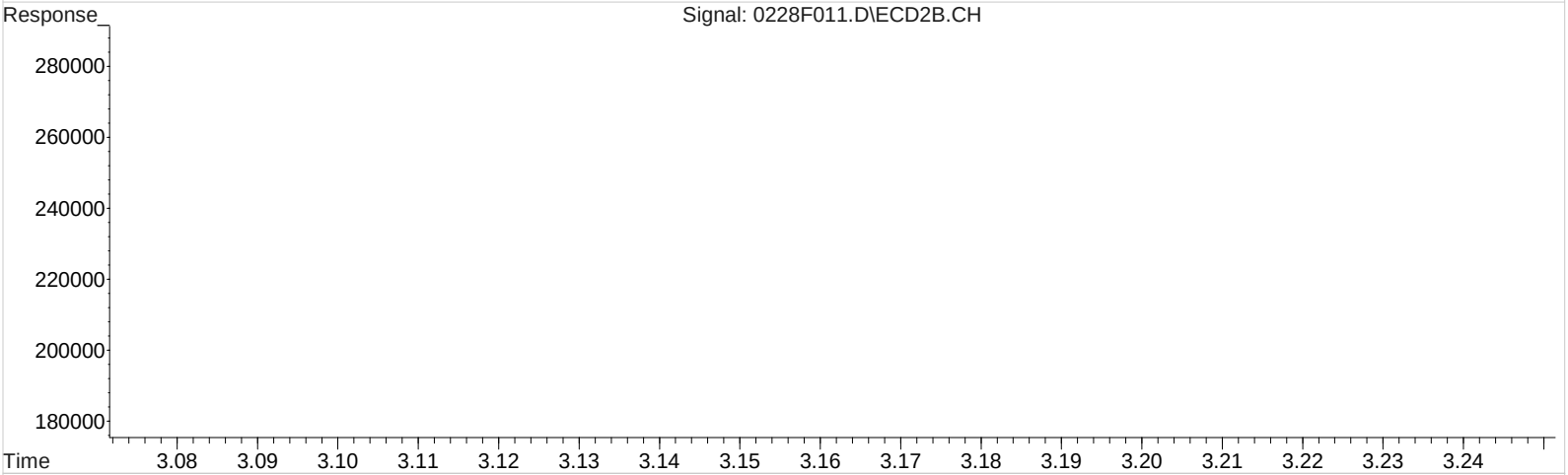
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 239.087 ug/L

response 2856406

Manual Integration:

Before

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 182.500 ug/L

response 4032207

(+) = Expected Retention Time

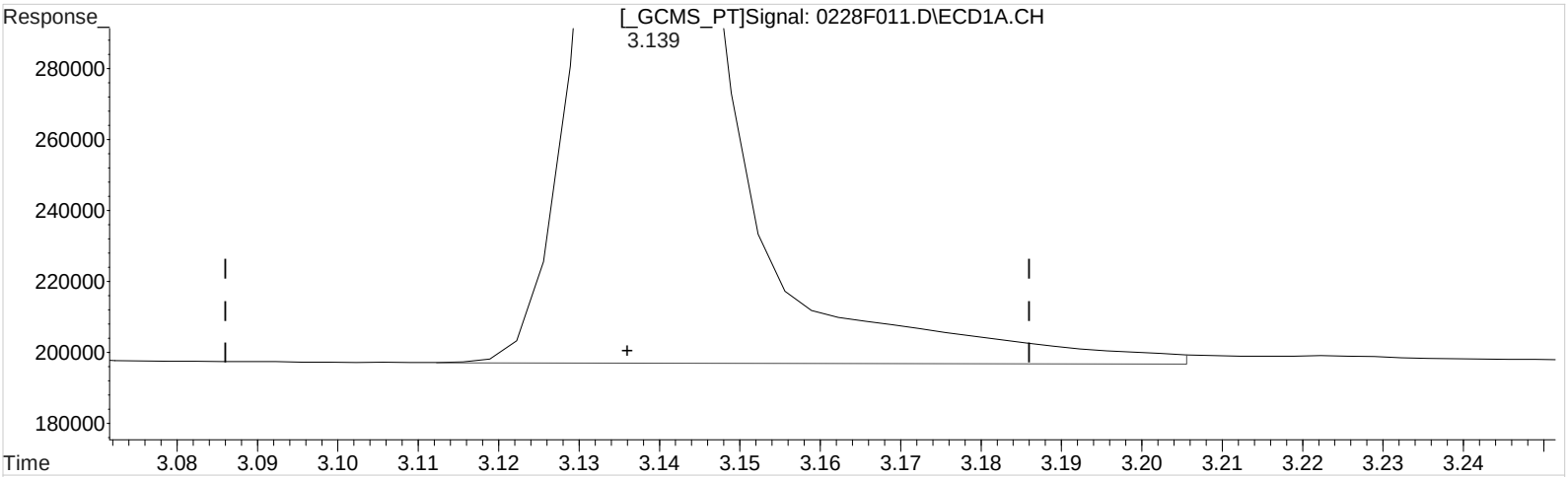
Quantitation Report (Qedit)

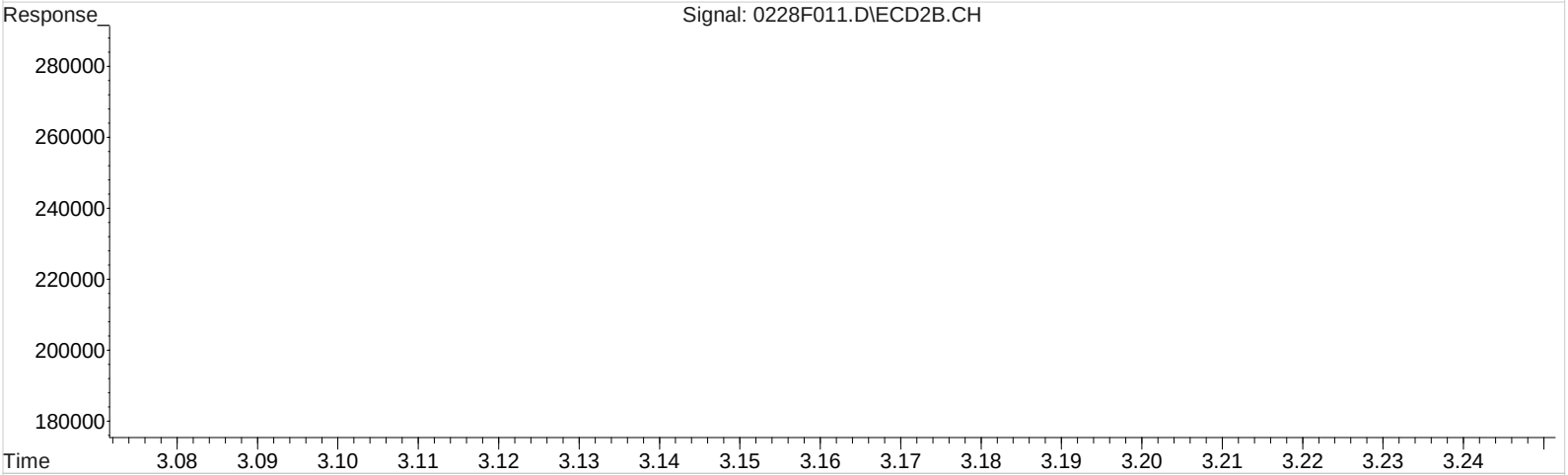
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(1) 3,4-Dichlorophenol

3.139min 239.203 ug/L m

response 2857364

Manual Integration:

After

Baseline/Shoulder

02/28/19

(1) 3,4-Dichlorophenol #2

3.833min 182.500 ug/L

response 4032207

(+) = Expected Retention Time

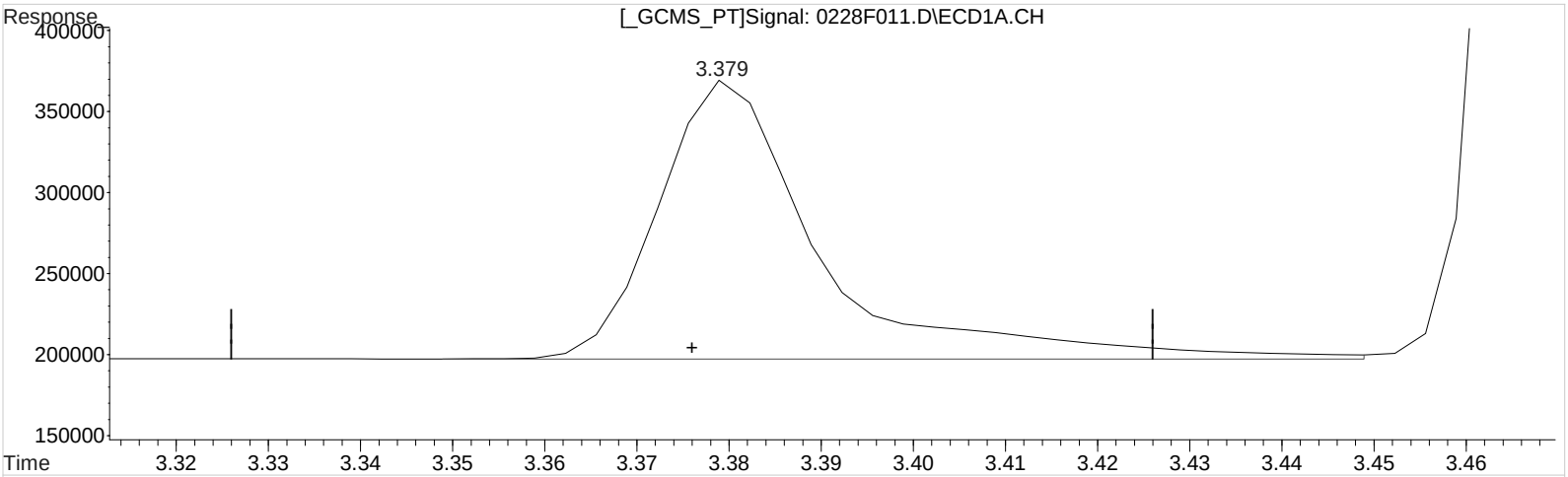
Quantitation Report (Qedit)

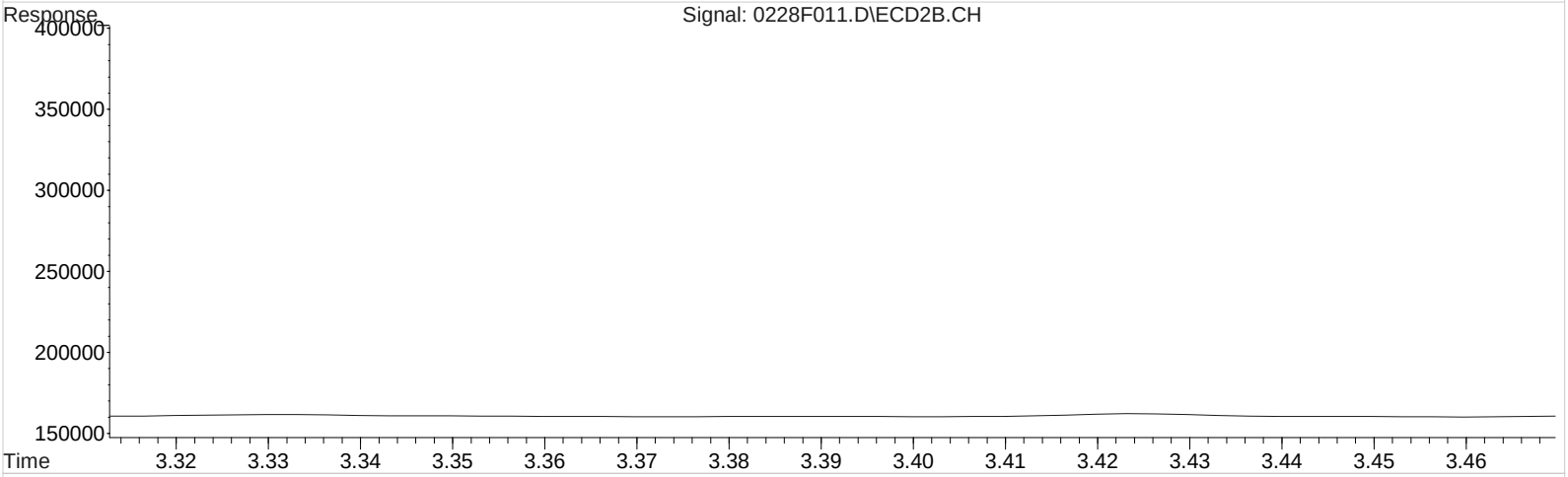
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 331.758 ug/L

response 2074587

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 174.458 ug/L

response 2874954

(+) = Expected Retention Time

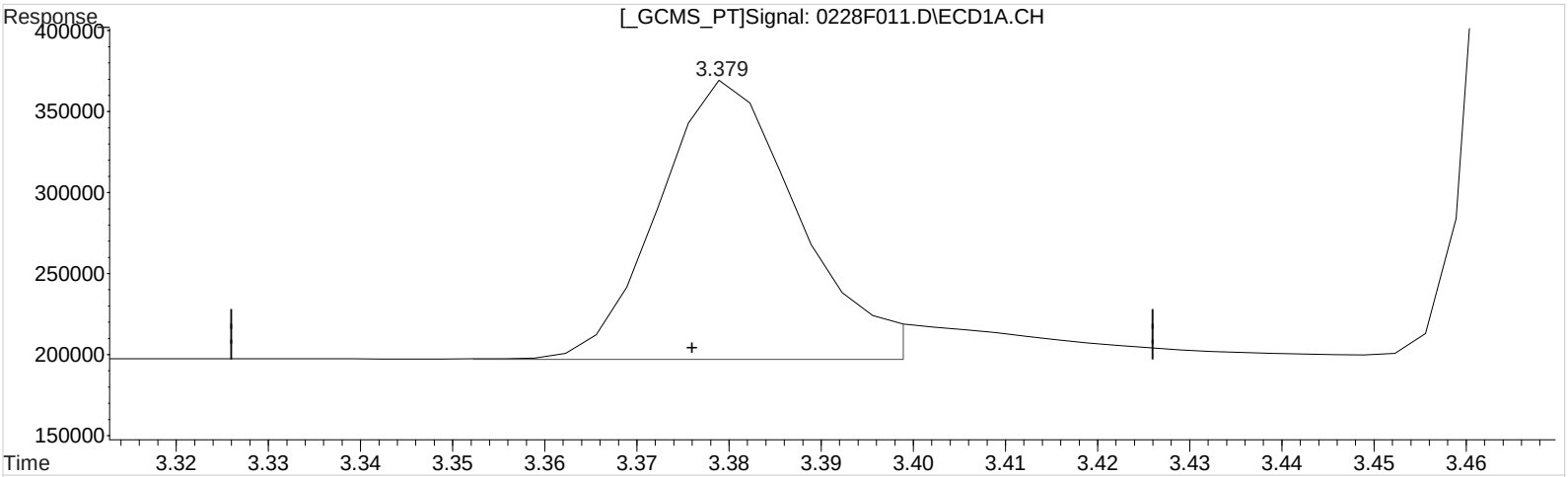
Quantitation Report (Qedit)

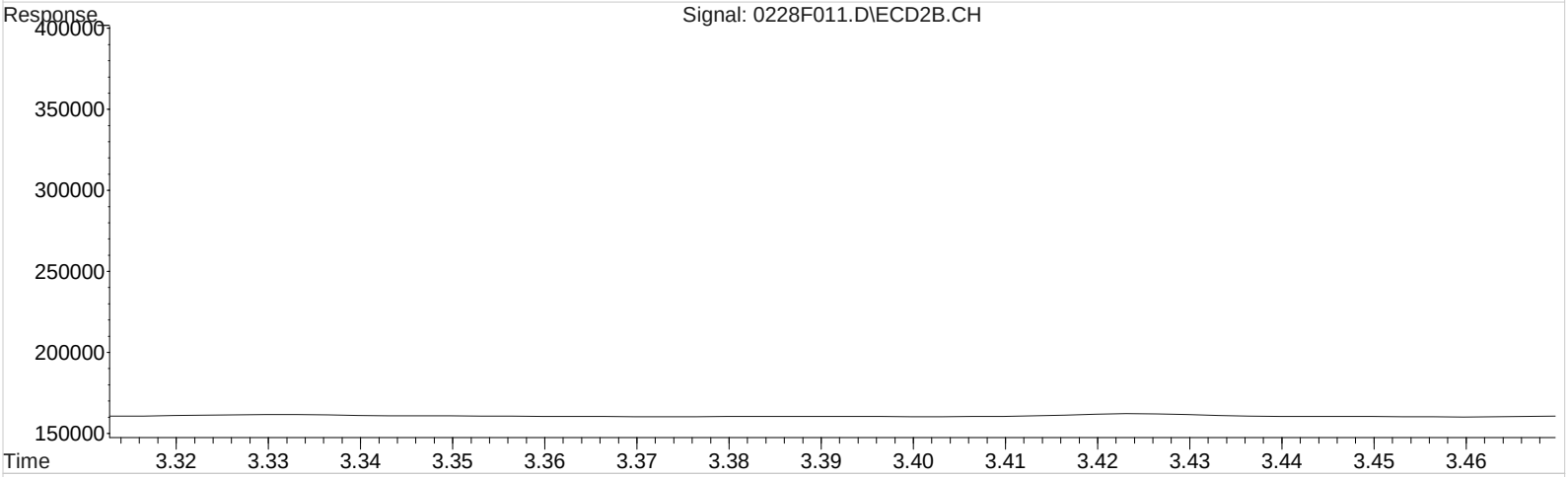
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min 247.123 ug/L m

response 1819808

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 174.458 ug/L

response 2874954

(+) = Expected Retention Time

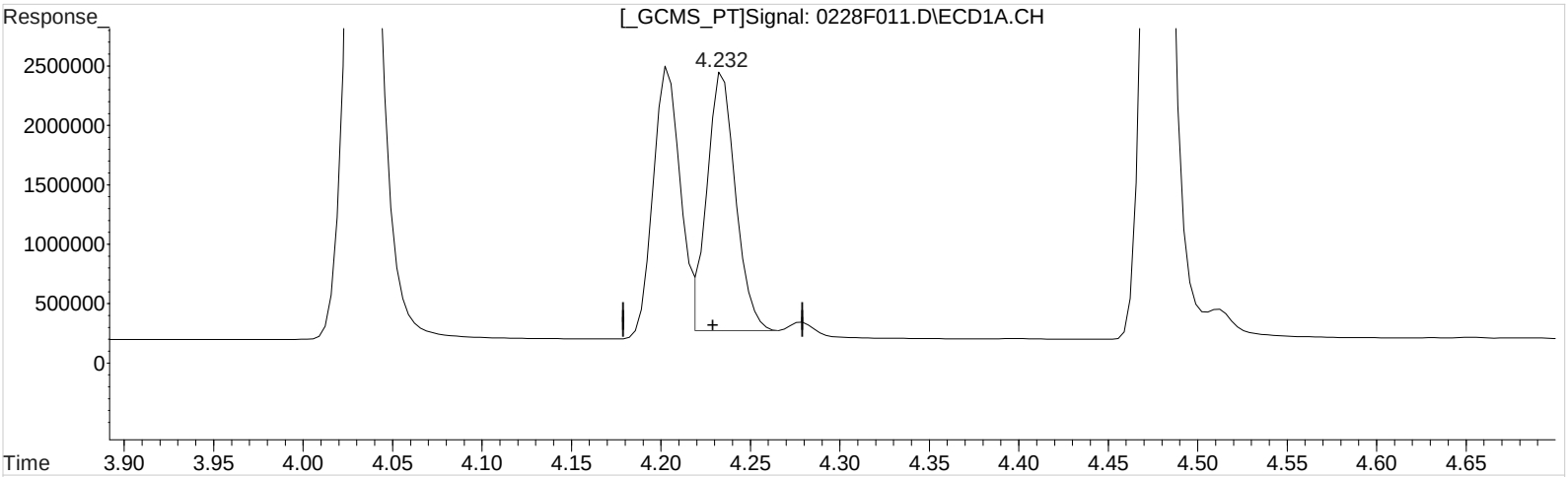
Quantitation Report (Qedit)

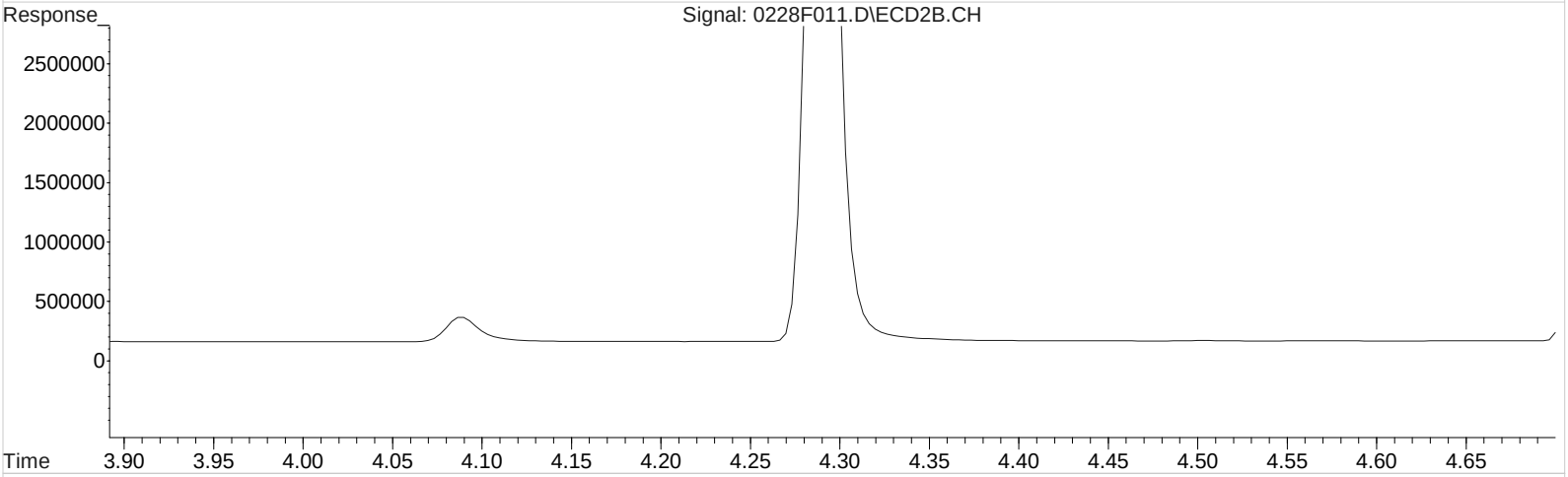
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min 214.424 ug/L

response 23588772

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.846min 193.992 ug/L

response 36413226

(+) = Expected Retention Time

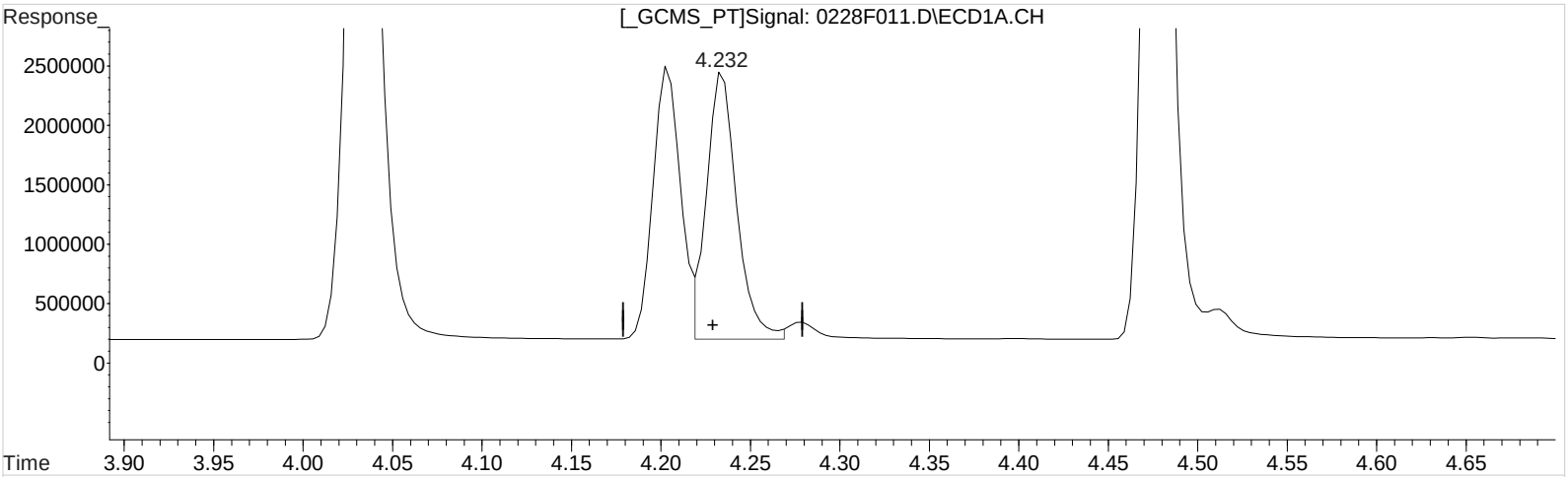
Quantitation Report (Qedit)

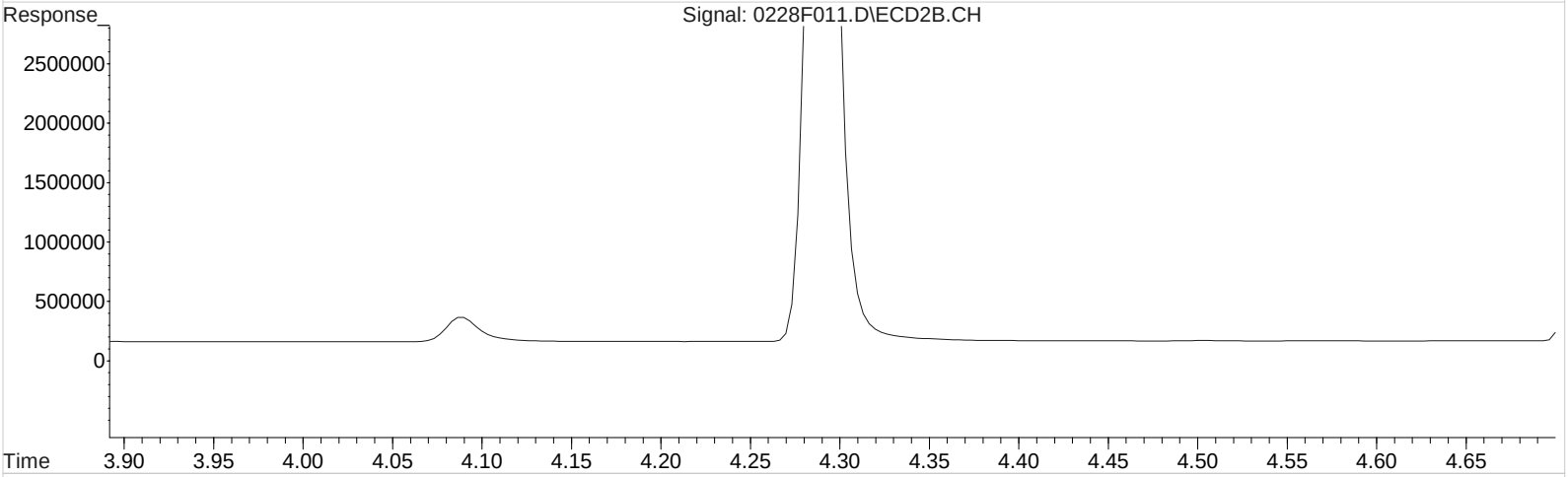
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F011.D Vial: 9
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:28 am Operator: MC
Sample : PENTA01-94M 250 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:38:27 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min 245.950 ug/L m

response 25742104

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.846min 193.992 ug/L

response 36413226

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:02:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.034	4.718	148.9E6	219.7E6	481.796	505.496
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D. d
9)	M	Pentachlo...	5.154	5.658	187.0E6	302.6E6	453.396	440.083
10)		Pentachlo...	5.154	5.658	187.0E6	302.6E6	477.226	463.441

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

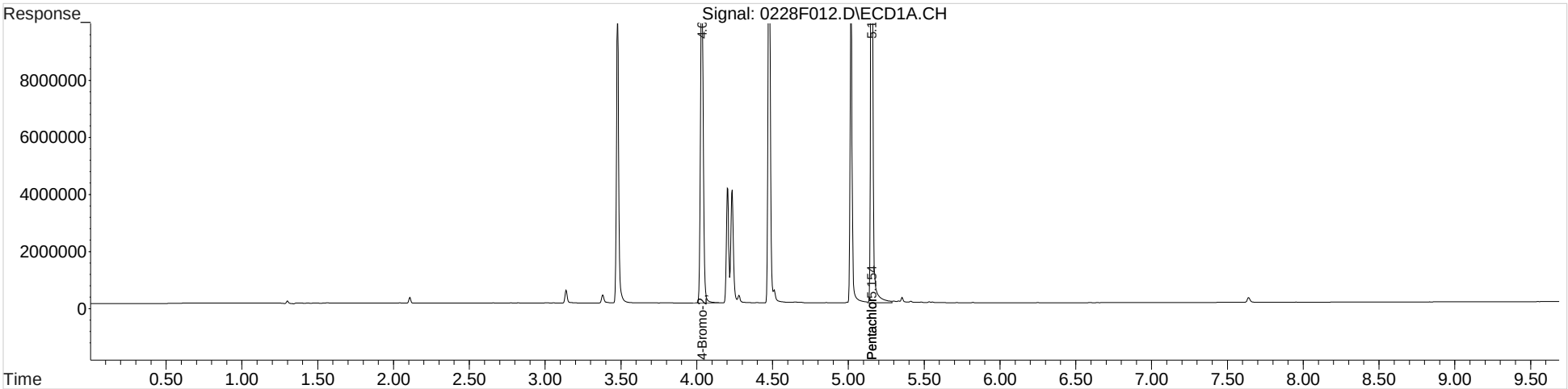
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:02:19 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



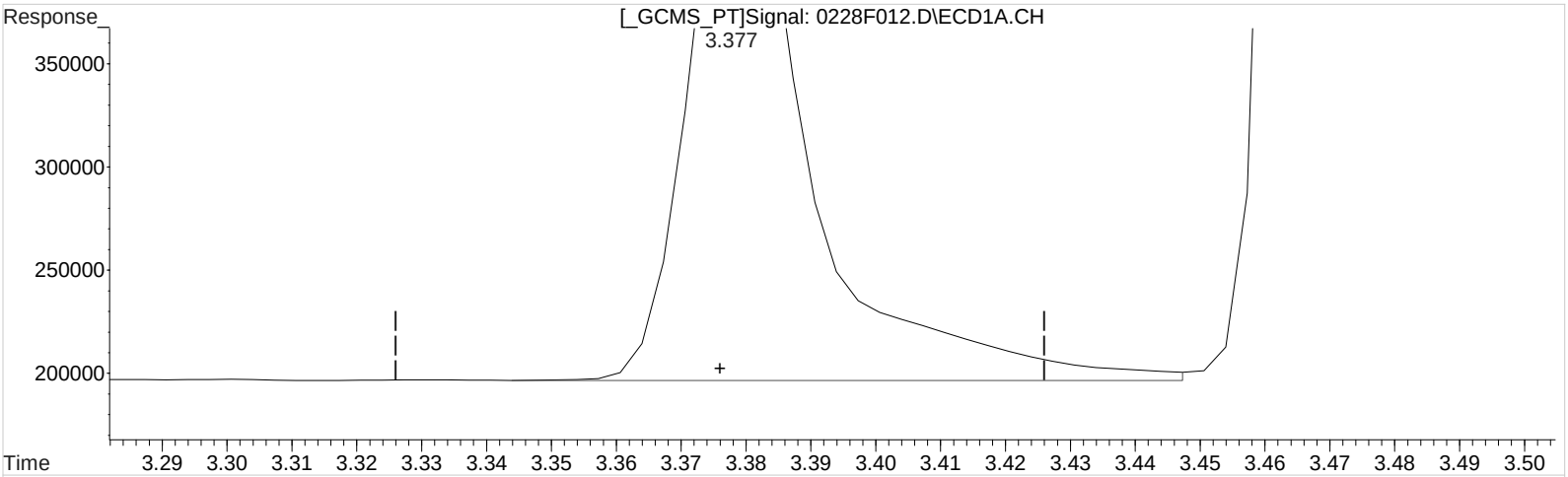
Quantitation Report (Qedit)

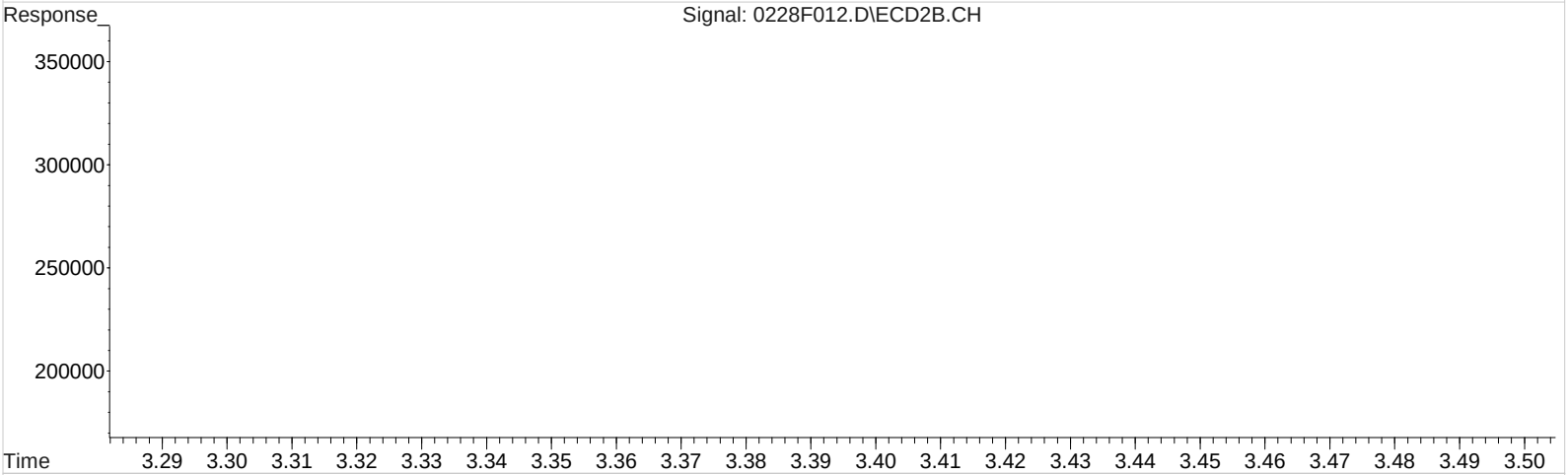
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:57:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min -1.000 ug/L

response 3515486

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 308.529 ug/L

response 5084362

(+) = Expected Retention Time

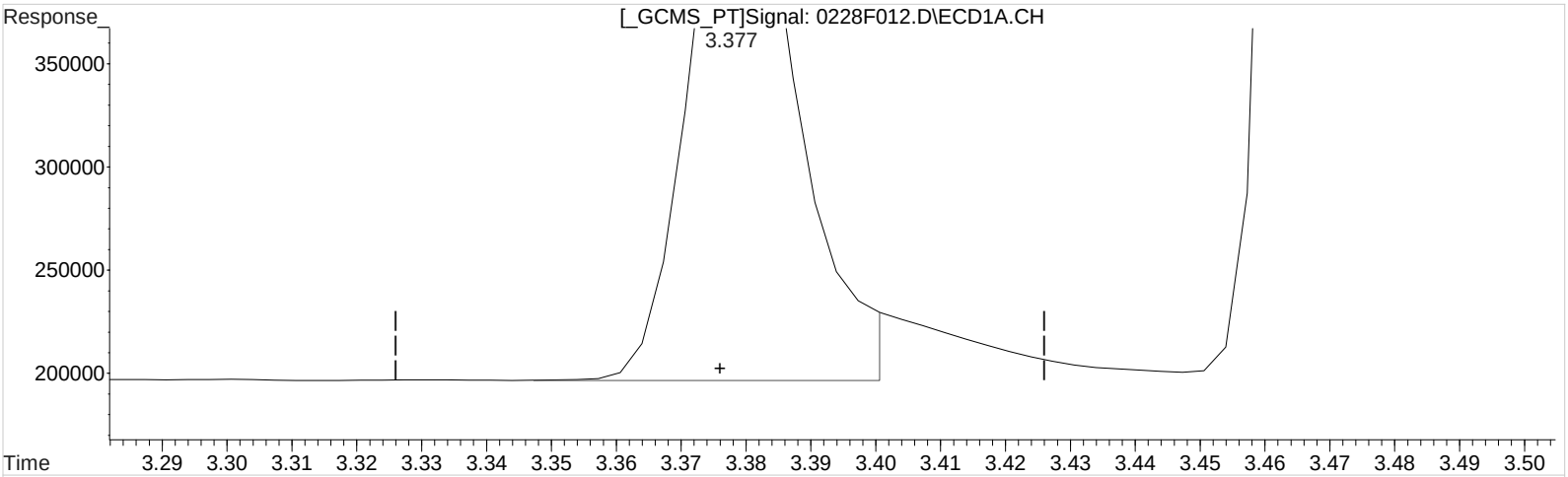
Quantitation Report (Qedit)

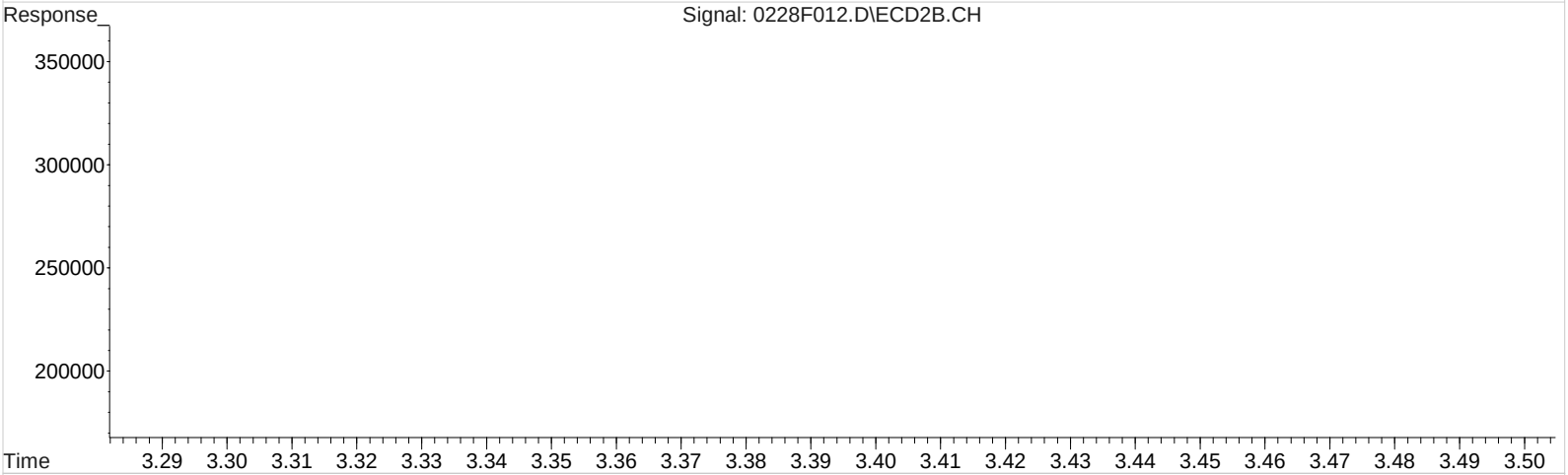
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F012.D Vial: 10
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 10:47 am Operator: MC
Sample : PENTA01-95G 500 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 10:57:49 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.377min -1.000 ug/L m

response 3148268

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.088min 308.529 ug/L

response 5084362

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:03:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.032	4.720	275.5E6	454.2E6	1004.956	1044.829
		Target Compounds						
1)		3,4-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
2)		3,5-Dichl...	0.000	0.000	0	0	N.D. d	N.D. d
3)		2,4,6-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
5)		2,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
6)		3,4,5-Tri...	0.000	0.000	0	0	N.D. d	N.D. d
7)	M	2,3,5,6-T...	0.000	0.000	0	0	N.D. d	N.D. d
8)	M	2,3,4,5-T...	0.000	0.000	0	0	N.D. d	N.D. d
9)	M	Pentachlo...	5.152	5.657	351.1E6	624.5E6	951.331	908.276
10)		Pentachlo...	5.152	5.657	351.1E6	624.5E6	1001.338	956.483

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

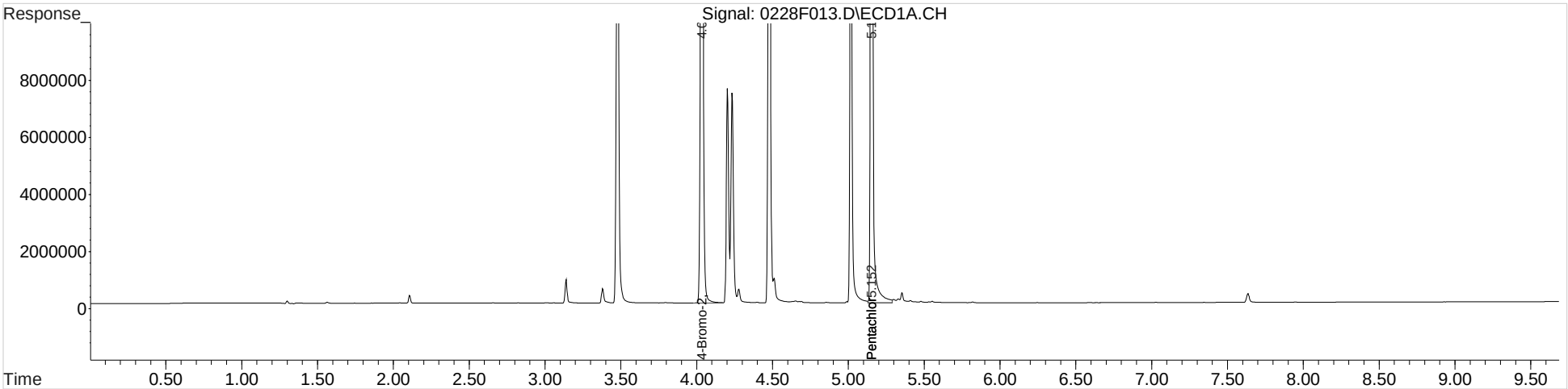
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:03:05 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



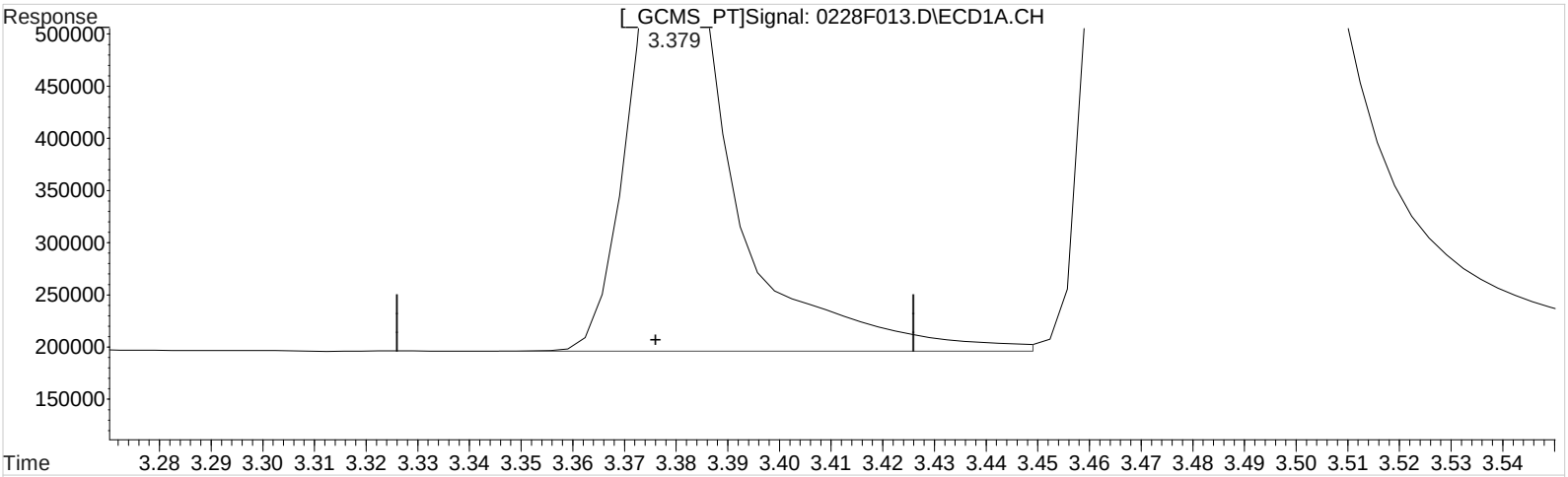
Quantitation Report (Qedit)

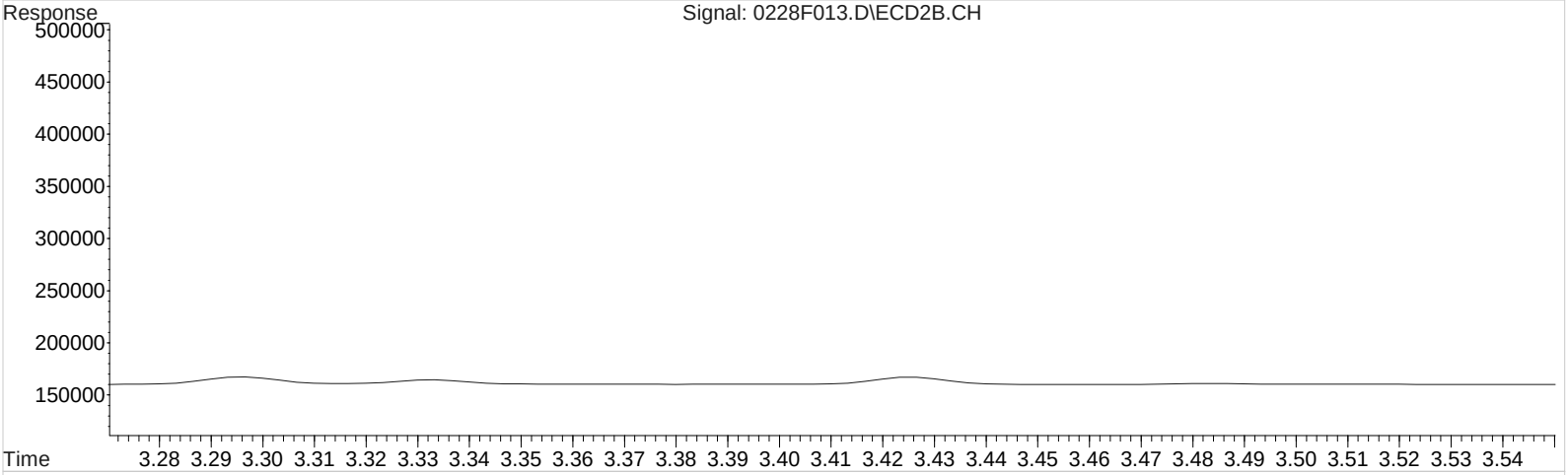
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min -1.000 ug/L

response 6094712

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 574.054 ug/L

response 9460033

(+) = Expected Retention Time

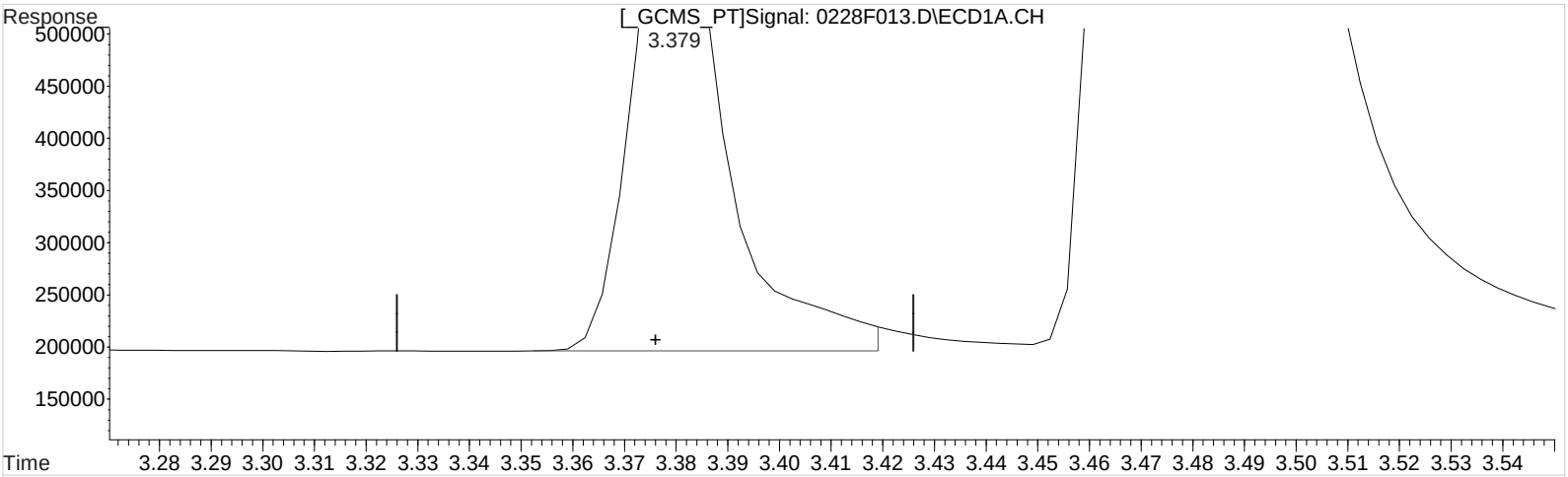
Quantitation Report (Qedit)

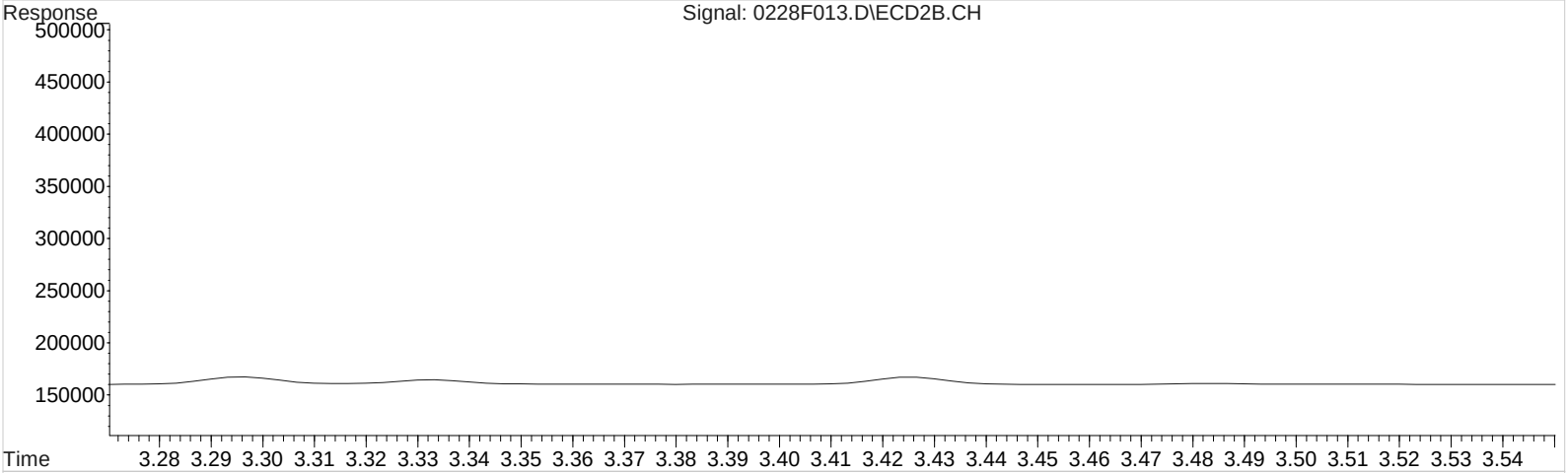
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.379min -1.000 ug/L m

response 5889814

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.090min 574.054 ug/L

response 9460033

(+) = Expected Retention Time

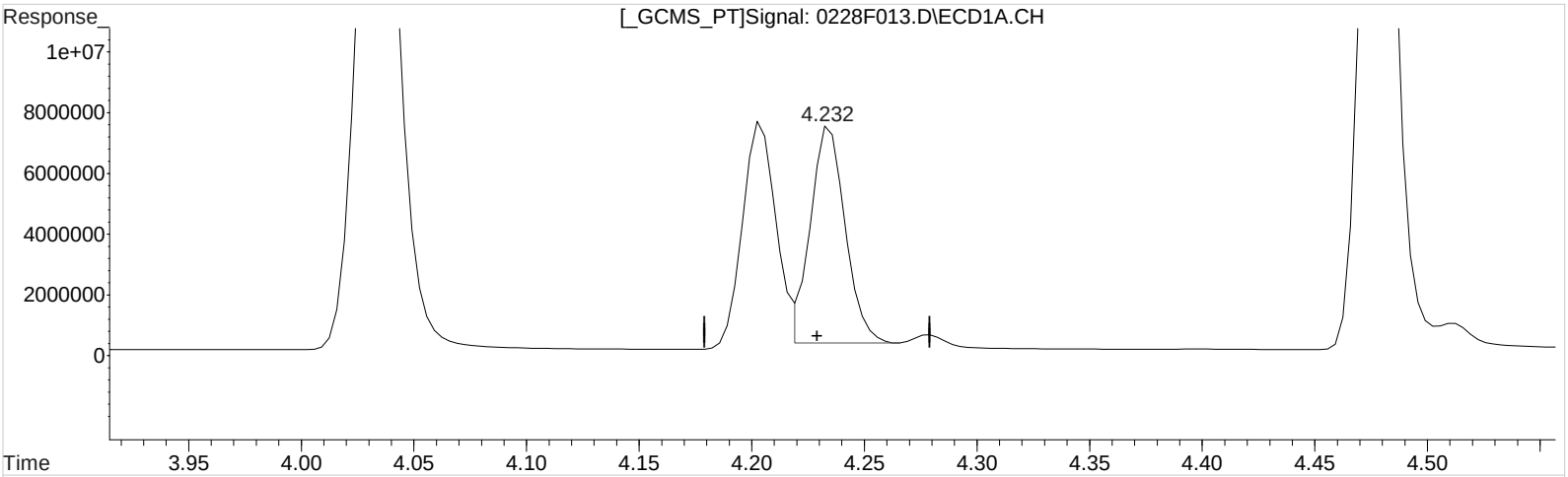
Quantitation Report (Qedit)

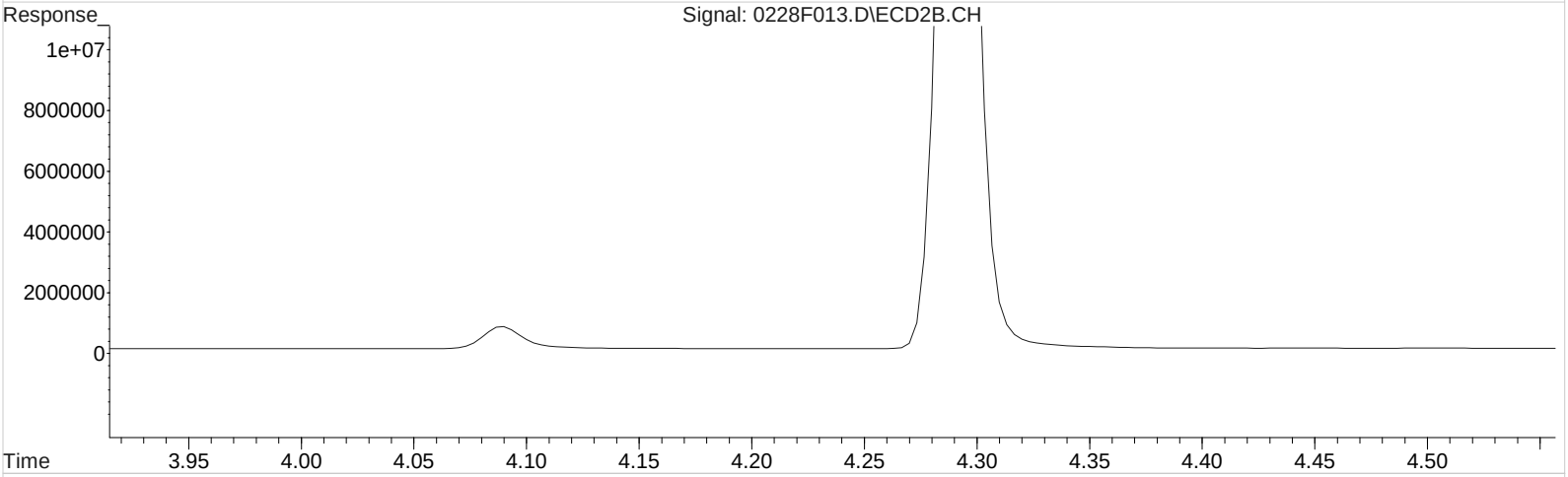
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min -1.000 ug/L

response 74934079

Manual Integration:

Before

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 737.496 ug/L

response 138431346

(+) = Expected Retention Time

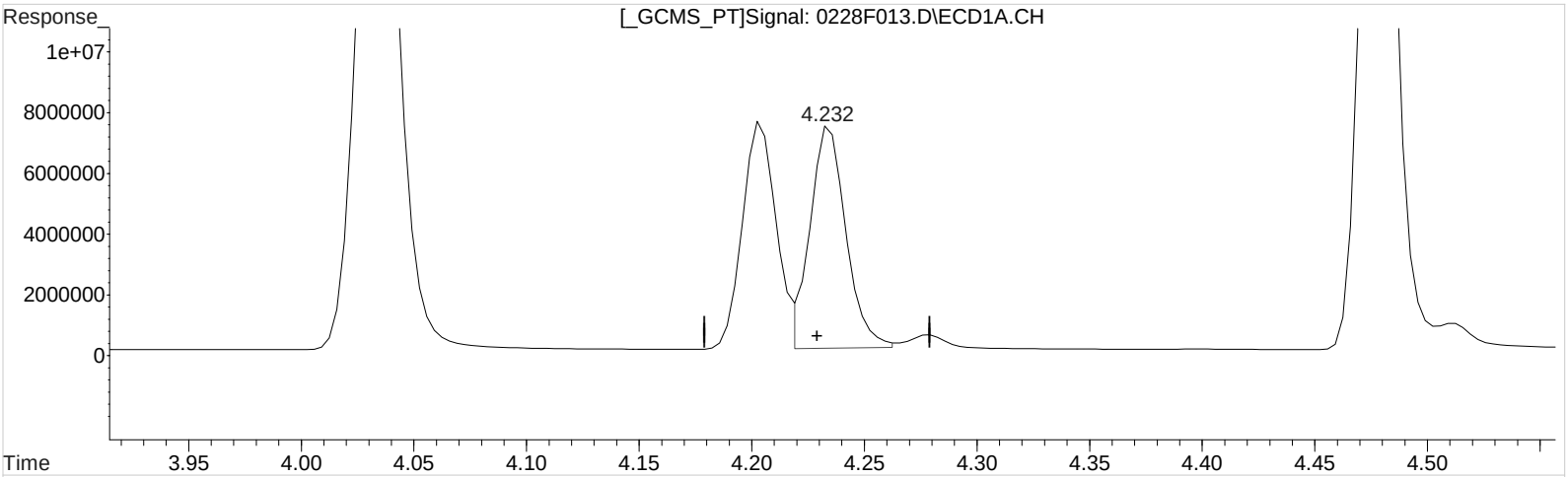
Quantitation Report (Qedit)

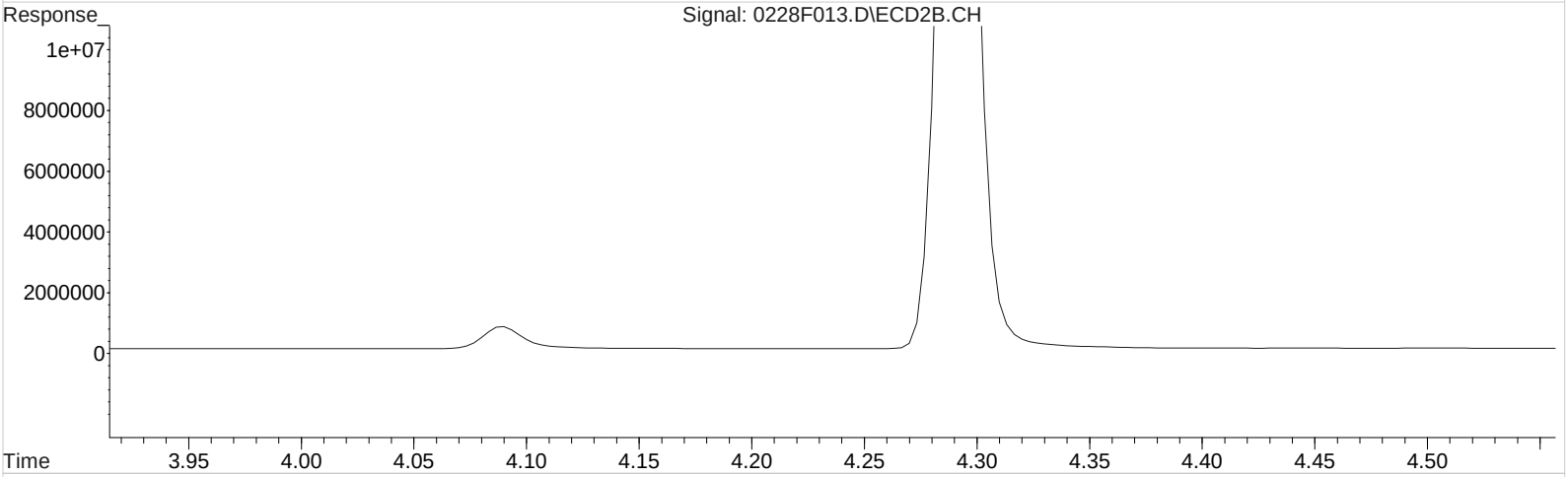
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F013.D Vial: 11
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:05 am Operator: MC
Sample : PENTA01-95H 1000 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:15:28 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(6) 3,4,5-Trichlorophenol

4.232min -1.000 ug/L m

response 79254186

Manual Integration:

After

Baseline/Shoulder

02/28/19

(6) 3,4,5-Trichlorophenol #2

4.847min 737.496 ug/L

response 138431346

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:00:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	4.035	4.719	1168028	983474	2.544	2.262
		Target Compounds						
1)		3,4-Dichl...	3.138	3.832	45256	55247	2.218	2.501
2)		3,5-Dichl...	3.378	4.089	31638	44372	2.469m	2.693
3)		2,4,6-Tri...	3.478	4.289	951850	996024	2.425	2.388
5)		2,4,5-Tri...	4.205	4.785	468262	535226	2.569	2.678
6)		3,4,5-Tri...	4.235	4.849	464016	493606	2.630	2.630
7)	M	2,3,5,6-T...	4.478	5.079	1355696	1503718	2.848	2.436m
8)	M	2,3,4,5-T...	5.018	5.472	1121382	1115328	2.467m	2.701
9)	M	Pentachlo...	5.155	5.655	1532111	1786099	2.401	2.598m
10)		Pentachlo...	5.155	5.655	1532111	1782521	2.528	2.730m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

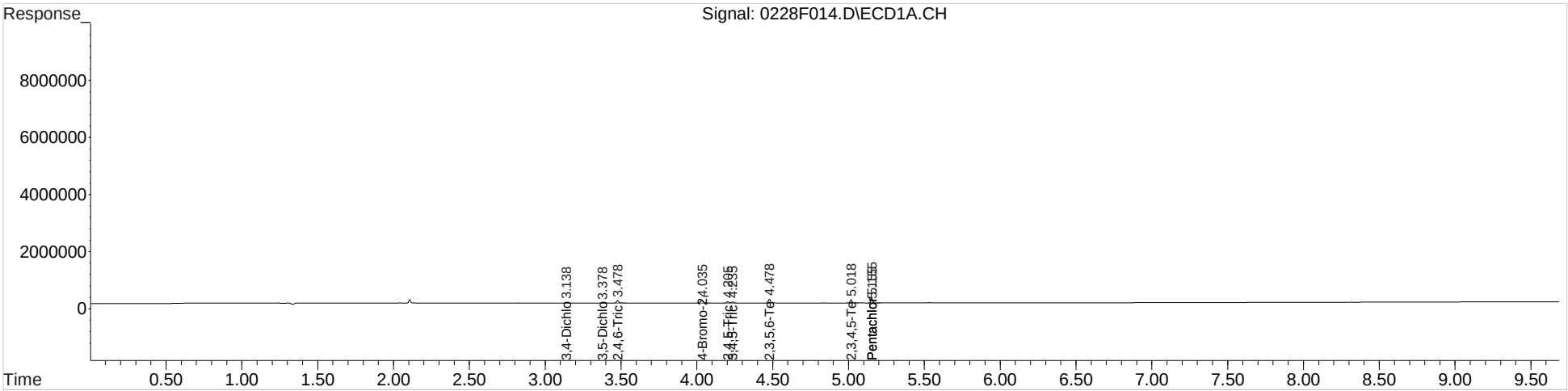
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:00:33 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



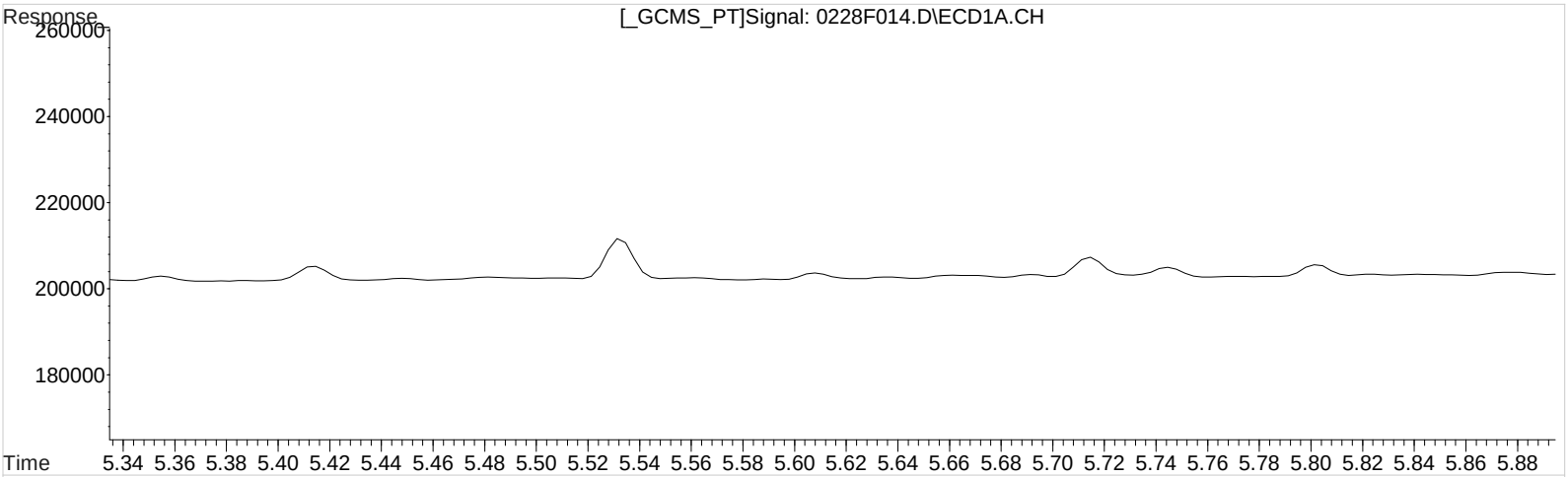
Quantitation Report (Qedit)

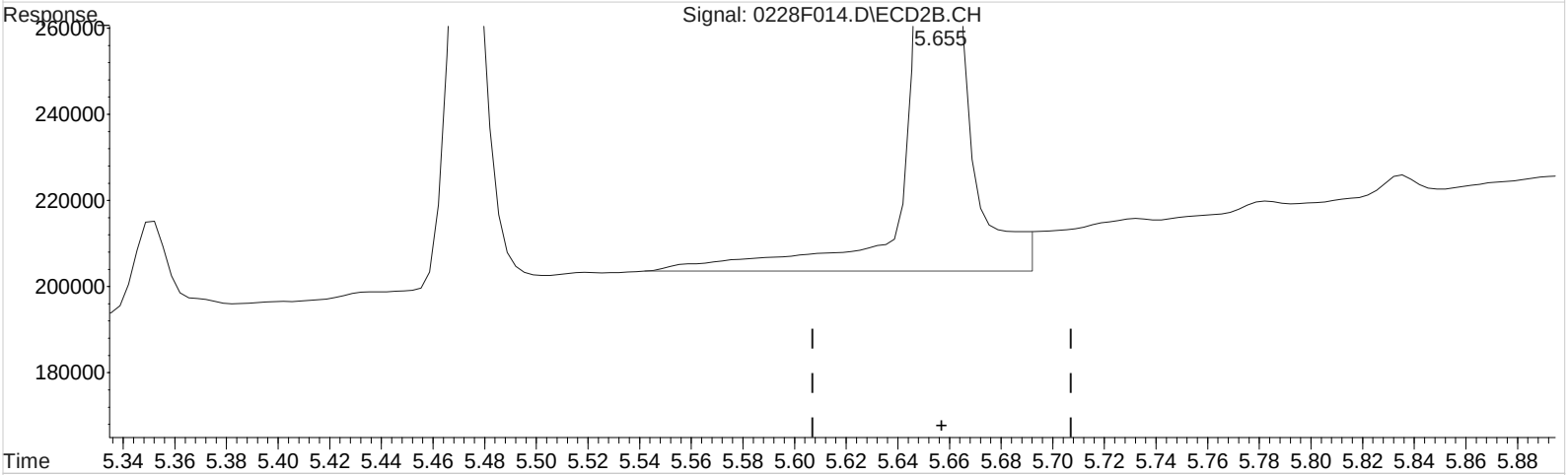
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.155min 2.528 ug/L

response 1532111

Manual Integration:

Before

02/28/19

(10) Pentachloroanisole #2

5.655min 3.364 ug/L

response 2196034

(+) = Expected Retention Time

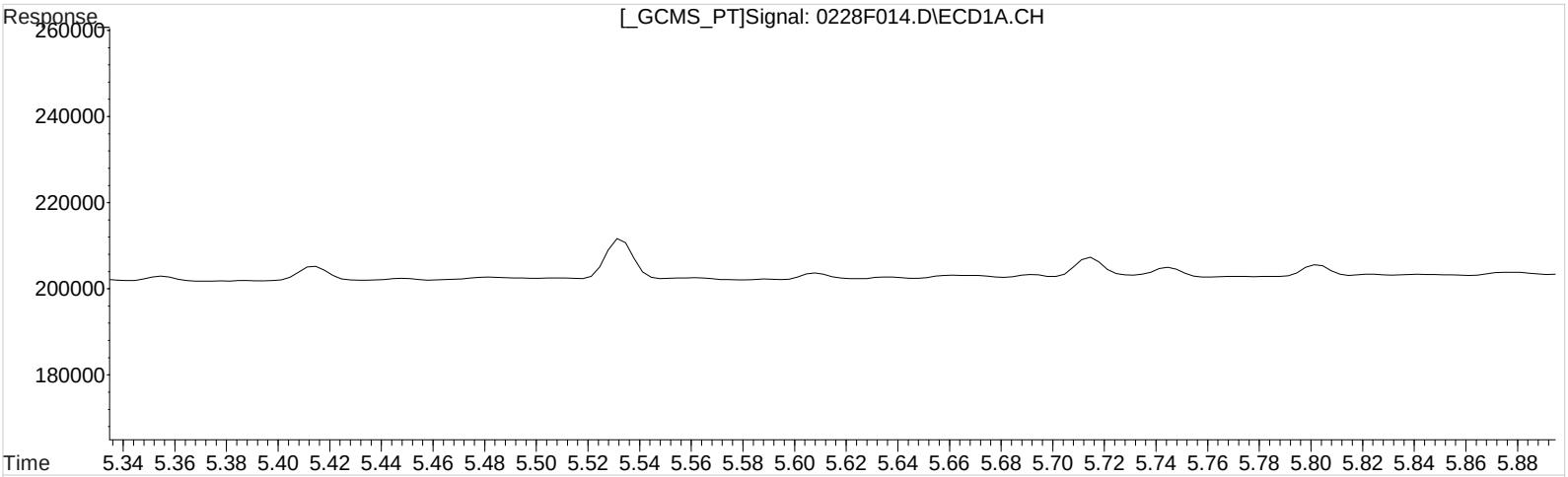
Quantitation Report (Qedit)

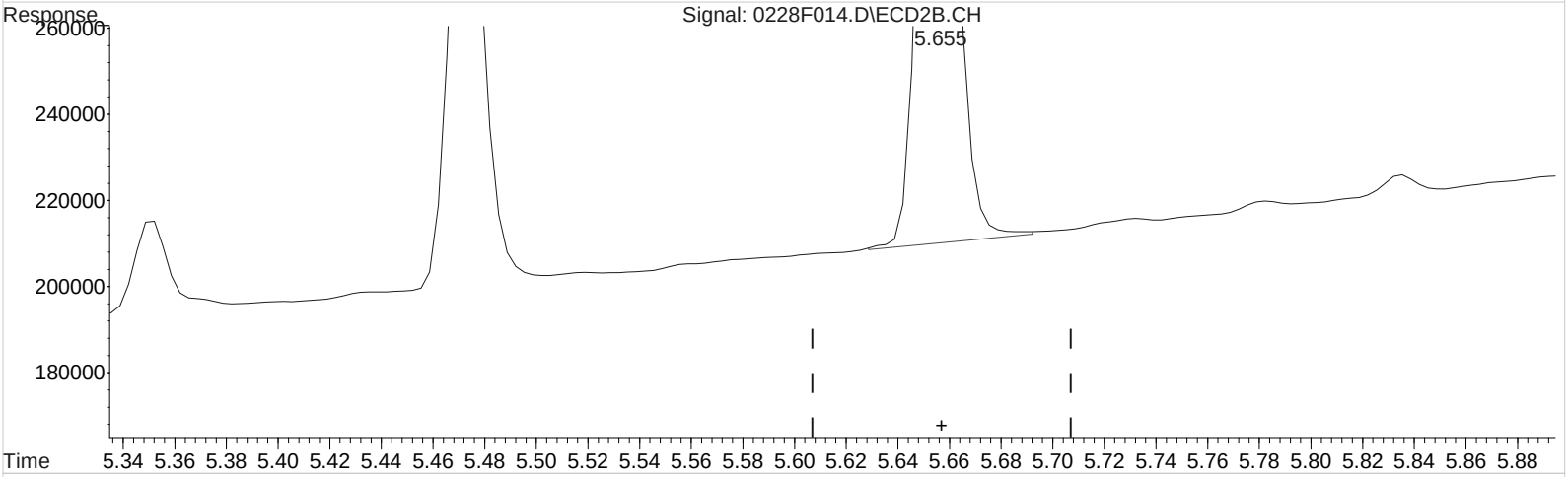
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(10) Pentachloroanisole

5.155min 2.528 ug/L

response 1532111

Manual Integration:

After

Baseline/Shoulder

02/28/19

(10) Pentachloroanisole #2

5.655min 2.730 ug/L m

response 1782521

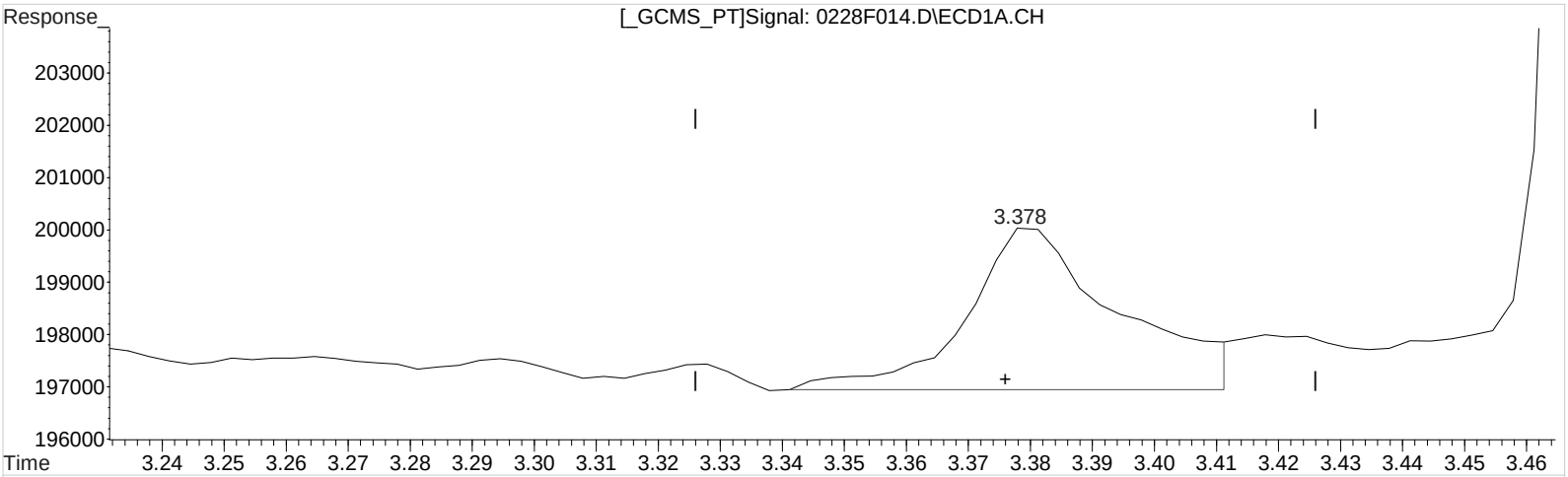
(+) = Expected Retention Time

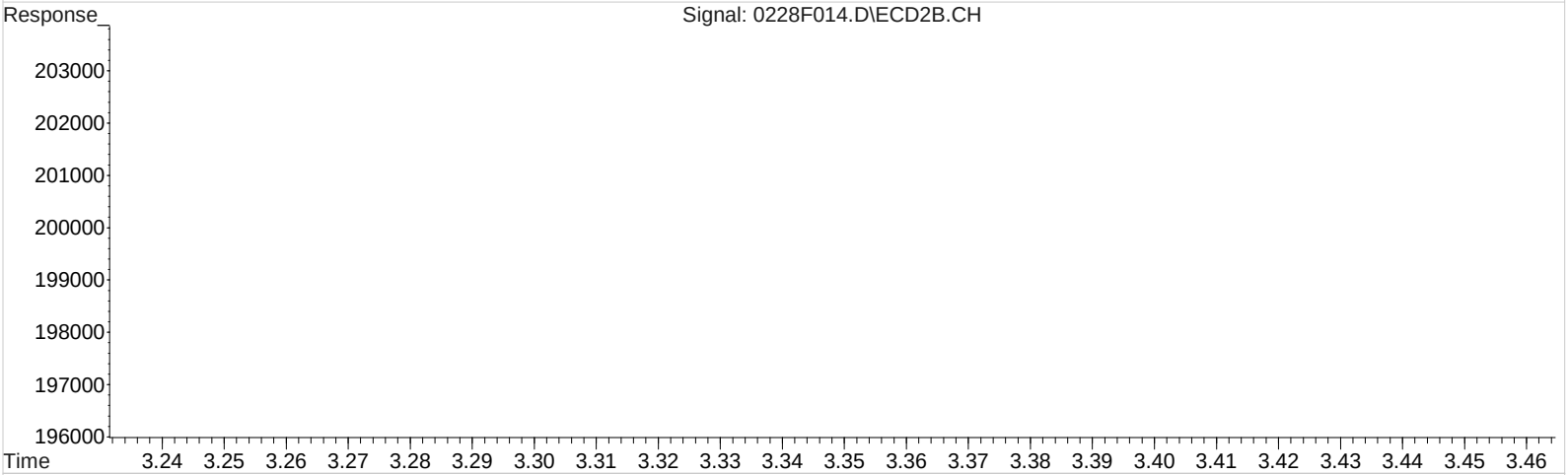
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 4.540 ug/L

response 53339

Manual Integration:

Before

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 2.693 ug/L

response 44372

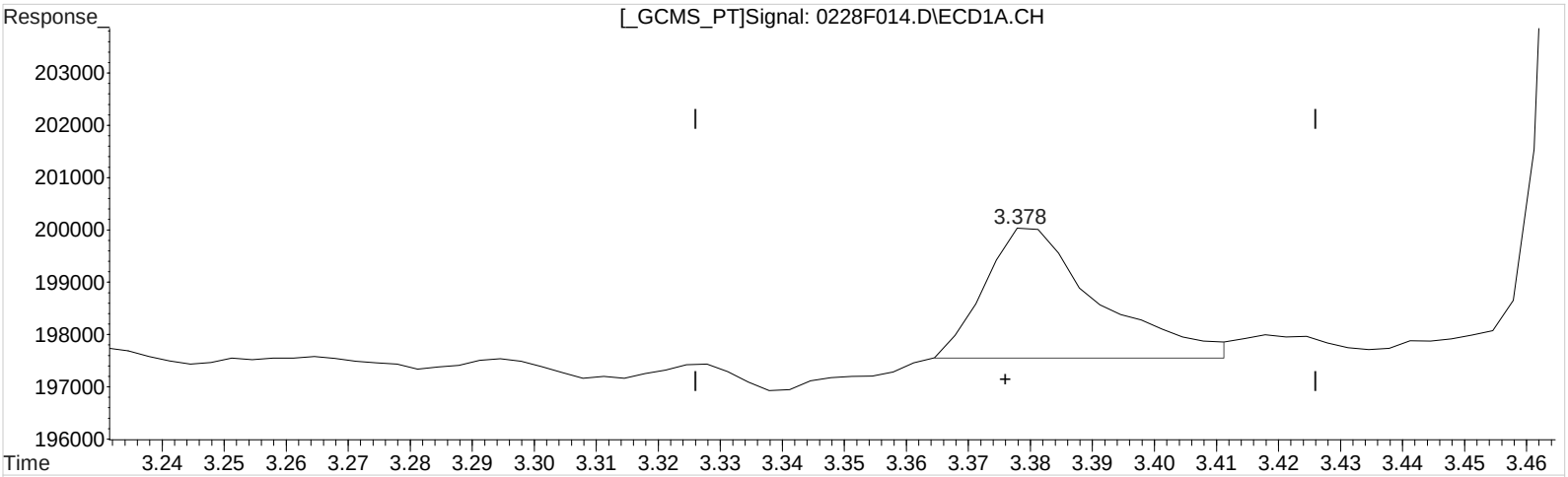
(+) = Expected Retention Time

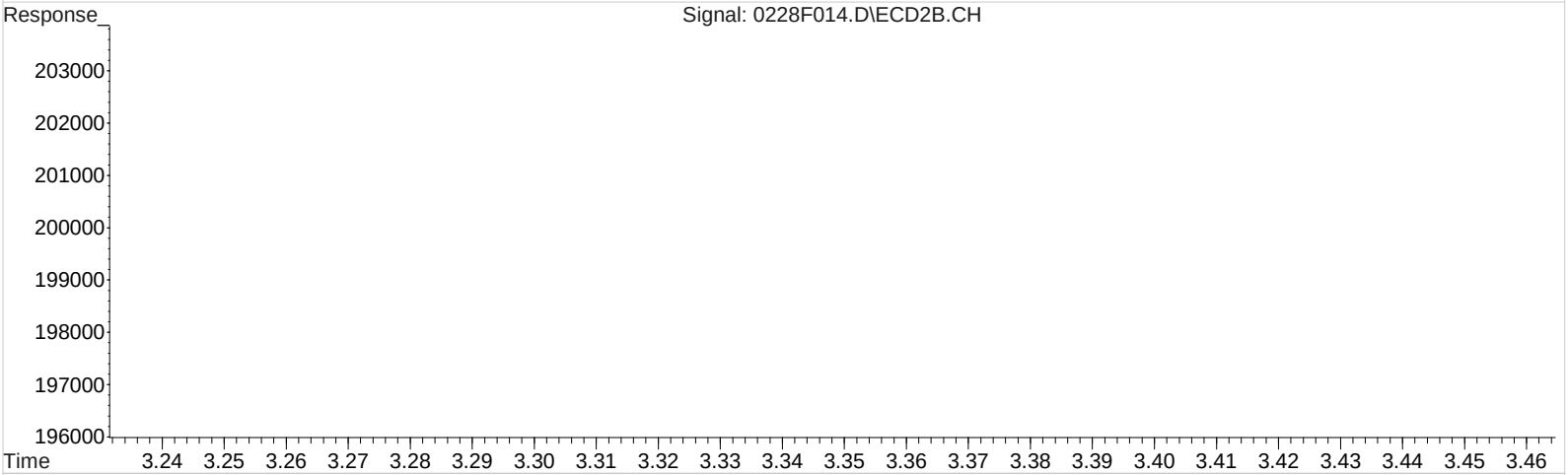
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(2) 3,5-Dichlorophenol

3.378min 2.469 ug/L m

response 31638

Manual Integration:

After

Baseline/Shoulder

02/28/19

(2) 3,5-Dichlorophenol #2

4.089min 2.693 ug/L

response 44372

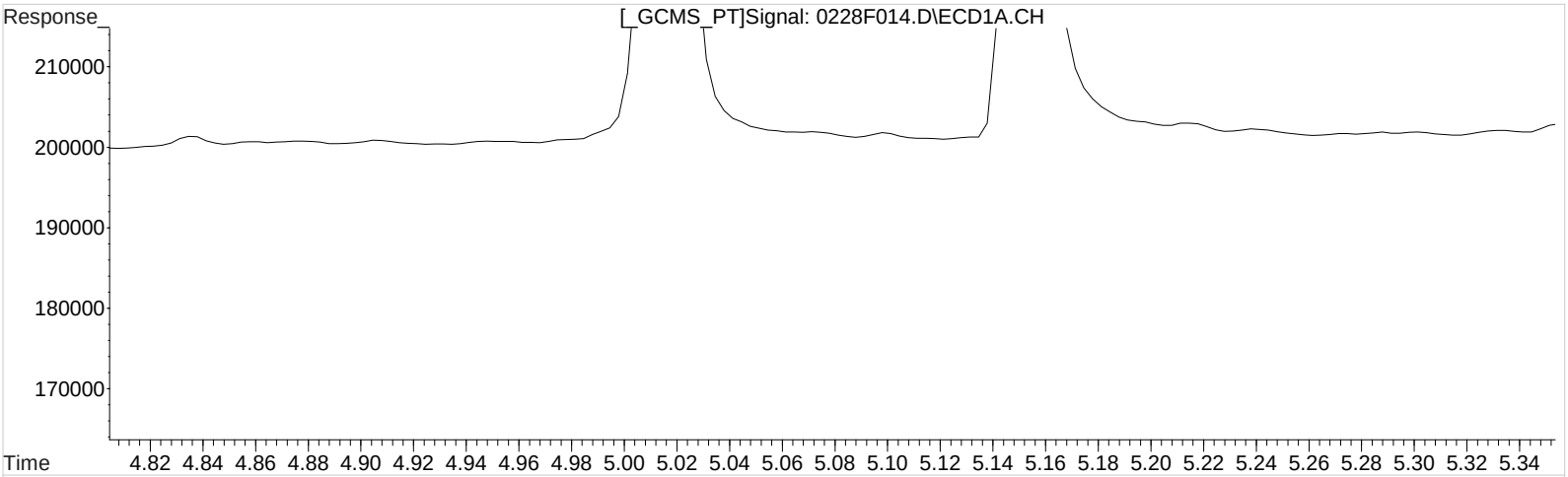
(+) = Expected Retention Time

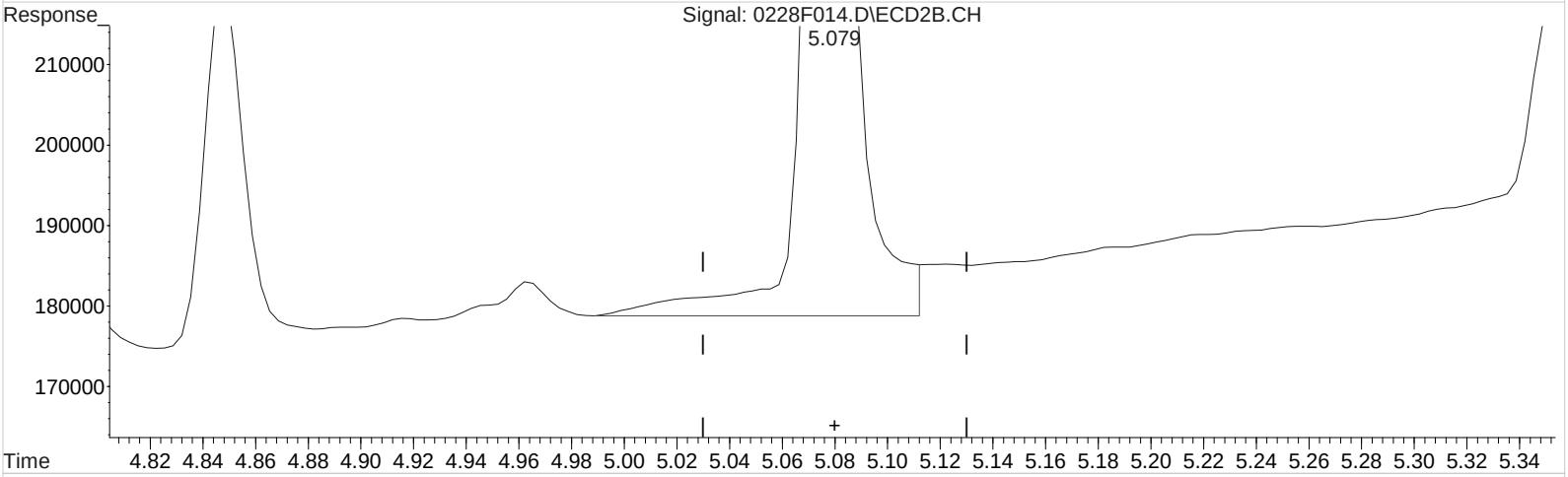
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 2.848 ug/L

response 1355696

Manual Integration:

Before

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.079min 2.775 ug/L

response 1712944

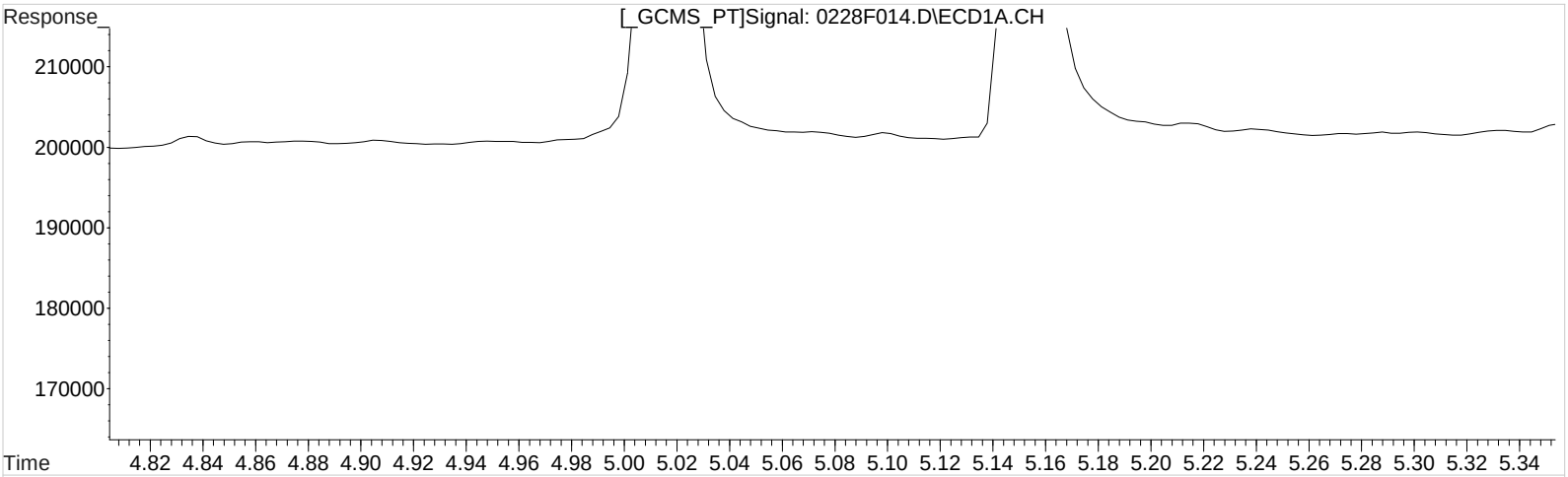
(+) = Expected Retention Time

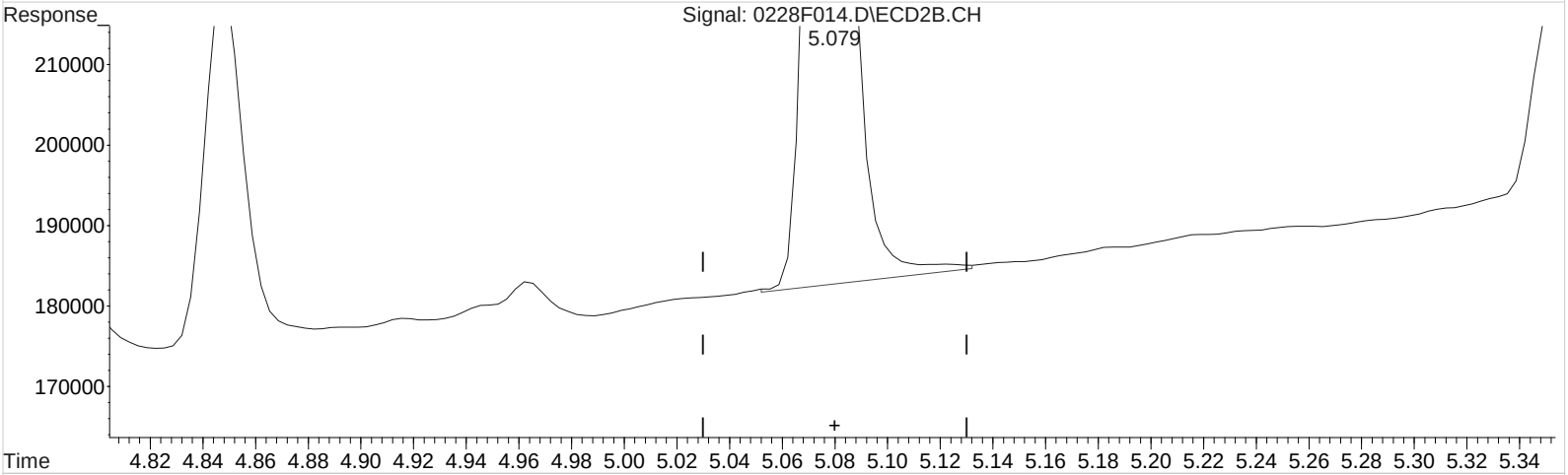
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(7) 2,3,5,6-Tetrachlorophenol (M)

4.478min 2.848 ug/L

response 1355696

Manual Integration:

After

Baseline/Shoulder

02/28/19

(7) 2,3,5,6-Tetrachlorophenol #2 (M)

5.079min 2.436 ug/L m

response 1503718

(+) = Expected Retention Time

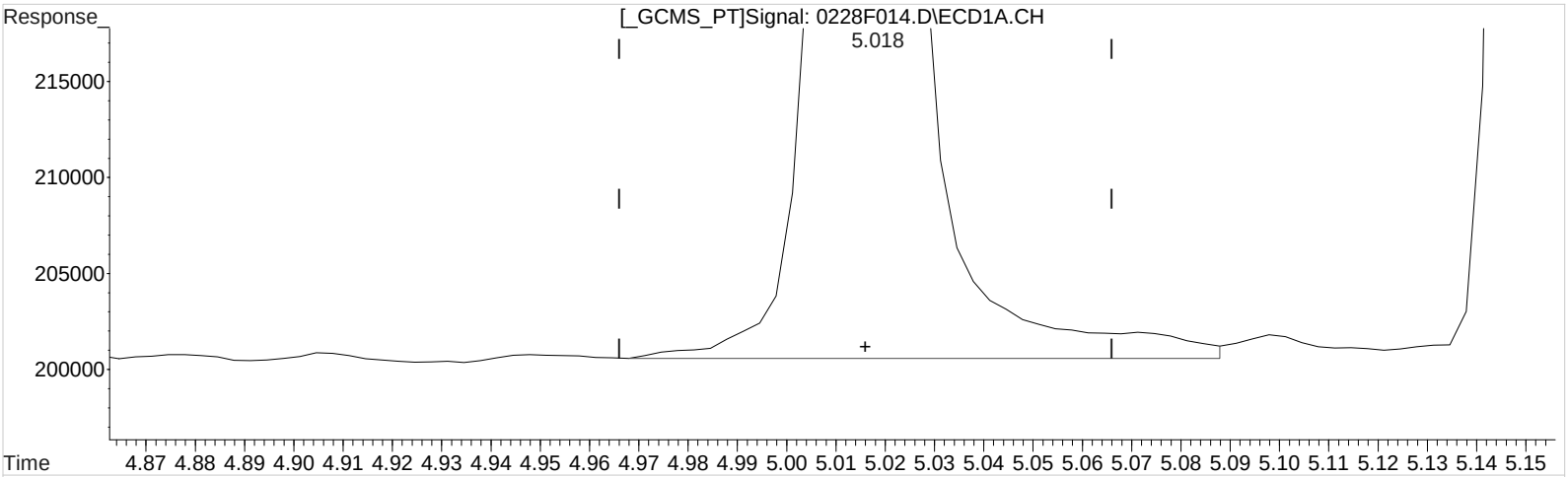
Quantitation Report (Qedit)

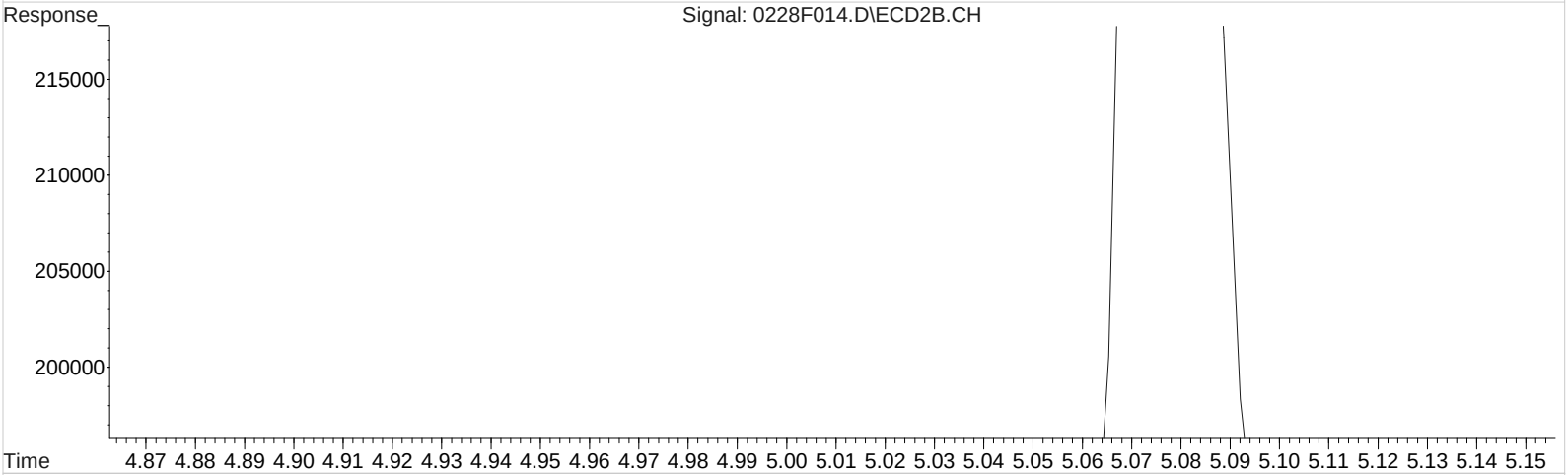
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.018min 2.609 ug/L

response 1164930

Manual Integration:

Before

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.472min 2.701 ug/L

response 1115328

(+) = Expected Retention Time

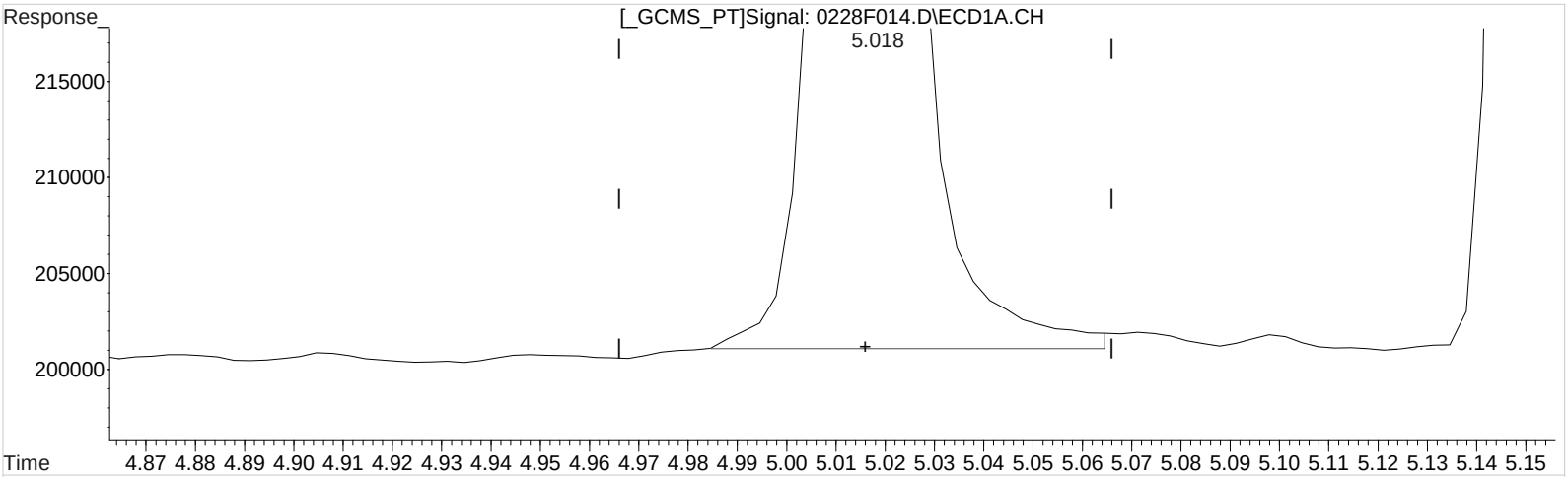
Quantitation Report (Qedit)

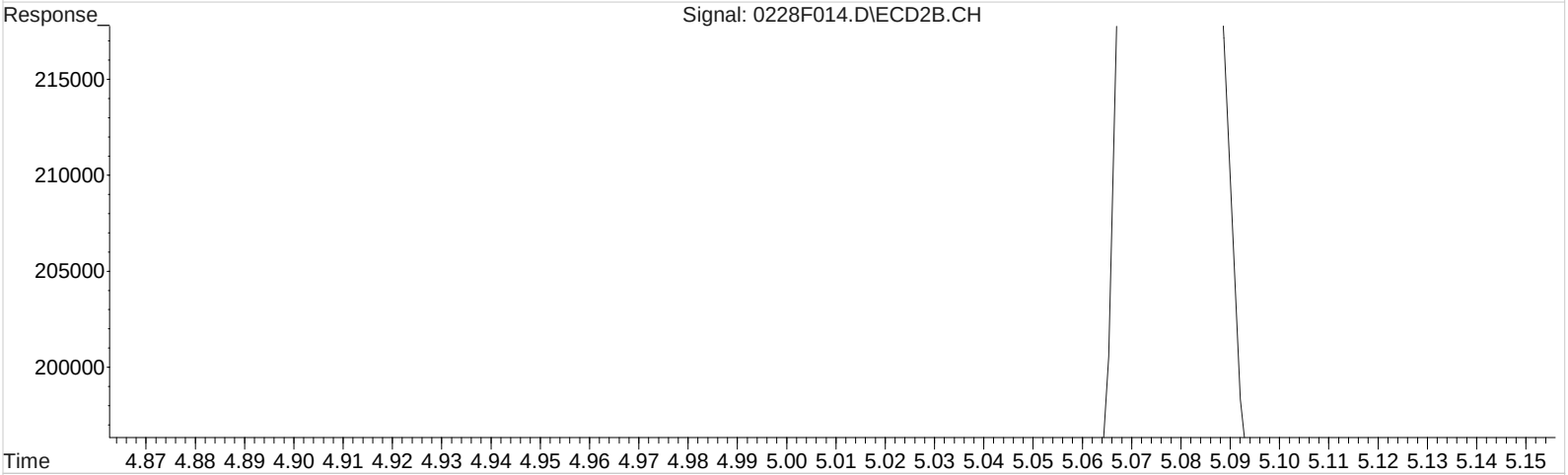
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(8) 2,3,4,5-Tetrachlorophenol (M)

5.018min 2.467 ug/L m

response 1121382

Manual Integration:

After

Baseline/Shoulder

02/28/19

(8) 2,3,4,5-Tetrachlorophenol #2 (M)

5.472min 2.701 ug/L

response 1115328

(+) = Expected Retention Time

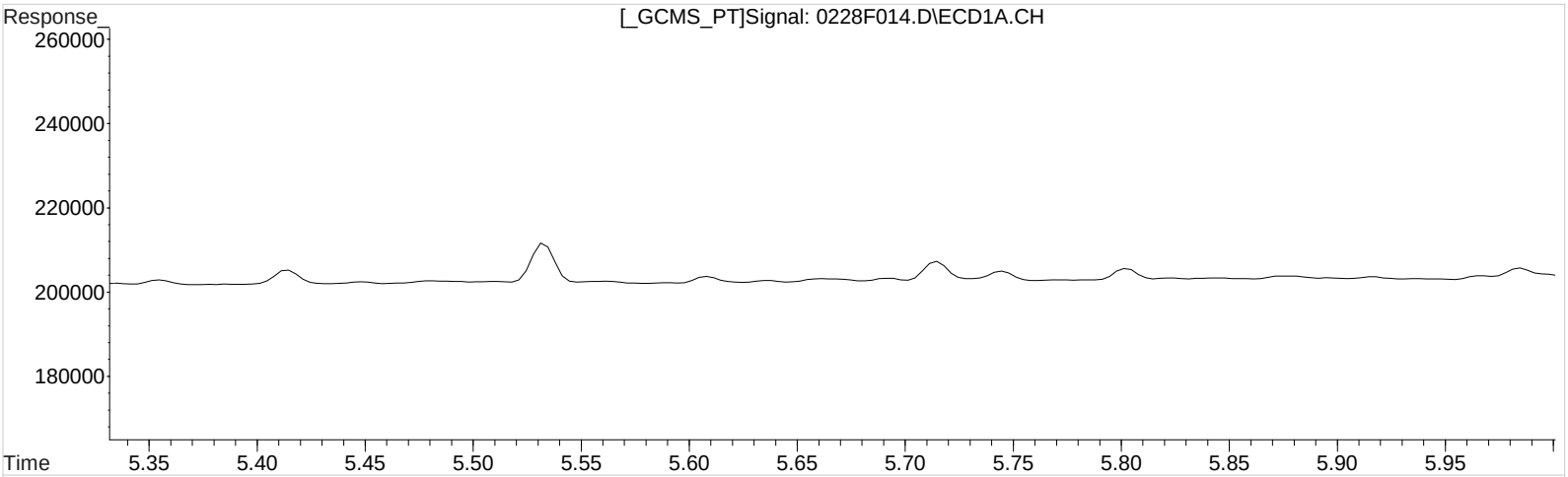
Quantitation Report (Qedit)

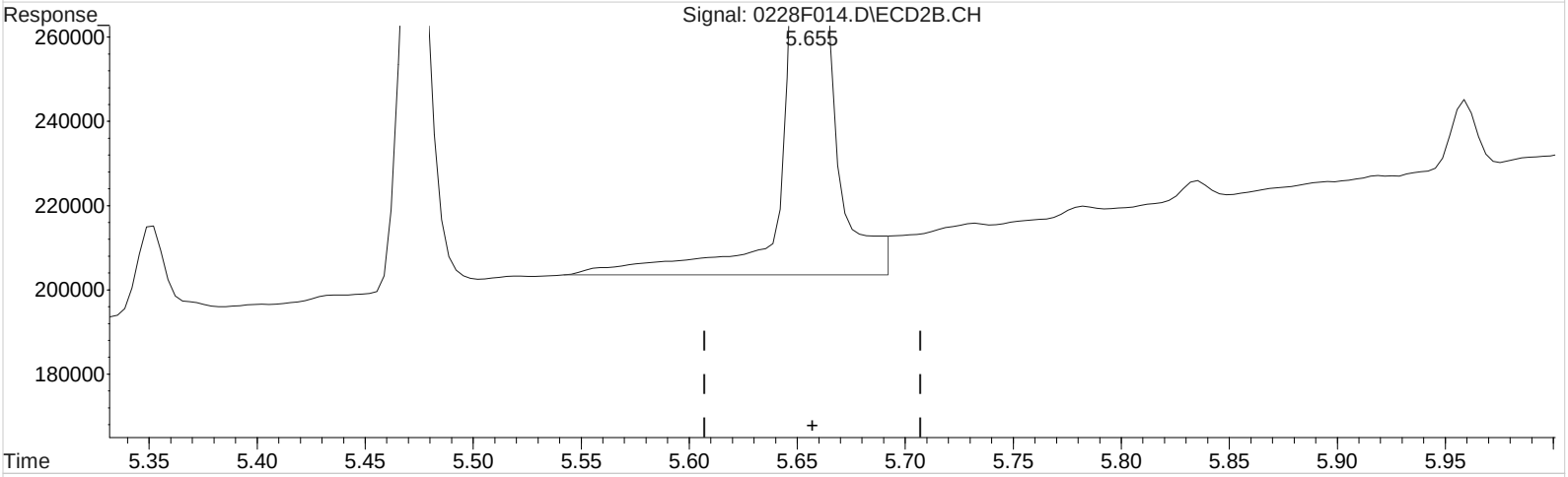
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.155min 2.401 ug/L

response 1532111

Manual Integration:

Before

02/28/19

(9) Pentachlorophenol #2 (M)

5.655min 3.194 ug/L

response 2196034

(+) = Expected Retention Time

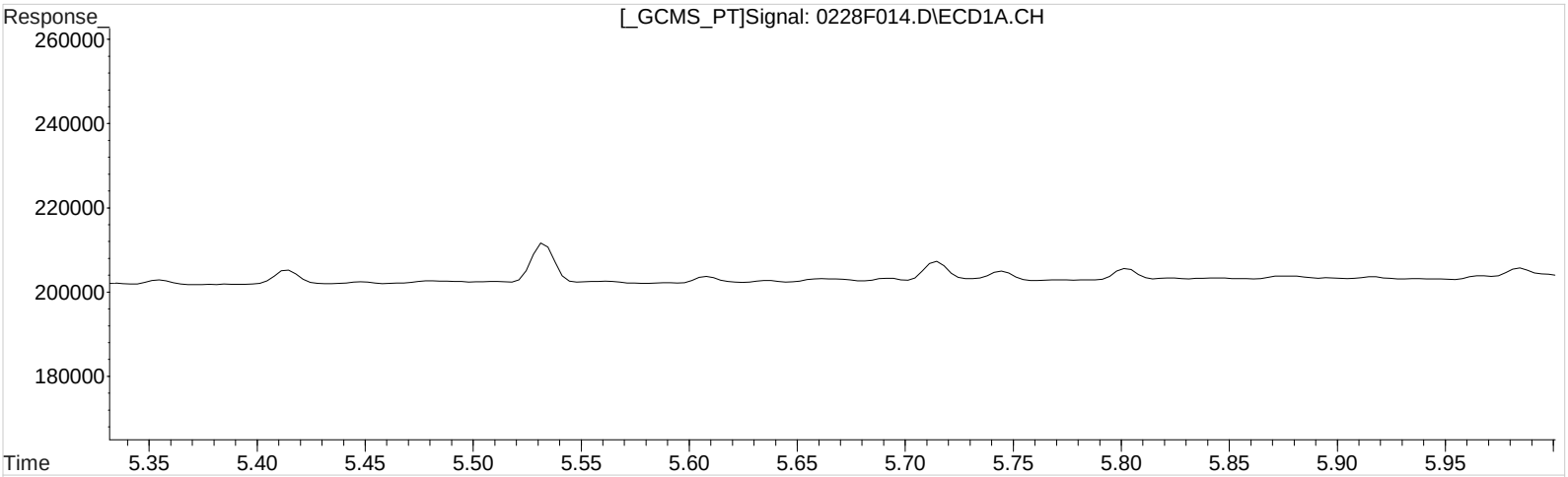
Quantitation Report (Qedit)

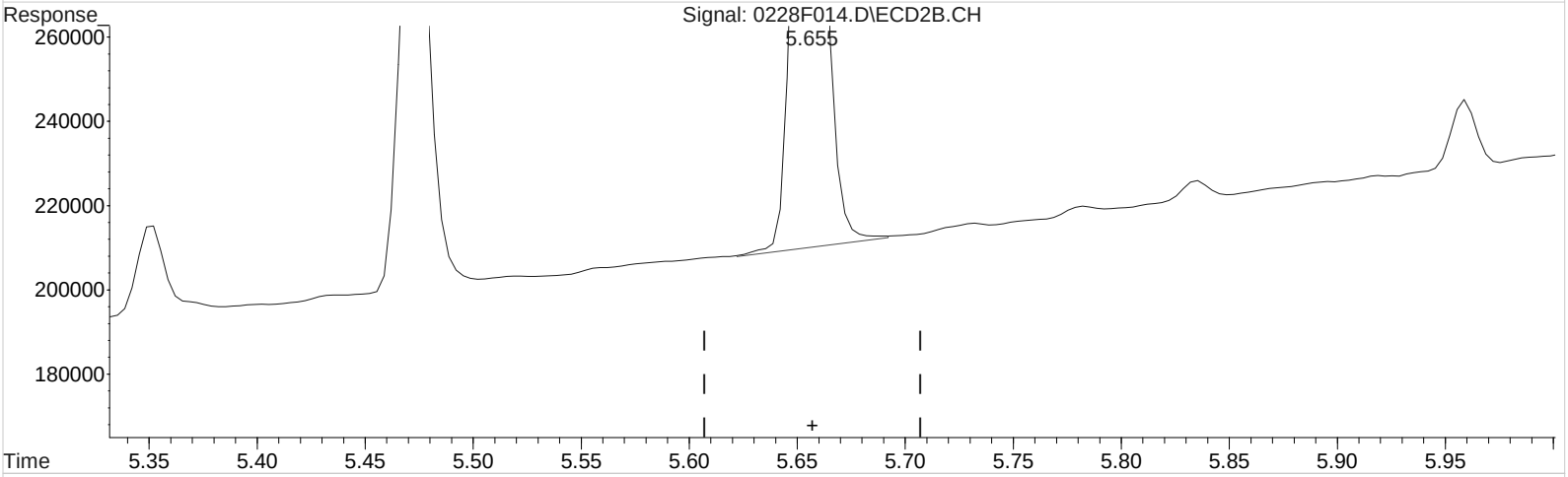
1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F014.D Vial: 3
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 11:23 am Operator: MC
Sample : PENTA01-94S 2.5 Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 11:58:57 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Wed Feb 27 15:24:24 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32





QEdit

(9) Pentachlorophenol (M)

5.155min 2.401 ug/L

response 1532111

Manual Integration:

After

Baseline/Shoulder

02/28/19

(9) Pentachlorophenol #2 (M)

5.655min 2.598 ug/L m

response 1786099

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st JMS 02/28/19
2nd MC 02/28/19

Data File : J:\GC28\Data\022819CAL\0228F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 12:00 pm Operator: MC
Sample : PENTA01-95D ICV Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:59:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
		System Monitoring Compounds						
4)	S	4-Bromo-2...	0.000	0.000	0	0	N.D.	N.D.
		Target Compounds						
1)		3,4-Dichl...	3.139	3.833	771944	1008155	50.405	46.475
2)		3,5-Dichl...	3.379	4.090	576261	745111	54.814	48.925
3)		2,4,6-Tri...	3.479	4.290	14461186	19074371	47.208	46.729
5)		2,4,5-Tri...	4.202	4.783	6741744	8923551	49.950	50.676
6)		3,4,5-Tri...	4.232	4.846	7001162	8168830	49.502	48.393
7)	M	2,3,5,6-T...	4.479	5.076	21719554	28913168	50.742	47.890
8)	M	2,3,4,5-T...	5.019	5.473	15112649	19440727	50.125	46.743
9)	M	Pentachlo...	5.152	5.656	25413518	33232162	55.308	48.834
10)		Pentachlo...	5.152	5.656	25413518	33232162	58.215	51.424

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

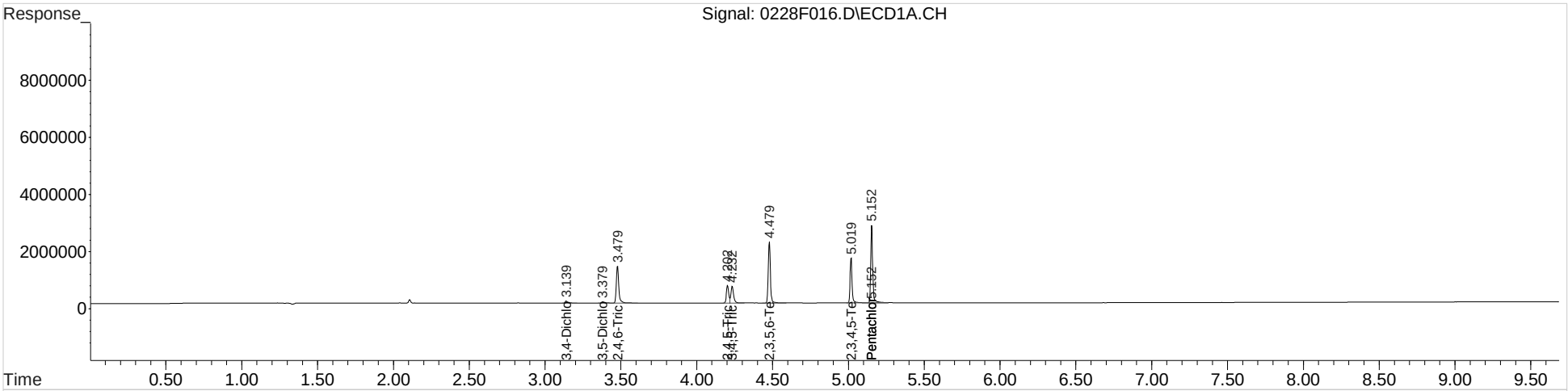
1st 02/28/19
2nd 02/28/19

Quantitation Report (QT Reviewed)

Data File : J:\GC28\Data\022819CAL\0228F016.D Vial: 12
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Feb 2019 12:00 pm Operator: MC
Sample : PENTA01-95D ICV Inst : GC28
Misc : SEMIVOA GC\W1112280\1-PEM.H Multiplr: 1.00
Integration File signal 1: RTEINT.P
Integration File signal 2: RTEINT2.P
Quant Time: Feb 28 12:59:02 2019
Quant Results File: 022819-PCP.RES

Quant Method : J:\GC28\Methods\022819-PCP.M
Quant Title : Chlorinated Phenols CAL 15625 MJ252
QLast Update : Thu Feb 28 12:58:44 2019
Response via : Initial Calibration
DataAcq Meth:PENTHOT2.M

Volume Inj. : 1µl
Signal #1 Phase : Rtx-1701 Signal #2 Phase: Rtx-35
Signal #1 Info : 0.32 Signal #2 Info : 0.32



Comment: Pentachlorophenol and Breakdown Products
Operator: MC
Data Path: J:\GC28\DATA\061819B\
Pre-Seq Cmd:
Post-Seq Cmd:

Run # 639854
Cal: KC1900082

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	IB	100	0618F001	PENTHOT2	PRIMER
2	IB	100	0618F002	PENTHOT2	PRIMER
3	CCV	1	0618F003	PENTHOT2	CCV 50PPB PENTA01-97M
4	IB	2	0618F004	PENTHOT2	IB
5	MB	3	0618F005	PENTHOT2	KQ1908343-04 MB
6	LCS	4	0618F006	PENTHOT2	KQ1908343-03 LCS
7	SMPL	5	0618F007	PENTHOT2	K1905450-004
8	MS	6	0618F008	PENTHOT2	K1905450-004 MS
9	DMS	7	0618F009	PENTHOT2	K1905450-004 DMS
10	CCV	1	0618F010	PENTHOT2	CCV 50PPB PENTA01-97M
11	IB	2	0618F011	PENTHOT2	IB

Last Modified: Tue Jun 18 15:20:17 2019

Polycyclic Aromatic Hydrocarbons by GC/MS SIM

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 338543
Team: Semivoa GCMS/JDUNFIELD
Number of Copies to make: 2

Prep WorkFlow: OrgExtSimAq(7)
Prep Method: EPA 3511

Status: Prepped
Prep Date/Time: 6/12/19 14:14

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1905418-001	HI-2-0619	.17	8270D/PAH SIM	7	Ground Water	450mL	2.00mL	
2	K1905418-002	HI-3-0619	.17	8270D/PAH SIM	7	Ground Water	450mL	2.00mL	
3	K1905418-003	HI-4-0619	.17	8270D/PAH SIM	7	Ground Water	450mL	2.00mL	
4	K1905418-004	HI-5-0619	.17	8270D/PAH SIM	7	Ground Water	450mL	2.00mL	
5	K1905418-009	HI-16-0619	.17	8270D/PAH SIM	7	Ground Water	450mL	4.00mL	
6	K1905418-011	HI-40-0619	.17	8270D/PAH SIM	7	Ground Water	450mL	2.00mL	
7	K1905418-012	EB-1-0619	.17	8270D/PAH SIM	5	Ground Water	450mL	2.00mL	
8	K1905450-001	MW-15	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
9	K1905450-002	MW-17	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
10	K1905450-003	MW-2	.01	8270D/PAH SIM	7	Water	450mL	2.00mL	
11	K1905450-004	MW-35	.01	8270D/PAH SIM	7	Water	375.0000mL	2.00mL	
12	KQ1908183-01	K1905418-004 MS	.35	8270D/PAH SIM	7	Liquid	450mL	2.00mL	
13	KQ1908183-02	K1905418-004 DMS	.36	8270D/PAH SIM	7	Liquid	450mL	2.00mL	
14	KQ1908183-03	LCS	✓	8270D/PAH SIM	5	Liquid	450mL	2.00mL	
15	KQ1908183-04	MB	✓	8270D/PAH SIM	5	Liquid	450mL	2.00mL	

Spiking Solutions

Name: 8270 SIM-PAH Matrix Spike 25ppm Inventory ID 197598 Logbook Ref: SVM60-50D Expires On: 08/13/2019

KQ1908183-01 50.00µL KQ1908183-02 50.00µL KQ1908183-03 50.00µL

Name: 8270 ALL PURPOSE SURROGATE Inventory ID 198047 Logbook Ref: SVM60-60D Expires On: 09/07/2019

K1905418-001	20.00µL	K1905418-002	20.00µL	K1905418-003	20.00µL	K1905418-004	20.00µL	K1905418-009	20.00µL	K1905418-011	20.00µL
K1905418-012	20.00µL	K1905450-001	20.00µL	K1905450-002	20.00µL	K1905450-003	20.00µL	K1905450-004	20.00µL	KQ1908183-01	20.00µL
KQ1908183-02	20.00µL	KQ1908183-03	20.00µL	KQ1908183-04	20.00µL						

IS = SVM60-41D

Preparation Steps

Step: Extraction
Started: 6/12/19 14:14
Finished: 6/12/19 14:44
By: JDUNFIELD
Comments

Step: Final Volume
Started: 6/13/19 14:55
Finished: 6/13/19 14:55
By: JDUNFIELD
Comments

Preparation Information Benchsheet

Prep Run#: 338543
Team: Semivoa GCMS/JDUNFIELD

Prep WorkFlow: OrgExtSimAq(7)
Prep Method: EPA 3511

Status: Prepped
Prep Date/Time: 6/12/19 14:14

Comments: _____

Reviewed By: _____ Date: 6/14/19

Chain of Custody

Relinquished By: _____ Date: 6/14/19

Received By: _____ Date: 6/17/19

Extracts Examined: (Yes) No

Preparation Information Benchsheet

Prep Run#: 338543
Team: Semivoa GCMS/JDUNFIELD
Number of Copies to make: 2

Prep WorkFlow: OrgExtSimAq(7)
Prep Method: EPA 3511

Status: Draft
Prep Date/Time: 6/12/19 09:30 AM

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. mL	pH	Int. Vol	Final Vol mL	Surr Amt uL	Spike Amt uL
1	**K1905418-001**	HI-2-0619	.17	✓	8270D / PAH SIM	Ground Water	450	7	N/A	2	20	—
2	**K1905418-002**	HI-3-0619	.17	✓	8270D / PAH SIM	Ground Water	450	7		2		—
3	**K1905418-003**	HI-4-0619	.17	✓	8270D / PAH SIM	Ground Water	450	9		2		—
4	**K1905418-004**	HI-5-0619	.17	✓	8270D / PAH SIM	Ground Water	450	9		2		—
5	**K1905418-009**	HI-16-0619	.17	✓	8270D / PAH SIM	Ground Water	450	7		4		—
6	**K1905418-011**	HI-40-0619	.17	✓	8270D / PAH SIM	Ground Water	450	7		2		—
7	**K1905418-012**	EB-1-0619	.17	✓	8270D / PAH SIM	Ground Water	450	5		2		—
8	**K1905450-001**	MW-15	.01	✓	8270D / PAH SIM	Water	450	7		2		—
9	**K1905450-002**	MW-17	.01	✓	8270D / PAH SIM	Water	450	7		2		—
10	**K1905450-003**	MW-2	.01	✓	8270D / PAH SIM	Water	450	7		2		—
11	**K1905450-004**	MW-35	.01	✓	8270D / PAH SIM	Water	450	7		2		—
12	**KQ1908183-01**	K1905418-004 MS	.35	✓	8270D / PAH SIM	Liquid	375 ~~450~~ 450	7		2		50
13	**KQ1908183-02**	K1905418-004 DMS	.36	✓	8270D / PAH SIM	Liquid	450	7		2		50
14	**KQ1908183-03**	LCS	—	—	8270D / PAH SIM	Liquid	450	5		2		—
15	**KQ1908183-04**	MB	—	—	8270D / PAH SIM	Liquid	450	5		2		—

EE JD 6/12/19

Comments: x2 FV for 5418-9 due to emulsion. JD 6/13/19

Surrogate ID: SVM6D-60D xP 9/7/19 100/150ppm 20 uL syr.

Spike ID: SVM6D-50D 25ppm xP 8/13/19 50 uL syr.

Witnessed By: 6/12/19

Analyst: 6/12/19

Assisted By: —

Printed 6/12/19 9:32

Pest/PCB/PAH by 3511

Service Request # KP185418; KP185450 **Work Group # Pest:** —
PCB: —
PAH: KR1908183

Solvent Lot # 221329

Extraction Start (time/date/initial): 14:14 6/12/19 JD

Extraction Stop (time/date/initial): 14:44 6/12/19 JD

NaCL Lot# 0000197939
Sulfate Lot # 2018110573

Carbon Clean-up (Ext-Car)(time/date/initial): — Carbon Lot # —
1:1 DCM/Hexane Lot # —

Sulfuric Acid Clean-up (3665) (time/date/initial): — Acid Lot # —

Other Clean-up (type/time/date/initial) —
Lot# —

Pipette (5 mL) Lot # — Pipette (2 mL) Lot # 16418646
Pipette (1mL) 28817645

Pest Vial: — Vial Storage: —
PCB Vial: — Vial Storage: —
PAH Vial: Green Vial Storage: K-Tundra

Archived Extract Storage: None

Additional Comments: —

Bench Sheet Review Check List	
☑	Hold times met; if no, reason: ----------
☑	Prep date, time, method, department, product code correct
☑	Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☑	Weights/Volumes and units correct on raw and final bench sheets
☑	Sample IDs have been checked - bottle numbers appended if required
☑	Names present for: started by, completed by, relinquished by, and witnessed by
☑	Extract storage recorded
☑	Additional prep sheet completely filled out (NA or line out blanks)
☑	All clean-ups have been noted on additional prep sheet

1st 06/20/19
2nd 06/20/19

Validation Report

Data File: J:\MS14\DATA\061819\0618F051.D\
Lab ID: K1905450-001
RunType: N/A
Matrix: Water

Date Acquired: 6/19/19 04:03:00
Batch ID: 639897
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/20/19 14:21
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Secondary Review: _____

1st 06/20/19
2nd 06/20/19

Quantitation Report

Data File:	J:\MS14\DATA\061819\0618F051.D\	**Instrument:**	K-MS-14
Acqu Date:	6/19/19 04:03:00	**Vial:**	25
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905450-001	**Raw Units:**	ng/mL

Bottle ID:	K1905450-001.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/9/19	**Receive Date:**	6/11/19

Analysis Lot:	639897	**Prep Lot:**	338543	**Report Group:**	K1905450
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/12/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900232
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.27		36494	200.00	OK
Chrysene-d12	10.00		81309	200.00	OK
Naphthalene-d8	4.72	+0.01	68138	200.00	OK
Perylene-d12	13.01	+0.01	97148	200.00	OK
Phenanthrene-d10	7.51	+0.01	70512	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.49	+0.01	435245	902.99	90	42 - 133	Y
Fluorene-d10	6.71	+0.01	210740	1053.50	105	42 - 131	Y
Terphenyl-d14	8.83		346439	979.74	98	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.38		119	0.49	0.0022	J	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.00	+0.01	200	0.39	0.0017	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 06/20/19

2nd 06/20/19

Data File:	J:\MS14\DATA\061819\0618F051.D\	**Instrument:**	K-MS-14
Acqu Date:	6/19/19 04:03:00	**Vial:**	25
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905450-001	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	0.00		0	0.00	0	U	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.74	+0.01	326	0.86	0.0038	J	Y
Phenanthrene	7.53	+0.01	509	1.18	0.0052	J	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/20/19 14:21

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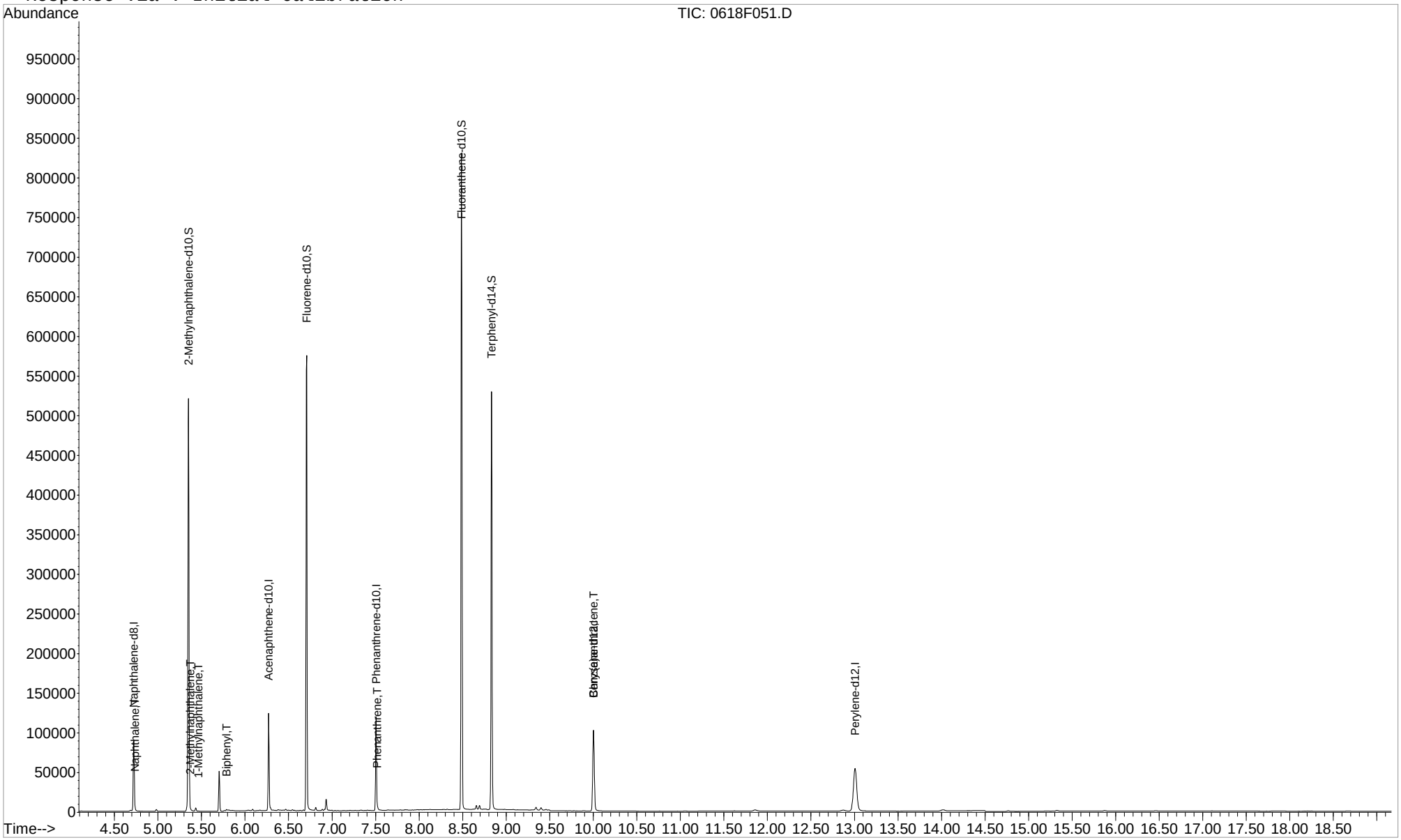
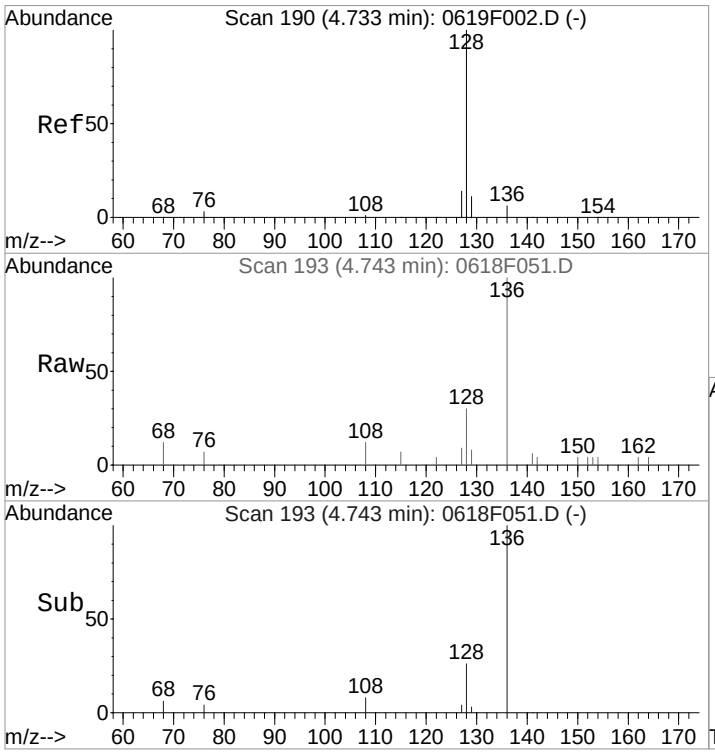
1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F051.D Vial: 48
Acq On : 19 Jun 2019 4:03 am Operator: LWeiskopf
Sample : K1905450-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 13:20 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jun 20 08:55:16 2019
Response via : Initial Calibration



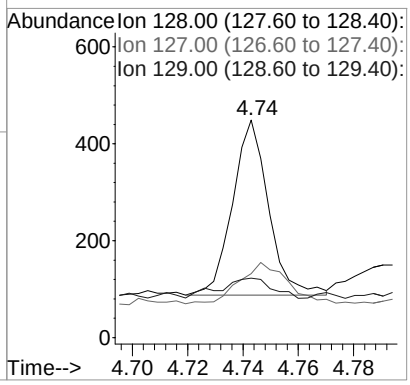
1st 06/20/19
2nd 06/20/19

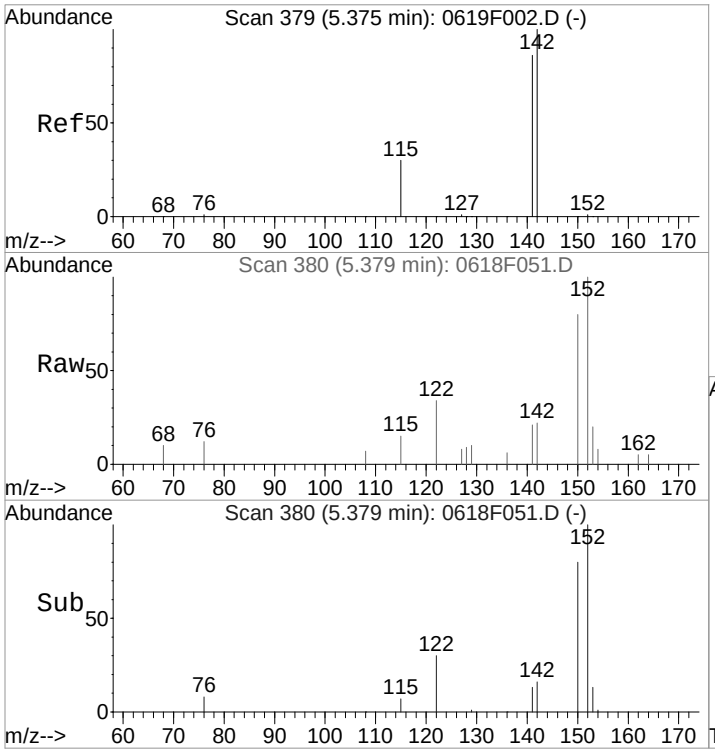


#2
Naphthalene
Concen: 0.86 ng/ml
RT: 4.74 min Scan# 193
Delta R.T. 0.00 min
Lab File: 0618F051.D
Acq: 19 Jun 2019 4:03 am

Tgt Ion:128 Resp: 326

Ion	Ratio	Lower	Upper
128	100		
127	17.2	0.0	44.1
129	11.4	0.0	30.8

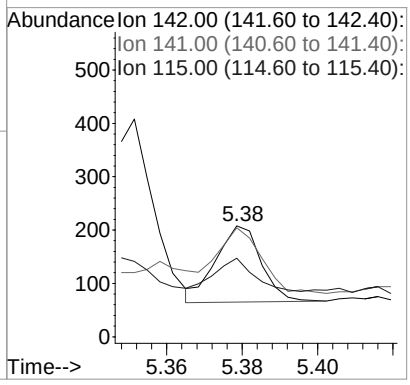




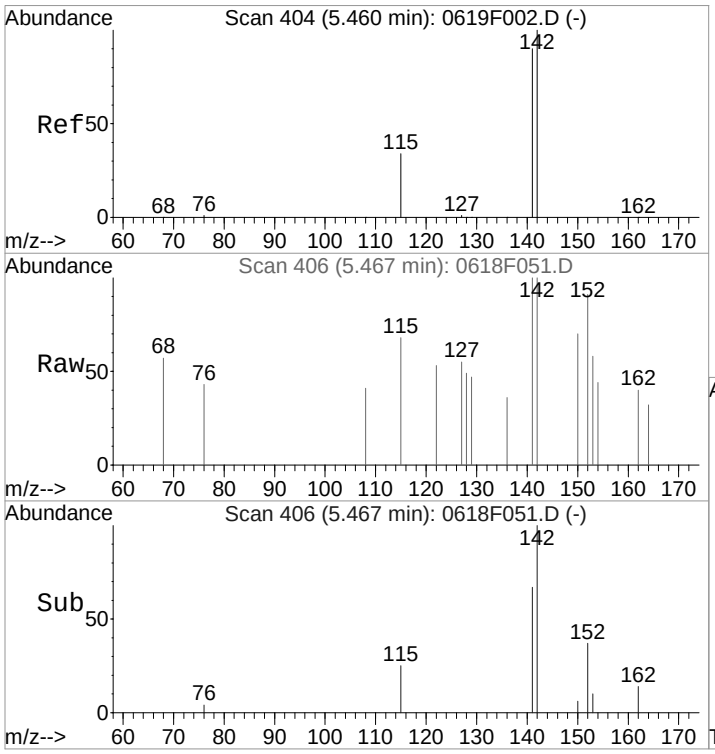
#4
2-Methylnaphthalene
Concen: 0.49 ng/ml
RT: 5.38 min Scan# 380
Delta R.T. -0.00 min
Lab File: 0618F051.D
Acq: 19 Jun 2019 4:03 am

Tgt Ion:142 Resp: 119

Ion	Ratio	Lower	Upper
142	100		
141	87.2	56.6	116.6
115	42.6	11.3	51.3



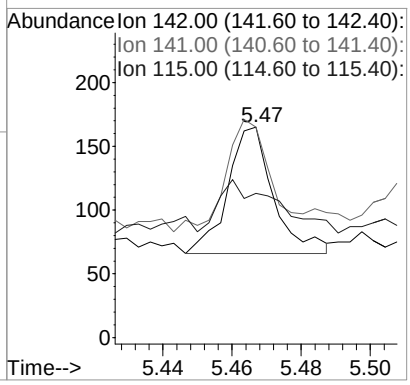
1st 06/20/19
2nd 06/20/19

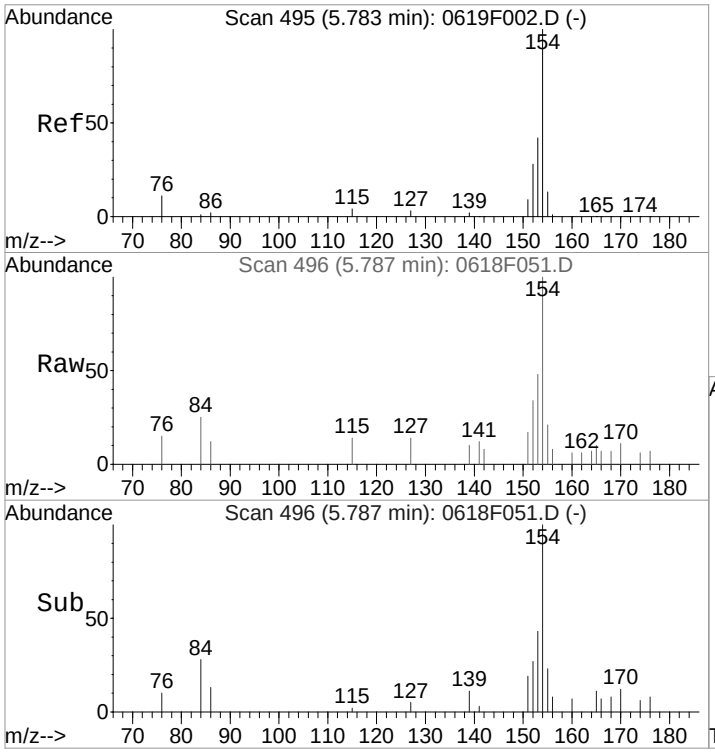


#5
1-Methylnaphthalene
Concen: 0.41 ng/ml
RT: 5.47 min Scan# 406
Delta R.T. 0.00 min
Lab File: 0618F051.D
Acq: 19 Jun 2019 4:03 am

Tgt Ion:142 Resp: 92

Ion	Ratio	Lower	Upper
142	100		
141	73.7	60.5	120.5
115	21.2	14.5	54.5

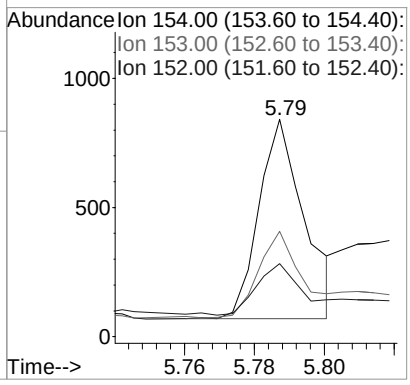




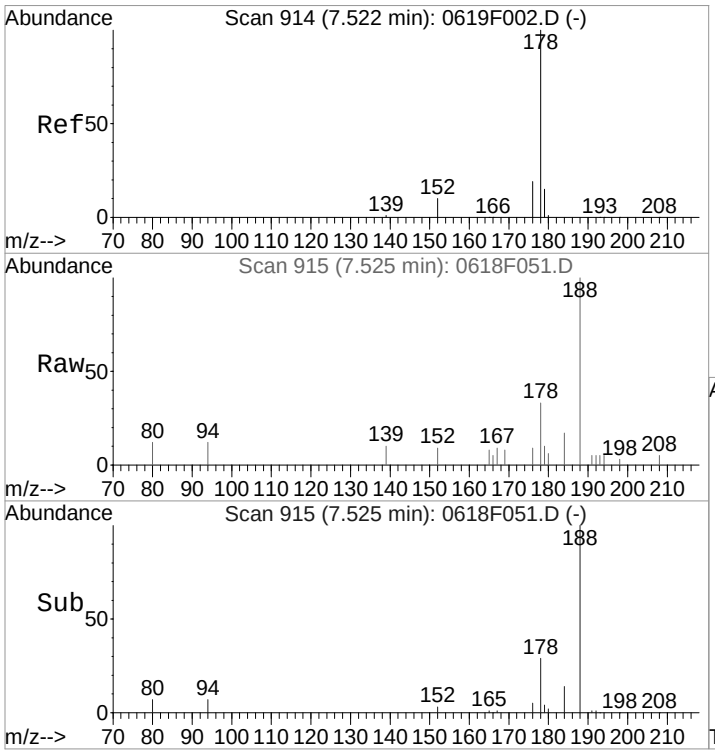
#6
Biphenyl
Concen: 2.29 ng/ml
RT: 5.79 min Scan# 496
Delta R.T. -0.00 min
Lab File: 0618F051.D
Acq: 19 Jun 2019 4:03 am

Tgt Ion:154 Resp: 696

Ion	Ratio	Lower	Upper
154	100		
153	42.7	11.4	71.4
152	25.4	7.2	47.2



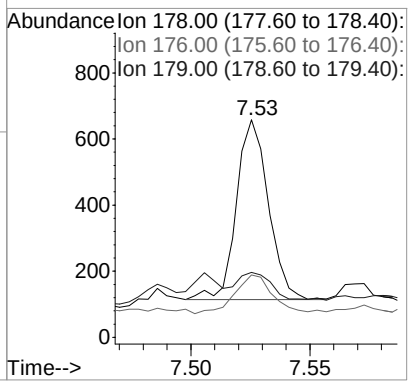
1st 06/20/19
2nd 06/20/19

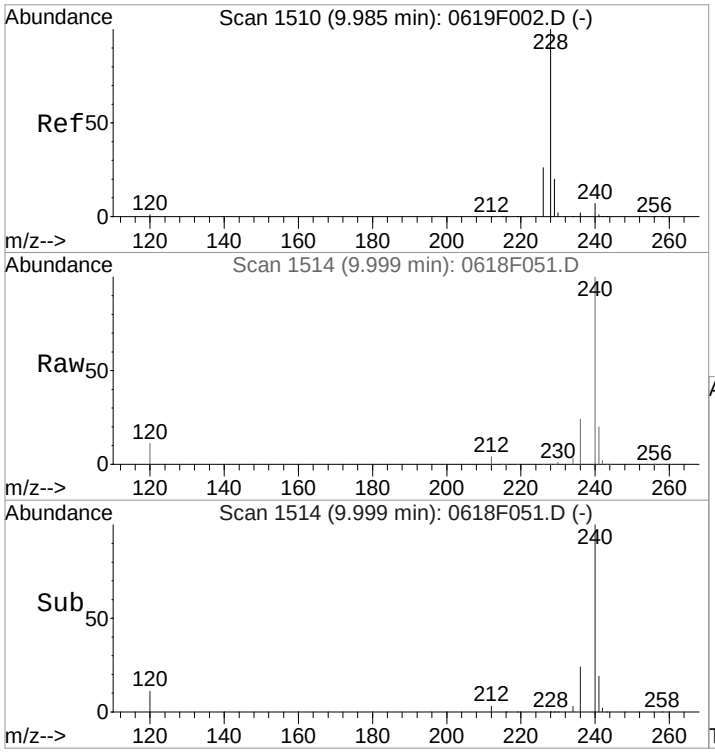


#17
Phenanthrene
Concen: 1.18 ng/ml
RT: 7.53 min Scan# 915
Delta R.T. -0.00 min
Lab File: 0618F051.D
Acq: 19 Jun 2019 4:03 am

Tgt Ion:178 Resp: 509

Ion	Ratio	Lower	Upper
178	100		
176	20.6	0.0	48.4
179	15.4	0.0	35.2

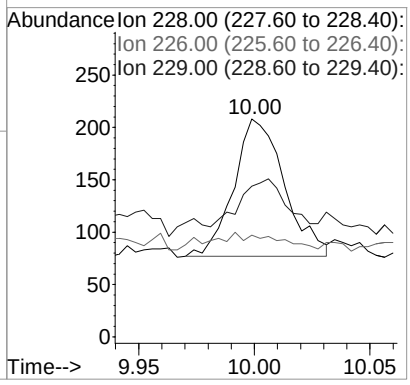




#26
Benz(a)anthracene
Concen: 0.39 ng/ml
RT: 10.00 min Scan# 1514
Delta R.T. 0.00 min
Lab File: 0618F051.D
Acq: 19 Jun 2019 4:03 am

Tgt Ion:228 Resp: 200

Ion	Ratio	Lower	Upper
228	100		
226	6.9	0.0	55.8
229	26.7	0.0	39.4



Quantitation Report (QT Reviewed)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F051.D Vial: 48
Acq On : 19 Jun 2019 4:03 am Operator: LWeiskopf
Sample : K1905450-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 04:56:28 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.72	136	68138	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.27	164	36494	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.51	188	70512	200.00	ng/ml	0.00
23) Chrysene-d12	10.00	240	81309	200.00	ng/ml	0.00
28) Perylene-d12	13.01	264	97148	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	186541	1149.25	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 114.93%			
13) Fluorene-d10	6.71	176	210740	1053.50	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 105.35%			
22) Fluoranthene-d10	8.49	212	435245	902.99	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 90.30%			
25) Terphenyl-d14	8.83	244	346439	979.74	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 97.97%			
Target Compounds						Qvalue
2) Naphthalene	4.74	128	326	0.86	ng/ml	95
4) 2-Methylnaphthalene	5.38	142	119	0.49	ng/ml	94
5) 1-Methylnaphthalene	5.47	142	92	0.41	ng/ml	81
6) Biphenyl	5.79	154	696	2.29	ng/ml	97
17) Phenanthrene	7.53	178	509	1.18	ng/ml	97
26) Benz(a)anthracene	10.00	228	200	0.39	ng/ml	72

(#) = qualifier out of range (m) = manual integration

1st 06/20/19
2nd 06/20/19

Validation Report

Data File: J:\MS14\DATA\061819\0618F052.D\
Lab ID: K1905450-002
RunType: N/A
Matrix: Water

Date Acquired: 6/19/19 04:31:00
Batch ID: 639897
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 06/20/19
2nd 06/20/19

Quantitation Report

Data File:	J:\MS14\DATA\061819\0618F052.D\	**Instrument:**	K-MS-14
Acqu Date:	6/19/19 04:31:00	**Vial:**	26
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905450-002	**Raw Units:**	ng/mL

Bottle ID:	K1905450-002.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/9/19	**Receive Date:**	6/11/19

Analysis Lot:	639897	**Prep Lot:**	338543	**Report Group:**	K1905450
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/12/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900232
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.27		34827	200.00	OK
Chrysene-d12	10.00		76863	200.00	OK
Naphthalene-d8	4.72	+0.01	64672	200.00	OK
Perylene-d12	13.00		91445	200.00	OK
Phenanthrene-d10	7.51	+0.01	67430	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.49	+0.01	449316	974.79	97	42 - 133	Y
Fluorene-d10	6.70		217716	1140.47	114	42 - 131	Y
Terphenyl-d14	8.83		339259	1014.93	101	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.38		160	0.70	0.0031	J	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.00	+0.01	217	0.45	0.0020	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/20/19 14:21
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1st 06/20/19

2nd 06/20/19

Data File:	J:\MS14\DATA\061819\0618F052.D\	**Instrument:**	K-MS-14
Acqu Date:	6/19/19 04:31:00	**Vial:**	26
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905450-002	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	0.00		0	0.00	0	U	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.74	+0.01	376	1.04	0.0046	J	Y
Phenanthrene	7.52		511	1.24	0.0055	J	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/20/19 14:21

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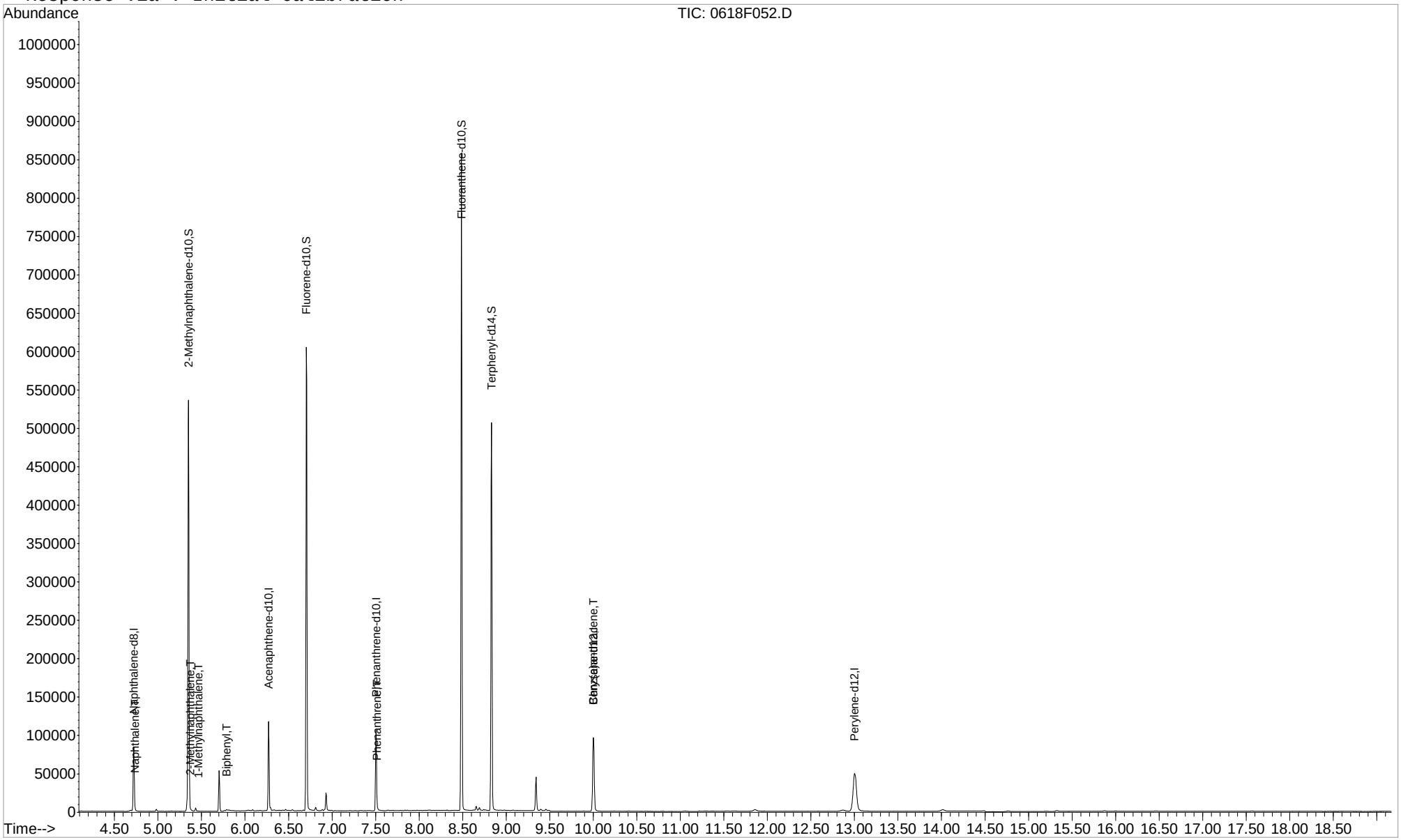
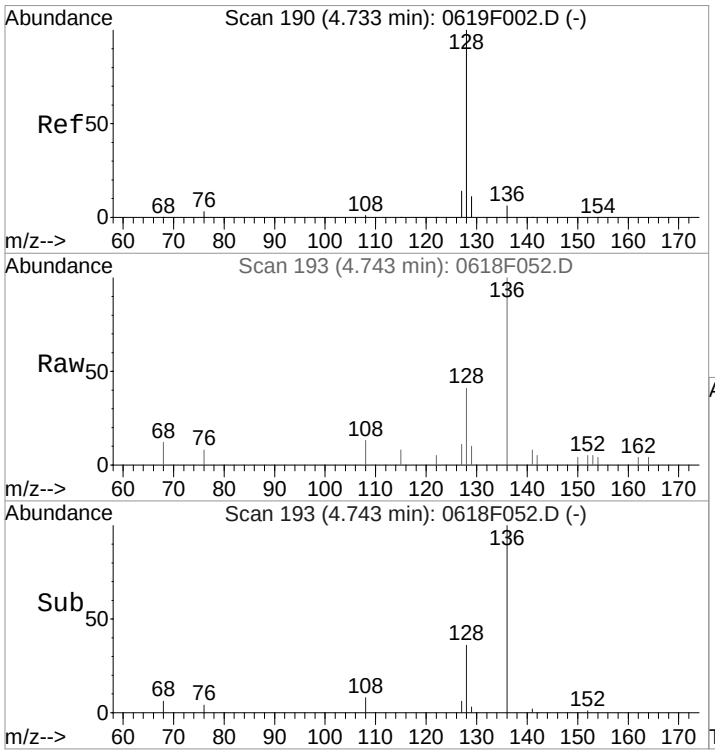
1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F052.D Vial: 49
Acq On : 19 Jun 2019 4:31 am Operator: LWeiskopf
Sample : K1905450-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 13:21 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jun 20 08:55:16 2019
Response via : Initial Calibration



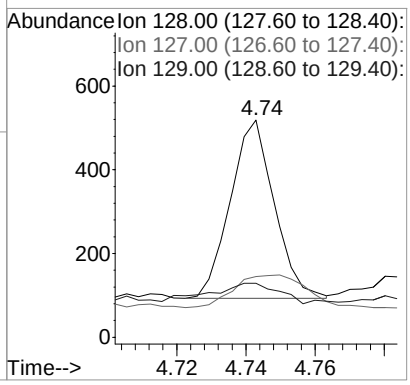
1st 06/20/19
2nd 06/20/19

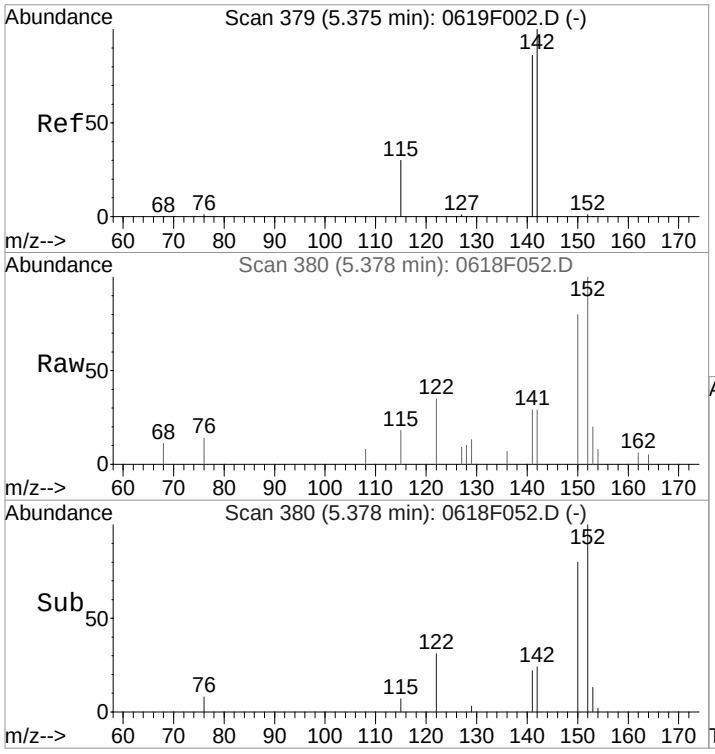


#2
Naphthalene
Concen: 1.04 ng/ml
RT: 4.74 min Scan# 193
Delta R.T. 0.00 min
Lab File: 0618F052.D
Acq: 19 Jun 2019 4:31 am

Tgt Ion:128 Resp: 376

Ion	Ratio	Lower	Upper
128	100		
127	17.4	0.0	44.1
129	10.1	0.0	30.8

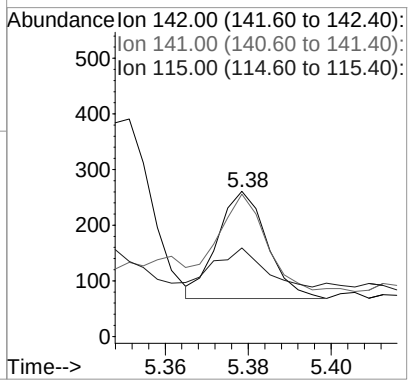




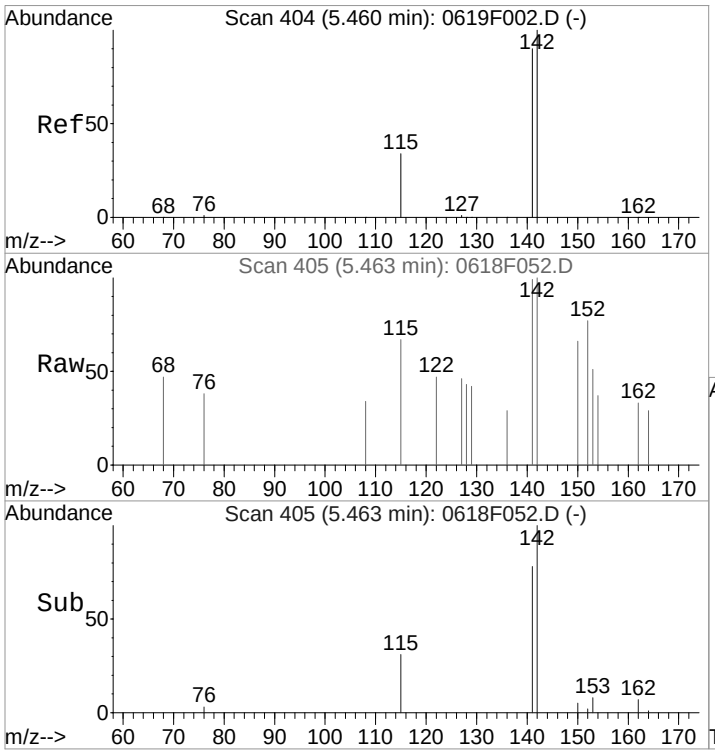
#4
2-Methylnaphthalene
Concen: 0.70 ng/ml
RT: 5.38 min Scan# 380
Delta R.T. -0.00 min
Lab File: 0618F052.D
Acq: 19 Jun 2019 4:31 am

Tgt Ion:142 Resp: 160

Ion	Ratio	Lower	Upper
142	100		
141	88.1	56.6	116.6
115	32.6	11.3	51.3



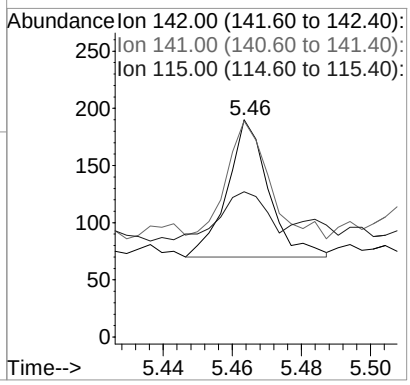
1st 06/20/19
2nd 06/20/19

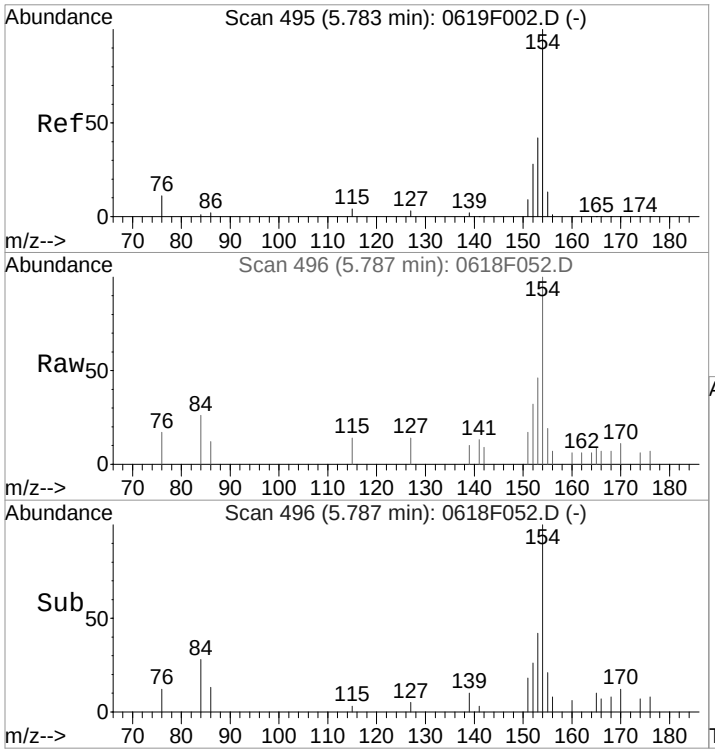


#5
1-Methylnaphthalene
Concen: 0.47 ng/ml
RT: 5.46 min Scan# 405
Delta R.T. -0.00 min
Lab File: 0618F052.D
Acq: 19 Jun 2019 4:31 am

Tgt Ion:142 Resp: 100

Ion	Ratio	Lower	Upper
142	100		
141	85.8	60.5	120.5
115	30.8	14.5	54.5

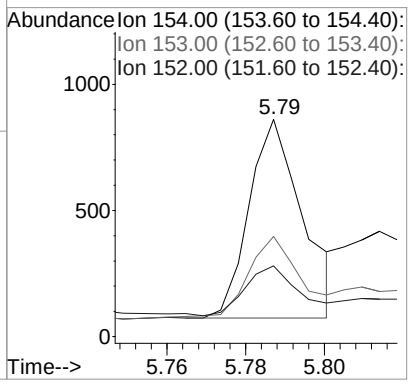


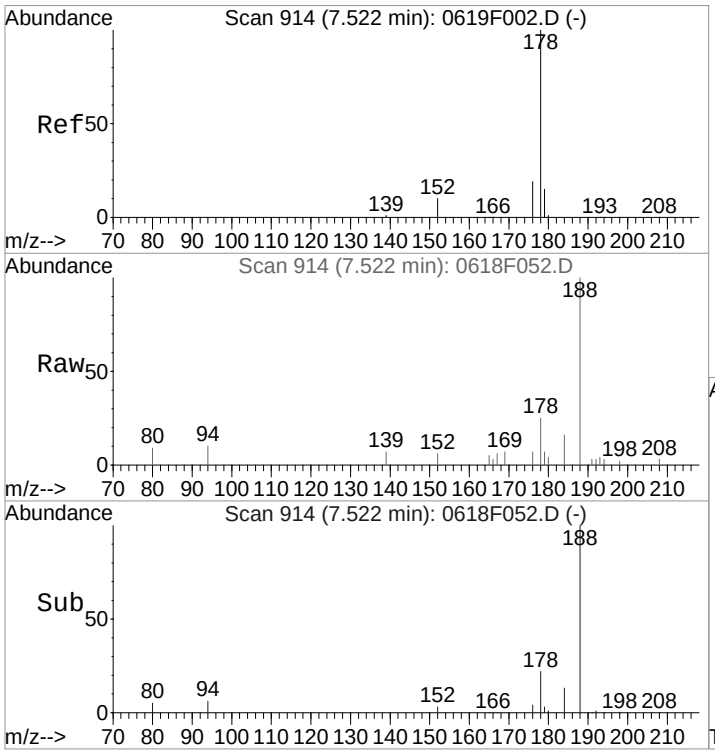


#6
Biphenyl
Concen: 2.58 ng/ml
RT: 5.79 min Scan# 496
Delta R.T. -0.00 min
Lab File: 0618F052.D
Acq: 19 Jun 2019 4:31 am

Tgt Ion:154 Resp: 743

Ion	Ratio	Lower	Upper
154	100		
153	40.2	11.4	71.4
152	23.9	7.2	47.2

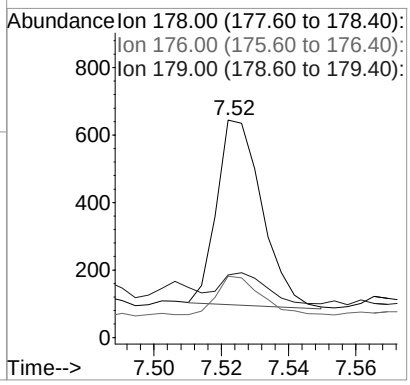


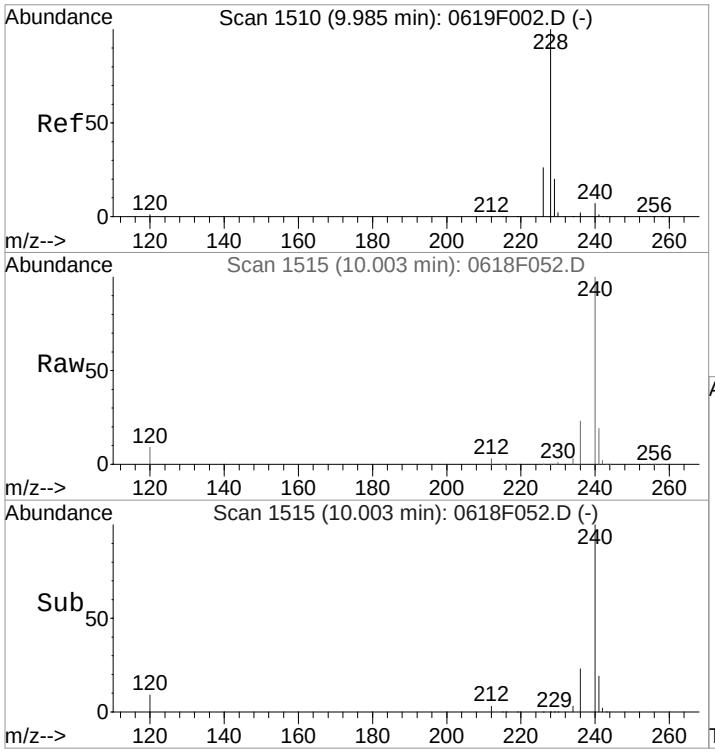


#17
Phenanthrene
Concen: 1.24 ng/ml m
RT: 7.52 min Scan# 914
Delta R.T. -0.01 min
Lab File: 0618F052.D
Acq: 19 Jun 2019 4:31 am

Tgt Ion:178 Resp: 511

Ion	Ratio	Lower	Upper
178	100		
176	28.2	0.0	48.4
179	28.7	0.0	35.2

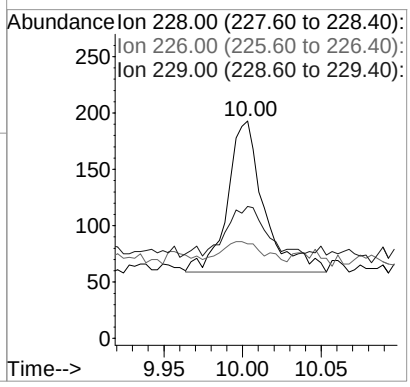




#26
Benz(a)anthracene
Concen: 0.45 ng/ml
RT: 10.00 min Scan# 1515
Delta R.T. 0.01 min
Lab File: 0618F052.D
Acq: 19 Jun 2019 4:31 am

Tgt Ion:228 Resp: 217

Ion	Ratio	Lower	Upper
228	100		
226	9.7	0.0	55.8
229	32.1	0.0	39.4



Quantitation Report (QT Reviewed)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F052.D Vial: 49
Acq On : 19 Jun 2019 4:31 am Operator: LWeiskopf
Sample : K1905450-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 04:56:30 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.72	136	64672	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.27	164	34827	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.51	188	67430	200.00	ng/ml	0.00
23) Chrysene-d12	10.00	240	76863	200.00	ng/ml	-0.01
28) Perylene-d12	13.00	264	91445	200.00	ng/ml	-0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	193829	1258.15	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 125.82%			
13) Fluorene-d10	6.70	176	217716	1140.47	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 114.05%			
22) Fluoranthene-d10	8.49	212	449316	974.79	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 97.48%			
25) Terphenyl-d14	8.83	244	339259	1014.93	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 101.49%			
Target Compounds						Qvalue
2) Naphthalene	4.74	128	376	1.04	ng/ml	95
4) 2-Methylnaphthalene	5.38	142	160	0.70	ng/ml	98
5) 1-Methylnaphthalene	5.46	142	100	0.47	ng/ml	95
6) Biphenyl	5.79	154	743	2.58	ng/ml	96
17) Phenanthrene	7.52	178	511m	1.24	ng/ml	
26) Benz(a)anthracene	10.00	228	217	0.45	ng/ml	70

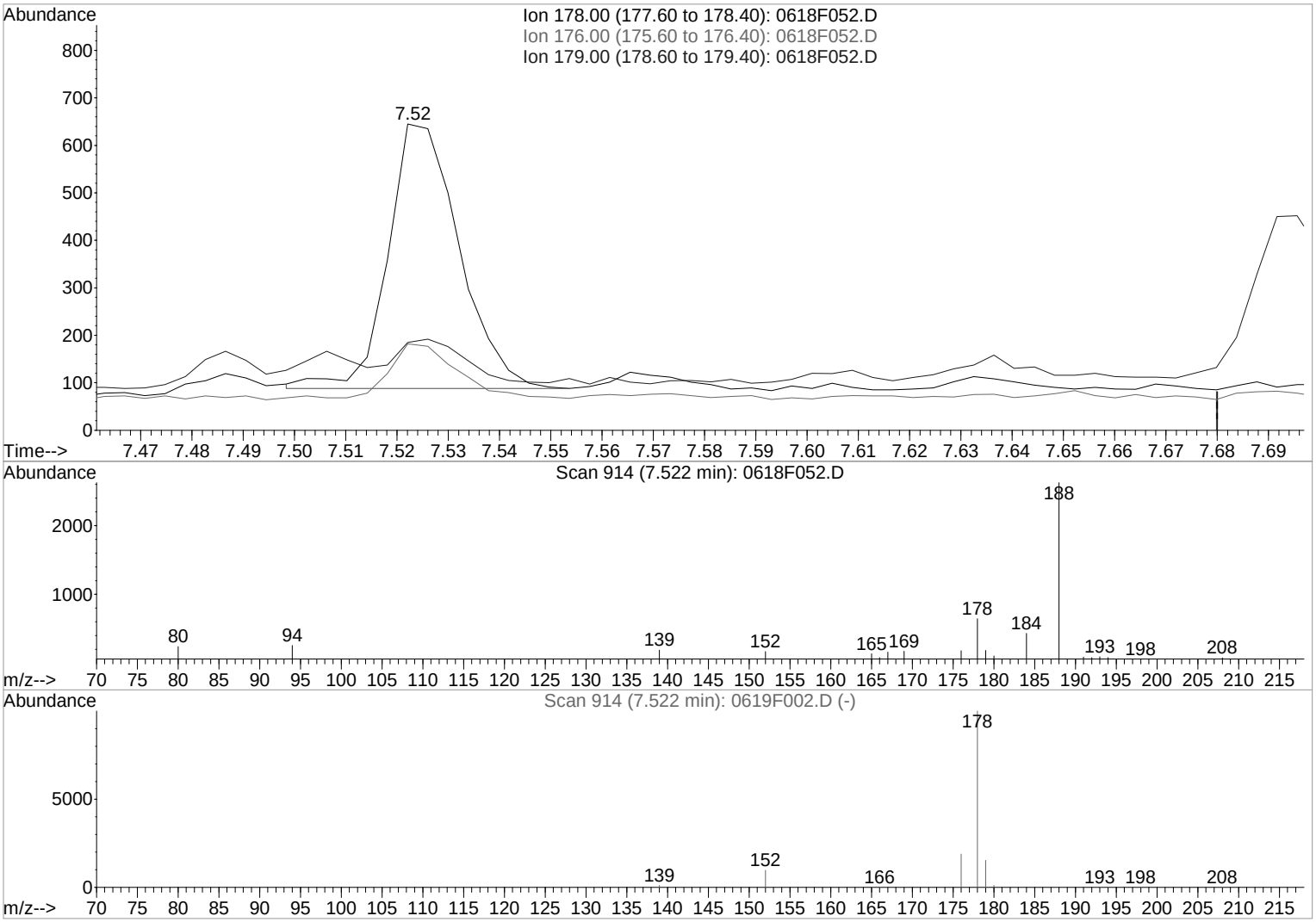
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F052.D Vial: 49
Acq On : 19 Jun 2019 4:31 am Operator: LWeiskopf
Sample : K1905450-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 13:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jun 20 08:55:16 2019
Response via : Multiple Level Calibration



TIC: 0618F052.D

(17) Phenanthrene (T)

7.52min 1.30ng/ml

response 538

Ion	Exp%	Act%
178.00	100	100
176.00	18.40	20.65
179.00	15.20	13.64
0.00	0.00	0.00

Manual Integration:

Before

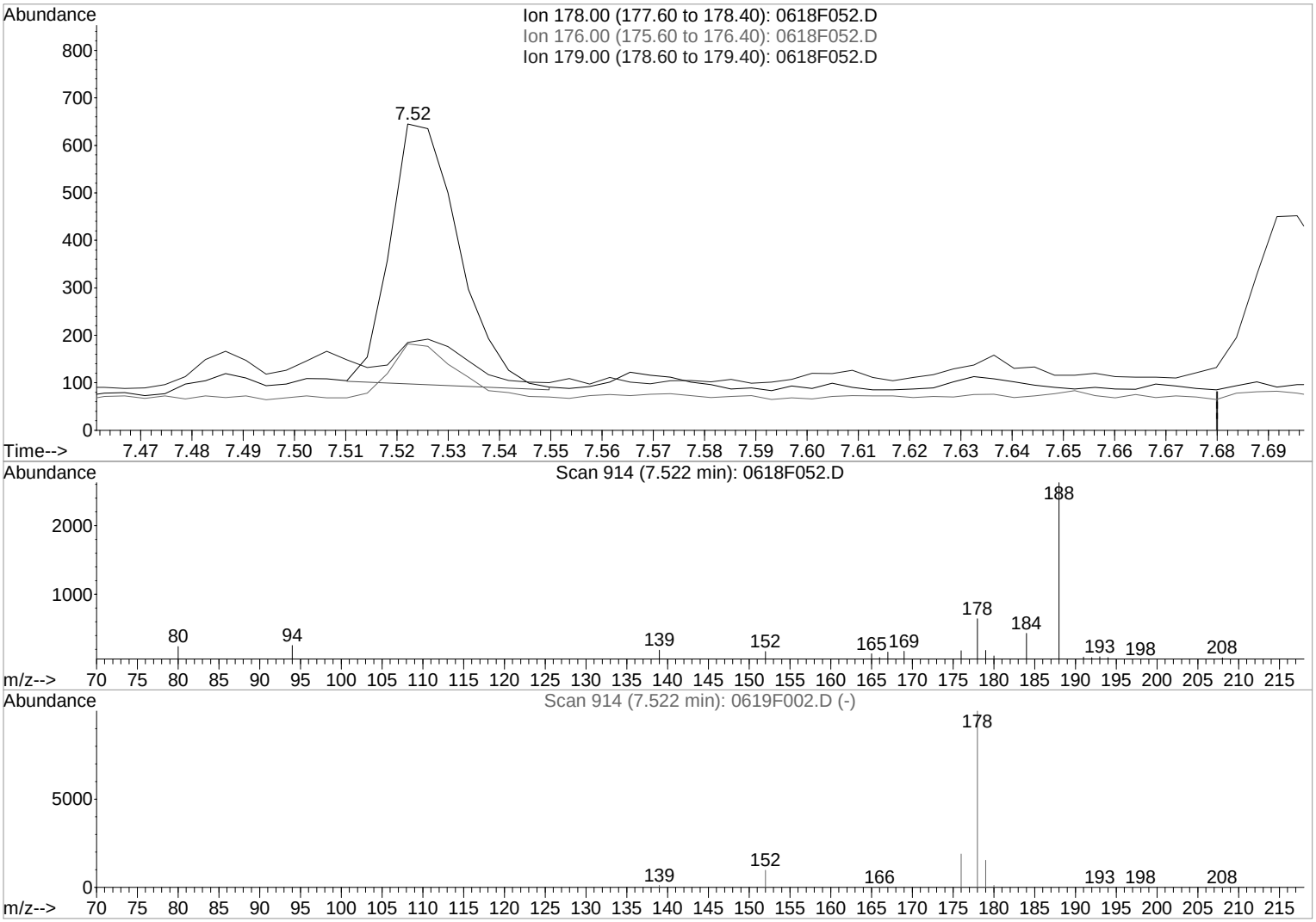
06/20/19

Quantitation Report (Qedit)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F052.D Vial: 49
Acq On : 19 Jun 2019 4:31 am Operator: LWeiskopf
Sample : K1905450-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 13:21 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jun 20 08:55:16 2019
Response via : Multiple Level Calibration



TIC: 0618F052.D

(17) Phenanthrene (T)

7.52min 1.24ng/ml m

response 511

Ion	Exp%	Act%
178.00	100	100
176.00	18.40	28.22
179.00	15.20	28.68
0.00	0.00	0.00

Manual Integration:

After

BLC

06/20/19

1st 06/20/19
2nd 06/20/19

Validation Report

Data File: J:\MS14\DATA\061919\0619F033.D\
Lab ID: K1905450-003
RunType: N/A
Matrix: Water

Date Acquired: 6/19/19 22:08:00
Batch ID: 640092
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 06/20/19
2nd 06/20/19

Quantitation Report

Data File:	J:\MS14\DATA\061919\0619F033.D\	**Instrument:**	K-MS-14
Acqu Date:	6/19/19 22:08:00	**Vial:**	10
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905450-003	**Raw Units:**	ng/mL

Bottle ID:	K1905450-003.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/9/19	**Receive Date:**	6/11/19

Analysis Lot:	640092	**Prep Lot:**	338543	**Report Group:**	K1905450
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/12/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900232
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.27		37283	200.00	OK
Chrysene-d12	10.00		88054	200.00	OK
Naphthalene-d8	4.72		68243	200.00	OK
Perylene-d12	13.00	-0.01	103380	200.00	OK
Phenanthrene-d10	7.50		71575	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.49		404503	826.75	83	42 - 133	Y
Fluorene-d10	6.70		198282	970.25	97	42 - 131	Y
Terphenyl-d14	8.83		332258	867.66	87	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.38		117	0.48	0.0021	J	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.00	+0.01	225	0.41	0.0018	J	Y
Benzo(a)pyrene	12.87	+0.03	1862	3.39	0.015	J	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	0.00		0	0.00	0	U	Y
Fluoranthene	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 06/20/19

2nd 06/20/19

Data File:	J:\MS14\DATA\061919\0619F033.D\	**Instrument:**	K-MS-14
Acqu Date:	6/19/19 22:08:00	**Vial:**	10
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905450-003	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.73		123	0.45	0.0020	J	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.74	+0.01	267	0.70	0.0031	J	Y
Phenanthrene	7.53	+0.01	536	1.22	0.0054	J	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/20/19 10:30

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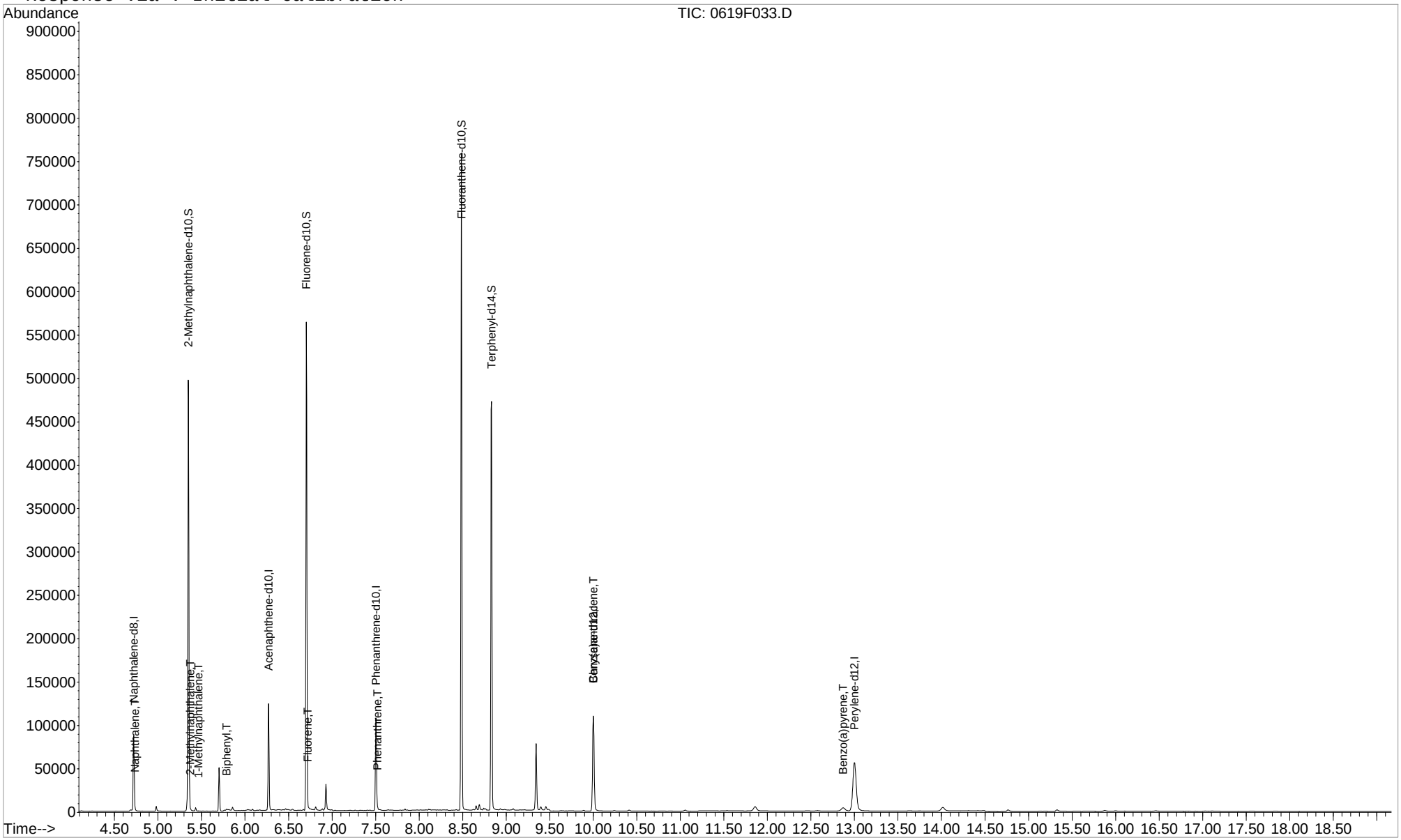
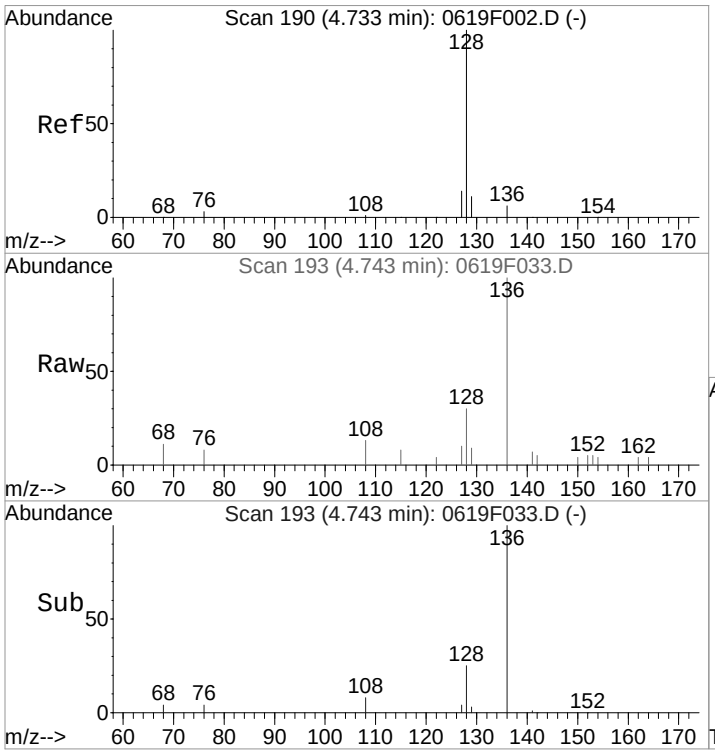
1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061919\0619F033.D Vial: 30
Acq On : 19 Jun 2019 10:08 pm Operator: LWeiskopf
Sample : K1905450-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 9:01 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Initial Calibration



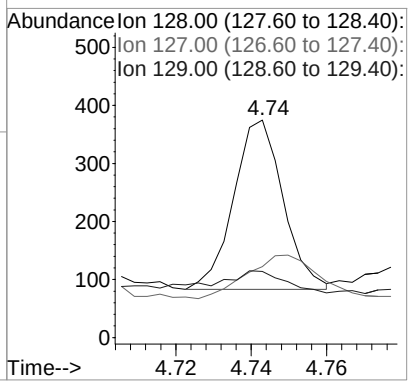
1st 06/20/19
2nd 06/20/19

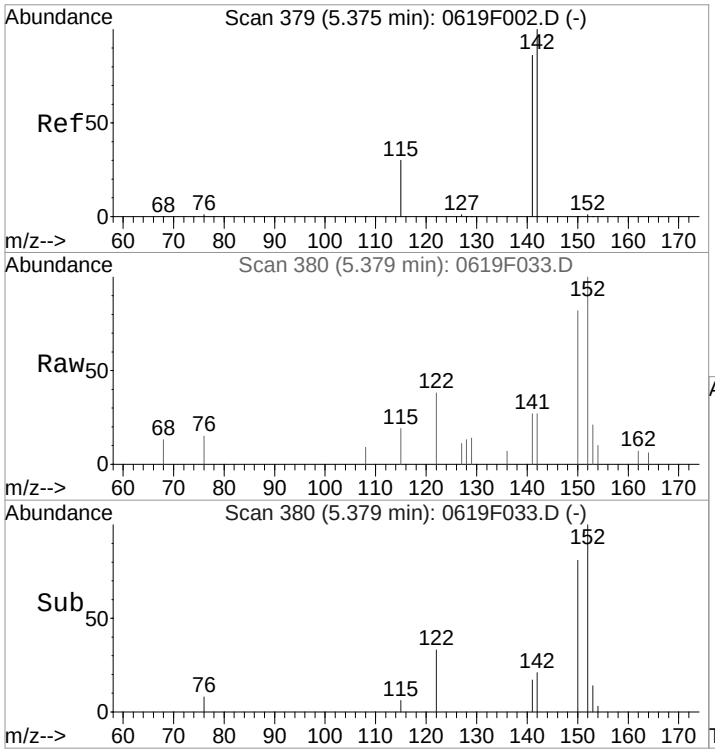


#2
Naphthalene
Concen: 0.70 ng/ml
RT: 4.74 min Scan# 193
Delta R.T. 0.00 min
Lab File: 0619F033.D
Acq: 19 Jun 2019 10:08 pm

Tgt Ion:128 Resp: 267

Ion	Ratio	Lower	Upper
128	100		
127	17.8	0.0	44.1
129	12.7	0.0	30.8

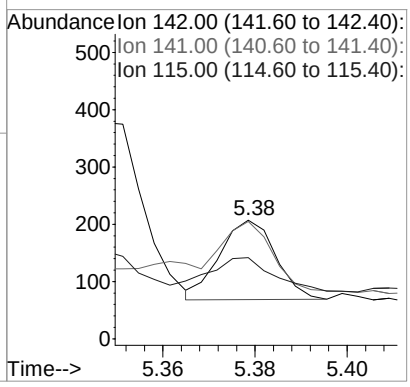




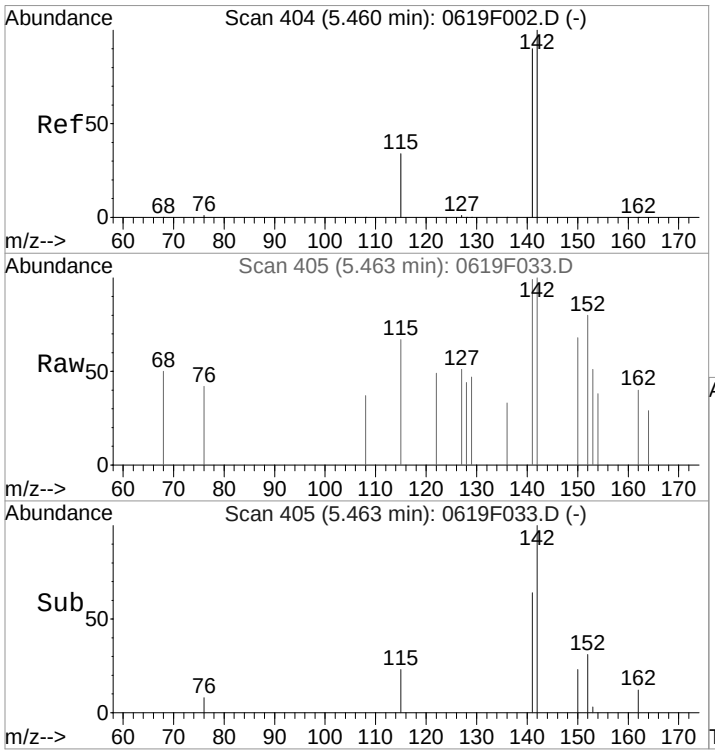
#4
2-Methylnaphthalene
Concen: 0.48 ng/ml
RT: 5.38 min Scan# 380
Delta R.T. -0.00 min
Lab File: 0619F033.D
Acq: 19 Jun 2019 10:08 pm

Tgt Ion:142 Resp: 117

Ion	Ratio	Lower	Upper
142	100		
141	87.7	56.6	116.6
115	42.8	11.3	51.3



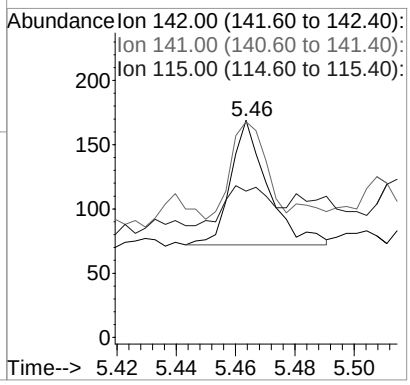
1st 06/20/19
2nd 06/20/19

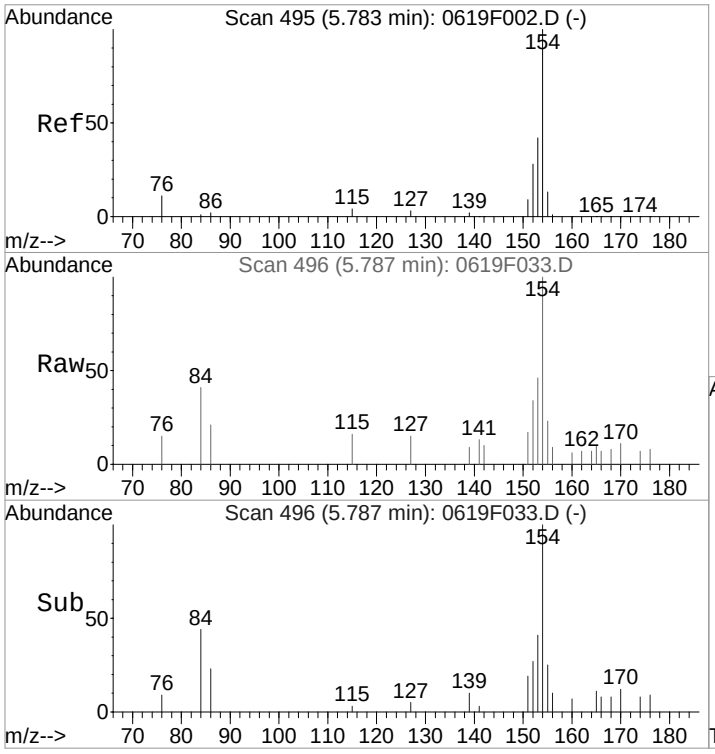


#5
1-Methylnaphthalene
Concen: 0.37 ng/ml
RT: 5.46 min Scan# 405
Delta R.T. -0.00 min
Lab File: 0619F033.D
Acq: 19 Jun 2019 10:08 pm

Tgt Ion:142 Resp: 84

Ion	Ratio	Lower	Upper
142	100		
141	72.2	60.5	120.5
115	27.8	14.5	54.5

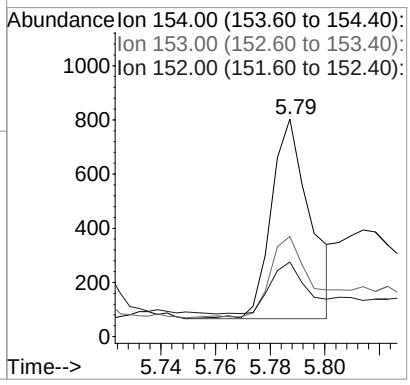


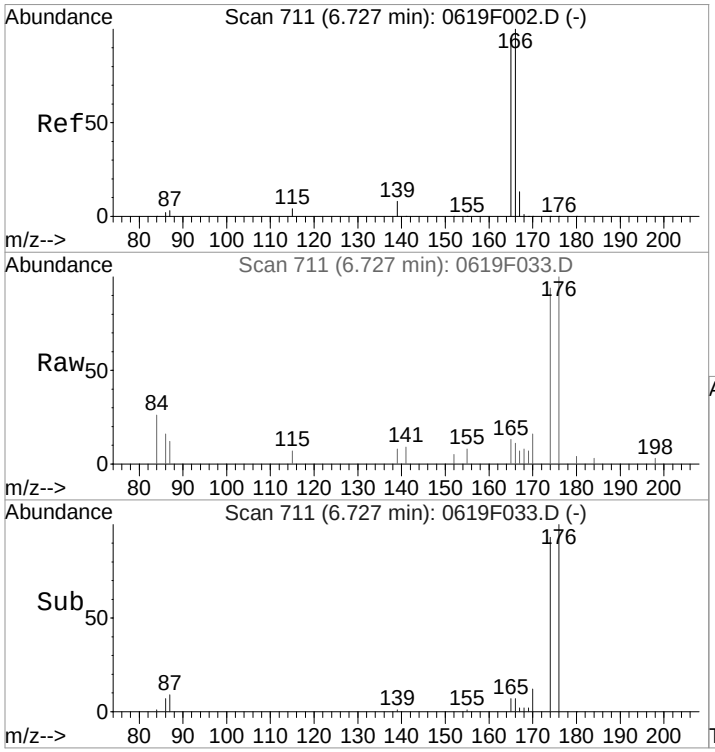


#6
Biphenyl
Concen: 2.76 ng/ml
RT: 5.79 min Scan# 496
Delta R.T. -0.00 min
Lab File: 0619F033.D
Acq: 19 Jun 2019 10:08 pm

Tgt Ion:154 Resp: 840

Ion	Ratio	Lower	Upper
154	100		
153	40.7	11.4	71.4
152	25.1	7.2	47.2

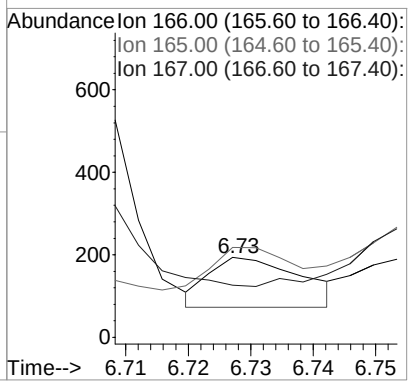


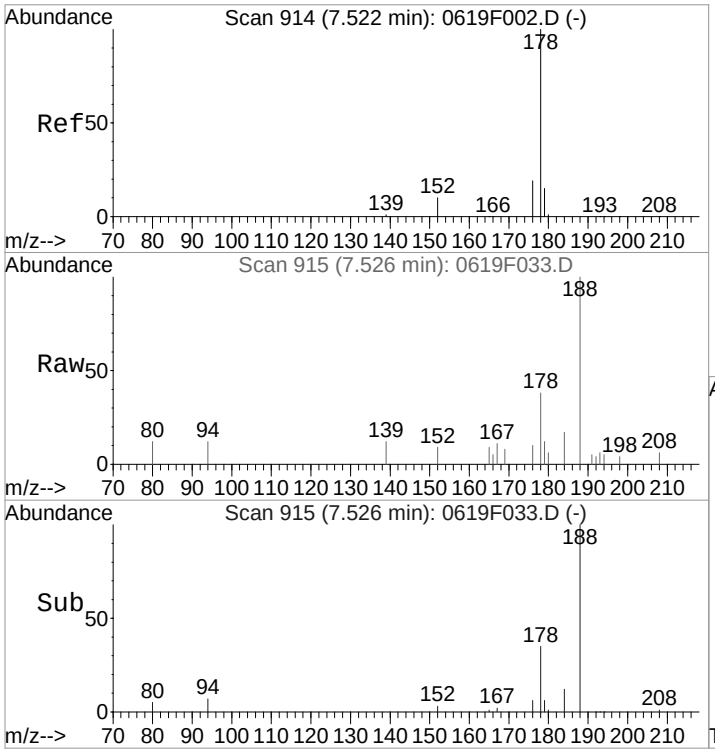


#14
Fluorene
Concen: 0.45 ng/ml
RT: 6.73 min Scan# 711
Delta R.T. -0.01 min
Lab File: 0619F033.D
Acq: 19 Jun 2019 10:08 pm

Tgt Ion:166 Resp: 123

Ion	Ratio	Lower	Upper
166	100		
165	109.4	63.5	123.5
167	0.0	0.0	33.1

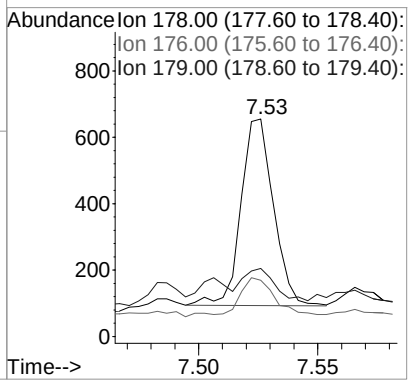


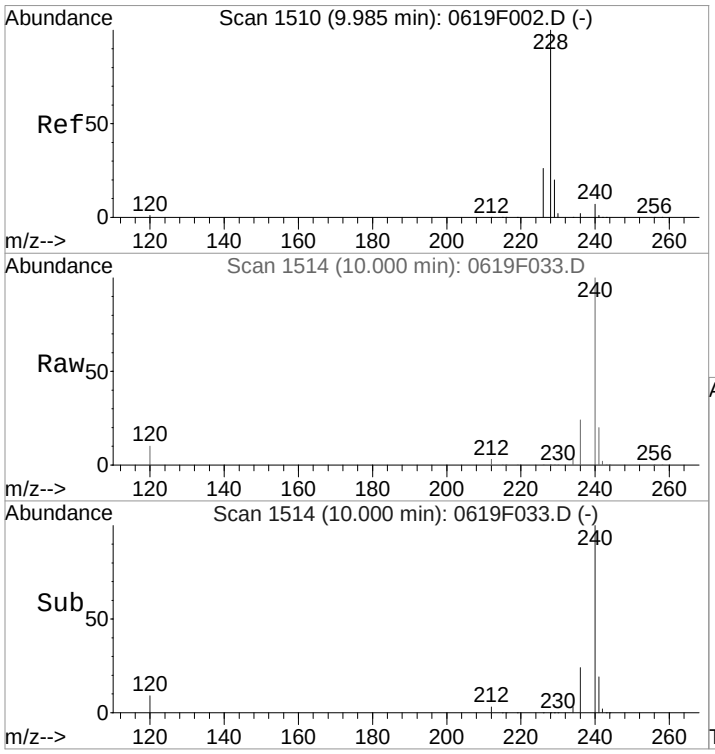


#17
Phenanthrene
Concen: 1.22 ng/ml
RT: 7.53 min Scan# 915
Delta R.T. -0.00 min
Lab File: 0619F033.D
Acq: 19 Jun 2019 10:08 pm

Tgt Ion:178 Resp: 536

Ion	Ratio	Lower	Upper
178	100		
176	19.4	0.0	48.4
179	15.7	0.0	35.2

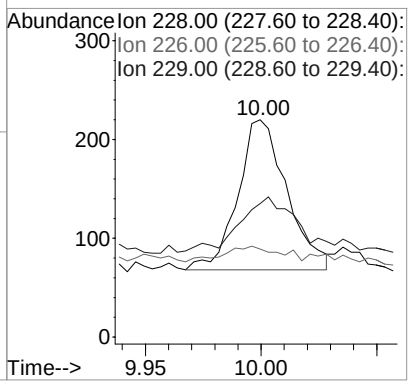


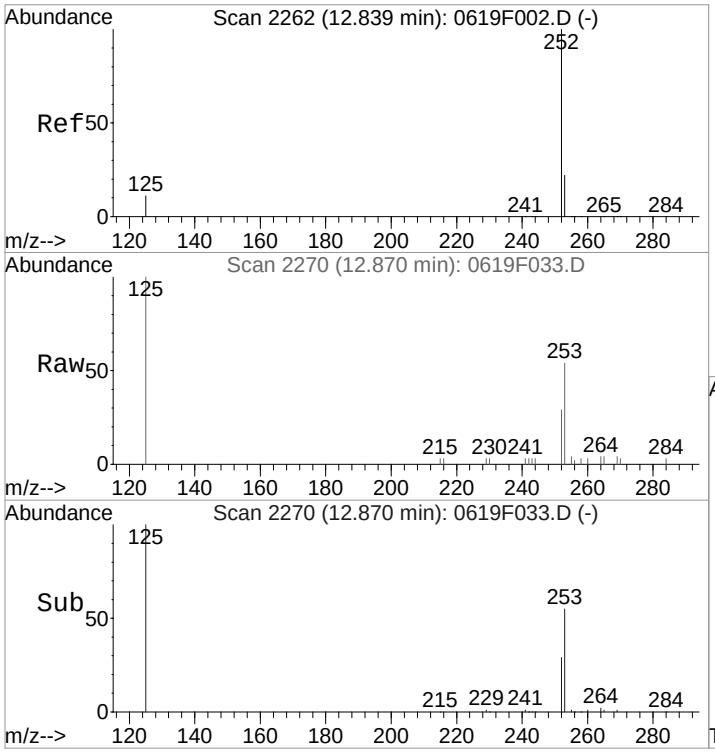


#26
Benz(a)anthracene
Concen: 0.41 ng/ml
RT: 10.00 min Scan# 1514
Delta R.T. 0.00 min
Lab File: 0619F033.D
Acq: 19 Jun 2019 10:08 pm

Tgt Ion:228 Resp: 225

Ion	Ratio	Lower	Upper
228	100		
226	8.6	0.0	55.8
229	31.6	0.0	39.4

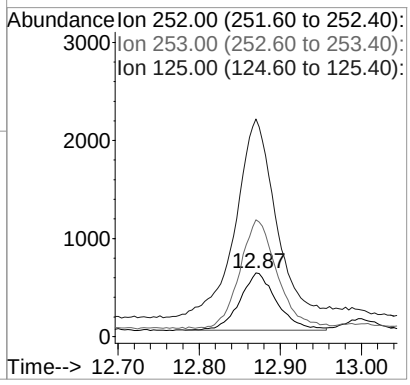




#32
Benzo(a)pyrene
Concen: 3.39 ng/ml
RT: 12.87 min Scan# 2270
Delta R.T. 0.01 min
Lab File: 0619F033.D
Acq: 19 Jun 2019 10:08 pm

Tgt Ion:252 Resp: 1862

Ion	Ratio	Lower	Upper
252	100		
253	190.1	0.0	51.4#
125	340.4	0.0	30.8#



Quantitation Report (QT Reviewed)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061919\0619F033.D Vial: 30
Acq On : 19 Jun 2019 10:08 pm Operator: LWeiskopf
Sample : K1905450-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 04:56:55 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.72	136	68243	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.27	164	37283	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.50	188	71575	200.00	ng/ml	0.00
23) Chrysene-d12	10.00	240	88054	200.00	ng/ml	-0.01
28) Perylene-d12	13.00	264	103380	200.00	ng/ml	-0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	174574	1073.87	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 107.39%			
13) Fluorene-d10	6.70	176	198282	970.25	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 97.02%			
22) Fluoranthene-d10	8.49	212	404503	826.75	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 82.67%			
25) Terphenyl-d14	8.83	244	332258	867.66	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 86.77%			
Target Compounds						Qvalue
2) Naphthalene	4.74	128	267	0.70	ng/ml	93
4) 2-Methylnaphthalene	5.38	142	117	0.48	ng/ml	94
5) 1-Methylnaphthalene	5.46	142	84	0.37	ng/ml	83
6) Biphenyl	5.79	154	840	2.76	ng/ml	98
14) Fluorene	6.73	166	123	0.45	ng/ml	81
17) Phenanthrene	7.53	178	536	1.22	ng/ml	98
26) Benz(a)anthracene	10.00	228	225	0.41	ng/ml	69
32) Benzo(a)pyrene	12.87	252	1862	3.39	ng/ml#	1

(#) = qualifier out of range (m) = manual integration

1st 06/20/19
2nd 06/20/19

Validation Report

Data File: J:\MS14\DATA\061919\0619F034.D\
Lab ID: K1905450-004
RunType: N/A
Matrix: Water

Date Acquired: 6/19/19 22:35:00
Batch ID: 640092
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/20/19 10:30
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Secondary Review: _____

1st 06/20/19
2nd 06/20/19

Quantitation Report

Data File:	J:\MS14\DATA\061919\0619F034.D\	**Instrument:**	K-MS-14
Acqu Date:	6/19/19 22:35:00	**Vial:**	11
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905450-004	**Raw Units:**	ng/mL

Bottle ID:	K1905450-004.01	**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/9/19	**Receive Date:**	6/11/19

Analysis Lot:	640092	**Prep Lot:**	338543	**Report Group:**	K1905450
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/12/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900232
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.27		38364	200.00	OK
Chrysene-d12	10.00		89180	200.00	OK
Naphthalene-d8	4.72		70475	200.00	OK
Perylene-d12	13.00	-0.01	104404	200.00	OK
Phenanthrene-d10	7.51	+0.01	73482	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.49		453745	903.32	90	42 - 133	Y
Fluorene-d10	6.70		219980	1046.09	105	42 - 131	Y
Terphenyl-d14	8.83		376702	971.30	97	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.38		110	0.44	0.0023	J	Y
Acenaphthene	6.30		72	0.29	0.0015	J	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.00	+0.01	238	0.43	0.0023	J	Y
Benzo(a)pyrene	12.87	+0.03	1379	2.49	0.013	J	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	6.45		151	0.40	0.0021	J	Y
Fluoranthene	0.00		0	0.00	0	U	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/20/19 10:30
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1st 06/20/19

2nd 06/20/19

Data File:	J:\MS14\DATA\061919\0619F034.D\	**Instrument:**	K-MS-14
Acqu Date:	6/19/19 22:35:00	**Vial:**	11
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1905450-004	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.73		67	0.24	0.0013	U	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.74	+0.01	224	0.57	0.0030	J	Y
Phenanthrene	7.53	+0.01	604	1.34	0.0071	J	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	375.0000 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/20/19 10:30

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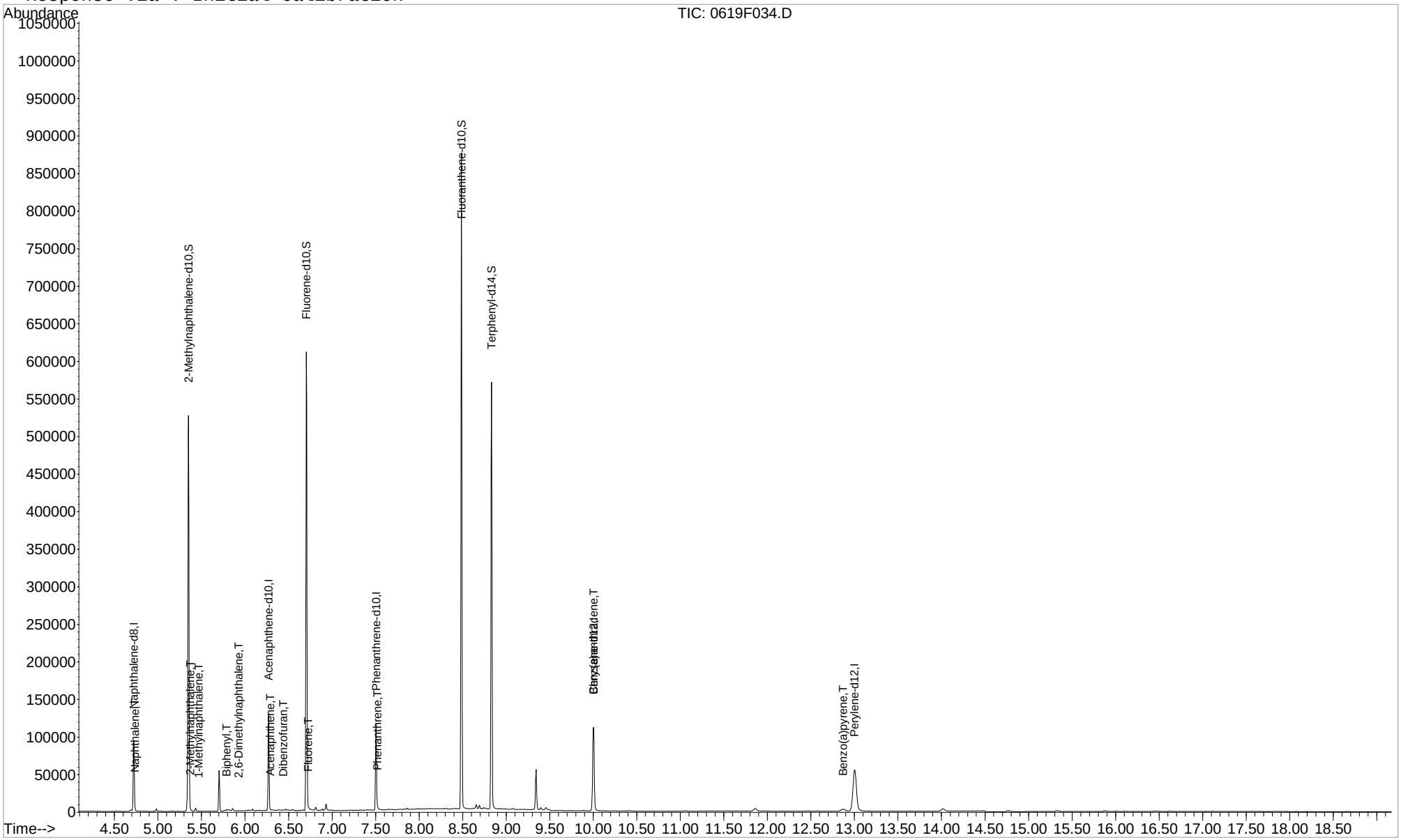
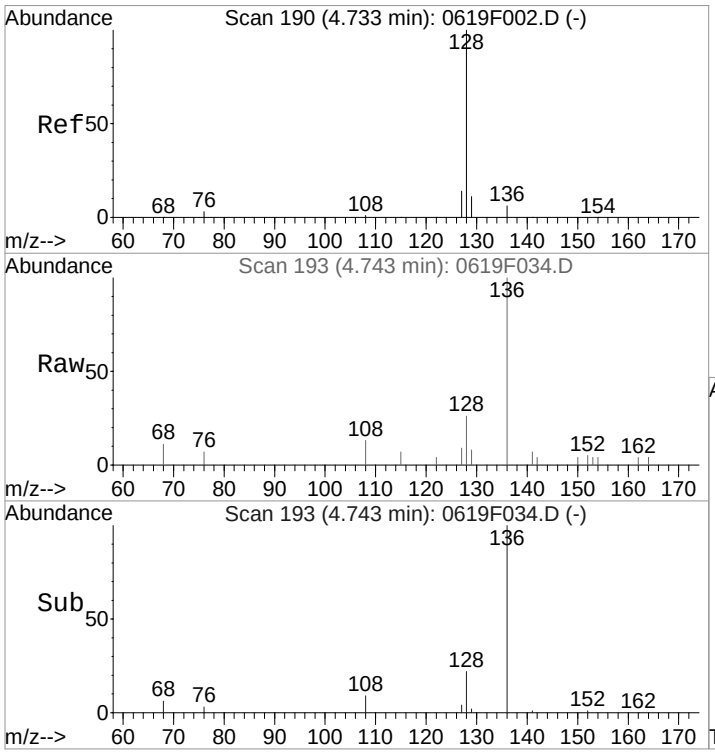
1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061919\0619F034.D Vial: 31
Acq On : 19 Jun 2019 10:35 pm Operator: LWeiskopf
Sample : K1905450-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 9:06 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Initial Calibration



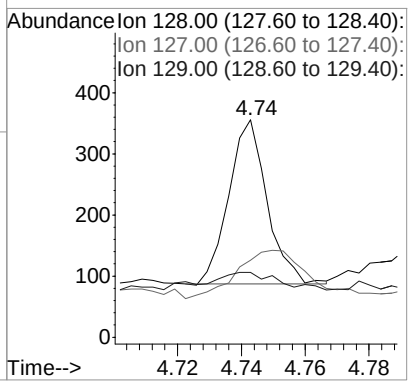
1st 06/20/19
2nd 06/20/19

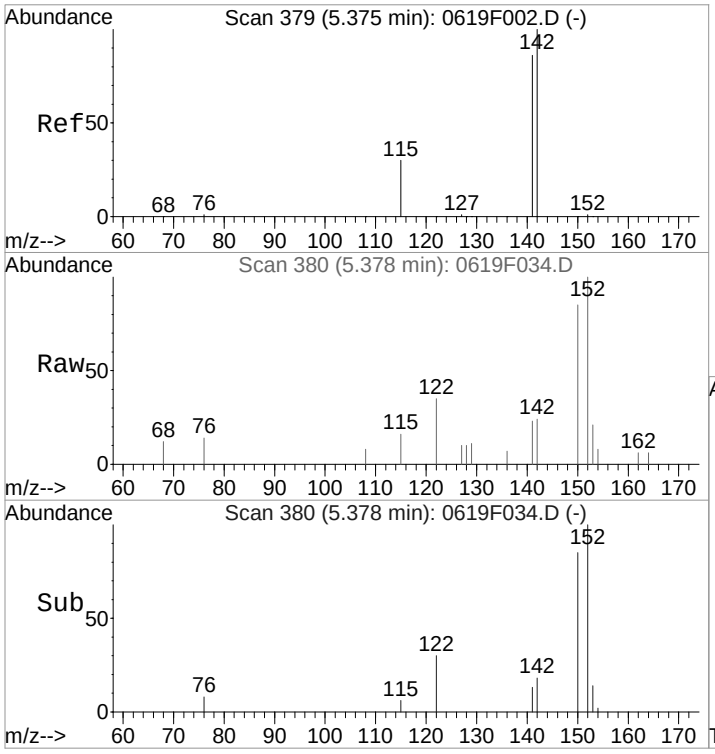


#2
Naphthalene
Concen: 0.57 ng/ml
RT: 4.74 min Scan# 193
Delta R.T. 0.00 min
Lab File: 0619F034.D
Acq: 19 Jun 2019 10:35 pm

Tgt Ion:128 Resp: 224

Ion	Ratio	Lower	Upper
128	100		
127	23.4	0.0	44.1
129	10.8	0.0	30.8

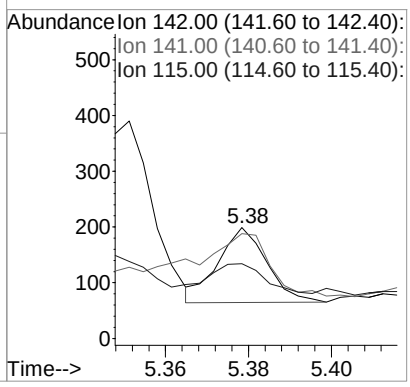


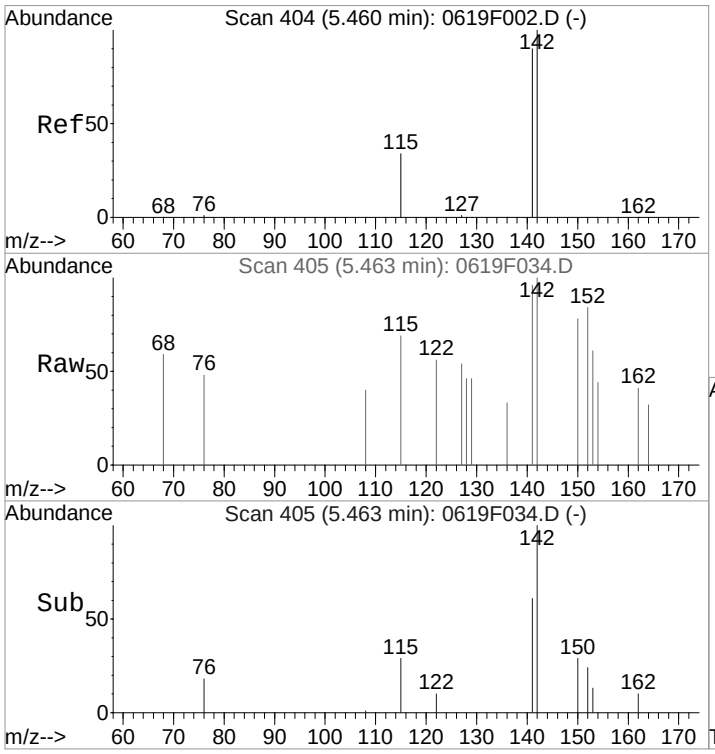


#4
2-Methylnaphthalene
Concen: 0.44 ng/ml
RT: 5.38 min Scan# 380
Delta R.T. -0.00 min
Lab File: 0619F034.D
Acq: 19 Jun 2019 10:35 pm

Tgt Ion:142 Resp: 110

Ion	Ratio	Lower	Upper
142	100		
141	83.6	56.6	116.6
115	32.8	11.3	51.3

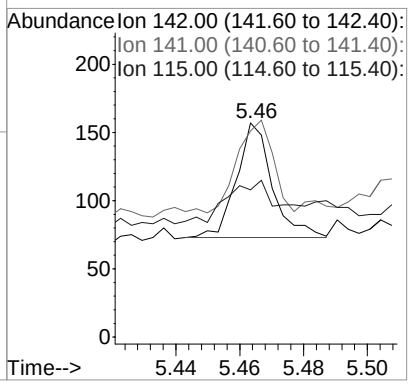


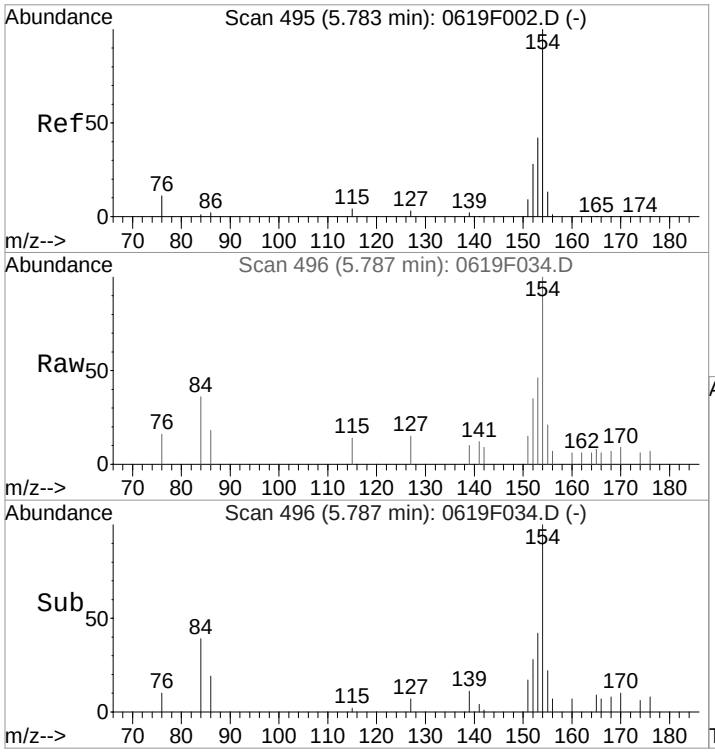


#5
1-Methylnaphthalene
Concen: 0.28 ng/ml
RT: 5.46 min Scan# 405
Delta R.T. -0.00 min
Lab File: 0619F034.D
Acq: 19 Jun 2019 10:35 pm

Tgt Ion:142 Resp: 65

Ion	Ratio	Lower	Upper
142	100		
141	70.2	60.5	120.5
115	27.4	14.5	54.5

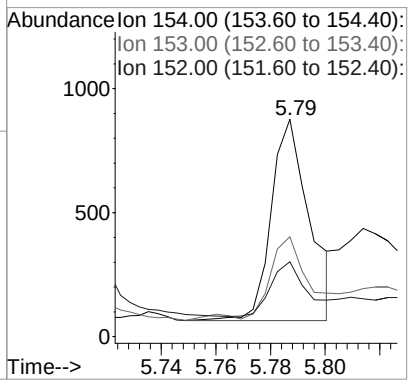


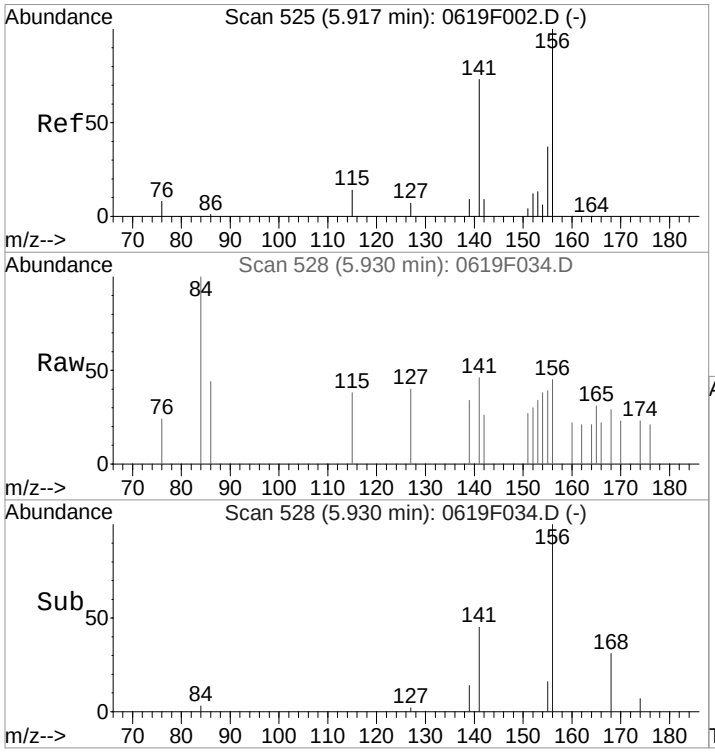


#6
Biphenyl
Concen: 2.89 ng/ml
RT: 5.79 min Scan# 496
Delta R.T. -0.00 min
Lab File: 0619F034.D
Acq: 19 Jun 2019 10:35 pm

Tgt Ion:154 Resp: 909

Ion	Ratio	Lower	Upper
154	100		
153	41.5	11.4	71.4
152	26.4	7.2	47.2

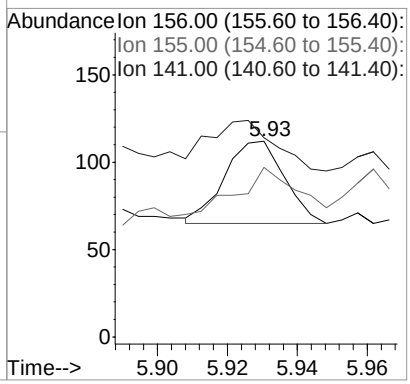


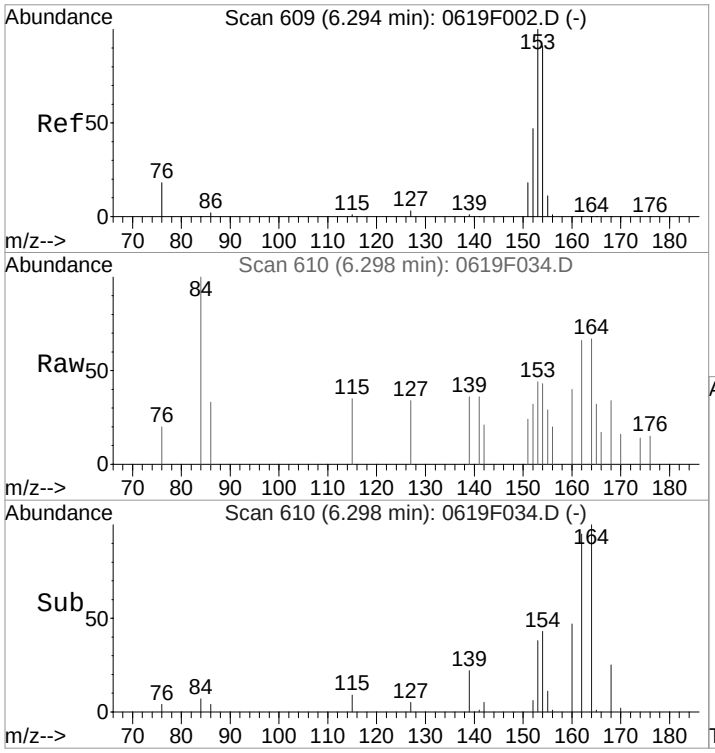


#7
2,6-Dimethylnaphthalene
Concen: 0.26 ng/ml
RT: 5.93 min Scan# 528
Delta R.T. 0.00 min
Lab File: 0619F034.D
Acq: 19 Jun 2019 10:35 pm

Tgt Ion:156 Resp: 56

Ion	Ratio	Lower	Upper
156	100		
155	57.4	6.6	66.6
141	40.4	46.0	86.0#

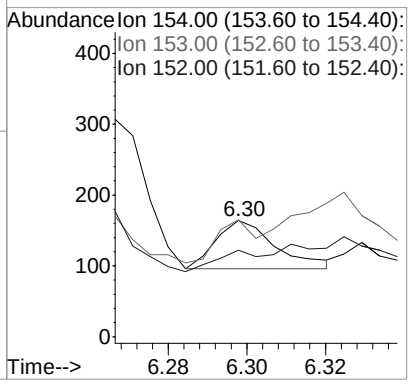


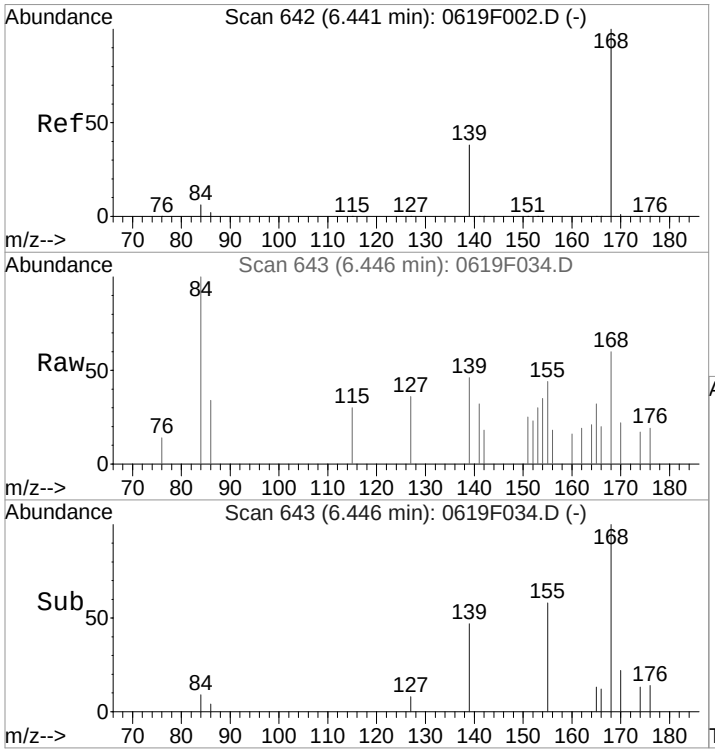


#10
Acenaphthene
Concen: 0.29 ng/ml
RT: 6.30 min Scan# 610
Delta R.T. -0.00 min
Lab File: 0619F034.D
Acq: 19 Jun 2019 10:35 pm

Tgt Ion:154 Resp: 72

Ion	Ratio	Lower	Upper
154	100		
153	89.7	78.0	138.0
152	44.1	21.1	81.1

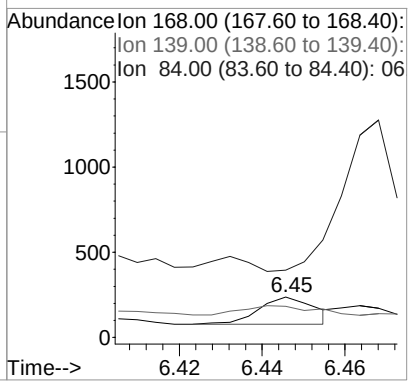


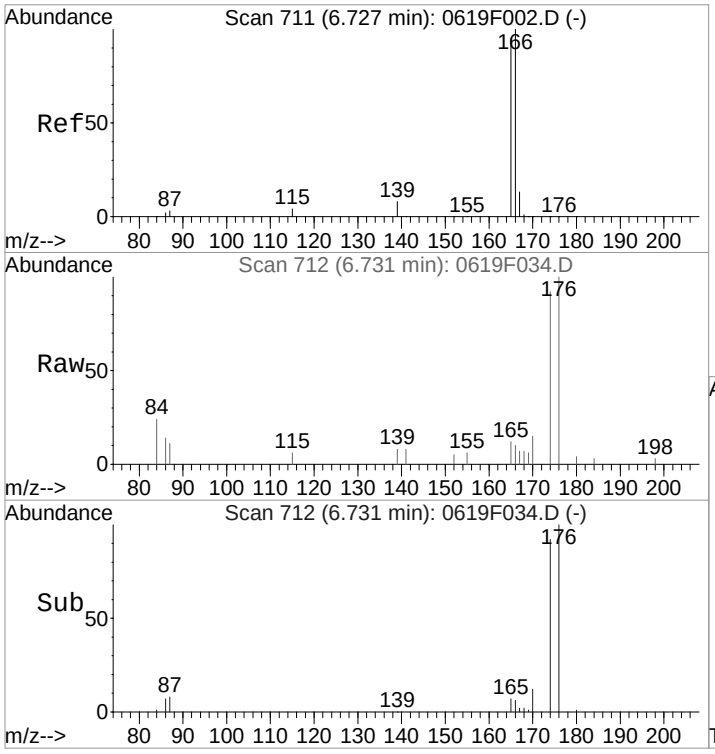


#11
Dibenzofuran
Concen: 0.40 ng/ml m
RT: 6.45 min Scan# 643
Delta R.T. -0.00 min
Lab File: 0619F034.D
Acq: 19 Jun 2019 10:35 pm

Tgt Ion:168 Resp: 151

Ion	Ratio	Lower	Upper
168	100		
139	76.8	0.0	58.7#
84	167.1	0.0	24.5#

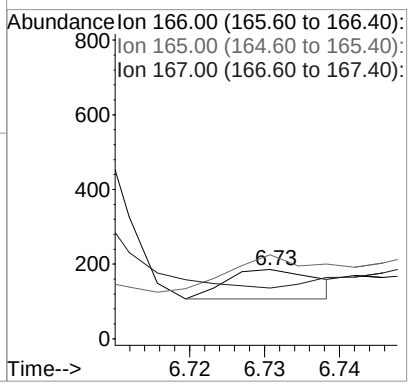




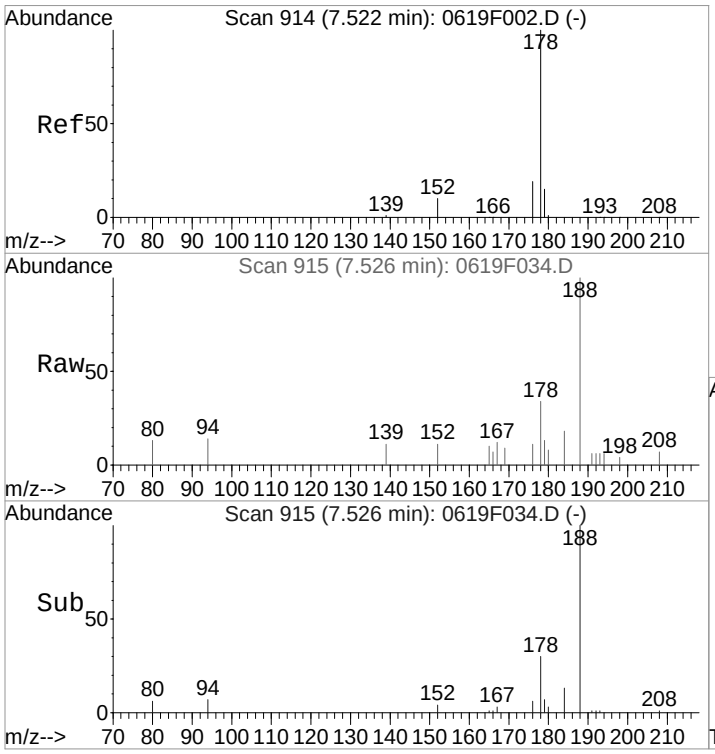
#14
Fluorene
Concen: 0.24 ng/ml
RT: 6.73 min Scan# 712
Delta R.T. -0.00 min
Lab File: 0619F034.D
Acq: 19 Jun 2019 10:35 pm

Tgt Ion:166 Resp: 67

Ion	Ratio	Lower	Upper
166	100		
165	115.2	63.5	123.5
167	0.0	0.0	33.1



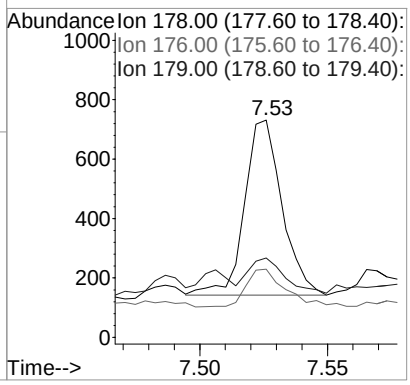
1st 06/20/19
2nd 06/20/19

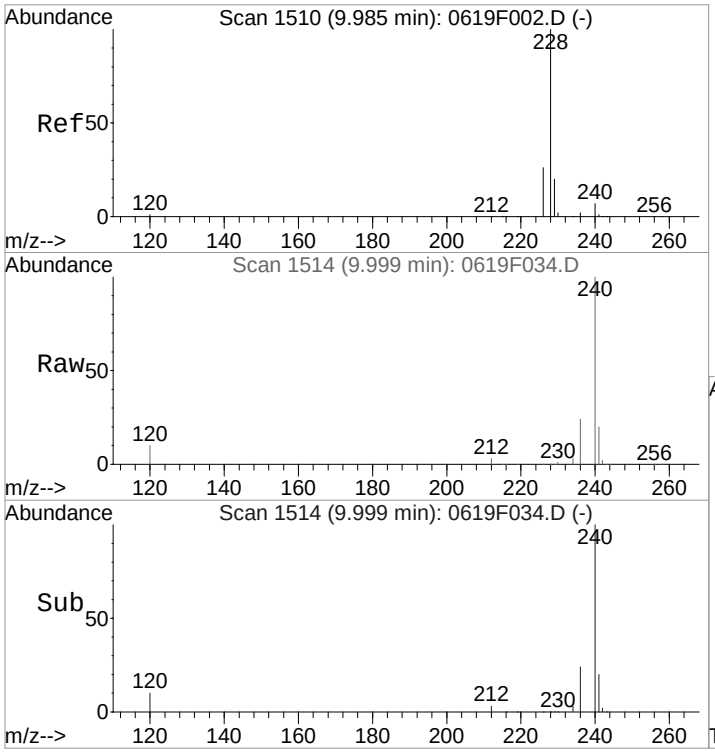


#17
Phenanthrene
Concen: 1.34 ng/ml
RT: 7.53 min Scan# 915
Delta R.T. -0.00 min
Lab File: 0619F034.D
Acq: 19 Jun 2019 10:35 pm

Tgt Ion:178 Resp: 604

Ion	Ratio	Lower	Upper
178	100		
176	20.3	0.0	48.4
179	20.0	0.0	35.2

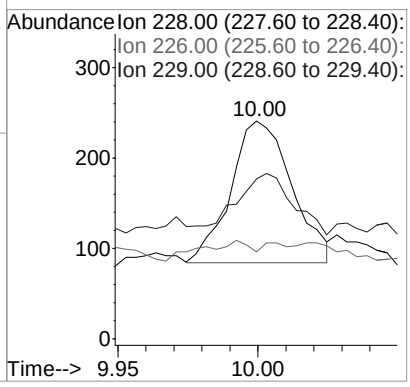


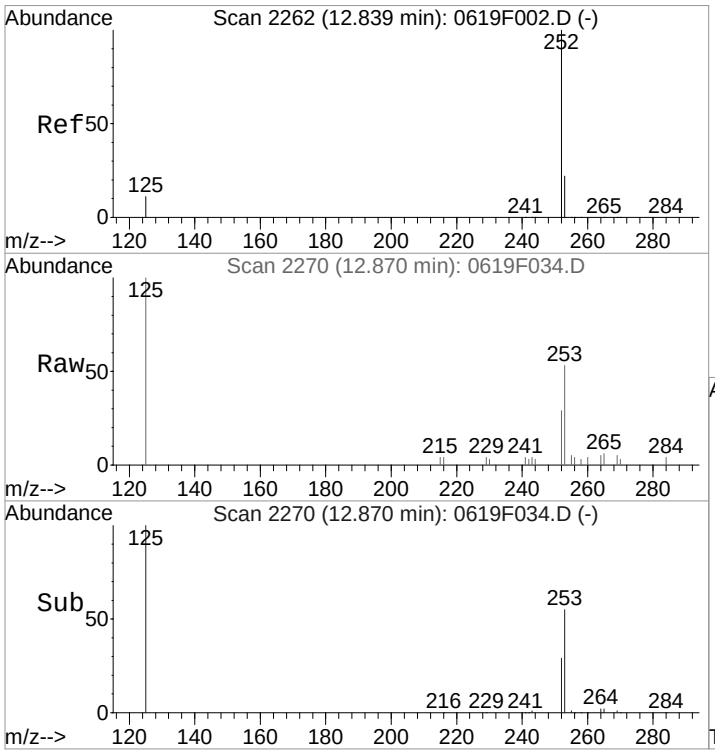


#26
Benz(a)anthracene
Concen: 0.43 ng/ml m
RT: 10.00 min Scan# 1514
Delta R.T. 0.00 min
Lab File: 0619F034.D
Acq: 19 Jun 2019 10:35 pm

Tgt Ion:228 Resp: 238

Ion	Ratio	Lower	Upper
228	100		
226	39.8	0.0	55.8
229	73.4	0.0	39.4#

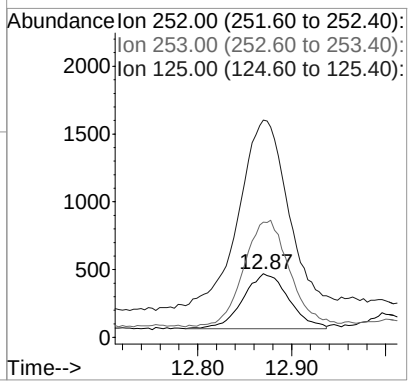




#32
Benzo(a)pyrene
Concen: 2.49 ng/ml
RT: 12.87 min Scan# 2270
Delta R.T. 0.01 min
Lab File: 0619F034.D
Acq: 19 Jun 2019 10:35 pm

Tgt Ion:252 Resp: 1379

Ion	Ratio	Lower	Upper
252	100		
253	189.9	0.0	51.4#
125	337.7	0.0	30.8#



Quantitation Report (QT Reviewed)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061919\0619F034.D Vial: 31
Acq On : 19 Jun 2019 10:35 pm Operator: LWeiskopf
Sample : K1905450-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 04:56:57 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.72	136	70475	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.27	164	38364	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.51	188	73482	200.00	ng/ml	0.00
23) Chrysene-d12	10.00	240	89180	200.00	ng/ml	0.00
28) Perylene-d12	13.00	264	104404	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	193101	1150.21	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 115.02%			
13) Fluorene-d10	6.70	176	219980	1046.09	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 104.61%			
22) Fluoranthene-d10	8.49	212	453745	903.32	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 90.33%			
25) Terphenyl-d14	8.83	244	376702	971.30	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 97.13%			
Target Compounds						Qvalue
2) Naphthalene	4.74	128	224	0.57	ng/ml	87
4) 2-Methylnaphthalene	5.38	142	110	0.44	ng/ml	97
5) 1-Methylnaphthalene	5.46	142	65	0.28	ng/ml	81
6) Biphenyl	5.79	154	909	2.89	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.93	156	56	0.26	ng/ml#	67
10) Acenaphthene	6.30	154	72	0.29	ng/ml	85
11) Dibenzofuran	6.45	168	151m	0.40	ng/ml	
14) Fluorene	6.73	166	67	0.24	ng/ml	76
17) Phenanthrene	7.53	178	604	1.34	ng/ml	92
26) Benz(a)anthracene	10.00	228	238m	0.43	ng/ml	
32) Benzo(a)pyrene	12.87	252	1379	2.49	ng/ml#	1

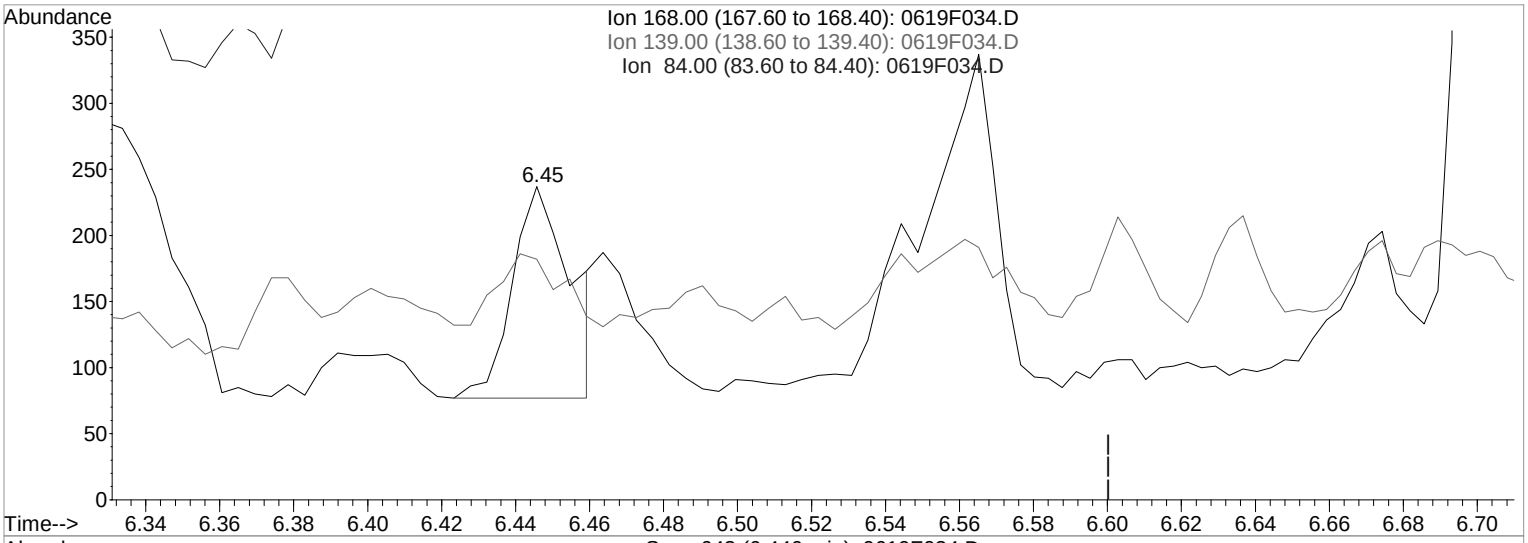
(#) = qualifier out of range (m) = manual integration

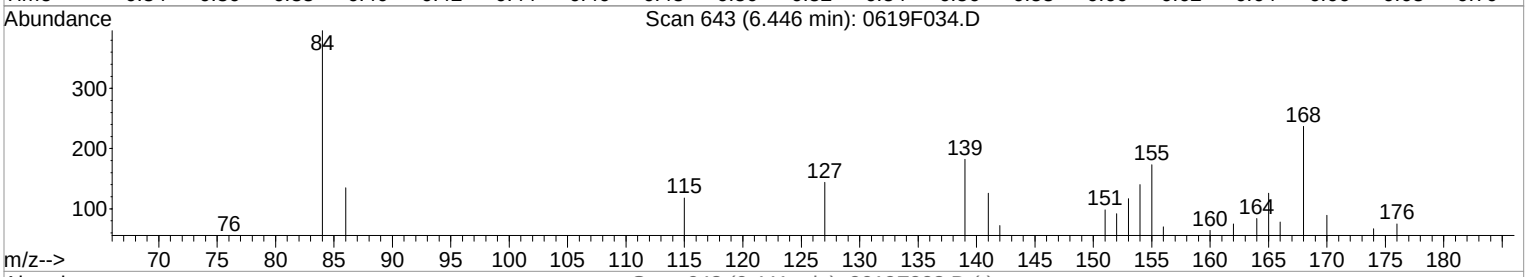
Quantitation Report (Qedit)

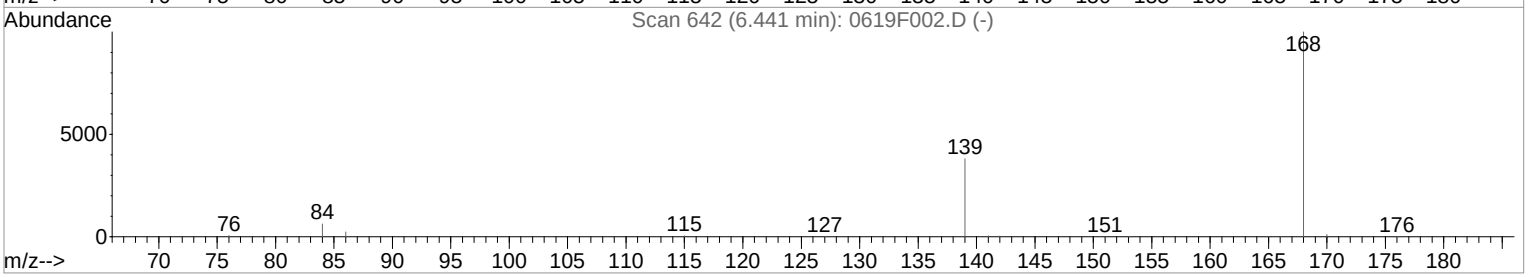
1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061919\0619F034.D Vial: 31
Acq On : 19 Jun 2019 10:35 pm Operator: LWeiskopf
Sample : K1905450-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 9:03 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Multiple Level Calibration







TIC: 0619F034.D

(11) Dibenzofuran (T)

6.45min 0.47ng/ml

response 177

Ion	Exp%	Act%
168.00	100	100
139.00	28.70	31.25
84.00	4.50	0.00
0.00	0.00	0.00

Manual Integration:

Before

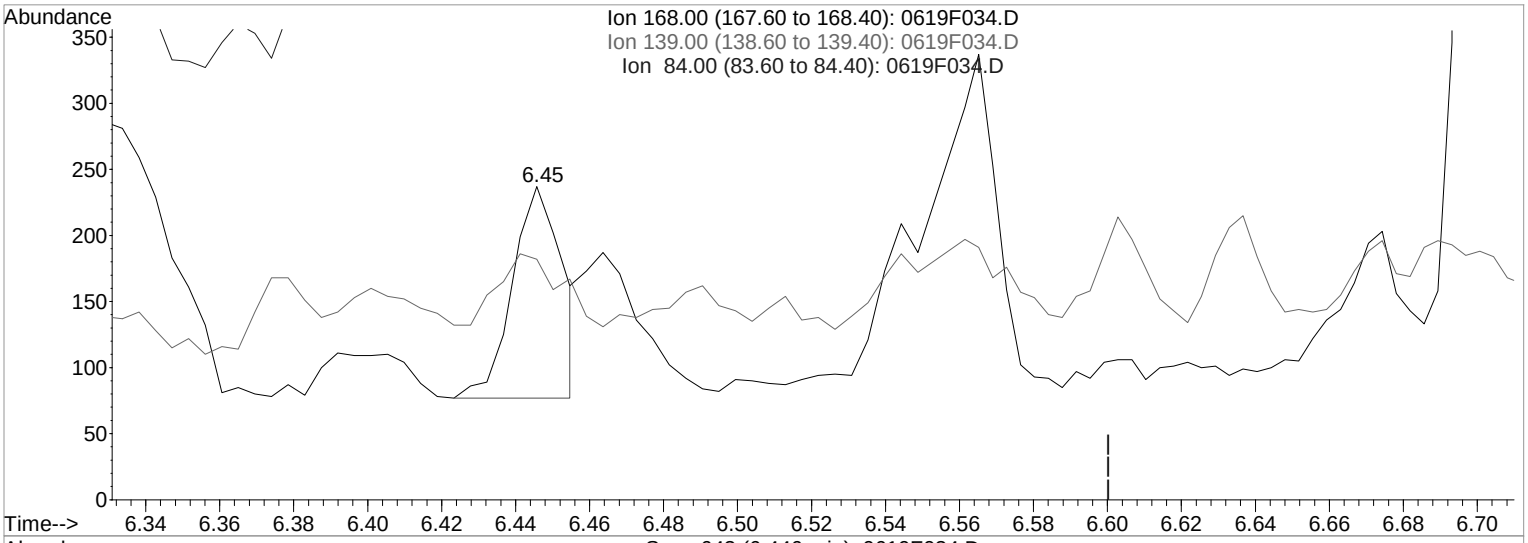
06/20/19

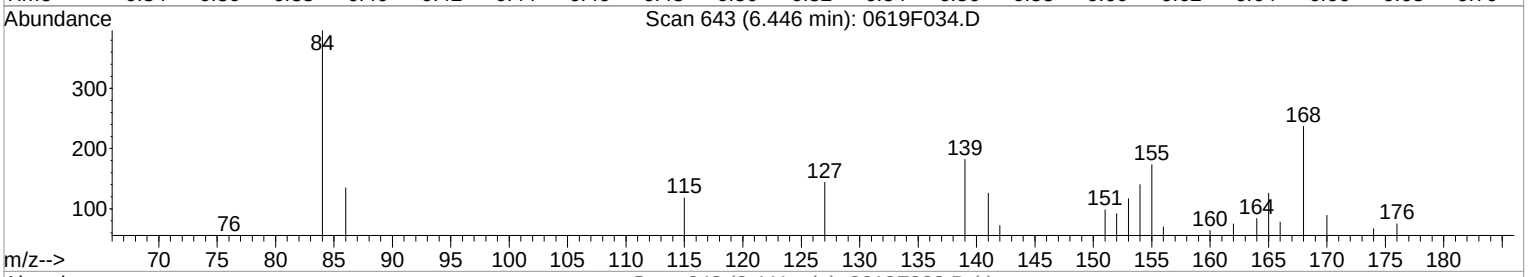
Quantitation Report (Qedit)

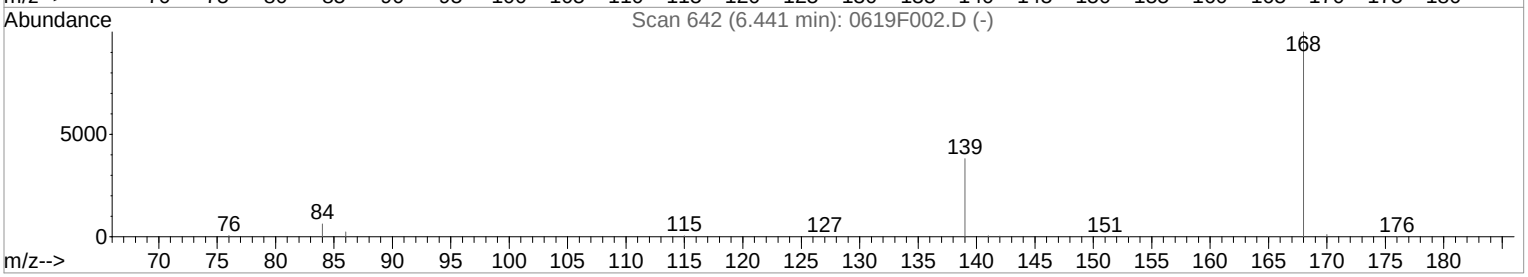
1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061919\0619F034.D Vial: 31
Acq On : 19 Jun 2019 10:35 pm Operator: LWeiskopf
Sample : K1905450-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 9:03 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Multiple Level Calibration







TIC: 0619F034.D

(11) Dibenzofuran (T)

6.45min 0.40ng/ml m

response 151

Ion	Exp%	Act%
168.00	100	100
139.00	28.70	76.79#
84.00	4.50	167.09#
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

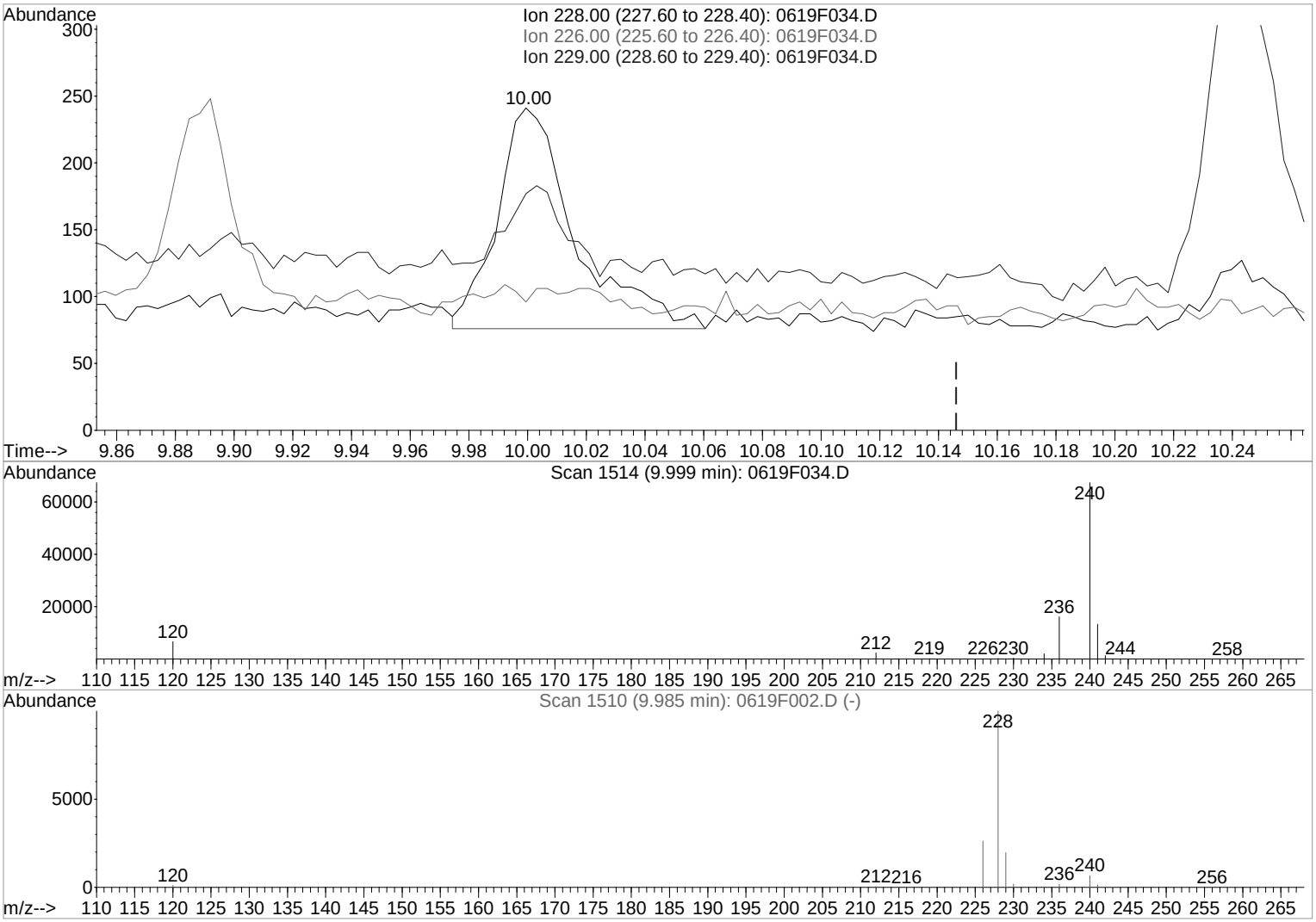
06/20/19

Quantitation Report (Qedit)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061919\0619F034.D Vial: 31
Acq On : 19 Jun 2019 10:35 pm Operator: LWeiskopf
Sample : K1905450-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 9:05 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Multiple Level Calibration



TIC: 0619F034.D

(26) Benz(a)anthracene (T)

10.00min 0.54ng/ml

response 304

Ion	Exp%	Act%
228.00	100	100
226.00	25.80	2.42
229.00	19.40	36.36
0.00	0.00	0.00

Manual Integration:

Before

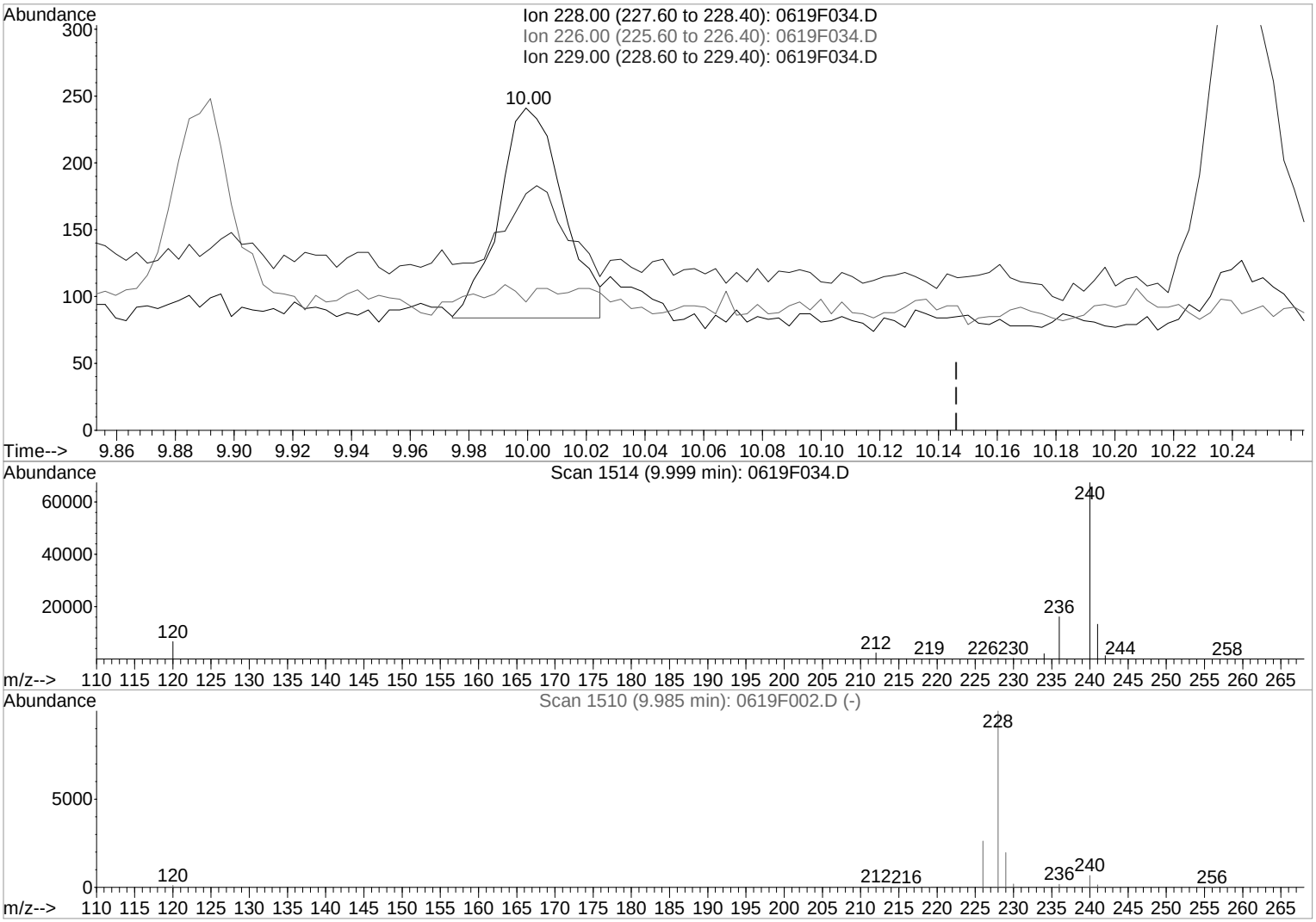
06/20/19

Quantitation Report (Qedit)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061919\0619F034.D Vial: 31
Acq On : 19 Jun 2019 10:35 pm Operator: LWeiskopf
Sample : K1905450-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 9:05 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Multiple Level Calibration



TIC: 0619F034.D

(26) Benz(a)anthracene (T)

10.00min 0.43ng/ml m

response 238

Ion	Exp%	Act%
228.00	100	100
226.00	25.80	39.83
229.00	19.40	73.44#
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

06/20/19

1st 06/20/19
2nd 06/20/19

Validation Report

Data File: J:\MS14\DATA\061819\0618F029.D\
Lab ID: KQ1908183-04
RunType: MB
Matrix: Ground Water

Date Acquired: 6/18/19 17:52:00
Batch ID: 639897
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/20/19 14:21
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Secondary Review: _____

1st 06/20/19
2nd 06/20/19

Quantitation Report

Data File:	J:\MS14\DATA\061819\0618F029.D\	**Instrument:**	K-MS-14
Acqu Date:	6/18/19 17:52:00	**Vial:**	3
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1908183-04	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Ground Water
Prod Code:	PAH SIM	**Collect Date:**	6/7/19	**Receive Date:**	6/11/19

Analysis Lot:	639897	**Prep Lot:**	338543	**Report Group:**	KQ1908183
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/12/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900232
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.27		35798	200.00	OK
Chrysene-d12	10.00		85801	200.00	OK
Naphthalene-d8	4.72	+0.01	65725	200.00	OK
Perylene-d12	13.00		94772	200.00	OK
Phenanthrene-d10	7.50		68458	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.49	+0.01	430065	919.01	92	42 - 133	Y
Fluorene-d10	6.70		212478	1082.84	108	42 - 131	Y
Terphenyl-d14	8.83		334999	897.79	90	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.38		59	0.25	0.0011	U	Y
Acenaphthene	0.00		0	0.00	0	U	Y
Acenaphthylene	0.00		0	0.00	0	U	Y
Anthracene	0.00		0	0.00	0	U	Y
Benz(a)anthracene	10.00	+0.01	206	0.38	0.0017	J	Y
Benzo(a)pyrene	0.00		0	0.00	0	U	Y
Benzo(b)fluoranthene	0.00		0	0.00	0	U	Y
Benzo(g,h,i)perylene	0.00		0	0.00	0	U	Y
Benzo(k)fluoranthene	0.00		0	0.00	0	U	Y
Chrysene	0.00		0	0.00	0	U	Y
Dibenz(a,h)anthracene	0.00		0	0.00	0	U	Y
Dibenzofuran	6.45		140	0.40	0.0018	J	Y
Fluoranthene	0.00		0	0.00	0	U	Y

1st 06/20/19

2nd 06/20/19

Data File:	J:\MS14\DATA\061819\0618F029.D\	**Instrument:**	K-MS-14
Acqu Date:	6/18/19 17:52:00	**Vial:**	3
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1908183-04	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.73		56	0.21	0.00093	U	Y
Indeno(1,2,3-cd)pyrene	0.00		0	0.00	0	U	Y
Naphthalene	4.74	+0.01	116	0.32	0.0014	J	Y
Phenanthrene	7.52		435	1.04	0.0046	J	Y
Pyrene	0.00		0	0.00	0	U	Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/20/19 14:21

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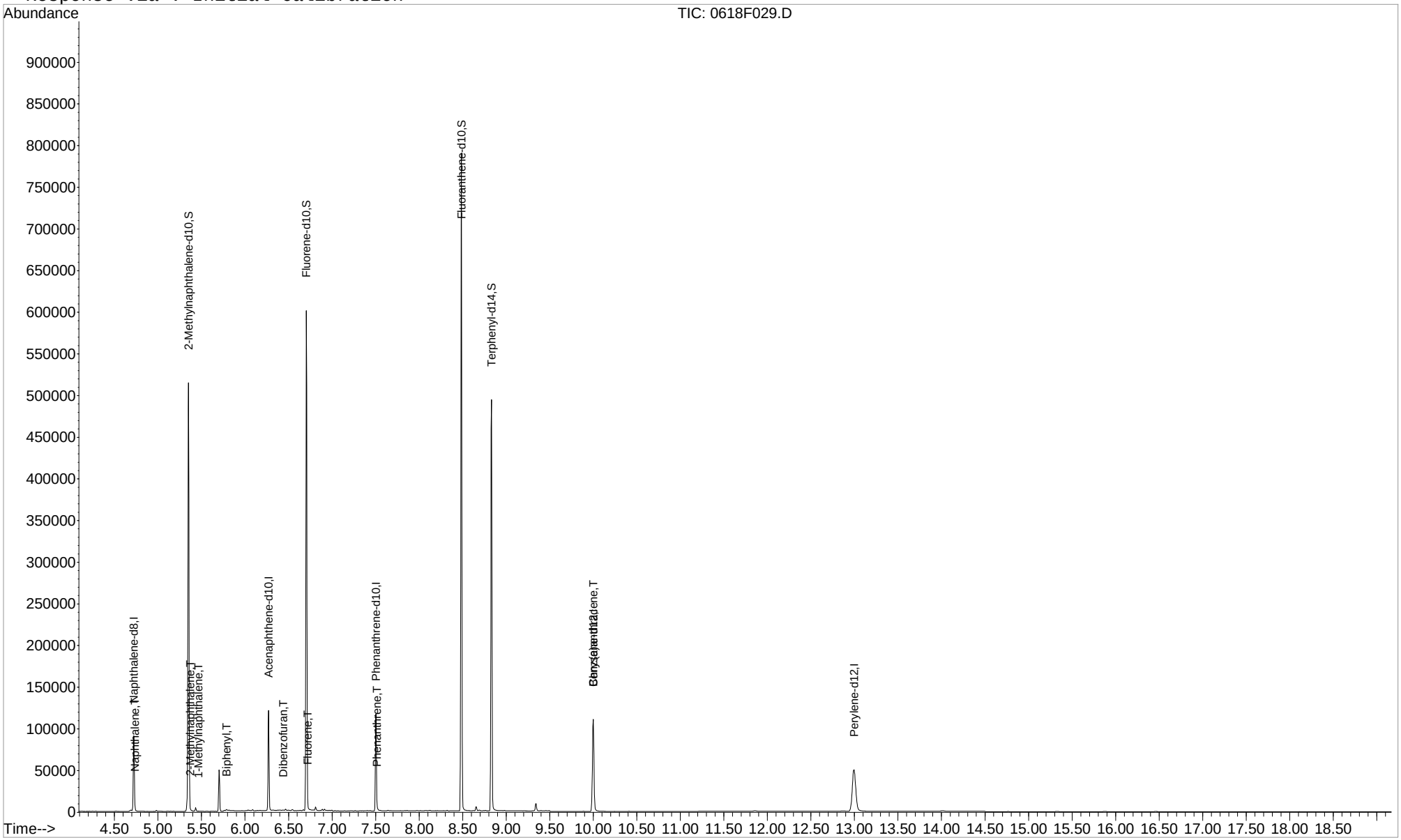
Quantitation Report (QT Reviewed)

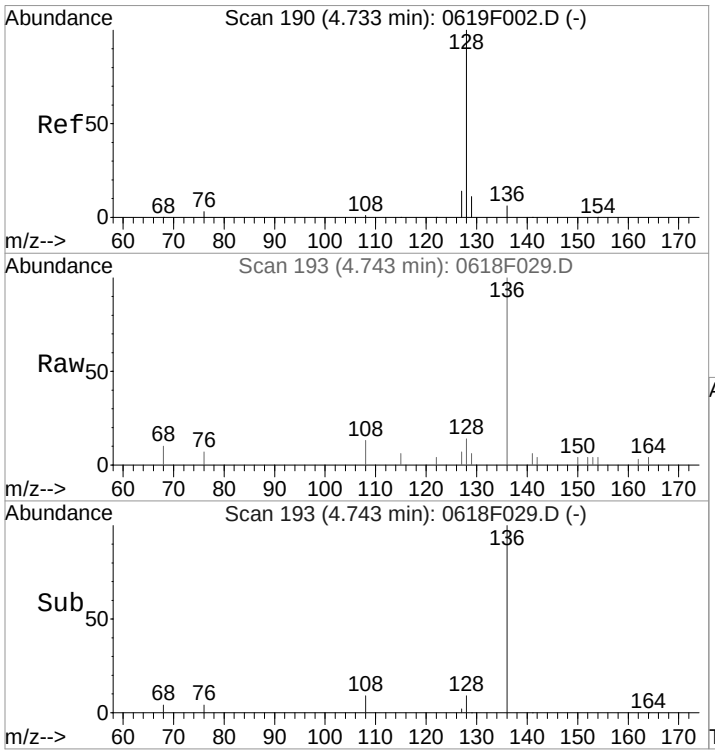
1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F029.D Vial: 26
Acq On : 18 Jun 2019 5:52 pm Operator: LWeiskopf
Sample : KQ1908183-04 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 12:33 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jun 20 08:55:16 2019
Response via : Initial Calibration



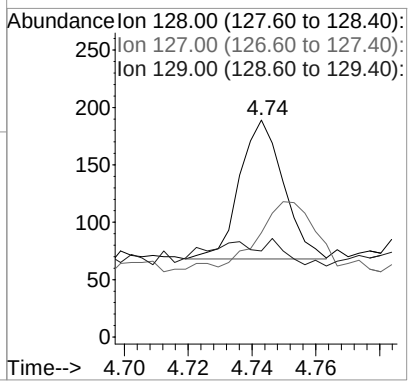
1st 06/20/19
2nd 06/20/19

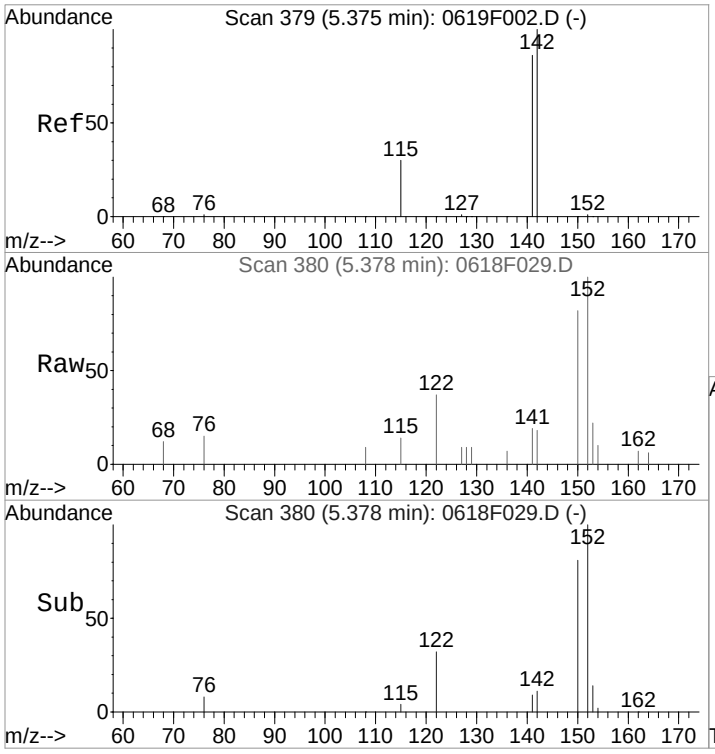


#2
Naphthalene
Concen: 0.32 ng/ml
RT: 4.74 min Scan# 193
Delta R.T. 0.00 min
Lab File: 0618F029.D
Acq: 18 Jun 2019 5:52 pm

Tgt Ion:128 Resp: 116

Ion	Ratio	Lower	Upper
128	100		
127	26.4	0.0	44.1
129	10.7	0.0	30.8

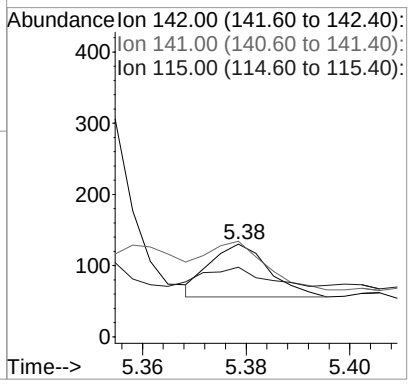


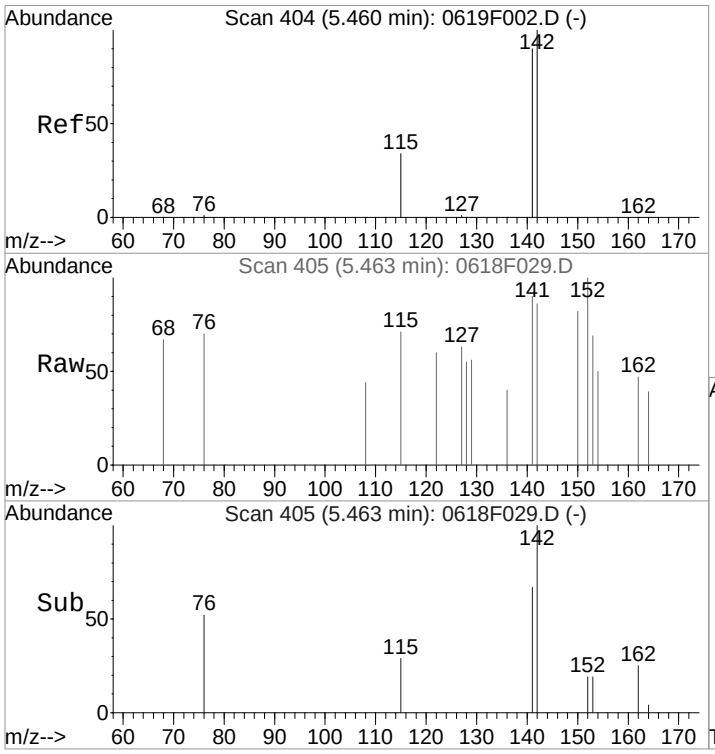


#4
2-Methylnaphthalene
Concen: 0.25 ng/ml
RT: 5.38 min Scan# 380
Delta R.T. -0.00 min
Lab File: 0618F029.D
Acq: 18 Jun 2019 5:52 pm

Tgt Ion:142 Resp: 59

Ion	Ratio	Lower	Upper
142	100		
141	91.9	56.6	116.6
115	35.1	11.3	51.3

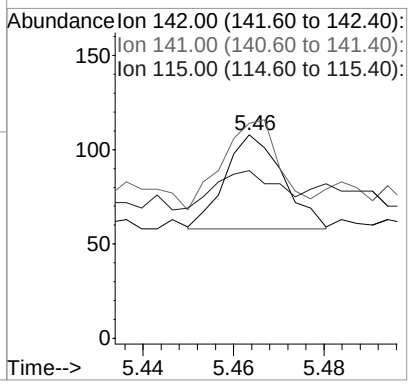


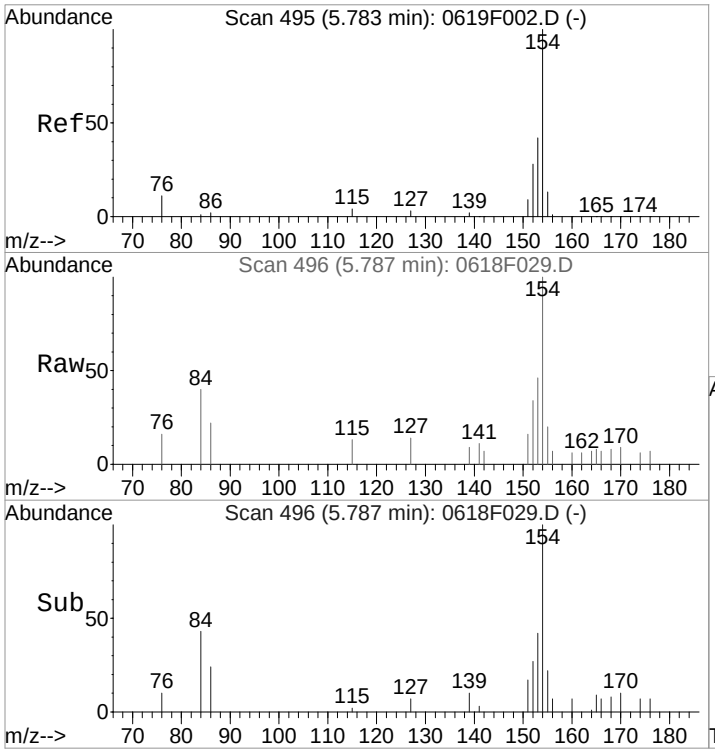


#5
1-Methylnaphthalene
Concen: 0.20 ng/ml m
RT: 5.46 min Scan# 405
Delta R.T. -0.00 min
Lab File: 0618F029.D
Acq: 18 Jun 2019 5:52 pm

Tgt Ion:142 Resp: 44

Ion	Ratio	Lower	Upper
142	100		
141	105.6	60.5	120.5
115	82.4	14.5	54.5#

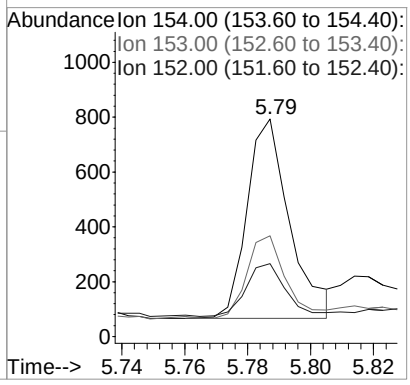


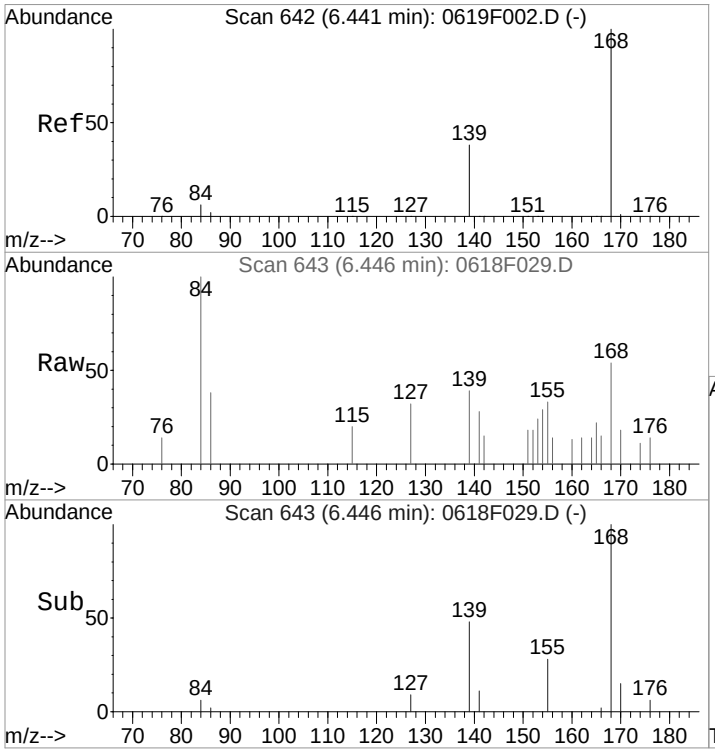


#6
Biphenyl
Concen: 2.34 ng/ml
RT: 5.79 min Scan# 496
Delta R.T. -0.00 min
Lab File: 0618F029.D
Acq: 18 Jun 2019 5:52 pm

Tgt Ion:154 Resp: 687

Ion	Ratio	Lower	Upper
154	100		
153	40.3	11.4	71.4
152	25.9	7.2	47.2

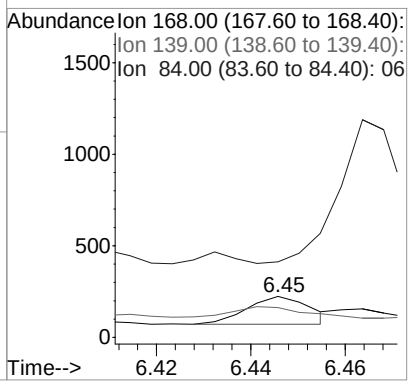


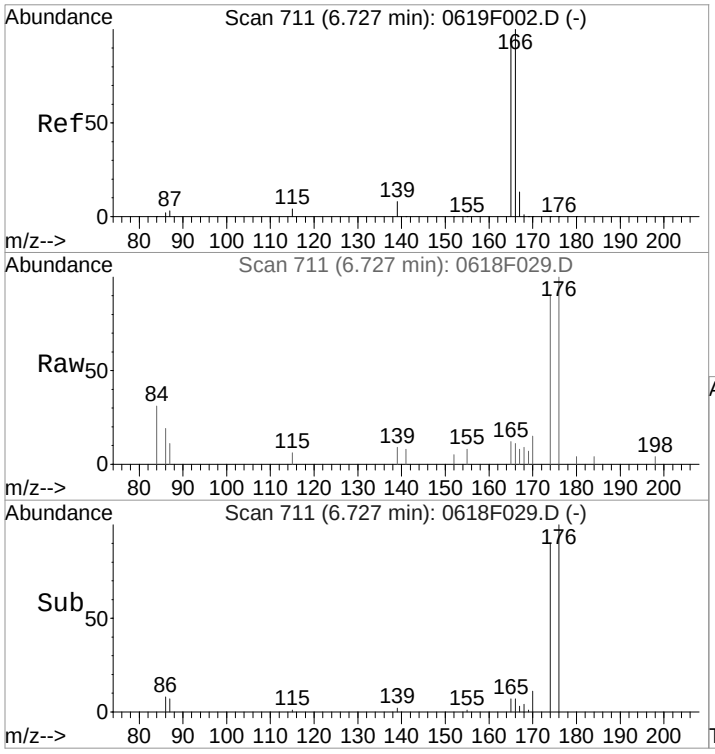


#11
Dibenzofuran
Concen: 0.40 ng/ml m
RT: 6.45 min Scan# 643
Delta R.T. -0.00 min
Lab File: 0618F029.D
Acq: 18 Jun 2019 5:52 pm

Tgt Ion:168 Resp: 140

Ion	Ratio	Lower	Upper
168	100		
139	72.8	0.0	58.7#
84	184.4	0.0	24.5#

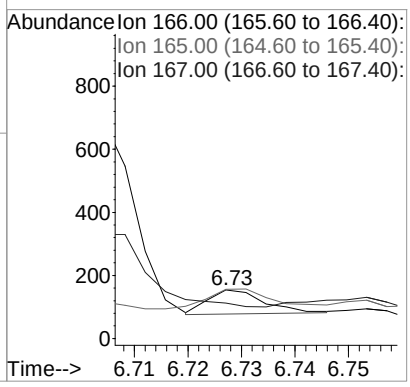


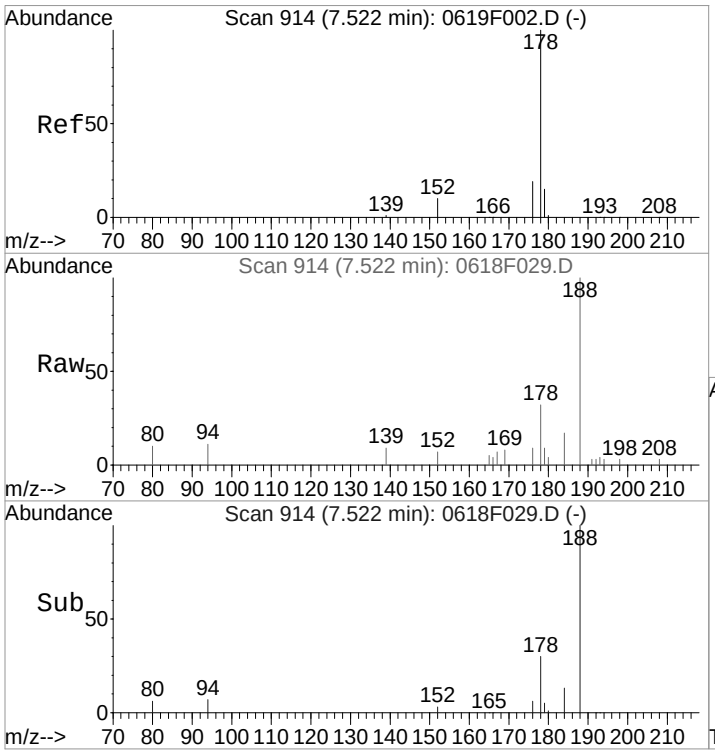


#14
Fluorene
Concen: 0.21 ng/ml
RT: 6.73 min Scan# 711
Delta R.T. -0.01 min
Lab File: 0618F029.D
Acq: 18 Jun 2019 5:52 pm

Tgt Ion:166 Resp: 56

Ion	Ratio	Lower	Upper
166	100		
165	75.0	63.5	123.5
167	0.0	0.0	33.1

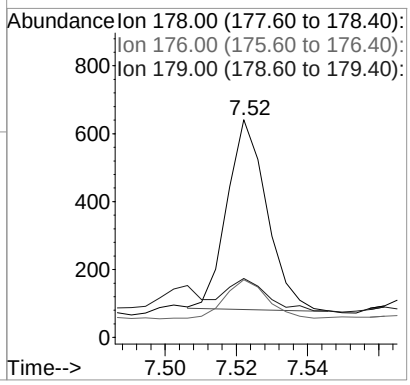


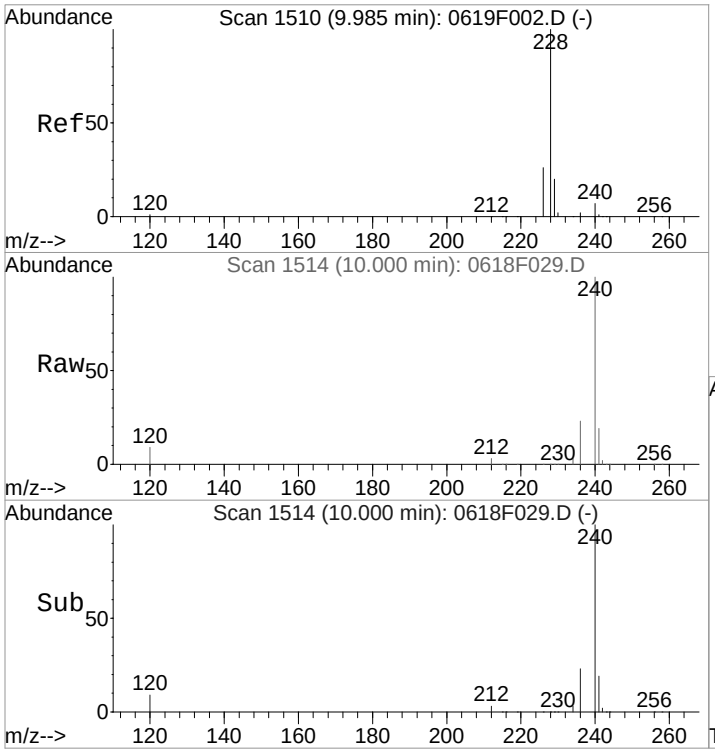


#17
Phenanthrene
Concen: 1.04 ng/ml m
RT: 7.52 min Scan# 914
Delta R.T. -0.01 min
Lab File: 0618F029.D
Acq: 18 Jun 2019 5:52 pm

Tgt Ion:178 Resp: 435

Ion	Ratio	Lower	Upper
178	100		
176	26.5	0.0	48.4
179	27.1	0.0	35.2

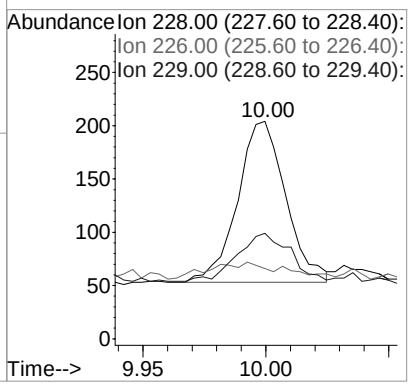




#26
Benz(a)anthracene
Concen: 0.38 ng/ml
RT: 10.00 min Scan# 1514
Delta R.T. 0.00 min
Lab File: 0618F029.D
Acq: 18 Jun 2019 5:52 pm

Tgt Ion:228 Resp: 206

Ion	Ratio	Lower	Upper
228	100		
226	3.3	0.0	55.8
229	29.8	0.0	39.4



Quantitation Report (QT Reviewed)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F029.D Vial: 26
Acq On : 18 Jun 2019 5:52 pm Operator: LWeiskopf
Sample : KQ1908183-04 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 04:55:46 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.72	136	65725	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.27	164	35798	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.50	188	68458	200.00	ng/ml	0.00
23) Chrysene-d12	10.00	240	85801	200.00	ng/ml	-0.01
28) Perylene-d12	13.00	264	94772	200.00	ng/ml	-0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	186501	1191.19	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 119.12%			
13) Fluorene-d10	6.70	176	212478	1082.84	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 108.28%			
22) Fluoranthene-d10	8.49	212	430065	919.01	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 91.90%			
25) Terphenyl-d14	8.83	244	334999	897.79	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 89.78%			
Target Compounds						Qvalue
2) Naphthalene	4.74	128	116	0.32	ng/ml	83
4) 2-Methylnaphthalene	5.38	142	59	0.25	ng/ml	94
5) 1-Methylnaphthalene	5.46	142	44m	0.20	ng/ml	
6) Biphenyl	5.79	154	687	2.34	ng/ml	98
11) Dibenzofuran	6.45	168	140m	0.40	ng/ml	
14) Fluorene	6.73	166	56	0.21	ng/ml	79
17) Phenanthrene	7.52	178	435m	1.04	ng/ml	
26) Benz(a)anthracene	10.00	228	206	0.38	ng/ml	65

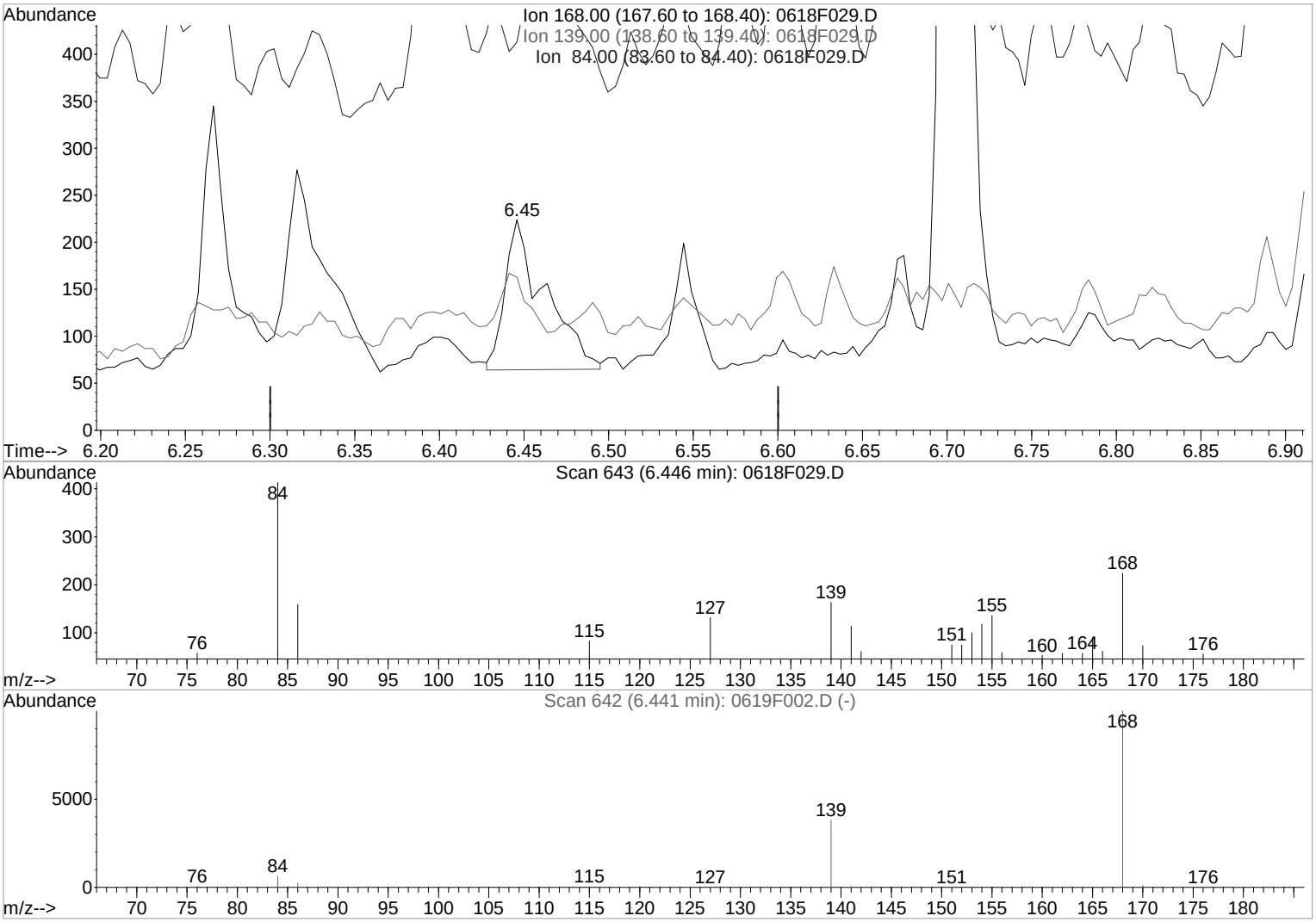
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F029.D Vial: 26
Acq On : 18 Jun 2019 5:52 pm Operator: LWeiskopf
Sample : KQ1908183-04 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 12:30 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jun 20 08:55:16 2019
Response via : Multiple Level Calibration



TIC: 0618F029.D

(11) Dibenzofuran (T)

6.45min 0.75ng/ml

response 263

Ion	Exp%	Act%
168.00	100	100
139.00	28.70	33.99
84.00	4.50	20.26
0.00	0.00	0.00

Manual Integration:

Before

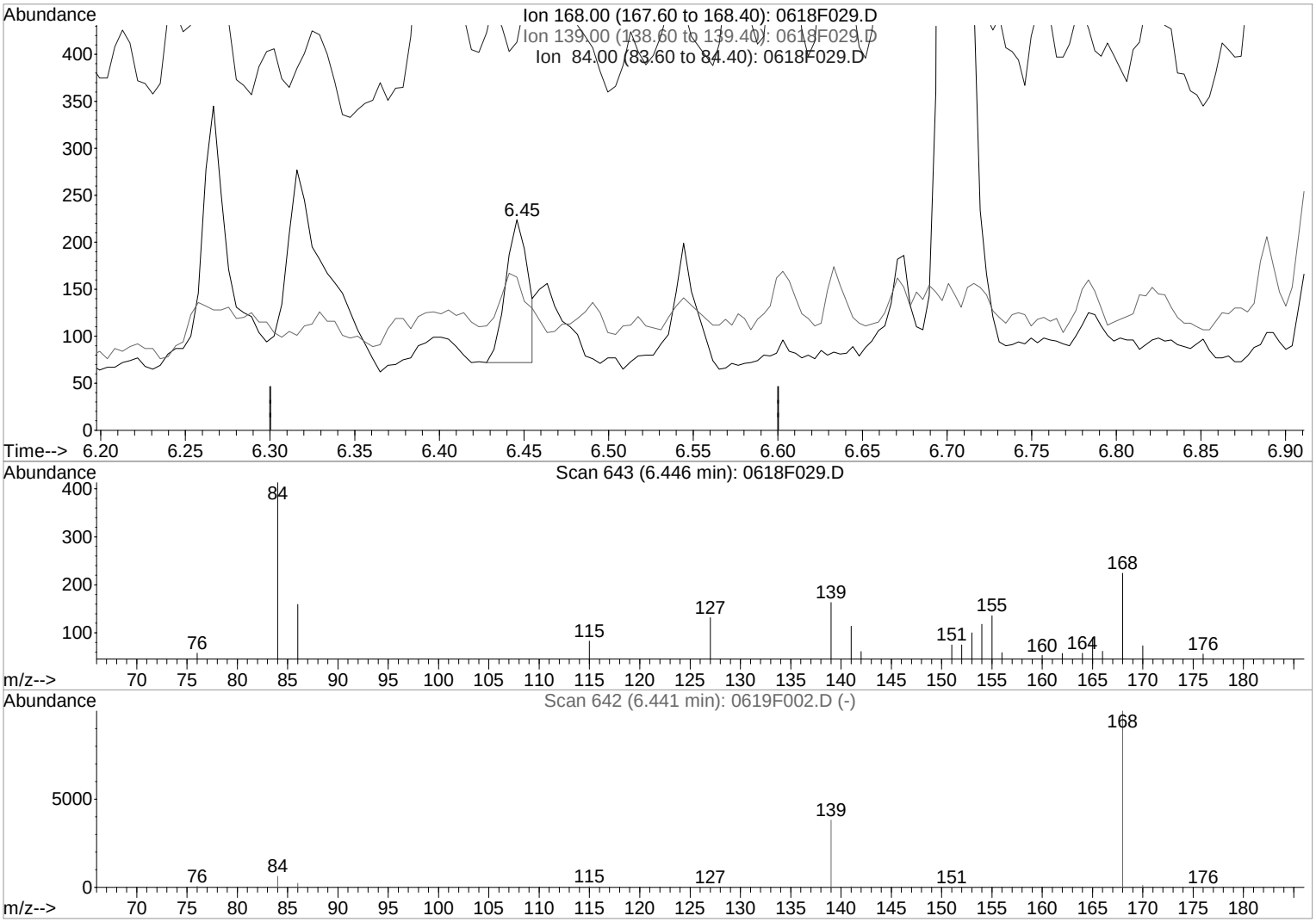
06/20/19

Quantitation Report (Qedit)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F029.D Vial: 26
Acq On : 18 Jun 2019 5:52 pm Operator: LWeiskopf
Sample : KQ1908183-04 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 12:30 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jun 20 08:55:16 2019
Response via : Multiple Level Calibration



TIC: 0618F029.D

(11) Dibenzofuran (T)

6.45min 0.40ng/ml m

response 140

Ion	Exp%	Act%
168.00	100	100
139.00	28.70	72.77#
84.00	4.50	184.38#
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

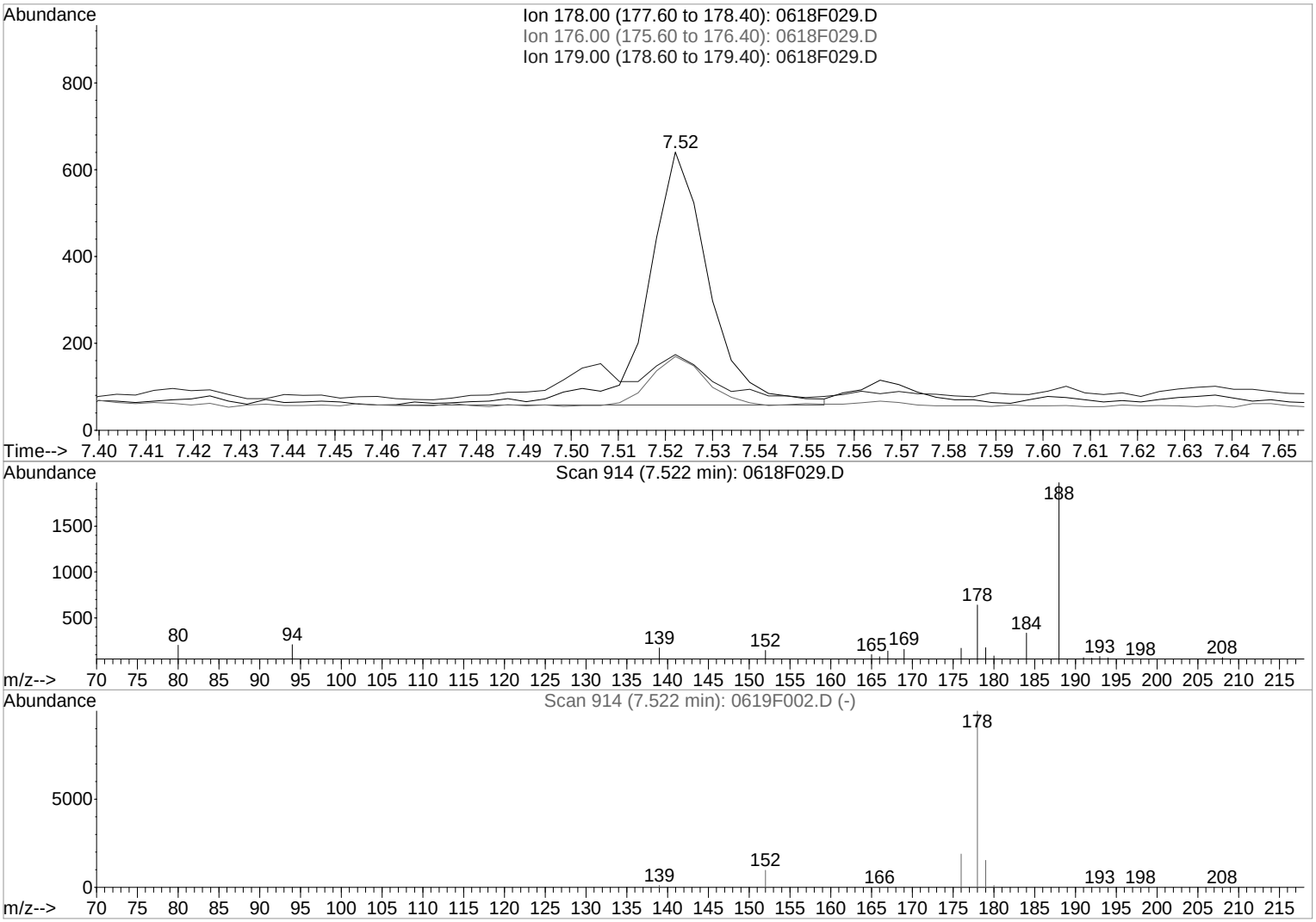
06/20/19

Quantitation Report (Qedit)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F029.D Vial: 26
Acq On : 18 Jun 2019 5:52 pm Operator: LWeiskopf
Sample : KQ1908183-04 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 12:31 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jun 20 08:55:16 2019
Response via : Multiple Level Calibration



TIC: 0618F029.D

(17) Phenanthrene (T)

7.52min 1.28ng/ml

response 536

Ion	Exp%	Act%
178.00	100	100
176.00	18.40	19.21
179.00	15.20	16.47
0.00	0.00	0.00

Manual Integration:

Before

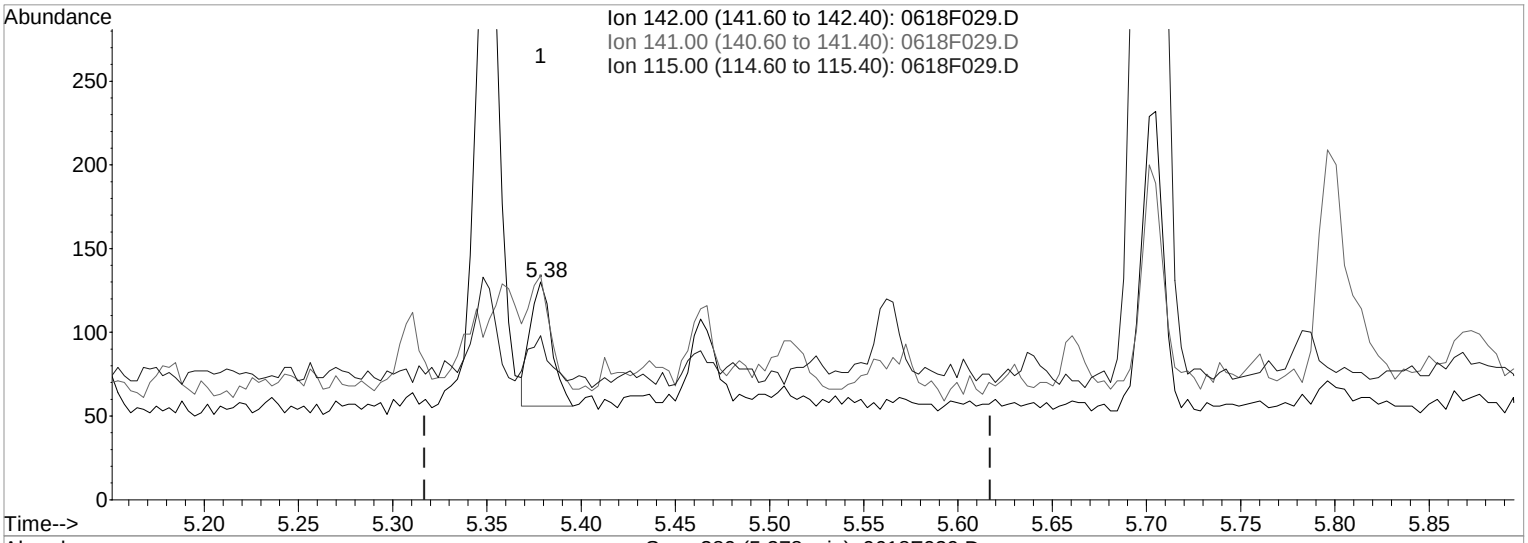
06/20/19

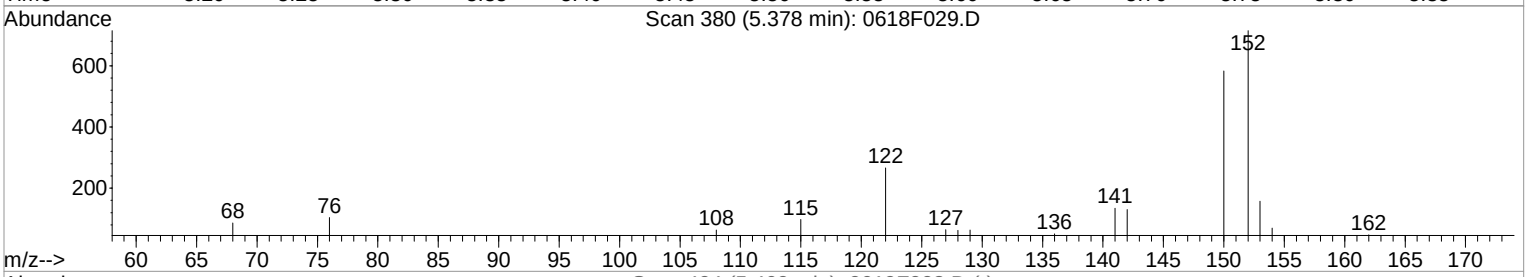
Quantitation Report (Qedit)

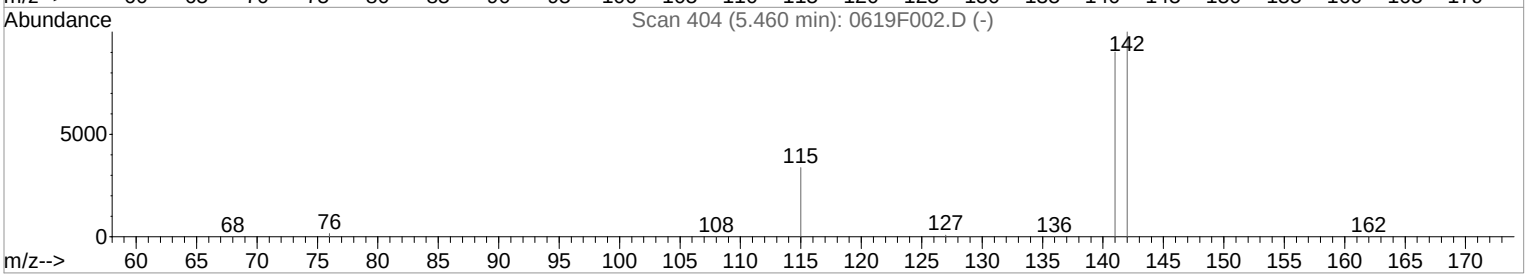
1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F029.D Vial: 26
Acq On : 18 Jun 2019 5:52 pm Operator: LWeiskopf
Sample : KQ1908183-04 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 4:55 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jun 20 08:55:16 2019
Response via : Multiple Level Calibration







TIC: 0618F029.D

(5) 1-Methylnaphthalene (T)

5.38min 0.27ng/ml

response 59

Ion	Exp%	Act%
142.00	100	100
141.00	90.50	91.89
115.00	34.50	35.14
0.00	0.00	0.00

Manual Integration:

Before

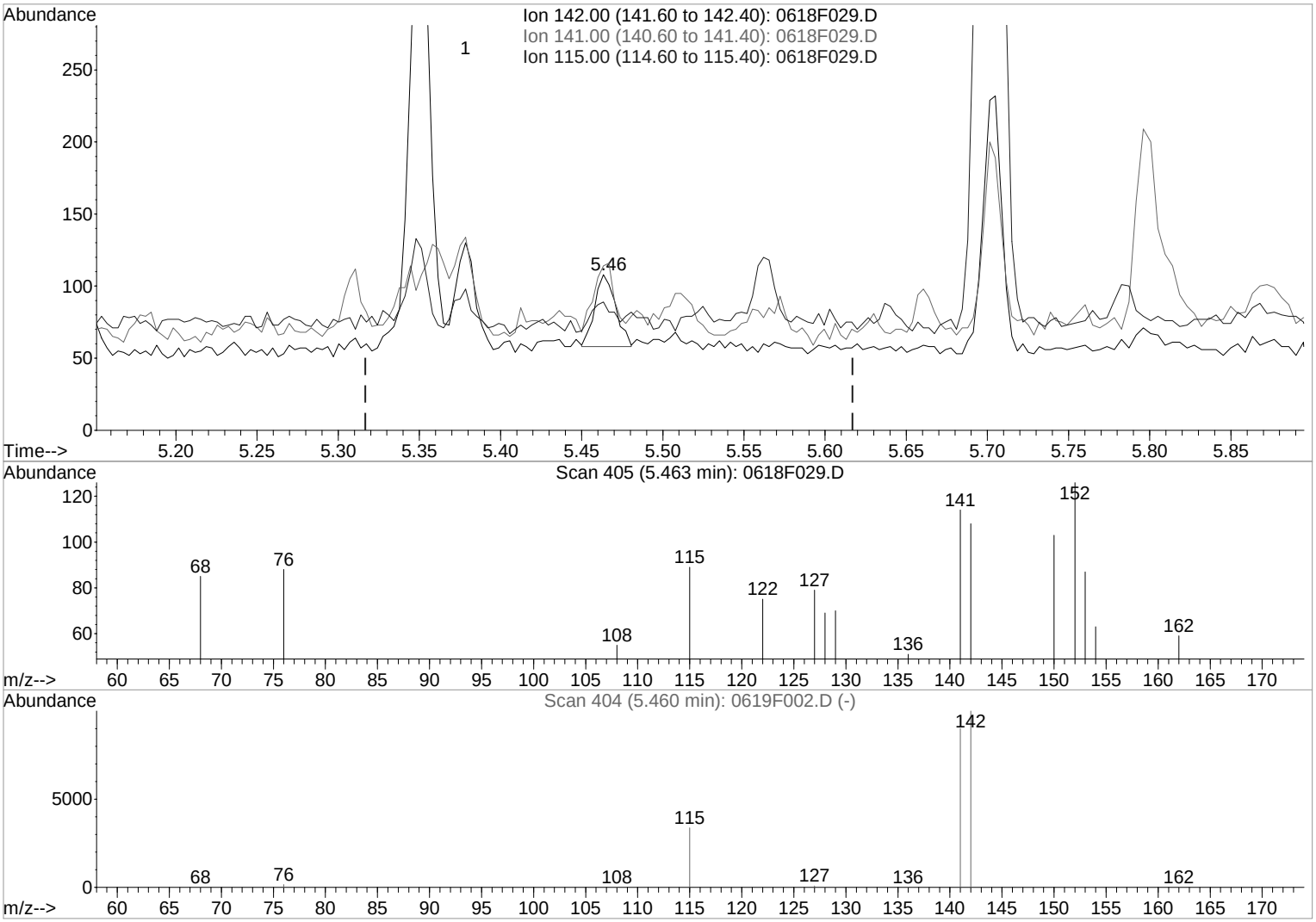
06/20/19

Quantitation Report (Qedit)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F029.D Vial: 26
Acq On : 18 Jun 2019 5:52 pm Operator: LWeiskopf
Sample : KQ1908183-04 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 12:29 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jun 20 08:55:16 2019
Response via : Multiple Level Calibration



TIC: 0618F029.D

(5) 1-Methylnaphthalene (T)

5.46min 0.20ng/ml m

response 44

Ion	Exp%	Act%
142.00	100	100
141.00	90.50	105.56
115.00	34.50	82.41#
0.00	0.00	0.00

Manual Integration:

After

WP

06/20/19

1st 06/20/19
2nd 06/20/19

Validation Report

Data File: J:\MS14\DATA\061819\0618F040.D\
Lab ID: KQ1908183-03
RunType: LCS
Matrix: Ground Water

Date Acquired: 6/18/19 22:58:00
Batch ID: 639897
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 6/20/19 14:42
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Secondary Review: _____

1st 06/20/19
2nd 06/20/19

Quantitation Report

Data File:	J:\MS14\DATA\061819\0618F040.D\	**Instrument:**	K-MS-14
Acqu Date:	6/18/19 22:58:00	**Vial:**	14
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1908183-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Ground Water
Prod Code:	PAH SIM	**Collect Date:**	6/7/19	**Receive Date:**	6/11/19

Analysis Lot:	639897	**Prep Lot:**	338543	**Report Group:**	KQ1908183
Analysis	8270D	**Prep Method:**	EPA 3511		
		Prep Date:	6/12/19		

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900232
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.27		36451	200.00	OK
Chrysene-d12	10.01	+0.01	86219	200.00	OK
Naphthalene-d8	4.73	+0.02	72451	200.00	OK
Perylene-d12	13.02	+0.02	104290	200.00	OK
Phenanthrene-d10	7.51	+0.01	72018	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
Fluoranthene-d10	8.49	+0.01	449117	912.28	91	42 - 133	Y
Fluorene-d10	6.71	+0.01	207232	1037.19	104	42 - 131	Y
Terphenyl-d14	8.84	+0.01	357902	954.52	95	32 - 129	Y

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2-Methylnaphthalene	5.38		147927	576.88	2.56		Y
Acenaphthene	6.30		138626	595.58	2.65		Y
Acenaphthylene	6.15		232598	596.89	2.65		Y
Anthracene	7.57		263377	629.97	2.80		Y
Benz(a)anthracene	10.00	+0.01	328848	608.91	2.71		Y
Benzo(a)pyrene	12.86	+0.02	329478	594.68	2.64		Y
Benzo(b)fluoranthene	12.02	+0.03	372473	606.84	2.70		Y
Benzo(g,h,i)perylene	15.70	+0.02	353930	555.82	2.47		Y
Benzo(k)fluoranthene	12.08	+0.02	348126	583.30	2.59		Y
Chrysene	10.05	+0.01	305060	590.92	2.63		Y
Dibenz(a,h)anthracene	15.37	+0.02	325342	529.95	2.36		Y
Dibenzofuran	6.45		217511	606.14	2.69		Y
Fluoranthene	8.50		299777	504.19	2.24		Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/20/19 14:42
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1st 06/20/19

2nd 06/20/19

Data File:	J:\MS14\DATA\061819\0618F040.D\	**Instrument:**	K-MS-14
Acqu Date:	6/18/19 22:58:00	**Vial:**	14
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1908183-03	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Fluorene	6.73		163365	615.22	2.73		Y
Indeno(1,2,3-cd)pyrene	15.32	+0.02	308058	568.22	2.53		Y
Naphthalene	4.75	+0.02	229659	566.87	2.52		Y
Phenanthrene	7.53	+0.01	255080	579.15	2.57		Y
Pyrene	8.70	+0.01	329905	643.97	2.86		Y

Prep Amount:	450 mL	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/20/19 14:42

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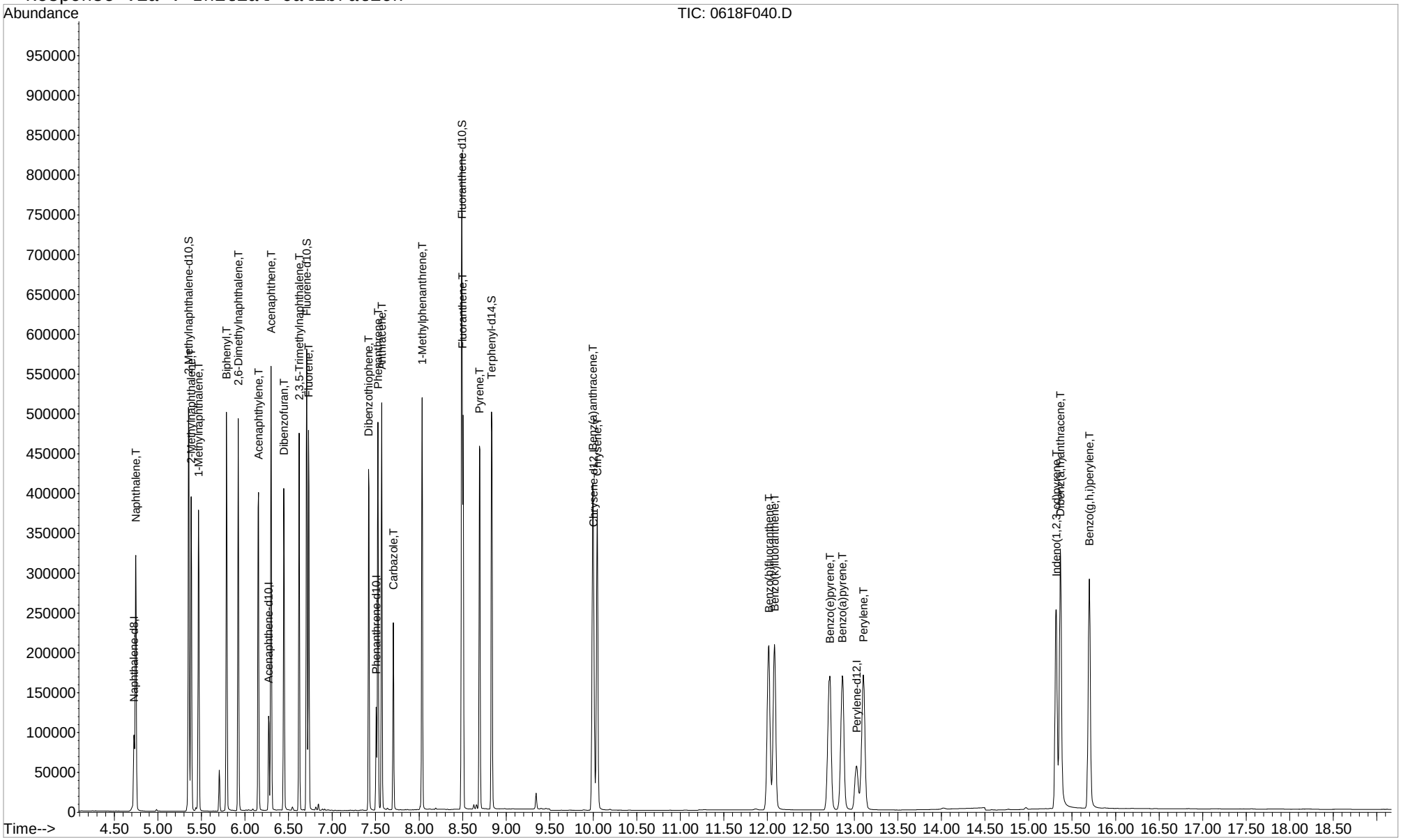
1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F040.D Vial: 37
Acq On : 18 Jun 2019 10:58 pm Operator: LWeiskopf
Sample : KQ1908183-01 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 4:56 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jun 20 08:55:16 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F040.D Vial: 37
Acq On : 18 Jun 2019 10:58 pm Operator: LWeiskopf
Sample : KQ1908183-01 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 04:56:07 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.73	136	72451	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.27	164	36451	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.51	188	72018	200.00	ng/ml	0.00
23) Chrysene-d12	10.01	240	86219	200.00	ng/ml	0.00
28) Perylene-d12	13.02	264	104290	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	180390	1045.20	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 104.52%			
13) Fluorene-d10	6.71	176	207232	1037.19	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 103.72%			
22) Fluoranthene-d10	8.49	212	449117	912.28	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 91.23%			
25) Terphenyl-d14	8.84	244	357902	954.52	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 95.45%			
Target Compounds						Qvalue
2) Naphthalene	4.75	128	229659	566.87	ng/ml	99
4) 2-Methylnaphthalene	5.38	142	147927	576.88	ng/ml	100
5) 1-Methylnaphthalene	5.47	142	138492	577.59	ng/ml	98
6) Biphenyl	5.79	154	198581	614.63	ng/ml	100
7) 2,6-Dimethylnaphthalene	5.92	156	134227	610.43	ng/ml	93
9) Acenaphthylene	6.15	152	232598	596.89	ng/ml	99
10) Acenaphthene	6.30	154	138626	595.58	ng/ml	100
11) Dibenzofuran	6.45	168	217511	606.14	ng/ml	87
12) 2,3,5-Trimethylnaphthalene	6.62	170	136701	644.55	ng/ml	96
14) Fluorene	6.73	166	163365	615.22	ng/ml	99
16) Dibenzothiophene	7.42	184	272689	590.23	ng/ml	96
17) Phenanthrene	7.53	178	255080	579.15	ng/ml	99
18) Anthracene	7.57	178	263377	629.97	ng/ml	100
19) Carbazole	7.70	167	124507	296.97	ng/ml	99
20) 1-Methylphenanthrene	8.03	192	207585	593.98	ng/ml	98
21) Fluoranthene	8.50	202	299777	504.19	ng/ml	99
24) Pyrene	8.70	202	329905	643.97	ng/ml	97
26) Benz(a)anthracene	10.00	228	328848	608.91	ng/ml	100
27) Chrysene	10.05	228	305060	590.92	ng/ml	99
29) Benzo(b)fluoranthene	12.02	252	372473	606.84	ng/ml	98
30) Benzo(k)fluoranthene	12.08	252	348126	583.30	ng/ml	98
31) Benzo(e)pyrene	12.72	252	345634	610.00	ng/ml	98
32) Benzo(a)pyrene	12.86	252	329478	594.68	ng/ml	98
33) Perylene	13.10	252	328711	600.30	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.32	276	308058	568.22	ng/ml	97
35) Dibenz(a,h)anthracene	15.37	278	325342	529.95	ng/ml	99
36) Benzo(g,h,i)perylene	15.70	276	353930	555.82	ng/ml	98

(#) = qualifier out of range (m) = manual integration

1st 06/20/19
2nd 06/20/19

Validation Report

Data File: J:\MS14\DATA\061819\0618F028.D\
Lab ID: KQ1908547-01
RunType: CCV
Matrix: Storm Water

Date Acquired: 6/18/19 17:24:00
Batch ID: 639897
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Internal Standards	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 06/20/19
2nd 06/20/19

Quantitation Report

Data File:	J:\MS14\DATA\061819\0618F028.D\	**Instrument:**	K-MS-14
Acqu Date:	6/18/19 17:24:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908547-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	II	**Matrix:**	Storm Water
Prod Code:	PAH SIM	**Collect Date:**	6/6/19	**Receive Date:**	6/10/19

Analysis Lot:	639897	**Prep Lot:**		**Report Group:**	KQ1908547
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900232
		Report List ID:	18998

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.27		25450	200.00	OK
Chrysene-d12	10.00		73294	200.00	OK
Naphthalene-d8	4.71		51355	200.00	OK
Perylene-d12	13.00		82663	200.00	OK
Phenanthrene-d10	7.50		42705	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Fluoranthene-d10	8.48		119943	410.87	Y
Fluorene-d10	6.70		59557	426.93	Y
Terphenyl-d14	8.83		129493	406.26	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2-Methylnaphthalene	5.38		78994	434.60	Y
Acenaphthene	6.30		70768	435.47	Y
Acenaphthylene	6.15		115449	424.33	Y
Anthracene	7.57		105719	426.44	Y
Benz(a)anthracene	9.99		195028	424.81	Y
Benzo(a)pyrene	12.84		187887	427.85	Y
Benzo(b)fluoranthene	11.99		222654	457.66	Y
Benzo(g,h,i)perylene	15.68		213388	422.78	Y
Benzo(k)fluoranthene	12.06		211131	446.31	Y
Chrysene	10.04		186354	424.63	Y
Dibenz(a,h)anthracene	15.35		205232	421.77	Y
Dibenzofuran	6.45		109052	435.26	Y
Fluoranthene	8.50		145784	413.50	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 06/20/19

2nd 06/20/19

Data File:	J:\MS14\DATA\061819\0618F028.D\	**Instrument:**	K-MS-14
Acqu Date:	6/18/19 17:24:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908547-01	**Raw Units:**	ng/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Fluorene	6.73		80045	431.74	Y
Indeno(1,2,3-cd)pyrene	15.30		184335	428.97	Y
Naphthalene	4.73		124334	432.96	Y
Phenanthrene	7.52		111666	427.56	Y
Pyrene	8.69		158542	364.05	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/20/19 14:21

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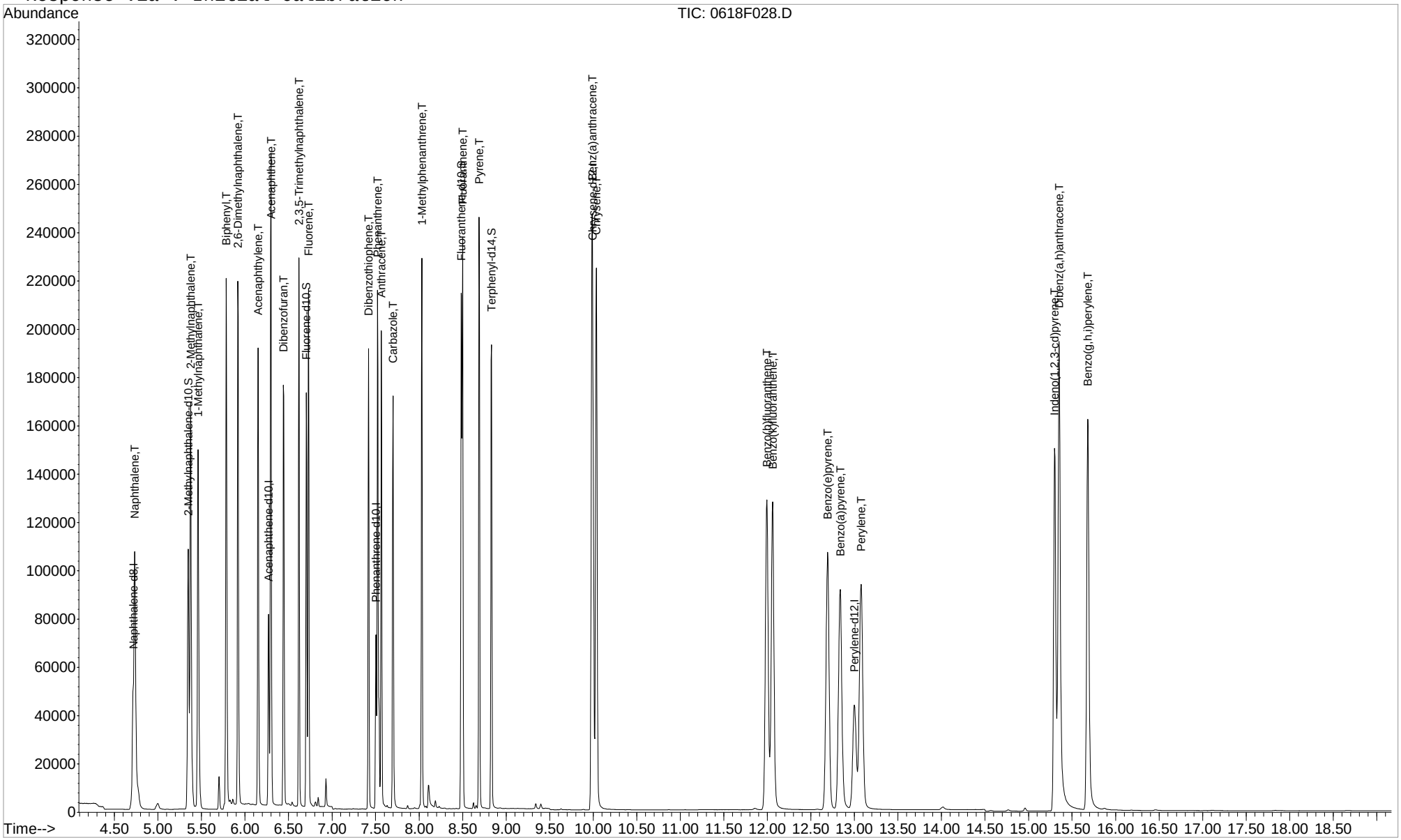
1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F028.D Vial: 2
Acq On : 18 Jun 2019 5:24 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL SVM61-35C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 4:53 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jun 20 08:55:16 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F028.D Vial: 2
Acq On : 18 Jun 2019 5:24 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL SVM61-35C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 19 04:53:55 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Jun 18 09:17:08 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.71	136	51355	200.00	ng/ml	-0.01
8) Acenaphthene-d10	6.27	164	25450	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.50	188	42705	200.00	ng/ml	0.00
23) Chrysene-d12	10.00	240	73294	200.00	ng/ml	-0.01
28) Perylene-d12	13.00	264	82663	200.00	ng/ml	-0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	52479	428.98	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	42.90%		
13) Fluorene-d10	6.70	176	59557	426.93	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	42.69%		
22) Fluoranthene-d10	8.48	212	119943	410.87	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	41.09%		
25) Terphenyl-d14	8.83	244	129493	406.26	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	40.63%		
Target Compounds						Qvalue
2) Naphthalene	4.73	128	124334	432.96	ng/ml	100
4) 2-Methylnaphthalene	5.38	142	78994	434.60	ng/ml	99
5) 1-Methylnaphthalene	5.46	142	72805	428.37	ng/ml	100
6) Biphenyl	5.78	154	97350	425.09	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.92	156	67833	435.21	ng/ml	97
9) Acenaphthylene	6.15	152	115449	424.33	ng/ml	99
10) Acenaphthene	6.30	154	70768	435.47	ng/ml	100
11) Dibenzofuran	6.45	168	109052	435.26	ng/ml	96
12) 2,3,5-Trimethylnaphthalene	6.62	170	65212	440.38	ng/ml	94
14) Fluorene	6.73	166	80045	431.74	ng/ml	100
16) Dibenzothiophene	7.42	184	120013	438.07	ng/ml	98
17) Phenanthrene	7.52	178	111666	427.56	ng/ml	99
18) Anthracene	7.57	178	105719	426.44	ng/ml	100
19) Carbazole	7.70	167	102219	411.16	ng/ml	99
20) 1-Methylphenanthrene	8.03	192	87099	420.29	ng/ml	99
21) Fluoranthene	8.50	202	145784	413.50	ng/ml	98
24) Pyrene	8.69	202	158542	364.05	ng/ml	95
26) Benz(a)anthracene	9.99	228	195028	424.81	ng/ml	100
27) Chrysene	10.04	228	186354	424.63	ng/ml	99
29) Benzo(b)fluoranthene	11.99	252	222654	457.66	ng/ml	100
30) Benzo(k)fluoranthene	12.06	252	211131	446.31	ng/ml	100
31) Benzo(e)pyrene	12.69	252	199377	443.93	ng/ml	99
32) Benzo(a)pyrene	12.84	252	187887	427.85	ng/ml	100
33) Perylene	13.08	252	190404	438.69	ng/ml	99
34) Indeno(1,2,3-cd)pyrene	15.30	276	184335	428.97	ng/ml	100
35) Dibenz(a,h)anthracene	15.35	278	205232	421.77	ng/ml	100
36) Benzo(g,h,i)perylene	15.68	276	213388	422.78	ng/ml	100

(#) = qualifier out of range (m) = manual integration

1st 06/20/19
2nd 06/20/19

Validation Report

Data File: J:\MS14\DATA\061919\0619F027.D\
Lab ID: KQ1908603-01
RunType: CCV
Matrix: Water

Date Acquired: 6/19/19 19:23:00
Batch ID: 640092
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Internal Standards	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 06/20/19
2nd 06/20/19

Quantitation Report

Data File:	J:\MS14\DATA\061919\0619F027.D\	**Instrument:**	K-MS-14
Acqu Date:	6/19/19 19:23:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908603-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/10/19	**Receive Date:**	6/12/19

Analysis Lot:	640092	**Prep Lot:**		**Report Group:**	KQ1908603
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900232
		Report List ID:	20294

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Acenaphthene-d10	6.27		27844	200.00	OK
Chrysene-d12	10.00		75286	200.00	OK
Naphthalene-d8	4.72		57117	200.00	OK
Perylene-d12	13.01		88581	200.00	OK
Phenanthrene-d10	7.50		50451	200.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Fluoranthene-d10	8.49		158116	458.48	Y
Fluorene-d10	6.70		65515	429.26	Y
Terphenyl-d14	8.83		145617	444.76	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
1-Methylnaphthalene	5.46		79958	423.00	Y
2-Methylnaphthalene	5.38		87005	430.39	Y
Acenaphthene	6.30		77270	434.59	Y
Acenaphthylene	6.15		126219	424.03	Y
Anthracene	7.57		127671	435.92	Y
Benz(a)anthracene	9.99		201168	426.59	Y
Benzo(a)pyrene	12.84		199268	423.45	Y
Benzo(b)fluoranthene	12.00		234715	450.22	Y
Benzo(g,h,i)perylene	15.69		233002	430.80	Y
Benzo(k)fluoranthene	12.06		220943	435.85	Y
Chrysene	10.04		191163	424.07	Y
Dibenz(a,h)anthracene	15.36		214362	411.10	Y
Fluoranthene	8.50		190410	457.15	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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1st 06/20/19

2nd 06/20/19

Data File:	J:\MS14\DATA\061919\0619F027.D\	**Instrument:**	K-MS-14
Acqu Date:	6/19/19 19:23:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1908603-01	**Raw Units:**	ng/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Fluorene	6.73		87992	433.80	Y
Indeno(1,2,3-cd)pyrene	15.31		197143	428.12	Y
Naphthalene	4.73		136940	428.75	Y
Phenanthrene	7.52		132954	430.91	Y
Pyrene	8.69		205447	459.27	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 6/20/19 10:30

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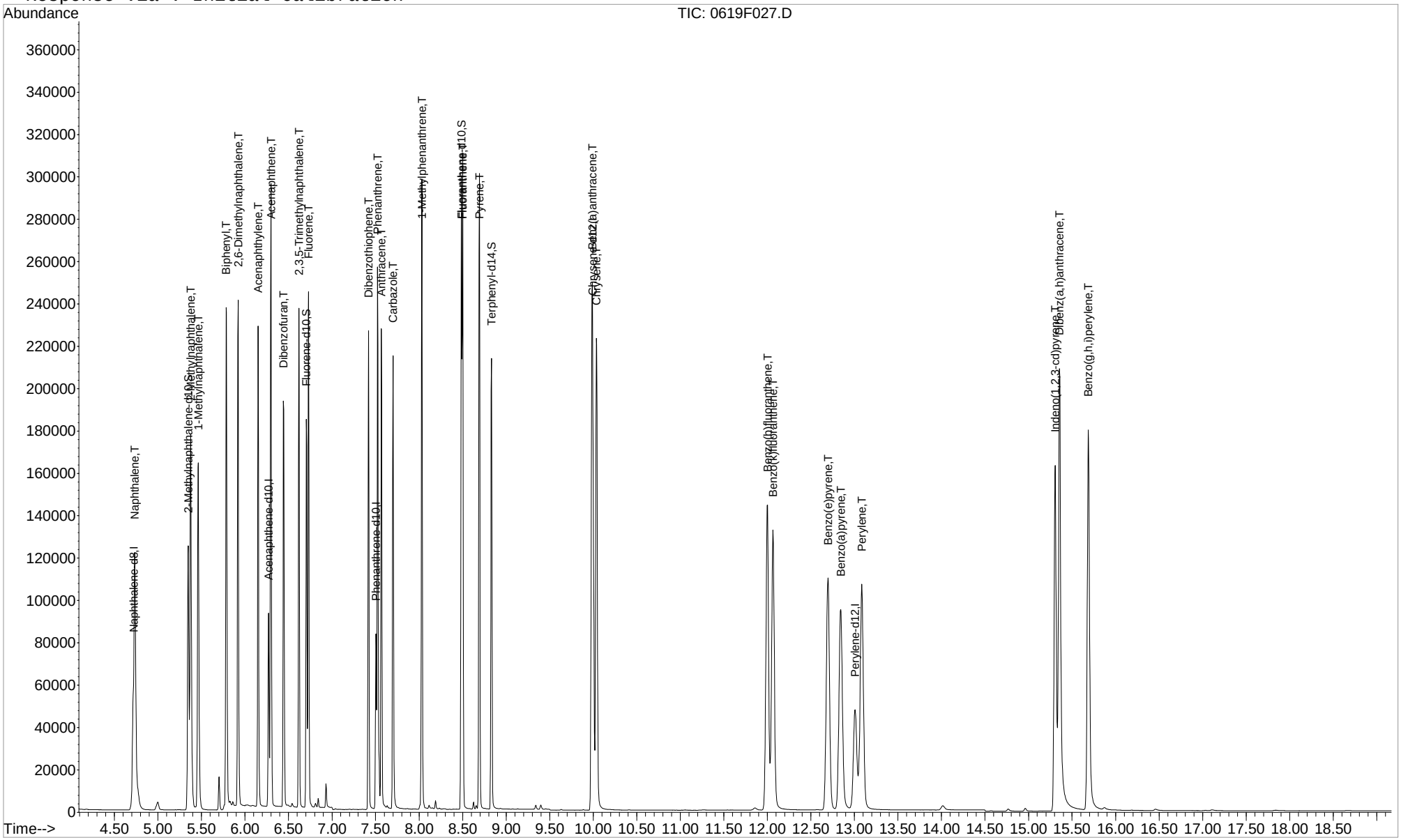
Quantitation Report (QT Reviewed)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061919\0619F027.D Vial: 2
Acq On : 19 Jun 2019 7:23 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL SVM61-35C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 4:55 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061919\0619F027.D Vial: 2
Acq On : 19 Jun 2019 7:23 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL SVM61-35C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 20 04:55:47 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.72	136	57117	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.27	164	27844	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.50	188	50451	200.00	ng/ml	0.00
23) Chrysene-d12	10.00	240	75286	200.00	ng/ml	-0.01
28) Perylene-d12	13.01	264	88581	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	58076	426.84	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	42.68%		
13) Fluorene-d10	6.70	176	65515	429.26	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	42.93%		
22) Fluoranthene-d10	8.49	212	158116	458.48	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	45.85%		
25) Terphenyl-d14	8.83	244	145617	444.76	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	44.48%		
Target Compounds						Qvalue
2) Naphthalene	4.73	128	136940	428.75	ng/ml	100
4) 2-Methylnaphthalene	5.38	142	87005	430.39	ng/ml	99
5) 1-Methylnaphthalene	5.46	142	79958	423.00	ng/ml	99
6) Biphenyl	5.79	154	109589	430.25	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.92	156	74343	428.86	ng/ml	99
9) Acenaphthylene	6.15	152	126219	424.03	ng/ml	100
10) Acenaphthene	6.30	154	77270	434.59	ng/ml	100
11) Dibenzofuran	6.45	168	120786	440.64	ng/ml	96
12) 2,3,5-Trimethylnaphthalene	6.62	170	71896	443.78	ng/ml	92
14) Fluorene	6.73	166	87992	433.80	ng/ml	100
16) Dibenzothiophene	7.42	184	140939	435.47	ng/ml	97
17) Phenanthrene	7.52	178	132954	430.91	ng/ml	99
18) Anthracene	7.57	178	127671	435.92	ng/ml	100
19) Carbazole	7.70	167	126449	430.53	ng/ml	100
20) 1-Methylphenanthrene	8.03	192	113006	461.58	ng/ml	100
21) Fluoranthene	8.50	202	190410	457.15	ng/ml	99
24) Pyrene	8.69	202	205447	459.27	ng/ml	99
26) Benz(a)anthracene	9.99	228	201168	426.59	ng/ml	100
27) Chrysene	10.04	228	191163	424.07	ng/ml	100
29) Benzo(b)fluoranthene	12.00	252	234715	450.22	ng/ml	99
30) Benzo(k)fluoranthene	12.06	252	220943	435.85	ng/ml	100
31) Benzo(e)pyrene	12.70	252	210869	438.15	ng/ml	99
32) Benzo(a)pyrene	12.84	252	199268	423.45	ng/ml	100
33) Perylene	13.08	252	201759	433.80	ng/ml	99
34) Indeno(1,2,3-cd)pyrene	15.31	276	197143	428.12	ng/ml	99
35) Dibenz(a,h)anthracene	15.36	278	214362	411.10	ng/ml	100
36) Benzo(g,h,i)perylene	15.69	276	233002	430.80	ng/ml	100

(#) = qualifier out of range (m) = manual integration

1st 06/20/19
2nd 06/20/19

Validation Report

Data File: J:\MS14\DATA\061819\0618F027.D\
Lab ID: KQ1908547-02
RunType: TUNE
Matrix: Storm Water

Date Acquired: 6/18/19 16:56:00
Batch ID: 639897
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Tune Ion Ratio	X	

Primary Review: _____

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Secondary Review: _____

1st 06/20/19
2nd 06/20/19

Quantitation Report

Data File:	J:\MS14\DATA\061819\0618F027.D\	**Instrument:**	K-MS-14
Acqu Date:	6/18/19 16:56:00	**Vial:**	1
Run Type:	TUNE	**Dilution:**	1
Lab ID:	KQ1908547-02	**Raw Units:**	

Bottle ID:		**Tier:**	II	**Matrix:**	Storm Water
Prod Code:	PAH SIM	**Collect Date:**	6/6/19	**Receive Date:**	6/10/19

Analysis Lot:	639897	**Prep Lot:**		**Report Group:**	KQ1908547
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900232
		Report List ID:	18998

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	25.15	110737	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	29.22	128682	Pass
70	69	0	2	0.57	732	Pass
127	198	10	80	39.50	173928	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	39.79	440341	Pass
199	198	5	9	6.66	29346	Pass
275	198	10	60	37.17	163685	Pass
365	442	1	50	2.00	22119	Pass
441	443	0.01	100	74.16	160698	Pass
442	442	30	100	100.00	1106730	Pass
443	442	15	24	19.58	216682	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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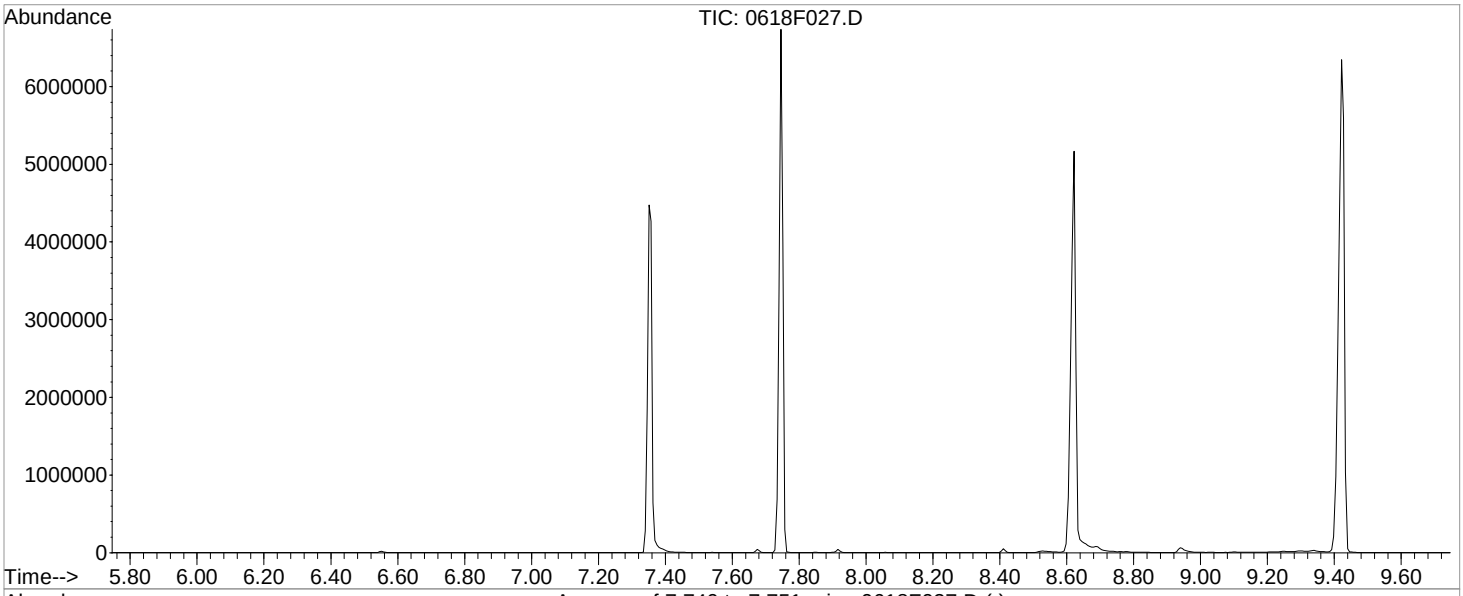
1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061819\0618F027.D Vial: 1
Acq On : 18 Jun 2019 4:56 pm Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix



Spectrum Information: Average of 7.740 to 7.751 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	25.1	110737	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	29.2	128682	PASS
70	69	0.00	2	0.6	732	PASS
127	198	10	80	39.5	173928	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	39.8	440341	PASS
199	198	5	9	6.7	29346	PASS
275	198	10	60	37.2	163685	PASS
365	442	1	50	2.0	22119	PASS
441	443	0.01	100	74.2	160698	PASS
442	442	30	100	100.0	1106730	PASS
443	442	15	24	19.6	216682	PASS

Average of 7.740 to 7.751 min.: 0618F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.85	184	54.95	792	66.90	69	80.90	10008
36.95	572	55.90	3444	68.90	128682	81.90	2508
38.00	1726	56.90	7648	69.90	732	82.90	2285
39.00	8418	57.90	359	72.95	1189	83.80	176
40.00	377	59.00	50	74.00	12827	83.90	20
40.95	375	60.95	1612	74.95	19426	84.95	1898
44.80	171	62.00	1789	76.00	1049	85.85	2902
50.00	30423	63.00	4674	77.00	137736	86.95	1318
51.00	110737	64.00	634	78.00	9573	87.85	542
52.00	5601	64.95	2369	78.95	10269	88.95	216
52.90	236	65.95	145	79.90	7213	90.95	2500

Average of 7.740 to 7.751 min.: 0618F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.95	2692	101.90	290	116.00	3166	127.95	13799
92.90	15860	102.90	2182	116.90	33232	128.90	66821
93.95	1136	103.90	3957	117.90	2510	129.90	5656
94.85	307	104.90	3582	118.90	368	130.90	1084
95.10	61	106.90	44925	119.85	555	131.90	602
95.95	707	107.90	6936	120.90	147	132.70	255
96.80	122	109.90	91960	121.90	3296	132.90	60
97.90	12581	110.90	12786	122.90	4914	133.90	1984
98.90	9169	111.90	1595	123.90	2148	134.90	5483
99.95	948	112.90	448	124.90	2107	135.90	2139
100.90	5672	114.75	188	126.90	173928	136.90	2685

Average of 7.740 to 7.751 min.: 0618F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
137.70	336	146.90	4539	157.90	1969	167.90	7055
138.00	237	147.90	8827	158.95	1313	168.90	1410
138.70	121	148.90	1824	159.90	2731	169.90	719
138.95	287	149.95	623	160.90	4268	170.80	985
140.00	917	151.00	1367	161.85	1159	171.90	1716
140.90	9121	151.70	1135	162.80	339	172.90	2093
141.90	3060	152.90	2677	163.70	130	173.95	3942
142.85	1975	153.90	2304	163.95	485	174.90	6954
143.85	483	154.90	5002	164.90	3479	176.00	2527
144.95	455	155.90	7612	166.00	3015	176.90	3847
145.90	1765	156.95	1655	166.90	18537	177.95	1326

Average of 7.740 to 7.751 min.: 0618F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
178.90	13326	189.85	612	202.90	2724	214.90	1136
179.90	8778	190.95	1595	203.90	13732	215.90	2302
180.90	4370	191.90	4129	204.90	24968	216.90	25616
181.90	763	192.90	4928	205.90	110634	217.90	3316
182.85	627	193.90	974	206.90	14553	218.70	80
183.90	1128	195.00	949	207.90	3474	218.95	260
184.95	6640	195.95	14793	208.85	1132	219.20	70
185.90	57920	197.90	440341	210.10	1230	220.90	31690
186.90	16060	198.90	29346	210.90	4440	222.90	6534
187.95	1663	199.90	2173	212.95	267	223.90	62853
188.90	3448	201.40	2607	213.80	86	224.90	16052

Average of 7.740 to 7.751 min.: 0618F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
225.95	1825	236.85	1973	247.90	493	257.90	14523
226.90	23736	237.90	312	248.90	2076	258.90	2318
227.90	3340	238.85	1015	249.75	422	259.85	436
228.90	5374	239.85	800	250.90	461	260.85	612
229.85	706	240.90	1566	251.70	113	261.90	54
230.90	2465	241.90	3417	251.80	128	262.80	97
231.85	411	242.95	4184	251.95	346	263.85	554
232.80	502	243.90	55733	252.95	1232	264.90	5886
233.85	1518	244.90	7481	254.90	292714	265.80	831
234.90	1923	245.85	9161	255.90	42170	266.80	64
235.85	1226	246.90	2010	256.90	3452	267.60	54

Average of 7.740 to 7.751 min.: 0618F027.D

1st 06/20/19
2nd 06/20/19

DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
269.80	435	280.90	58	290.00	318	300.95	503
270.90	532	281.75	137	290.60	51	301.90	797
271.80	158	282.00	187	290.90	274	302.90	4970
272.00	673	282.85	1287	291.85	604	303.85	1467
272.90	9852	283.90	1065	292.90	2834	304.80	172
273.90	27762	284.90	2262	293.85	659	307.85	682
274.90	163685	285.85	447	295.00	1058	308.85	440
275.90	21330	287.90	84	295.90	36946	309.80	420
276.90	11449	288.80	327	296.90	5183	310.00	199
277.85	1905	289.00	143	297.70	89	311.80	77
278.85	429	289.80	75	297.85	269	312.90	463

Average of 7.740 to 7.751 min.: 0618F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
313.85	2265	326.85	2749	339.85	266	353.90	6571
314.90	4478	327.90	1530	340.85	1965	354.85	1228
315.90	2954	328.90	121	341.85	567	355.90	67
316.90	569	329.70	56	345.85	3532	356.80	81
319.75	140	331.00	50	346.85	657	358.75	267
320.85	1325	331.90	1104	349.70	73	359.00	326
321.95	961	332.90	1635	350.00	53	359.80	56
322.90	16795	333.90	11034	350.80	85	360.90	59
323.90	3186	334.90	3021	350.95	299	363.60	69
324.90	248	335.85	345	351.90	5604	364.90	22119
325.80	370	338.75	261	352.90	4260	365.85	3182

Average of 7.740 to 7.751 min.: 0618F027.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
366.80	184	388.80	57	404.85	377	443.90	19862
369.85	583	389.85	1787	409.85	232	444.90	1179
370.85	1641	390.85	1301	414.85	379		
371.90	11340	391.85	964	420.90	7095		
372.90	3204	392.85	159	421.90	7245		
373.85	370	394.70	63	422.90	61226		
376.85	273	396.75	128	423.90	11516		
382.00	61	400.80	746	424.85	1038		
382.85	3234	401.85	5144	440.90	160698		
383.85	833	402.90	7765	441.90	1106730		
384.85	300	403.90	2727	442.90	216682		

1st 06/20/19
2nd 06/20/19

Validation Report

Data File: J:\MS14\DATA\061919\0619F026.D\
Lab ID: KQ1908603-02
RunType: TUNE
Matrix: Water

Date Acquired: 6/19/19 18:55:00
Batch ID: 640092
Analysis Method: 8270D/PAH SIM

Validations

Validation Categories	Pass	Fail
Tune Ion Ratio	X	

Primary Review: _____

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Secondary Review: _____

1st 06/20/19
2nd 06/20/19

Quantitation Report

Data File:	J:\MS14\DATA\061919\0619F026.D\	**Instrument:**	K-MS-14
Acqu Date:	6/19/19 18:55:00	**Vial:**	1
Run Type:	TUNE	**Dilution:**	1
Lab ID:	KQ1908603-02	**Raw Units:**	

Bottle ID:		**Tier:**	IV	**Matrix:**	Water
Prod Code:	PAH SIM	**Collect Date:**	6/10/19	**Receive Date:**	6/12/19

Analysis Lot:	640092	**Prep Lot:**		**Report Group:**	KQ1908603
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Polycyclic Aromatic Hydrocarbons by GC/MS SIM	**Calibration ID:**	KC1900232
		Report List ID:	20294

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	25.60	118898	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	29.37	136429	Pass
70	69	0	2	0.55	744	Pass
127	198	10	80	39.70	184394	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	39.51	464512	Pass
199	198	5	9	6.79	31546	Pass
275	198	10	60	37.75	175349	Pass
365	442	1	50	2.06	24229	Pass
441	443	0.01	100	73.64	170104	Pass
442	442	30	100	100.00	1175701	Pass
443	442	15	24	19.65	230986	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

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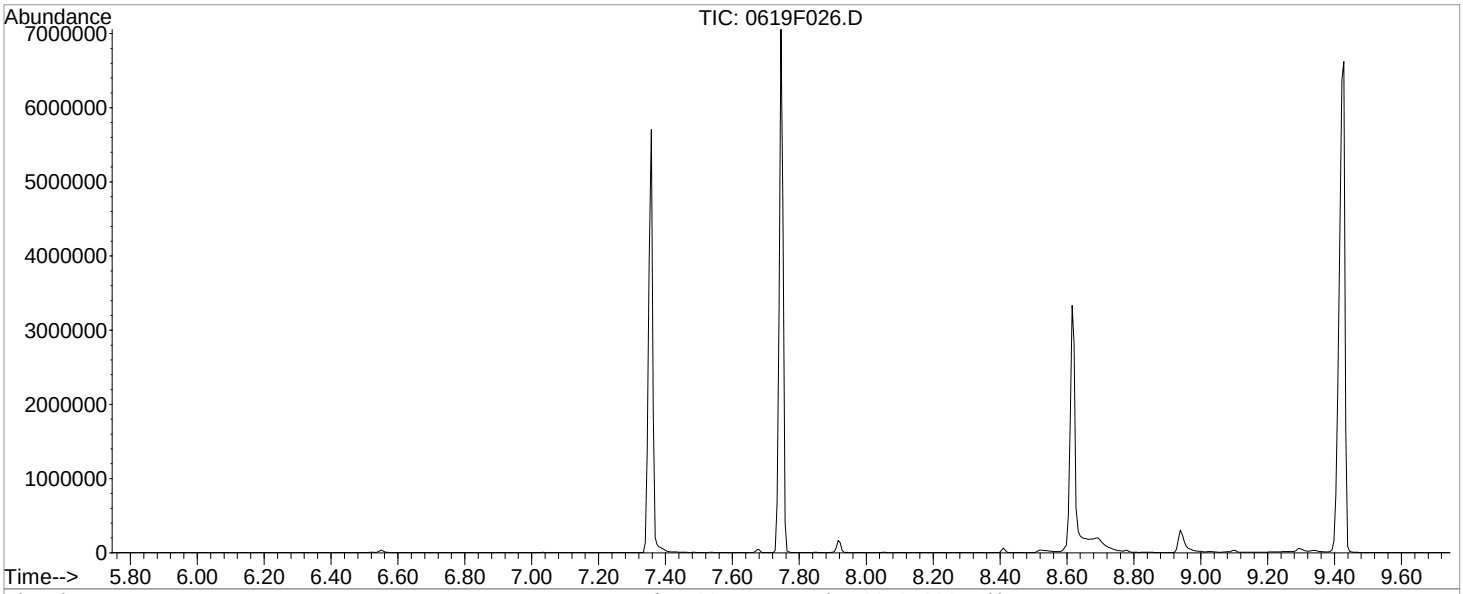
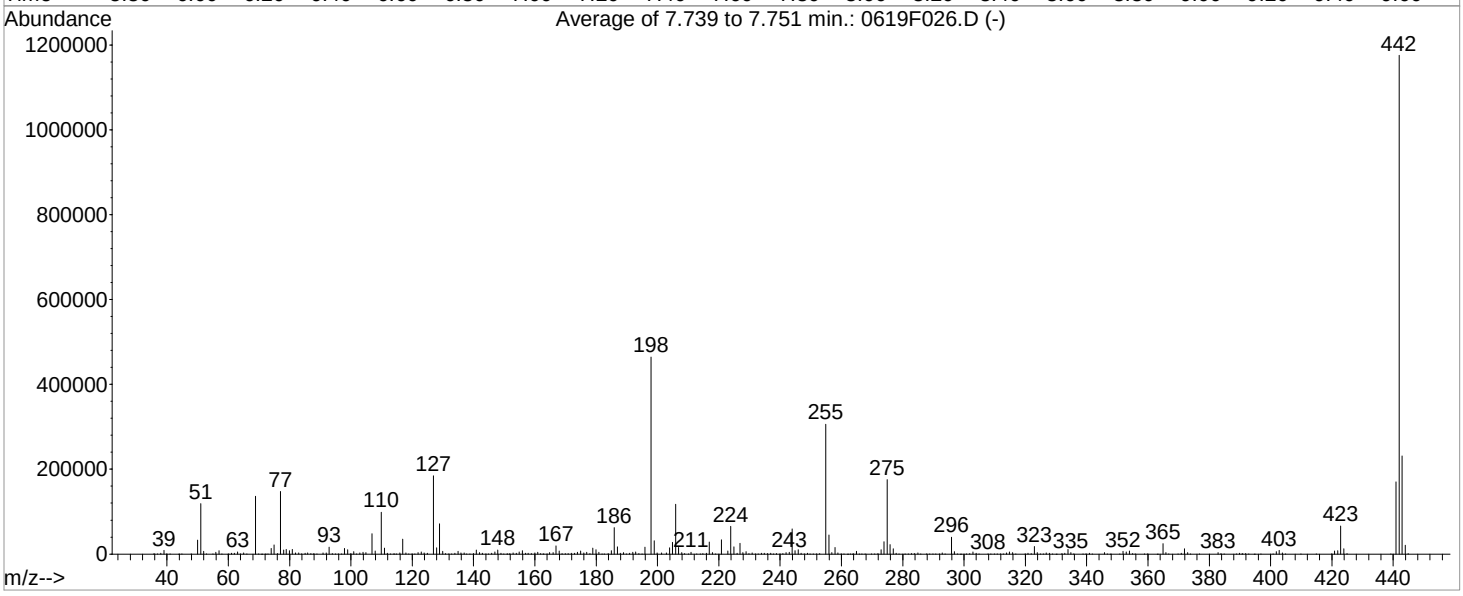
1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061919\0619F026.D Vial: 1
Acq On : 19 Jun 2019 6:55 pm Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix





Spectrum Information: Average of 7.739 to 7.751 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	25.6	118898	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	29.4	136429	PASS
70	69	0.00	2	0.5	744	PASS
127	198	10	80	39.7	184394	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	39.5	464512	PASS
199	198	5	9	6.8	31546	PASS
275	198	10	60	37.7	175349	PASS
365	442	1	50	2.1	24229	PASS
441	443	0.01	100	73.6	170104	PASS
442	442	30	100	100.0	1175701	PASS
443	442	15	24	19.6	230986	PASS

Average of 7.739 to 7.751 min.: 0619F026.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.70	77	51.00	118898	63.95	734	77.00	147437
35.95	121	52.00	6120	65.00	2481	78.00	9498
36.90	611	52.90	266	66.00	224	78.90	10866
38.00	1755	55.00	611	68.90	136429	79.90	8005
39.00	8862	55.90	3858	69.90	744	80.90	11037
40.00	479	57.00	8116	70.90	54	81.95	2709
41.00	396	57.90	372	72.00	52	82.95	2573
43.80	60	59.90	62	72.95	659	83.90	266
44.90	189	61.00	1556	73.95	13622	85.00	1962
47.90	92	62.00	1885	74.95	21202	85.85	3059
50.00	32528	63.00	4990	76.10	1420	86.95	1456

Average of 7.739 to 7.751 min.: 0619F026.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.80	183	98.90	10033	111.90	1666	121.90	3616
87.95	365	99.95	891	112.90	476	122.90	5297
88.95	362	100.90	5633	114.00	94	123.90	2334
90.90	2750	101.90	326	114.30	83	124.90	2238
91.95	2965	102.90	2320	114.90	266	126.90	184394
92.90	16620	103.90	4139	115.95	2665	127.95	14522
93.90	1254	104.90	3814	116.90	35149	128.90	71144
94.95	435	106.90	48040	117.90	2610	129.90	6175
95.95	753	107.90	7522	118.90	198	130.90	1153
96.90	156	109.90	98432	119.90	631	131.95	705
97.90	13351	110.90	13888	120.85	375	132.90	390

Average of 7.739 to 7.751 min.: 0619F026.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
133.90	2224	144.85	564	153.90	2196	163.95	590
134.90	6103	145.90	1785	154.90	5063	164.85	3772
135.90	2372	146.90	4908	155.90	8069	165.95	3422
136.95	2749	147.90	9557	157.00	2018	166.90	19320
137.80	704	148.90	2027	157.85	1922	167.90	7321
138.85	512	149.90	653	158.85	1405	168.90	1524
139.95	997	150.90	641	159.95	2927	169.95	848
140.90	9454	151.10	669	160.95	4189	170.90	915
141.95	3221	151.70	488	161.85	1254	171.85	1826
142.85	2090	151.90	548	162.70	233	172.90	2115
144.00	573	152.90	3060	162.90	206	173.90	4063

Average of 7.739 to 7.751 min.: 0619F026.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.90	7586	185.90	62066	197.90	464512	210.10	572
176.00	2601	186.90	17062	198.90	31546	210.95	4518
176.90	4103	187.90	1713	199.90	2430	212.80	336
177.90	1447	188.90	3521	201.35	2978	214.00	119
178.90	14383	189.90	680	202.90	2959	214.85	1281
179.90	10157	190.85	1649	203.90	14976	215.95	1893
180.90	4559	191.90	4512	204.90	27496	216.90	28114
181.90	726	192.90	5067	205.90	117536	217.90	3655
182.70	550	193.90	1220	206.90	15334	219.00	385
183.90	1277	195.00	414	207.90	3585	220.90	33688
184.90	7784	195.90	16017	208.90	1175	222.90	7211

Average of 7.739 to 7.751 min.: 0619F026.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
223.90	65597	234.85	1945	245.90	10082	257.90	15776
224.90	16927	235.90	1476	246.85	2281	258.85	2570
225.95	2030	236.90	2123	247.85	580	259.85	478
226.90	25240	237.90	440	248.90	2201	260.85	570
227.90	3771	238.85	1151	249.80	496	262.00	59
228.90	5551	239.95	825	250.80	390	262.90	134
229.85	854	240.85	1522	251.90	464	263.65	3
230.90	2410	241.90	3542	252.95	1229	263.85	493
231.90	457	242.95	4435	254.90	305706	264.90	6496
232.90	567	243.90	59608	255.90	45168	265.80	827
233.90	1676	244.90	7852	256.90	3587	266.70	94

Average of 7.739 to 7.751 min.: 0619F026.D

DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

1st 06/20/19
2nd 06/20/19

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
267.70	227	280.80	144	292.90	2973	307.85	734
269.85	344	281.85	333	293.85	821	308.80	395
270.85	673	282.90	1496	295.90	39826	309.85	666
271.95	934	283.85	1134	296.90	5664	310.80	145
272.90	10017	284.90	2365	297.85	334	311.85	159
273.90	28800	285.85	454	298.80	58	312.85	425
274.90	175349	287.80	121	300.85	565	313.85	2337
275.90	22659	288.85	490	301.85	865	314.85	4762
276.90	12321	289.85	461	302.90	5290	315.90	3183
277.90	1950	290.75	318	303.90	1663	316.90	613
278.80	406	291.95	686	304.85	191	319.95	248

Average of 7.739 to 7.751 min.: 0619F026.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

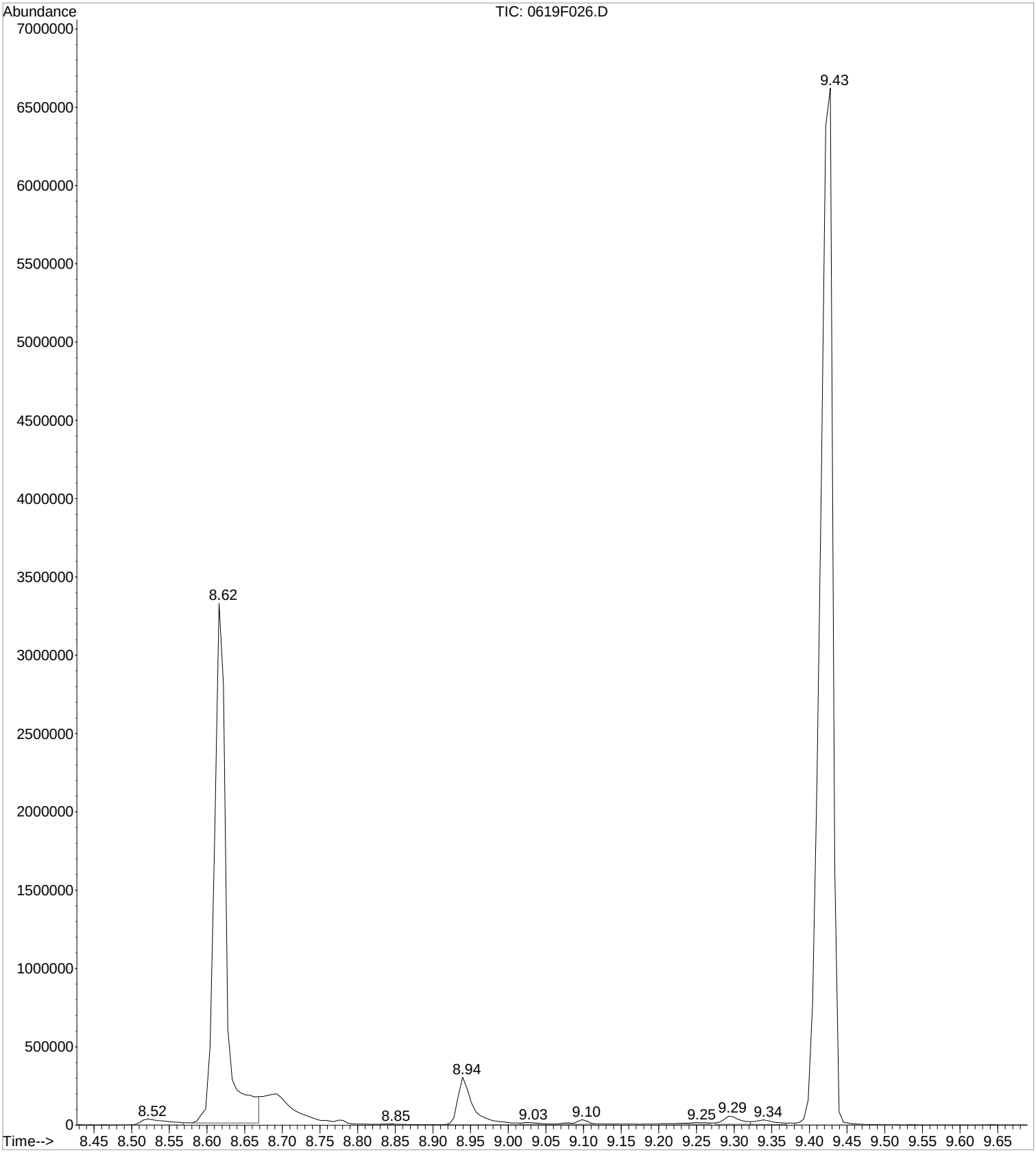
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
320.90	1728	332.85	1753	350.85	456	366.75	192
321.95	1010	333.90	11326	351.90	6103	369.85	658
322.90	17862	334.90	3125	352.90	4665	370.90	1841
323.90	3219	335.80	419	353.90	7105	371.90	12338
324.90	258	338.80	244	354.95	1323	372.90	3098
325.85	359	339.75	270	355.85	138	373.85	366
326.85	2968	340.90	2086	358.85	567	376.85	311
327.85	1708	341.85	718	359.85	115	382.85	3331
328.85	223	345.85	3774	363.00	52	383.85	973
330.00	60	346.80	740	364.90	24229	384.80	288
331.90	1251	347.70	53	365.85	3573	388.90	74

Average of 7.739 to 7.751 min.: 0619F026.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
389.85	1852	404.85	428	441.90	1175701		
390.70	161	409.90	255	442.90	230986		
390.90	1111	414.95	407	443.90	21050		
391.85	1155	419.95	173	444.90	1288		
392.90	146	420.90	7598				
394.70	62	421.90	7637				
396.85	124	422.90	66322				
400.85	765	423.90	12564				
401.85	5462	424.95	1251				
402.85	8671	439.20	212				
403.90	2810	440.90	170104				

1st 06/20/19
2nd 06/20/19

File : J:\MS14\DATA\061919\0619F026.D
Operator : LWeiskopf
Acquired : 19 Jun 2019 6:55 pm using AcqMethod SIMLOC
Instrument : MS14
Sample Name: DFTPP @ 10ug/mL | SVM60-55B
Misc Info :
Vial Number: 1

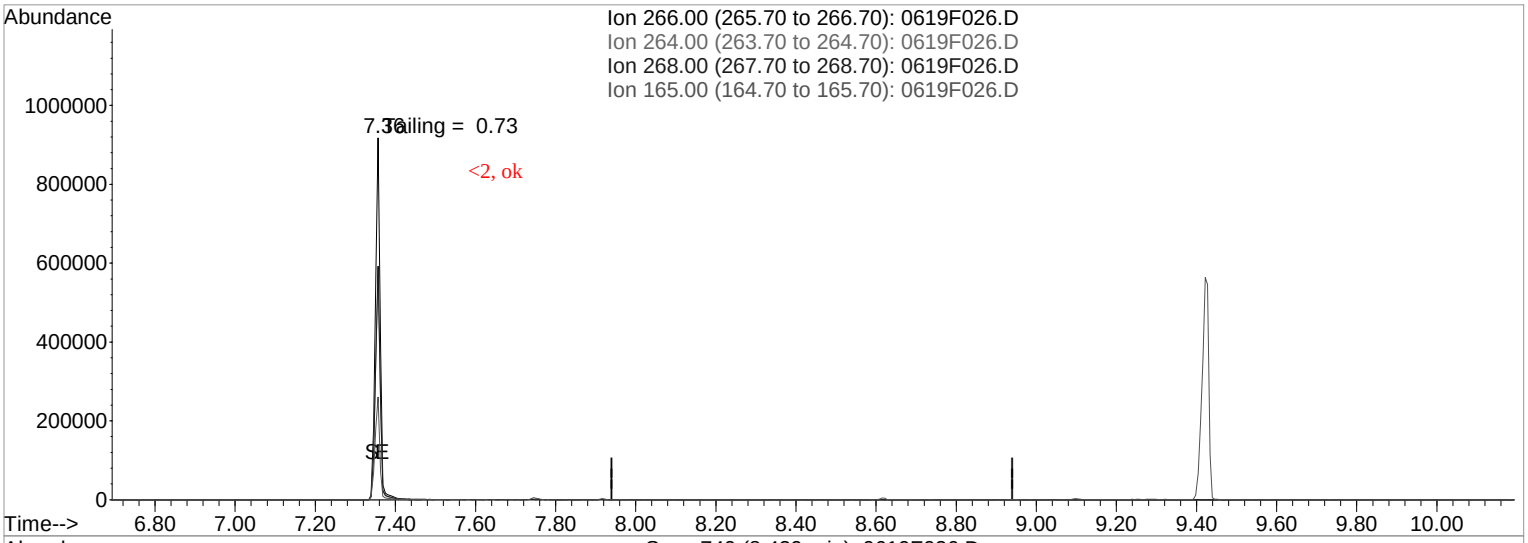


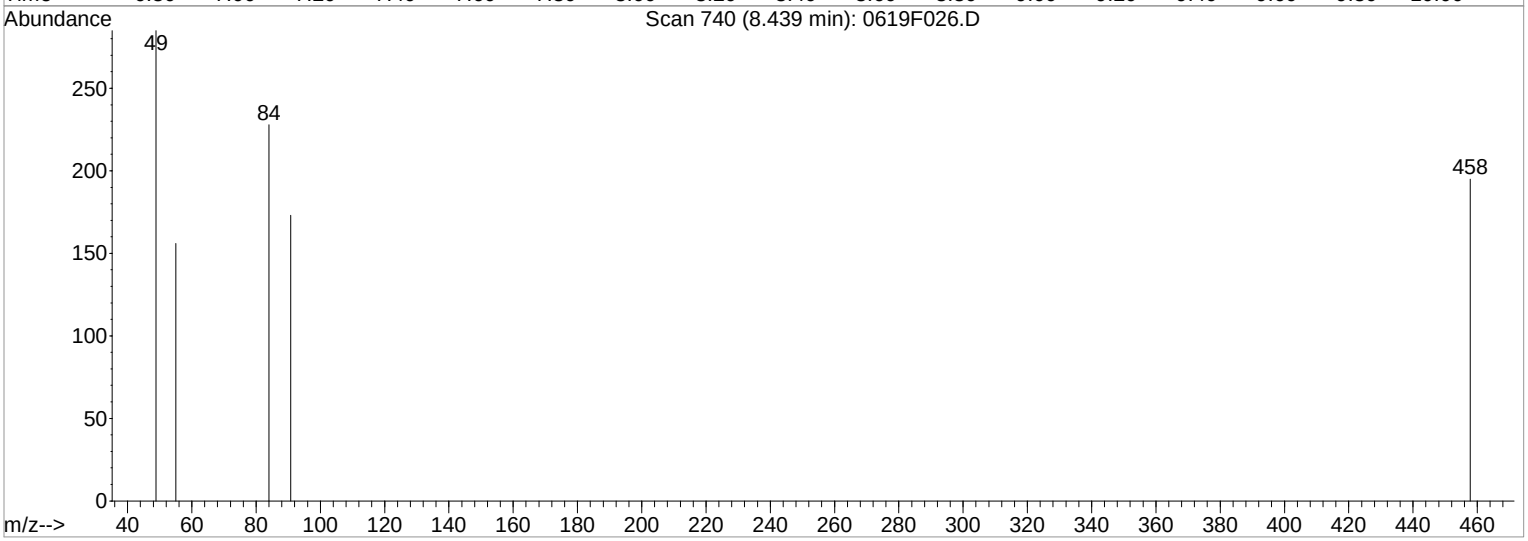
Quantitation Report

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061919\0619F026.D Vial: 1
Acq On : 19 Jun 2019 6:55 pm Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Wed Jun 19 14:30:31 2019
Response via : Initial Calibration





TIC: 0619F026.D

(1) Pentachlorophenol

Exp R.T. 8.44min

response 0

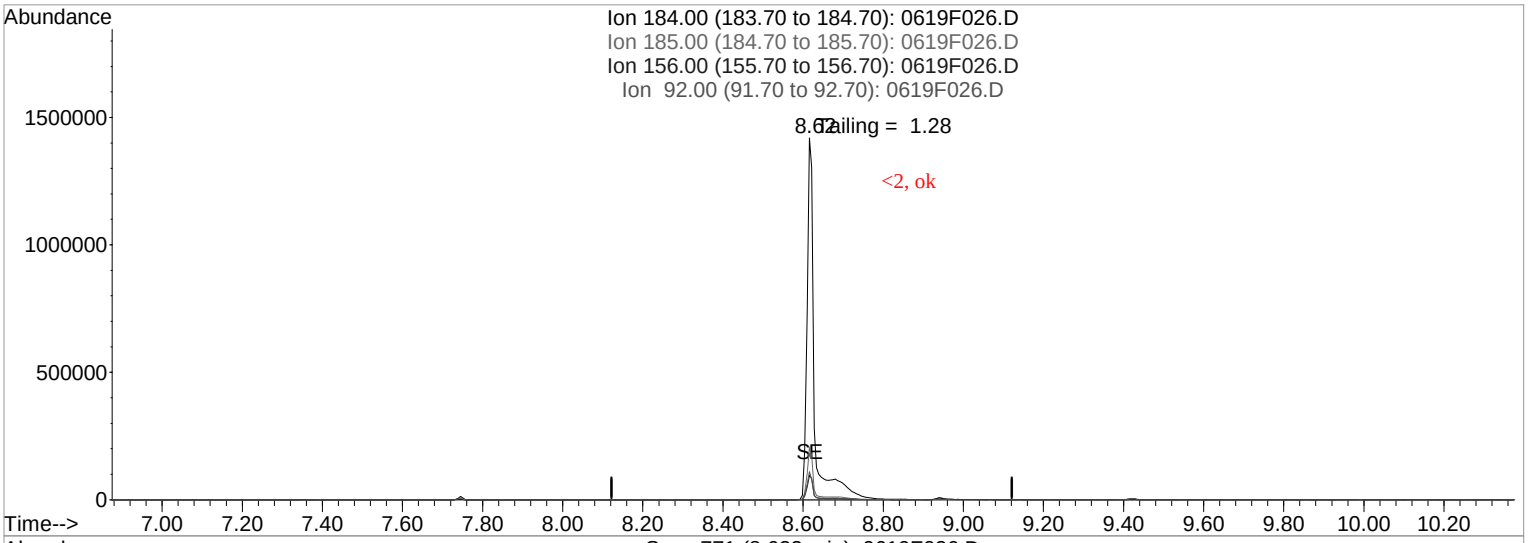
Ion	Exp%	Act%
266.00	100	0
264.00	62.30	0.00
268.00	72.30	0.00
165.00	42.00	0.00

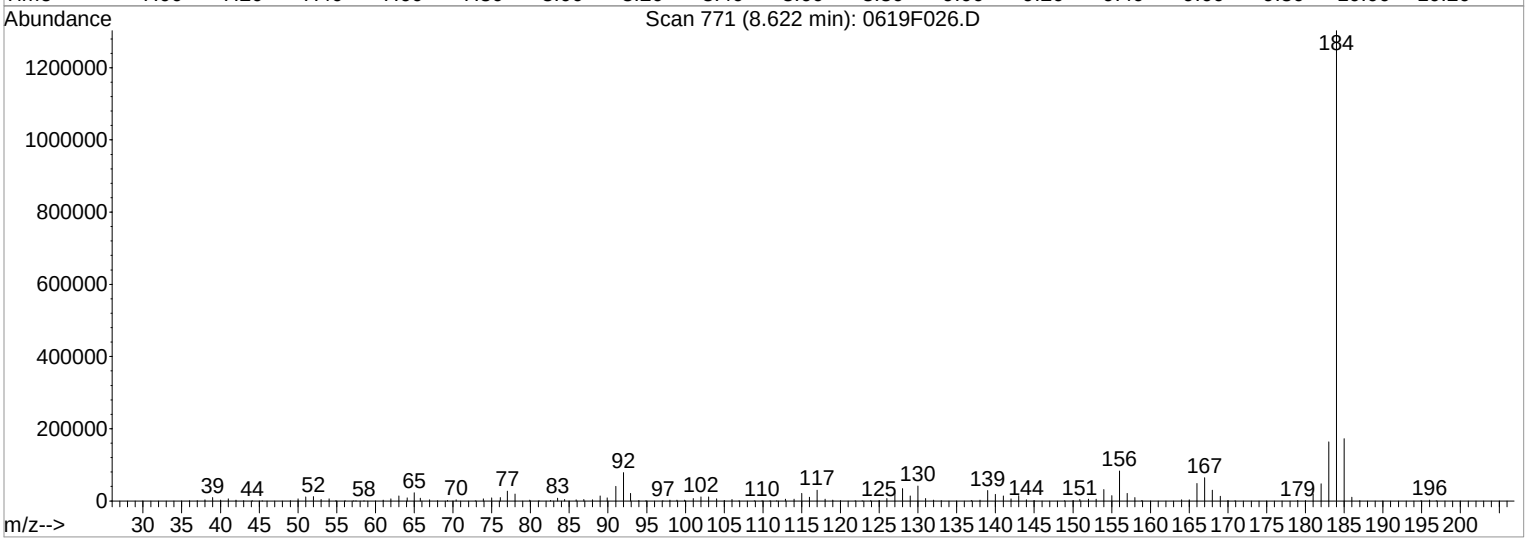
Quantitation Report

1st 06/20/19
2nd 06/20/19

Data File : J:\MS14\DATA\061919\0619F026.D Vial: 1
Acq On : 19 Jun 2019 6:55 pm Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Wed Jun 19 14:30:31 2019
Response via : Initial Calibration





TIC: 0619F026.D

(3) Benzidine

Exp R.T. 8.62min

response 0

Ion	Exp%	Act%
184.00	100	100
185.00	0.00	13.26
156.00	0.00	6.39
92.00	0.00	6.05

1	4.975	rVB	0.041	3675	4.963	5.004
2	5.698	rBV	0.047	2165	5.687	5.734
3	6.522	rBV	0.035	6747	6.498	6.534
4	6.551	rVB	0.065	34765	6.534	6.598
5	6.769	rVB	0.076	2499	6.728	6.804
6	7.034	rVB	0.076	4907	7.010	7.087
7	7.357	rBV	0.147	4794948	7.328	7.475
8	7.539	rVB	0.041	4297	7.528	7.569
9	7.675	rVB	0.041	35998	7.657	7.698
10	7.745	rVV	0.100	5695501	7.704	7.804
11	7.851	rVB	0.059	7542	7.828	7.887
12	7.916	rVB	0.088	146321	7.887	7.975
13	8.057	rBV	0.029	4409	8.039	8.069
14	8.410	rBV	0.112	51847	8.328	8.439
15	8.522	rBV	0.082	94943	8.486	8.569
16	8.616	rBV	0.088	3700232	8.581	8.669
17	8.845	rVB	0.076	9403	8.822	8.898
18	8.939	rBV	0.112	DDD 432302	8.904	9.016
19	9.028	rVV	0.047	17702	9.016	9.063
20	9.098	rVB	0.082	38394	9.063	9.145
21	9.251	rBV	0.076	26964	9.192	9.269
22	9.292	rVV	0.047	83706	9.275	9.322
23	9.339	rVV	0.047	50245	9.322	9.369
24	9.428	rVB	0.141	DDT 7785877	9.381	9.522
25	9.886	rBV	0.088	8375	9.845	9.933
26	10.410	rBV	0.088	23707	10.369	10.457
27	10.539	rBV	0.059	3165	10.492	10.551
28	11.051	rVB	0.124	60258	11.004	11.127
29	11.857	rBV	0.194	155401	11.792	11.986

DDT Breakdown = 5.3%
<20, ok

30	12.863	rBV	0.171	251760	12.792	12.963
31	14.016	rBV	0.182	379518	13.933	14.116
32	14.510	rBV	0.112	11010	14.457	14.568
33	14.592	rVB	0.053	2646	14.568	14.621
34	14.763	rBV	0.194	426348	14.704	14.898
35	15.121	rBV	0.088	21421	15.068	15.157
36	15.198	rVV	0.082	14257	15.163	15.245
37	15.321	rBV	0.218	444758	15.280	15.498
38	15.662	rBV	0.065	13678	15.627	15.692
39	15.715	rVB	0.059	8348	15.704	15.762
40	15.868	rBV	0.194	341592	15.827	16.021
41	16.227	rBV	0.076	14575	16.192	16.268
42	16.457	rBV	0.141	250884	16.409	16.551
43	17.104	rBV	0.182	162715	17.051	17.233
44	17.833	rBV	0.135	104463	17.780	17.915
45	18.668	rVB	0.147	53781	18.615	18.762

Injection Log

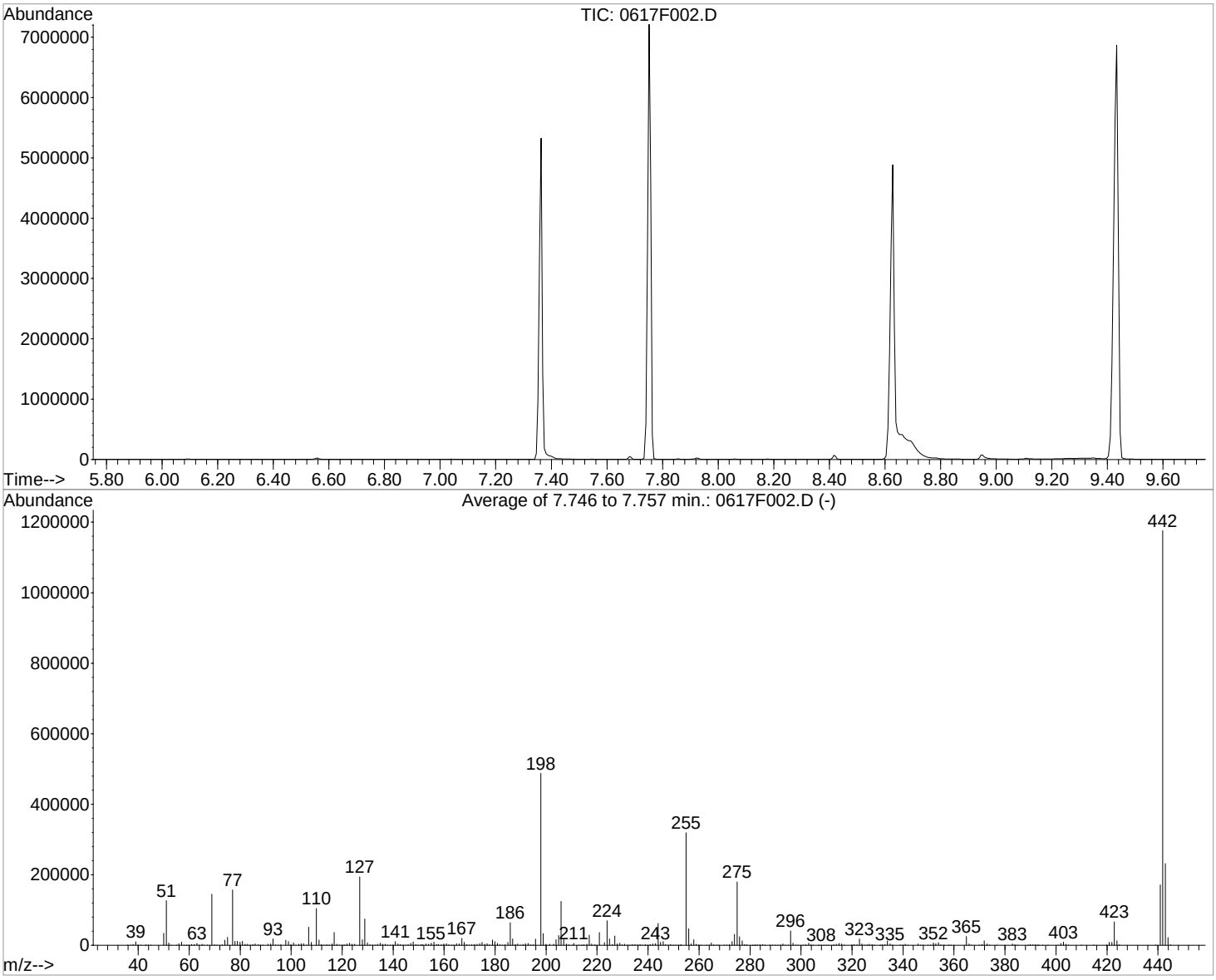
Directory: J:\MS14\DATA\061719

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0617F002.D	1.	DFTPP @ 10ug/mL | SVM60-55B		17 Jun 2019 07:14
2	2	0617F003.D	1.	IB		17 Jun 2019 07:41
3	3	0617F004.D	1.	SIM-PAH @ 0.002ug/mL SVM61-6A		17 Jun 2019 08:08
4	4	0617F005.D	1.	SIM-PAH @ 0.004ug/mL SVM61-6B	NR	17 Jun 2019 08:35
5	5	0617F006.D	1.	SIM-PAH @ 0.008ug/mL SVM61-6C		17 Jun 2019 09:03
6	6	0617F007.D	1.	SIM-PAH @ 0.02ug/mL SVM61-6D		17 Jun 2019 09:30
7	4	0617F008.D	1.	SIM-PAH @ 0.004ug/mL SVM61-6B		17 Jun 2019 09:58
8	5	0617F009.D	1.	SIM-PAH @ 0.008ug/mL SVM61-6C		17 Jun 2019 10:26
9	6	0617F010.D	1.	SIM-PAH @ 0.02ug/mL SVM61-6D		17 Jun 2019 10:54
10	7	0617F011.D	1.	SIM-PAH @ 0.1ug/mL SVM61-6E		17 Jun 2019 11:22
11	8	0617F012.D	1.	SIM-PAH @ 0.2ug/mL SVM61-6F		17 Jun 2019 11:50
12	9	0617F013.D	1.	SIM-PAH @ 0.4ug/mL SVM61-6G		17 Jun 2019 12:17
13	10	0617F014.D	1.	SIM-PAH @ 1.0ug/mL SVM61-6H		17 Jun 2019 12:46
14	11	0617F015.D	1.	SIM-PAH @ 1.6ug/mL SVM61-6I		17 Jun 2019 13:14
15	12	0617F016.D	1.	SIM-PAH @ 2.0ug/mL SVM61-6J		17 Jun 2019 13:42
16	13	0617F017.D	1.	SIM-PAH ICV @ 0.4ug/mL SVM61-6K		17 Jun 2019 14:10
17	100	0617F018.D	1.	DCM		17 Jun 2019 14:39
18	100	0617F019.D	1.	DCM		17 Jun 2019 15:07
19	100	0617F020.D	1.	DCM		17 Jun 2019 15:36
20	14	0617F021.D	1.	IB		17 Jun 2019 16:05
21	15	0617F022.D	1.	Hex Wide		17 Jun 2019 16:33
22	16	0617F023.D	1.	Hex Narr		17 Jun 2019 17:02
23	17	0617F024.D	1.	Bottle 1		17 Jun 2019 17:30
24	18	0617F025.D	1.	Bottle 2		17 Jun 2019 17:59

Lims: KC1900232
Stealth CAL 16070
6/18/19
eb 6/18/19 (Lims)
6/19/19

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F002.D Vial: 1
Acq On : 17 Jun 2019 7:14 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix



AutoFind: Scans 622, 623, 624; Background Corrected with Scan 617

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	26.0	126642	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	29.7	144872	PASS
70	69	0.00	2	0.6	841	PASS
127	198	10	80	39.7	193733	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	41.5	487530	PASS
199	198	5	9	6.8	33229	PASS
275	198	10	60	36.8	179301	PASS
365	442	1	50	2.1	24277	PASS
441	443	0.01	100	74.0	170842	PASS
442	442	30	100	100.0	1175893	PASS
443	442	15	24	19.6	231000	PASS

1st 06/18/19
2nd 06/19/19

Average of 7.746 to 7.757 min.: 0617F002.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	171	51.00	126642	63.00	5136	77.00	156994
36.95	629	52.00	6494	63.90	751	78.00	10628
38.00	1860	52.95	272	65.00	2670	78.90	11184
39.00	9384	55.00	740	65.90	272	79.90	8400
39.90	558	55.95	3988	67.10	119	80.90	11284
40.95	260	57.00	8596	68.90	144872	81.90	2738
42.90	155	57.90	366	69.95	841	82.90	2751
43.10	75	58.90	62	70.90	120	83.90	279
43.90	75	59.95	110	73.00	912	84.90	2198
44.95	196	60.90	1804	74.00	14237	85.85	3200
50.00	34026	61.95	1947	75.00	22296	87.00	1377

Average of 7.746 to 7.757 min.: 0617F002.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.85	517	100.90	6247	112.90	525	121.90	3707
88.90	286	101.85	432	113.70	75	122.90	5460
90.90	2708	102.95	2527	114.30	69	123.90	2333
91.95	3114	103.90	4483	114.95	198	124.90	2403
92.90	17984	104.90	3850	116.00	3540	126.90	193733
93.90	1294	106.00	367	116.90	35626	127.90	15514
95.00	415	106.90	51037	117.90	2522	128.90	74658
95.90	946	107.90	7909	118.90	375	129.90	6089
97.90	13943	109.90	103712	119.90	644	130.90	1136
98.90	10244	110.90	14841	120.70	95	131.95	801
99.90	1009	111.90	1848	121.00	235	132.95	349

Average of 7.746 to 7.757 min.: 0617F002.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
133.90	2398	144.90	544	154.90	5501	165.95	3348
134.90	6024	145.90	1947	155.95	8563	166.90	19479
135.90	2368	146.90	5148	157.00	1801	167.90	7761
136.95	2850	147.90	9412	157.80	2008	168.90	1602
137.85	526	148.85	2095	158.95	1519	169.90	731
138.90	511	149.85	624	159.90	3158	170.85	944
139.90	771	150.90	1077	160.90	4559	171.85	1689
140.90	10220	151.10	268	161.85	1411	172.90	2362
141.90	3475	151.60	1108	163.00	435	173.90	4239
142.80	2128	152.90	3183	163.85	652	174.90	7780
143.90	616	153.90	2444	164.90	3960	175.95	2822

Average of 7.746 to 7.757 min.: 0617F002.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
176.90	4213	187.90	1929	199.90	2386	212.95	322
177.85	974	188.90	3576	201.40	2962	213.90	62
178.90	14652	189.90	609	202.90	2869	214.85	1313
179.90	9972	190.95	1703	203.90	15615	215.95	2768
180.90	4816	191.90	4532	204.90	27832	216.90	28717
181.90	840	192.90	5031	205.90	124061	217.90	3779
182.95	553	193.90	1214	206.90	15835	218.95	334
183.90	1278	194.95	856	207.90	3761	219.20	105
184.95	7644	195.90	17011	208.85	1215	220.90	35765
185.90	63850	197.90	487530	210.10	566	222.90	7434
186.90	17981	198.90	33229	210.85	5027	223.90	69336

Average of 7.746 to 7.757 min.: 0617F002.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
224.90	17552	235.90	1268	245.90	10590	256.90	3529
225.95	2036	236.90	2291	246.85	2128	257.90	15918
226.90	25738	237.80	299	247.90	506	258.90	2603
227.90	3750	238.80	241	248.85	2229	259.85	526
228.90	5577	238.95	931	249.85	531	260.80	636
229.85	848	239.85	831	250.85	467	262.90	105
230.85	2646	240.85	1615	251.85	496	263.95	643
231.95	468	241.90	3616	252.80	296	264.85	6475
232.90	529	242.95	4522	252.95	963	265.80	841
233.85	1599	243.90	61418	254.90	318848	266.90	83
234.90	2094	244.90	8191	255.90	46624	267.70	108

Average of 7.746 to 7.757 min.: 0617F002.D

1st 06/18/19
2nd 06/19/19

DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
269.85	342	280.90	63	291.95	634	302.95	5342
270.85	540	281.80	59	292.90	3099	303.85	1514
271.95	970	281.95	221	293.85	730	304.80	247
272.90	10453	282.90	1346	295.00	401	306.70	54
273.90	30528	283.85	1043	295.90	40658	307.90	711
274.90	179301	284.90	2260	296.85	5864	308.90	496
275.90	23636	285.85	414	297.85	482	309.85	668
276.90	12263	287.75	141	298.80	80	310.80	77
277.90	1934	288.85	522	300.85	578	312.70	104
278.70	94	289.85	516	301.70	170	312.90	508
278.90	340	290.85	293	301.90	696	313.85	2447

Average of 7.746 to 7.757 min.: 0617F002.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

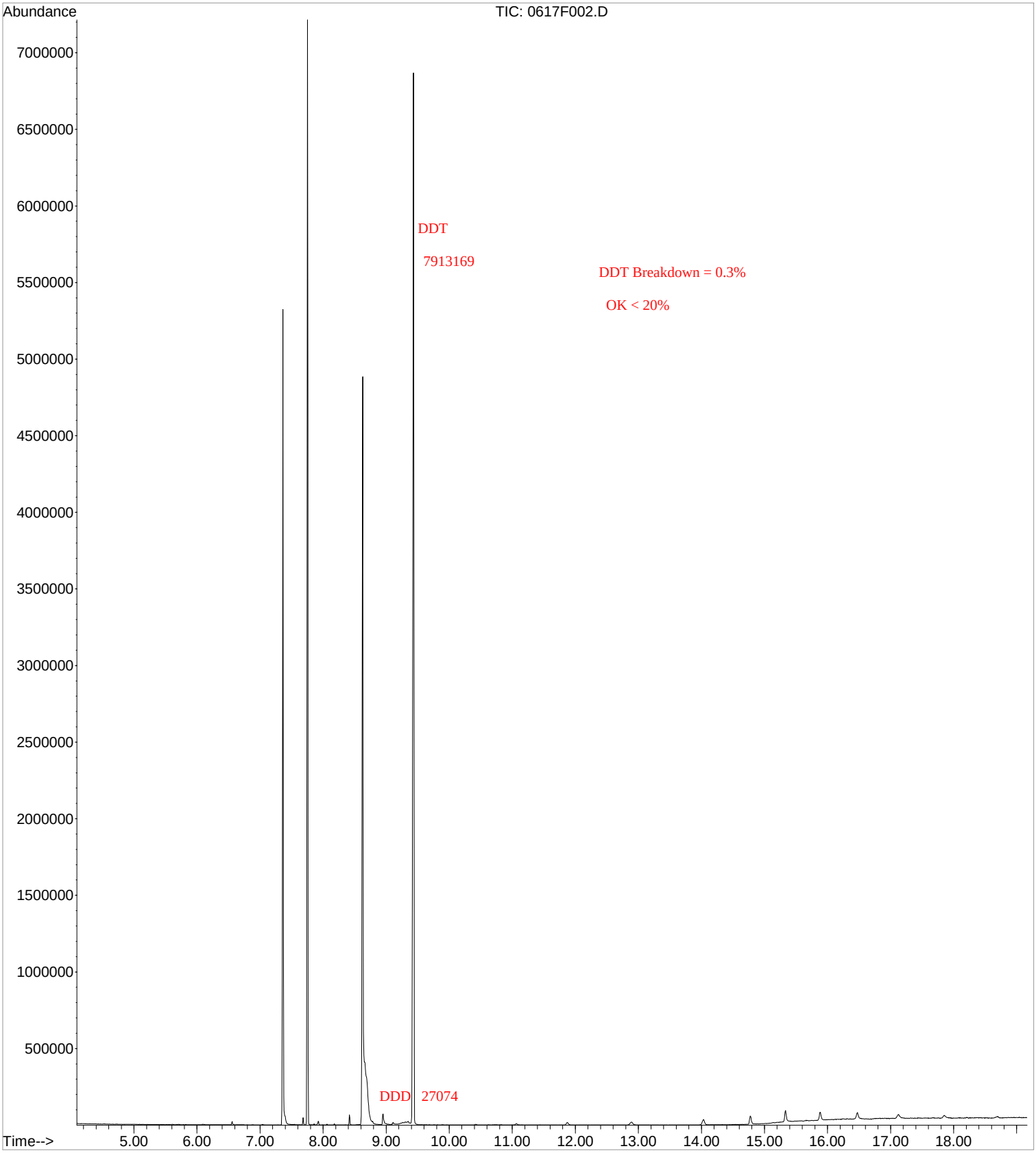
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
314.90	4788	326.80	2873	340.85	2335	355.90	55
315.90	3240	327.85	1755	341.90	601	357.80	55
316.95	621	328.80	330	345.85	3826	358.85	539
319.75	252	331.00	51	346.85	719	364.90	24277
320.85	1679	331.85	1343	347.80	67	365.90	3474
321.95	990	332.95	1817	349.80	110	366.85	259
322.90	17940	333.90	12097	350.85	371	369.85	660
323.90	3486	334.90	3399	351.90	6134	370.90	1882
324.90	303	335.85	417	352.90	4520	371.90	12378
325.80	164	338.85	340	353.90	6947	372.95	3375
326.00	207	339.85	241	354.85	1236	373.95	338

Average of 7.746 to 7.757 min.: 0617F002.D
DFTPP @ 10ug/mL | SVM60-55B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
376.90	299	396.85	139	422.90	66285		
382.90	3469	400.85	767	423.90	12767		
383.85	952	401.85	5215	424.90	1220		
384.85	299	402.90	8507	439.10	138		
388.90	54	403.90	3043	440.90	170842		
389.90	1756	404.90	402	441.90	1175893		
390.90	1345	409.95	301	442.90	231000		
391.85	1068	414.80	393	443.90	21377		
392.70	93	419.85	143	444.90	1422		
393.00	55	420.90	7702				
394.80	123	421.90	7799				

1st 06/18/19
2nd 06/19/19

File : J:\MS14\DATA\061719\0617F002.D
Operator : LWeiskopf
Acquired : 17 Jun 2019 7:14 am using AcqMethod SIMLOC
Instrument : MS14
Sample Name: DFTPP @ 10ug/mL | SVM60-55B
Misc Info :
Vial Number: 1

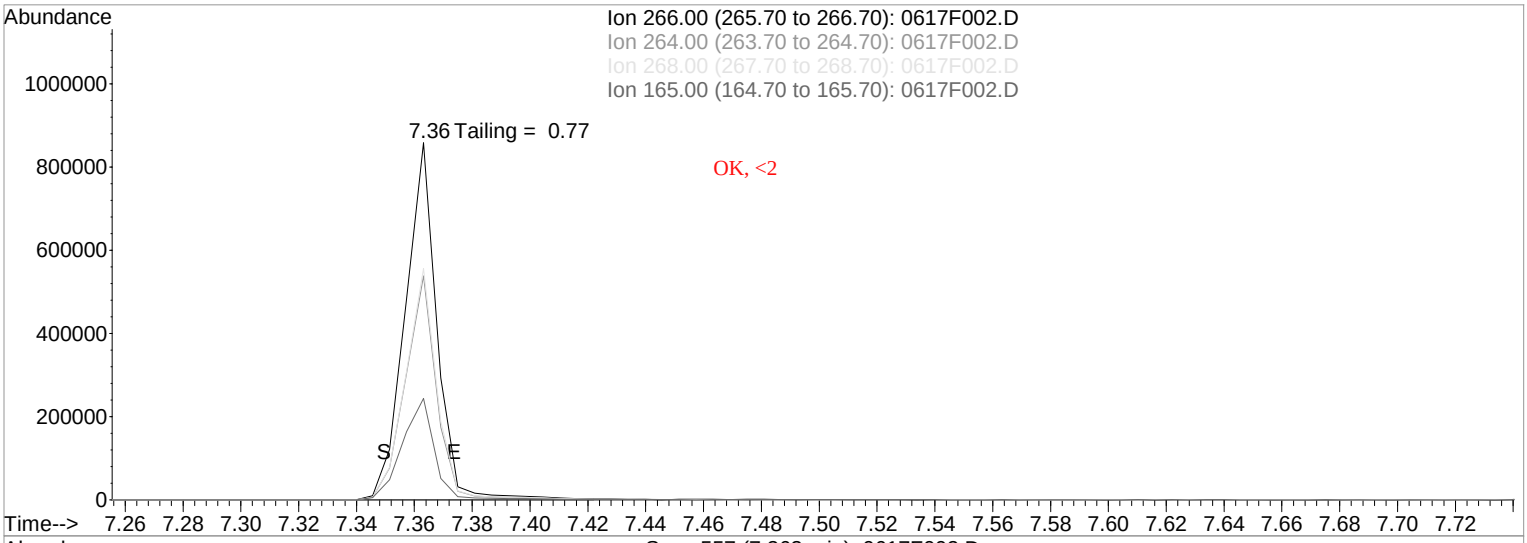


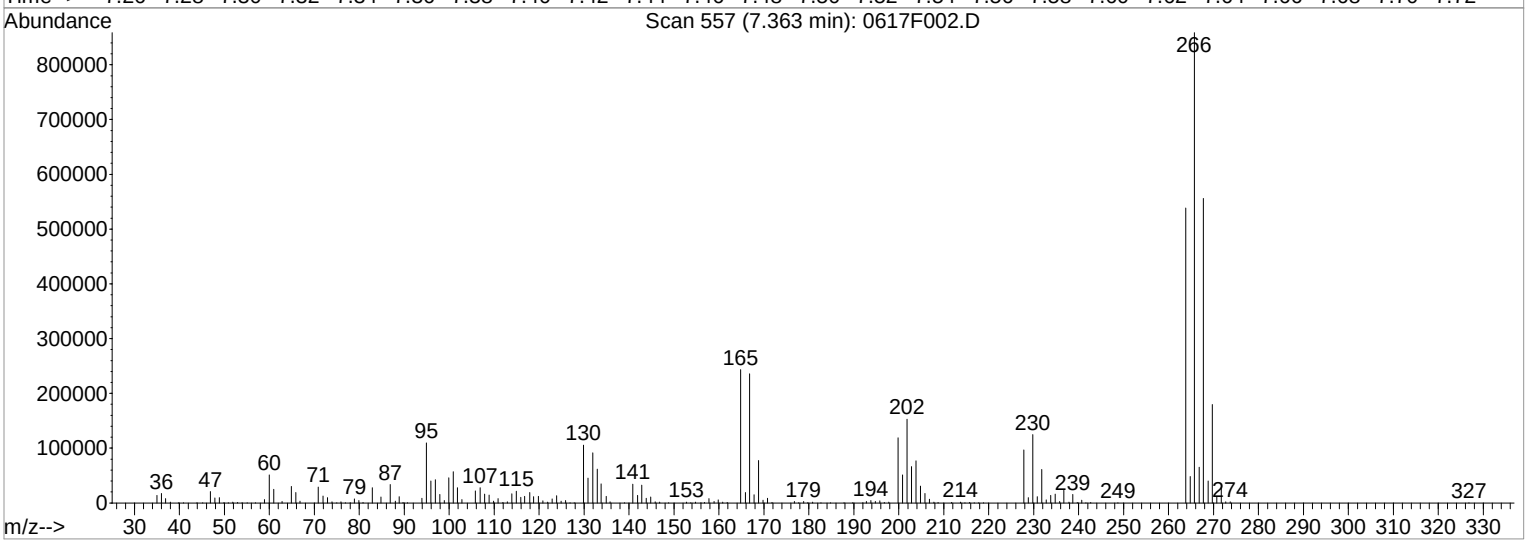
Quantitation Report (Qedit)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F002.D Vial: 1
Acq On : 17 Jun 2019 7:14 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jun 17 7:34 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Thu Sep 20 12:42:13 2018
Response via : Single Level Calibration





TIC: 0617F002.D

(1) Pentachlorophenol

8.44min 0.00ng/ml

response 0

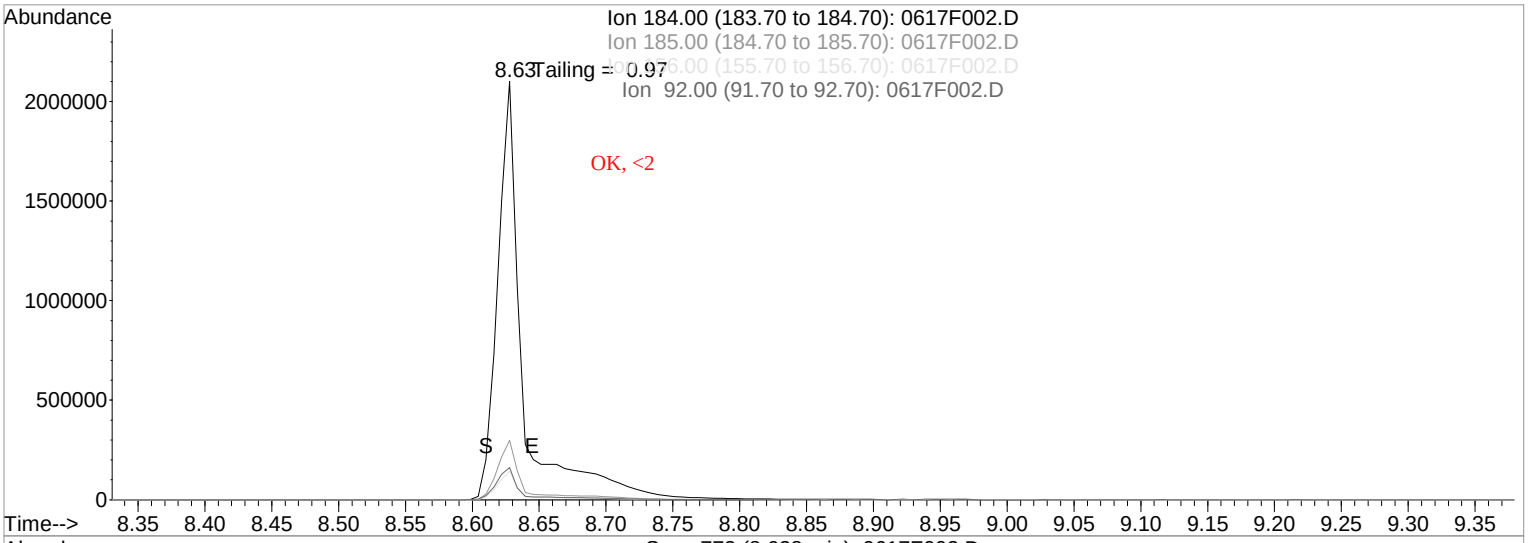
Ion	Exp%	Act%
266.00	100	0.00
264.00	62.30	0.00#
268.00	72.30	0.00#
165.00	42.00	0.00#

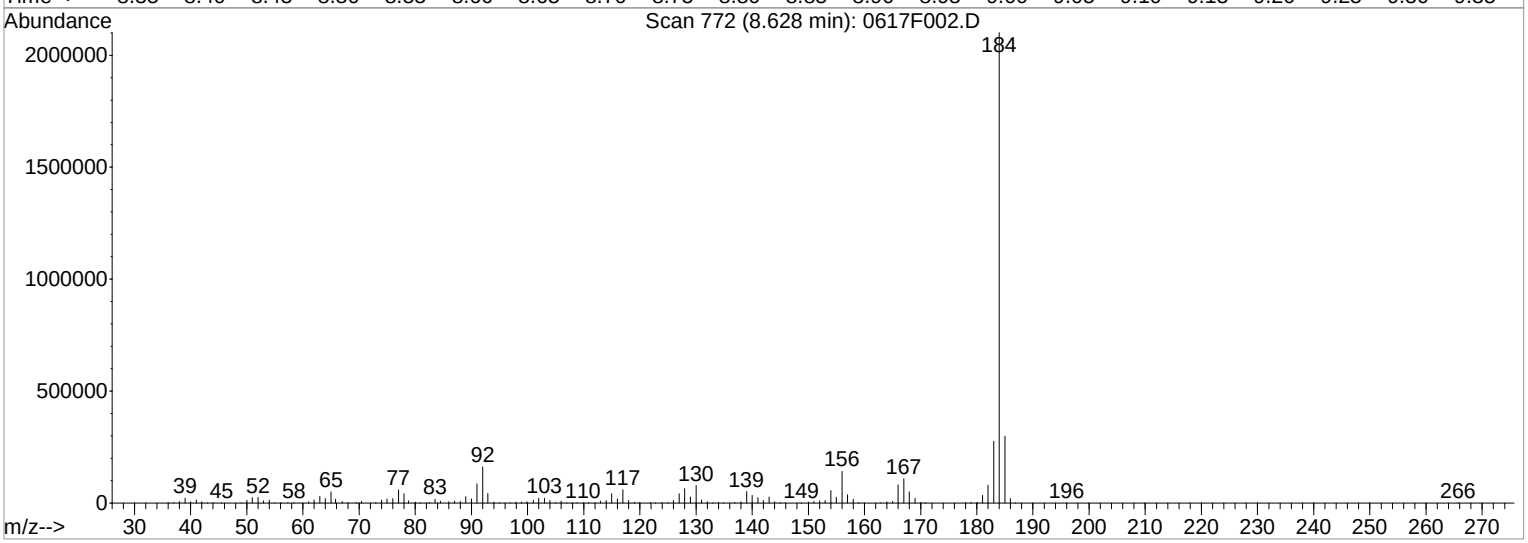
Quantitation Report (Qedit)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F002.D Vial: 1
Acq On : 17 Jun 2019 7:14 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM60-55B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jun 17 7:34 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Thu Sep 20 12:42:13 2018
Response via : Single Level Calibration





TIC: 0617F002.D

(3) Benzidine (T)

11.16min 0.00ug/ml

response 0

Ion	Exp%	Act%
184.00	100	0.00
185.00	14.70	0.00
156.00	9.50	0.00
92.00	7.60	0.00

Quantitation Report (QT Reviewed)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F003.D Vial: 2
Acq On : 17 Jun 2019 7:41 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:42:53 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 13:41:33 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.73	136	61103	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.28	164	34021	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.51	188	57977	200.00	ng/ml	0.00
23) Chrysene-d12	10.01	240	81346	200.00	ng/ml	0.00
28) Perylene-d12	13.03	264	91712	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	0.00	152	0	0.00	ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%		
13) Fluorene-d10	6.71	176	76	0.41	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.04%		
22) Fluoranthene-d10	0.00	212	0	0.00	ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%		
25) Terphenyl-d14	0.00	244	0	0.00	ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%		
Target Compounds						Qvalue
6) Biphenyl	5.80	154	203	0.74	ng/ml	95
11) Dibenzofuran	6.46	168	96	0.28	ng/ml#	80
17) Phenanthrene	7.54	178	83	0.23	ng/ml	75
26) Benz(a)anthracene	10.01	228	183	0.36	ng/ml	71

< 1/2 MRL

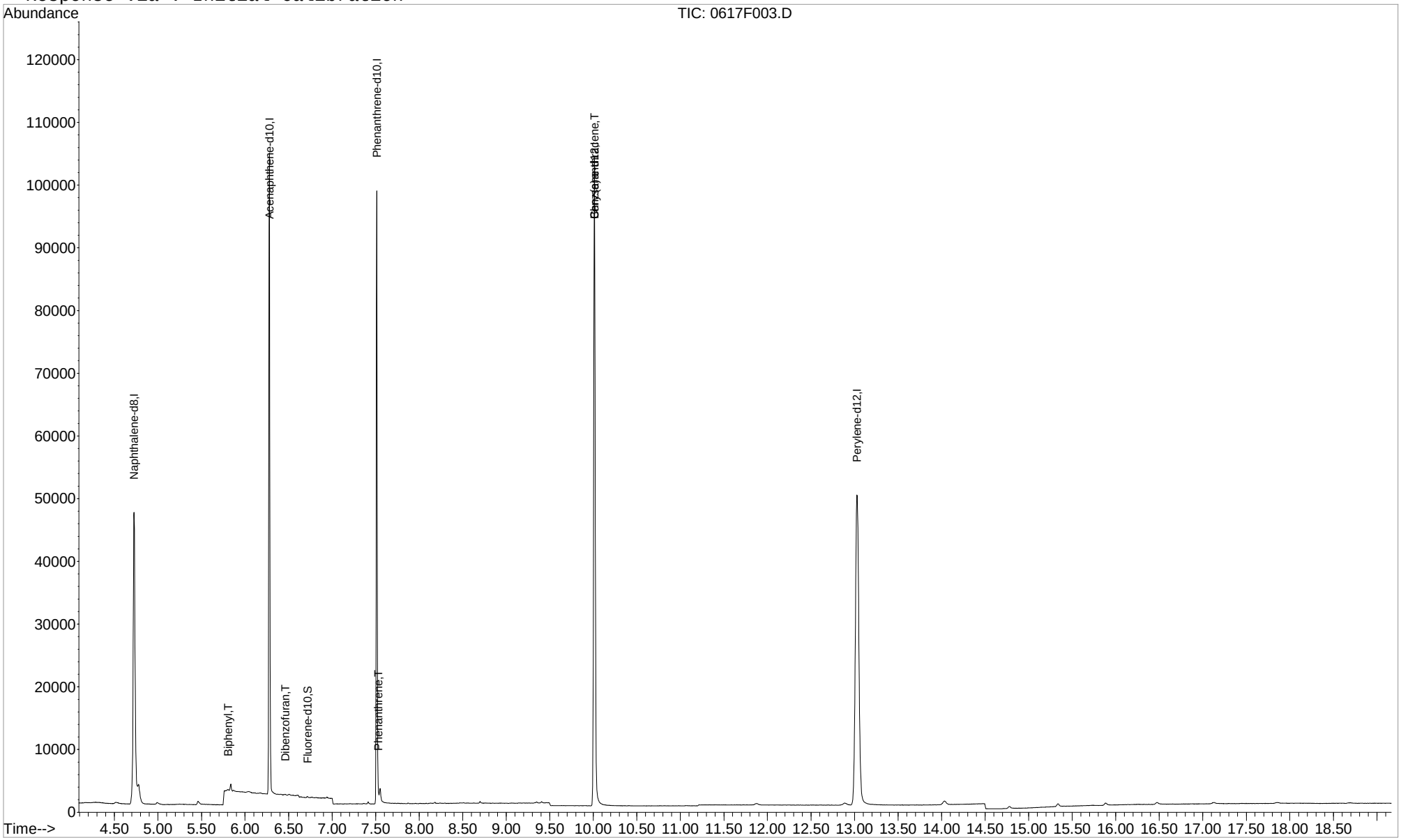
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

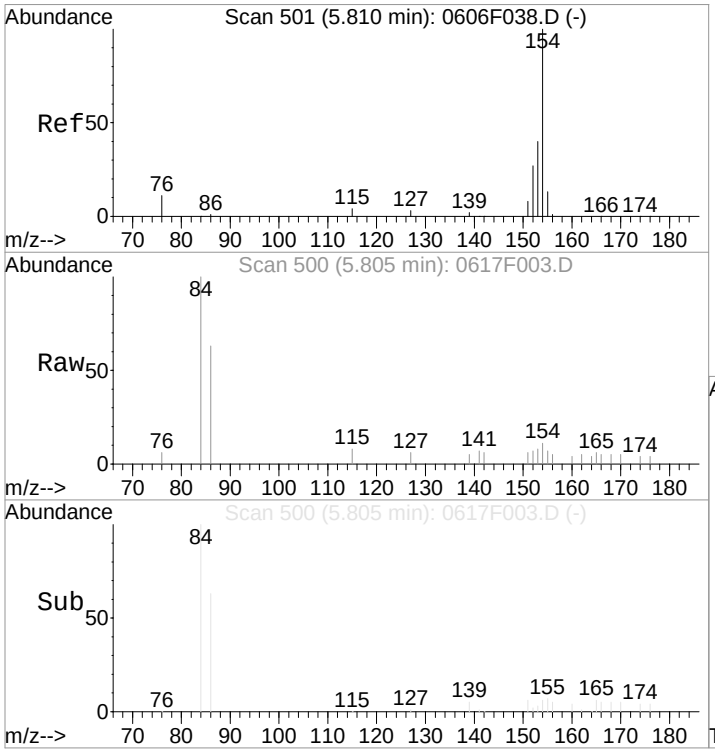
1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F003.D Vial: 2
Acq On : 17 Jun 2019 7:41 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:43 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 13:41:33 2019
Response via : Initial Calibration



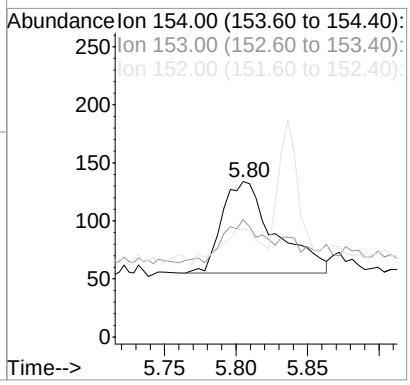
1st 06/18/19
2nd 06/19/19

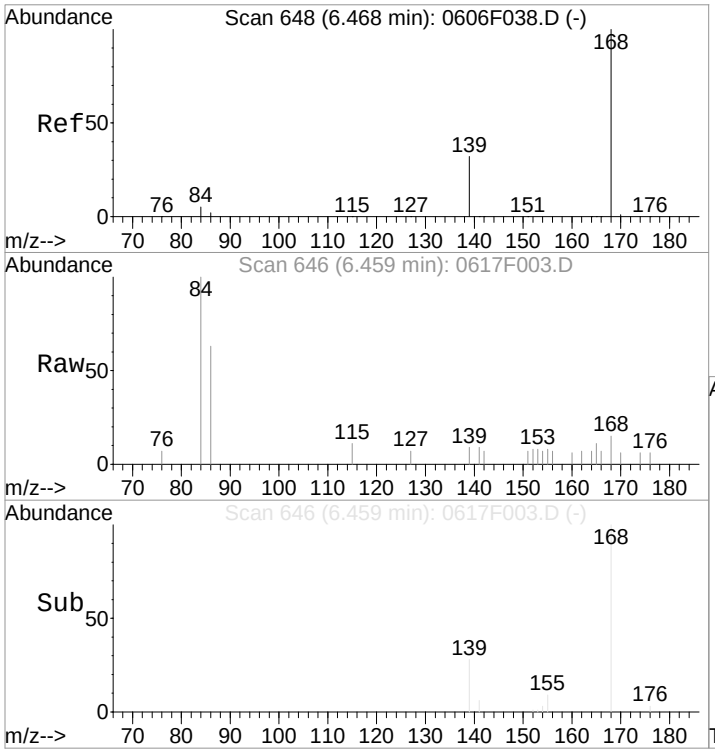


#6
Biphenyl
Concen: 0.74 ng/ml
RT: 5.80 min Scan# 500
Delta R.T. 0.01 min
Lab File: 0617F003.D
Acq: 17 Jun 2019 7:41 am

Tgt Ion:154 Resp: 203

Ion	Ratio	Lower	Upper
154	100		
153	44.3	11.4	71.4
152	30.4	7.2	47.2

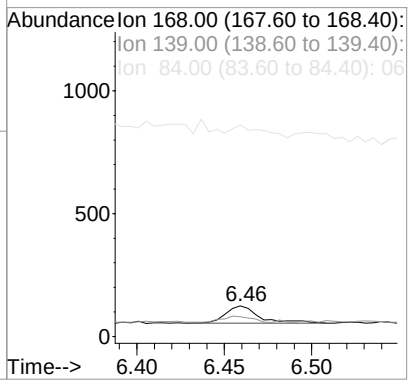




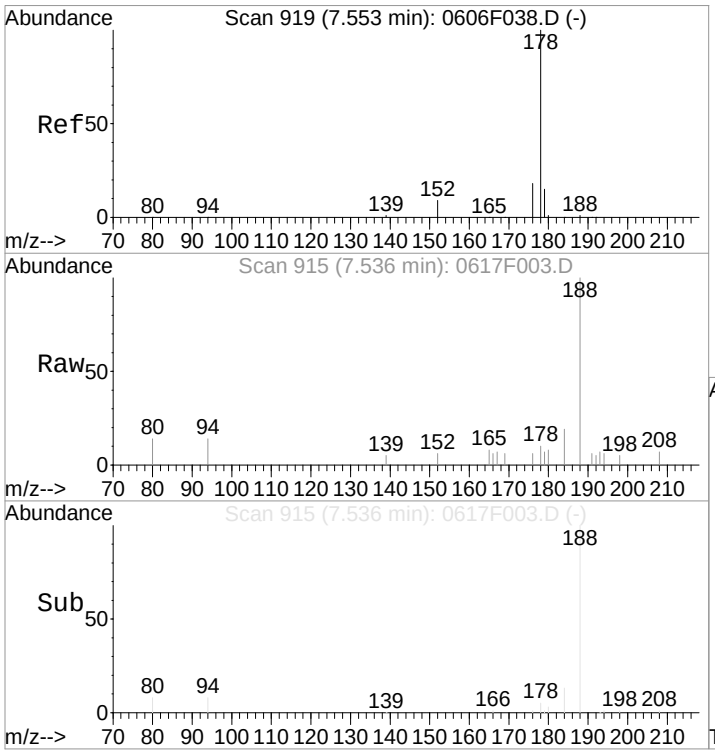
#11
Dibenzofuran
Concen: 0.28 ng/ml
RT: 6.46 min Scan# 646
Delta R.T. 0.01 min
Lab File: 0617F003.D
Acq: 17 Jun 2019 7:41 am

Tgt Ion:168 Resp: 96

Ion	Ratio	Lower	Upper
168	100		
139	29.6	0.0	58.7
84	50.7	0.0	24.5#



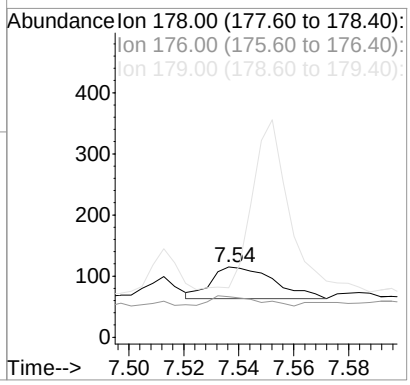
1st 06/18/19
2nd 06/19/19

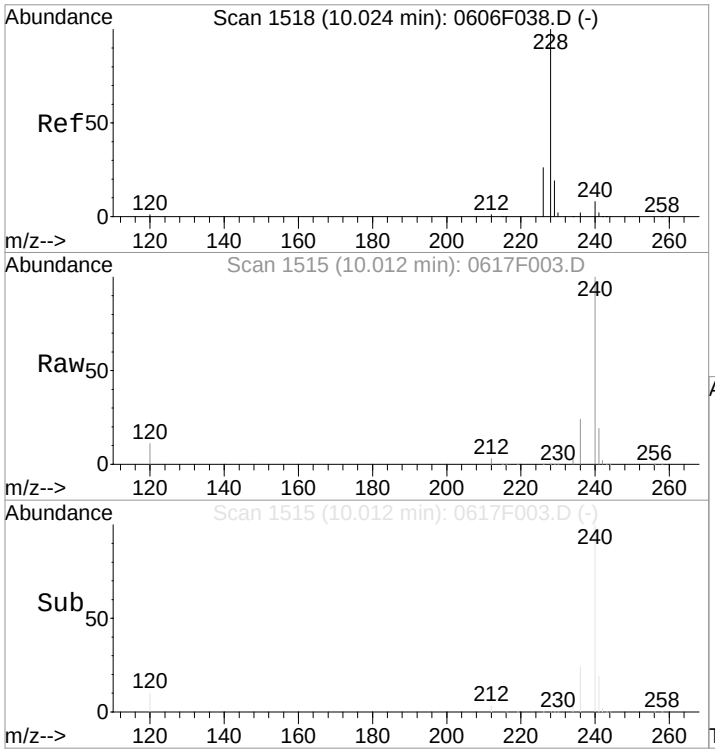


#17
Phenanthrene
Concen: 0.23 ng/ml
RT: 7.54 min Scan# 915
Delta R.T. 0.01 min
Lab File: 0617F003.D
Acq: 17 Jun 2019 7:41 am

Tgt Ion:178 Resp: 83

Ion	Ratio	Lower	Upper
178	100		
176	25.0	0.0	48.4
179	0.0	0.0	35.2

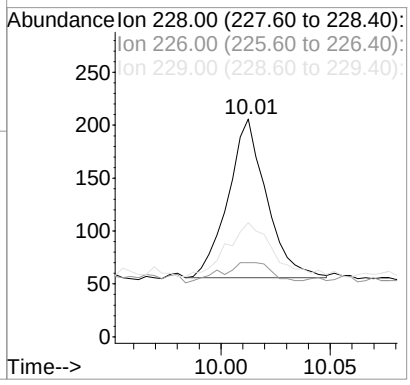




#26
Benz(a)anthracene
Concen: 0.36 ng/ml
RT: 10.01 min Scan# 1515
Delta R.T. 0.02 min
Lab File: 0617F003.D
Acq: 17 Jun 2019 7:41 am

Tgt Ion:228 Resp: 183

Ion	Ratio	Lower	Upper
228	100		
226	12.7	0.0	55.8
229	34.0	0.0	39.4



Quantitation Report (QT Reviewed)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F008.D Vial: 4
Acq On : 17 Jun 2019 9:58 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.004ug/mL SVM61-6B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35:19 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

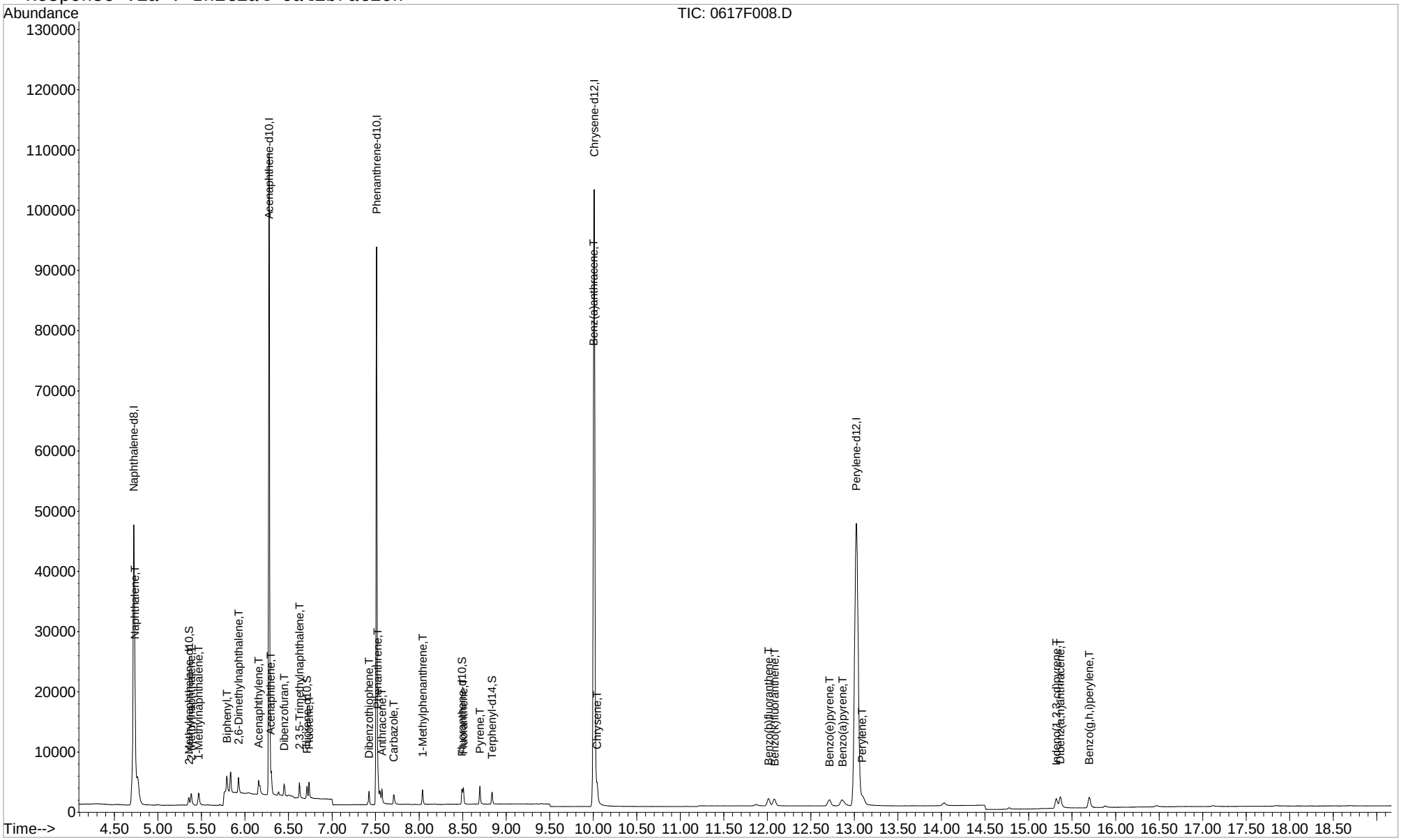
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.72	136	64947m	200.00	ng/ml	-0.03
8) Acenaphthene-d10	6.28	164	33496	200.00	ng/ml	-0.03
15) Phenanthrene-d10	7.51	188	56837	200.00	ng/ml	-0.02
23) Chrysene-d12	10.01	240	79792	200.00	ng/ml	-0.03
28) Perylene-d12	13.02	264	89407	200.00	ng/ml	-0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	663	4.05	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	0.40%		
13) Fluorene-d10	6.71	176	790	4.15	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	0.41%		
22) Fluoranthene-d10	8.49	212	1504	4.52	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.45%		
25) Terphenyl-d14	8.84	244	1453	3.94	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	0.39%		
Target Compounds						Qvalue
2) Naphthalene	4.74	128	1402	4.03	ng/ml	99
4) 2-Methylnaphthalene	5.38	142	993	4.18	ng/ml	96
5) 1-Methylnaphthalene	5.47	142	941	4.26	ng/ml	99
6) Biphenyl	5.79	154	1269	4.27	ng/ml	96
7) 2,6-Dimethylnaphthalene	5.93	156	855	4.03	ng/ml	94
9) Acenaphthylene	6.15	152	1579	4.67	ng/ml	97
10) Acenaphthene	6.30	154	889	4.33	ng/ml	95
11) Dibenzofuran	6.45	168	1321	4.10	ng/ml	82
12) 2,3,5-Trimethylnaphthalene	6.63	170	786	3.92	ng/ml	84
14) Fluorene	6.73	166	1037	4.13	ng/ml	96
16) Dibenzothiophene	7.42	184	1445	4.47	ng/ml	96
17) Phenanthrene	7.53	178	1462	4.28	ng/ml	98
18) Anthracene	7.57	178	1320	4.25	ng/ml	96
19) Carbazole	7.71	167	1343	4.71	ng/ml	96
20) 1-Methylphenanthrene	8.04	192	1083	4.20	ng/ml	93
21) Fluoranthene	8.51	202	1860	4.62	ng/ml	88
24) Pyrene	8.70	202	2025	3.22	ng/ml	82
26) Benz(a)anthracene	10.00	228	2054	3.99	ng/ml	99
27) Chrysene	10.05	228	1889	3.78	ng/ml	99
29) Benzo(b)fluoranthene	12.01	252	2038	3.59	ng/ml	97
30) Benzo(k)fluoranthene	12.08	252	2000	3.73	ng/ml	96
31) Benzo(e)pyrene	12.71	252	1978	3.67	ng/ml	93
32) Benzo(a)pyrene	12.86	252	2013	4.42	ng/ml	86
33) Perylene	13.10	252	1845	3.71	ng/ml	93
34) Indeno(1,2,3-cd)pyrene	15.32	276	1909	4.21	ng/ml	93
35) Dibenz(a,h)anthracene	15.37	278	2032	4.22	ng/ml	96
36) Benzo(g,h,i)perylene	15.70	276	2404	3.95	ng/ml	95

(#) = qualifier out of range (m) = manual integration

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F008.D Vial: 4
Acq On : 17 Jun 2019 9:58 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.004ug/mL SVM61-6B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 13:41:33 2019
Response via : Initial Calibration

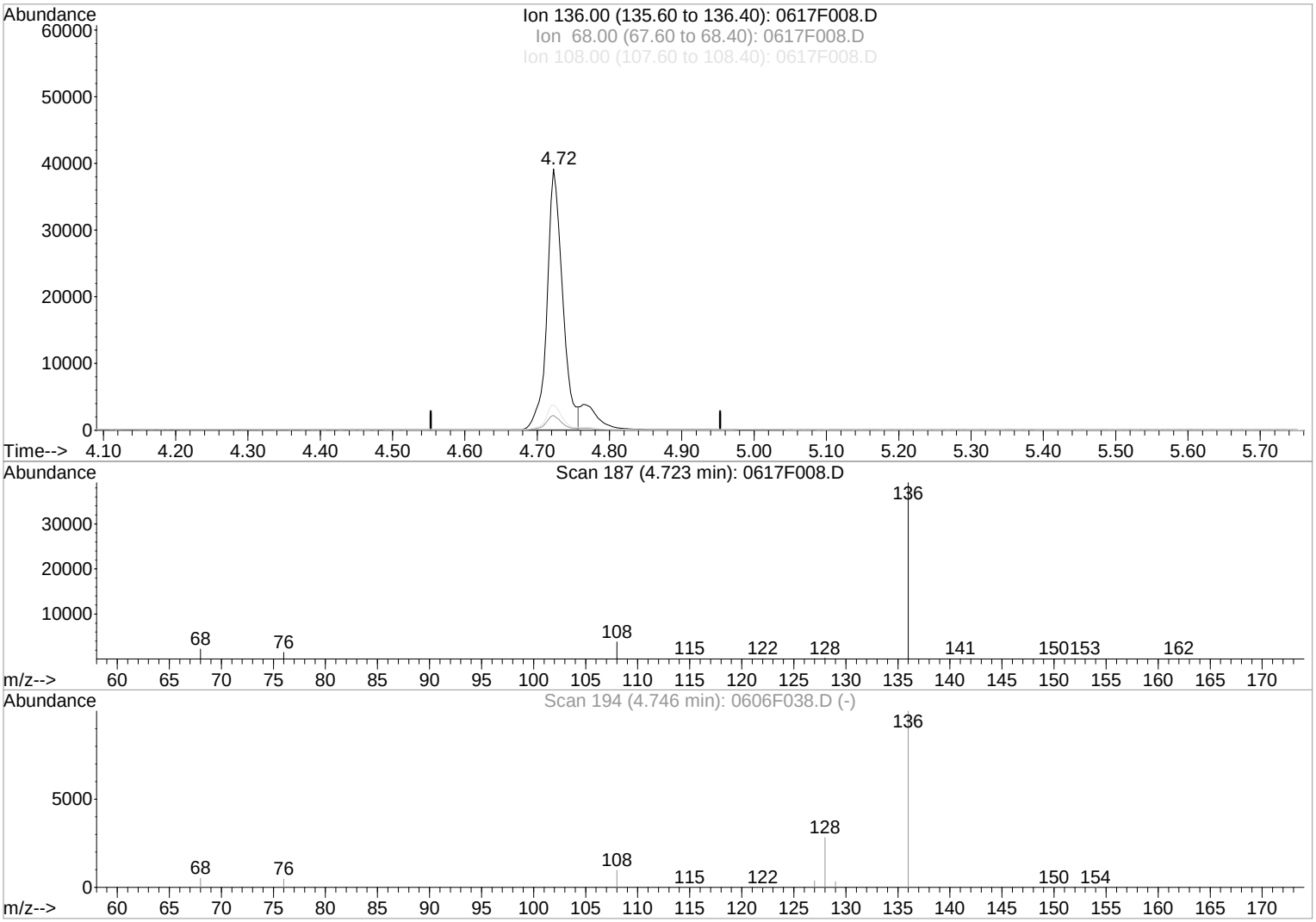


Quantitation Report (Qedit)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F008.D Vial: 4
Acq On : 17 Jun 2019 9:58 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.004ug/mL SVM61-6B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0617F008.D

(1) Naphthalene-d8 (I)

4.72min 200.00ng/ml

response 58309

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.41
108.00	8.80	9.56
0.00	0.00	0.00

Manual Integration:

Before

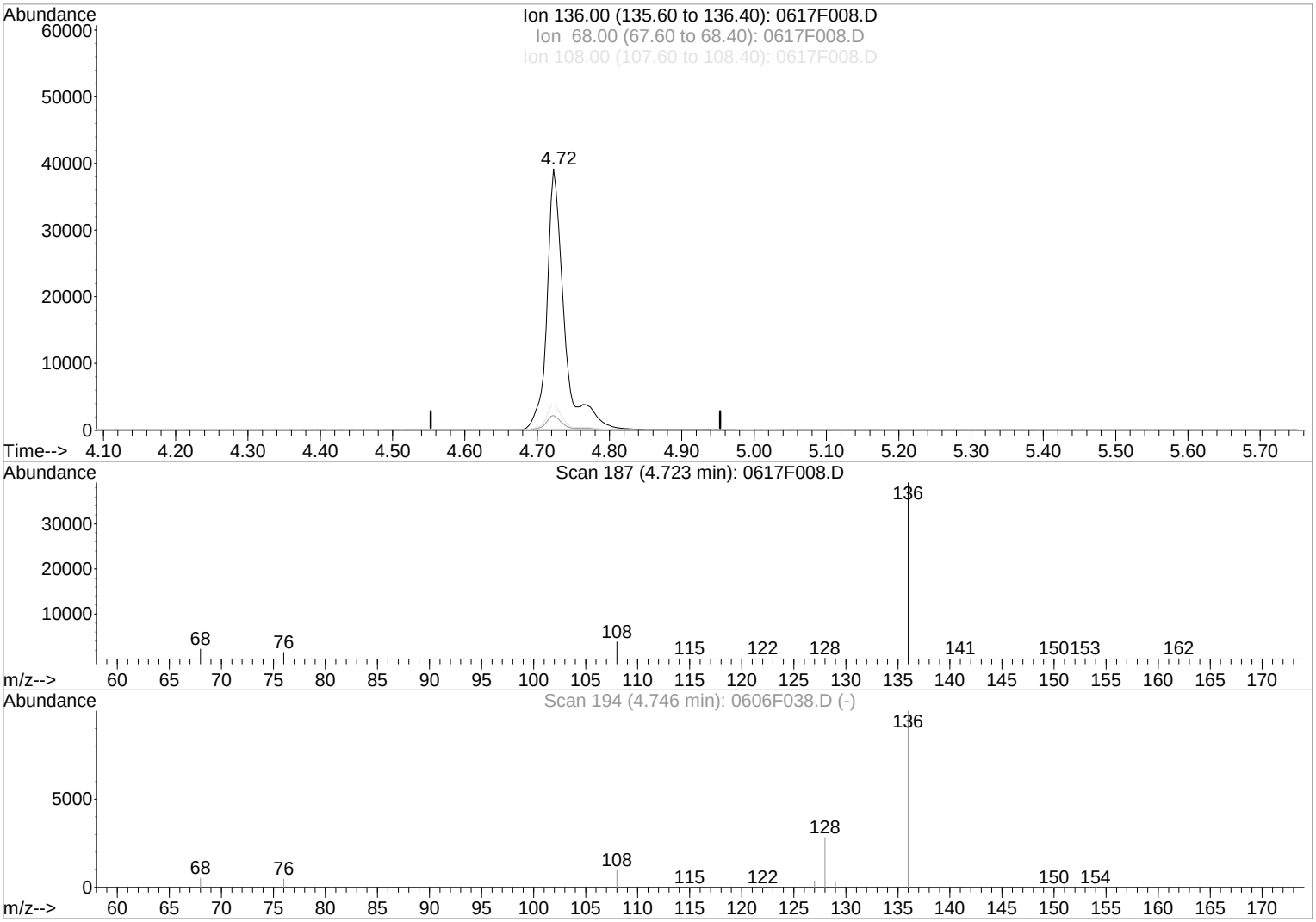
06/17/19

Quantitation Report (Qedit)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F008.D Vial: 4
Acq On : 17 Jun 2019 9:58 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.004ug/mL SVM61-6B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0617F008.D

(1) Naphthalene-d8 (I)

4.72min 200.00ng/ml m

response 64947

Ion	Exp%	Act%
136.00	100	100
68.00	4.00	5.62
108.00	8.80	9.74
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

06/17/19

Quantitation Report (QT Reviewed)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F009.D Vial: 5
Acq On : 17 Jun 2019 10:26 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.008ug/mL SVM61-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35:20 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

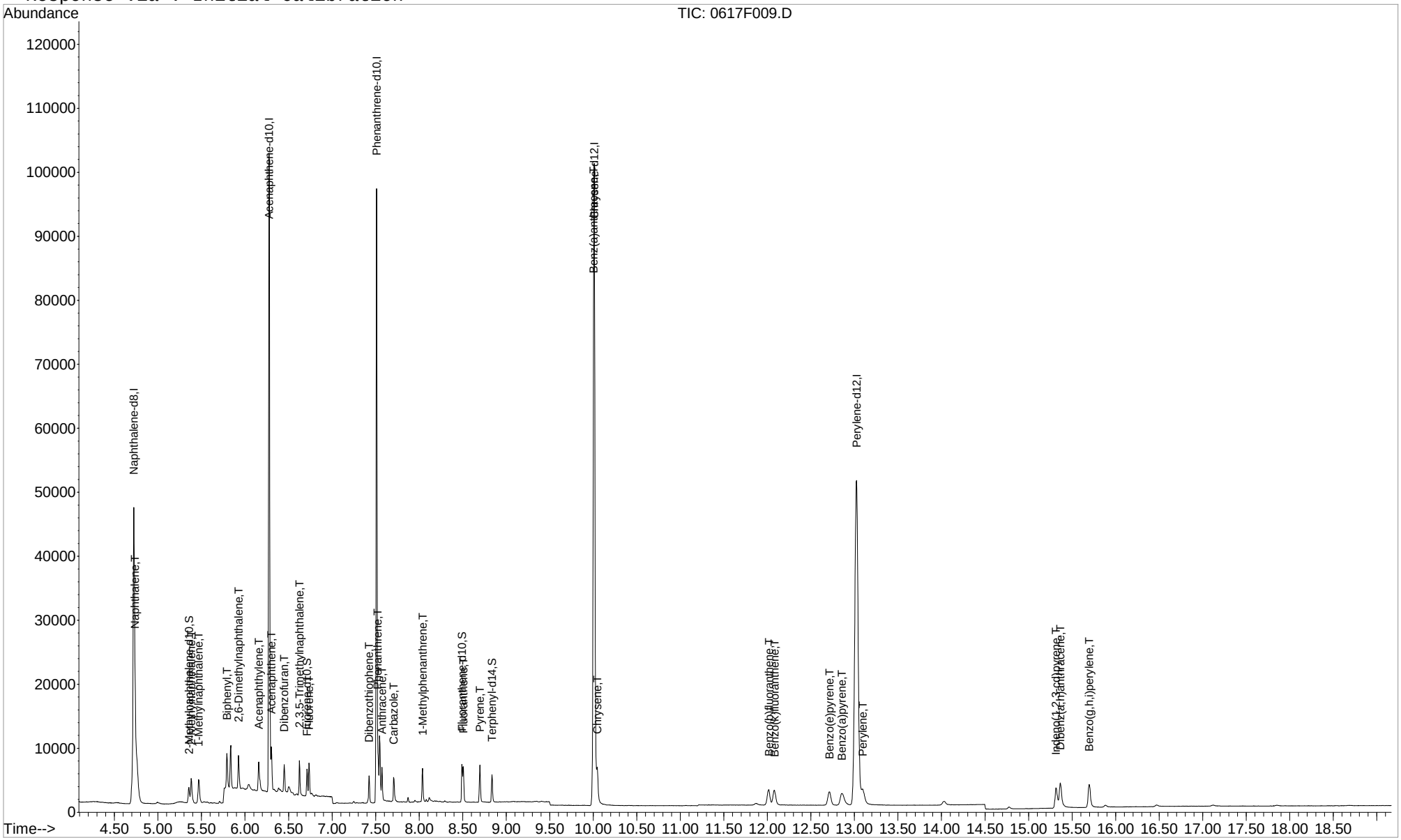
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.72	136	64583	200.00	ng/ml	-0.03
8) Acenaphthene-d10	6.28	164	33465	200.00	ng/ml	-0.03
15) Phenanthrene-d10	7.51	188	57845	200.00	ng/ml	-0.02
23) Chrysene-d12	10.01	240	81644	200.00	ng/ml	-0.03
28) Perylene-d12	13.02	264	91011	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	1282	7.87	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	0.79%		
13) Fluorene-d10	6.71	176	1518	7.98	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	0.80%		
22) Fluoranthene-d10	8.49	212	3194	9.42	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.94%		
25) Terphenyl-d14	8.84	244	3010	7.97	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	0.80%		
Target Compounds						Qvalue
2) Naphthalene	4.74	128	3077	8.89	ng/ml	97
4) 2-Methylnaphthalene	5.38	142	1925	8.15	ng/ml	94
5) 1-Methylnaphthalene	5.47	142	1856	8.45	ng/ml	95
6) Biphenyl	5.79	154	2634	8.90	ng/ml	93
7) 2,6-Dimethylnaphthalene	5.93	156	1719m	8.14	ng/ml	
9) Acenaphthylene	6.16	152	2940	8.71	ng/ml	96
10) Acenaphthene	6.30	154	1695	8.27	ng/ml	95
11) Dibenzofuran	6.45	168	2632	8.18	ng/ml	84
12) 2,3,5-Trimethylnaphthalene	6.63	170	1561	7.78	ng/ml	83
14) Fluorene	6.73	166	2062	8.21	ng/ml	94
16) Dibenzothiophene	7.43	184	2860	8.69	ng/ml	99
17) Phenanthrene	7.53	178	2942	8.46	ng/ml	99
18) Anthracene	7.57	178	2692	8.51	ng/ml	99
19) Carbazole	7.71	167	2700	9.30	ng/ml	96
20) 1-Methylphenanthrene	8.04	192	2271	8.65	ng/ml	94
21) Fluoranthene	8.51	202	3861	9.43	ng/ml	88
24) Pyrene	8.70	202	4102	6.37	ng/ml	82
26) Benz(a)anthracene	10.00	228	4069	7.73	ng/ml	99
27) Chrysene	10.05	228	3839	7.51	ng/ml	99
29) Benzo(b)fluoranthene	12.02	252	4109	7.10	ng/ml	97
30) Benzo(k)fluoranthene	12.08	252	4151m	7.61	ng/ml	
31) Benzo(e)pyrene	12.71	252	3988	7.26	ng/ml	96
32) Benzo(a)pyrene	12.85	252	3938	8.50	ng/ml	94
33) Perylene	13.09	252	3781	7.46	ng/ml	94
34) Indeno(1,2,3-cd)pyrene	15.32	276	3752	8.13	ng/ml	94
35) Dibenz(a,h)anthracene	15.36	278	4266	8.71	ng/ml	96
36) Benzo(g,h,i)perylene	15.70	276	4866	7.86	ng/ml	95

(#) = qualifier out of range (m) = manual integration

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F009.D Vial: 5
Acq On : 17 Jun 2019 10:26 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.008ug/mL SVM61-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:36 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 13:41:33 2019
Response via : Initial Calibration

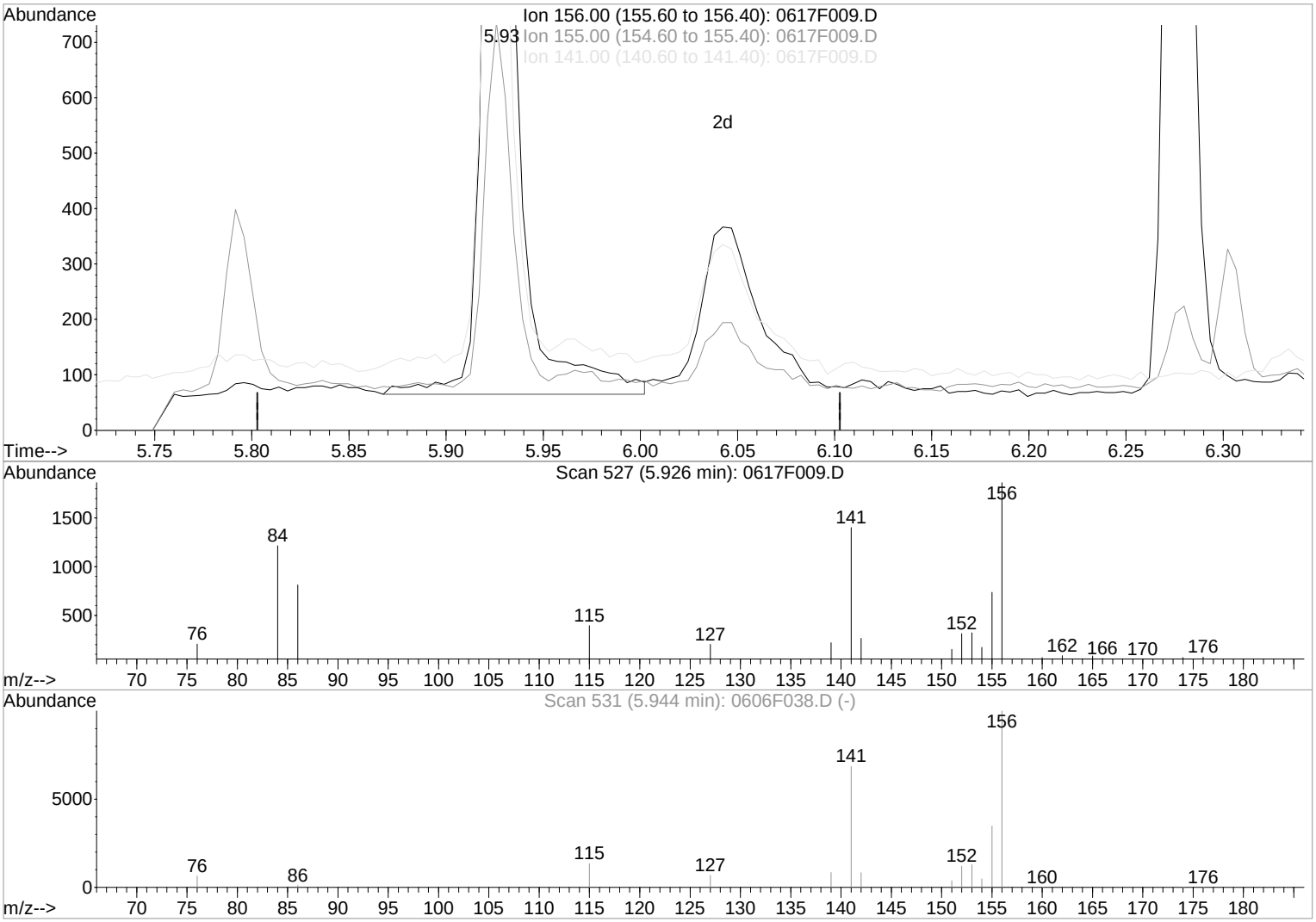


Quantitation Report (Qedit)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F009.D Vial: 5
Acq On : 17 Jun 2019 10:26 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.008ug/mL SVM61-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0617F009.D

(7) 2,6-Dimethylnaphthalene (T)

5.93min 9.01ng/ml

response 1902

Ion	Exp%	Act%
156.00	100	100
155.00	33.30	36.56
141.00	60.60	71.39
0.00	0.00	0.00

Manual Integration:

Before

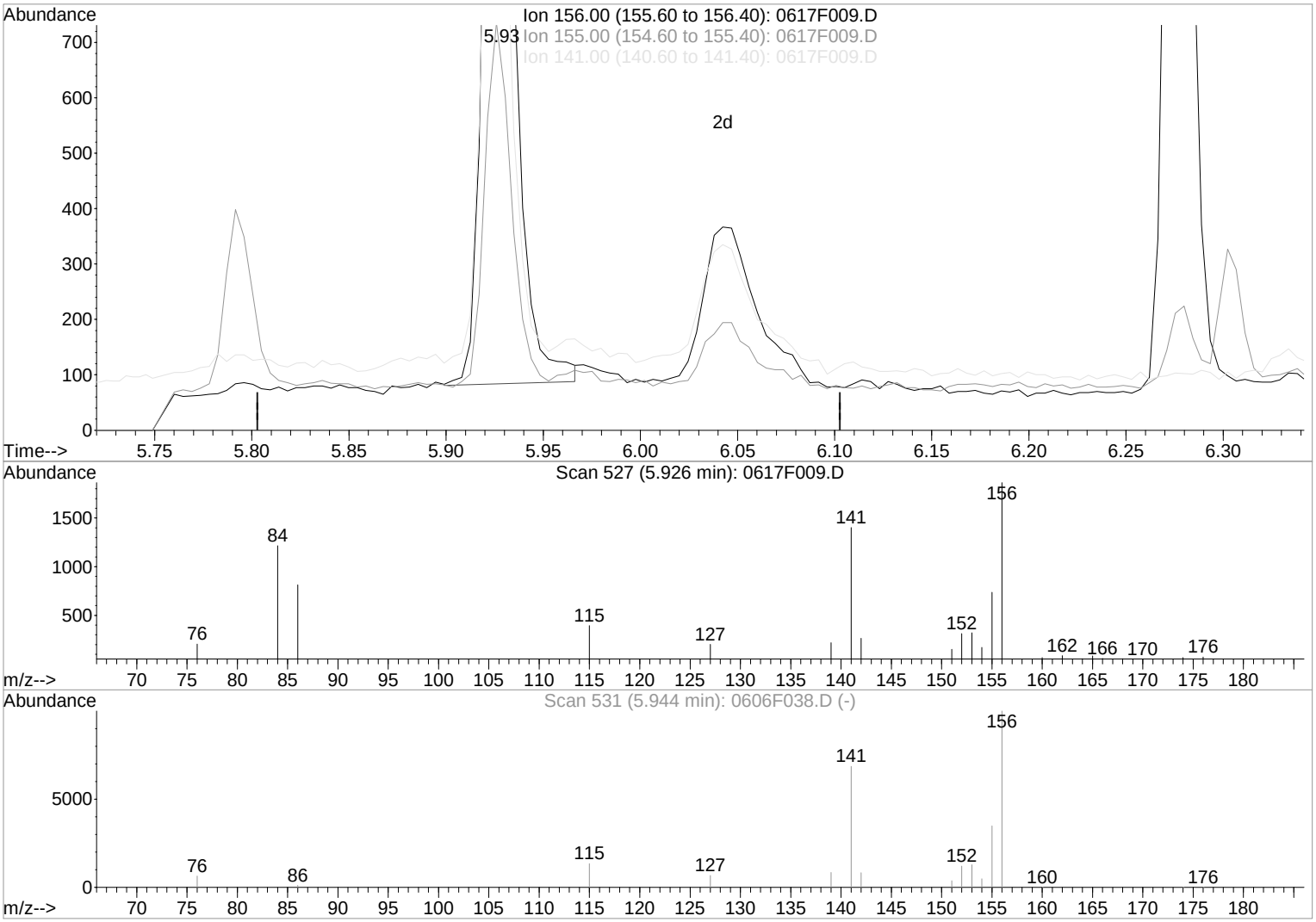
06/17/19

Quantitation Report (Qedit)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F009.D Vial: 5
Acq On : 17 Jun 2019 10:26 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.008ug/mL SVM61-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:36 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0617F009.D

(7) 2,6-Dimethylnaphthalene (T)

5.93min 8.14ng/ml m

response 1719

Ion	Exp%	Act%
156.00	100	100
155.00	33.30	39.52
141.00	60.60	75.17
0.00	0.00	0.00

Manual Integration:

After

BLC

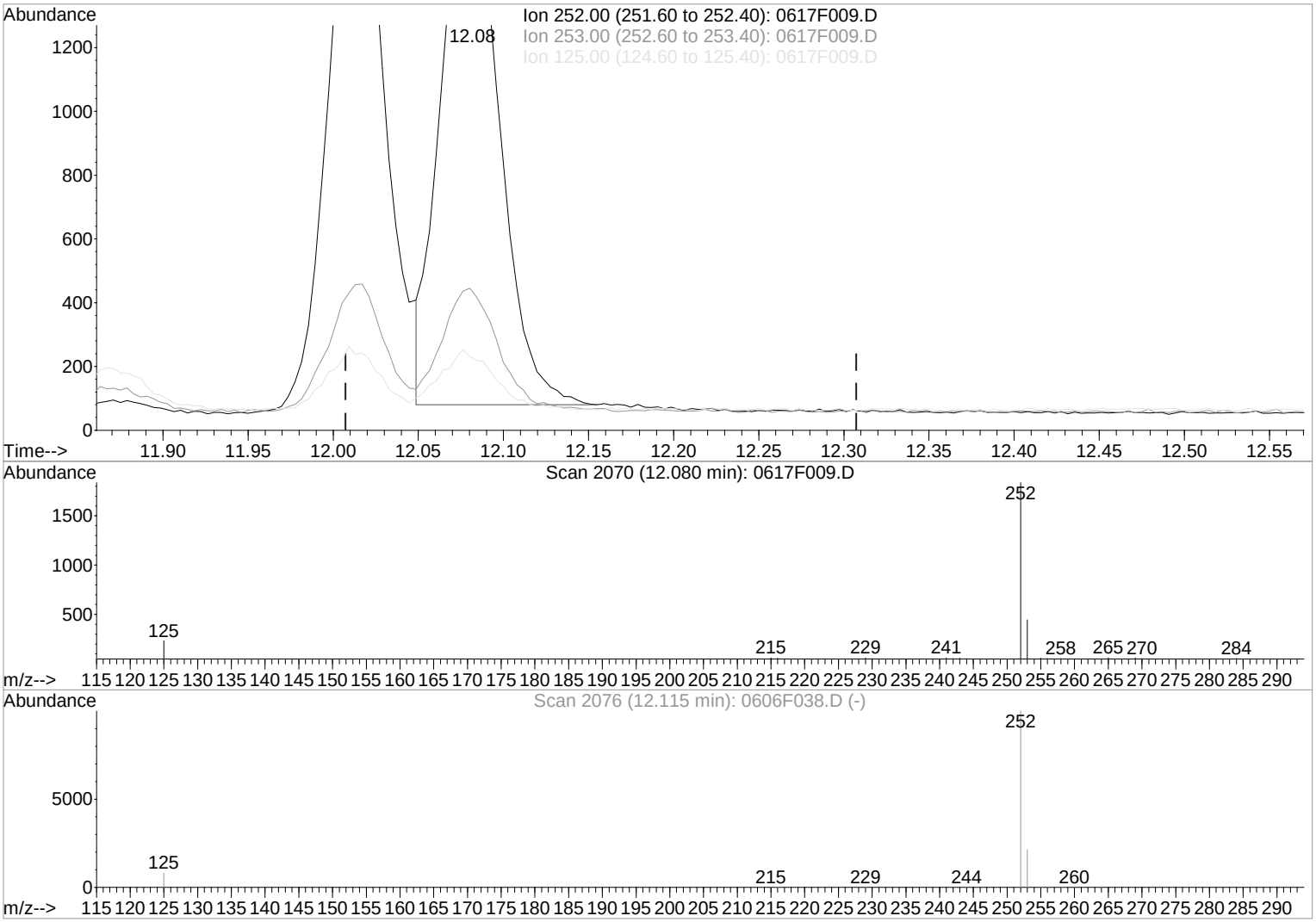
06/17/19

Quantitation Report (Qedit)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F009.D Vial: 5
Acq On : 17 Jun 2019 10:26 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.008ug/mL SVM61-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:36 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0617F009.D

(30) Benzo(k)fluoranthene (T)

12.08min 7.32ng/ml

response 3994

Ion	Exp%	Act%
252.00	100	100
253.00	21.40	21.44
125.00	6.20	9.50
0.00	0.00	0.00

Manual Integration:

Before

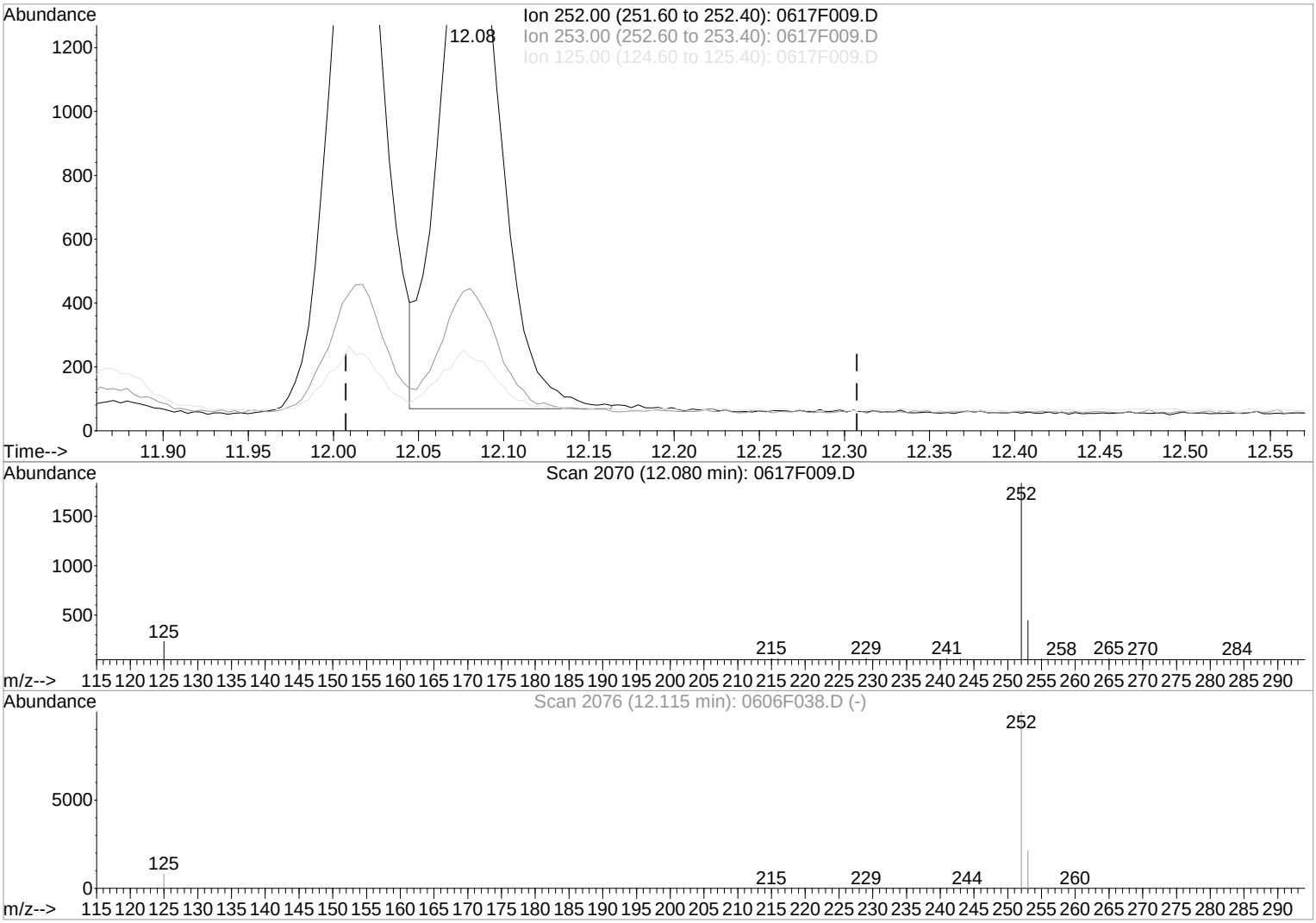
06/17/19

Quantitation Report (Qedit)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F009.D Vial: 5
Acq On : 17 Jun 2019 10:26 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.008ug/mL SVM61-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:36 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0617F009.D

(30) Benzo(k)fluoranthene (T)

12.08min 7.61ng/ml m

response 4151

Ion	Exp%	Act%
252.00	100	100
253.00	21.40	24.21
125.00	6.20	12.57
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

06/17/19

Quantitation Report (QT Reviewed)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F010.D Vial: 6
Acq On : 17 Jun 2019 10:54 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.02ug/mL SVM61-6D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35:20 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

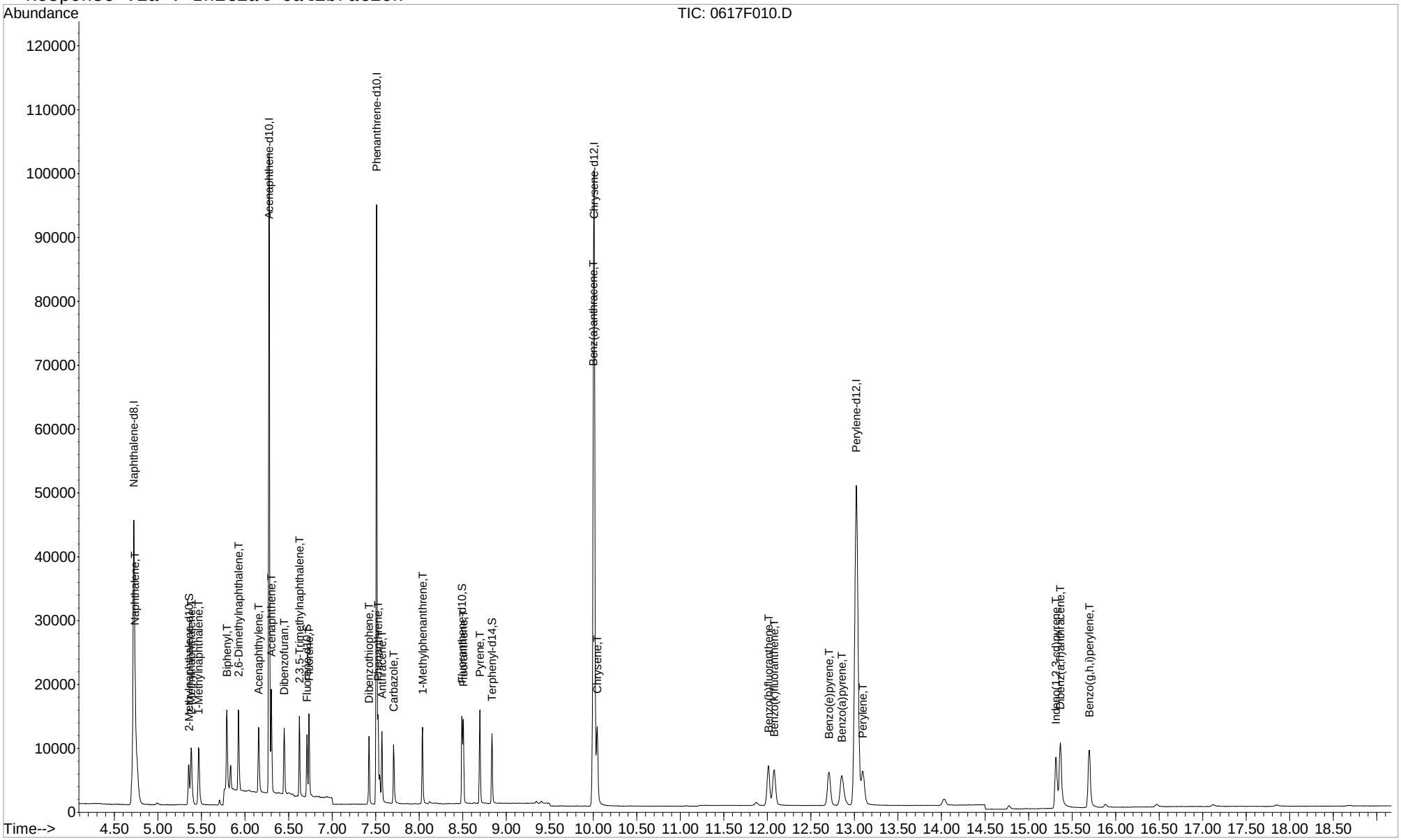
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.72	136	63453	200.00	ng/ml	-0.03
8) Acenaphthene-d10	6.28	164	32353	200.00	ng/ml	-0.03
15) Phenanthrene-d10	7.51	188	54573	200.00	ng/ml	-0.02
23) Chrysene-d12	10.01	240	80529	200.00	ng/ml	-0.03
28) Perylene-d12	13.02	264	90212	200.00	ng/ml	-0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	3118	19.49	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	1.95%		
13) Fluorene-d10	6.71	176	3548	19.29	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	1.93%		
22) Fluoranthene-d10	8.49	212	7307	22.85	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	2.29%		
25) Terphenyl-d14	8.84	244	7260	19.50	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	1.95%		
Target Compounds						Qvalue
2) Naphthalene	4.74	128	7411	21.80	ng/ml	97
4) 2-Methylnaphthalene	5.38	142	4794	20.67	ng/ml	93
5) 1-Methylnaphthalene	5.47	142	4513	20.92	ng/ml	93
6) Biphenyl	5.79	154	6178	21.26	ng/ml	96
7) 2,6-Dimethylnaphthalene	5.93	156	4085	19.69	ng/ml	91
9) Acenaphthylene	6.16	152	6810	20.86	ng/ml	97
10) Acenaphthene	6.30	154	4172	21.05	ng/ml	92
11) Dibenzofuran	6.45	168	6512	20.94	ng/ml	86
12) 2,3,5-Trimethylnaphthalene	6.63	170	3734	19.26	ng/ml	87
14) Fluorene	6.73	166	4750	19.57	ng/ml	96
16) Dibenzothiophene	7.42	184	6841	22.04	ng/ml	96
17) Phenanthrene	7.53	178	6702	20.44	ng/ml	98
18) Anthracene	7.57	178	6385	21.40	ng/ml	99
19) Carbazole	7.71	167	6362	23.23	ng/ml	97
20) 1-Methylphenanthrene	8.04	192	5169	20.88	ng/ml	94
21) Fluoranthene	8.51	202	9155	23.70	ng/ml	90
24) Pyrene	8.70	202	9766	15.38	ng/ml	80
26) Benz(a)anthracene	9.99	228	9675	18.64	ng/ml	99
27) Chrysene	10.05	228	9636	19.11	ng/ml	99
29) Benzo(b)fluoranthene	12.01	252	10342	18.03	ng/ml	96
30) Benzo(k)fluoranthene	12.08	252	10245	18.96	ng/ml	97
31) Benzo(e)pyrene	12.71	252	9791	17.99	ng/ml	96
32) Benzo(a)pyrene	12.85	252	9648	21.01	ng/ml	93
33) Perylene	13.10	252	9243	18.41	ng/ml	94
34) Indeno(1,2,3-cd)pyrene	15.32	276	9767	21.36	ng/ml	95
35) Dibenz(a,h)anthracene	15.37	278	11146	22.97	ng/ml	96
36) Benzo(g,h,i)perylene	15.70	276	12215	19.92	ng/ml	95

(#) = qualifier out of range (m) = manual integration

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F010.D Vial: 6
Acq On : 17 Jun 2019 10:54 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.02ug/mL SVM61-6D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 13:41:33 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F011.D Vial: 7
Acq On : 17 Jun 2019 11:22 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.1ug/mL SVM61-6E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35:20 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.72	136	64493	200.00	ng/ml	-0.03
8) Acenaphthene-d10	6.28	164	31485	200.00	ng/ml	-0.03
15) Phenanthrene-d10	7.51	188	51539	200.00	ng/ml	-0.02
23) Chrysene-d12	10.01	240	81166	200.00	ng/ml	-0.03
28) Perylene-d12	13.01	264	93915	200.00	ng/ml	-0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	15749	96.84	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	9.68%		
13) Fluorene-d10	6.71	176	17230	96.27	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	9.63%		
22) Fluoranthene-d10	8.49	212	33565	111.14	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	11.11%		
25) Terphenyl-d14	8.84	244	34847	92.84	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	9.28%		
Target Compounds						Qvalue
2) Naphthalene	4.74	128	36704	106.24	ng/ml	97
4) 2-Methylnaphthalene	5.38	142	23873	101.25	ng/ml	95
5) 1-Methylnaphthalene	5.47	142	22019	100.42	ng/ml	95
6) Biphenyl	5.79	154	29778	100.81	ng/ml	95
7) 2,6-Dimethylnaphthalene	5.93	156	19856	94.18	ng/ml	91
9) Acenaphthylene	6.15	152	33398	105.11	ng/ml	97
10) Acenaphthene	6.30	154	20523	106.40	ng/ml	94
11) Dibenzofuran	6.45	168	32125	106.16	ng/ml	92
12) 2,3,5-Trimethylnaphthalene	6.63	170	18386	97.44	ng/ml	90
14) Fluorene	6.73	166	23175	98.10	ng/ml	95
16) Dibenzothiophene	7.42	184	33587	114.56	ng/ml	98
17) Phenanthrene	7.53	178	31773	102.59	ng/ml	100
18) Anthracene	7.57	178	30798	109.28	ng/ml	98
19) Carbazole	7.70	167	30025	116.10	ng/ml	96
20) 1-Methylphenanthrene	8.03	192	24328	104.03	ng/ml	95
21) Fluoranthene	8.50	202	42774	117.26	ng/ml	88
24) Pyrene	8.70	202	45363	70.87	ng/ml	91
26) Benz(a)anthracene	10.00	228	49026	93.70	ng/ml	100
27) Chrysene	10.04	228	48833	96.07	ng/ml	99
29) Benzo(b)fluoranthene	12.01	252	55809	93.48	ng/ml	97
30) Benzo(k)fluoranthene	12.07	252	55556	98.74	ng/ml	97
31) Benzo(e)pyrene	12.71	252	50979	89.96	ng/ml	95
32) Benzo(a)pyrene	12.85	252	49626	103.80	ng/ml	95
33) Perylene	13.09	252	49430	94.55	ng/ml	95
34) Indeno(1,2,3-cd)pyrene	15.32	276	52388	110.06	ng/ml	96
35) Dibenz(a,h)anthracene	15.37	278	60837	120.41	ng/ml	98
36) Benzo(g,h,i)perylene	15.69	276	63051	98.75	ng/ml	96

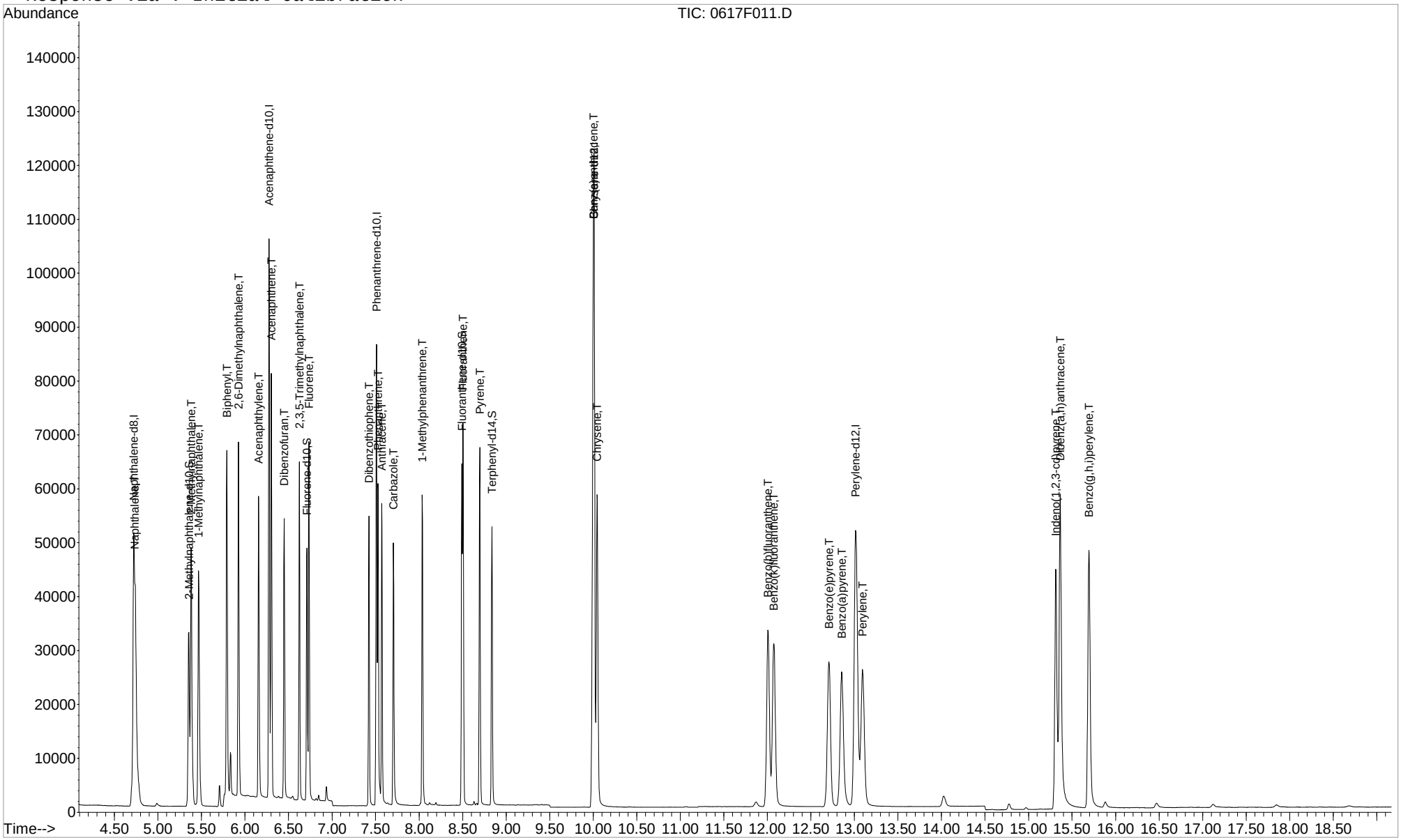
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F011.D Vial: 7
Acq On : 17 Jun 2019 11:22 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.1ug/mL SVM61-6E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 13:41:33 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F012.D Vial: 8
Acq On : 17 Jun 2019 11:50 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.2ug/mL SVM61-6F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35:21 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.72	136	64586	200.00	ng/ml	-0.03
8) Acenaphthene-d10	6.28	164	30803	200.00	ng/ml	-0.03
15) Phenanthrene-d10	7.51	188	50626	200.00	ng/ml	-0.02
23) Chrysene-d12	10.01	240	80037	200.00	ng/ml	-0.03
28) Perylene-d12	13.02	264	93974	200.00	ng/ml	-0.03
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	30522	187.40	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	18.74%		
13) Fluorene-d10	6.71	176	32836	187.53	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	18.75%		
22) Fluoranthene-d10	8.49	212	62759	211.55	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	21.16%		
25) Terphenyl-d14	8.84	244	65745	177.63	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	17.76%		
Target Compounds						Qvalue
2) Naphthalene	4.74	128	71814	207.57	ng/ml	97
4) 2-Methylnaphthalene	5.38	142	46045	195.00	ng/ml	95
5) 1-Methylnaphthalene	5.47	142	42139	191.90	ng/ml	96
6) Biphenyl	5.79	154	53873	182.12	ng/ml	97
7) 2,6-Dimethylnaphthalene	5.93	156	38054	180.24	ng/ml	91
9) Acenaphthylene	6.15	152	64552	207.66	ng/ml	97
10) Acenaphthene	6.30	154	39173	207.59	ng/ml	95
11) Dibenzofuran	6.45	168	60961	205.91	ng/ml	92
12) 2,3,5-Trimethylnaphthalene	6.63	170	35552	192.59	ng/ml	88
14) Fluorene	6.73	166	44249	191.45	ng/ml	95
16) Dibenzothiophene	7.42	184	65207	226.43	ng/ml	96
17) Phenanthrene	7.53	178	60479	198.79	ng/ml	99
18) Anthracene	7.57	178	58127	209.97	ng/ml	99
19) Carbazole	7.70	167	56481	222.35	ng/ml	97
20) 1-Methylphenanthrene	8.03	192	45836	199.54	ng/ml	95
21) Fluoranthene	8.50	202	78611	219.39	ng/ml	89
24) Pyrene	8.70	202	84258	133.49	ng/ml	91
26) Benz(a)anthracene	9.99	228	96491	187.03	ng/ml	99
27) Chrysene	10.04	228	95391	190.32	ng/ml	99
29) Benzo(b)fluoranthene	12.01	252	112993	189.15	ng/ml	98
30) Benzo(k)fluoranthene	12.07	252	111470	197.98	ng/ml	98
31) Benzo(e)pyrene	12.71	252	102184	180.21	ng/ml	96
32) Benzo(a)pyrene	12.85	252	97918	204.67	ng/ml	97
33) Perylene	13.10	252	98419	188.14	ng/ml	96
34) Indeno(1,2,3-cd)pyrene	15.32	276	104468	219.34	ng/ml	97
35) Dibenz(a,h)anthracene	15.36	278	120154	237.67	ng/ml	99
36) Benzo(g,h,i)perylene	15.70	276	122416	191.61	ng/ml	97

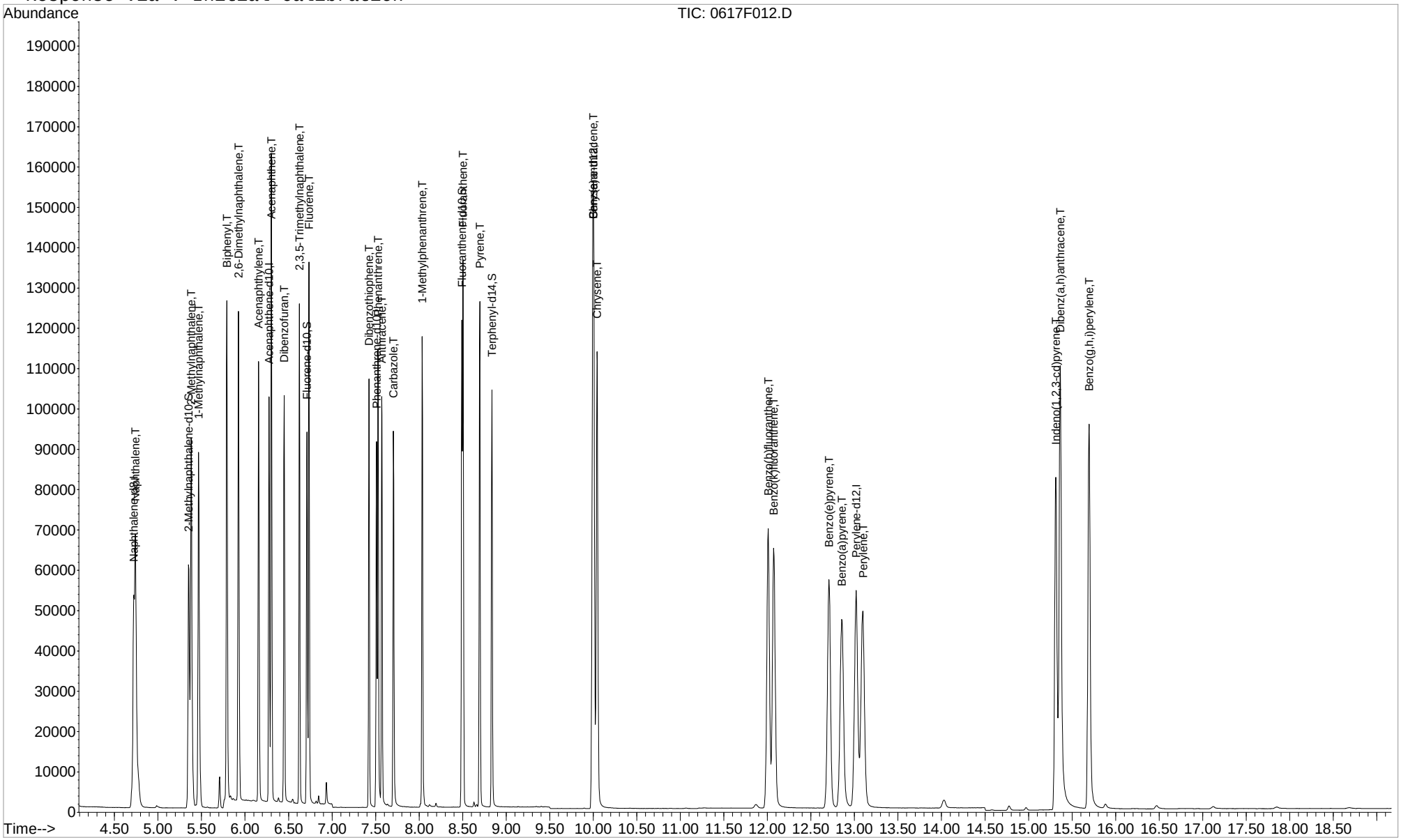
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F012.D Vial: 8
Acq On : 17 Jun 2019 11:50 am Operator: LWeiskopf
Sample : SIM-PAH @ 0.2ug/mL SVM61-6F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 13:41:33 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F013.D Vial: 9
Acq On : 17 Jun 2019 12:17 pm Operator: LWeiskopf
Sample : SIM-PAH @ 0.4ug/mL SVM61-6G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35:21 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.72	136	63770	200.00	ng/ml	-0.03
8) Acenaphthene-d10	6.28	164	29754	200.00	ng/ml	-0.03
15) Phenanthrene-d10	7.51	188	48727	200.00	ng/ml	-0.02
23) Chrysene-d12	10.01	240	78295	200.00	ng/ml	-0.03
28) Perylene-d12	13.03	264	93456	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	60186	374.26	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	37.43%		
13) Fluorene-d10	6.71	176	65429	386.85	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	38.69%		
22) Fluoranthene-d10	8.49	212	125945	441.09	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	44.11%		
25) Terphenyl-d14	8.84	244	131026	361.88	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	36.19%		
Target Compounds						Qvalue
2) Naphthalene	4.74	128	143065	418.80	ng/ml	98
4) 2-Methylnaphthalene	5.38	142	88849	381.10	ng/ml	95
5) 1-Methylnaphthalene	5.47	142	81232	374.66	ng/ml	94
6) Biphenyl	5.79	154	105539	361.34	ng/ml	96
7) 2,6-Dimethylnaphthalene	5.93	156	74834	358.98	ng/ml	93
9) Acenaphthylene	6.15	152	127124	423.37	ng/ml	97
10) Acenaphthene	6.30	154	77215	423.62	ng/ml	95
11) Dibenzofuran	6.45	168	118625	414.81	ng/ml	92
12) 2,3,5-Trimethylnaphthalene	6.63	170	70768	396.87	ng/ml	90
14) Fluorene	6.73	166	86931	389.38	ng/ml	96
16) Dibenzothiophene	7.42	184	130196	469.71	ng/ml	98
17) Phenanthrene	7.53	178	120006	409.83	ng/ml	100
18) Anthracene	7.57	178	114508	429.75	ng/ml	99
19) Carbazole	7.70	167	110200	450.72	ng/ml	97
20) 1-Methylphenanthrene	8.03	192	92066	416.42	ng/ml	96
21) Fluoranthene	8.50	202	151754	440.03	ng/ml	88
24) Pyrene	8.70	202	164507	266.43	ng/ml	91
26) Benz(a)anthracene	10.00	228	197061	390.46	ng/ml	100
27) Chrysene	10.05	228	189523	386.54	ng/ml	100
29) Benzo(b)fluoranthene	12.01	252	232081	390.66	ng/ml	98
30) Benzo(k)fluoranthene	12.08	252	221244	395.13	ng/ml	98
31) Benzo(e)pyrene	12.71	252	208429	369.62	ng/ml	96
32) Benzo(a)pyrene	12.86	252	199545	419.41	ng/ml	97
33) Perylene	13.10	252	203168	390.54	ng/ml	96
34) Indeno(1,2,3-cd)pyrene	15.32	276	206339	435.63	ng/ml	97
35) Dibenz(a,h)anthracene	15.37	278	232787	463.02	ng/ml	98
36) Benzo(g,h,i)perylene	15.70	276	235882	371.25	ng/ml	97

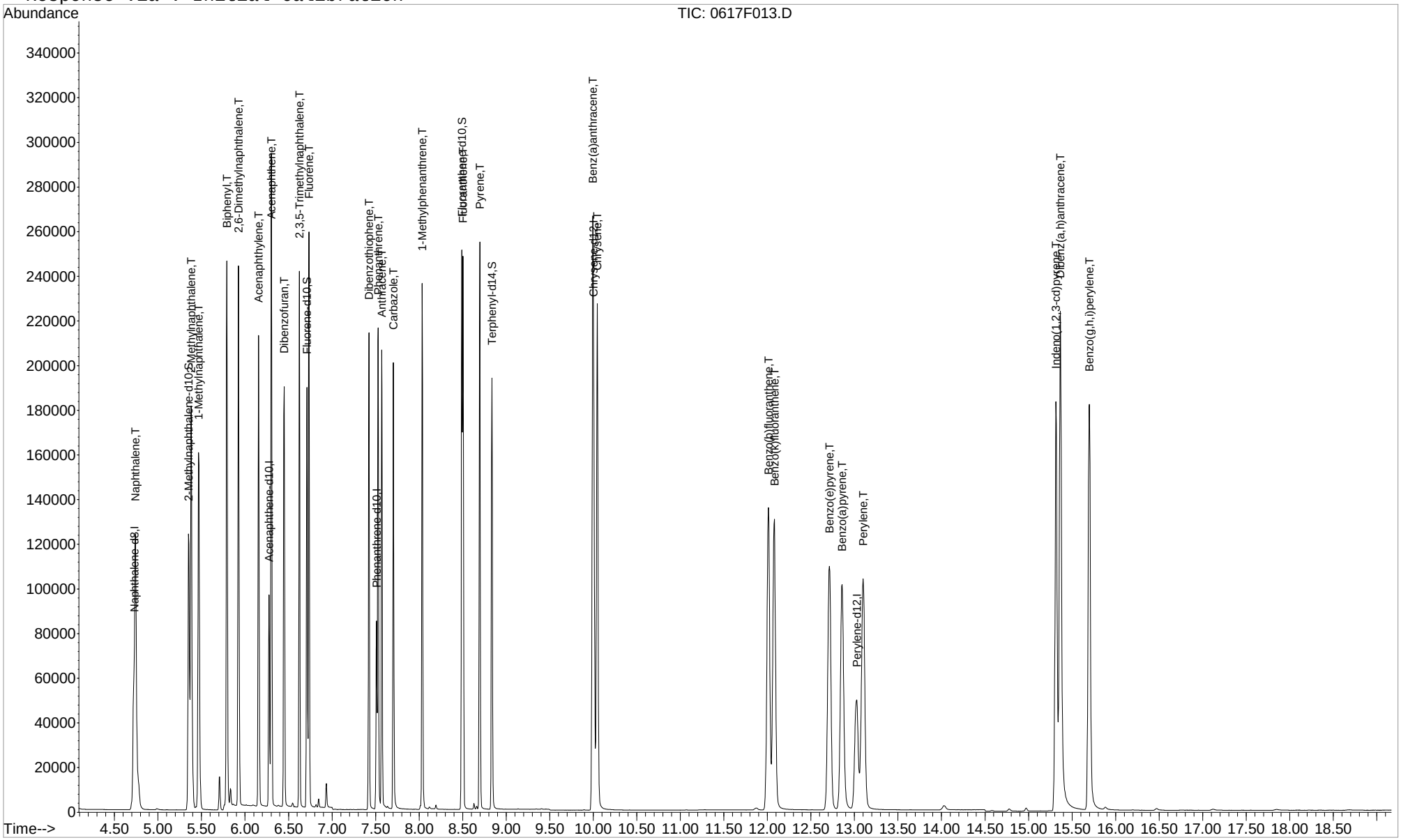
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F013.D Vial: 9
Acq On : 17 Jun 2019 12:17 pm Operator: LWeiskopf
Sample : SIM-PAH @ 0.4ug/mL SVM61-6G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 13:41:33 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F014.D Vial: 10
Acq On : 17 Jun 2019 12:46 pm Operator: LWeiskopf
Sample : SIM-PAH @ 1.0ug/mL SVM61-6H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35:22 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.72	136	62520	200.00	ng/ml	-0.03
8) Acenaphthene-d10	6.28	164	28774	200.00	ng/ml	-0.03
15) Phenanthrene-d10	7.51	188	47396	200.00	ng/ml	-0.02
23) Chrysene-d12	10.01	240	75239	200.00	ng/ml	-0.02
28) Perylene-d12	13.03	264	95043	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	141215	895.70	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	89.57%		
13) Fluorene-d10	6.71	176	153058	935.79	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	93.58%		
22) Fluoranthene-d10	8.49	212	343650	1237.35	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	123.74%		
25) Terphenyl-d14	8.84	244	321170	923.07	ng/ml	-0.03
Spiked Amount 1000.000			Recovery =	92.31%		
Target Compounds						Qvalue
2) Naphthalene	4.74	128	340337	1016.19	ng/ml	98
4) 2-Methylnaphthalene	5.38	142	204849	896.22	ng/ml	95
5) 1-Methylnaphthalene	5.47	142	190010	893.89	ng/ml	95
6) Biphenyl	5.79	154	256958	897.35	ng/ml	96
7) 2,6-Dimethylnaphthalene	5.93	156	176669	864.43	ng/ml	92
9) Acenaphthylene	6.15	152	300015	1033.18	ng/ml	97
10) Acenaphthene	6.30	154	179609	1018.93	ng/ml	95
11) Dibenzofuran	6.45	168	285138	1031.03	ng/ml	88
12) 2,3,5-Trimethylnaphthalene	6.63	170	166587	966.05	ng/ml	87
14) Fluorene	6.73	166	201294	932.34	ng/ml	95
16) Dibenzothiophene	7.42	184	309759	1148.91	ng/ml	97
17) Phenanthrene	7.53	178	283443	995.17	ng/ml	99
18) Anthracene	7.57	178	272413	1051.09	ng/ml	99
19) Carbazole	7.70	167	272714	1146.74	ng/ml	96
20) 1-Methylphenanthrene	8.03	192	232177	1079.64	ng/ml	95
21) Fluoranthene	8.50	202	399648	1191.38	ng/ml	85
24) Pyrene	8.70	202	446405	752.35	ng/ml	89
26) Benz(a)anthracene	10.00	228	483597	997.13	ng/ml	99
27) Chrysene	10.05	228	449492	953.99	ng/ml	99
29) Benzo(b)fluoranthene	12.02	252	562060	930.30	ng/ml	97
30) Benzo(k)fluoranthene	12.08	252	535286	940.03	ng/ml	97
31) Benzo(e)pyrene	12.72	252	510170	889.62	ng/ml	96
32) Benzo(a)pyrene	12.87	252	494067	1021.10	ng/ml	97
33) Perylene	13.11	252	504288	953.19	ng/ml	96
34) Indeno(1,2,3-cd)pyrene	15.32	276	465668	966.72	ng/ml	96
35) Dibenz(a,h)anthracene	15.37	278	530998	1038.53	ng/ml	98
36) Benzo(g,h,i)perylene	15.70	276	512064	792.47	ng/ml	96

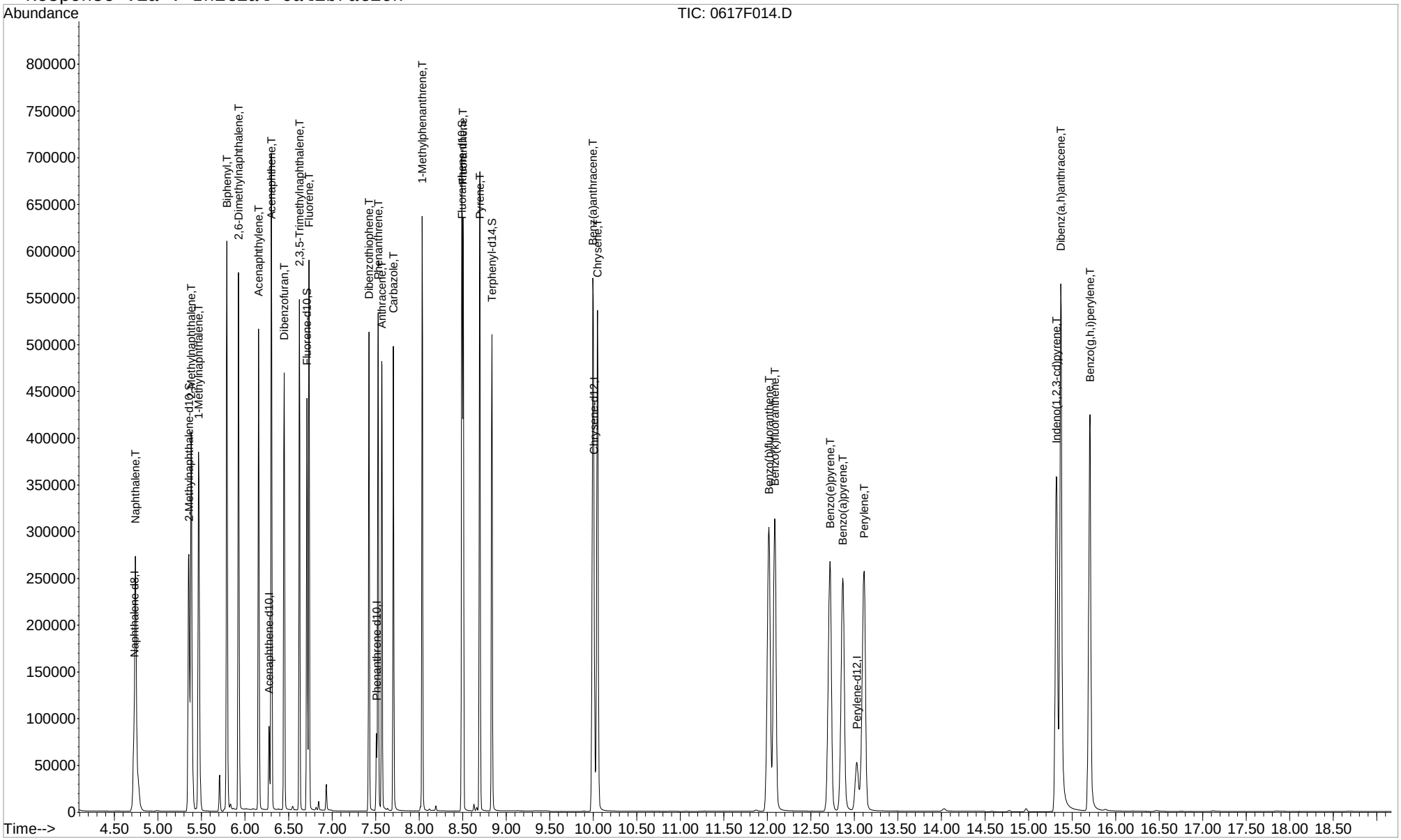
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F014.D Vial: 10
Acq On : 17 Jun 2019 12:46 pm Operator: LWeiskopf
Sample : SIM-PAH @ 1.0ug/mL SVM61-6H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 13:41:33 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F015.D Vial: 11
Acq On : 17 Jun 2019 1:14 pm Operator: LWeiskopf
Sample : SIM-PAH @ 1.6ug/mL SVM61-6I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35:22 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

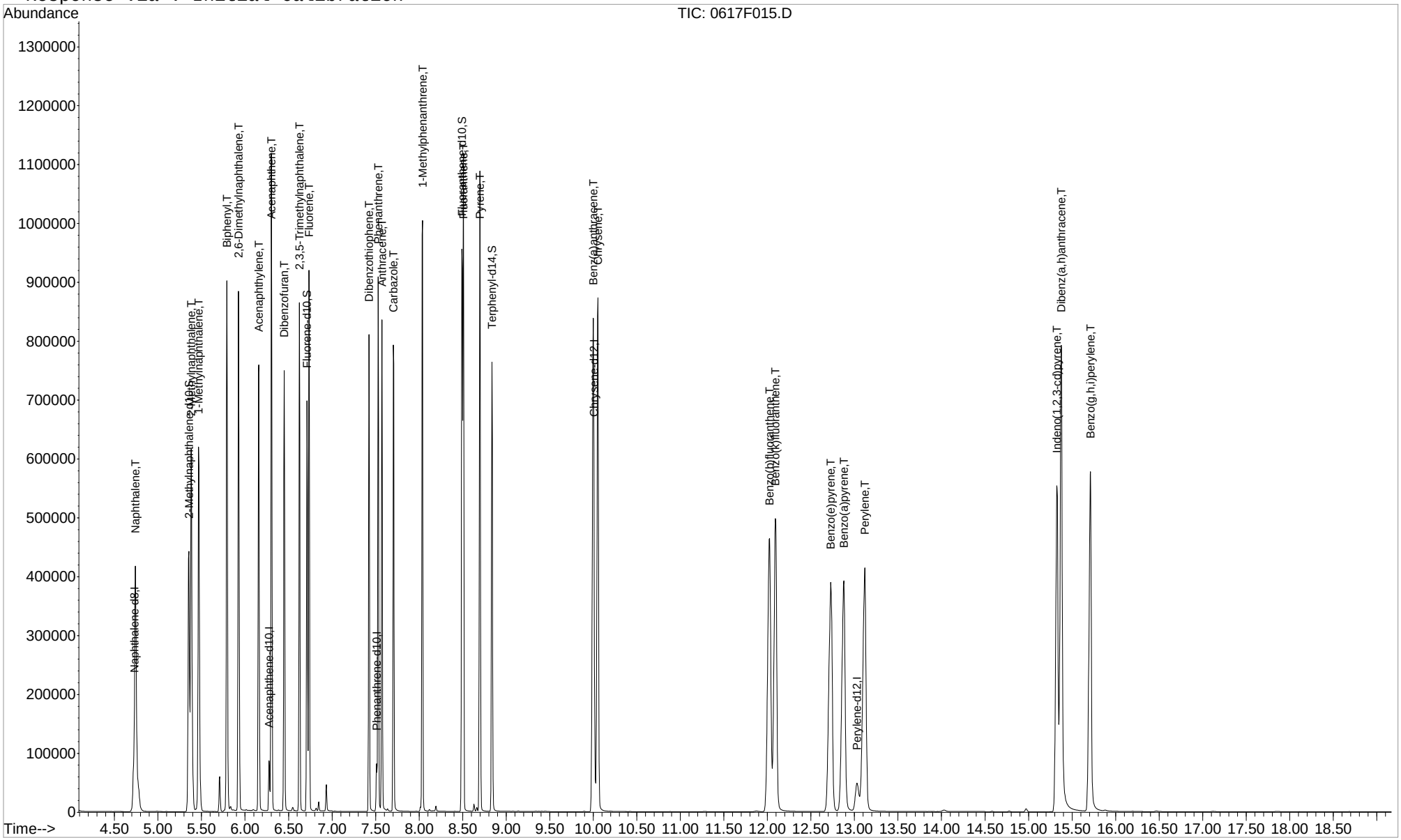
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.72	136	58848	200.00	ng/ml	-0.03
8) Acenaphthene-d10	6.28	164	27486	200.00	ng/ml	-0.03
15) Phenanthrene-d10	7.51	188	47074	200.00	ng/ml	-0.02
23) Chrysene-d12	10.01	240	71831	200.00	ng/ml	-0.02
28) Perylene-d12	13.03	264	91983	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	215675	1453.34	ng/ml	-0.03
Spiked Amount 1000.000			Recovery = 145.33%			
13) Fluorene-d10	6.71	176	237319	1518.95	ng/ml	-0.03
Spiked Amount 1000.000			Recovery = 151.90%			
22) Fluoranthene-d10	8.49	212	569241	2063.64	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 206.36%			
25) Terphenyl-d14	8.84	244	503034	1514.35	ng/ml	-0.03
Spiked Amount 1000.000			Recovery = 151.43%			
Target Compounds						Qvalue
2) Naphthalene	4.74	128	516374	1638.02	ng/ml	97
4) 2-Methylnaphthalene	5.38	142	310059	1441.16	ng/ml	95
5) 1-Methylnaphthalene	5.47	142	290033	1449.58	ng/ml	94
6) Biphenyl	5.79	154	390535	1448.93	ng/ml	96
7) 2,6-Dimethylnaphthalene	5.93	156	270594	1406.61	ng/ml	90
9) Acenaphthylene	6.16	152	463389	1670.59	ng/ml	97
10) Acenaphthene	6.30	154	277888	1650.34	ng/ml	95
11) Dibenzofuran	6.45	168	421965	1597.28	ng/ml	86
12) 2,3,5-Trimethylnaphthalene	6.63	170	257579	1563.72	ng/ml	85
14) Fluorene	6.73	166	310392	1505.02	ng/ml	96
16) Dibenzothiophene	7.42	184	490887	1833.18	ng/ml	94
17) Phenanthrene	7.53	178	451716	1596.82	ng/ml	99
18) Anthracene	7.57	178	437047	1697.86	ng/ml	99
19) Carbazole	7.70	167	454158	1922.76	ng/ml	96
20) 1-Methylphenanthrene	8.04	192	395345	1850.96	ng/ml	97
21) Fluoranthene	8.51	202	653631	1961.86	ng/ml	87
24) Pyrene	8.70	202	732703	1293.44	ng/ml	85
26) Benz(a)anthracene	10.00	228	749591	1618.91	ng/ml	99
27) Chrysene	10.05	228	702363	1561.40	ng/ml	99
29) Benzo(b)fluoranthene	12.02	252	884817	1513.24	ng/ml	97
30) Benzo(k)fluoranthene	12.09	252	832870	1511.29	ng/ml	96
31) Benzo(e)pyrene	12.73	252	799511	1440.54	ng/ml	95
32) Benzo(a)pyrene	12.88	252	777149	1659.58	ng/ml	96
33) Perylene	13.12	252	788341	1539.67	ng/ml	95
34) Indeno(1,2,3-cd)pyrene	15.32	276	708546	1519.86	ng/ml	95
35) Dibenz(a,h)anthracene	15.37	278	805680m	1628.18	ng/ml	
36) Benzo(g,h,i)perylene	15.71	276	750884	1200.73	ng/ml	96

(#) = qualifier out of range (m) = manual integration

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F015.D Vial: 11
Acq On : 17 Jun 2019 1:14 pm Operator: LWeiskopf
Sample : SIM-PAH @ 1.6ug/mL SVM61-6I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:39 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 13:41:33 2019
Response via : Initial Calibration

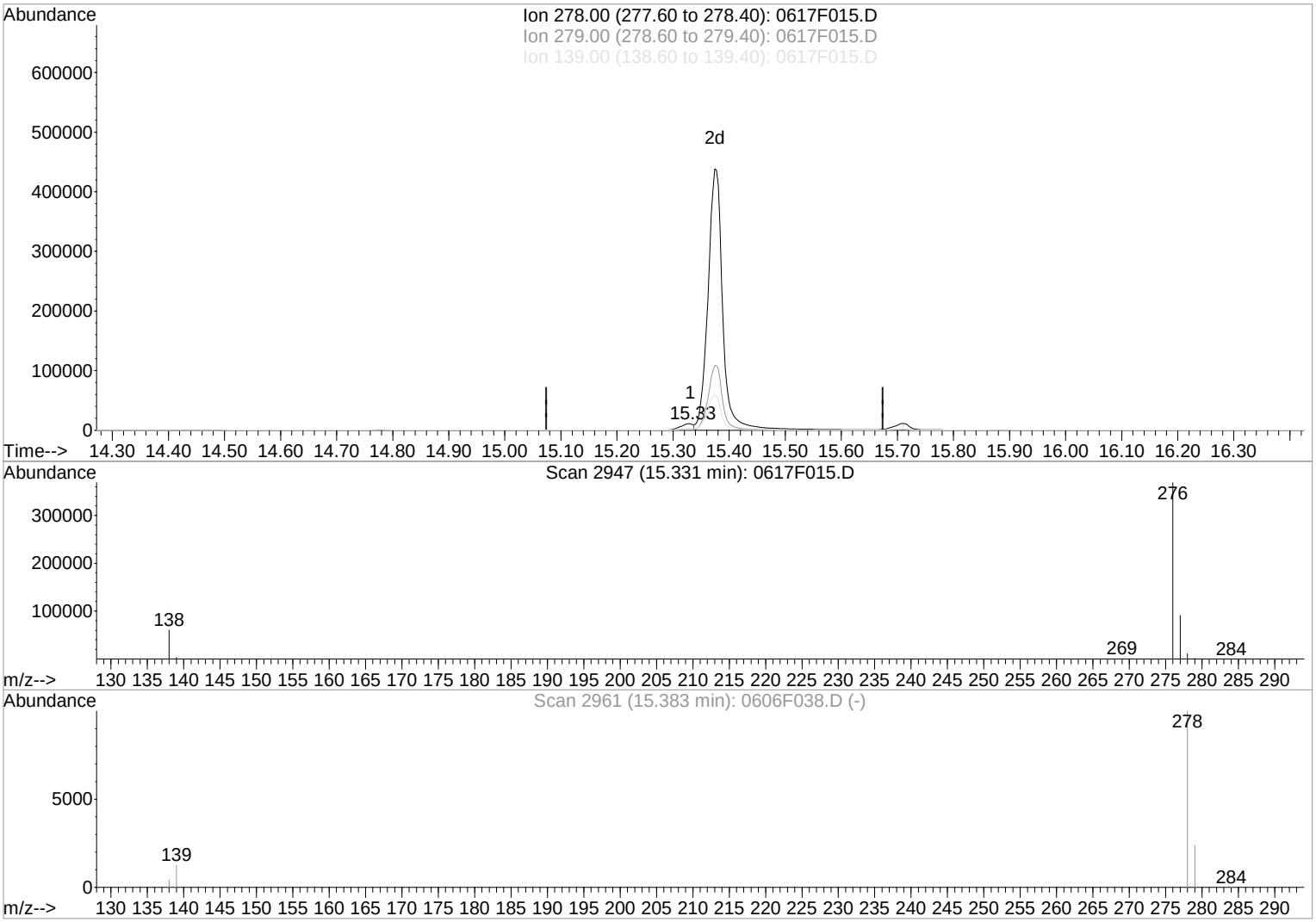


Quantitation Report (Qedit)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F015.D Vial: 11
Acq On : 17 Jun 2019 1:14 pm Operator: LWeiskopf
Sample : SIM-PAH @ 1.6ug/mL SVM61-6I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:35 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0617F015.D

(35) Dibenz(a,h)anthracene (T)

15.33min 35.49ng/ml

response 17563

Ion	Exp%	Act%
278.00	100	100
279.00	23.70	7.79
139.00	11.50	27.90
0.00	0.00	0.00

Manual Integration:

Before

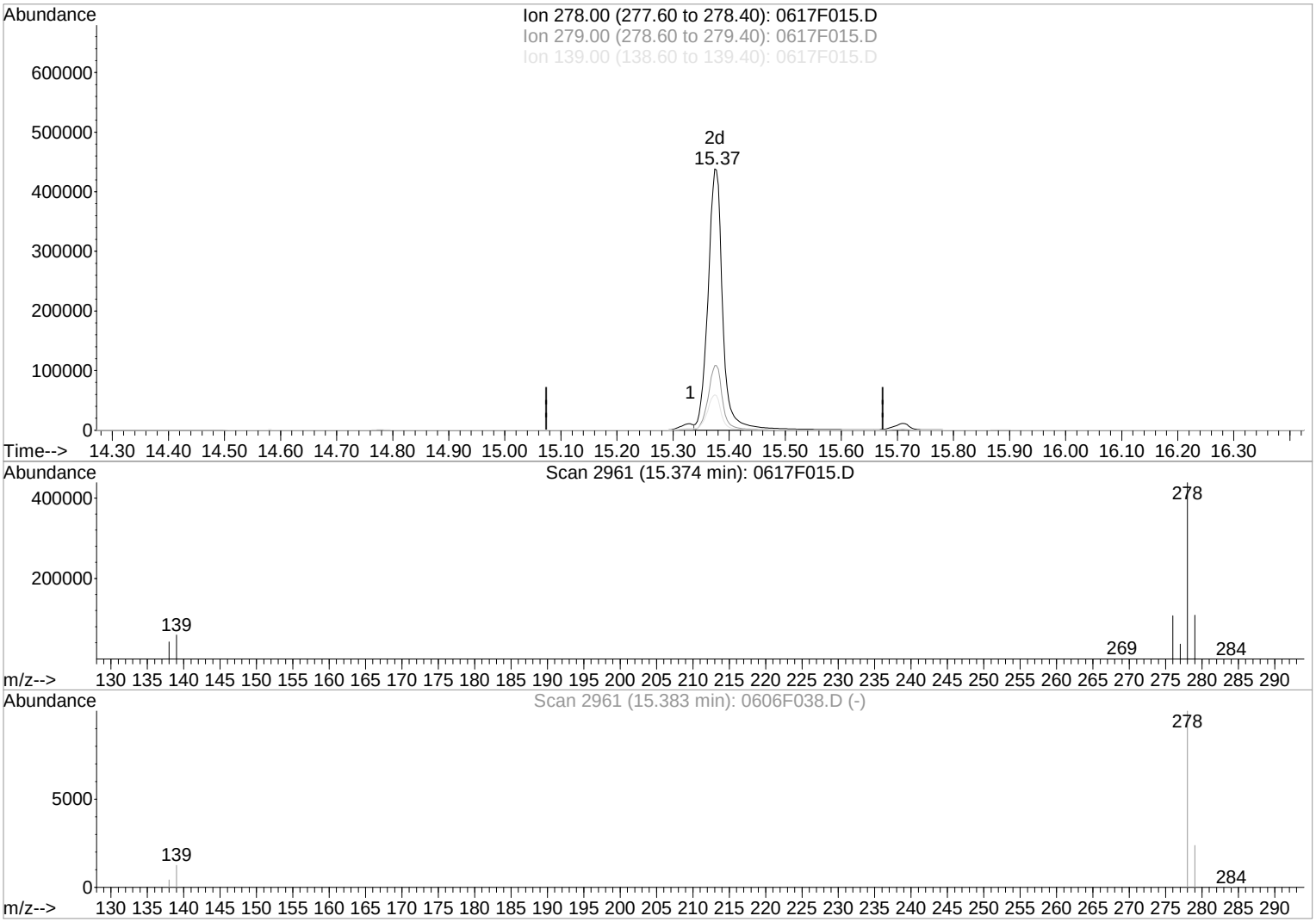
06/17/19

Quantitation Report (Qedit)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F015.D Vial: 11
Acq On : 17 Jun 2019 1:14 pm Operator: LWeiskopf
Sample : SIM-PAH @ 1.6ug/mL SVM61-6I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 17 13:39 2019 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri May 24 12:20:12 2019
Response via : Multiple Level Calibration



TIC: 0617F015.D

(35) Dibenz(a,h)anthracene (T)

15.37min 1628.18ng/ml m

response 805680

Ion	Exp%	Act%
278.00	100	100
279.00	23.70	24.72
139.00	11.50	13.61
0.00	0.00	0.00

Manual Integration:

After

WP

06/17/19

Quantitation Report (QT Reviewed)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F017.D Vial: 13
Acq On : 17 Jun 2019 2:10 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @ 0.4ug/mL SVM61-6K Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 18 05:00:03 2019 Quant Results File: 061719PAH.RES

Quant Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.72	136	55756	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.28	164	26681	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.51	188	45254	200.00	ng/ml	0.00
23) Chrysene-d12	10.01	240	73692	200.00	ng/ml	0.00
28) Perylene-d12	13.02	264	82859	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.35	152	52485	395.16	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	39.52%		
13) Fluorene-d10	6.71	176	59954	409.94	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	40.99%		
22) Fluoranthene-d10	8.49	212	120937	390.94	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	39.09%		
25) Terphenyl-d14	8.84	244	129183	403.10	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	40.31%		
Target Compounds						Qvalue
2) Naphthalene	4.74	128	118400	379.75	ng/ml	100
4) 2-Methylnaphthalene	5.38	142	71592	362.79	ng/ml	100
5) 1-Methylnaphthalene	5.47	142	64854	351.47	ng/ml	99
6) Biphenyl	5.79	154	89507	359.99	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.93	156	63151	373.19	ng/ml	100
9) Acenaphthylene	6.15	152	110251	386.53	ng/ml	100
10) Acenaphthene	6.30	154	62214	365.17	ng/ml	100
11) Dibenzofuran	6.45	168	90405	344.18	ng/ml	99
12) 2,3,5-Trimethylnaphthalene	6.62	170	58386	376.10	ng/ml	99
14) Fluorene	6.73	166	73189	376.55	ng/ml	99
16) Dibenzothiophene	7.42	184	110962	382.22	ng/ml	99
17) Phenanthrene	7.53	178	101034	365.06	ng/ml	100
18) Anthracene	7.57	178	101824	387.59	ng/ml	99
19) Carbazole	7.70	167	98047	372.17	ng/ml	100
20) 1-Methylphenanthrene	8.03	192	81589	371.53	ng/ml	99
21) Fluoranthene	8.50	202	140762	376.76	ng/ml	98
24) Pyrene	8.70	202	146277	334.07	ng/ml	99
26) Benz(a)anthracene	10.00	228	172527	373.76	ng/ml	100
27) Chrysene	10.05	228	160141	362.93	ng/ml	100
29) Benzo(b)fluoranthene	12.01	252	196670	403.29	ng/ml	99
30) Benzo(k)fluoranthene	12.08	252	189199	399.00	ng/ml	100
31) Benzo(e)pyrene	12.71	252	166756	370.42	ng/ml	100
32) Benzo(a)pyrene	12.85	252	170316	386.92	ng/ml	100
33) Perylene	13.09	252	172989	397.63	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.31	276	165259	383.67	ng/ml	100
35) Dibenz(a,h)anthracene	15.36	278	168073	344.59	ng/ml	100
36) Benzo(g,h,i)perylene	15.69	276	165996	328.11	ng/ml	100

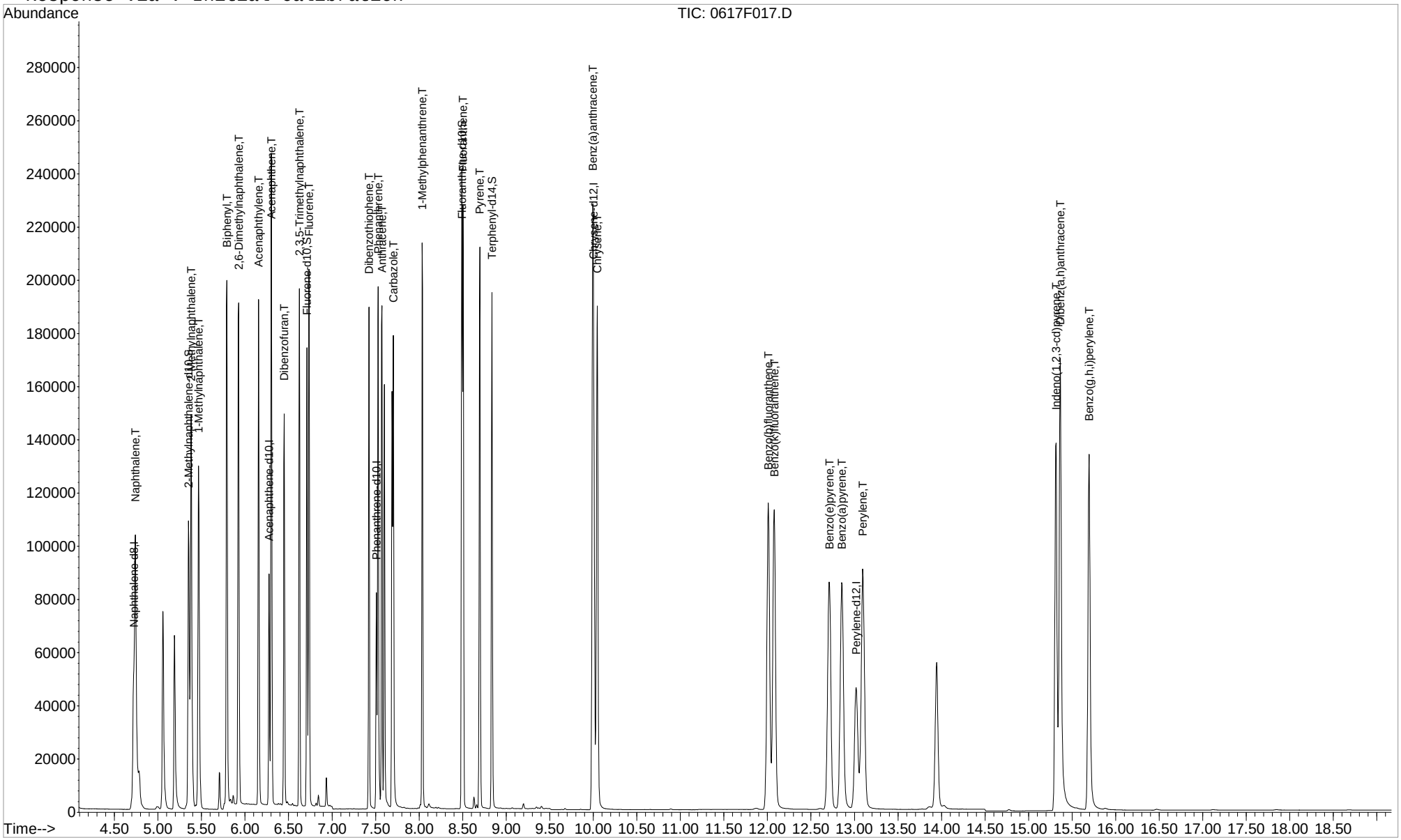
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 06/18/19
2nd 06/19/19

Data File : J:\MS14\DATA\061719\0617F017.D Vial: 13
Acq On : 17 Jun 2019 2:10 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @ 0.4ug/mL SVM61-6K Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jun 18 5:00 2019 Quant Results File: 061719PAH.RES

Method : J:\MS14\METHODS\SIM\061719PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Jun 17 14:02:33 2019
Response via : Initial Calibration



Injection Log

Directory: J:\MS14\DATA\061919

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0619F001.D	1.	DFTPP @ 10ug/mL | SVM60-55B		19 Jun 2019 07:21
2	2	0619F002.D	1.	SIM-PAH CCV @ 0.4ug/mL SVM61-35C		19 Jun 2019 07:49
3	11	0619F011.D	1.	KQ1908345-04 MB		19 Jun 2019 11:59
4	12	0619F012.D	1.	KQ1908345-03 LCS		19 Jun 2019 12:26
5	13	0619F013.D	1.	KQ1908345-01 K1905016-025MS		19 Jun 2019 12:54
6	14	0619F014.D	1.	KQ1908345-02 K1905016-025DMS		19 Jun 2019 13:22
7	15	0619F015.D	1.	K1905016-025REX		19 Jun 2019 13:51
8	16	0619F016.D	1.	K1905336-006		19 Jun 2019 14:18
9	17	0619F017.D	1.	KQ1908460-04 MB		19 Jun 2019 14:46
10	18	0619F018.D	1.	KQ1908460-03 LCS		19 Jun 2019 15:14
11	19	0619F019.D	1.	KQ1908460-01 K1905336-007MS		19 Jun 2019 15:42
12	20	0619F020.D	1.	KQ1908460-02 K1905336-007DMS		19 Jun 2019 16:10
13	21	0619F021.D	1.	K1905336-007		19 Jun 2019 16:37
14	22	0619F022.D	1.	K1905513-003		19 Jun 2019 17:05
15	23	0619F023.D	1.	K1905513-004		19 Jun 2019 17:33
16	24	0619F024.D	1.	K1905513-005		19 Jun 2019 18:00
17	2	0619F025.D	1.	SIM-PAH CCV @ 0.4ug/mL SVM61-35C		19 Jun 2019 18:28
18	1	0619F026.D	1.	DFTPP @ 10ug/mL | SVM60-55B		19 Jun 2019 18:55
19	2	0619F027.D	1.	SIM-PAH CCV @ 0.4ug/mL SVM61-35C		19 Jun 2019 19:23
20	25	0619F028.D	1.	KQ1908276-04 MB		19 Jun 2019 19:50
21	26	0619F029.D	1.	KQ1908276-03 LCS		19 Jun 2019 20:18
22	27	0619F030.D	1.	KQ1908276-01 K1905513-010MS		19 Jun 2019 20:45
23	28	0619F031.D	1.	KQ1908276-02 K1905513-010DMS		19 Jun 2019 21:13
24	29	0619F032.D	1.	K1905513-010		19 Jun 2019 21:40
25	30	0619F033.D	1.	K1905450-003		19 Jun 2019 22:08
26	31	0619F034.D	1.	K1905450-004		19 Jun 2019 22:35
27	32	0619F035.D	1.	K1905016-028REX		19 Jun 2019 23:03
28	33	0619F036.D	1.	K1905016-032REX		19 Jun 2019 23:31
29	34	0619F037.D	1.	K1905016-039REX		19 Jun 2019 23:58
30	35	0619F038.D	1.	K1905513-002		20 Jun 2019 00:26
31	36	0619F039.D	1.	K1905513-006		20 Jun 2019 00:54
32	37	0619F040.D	1.	K1905513-007		20 Jun 2019 01:22
33	38	0619F041.D	1.	K1905513-008		20 Jun 2019 01:50
34	39	0619F042.D	1.	K1905513-009		20 Jun 2019 02:17
35	40	0619F043.D	1.	K1905513-011		20 Jun 2019 02:45
36	41	0619F044.D	1.	K1905513-012		20 Jun 2019 03:13
37	42	0619F045.D	1.	K1905534-001DIL 20X	Reran @ 1X	20 Jun 2019 03:41
38	43	0619F046.D	1.	K1905534-002DIL 20X	1	20 Jun 2019 04:08
39	2	0619F047.D	1.	SIM-PAH CCV @ 0.4ug/mL SVM61-35C		20 Jun 2019 04:36
40	6	0619F100.D	1.	IB NR		20 Jun 2019 05:04

*Rlims # 640092
KC1900232
JUN 20 2019
6/20/19

Directory: J:\MS14\DATA\061819

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0618F001.D	1.	DFTPP @ 10ug/mL | SVM60-55B		18 Jun 2019 04:54
2	2	0618F002.D	1.	SIM-PAH CCV @ 0.4ug/mL SVM61-35C		18 Jun 2019 05:21
3	3	0618F003.D	1.	KQ1908091-03 MB		18 Jun 2019 05:49
4	4	0618F004.D	1.	KQ1908091-01 LCS		18 Jun 2019 06:17
5	5	0618F005.D	1.	KQ1908091-02 DLCS		18 Jun 2019 06:45
6	6	0618F006.D	1.	K1905341-001		18 Jun 2019 07:13
7	7	0618F007.D	1.	KQ1907904-04 MB		18 Jun 2019 07:41
8	8	0618F008.D	1.	KQ1907904-03 LCS		18 Jun 2019 08:09
9	9	0618F009.D	1.	KQ1907904-01 K1905282-010MS		18 Jun 2019 08:36
10	10	0618F010.D	1.	KQ1907904-02 K1905282-010DMS		18 Jun 2019 09:03
11	11	0618F011.D	1.	KK1905282-010		18 Jun 2019 09:31
12	12	0618F012.D	1.	KK1905282-001		18 Jun 2019 09:59
13	13	0618F013.D	1.	KK1905282-002		18 Jun 2019 10:26
14	14	0618F014.D	1.	KK1905282-003		18 Jun 2019 10:54
15	15	0618F015.D	1.	KK1905282-004		18 Jun 2019 11:21
16	16	0618F016.D	1.	KK1905282-005		18 Jun 2019 11:49
17	17	0618F017.D	1.	KK1905282-006		18 Jun 2019 12:17
18	18	0618F018.D	1.	KK1905282-007		18 Jun 2019 12:44
19	19	0618F019.D	1.	KK1905282-008		18 Jun 2019 13:12
20	20	0618F020.D	1.	K1905282-009		18 Jun 2019 13:40
21	21	0618F021.D	1.	K1905282-011		18 Jun 2019 14:08
22	22	0618F022.D	1.	K1905282-012		18 Jun 2019 14:36
23	23	0618F023.D	1.	K1905282-013		18 Jun 2019 15:04
24	24	0618F024.D	1.	K1905282-014		18 Jun 2019 15:32
25	25	0618F025.D	1.	K1905282-015		18 Jun 2019 16:00
26	2	0618F026.D	1	SIM-PAH CCV @ 0.4ug/mL SVM61-35C		18 Jun 2019 16:28
27	1	0618F027.D	1.	DFTPP @ 10ug/mL | SVM60-55B		18 Jun 2019 16:56
28	2	0618F028.D	1.	SIM-PAH CCV @ 0.4ug/mL SVM61-35C		18 Jun 2019 17:24
29	26	0618F029.D	1.	KQ1908183-04 MB		18 Jun 2019 17:52
30	27	0618F030.D	1.	KQ1908087-03 MB KQ1908222		18 Jun 2019 18:20
31	28	0618F031.D	1.	KQ1908087-01 LCS		18 Jun 2019 18:48
32	29	0618F032.D	1.	KQ1908087-02 DLCS		18 Jun 2019 19:15
33	30	0618F033.D	1.	K1905392-002		18 Jun 2019 19:43
34	31	0618F034.D	1.	K1905392-003		18 Jun 2019 20:11
35	32	0618F035.D	1.	K1905403-001		18 Jun 2019 20:39
36	33	0618F036.D	1.	K1905404-001		18 Jun 2019 21:06
37	34	0618F037.D	1.	K1905404-002		18 Jun 2019 21:34
38	35	0618F038.D	1.	K1905404-003		18 Jun 2019 22:02
39	36	0618F039.D	1.	K1905405-001		18 Jun 2019 22:30
40	37	0618F040.D	1.	KQ1908183-05 LCS		18 Jun 2019 22:58
41	38	0618F041.D	1.	K1905418-004MS		18 Jun 2019 23:26
42	39	0618F042.D	1.	K1905418-004DMS		18 Jun 2019 23:54
43	40	0618F043.D	1.	K1905418-004		19 Jun 2019 00:21
44	41	0618F044.D	1.	K1905418-001		19 Jun 2019 00:49
45	42	0618F045.D	1.	K1905418-002		19 Jun 2019 01:17
46	43	0618F046.D	1.	K1905418-003		19 Jun 2019 01:45
47	44	0618F047.D	1.	K1905418-009		19 Jun 2019 02:12
48	45	0618F048.D	1.	K1905418-011		19 Jun 2019 02:40
49	46	0618F049.D	1.	K1905418-012		19 Jun 2019 03:08
50	47	0618F050.D	1.	K1905392-001		19 Jun 2019 03:35
51	48	0618F051.D	1.	K1905450-001		19 Jun 2019 04:03
52	49	0618F052.D	1.	K1905450-002		19 Jun 2019 04:31

Recalculated

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