

UB Orangeburg, LLC

Periodic Review Report (Part 2)

UB Orangeburg

1-45 Orangetown Shopping Center

NYSDEC Site Number C344066

July 2022

Version 1





Appendix F – Laboratory Reports

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Groundwater & Environmental Services

Orangeburg UB, Orangeburg, NY

1102783/06/206/111 PSID#905414

SGS Job Number: JD43253

Sampling Date: 04/18/22



Report to:

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Total number of pages in report: **596**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

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Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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Sample Summary

Groundwater & Environmental Services

Job No: JD43253

Orangeburg UB, Orangeburg, NY
Project No: 1102783/06/206/111 PSID#905414

Sample Number	Collected Date	Time By	Matrix Received	Code Type	Client Sample ID

This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the RL

JD43253-1	04/18/22	11:30 RB	04/19/22	AQ	Ground Water	MW-4
JD43253-1D	04/18/22	11:30 RB	04/19/22	AQ	Water Dup/MSD	MW-MSD
JD43253-1S	04/18/22	11:30 RB	04/19/22	AQ	Water Matrix Spike	MW-MS
JD43253-2	04/18/22	13:00 RB	04/19/22	AQ	Ground Water	MW-5
JD43253-3	04/18/22	14:15 RB	04/19/22	AQ	Ground Water	MW-8A
JD43253-4	04/18/22	12:30 RB	04/19/22	AQ	Ground Water	MW-E
JD43253-5	04/18/22	08:00 RB	04/19/22	AQ	Ground Water	DUPLICATE
JD43253-6	04/18/22	08:30 RB	04/19/22	AQ	Field Blank Water	FIELD BLANK
JD43253-7	04/18/22	09:00 RB	04/19/22	AQ	Equipment Blank	EQUIPMENT BLANK
JD43253-8	04/18/22	14:15 RB	04/19/22	AQ	Trip Blank Water	TRIP BLANK

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Groundwater & Environmental Services

Job No: JD43253

Site: Orangeburg UB, Orangeburg, NY

Report Date 4/27/2022 12:55:17 P

On 04/19/2022, 6 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD43253 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260D

Matrix: AQ

Batch ID: V2D8765

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD43253-1MS, JD43253-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for 1,1-Dichloroethene, 1,3-Dichlorobenzene, Bromodichloromethane, Carbon disulfide, Tetrachloroethene are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Carbon disulfide are outside control limits. Outside control limits due to matrix interference.
- JD43253-8 for Methyl Tert Butyl Ether: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-3 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-3 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-8 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-7 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-8 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-6 for Methyl Tert Butyl Ether: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-1 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-1 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-4 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-8 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-1 for Methyl Tert Butyl Ether: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-7 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-7 for Methyl Tert Butyl Ether: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-6 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

Wednesday, April 27, 2022

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MS Volatiles By Method SW846 8260D

Matrix: AQ

Batch ID: V2D8765

- JD43253-6 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-6 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-4 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-4 for Methyl Tert Butyl Ether: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-1 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-4 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-3 for Methyl Tert Butyl Ether: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-3 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-7 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

Matrix: AQ

Batch ID: V3D7465

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD43519-11MS, JD43519-11MSD were used as the QC samples indicated.
- JD43253-2 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JD43253-5 for Acetone: This compound in blank spike is outside in house QC limits bias high.
- JD43253-5 for Bromoform: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD43253-5 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
- JD43253-5 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JD43253-2 for Acetone: This compound in blank spike is outside in house QC limits bias high.
- JD43253-2 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
- V3D7465-BS for Acetone: Outside in house control limits.
- JD43253-2 for Bromoform: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- V3D7465-BS for Dichlorodifluoromethane: High percent recovery and no associated positive reported in the QC batch.

GC Volatiles By Method RSK-175

Matrix: AQ

Batch ID: GAA2539

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD43335-3DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Metals Analysis By Method SW846 6010D

Matrix: AQ **Batch ID:** MP32417

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD43339-1MS, JD43339-1MSD, JD43339-1SDL were used as the QC samples for metals.

General Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ **Batch ID:** GP39616

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD43272-1DUP, JD43272-1MS were used as the QC samples for Sulfate.

General Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ **Batch ID:** GP39645

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD43255-2DUP, JD43255-2MS were used as the QC samples for Nitrogen, Nitrate + Nitrite.
- Matrix Spike Recovery(s) for Nitrogen, Nitrate + Nitrite are outside control limits. Spike recovery indicates possible matrix interference.

General Chemistry By Method EPA353.2/SM4500NO2B

Matrix: AQ **Batch ID:** R196810

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JD43253-1 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Matrix: AQ **Batch ID:** R196811

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JD43253-2 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Matrix: AQ **Batch ID:** R196812

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JD43253-3 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Matrix: AQ **Batch ID:** R196813

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JD43253-4 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

General Chemistry By Method SM3500FE B-11

Matrix: AQ

Batch ID: GN28385

- All method blanks for this batch meet method specific criteria.
- Sample(s) JD43253-1MS, JD43253-1MSD were used as the QC samples for Iron, Ferrous.
- JD43253-1 for Iron, Ferrous: Field analysis required. Received out of hold time and analyzed by request.
- JD43253-3 for Iron, Ferrous: Field analysis required. Received out of hold time and analyzed by request.
- JD43253-2 for Iron, Ferrous: Field analysis required. Received out of hold time and analyzed by request.
- JD43253-4 for Iron, Ferrous: Field analysis required. Received out of hold time and analyzed by request.

Matrix: AQ

Batch ID: R196800

- The data for SM3500FE B-11 meets quality control requirements.
- JD43253-1 for Iron, Ferric: Calculated as: (Iron) - (Iron, Ferrous)

Matrix: AQ

Batch ID: R196801

- The data for SM3500FE B-11 meets quality control requirements.
- JD43253-2 for Iron, Ferric: Calculated as: (Iron) - (Iron, Ferrous)

Matrix: AQ

Batch ID: R196802

- The data for SM3500FE B-11 meets quality control requirements.
- JD43253-3 for Iron, Ferric: Calculated as: (Iron) - (Iron, Ferrous)

Matrix: AQ

Batch ID: R196803

- The data for SM3500FE B-11 meets quality control requirements.
- JD43253-4 for Iron, Ferric: Calculated as: (Iron) - (Iron, Ferrous)

General Chemistry By Method SM4500NO2 B-11

Matrix: AQ

Batch ID: GN28342

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD43255-2MSD, JD43255-2MS were used as the QC samples for Nitrogen, Nitrite.

General Chemistry By Method SM5310 B-11

Matrix: AQ

Batch ID: GP39614

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD43253-1MS, JD43253-1MSD were used as the QC samples for Total Organic Carbon.
- JD43253-1 for Total Organic Carbon: Elevated sample detection limit due to difficult sample matrix.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD43253
Account: Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY
Collected: 04/18/22



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD43253-1	MW-4					
cis-1,2-Dichloroethene		9.2	1.0		ug/l	SW846 8260D
Iron		882	100		ug/l	SW846 6010D
Iron, Ferric ^a		0.88	0.30		mg/l	SM3500FE B-11
Nitrogen, Nitrate ^b		1.0	0.11		mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite		1.0	0.10		mg/l	EPA 353.2/LACHAT
Sulfate		29.4	2.0		mg/l	EPA 300/SW846 9056A
Total Organic Carbon ^c		5.8	5.0		mg/l	SM5310 B-11
JD43253-2	MW-5					
Acetone ^d		78.7	10		ug/l	SW846 8260D
2-Butanone (MEK)		218	10		ug/l	SW846 8260D
Chloroform		3.3	1.0		ug/l	SW846 8260D
cis-1,2-Dichloroethene		191	10		ug/l	SW846 8260D
trans-1,2-Dichloroethene		3.9	1.0		ug/l	SW846 8260D
Trichloroethene		3.8	1.0		ug/l	SW846 8260D
Vinyl chloride		22.9	1.0		ug/l	SW846 8260D
Ethene		8.55	0.31		ug/l	RSK-175
Iron		58300	100		ug/l	SW846 6010D
Iron, Ferric ^a		45.3	2.1		mg/l	SM3500FE B-11
Iron, Ferrous ^e		13.0	2.0		mg/l	SM3500FE B-11
Total Organic Carbon		406	20		mg/l	SM5310 B-11
JD43253-3	MW-8A					
Trichloroethene		1.5	1.0		ug/l	SW846 8260D
Iron		7010	100		ug/l	SW846 6010D
Iron, Ferric ^a		7.0	0.30		mg/l	SM3500FE B-11
Sulfate		22.4	2.0		mg/l	EPA 300/SW846 9056A
Total Organic Carbon		9.9	2.0		mg/l	SM5310 B-11
JD43253-4	MW-E					
cis-1,2-Dichloroethene		3.8	1.0		ug/l	SW846 8260D
Iron		2140	100		ug/l	SW846 6010D
Iron, Ferric ^a		2.1	0.30		mg/l	SM3500FE B-11
Sulfate		26.8	2.0		mg/l	EPA 300/SW846 9056A
Total Organic Carbon		6.9	2.0		mg/l	SM5310 B-11
JD43253-5	DUPLICATE					
cis-1,2-Dichloroethene		11.1	1.0		ug/l	SW846 8260D

Summary of Hits

Job Number: JD43253
Account: Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY
Collected: 04/18/22



Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method

JD43253-6 FIELD BLANK

No hits reported in this sample.

JD43253-7 EQUIPMENT BLANK

No hits reported in this sample.

JD43253-8 TRIP BLANK

No hits reported in this sample.

- (a) Calculated as: (Iron) - (Iron, Ferrous)
- (b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)
- (c) Elevated sample detection limit due to difficult sample matrix.
- (d) This compound in blank spike is outside in house QC limits bias high.
- (e) Field analysis required. Received out of hold time and analyzed by request.



Dayton, NJ

Section 4

4

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Page 1 of 2

Client Sample ID:	MW-4	
Lab Sample ID:	JD43253-1	Date Sampled: 04/18/22
Matrix:	AQ - Ground Water	Date Received: 04/19/22
Method:	SW846 8260D	Percent Solids: n/a
Project:	Orangeburg UB, Orangeburg, NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D201318.D	1	04/22/22 19:52	NW	n/a	n/a	V2D8765
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK) ^a	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	9.2	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-1	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260D		
Project:	Orangeburg UB, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate ^a	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether ^a	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		80-120%
17060-07-0	1,2-Dichloroethane-D4	96%		80-120%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	91%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID: MW-4							
Lab Sample ID: JD43253-1				Date Sampled: 04/18/22			
Matrix: AQ - Ground Water				Date Received: 04/19/22			
Method: RSK-175				Percent Solids: n/a			
Project: Orangeburg UB, Orangeburg, NY							

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA94387.D	1	04/20/22 13:49	WC	n/a	n/a	GAA2539
Run #2							

CAS No.	Compound	Result	RL	Units	Q
74-85-1	Ethene	ND	0.31	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-1	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Orangeburg UB, Orangeburg, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	882	100	ug/l	1	04/20/22	04/20/22 ND	SW846 6010D ¹	SW846 3010A ²

(1) Instrument QC Batch: MA52270
(2) Prep QC Batch: MP32417

RL = Reporting Limit

4.1
4

Report of Analysis

Client Sample ID:	MW-4	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-1	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Orangeburg UB, Orangeburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Iron, Ferric ^a	0.88	0.30	mg/l	1	04/20/22 19:21	ND	SM3500FE B-11
Iron, Ferrous ^b	< 0.20	0.20	mg/l	1	04/20/22 18:53	JOO	SM3500FE B-11
Nitrogen, Nitrate ^c	1.0	0.11	mg/l	1	04/21/22 16:40	MM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	1.0	0.10	mg/l	1	04/21/22 16:40	MM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	04/19/22 14:19	DB	SM4500NO2 B-11
Sulfate	29.4	2.0	mg/l	1	04/20/22 15:50	JD	EPA 300/SW846 9056A
Total Organic Carbon ^d	5.8	5.0	mg/l	5	04/20/22 14:02	MB	SM5310 B-11

- (a) Calculated as: (Iron) - (Iron, Ferrous)
(b) Field analysis required. Received out of hold time and analyzed by request.
(c) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)
(d) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit

4.1
4

SGS North America Inc.

Report of Analysis

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Client Sample ID:	MW-5	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-2	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260D		
Project:	Orangeburg UB, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D176500.D	1	04/25/22 13:52	NW	n/a	n/a	V3D7465
Run #2	3D176513.D	10	04/25/22 18:56	NW	n/a	n/a	V3D7465

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	78.7	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform ^b	ND	1.0	ug/l	
74-83-9	Bromomethane ^c	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	218	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	3.3	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane ^d	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	191 ^e	10	ug/l	
156-60-5	trans-1,2-Dichloroethene	3.9	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-2	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260D		
Project:	Orangeburg UB, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	3.8	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	22.9	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%	108%	80-120%
17060-07-0	1,2-Dichloroethane-D4	97%	104%	80-120%
2037-26-5	Toluene-D8	100%	100%	80-120%
460-00-4	4-Bromofluorobenzene	112%	114%	82-114%

- (a) This compound in blank spike is outside in house QC limits bias high.
 (b) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
 (c) Associated CCV outside of control limits high, sample was ND.
 (d) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
 (e) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID: MW-5							
Lab Sample ID: JD43253-2				Date Sampled: 04/18/22			
Matrix: AQ - Ground Water				Date Received: 04/19/22			
Method: RSK-175				Percent Solids: n/a			
Project: Orangeburg UB, Orangeburg, NY							

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA94388.D	1	04/20/22 14:02	WC	n/a	n/a	GAA2539
Run #2							

CAS No.	Compound	Result	RL	Units	Q
74-85-1	Ethene	8.55	0.31	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-2	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Orangeburg UB, Orangeburg, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	58300	100	ug/l	1	04/20/22	04/20/22 ND	SW846 6010D ¹	SW846 3010A ²

(1) Instrument QC Batch: MA52270
(2) Prep QC Batch: MP32417

RL = Reporting Limit

4.2
4

Report of Analysis

Client Sample ID:	MW-5	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-2	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Orangeburg UB, Orangeburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Iron, Ferric ^a	45.3	2.1	mg/l	1	04/20/22 19:26	ND	SM3500FE B-11
Iron, Ferrous ^b	13.0	2.0	mg/l	10	04/20/22 19:04	JOO	SM3500FE B-11
Nitrogen, Nitrate ^c	< 0.11	0.11	mg/l	1	04/21/22 16:41	MM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	04/21/22 16:41	MM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	04/19/22 14:21	DB	SM4500NO2 B-11
Sulfate	< 2.0	2.0	mg/l	1	04/20/22 16:29	JD	EPA 300/SW846 9056A
Total Organic Carbon	406	20	mg/l	20	04/20/22 15:47	MB	SM5310 B-11

- (a) Calculated as: (Iron) - (Iron, Ferrous)
(b) Field analysis required. Received out of hold time and analyzed by request.
(c) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

4.2
4

SGS North America Inc.

Report of Analysis

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Client Sample ID:	MW-8A	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-3	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260D		
Project:	Orangeburg UB, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D201320.D	1	04/22/22 20:50	NW	n/a	n/a	V2D8765
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK) ^a	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8A	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-3	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260D		
Project:	Orangeburg UB, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate ^a	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether ^a	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	1.5	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	96%		80-120%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	91%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID: MW-8A			
Lab Sample ID: JD43253-3		Date Sampled: 04/18/22	
Matrix: AQ - Ground Water		Date Received: 04/19/22	
Method: RSK-175		Percent Solids: n/a	
Project: Orangeburg UB, Orangeburg, NY			

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA94390.D	1	04/20/22 14:35	WC	n/a	n/a	GAA2539
Run #2							

CAS No.	Compound	Result	RL	Units	Q
74-85-1	Ethene	ND	0.31	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8A	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-3	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Orangeburg UB, Orangeburg, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	7010	100	ug/l	1	04/20/22	04/20/22 ND	SW846 6010D ¹	SW846 3010A ²

(1) Instrument QC Batch: MA52270
(2) Prep QC Batch: MP32417

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-8A	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-3	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Orangeburg UB, Orangeburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Iron, Ferric ^a	7.0	0.30	mg/l	1	04/20/22 19:32	ND	SM3500FE B-11
Iron, Ferrous ^b	< 0.20	0.20	mg/l	1	04/20/22 18:55	JOO	SM3500FE B-11
Nitrogen, Nitrate ^c	< 0.11	0.11	mg/l	1	04/21/22 16:42	MM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	04/21/22 16:42	MM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	04/19/22 14:22	DB	SM4500NO2 B-11
Sulfate	22.4	2.0	mg/l	1	04/20/22 16:42	JD	EPA 300/SW846 9056A
Total Organic Carbon	9.9	2.0	mg/l	2	04/20/22 14:49	MB	SM5310 B-11

- (a) Calculated as: (Iron) - (Iron, Ferrous)
(b) Field analysis required. Received out of hold time and analyzed by request.
(c) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

4.3
4

SGS North America Inc.

Report of Analysis

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Client Sample ID:	MW-E	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-4	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260D		
Project:	Orangeburg UB, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D201321.D	1	04/22/22 21:19	NW	n/a	n/a	V2D8765
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK) ^a	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	3.8	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-E	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-4	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260D		
Project:	Orangeburg UB, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate ^a	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether ^a	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		80-120%
17060-07-0	1,2-Dichloroethane-D4	97%		80-120%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	91%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID: MW-E							
Lab Sample ID: JD43253-4				Date Sampled: 04/18/22			
Matrix: AQ - Ground Water				Date Received: 04/19/22			
Method: RSK-175				Percent Solids: n/a			
Project: Orangeburg UB, Orangeburg, NY							

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA94391.D	1	04/20/22 14:48	WC	n/a	n/a	GAA2539
Run #2							

CAS No.	Compound	Result	RL	Units	Q
74-85-1	Ethene	ND	0.31	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-E	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-4	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Orangeburg UB, Orangeburg, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	2140	100	ug/l	1	04/20/22	04/20/22 ND	SW846 6010D ¹	SW846 3010A ²

(1) Instrument QC Batch: MA52270
(2) Prep QC Batch: MP32417

RL = Reporting Limit

4.4
4

Report of Analysis

Client Sample ID:	MW-E	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-4	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Orangeburg UB, Orangeburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Iron, Ferric ^a	2.1	0.30	mg/l	1	04/20/22 19:47	ND	SM3500FE B-11
Iron, Ferrous ^b	< 0.20	0.20	mg/l	1	04/20/22 18:56	JOO	SM3500FE B-11
Nitrogen, Nitrate ^c	< 0.11	0.11	mg/l	1	04/21/22 16:46	MM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	04/21/22 16:46	MM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	04/19/22 14:24	DB	SM4500NO2 B-11
Sulfate	26.8	2.0	mg/l	1	04/20/22 16:59	JD	EPA 300/SW846 9056A
Total Organic Carbon	6.9	2.0	mg/l	2	04/20/22 14:58	MB	SM5310 B-11

(a) Calculated as: (Iron) - (Iron, Ferrous)

(b) Field analysis required. Received out of hold time and analyzed by request.

(c) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

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Client Sample ID:	DUPLICATE	
Lab Sample ID:	JD43253-5	Date Sampled: 04/18/22
Matrix:	AQ - Ground Water	Date Received: 04/19/22
Method:	SW846 8260D	Percent Solids: n/a
Project:	Orangeburg UB, Orangeburg, NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D176519.D	1	04/25/22 21:16	NW	n/a	n/a	V3D7465
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform ^b	ND	1.0	ug/l	
74-83-9	Bromomethane ^c	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane ^d	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	11.1	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUPLICATE	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-5	Date Received:	04/19/22
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260D		
Project:	Orangeburg UB, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	108%		80-120%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	113%		82-114%

- (a) This compound in blank spike is outside in house QC limits bias high.
 (b) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
 (c) Associated CCV outside of control limits high, sample was ND.
 (d) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	FIELD BLANK	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-6	Date Received:	04/19/22
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8260D		
Project:	Orangeburg UB, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D201314.D	1	04/22/22 17:55	NW	n/a	n/a	V2D8765
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK) ^a	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FIELD BLANK	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-6	Date Received:	04/19/22
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8260D		
Project:	Orangeburg UB, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate ^a	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether ^a	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		80-120%
17060-07-0	1,2-Dichloroethane-D4	95%		80-120%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	91%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	EQUIPMENT BLANK	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-7	Date Received:	04/19/22
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Method:	SW846 8260D		
Project:	Orangeburg UB, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D201315.D	1	04/22/22 18:24	NW	n/a	n/a	V2D8765
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK) ^a	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EQUIPMENT BLANK	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-7	Date Received:	04/19/22
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Method:	SW846 8260D		
Project:	Orangeburg UB, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate ^a	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether ^a	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	95%		80-120%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	91%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	TRIP BLANK	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-8	Date Received:	04/19/22
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260D		
Project:	Orangeburg UB, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D201316.D	1	04/22/22 18:53	NW	n/a	n/a	V2D8765
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK) ^a	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	04/18/22
Lab Sample ID:	JD43253-8	Date Received:	04/19/22
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260D		
Project:	Orangeburg UB, Orangeburg, NY		

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate ^a	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether ^a	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	96%		80-120%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	92%		82-114%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

GW
FB
TB

CHAIN OF CUSTODY

Client: Urstadt Biddle Properties Inc.

JD43253

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E

FED-EX Tracking #	52720640 6941	Bottle Order Control #	199-04122-84
Lab Quote #		Lab Job #	

CLIENT/REPORTING INFORMATION		PROJECT INFORMATION				BILLING INFORMATION				REQUESTED ANALYSIS (see Test Code sheet)										LAB USE ONLY				
Groundwater & Environmental Services, Inc. 63 East Main Street, Pawling, NY 12564		Project Name: Urstadt - Orangetown Shopping Center/Sparkle Cleaners				Groundwater & Environmental Services, Inc. ges-invoices@gesonline.com ATTN: Accounts Payable																		
Project Manager: Michael DeGloria MDeGloria@gesonline.com GESInbox@gesonline.com		Phone #: 866-839-5195 Extension: 3839		Project Address: 1-45 Orangetown Shopping Ctr, Orangeburg, NY Project PSID #: 905414		Invoice Instructions (Project #/ Phase / Task / Altorg) 1102783/06/206/111																		
Sampler(s) Name: <i>Burman</i>		Sampler(s) Name: _____				number of preserved bottles																		
Lab Sample #	Field ID / Point of Collection (Sys_loc_code)	Depth Interval (ft)	Date Sampled	Time Sampled	Sampler	Matrix	Total # Bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Amber	V9260TCL20	V RSK175 ETHENE	TOC - Total Organic Carbon	XNO30 - Nitrate	SO4 - Sulfate	XFE3 - Ferric Iron, Ferrous, Total, FE		
1	MW-4	~12 -	4-18-22	1130	AB	WG	10	X		X	X	X					X	X	X	X	X	X		
2	MW-5			1300		WG	10	X		X	X	X					X	X	X	X	X	X		
3	MW-8A			1415		WG	10	X		X	X	X					X	X	X	X	X	X		
4	MW-E			1230		WG	10	X		X	X	X					X	X	X	X	X	X		
1	MW-MS			1130		WG	3	X									X							
1	MW-MSD			1130		WG	3	X									X							
5	Duplicate			8 AM		WG	3	X									X							
6	Field Blank			0830		WG	2	X									X							
7	Equipment Blank			0900		WG	2	X									X							
8	Trip Blank			1000		WG	2	X									X							

Turnaround Time (Business Days) Approved By (Lab PM) / Date		Laboratory Information	
☒ Standard 14 Days	_____	Lab:	SGS North America, Inc.
☐ Expedited	_____	Address:	2235 US Hwy 130, Dayton, NJ 08810
☐ Other	_____	Phone:	609-752-6106
		Lab PM:	Marie Meidhof
		Lab PM Email:	Marie.Meidhof@sgs.com

Please Email the EQ EDD Package to ges@gesonline.com and jthomas@gesonline.com;
Please Email Report to mdegloria@gesonline.com, NERegion@gesonline.com, and jthomas@gesonline.com
EQEDD Name: Urstadt - Orangetown Shopping Center/Sparkle Cleaners_LabReport#.20454.EQEDD.zip

Sample Custody must be documented below each time samples change possession, including courier.			
Relinquished By / Sample #	Date / Time	Received By	
1 <i>Burman</i>	4-18-22 1520	1 <i>FED Ex</i>	
2 <i>Fedex</i>	4/19/22 10:15	2 <i>James Xun</i>	
Relinquished By	Date / Time	Received By	
3		3	
Custody Seal Number:	☐ Intact ☐ Preserved where applicable ☐ Not Intact ☐ On Ice Cooler Temp	2-1	

Data Deliverable Information	
☐ Commercial "A" (Level 1) = Results Only	
☐ Commercial "B" (Level 2) = Results + QC Summary	
☐ FULLT1 (Level 3 & 4)	
☐ NJ Reduced = Results + QC Summary + Partial Raw Data	
☐ Commercial "C"	
☐ NJ Data of Known Quality Protocol Reporting	
☒ NYASP Category A	
☐ NYASP Category B	
☐ State Forms	
☐ EDD Format	
☐ Other	

A10
G29
19LL
V663Initial Assessment *2A E1N*
Laboratory Verification _____

JD43253: Chain of Custody

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SGS Sample Receipt Summary

Job Number: JD43253

Client: GROUNDWATER & ENVIRONMENTAL SE

Project: ORANGEBURG UB, ORANGEBURG, NY

Date / Time Received: 4/19/2022 10:15:00 AM

Delivery Method: Fed Ex

Airbill #s: 5272 0640 6941

Cooler Temps (Raw Measured) °C: Cooler 1: (2.1);

Cooler Temps (Corrected) °C: Cooler 1: (1.8);

Cooler Security
Y or N
Y or N

1. Custody Seals Present: ☒ ☐	3. COC Present: ☒ ☐
2. Custody Seals Intact: ☒ ☐	4. Smpl Dates/Time OK ☒ ☐

Cooler Temperature
Y or N

1. Temp criteria achieved: ☒ ☐	
2. Cooler temp verification: IR Gun	
3. Cooler media: Ice (Bag)	
4. No. Coolers: 1	

Quality Control Preservation
Y or N
N/A

1. Trip Blank present / cooler: ☒ ☐ ☐	
2. Trip Blank listed on COC: ☒ ☐ ☐	
3. Samples preserved properly: ☒ ☐ ☐	
4. VOCs headspace free: ☒ ☐ ☐	

Sample Integrity - Documentation
Y or N

1. Sample labels present on bottles: ☒ ☐	
2. Container labeling complete: ☒ ☐	
3. Sample container label / COC agree: ☒ ☐	

Sample Integrity - Condition
Y or N

1. Sample recvd within HT: ☒ ☐	
2. All containers accounted for: ☒ ☐	
3. Condition of sample: Intact	

Sample Integrity - Instructions
Y or N
N/A

1. Analysis requested is clear: ☒ ☐	
2. Bottles received for unspecified tests: ☐ ☒	
3. Sufficient volume recvd for analysis: ☒ ☐	
4. Compositing instructions clear: ☐ ☐ ☒	
5. Filtering instructions clear: ☐ ☐ ☒	

Test Strip Lot #s:	pH 1-12: 231619	pH 12+: 203117A	Other: (Specify) _____

Comments

SM089-03
Rev. Date 12/7/17

JD43253: Chain of Custody

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Internal Sample Tracking Chronicle

Groundwater & Environmental Services

Job No: JD43253

Orangeburg UB, Orangeburg, NY

Project No: 1102783/06/206/111 PSID#905414

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD43253-1 Collected: 18-APR-22 11:30 By: RB Received: 19-APR-22 By: JK MW-4						
JD43253-1	SM4500NO2 B-11	19-APR-22 14:19	DB			NO2
JD43253-1	RSK-175	20-APR-22 13:49	WC			VRSK175ETHENE
JD43253-1	SM5310 B-11	20-APR-22 14:02	MB	20-APR-22	MB	TOC
JD43253-1	EPA 300/SW846 9056A	20-APR-22 15:50	JD	20-APR-22	JD	SO4
JD43253-1	SM3500FE B-11	20-APR-22 18:53	JOO			FE2
JD43253-1	SW846 6010D	20-APR-22 19:21	ND	20-APR-22	SF	FE
JD43253-1	SM3500FE B-11	20-APR-22 19:21	ND			FE3
JD43253-1	EPA353.2/SM4500NO2B-11	21-APR-22 16:40	MM			NO3O
JD43253-1	EPA 353.2/LACHAT	21-APR-22 16:40	MM	21-APR-22	MM	NO32
JD43253-1	SW846 8260D	22-APR-22 19:52	NW			V8260TCL20
JD43253-2 Collected: 18-APR-22 13:00 By: RB Received: 19-APR-22 By: JK MW-5						
JD43253-2	SM4500NO2 B-11	19-APR-22 14:21	DB			NO2
JD43253-2	RSK-175	20-APR-22 14:02	WC			VRSK175ETHENE
JD43253-2	SM5310 B-11	20-APR-22 15:47	MB	20-APR-22	MB	TOC
JD43253-2	EPA 300/SW846 9056A	20-APR-22 16:29	JD	20-APR-22	JD	SO4
JD43253-2	SM3500FE B-11	20-APR-22 19:04	JOO			FE2
JD43253-2	SW846 6010D	20-APR-22 19:26	ND	20-APR-22	SF	FE
JD43253-2	SM3500FE B-11	20-APR-22 19:26	ND			FE3
JD43253-2	EPA353.2/SM4500NO2B-11	21-APR-22 16:41	MM			NO3O
JD43253-2	EPA 353.2/LACHAT	21-APR-22 16:41	MM	21-APR-22	MM	NO32
JD43253-2	SW846 8260D	25-APR-22 13:52	NW			V8260TCL20
JD43253-2	SW846 8260D	25-APR-22 18:56	NW			V8260TCL20
JD43253-3 Collected: 18-APR-22 14:15 By: RB Received: 19-APR-22 By: JK MW-8A						
JD43253-3	SM4500NO2 B-11	19-APR-22 14:22	DB			NO2
JD43253-3	RSK-175	20-APR-22 14:35	WC			VRSK175ETHENE
JD43253-3	SM5310 B-11	20-APR-22 14:49	MB	20-APR-22	MB	TOC
JD43253-3	EPA 300/SW846 9056A	20-APR-22 16:42	JD	20-APR-22	JD	SO4
JD43253-3	SM3500FE B-11	20-APR-22 18:55	JOO			FE2
JD43253-3	SW846 6010D	20-APR-22 19:32	ND	20-APR-22	SF	FE
JD43253-3	SM3500FE B-11	20-APR-22 19:32	ND			FE3
JD43253-3	EPA353.2/SM4500NO2B-11	21-APR-22 16:42	MM			NO3O

Internal Sample Tracking Chronicle

Groundwater & Environmental Services

Job No: JD43253

Orangeburg UB, Orangeburg, NY

Project No: 1102783/06/206/111 PSID#905414

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD43253-3	EPA 353.2/LACHAT	21-APR-22 16:42	MM	21-APR-22	MM	NO32
JD43253-3	SW846 8260D	22-APR-22 20:50	NW			V8260TCL20
JD43253-4 Collected: 18-APR-22 12:30 By: RB Received: 19-APR-22 By: JK MW-E						
JD43253-4	SM4500NO2 B-11	19-APR-22 14:24	DB			NO2
JD43253-4	RSK-175	20-APR-22 14:48	WC			VRSK175ETHENE
JD43253-4	SM5310 B-11	20-APR-22 14:58	MB	20-APR-22	MB	TOC
JD43253-4	EPA 300/SW846 9056A20	20-APR-22 16:59	JD	20-APR-22	JD	SO4
JD43253-4	SM3500FE B-11	20-APR-22 18:56	JOO			FE2
JD43253-4	SW846 6010D	20-APR-22 19:47	ND	20-APR-22	SF	FE
JD43253-4	SM3500FE B-11	20-APR-22 19:47	ND			FE3
JD43253-4	EPA353.2/SM4500NO2B-11	21-APR-22 16:46	MM			NO3O
JD43253-4	EPA 353.2/LACHAT	21-APR-22 16:46	MM	21-APR-22	MM	NO32
JD43253-4	SW846 8260D	22-APR-22 21:19	NW			V8260TCL20
JD43253-5 Collected: 18-APR-22 08:00 By: RB Received: 19-APR-22 By: JK DUPLICATE						
JD43253-5	SW846 8260D	25-APR-22 21:16	NW			V8260TCL20
JD43253-6 Collected: 18-APR-22 08:30 By: RB Received: 19-APR-22 By: JK FIELD BLANK						
JD43253-6	SW846 8260D	22-APR-22 17:55	NW			V8260TCL20
JD43253-7 Collected: 18-APR-22 09:00 By: RB Received: 19-APR-22 By: JK EQUIPMENT BLANK						
JD43253-7	SW846 8260D	22-APR-22 18:24	NW			V8260TCL20
JD43253-8 Collected: 18-APR-22 14:15 By: RB Received: 19-APR-22 By: JK TRIP BLANK						
JD43253-8	SW846 8260D	22-APR-22 18:53	NW			V8260TCL20

SGS Internal Chain of Custody

Page 1 of 4

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY
Received: 04/19/22

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD43253-1.1	Todd Shoemaker	Secured Storage	04/19/22 11:35	Return to Storage
JD43253-1.1	Secured Storage	Todd Shoemaker	04/19/22 16:16	Retrieve from Storage
JD43253-1.1	Todd Shoemaker	Secured Staging Area	04/19/22 16:16	Return to Storage
JD43253-1.1	Secured Staging Area	Alyssa Koshy	04/20/22 08:47	Retrieve from Storage
JD43253-1.1	Alyssa Koshy	Secured Storage	04/20/22 12:18	Return to Storage
JD43253-1.1.1	Alyssa Koshy	Metals Digestion	04/20/22 12:06	Digestate from JD43253-1.1
JD43253-1.1.1	Metals Digestion	Alyssa Koshy	04/20/22 12:06	Digestate from JD43253-1.1
JD43253-1.1.1	Alyssa Koshy	Metals Digestate Storage	04/20/22 12:07	Return to Storage
JD43253-1.2	Secured Storage	Todd Shoemaker	04/19/22 11:26	Retrieve from Storage
JD43253-1.2	Todd Shoemaker	Secured Staging Area	04/19/22 11:26	Return to Storage
JD43253-1.2	Secured Staging Area	Jared O. Onindo	04/20/22 17:33	Retrieve from Storage
JD43253-1.2	Jared O. Onindo	Secured Storage	04/23/22 16:48	Return to Storage
JD43253-1.3	Todd Shoemaker	Secured Storage	04/19/22 11:35	Return to Storage
JD43253-1.3	Secured Storage	Dave Hunkele	04/21/22 08:50	Retrieve from Storage
JD43253-1.3	Dave Hunkele	Secured Staging Area	04/21/22 08:51	Return to Storage
JD43253-1.3	Secured Staging Area	Mira Michael	04/21/22 14:41	Retrieve from Storage
JD43253-1.3	Mira Michael	Secured Storage	04/21/22 17:26	Return to Storage
JD43253-1.4	Todd Shoemaker	Secured Storage	04/19/22 11:35	Return to Storage
JD43253-1.4	Secured Storage	Todd Shoemaker	04/20/22 08:34	Retrieve from Storage
JD43253-1.4	Todd Shoemaker	Secured Staging Area	04/20/22 08:35	Return to Storage
JD43253-1.6	Nicholas Weigand	GCMS2D	04/22/22 16:39	Load on Instrument
JD43253-1.6	GCMS2D	Edward Durner	04/25/22 13:07	Unload from Instrument
JD43253-1.6	Edward Durner	Secured Storage	04/25/22 13:07	Return to Storage
JD43253-1.7	Nicholas Weigand	GCMS2D	04/22/22 16:39	Load on Instrument
JD43253-1.7	GCMS2D	Edward Durner	04/25/22 13:07	Unload from Instrument
JD43253-1.7	Edward Durner	Secured Storage	04/25/22 13:07	Return to Storage
JD43253-1.8	Secured Storage	William Cruser	04/20/22 08:12	Retrieve from Storage
JD43253-1.8	William Cruser	VOA Prep Storage	04/20/22 16:49	Return to Storage
JD43253-1.14	Nicholas Weigand	GCMS2D	04/22/22 16:39	Load on Instrument
JD43253-1.14	GCMS2D	Edward Durner	04/25/22 13:07	Unload from Instrument
JD43253-1.14	Edward Durner	Secured Storage	04/25/22 13:07	Return to Storage
JD43253-2.1	Todd Shoemaker	Secured Storage	04/19/22 11:35	Return to Storage
JD43253-2.1	Secured Storage	Todd Shoemaker	04/19/22 16:16	Retrieve from Storage
JD43253-2.1	Todd Shoemaker	Secured Staging Area	04/19/22 16:16	Return to Storage
JD43253-2.1	Secured Staging Area	Alyssa Koshy	04/20/22 08:47	Retrieve from Storage

SGS Internal Chain of Custody

Page 2 of 4

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY
Received: 04/19/22

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD43253-2.1	Alyssa Koshy	Secured Storage	04/20/22 12:18	Return to Storage
JD43253-2.1.1	Alyssa Koshy	Metals Digestion	04/20/22 12:06	Digestate from JD43253-2.1
JD43253-2.1.1	Metals Digestion	Alyssa Koshy	04/20/22 12:06	Digestate from JD43253-2.1
JD43253-2.1.1	Alyssa Koshy	Metals Digestate Storage	04/20/22 12:07	Return to Storage
JD43253-2.2	Secured Storage	Todd Shoemaker	04/19/22 11:26	Retrieve from Storage
JD43253-2.2	Todd Shoemaker	Secured Staging Area	04/19/22 11:26	Return to Storage
JD43253-2.2	Secured Staging Area	Jared O. Onindo	04/20/22 17:33	Retrieve from Storage
JD43253-2.2	Jared O. Onindo	Secured Storage	04/23/22 16:48	Return to Storage
JD43253-2.3	Todd Shoemaker	Secured Storage	04/19/22 11:35	Return to Storage
JD43253-2.3	Secured Storage	Dave Hunkele	04/21/22 08:50	Retrieve from Storage
JD43253-2.3	Dave Hunkele	Secured Staging Area	04/21/22 08:51	Return to Storage
JD43253-2.3	Secured Staging Area	Mira Michael	04/21/22 14:41	Retrieve from Storage
JD43253-2.3	Mira Michael	Secured Storage	04/21/22 17:26	Return to Storage
JD43253-2.4	Todd Shoemaker	Secured Storage	04/19/22 11:35	Return to Storage
JD43253-2.4	Secured Storage	Todd Shoemaker	04/20/22 08:34	Retrieve from Storage
JD43253-2.4	Todd Shoemaker	Secured Staging Area	04/20/22 08:35	Return to Storage
JD43253-2.6	Nicholas Weigand	GCMS3D	04/25/22 18:43	Load on Instrument
JD43253-2.8	Secured Storage	William Cruser	04/20/22 08:12	Retrieve from Storage
JD43253-2.8	William Cruser	VOA Prep Storage	04/20/22 16:49	Return to Storage
JD43253-2.9	Nicholas Weigand	GCMS2D	04/22/22 16:39	Load on Instrument
JD43253-2.9	GCMS2D	Edward Durner	04/25/22 13:07	Unload from Instrument
JD43253-2.9	Edward Durner	Secured Storage	04/25/22 13:07	Return to Storage
JD43253-3.1	Todd Shoemaker	Secured Storage	04/19/22 11:35	Return to Storage
JD43253-3.1	Secured Storage	Todd Shoemaker	04/19/22 16:16	Retrieve from Storage
JD43253-3.1	Todd Shoemaker	Secured Staging Area	04/19/22 16:16	Return to Storage
JD43253-3.1	Secured Staging Area	Alyssa Koshy	04/20/22 08:47	Retrieve from Storage
JD43253-3.1	Alyssa Koshy	Secured Storage	04/20/22 12:18	Return to Storage
JD43253-3.1.1	Alyssa Koshy	Metals Digestion	04/20/22 12:06	Digestate from JD43253-3.1
JD43253-3.1.1	Metals Digestion	Alyssa Koshy	04/20/22 12:06	Digestate from JD43253-3.1
JD43253-3.1.1	Alyssa Koshy	Metals Digestate Storage	04/20/22 12:07	Return to Storage
JD43253-3.2	Secured Storage	Todd Shoemaker	04/19/22 11:26	Retrieve from Storage
JD43253-3.2	Todd Shoemaker	Secured Staging Area	04/19/22 11:26	Return to Storage
JD43253-3.2	Secured Staging Area	Jared O. Onindo	04/20/22 17:33	Retrieve from Storage
JD43253-3.2	Jared O. Onindo	Secured Storage	04/23/22 16:48	Return to Storage

SGS Internal Chain of Custody

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Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY
Received: 04/19/22

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD43253-3.3	Todd Shoemaker	Secured Storage	04/19/22 11:35	Return to Storage
JD43253-3.3	Secured Storage	Dave Hunkele	04/21/22 08:50	Retrieve from Storage
JD43253-3.3	Dave Hunkele	Secured Staging Area	04/21/22 08:51	Return to Storage
JD43253-3.3	Secured Staging Area	Mira Michael	04/21/22 14:41	Retrieve from Storage
JD43253-3.3	Mira Michael	Secured Storage	04/21/22 17:26	Return to Storage
JD43253-3.4	Todd Shoemaker	Secured Storage	04/19/22 11:35	Return to Storage
JD43253-3.4	Secured Storage	Todd Shoemaker	04/20/22 08:34	Retrieve from Storage
JD43253-3.4	Todd Shoemaker	Secured Staging Area	04/20/22 08:35	Return to Storage
JD43253-3.6	Nicholas Weigand	GCMS2D	04/22/22 16:39	Load on Instrument
JD43253-3.6	GCMS2D	Edward Durner	04/25/22 13:07	Unload from Instrument
JD43253-3.6	Edward Durner	Secured Storage	04/25/22 13:07	Return to Storage
JD43253-3.7	Secured Storage	William Cruser	04/20/22 08:12	Retrieve from Storage
JD43253-3.7	William Cruser	VOA Prep Storage	04/20/22 16:49	Return to Storage
JD43253-4.1	Todd Shoemaker	Secured Storage	04/19/22 11:35	Return to Storage
JD43253-4.1	Secured Storage	Todd Shoemaker	04/19/22 16:16	Retrieve from Storage
JD43253-4.1	Todd Shoemaker	Secured Staging Area	04/19/22 16:16	Return to Storage
JD43253-4.1	Secured Staging Area	Alyssa Koshy	04/20/22 08:47	Retrieve from Storage
JD43253-4.1	Alyssa Koshy	Secured Storage	04/20/22 12:18	Return to Storage
JD43253-4.1.1	Alyssa Koshy	Metals Digestion	04/20/22 12:06	Digestate from JD43253-4.1
JD43253-4.1.1	Metals Digestion	Alyssa Koshy	04/20/22 12:06	Digestate from JD43253-4.1
JD43253-4.1.1	Alyssa Koshy	Metals Digestate Storage	04/20/22 12:07	Return to Storage
JD43253-4.2	Secured Storage	Todd Shoemaker	04/19/22 11:26	Retrieve from Storage
JD43253-4.2	Todd Shoemaker	Secured Staging Area	04/19/22 11:26	Return to Storage
JD43253-4.2	Secured Staging Area	Jared O. Onindo	04/20/22 17:33	Retrieve from Storage
JD43253-4.2	Jared O. Onindo	Secured Storage	04/23/22 16:48	Return to Storage
JD43253-4.3	Todd Shoemaker	Secured Storage	04/19/22 11:35	Return to Storage
JD43253-4.3	Secured Storage	Dave Hunkele	04/21/22 08:50	Retrieve from Storage
JD43253-4.3	Dave Hunkele	Secured Staging Area	04/21/22 08:51	Return to Storage
JD43253-4.3	Secured Staging Area	Mira Michael	04/21/22 14:41	Retrieve from Storage
JD43253-4.3	Mira Michael	Secured Storage	04/21/22 17:26	Return to Storage
JD43253-4.4	Todd Shoemaker	Secured Storage	04/19/22 11:35	Return to Storage
JD43253-4.4	Secured Storage	Todd Shoemaker	04/20/22 08:34	Retrieve from Storage
JD43253-4.4	Todd Shoemaker	Secured Staging Area	04/20/22 08:35	Return to Storage
JD43253-4.8	Secured Storage	William Cruser	04/20/22 08:12	Retrieve from Storage

SGS Internal Chain of Custody

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Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY
Received: 04/19/22

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD43253-4.8	William Cruser	VOA Prep Storage	04/20/22 16:49	Return to Storage
JD43253-4.9	Nicholas Weigand	GCMS2D	04/22/22 16:39	Load on Instrument
JD43253-4.9	GCMS2D	Edward Durner	04/25/22 13:07	Unload from Instrument
JD43253-4.9	Edward Durner	Secured Storage	04/25/22 13:07	Return to Storage
JD43253-5.1	Nicholas Weigand	GCMS3D	04/25/22 18:43	Load on Instrument
JD43253-5.2	Nicholas Weigand	GCMS2D	04/22/22 16:39	Load on Instrument
JD43253-5.2	GCMS2D	Edward Durner	04/25/22 13:07	Unload from Instrument
JD43253-5.2	Edward Durner	Secured Storage	04/25/22 13:07	Return to Storage
JD43253-6.1	Nicholas Weigand	GCMS2D	04/22/22 16:39	Load on Instrument
JD43253-6.1	GCMS2D	Edward Durner	04/25/22 13:07	Unload from Instrument
JD43253-6.1	Edward Durner	Secured Storage	04/25/22 13:07	Return to Storage
JD43253-7.2	Nicholas Weigand	GCMS2D	04/22/22 16:39	Load on Instrument
JD43253-7.2	GCMS2D	Edward Durner	04/25/22 13:07	Unload from Instrument
JD43253-7.2	Edward Durner	Secured Storage	04/25/22 13:07	Return to Storage
JD43253-8.2	Nicholas Weigand	GCMS2D	04/22/22 16:39	Load on Instrument
JD43253-8.2	GCMS2D	Edward Durner	04/25/22 13:07	Unload from Instrument
JD43253-8.2	Edward Durner	Secured Storage	04/25/22 13:07	Return to Storage

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

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Job Number: JD43253

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D8765-MB	2D201302.D	1	04/22/22	NW	n/a	n/a	V2D8765

The QC reported here applies to the following samples:

Method: SW846 8260D

JD43253-1, JD43253-3, JD43253-4, JD43253-6, JD43253-7, JD43253-8

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

Method Blank Summary

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Job Number: JD43253**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D8765-MB	2D201302.D	1	04/22/22	NW	n/a	n/a	V2D8765

The QC reported here applies to the following samples:**Method:** SW846 8260D

JD43253-1, JD43253-3, JD43253-4, JD43253-6, JD43253-7, JD43253-8

CAS No.	Compound	Result	RL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	97% 80-120%
17060-07-0	1,2-Dichloroethane-D4	96% 80-120%
2037-26-5	Toluene-D8	100% 80-120%
460-00-4	4-Bromofluorobenzene	91% 82-114%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Page 1 of 2

Job Number: JD43253**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D7465-MB	3D176499.D	1	04/25/22	NW	n/a	n/a	V3D7465

The QC reported here applies to the following samples:**Method:** SW846 8260D

JD43253-2, JD43253-5

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
75-15-0	Carbon disulfide	ND	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
79-20-9	Methyl Acetate	ND	5.0	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

Method Blank Summary

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Job Number: JD43253**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D7465-MB	3D176499.D	1	04/25/22	NW	n/a	n/a	V3D7465

The QC reported here applies to the following samples:**Method:** SW846 8260D

JD43253-2, JD43253-5

CAS No.	Compound	Result	RL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	104% 80-120%
17060-07-0	1,2-Dichloroethane-D4	101% 80-120%
2037-26-5	Toluene-D8	100% 80-120%
460-00-4	4-Bromofluorobenzene	112% 82-114%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

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Job Number: JD43253**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D8765-BS	2D201300.D	1	04/22/22	NW	n/a	n/a	V2D8765

The QC reported here applies to the following samples:**Method:** SW846 8260D

JD43253-1, JD43253-3, JD43253-4, JD43253-6, JD43253-7, JD43253-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	262	131	27-175
71-43-2	Benzene	50	48.1	96	80-115
74-97-5	Bromochloromethane	50	45.3	91	83-122
75-27-4	Bromodichloromethane	50	53.3	107	82-119
75-25-2	Bromoform	50	51.5	103	77-135
74-83-9	Bromomethane	50	50.8	102	40-162
78-93-3	2-Butanone (MEK)	200	203	102	61-150
75-15-0	Carbon disulfide	50	50.4	101	64-130
56-23-5	Carbon tetrachloride	50	50.3	101	75-127
108-90-7	Chlorobenzene	50	49.7	99	80-115
75-00-3	Chloroethane	50	47.3	95	56-144
67-66-3	Chloroform	50	44.3	89	75-116
74-87-3	Chloromethane	50	41.5	83	41-153
110-82-7	Cyclohexane	50	46.5	93	66-129
96-12-8	1,2-Dibromo-3-chloropropane	50	50.1	100	69-134
124-48-1	Dibromochloromethane	50	50.6	101	81-123
106-93-4	1,2-Dibromoethane	50	47.9	96	67-138
95-50-1	1,2-Dichlorobenzene	50	50.4	101	81-117
541-73-1	1,3-Dichlorobenzene	50	49.5	99	81-115
106-46-7	1,4-Dichlorobenzene	50	48.5	97	80-114
75-71-8	Dichlorodifluoromethane	50	49.3	99	43-152
75-34-3	1,1-Dichloroethane	50	46.0	92	75-125
107-06-2	1,2-Dichloroethane	50	45.0	90	73-117
75-35-4	1,1-Dichloroethene	50	50.6	101	70-124
156-59-2	cis-1,2-Dichloroethene	50	45.9	92	80-120
156-60-5	trans-1,2-Dichloroethene	50	47.1	94	77-121
78-87-5	1,2-Dichloropropane	50	48.1	96	79-121
10061-01-5	cis-1,3-Dichloropropene	50	51.7	103	83-123
10061-02-6	trans-1,3-Dichloropropene	50	51.1	102	83-122
100-41-4	Ethylbenzene	50	47.6	95	78-116
76-13-1	Freon 113	50	55.9	112	68-134
591-78-6	2-Hexanone	200	207	104	66-136
98-82-8	Isopropylbenzene	50	50.3	101	78-121
79-20-9	Methyl Acetate	50	32.0	64	60-143
108-87-2	Methylcyclohexane	50	53.4	107	71-123
1634-04-4	Methyl Tert Butyl Ether	50	40.4	81	76-123

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: JD43253

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D8765-BS	2D201300.D	1	04/22/22	NW	n/a	n/a	V2D8765

The QC reported here applies to the following samples:

Method: SW846 8260D

JD43253-1, JD43253-3, JD43253-4, JD43253-6, JD43253-7, JD43253-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	174	87	73-134
75-09-2	Methylene chloride	50	44.3	89	73-123
100-42-5	Styrene	50	50.3	101	81-125
79-34-5	1,1,2,2-Tetrachloroethane	50	44.7	89	73-126
127-18-4	Tetrachloroethene	50	53.8	108	73-119
108-88-3	Toluene	50	48.4	97	79-116
87-61-6	1,2,3-Trichlorobenzene	50	53.7	107	63-137
120-82-1	1,2,4-Trichlorobenzene	50	55.0	110	68-135
71-55-6	1,1,1-Trichloroethane	50	50.9	102	76-124
79-00-5	1,1,2-Trichloroethane	50	46.3	93	83-117
79-01-6	Trichloroethene	50	51.6	103	80-118
75-69-4	Trichlorofluoromethane	50	51.8	104	67-134
75-01-4	Vinyl chloride	50	52.9	106	52-146
	m,p-Xylene	100	96.3	96	79-119
95-47-6	o-Xylene	50	50.5	101	81-119
1330-20-7	Xylene (total)	150	147	98	80-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	80-120%
17060-07-0	1,2-Dichloroethane-D4	95%	80-120%
2037-26-5	Toluene-D8	96%	80-120%
460-00-4	4-Bromofluorobenzene	95%	82-114%

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: JD43253**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D7465-BS	3D176497.D	1	04/25/22	NW	n/a	n/a	V3D7465

The QC reported here applies to the following samples:**Method:** SW846 8260D

JD43253-2, JD43253-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	403	202* a	27-175
71-43-2	Benzene	50	55.8	112	80-115
74-97-5	Bromochloromethane	50	51.2	102	83-122
75-27-4	Bromodichloromethane	50	50.6	101	82-119
75-25-2	Bromoform	50	42.1	84	77-135
74-83-9	Bromomethane	50	72.2	144	40-162
78-93-3	2-Butanone (MEK)	200	284	142	61-150
75-15-0	Carbon disulfide	50	64.1	128	64-130
56-23-5	Carbon tetrachloride	50	49.1	98	75-127
108-90-7	Chlorobenzene	50	47.6	95	80-115
75-00-3	Chloroethane	50	53.4	107	56-144
67-66-3	Chloroform	50	52.7	105	75-116
74-87-3	Chloromethane	50	52.8	106	41-153
110-82-7	Cyclohexane	50	56.1	112	66-129
96-12-8	1,2-Dibromo-3-chloropropane	50	53.3	107	69-134
124-48-1	Dibromochloromethane	50	47.0	94	81-123
106-93-4	1,2-Dibromoethane	50	49.8	100	67-138
95-50-1	1,2-Dichlorobenzene	50	50.6	101	81-117
541-73-1	1,3-Dichlorobenzene	50	52.5	105	81-115
106-46-7	1,4-Dichlorobenzene	50	49.8	100	80-114
75-71-8	Dichlorodifluoromethane	50	77.0	154* b	43-152
75-34-3	1,1-Dichloroethane	50	55.8	112	75-125
107-06-2	1,2-Dichloroethane	50	48.3	97	73-117
75-35-4	1,1-Dichloroethene	50	61.1	122	70-124
156-59-2	cis-1,2-Dichloroethene	50	54.6	109	80-120
156-60-5	trans-1,2-Dichloroethene	50	57.7	115	77-121
78-87-5	1,2-Dichloropropane	50	55.7	111	79-121
10061-01-5	cis-1,3-Dichloropropene	50	55.9	112	83-123
10061-02-6	trans-1,3-Dichloropropene	50	52.2	104	83-122
100-41-4	Ethylbenzene	50	49.3	99	78-116
76-13-1	Freon 113	50	55.8	112	68-134
591-78-6	2-Hexanone	200	232	116	66-136
98-82-8	Isopropylbenzene	50	48.0	96	78-121
79-20-9	Methyl Acetate	50	60.6	121	60-143
108-87-2	Methylcyclohexane	50	50.7	101	71-123
1634-04-4	Methyl Tert Butyl Ether	50	60.5	121	76-123

* = Outside of Control Limits.

Blank Spike Summary

Page 2 of 2

Job Number: JD43253

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D7465-BS	3D176497.D	1	04/25/22	NW	n/a	n/a	V3D7465

The QC reported here applies to the following samples:

Method: SW846 8260D

JD43253-2, JD43253-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	218	109	73-134
75-09-2	Methylene chloride	50	61.1	122	73-123
100-42-5	Styrene	50	47.5	95	81-125
79-34-5	1,1,2,2-Tetrachloroethane	50	57.3	115	73-126
127-18-4	Tetrachloroethene	50	46.7	93	73-119
108-88-3	Toluene	50	49.3	99	79-116
87-61-6	1,2,3-Trichlorobenzene	50	51.7	103	63-137
120-82-1	1,2,4-Trichlorobenzene	50	51.5	103	68-135
71-55-6	1,1,1-Trichloroethane	50	51.2	102	76-124
79-00-5	1,1,2-Trichloroethane	50	52.6	105	83-117
79-01-6	Trichloroethene	50	51.1	102	80-118
75-69-4	Trichlorofluoromethane	50	55.8	112	67-134
75-01-4	Vinyl chloride	50	56.1	112	52-146
	m,p-Xylene	100	93.9	94	79-119
95-47-6	o-Xylene	50	47.7	95	81-119
1330-20-7	Xylene (total)	150	142	95	80-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	80-120%
17060-07-0	1,2-Dichloroethane-D4	97%	80-120%
2037-26-5	Toluene-D8	95%	80-120%
460-00-4	4-Bromofluorobenzene	111%	82-114%

(a) Outside in house control limits.

(b) High percent recovery and no associated positive reported in the QC batch.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: JD43253

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD43253-1MS	2D201309.D	1	04/22/22	NW	n/a	n/a	V2D8765
JD43253-1MSD	2D201310.D	1	04/22/22	NW	n/a	n/a	V2D8765
JD43253-1	2D201318.D	1	04/22/22	NW	n/a	n/a	V2D8765

The QC reported here applies to the following samples:

Method: SW846 8260D

JD43253-1, JD43253-3, JD43253-4, JD43253-6, JD43253-7, JD43253-8

CAS No.	Compound	JD43253-1 ug/l	Spike Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		200	178	89	200	161	81	10	22-134/19
71-43-2	Benzene	ND		50	60.8	122	50	56.0	112	8	49-137/12
74-97-5	Bromochloromethane	ND		50	55.2	110	50	51.4	103	7	78-122/12
75-27-4	Bromodichloromethane	ND		50	62.1	124* a	50	57.8	116	7	76-121/12
75-25-2	Bromoform	ND		50	58.5	117	50	55.4	111	5	70-133/13
74-83-9	Bromomethane	ND		50	47.4	95	50	46.4	93	2	27-164/38
78-93-3	2-Butanone (MEK)	ND		200	186	93	200	174	87	7	52-137/17
75-15-0	Carbon disulfide	ND		50	77.9	156* a	50	72.6	145* a	7	54-136/16
56-23-5	Carbon tetrachloride	ND		50	62.4	125	50	58.6	117	6	70-132/13
108-90-7	Chlorobenzene	ND		50	58.5	117	50	54.7	109	7	68-123/12
75-00-3	Chloroethane	ND		50	44.8	90	50	44.8	90	0	48-152/17
67-66-3	Chloroform	ND		50	52.3	105	50	48.8	98	7	68-120/13
74-87-3	Chloromethane	ND		50	35.1	70	50	34.7	69	1	35-156/18
110-82-7	Cyclohexane	ND		50	45.4	91	50	44.7	89	2	53-146/14
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	54.6	109	50	52.1	104	5	63-134/16
124-48-1	Dibromochloromethane	ND		50	59.2	118	50	56.0	112	6	75-122/12
106-93-4	1,2-Dibromoethane	ND		50	56.0	112	50	51.9	104	8	63-134/12
95-50-1	1,2-Dichlorobenzene	ND		50	59.5	119	50	56.3	113	6	74-119/12
541-73-1	1,3-Dichlorobenzene	ND		50	59.0	118* a	50	55.5	111	6	75-117/12
106-46-7	1,4-Dichlorobenzene	ND		50	58.3	117	50	55.1	110	6	72-117/12
75-71-8	Dichlorodifluoromethane	ND		50	42.4	85	50	43.9	88	3	34-163/16
75-34-3	1,1-Dichloroethane	ND		50	57.9	116	50	53.5	107	8	68-129/13
107-06-2	1,2-Dichloroethane	ND		50	54.3	109	50	50.5	101	7	66-120/13
75-35-4	1,1-Dichloroethene	ND		50	69.3	139* a	50	63.5	127	9	59-133/15
156-59-2	cis-1,2-Dichloroethene	9.2		50	65.7	113	50	62.1	106	6	52-140/12
156-60-5	trans-1,2-Dichloroethene	ND		50	61.2	122	50	56.3	113	8	70-125/13
78-87-5	1,2-Dichloropropane	ND		50	57.1	114	50	52.0	104	9	73-124/12
10061-01-5	cis-1,3-Dichloropropene	ND		50	62.5	125	50	58.2	116	7	75-125/13
10061-02-6	trans-1,3-Dichloropropene	ND		50	58.1	116	50	55.0	110	5	75-122/12
100-41-4	Ethylbenzene	ND		50	56.1	112	50	52.8	106	6	37-144/12
76-13-1	Freon 113	ND		50	70.4	141	50	66.4	133	6	61-142/14
591-78-6	2-Hexanone	ND		200	192	96	200	183	92	5	56-132/16
98-82-8	Isopropylbenzene	ND		50	59.3	119	50	55.7	111	6	71-126/13
79-20-9	Methyl Acetate	ND		50	41.4	83	50	38.2	76	8	51-139/18
108-87-2	Methylcyclohexane	ND		50	65.1	130	50	60.6	121	7	59-137/16
1634-04-4	Methyl Tert Butyl Ether	ND		50	51.0	102	50	47.9	96	6	66-124/12

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD43253-1MS	2D201309.D	1	04/22/22	NW	n/a	n/a	V2D8765
JD43253-1MSD	2D201310.D	1	04/22/22	NW	n/a	n/a	V2D8765
JD43253-1	2D201318.D	1	04/22/22	NW	n/a	n/a	V2D8765

The QC reported here applies to the following samples:

Method: SW846 8260D

JD43253-1, JD43253-3, JD43253-4, JD43253-6, JD43253-7, JD43253-8

CAS No.	Compound	JD43253-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	200	197	99	200	182	91	8	65-135/14
75-09-2	Methylene chloride	ND	50	56.3	113	50	51.1	102	10	66-125/14
100-42-5	Styrene	ND	50	58.3	117	50	54.8	110	6	71-133/12
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	50.0	100	50	47.2	94	6	68-127/14
127-18-4	Tetrachloroethene	ND	50	66.7	133* a	50	61.8	124	8	58-132/13
108-88-3	Toluene	ND	50	59.1	118	50	55.9	112	6	46-139/12
87-61-6	1,2,3-Trichlorobenzene	ND	50	60.7	121	50	58.8	118	3	57-136/17
120-82-1	1,2,4-Trichlorobenzene	ND	50	63.6	127	50	61.1	122	4	61-137/16
71-55-6	1,1,1-Trichloroethane	ND	50	62.8	126	50	58.5	117	7	67-132/13
79-00-5	1,1,2-Trichloroethane	ND	50	53.0	106	50	49.5	99	7	75-120/12
79-01-6	Trichloroethene	0.66	50	66.2	131	50	61.6	122	7	56-136/12
75-69-4	Trichlorofluoromethane	ND	50	55.2	110	50	55.2	110	0	61-145/16
75-01-4	Vinyl chloride	ND	50	49.3	99	50	48.7	97	1	41-156/16
	m,p-Xylene	ND	100	115	115	100	108	108	6	32-151/12
95-47-6	o-Xylene	ND	50	59.5	119	50	56.5	113	5	50-139/12
1330-20-7	Xylene (total)	ND	150	174	116	150	164	109	6	38-147/12

CAS No.	Surrogate Recoveries	MS	MSD	JD43253-1	Limits
1868-53-7	Dibromofluoromethane	95%	94%	97%	80-120%
17060-07-0	1,2-Dichloroethane-D4	95%	93%	96%	80-120%
2037-26-5	Toluene-D8	97%	96%	100%	80-120%
460-00-4	4-Bromofluorobenzene	96%	94%	91%	82-114%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: JD43253

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD43519-11MS	3D176511.D	1	04/25/22	NW	n/a	n/a	V3D7465
JD43519-11MSD	3D176512.D	1	04/25/22	NW	n/a	n/a	V3D7465
JD43519-11	3D176506.D	1	04/25/22	NW	n/a	n/a	V3D7465

The QC reported here applies to the following samples:

Method: SW846 8260D

JD43253-2, JD43253-5

CAS No.	Compound	JD43519-11 ug/l	Spike Q	ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		200	238	119	200	235	118	1	22-134/19
71-43-2	Benzene	0.55		50	53.1	105	50	54.0	107	2	49-137/12
74-97-5	Bromochloromethane	ND		50	50.5	101	50	51.4	103	2	78-122/12
75-27-4	Bromodichloromethane	ND		50	47.9	96	50	49.3	99	3	76-121/12
75-25-2	Bromoform	ND		50	38.9	78	50	39.9	80	3	70-133/13
74-83-9	Bromomethane	ND		50	42.0	84	50	46.9	94	11	27-164/38
78-93-3	2-Butanone (MEK)	ND		200	228	114	200	230	115	1	52-137/17
75-15-0	Carbon disulfide	2.6		50	63.8	122	50	63.8	122	0	54-136/16
56-23-5	Carbon tetrachloride	ND		50	48.4	97	50	48.7	97	1	70-132/13
108-90-7	Chlorobenzene	ND		50	44.6	89	50	45.7	91	2	68-123/12
75-00-3	Chloroethane	ND		50	50.8	102	50	49.8	100	2	48-152/17
67-66-3	Chloroform	ND		50	50.9	102	50	51.8	104	2	68-120/13
74-87-3	Chloromethane	ND		50	48.5	97	50	47.6	95	2	35-156/18
110-82-7	Cyclohexane	ND		50	50.1	100	50	48.1	96	4	53-146/14
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	51.4	103	50	50.3	101	2	63-134/16
124-48-1	Dibromochloromethane	ND		50	42.1	84	50	43.3	87	3	75-122/12
106-93-4	1,2-Dibromoethane	ND		50	46.4	93	50	47.2	94	2	63-134/12
95-50-1	1,2-Dichlorobenzene	ND		50	47.2	94	50	47.8	96	1	74-119/12
541-73-1	1,3-Dichlorobenzene	ND		50	49.0	98	50	49.3	99	1	75-117/12
106-46-7	1,4-Dichlorobenzene	ND		50	46.8	94	50	46.9	94	0	72-117/12
75-71-8	Dichlorodifluoromethane	ND		50	69.0	138	50	65.9	132	5	34-163/16
75-34-3	1,1-Dichloroethane	ND		50	54.2	108	50	54.8	110	1	68-129/13
107-06-2	1,2-Dichloroethane	ND		50	47.0	94	50	47.6	95	1	66-120/13
75-35-4	1,1-Dichloroethene	ND		50	58.1	116	50	58.9	118	1	59-133/15
156-59-2	cis-1,2-Dichloroethene	23.4		50	74.5	102	50	75.8	105	2	52-140/12
156-60-5	trans-1,2-Dichloroethene	ND		50	54.7	109	50	55.4	111	1	70-125/13
78-87-5	1,2-Dichloropropane	ND		50	52.9	106	50	53.5	107	1	73-124/12
10061-01-5	cis-1,3-Dichloropropene	ND		50	54.3	109	50	54.5	109	0	75-125/13
10061-02-6	trans-1,3-Dichloropropene	ND		50	48.0	96	50	49.4	99	3	75-122/12
100-41-4	Ethylbenzene	0.63	J	50	46.8	92	50	47.4	94	1	37-144/12
76-13-1	Freon 113	ND		50	51.1	102	50	51.8	104	1	61-142/14
591-78-6	2-Hexanone	ND		200	203	102	200	201	101	1	56-132/16
98-82-8	Isopropylbenzene	ND		50	45.1	90	50	45.7	91	1	71-126/13
79-20-9	Methyl Acetate	ND		50	61.0	122	50	59.4	119	3	51-139/18
108-87-2	Methylcyclohexane	ND		50	47.5	95	50	48.4	97	2	59-137/16
1634-04-4	Methyl Tert Butyl Ether	ND		50	59.7	119	50	60.4	121	1	66-124/12

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 2

Job Number: JD43253

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD43519-11MS	3D176511.D	1	04/25/22	NW	n/a	n/a	V3D7465
JD43519-11MSD	3D176512.D	1	04/25/22	NW	n/a	n/a	V3D7465
JD43519-11	3D176506.D	1	04/25/22	NW	n/a	n/a	V3D7465

The QC reported here applies to the following samples:

Method: SW846 8260D

JD43253-2, JD43253-5

CAS No.	Compound	JD43519-11 ug/l	Spike Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	200	219	110	200	215	108	2	65-135/14
75-09-2	Methylene chloride	ND	50	57.8	116	50	58.6	117	1	66-125/14
100-42-5	Styrene	ND	50	44.1	88	50	45.3	91	3	71-133/12
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	56.5	113	50	55.5	111	2	68-127/14
127-18-4	Tetrachloroethene	ND	50	42.9	86	50	44.4	89	3	58-132/13
108-88-3	Toluene	ND	50	46.2	92	50	47.5	95	3	46-139/12
87-61-6	1,2,3-Trichlorobenzene	ND	50	48.1	96	50	49.8	100	3	57-136/17
120-82-1	1,2,4-Trichlorobenzene	ND	50	47.5	95	50	48.6	97	2	61-137/16
71-55-6	1,1,1-Trichloroethane	ND	50	50.1	100	50	51.6	103	3	67-132/13
79-00-5	1,1,2-Trichloroethane	ND	50	49.0	98	50	52.0	104	6	75-120/12
79-01-6	Trichloroethene	ND	50	48.8	98	50	50.3	101	3	56-136/12
75-69-4	Trichlorofluoromethane	ND	50	51.8	104	50	49.9	100	4	61-145/16
75-01-4	Vinyl chloride	3.9	50	58.4	109	50	57.4	107	2	41-156/16
	m,p-Xylene	ND	100	87.6	88	100	89.7	90	2	32-151/12
95-47-6	o-Xylene	ND	50	44.4	89	50	45.9	92	3	50-139/12
1330-20-7	Xylene (total)	ND	150	132	88	150	136	91	3	38-147/12

CAS No.	Surrogate Recoveries	MS	MSD	JD43519-11	Limits
1868-53-7	Dibromofluoromethane	109%	108%	105%	80-120%
17060-07-0	1,2-Dichloroethane-D4	104%	103%	104%	80-120%
2037-26-5	Toluene-D8	95%	95%	100%	80-120%
460-00-4	4-Bromofluorobenzene	118%* a	115%* a	113%	82-114%

(a) Outside of in house control limits, but within reasonable method recovery limits.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JD43253**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY**Sample:** V2D8735-BFB**Injection Date:** 03/31/22**Lab File ID:** 2D200604.D**Injection Time:** 16:25**Instrument ID:** GCMS2D

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	35712	19.8	Pass
75	30.0 - 60.0% of mass 95	94397	52.3	Pass
95	Base peak, 100% relative abundance	180480	100.0	Pass
96	5.0 - 9.0% of mass 95	11960	6.63	Pass
173	Less than 2.0% of mass 174	1007	0.56 (0.61) ^a	Pass
174	50.0 - 120.0% of mass 95	164736	91.3	Pass
175	5.0 - 9.0% of mass 174	11950	6.62 (7.25) ^a	Pass
176	95.0 - 101.0% of mass 174	159754	88.5 (97.0) ^a	Pass
177	5.0 - 9.0% of mass 176	10231	5.67 (6.40) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D8735-IC8735	2D200605.D	03/31/22	17:12	00:47	Initial cal 0.2
V2D8735-IC8735	2D200606.D	03/31/22	17:42	01:17	Initial cal 0.5
V2D8735-IC8735	2D200607.D	03/31/22	18:12	01:47	Initial cal 1
V2D8735-IC8735	2D200608.D	03/31/22	18:42	02:17	Initial cal 2
V2D8735-IC8735	2D200609.D	03/31/22	19:12	02:47	Initial cal 4
V2D8735-IC8735	2D200610.D	03/31/22	19:42	03:17	Initial cal 8
V2D8735-IC8735	2D200611.D	03/31/22	20:12	03:47	Initial cal 20
V2D8735-ICC8735	2D200612.D	03/31/22	20:41	04:16	Initial cal 50
V2D8735-IC8735	2D200613.D	03/31/22	21:11	04:46	Initial cal 100
V2D8735-IC8735	2D200614.D	03/31/22	21:41	05:16	Initial cal 200
V2D8735-ICV8735	2D200617.D	03/31/22	23:10	06:45	Initial cal verification 50
V2D8735-ICV8735	2D200618.D	03/31/22	23:40	07:15	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample:	V2D8735-BFB2	Injection Date:	04/01/22
Lab File ID:	2D200621.D	Injection Time:	10:29
Instrument ID:	GCMS2D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	33474	18.5	Pass
75	30.0 - 60.0% of mass 95	91749	50.7	Pass
95	Base peak, 100% relative abundance	181056	100.0	Pass
96	5.0 - 9.0% of mass 95	11879	6.56	Pass
173	Less than 2.0% of mass 174	1013	0.56 (0.59) ^a	Pass
174	50.0 - 120.0% of mass 95	170922	94.4	Pass
175	5.0 - 9.0% of mass 174	11861	6.55 (6.94) ^a	Pass
176	95.0 - 101.0% of mass 174	167658	92.6 (98.1) ^a	Pass
177	5.0 - 9.0% of mass 176	10720	5.92 (6.39) ^b	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D8735-ICV8735	2D200622.D	04/01/22	10:58	00:29	Initial cal verification 50

6.4.2
6

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8765-BFB	Injection Date: 04/22/22
Lab File ID: 2D201298.D	Injection Time: 09:28
Instrument ID: GCMS2D	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	31704	18.8	Pass
75	30.0 - 60.0% of mass 95	86715	51.4	Pass
95	Base peak, 100% relative abundance	168853	100.0	Pass
96	5.0 - 9.0% of mass 95	10937	6.48	Pass
173	Less than 2.0% of mass 174	1001	0.59 (0.56) ^a	Pass
174	50.0 - 120.0% of mass 95	179648	106.4	Pass
175	5.0 - 9.0% of mass 174	12801	7.58 (7.13) ^a	Pass
176	95.0 - 101.0% of mass 174	175381	103.9 (97.6) ^a	Pass
177	5.0 - 9.0% of mass 176	11264	6.67 (6.42) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D8765-CC8735	2D201298.D	04/22/22	09:28	00:00	Continuing cal 20
V2D8765-BS	2D201300.D	04/22/22	10:47	01:19	Blank Spike
V2D8765-MB	2D201302.D	04/22/22	11:53	02:25	Method Blank
ZZZZZZ	2D201303.D	04/22/22	12:33	03:05	(unrelated sample)
ZZZZZZ	2D201304.D	04/22/22	13:02	03:34	(unrelated sample)
ZZZZZZ	2D201305.D	04/22/22	13:32	04:04	(unrelated sample)
ZZZZZZ	2D201306.D	04/22/22	14:01	04:33	(unrelated sample)
ZZZZZZ	2D201307.D	04/22/22	14:30	05:02	(unrelated sample)
ZZZZZZ	2D201308.D	04/22/22	14:59	05:31	(unrelated sample)
JD43253-1MS	2D201309.D	04/22/22	15:29	06:01	Matrix Spike
JD43253-1MSD	2D201310.D	04/22/22	15:58	06:30	Matrix Spike Duplicate
ZZZZZZ	2D201312.D	04/22/22	16:56	07:28	(unrelated sample)
ZZZZZZ	2D201313.D	04/22/22	17:26	07:58	(unrelated sample)
JD43253-6	2D201314.D	04/22/22	17:55	08:27	FIELD BLANK
JD43253-7	2D201315.D	04/22/22	18:24	08:56	EQUIPMENT BLANK
JD43253-8	2D201316.D	04/22/22	18:53	09:25	TRIP BLANK
ZZZZZZ	2D201317.D	04/22/22	19:23	09:55	(unrelated sample)
JD43253-1	2D201318.D	04/22/22	19:52	10:24	MW-4
JD43253-3	2D201320.D	04/22/22	20:50	11:22	MW-8A
JD43253-4	2D201321.D	04/22/22	21:19	11:51	MW-E

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7392-BFB	Injection Date: 03/10/22
Lab File ID: 3D174401.D	Injection Time: 13:03
Instrument ID: GCMS3D	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	14.99 - 40.0% of mass 95	22989	17.4	Pass
75	30.0 - 60.0% of mass 95	67101	50.7	Pass
95	Base peak, 100% relative abundance	132330	100.0	Pass
96	5.0 - 9.0% of mass 95	8493	6.42	Pass
173	Less than 2.0% of mass 174	1085	0.82 (0.95) ^a	Pass
174	50.0 - 120.0% of mass 95	114125	86.2	Pass
175	5.0 - 9.0% of mass 174	8390	6.34 (7.35) ^a	Pass
176	95.0 - 101.0% of mass 174	110925	83.8 (97.2) ^a	Pass
177	5.0 - 9.0% of mass 176	7141	5.40 (6.44) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D7392-IC7392	3D174402.D	03/10/22	13:38	00:35	Initial cal 0.2
V3D7392-IC7392	3D174403.D	03/10/22	14:01	00:58	Initial cal 0.5
V3D7392-IC7392	3D174404.D	03/10/22	14:25	01:22	Initial cal 1
V3D7392-IC7392	3D174405.D	03/10/22	14:48	01:45	Initial cal 2
V3D7392-IC7392	3D174406.D	03/10/22	15:11	02:08	Initial cal 4
V3D7392-IC7392	3D174407.D	03/10/22	15:35	02:32	Initial cal 8
V3D7392-IC7392	3D174408.D	03/10/22	15:58	02:55	Initial cal 20
V3D7392-ICC7392	3D174409.D	03/10/22	16:21	03:18	Initial cal 50
V3D7392-IC7392	3D174410.D	03/10/22	16:45	03:42	Initial cal 100
V3D7392-IC7392	3D174411.D	03/10/22	17:08	04:05	Initial cal 200
V3D7392-ICV7392	3D174414.D	03/10/22	18:18	05:15	Initial cal verification 50
V3D7392-ICV7392	3D174415.D	03/10/22	18:42	05:39	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample:	V3D7392-BFB2	Injection Date:	03/11/22
Lab File ID:	3D174418.D	Injection Time:	09:18
Instrument ID:	GCMS3D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	14.99 - 40.0% of mass 95	22472	16.8	Pass
75	30.0 - 60.0% of mass 95	66368	49.5	Pass
95	Base peak, 100% relative abundance	134130	100.0	Pass
96	5.0 - 9.0% of mass 95	8876	6.62	Pass
173	Less than 2.0% of mass 174	1119	0.83 (0.99) ^a	Pass
174	50.0 - 120.0% of mass 95	113250	84.4	Pass
175	5.0 - 9.0% of mass 174	8771	6.54 (7.74) ^a	Pass
176	95.0 - 101.0% of mass 174	110176	82.1 (97.3) ^a	Pass
177	5.0 - 9.0% of mass 176	7095	5.29 (6.44) ^b	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D7392-ICV7392	3D174419.D	03/11/22	09:41	00:23	Initial cal verification 50

6.4.5
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Instrument Performance Check (BFB)

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7465-BFB	Injection Date: 04/25/22
Lab File ID: 3D176495.D	Injection Time: 11:45
Instrument ID: GCMS3D	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	14.99 - 40.0% of mass 95	27797	15.5	Pass
75	30.0 - 60.0% of mass 95	88216	49.1	Pass
95	Base peak, 100% relative abundance	179669	100.0	Pass
96	5.0 - 9.0% of mass 95	12667	7.05	Pass
173	Less than 2.0% of mass 174	1708	0.95 (1.20) ^a	Pass
174	50.0 - 120.0% of mass 95	142792	79.5	Pass
175	5.0 - 9.0% of mass 174	9733	5.42 (6.82) ^a	Pass
176	95.0 - 101.0% of mass 174	139539	77.7 (97.7) ^a	Pass
177	5.0 - 9.0% of mass 176	8498	4.73 (6.09) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D7465-CC7392	3D176495.D	04/25/22	11:45	00:00	Continuing cal 20
V3D7465-BS	3D176497.D	04/25/22	12:35	00:50	Blank Spike
V3D7465-MB	3D176499.D	04/25/22	13:22	01:37	Method Blank
JD43253-2	3D176500.D	04/25/22	13:52	02:07	MW-5
ZZZZZZ	3D176501.D	04/25/22	14:15	02:30	(unrelated sample)
ZZZZZZ	3D176503.D	04/25/22	15:02	03:17	(unrelated sample)
ZZZZZZ	3D176504.D	04/25/22	15:26	03:41	(unrelated sample)
ZZZZZZ	3D176505.D	04/25/22	15:49	04:04	(unrelated sample)
JD43519-11	3D176506.D	04/25/22	16:12	04:27	(used for QC only; not part of job JD43253)
ZZZZZZ	3D176507.D	04/25/22	16:36	04:51	(unrelated sample)
ZZZZZZ	3D176508.D	04/25/22	16:59	05:14	(unrelated sample)
ZZZZZZ	3D176509.D	04/25/22	17:22	05:37	(unrelated sample)
ZZZZZZ	3D176510.D	04/25/22	17:46	06:01	(unrelated sample)
JD43519-11MS	3D176511.D	04/25/22	18:09	06:24	Matrix Spike
JD43519-11MSD	3D176512.D	04/25/22	18:33	06:48	Matrix Spike Duplicate
JD43253-2	3D176513.D	04/25/22	18:56	07:11	MW-5
ZZZZZZ	3D176514.D	04/25/22	19:20	07:35	(unrelated sample)
ZZZZZZ	3D176515.D	04/25/22	19:43	07:58	(unrelated sample)
ZZZZZZ	3D176516.D	04/25/22	20:06	08:21	(unrelated sample)
ZZZZZZ	3D176517.D	04/25/22	20:30	08:45	(unrelated sample)
ZZZZZZ	3D176518.D	04/25/22	20:53	09:08	(unrelated sample)
JD43253-5	3D176519.D	04/25/22	21:16	09:31	DUPLICATE
ZZZZZZ	3D176520.D	04/25/22	21:40	09:55	(unrelated sample)
ZZZZZZ	3D176521.D	04/25/22	22:03	10:18	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample:	V3D7465-BFB	Injection Date:	04/25/22
Lab File ID:	3D176495.D	Injection Time:	11:45
Instrument ID:	GCMS3D		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	3D176522.D	04/25/22	22:27	10:42	(unrelated sample)

Internal Standard Area Summary

Page 1 of 1

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Check Std: V2D8765-CC8735	Injection Date: 04/22/22
Lab File ID: 2D201298.D	Injection Time: 09:28
Instrument ID: GCMS2D	Method: SW846 8260D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	130924	7.01	494990	9.70	659974	10.84	652870	15.09	380181	17.96
Upper Limit ^a	261848	7.51	989980	10.20	1319948	11.34	1305740	15.59	760362	18.46
Lower Limit ^b	65462	6.51	247495	9.20	329987	10.34	326435	14.59	190091	17.46

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2D8765-BS	124332	7.02	466455	9.70	620699	10.84	628204	15.09	360408	17.96
V2D8765-MB	144435	7.01	525546	9.70	678921	10.84	647617	15.09	401111	17.96
ZZZZZZ	144540	7.02	504354	9.70	657135	10.84	627054	15.09	383784	17.96
ZZZZZZ	134621	7.02	487876	9.70	634240	10.84	611806	15.09	373507	17.96
ZZZZZZ	146579	7.02	503089	9.70	639564	10.84	647539	15.10	396210	17.96
ZZZZZZ	142516	7.02	533510	9.70	696678	10.84	669207	15.10	413770	17.96
ZZZZZZ	125092	7.01	464522	9.70	611213	10.84	592694	15.10	350060	17.96
ZZZZZZ	144899	7.02	558475	9.70	709594	10.84	671298	15.10	408979	17.96
JD43253-1MS	121265	7.02	463271	9.70	610513	10.85	619610	15.10	347086	17.96
JD43253-1MSD	129325	7.02	505619	9.70	671168	10.85	671040	15.10	374995	17.96
ZZZZZZ	142665	7.02	543693	9.70	695694	10.85	665265	15.10	410805	17.96
ZZZZZZ	140950	7.01	533330	9.70	691573	10.84	654603	15.10	404877	17.96
JD43253-6	134548	7.02	514611	9.70	669934	10.84	637553	15.10	385064	17.96
JD43253-7	137660	7.03	509841	9.70	671851	10.85	639185	15.10	389900	17.96
JD43253-8	135136	7.02	509525	9.70	671846	10.85	640719	15.10	385548	17.96
ZZZZZZ	129835	7.02	459767	9.70	632028	10.85	610033	15.10	369573	17.96
JD43253-1	131883	7.02	496129	9.70	646754	10.84	620592	15.10	378359	17.96
JD43253-3	149159	7.02	489922	9.70	651558	10.85	615194	15.10	372415	17.96
JD43253-4	118558	7.02	438205	9.70	574627	10.84	541899	15.10	326797	17.96

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Page 1 of 1

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Check Std: V3D7465-CC7392	Injection Date: 04/25/22
Lab File ID: 3D176495.D	Injection Time: 11:45
Instrument ID: GCMS3D	Method: SW846 8260D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	49341	2.87	439085	4.06	659602	4.62	632105	7.00	304898	9.18
Upper Limit ^a	98682	3.37	878170	4.56	1319204	5.12	1264210	7.50	609796	9.68
Lower Limit ^b	24671	2.37	219543	3.56	329801	4.12	316053	6.50	152449	8.68

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3D7465-BS	59940	2.87	417507	4.06	650480	4.62	635223	6.99	305739	9.19
V3D7465-MB	71642	2.87	472875	4.07	705893	4.62	659067	6.99	338043	9.19
JD43253-2	59068	2.87	446801	4.06	691326	4.62	654388	7.00	332097	9.18
ZZZZZZ	83032	2.87	445253	4.06	691057	4.62	662984	6.99	339646	9.18
ZZZZZZ	85555	2.87	481704	4.06	724431	4.62	670772	6.99	347986	9.18
ZZZZZZ	75601	2.87	453350	4.07	697374	4.62	657672	7.00	342522	9.19
ZZZZZZ	93045	2.87	465522	4.06	700622	4.62	662563	7.00	342598	9.18
JD43519-11	100055 ^c	2.87	456952	4.06	703212	4.62	658686	7.00	341603	9.18
ZZZZZZ	108103 ^c	2.87	467535	4.06	716999	4.62	674526	7.00	348913	9.18
ZZZZZZ	101962 ^c	2.87	462677	4.06	707605	4.62	667706	7.00	342309	9.19
ZZZZZZ	89945	2.87	455827	4.06	708713	4.62	678468	7.00	337568	9.18
ZZZZZZ	101095 ^c	2.87	467187	4.06	722312	4.62	674112	7.00	343797	9.18
JD43519-11MS	98765 ^c	2.87	433345	4.06	688890	4.62	683856	7.00	322536	9.18
JD43519-11MSD	94525	2.87	436133	4.06	696127	4.62	686647	7.00	332039	9.19
JD43253-2	96749	2.87	477249	4.06	738830	4.62	687841	6.99	352782	9.19
ZZZZZZ	86715	2.87	460284	4.06	712427	4.62	668521	6.99	343663	9.18
ZZZZZZ	91853	2.87	470712	4.06	714498	4.62	681361	7.00	346622	9.19
ZZZZZZ	102461 ^c	2.87	470433	4.06	720616	4.62	674105	7.00	341325	9.19
ZZZZZZ	96898	2.87	460741	4.06	708133	4.62	659827	7.00	345745	9.18
ZZZZZZ	86923	2.87	443833	4.06	680276	4.62	632261	7.00	324273	9.19
JD43253-5	86086	2.87	474735	4.07	720212	4.62	695534	6.99	357806	9.19
ZZZZZZ	79405	2.87	465663	4.06	724036	4.62	678636	7.00	342175	9.18
ZZZZZZ	75139	2.87	480829	4.06	730587	4.62	695006	7.00	351074	9.18
ZZZZZZ	97305	2.87	466809	4.06	720522	4.62	677148	6.99	354038	9.18

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

(c) Outside the QC criteria but no associated target compounds reported under this internal standard.

Surrogate Recovery Summary

Page 1 of 1

Job Number: JD43253

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Method: SW846 8260D

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD43253-1	2D201318.D	97	96	100	91
JD43253-2	3D176500.D	106	97	100	112
JD43253-2	3D176513.D	108	104	100	114
JD43253-3	2D201320.D	99	96	101	91
JD43253-4	2D201321.D	98	97	101	91
JD43253-5	3D176519.D	107	108	98	113
JD43253-6	2D201314.D	97	95	99	91
JD43253-7	2D201315.D	99	95	100	91
JD43253-8	2D201316.D	99	96	100	92
JD43253-1MS	2D201309.D	95	95	97	96
JD43253-1MSD	2D201310.D	94	93	96	94
JD43519-11MS	3D176511.D	109	104	95	118* a
JD43519-11MSD	3D176512.D	108	103	95	115* a
V2D8765-BS	2D201300.D	96	95	96	95
V2D8765-MB	2D201302.D	97	96	100	91
V3D7465-BS	3D176497.D	104	97	95	111
V3D7465-MB	3D176499.D	104	101	100	112

Surrogate Compounds

Recovery Limits

S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	80-120%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	82-114%

(a) Outside of in house control limits, but within reasonable method recovery limits.

6.6.1

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Initial Calibration Summary

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Job Number: JD43253

Sample: V2D8735-ICC8735

Account: GESNYP Groundwater & Environmental Services

Lab FileID: 2D200612.D

Project: Orangeburg UB, Orangeburg, NY

Response Factor Report MS2D												
Method : C:\msdchem\1\METHODS\M2D8735.M (RTE Integrator)												
Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Mon Apr 04 14:17:39 2022												
Last Update : Mon Apr 04 14:17:39 2022												
Response via : Initial Calibration												
Calibration Files												
1	=2D200607.D	2	=2D200608.D	100	=2D200613.D	50	=2D200612.D					
20	=2D200611.D	200	=2D200614.D	4	=2D200609.D	0.5	=2D200606.D					
8	=2D200610.D	0.2	=2D200605.D	=								
Compound	1	2	100	50	20	200	4	0.5	8	0.2	Avg	%RSD

1) I tert butyl alcohol-d9	-----ISTD-----											
2) tertiary butyl alcohol	1.687	1.530	1.600	1.555	1.500	1.643	1.402		1.505		1.553	5.80
3) ethanol	0.206	0.172	0.140	0.146	0.140	0.128	0.146		0.160		0.155	15.96
4) 1,4-dioxane	0.085	0.102	0.110	0.114	0.107	0.114	0.106		0.101		0.105	8.87
5) I pentafluorobenzene	-----ISTD-----											
6) chlorodifluoromethane	*This compound fails Initial Calibration criteria*											
	0.242	0.208	0.204	0.208	0.209	0.193	0.194		0.214		0.209	7.25
7) dichlorodifluoromethane	0.943	0.869	1.008	1.032	0.960	0.937	0.919	0.912	0.965	0.783	0.933	7.54
8) chloromethane	1.242	1.133	0.972	1.053	1.069	0.872	1.069	1.239	1.055		1.078	10.91
9) vinyl chloride	1.055	1.025	0.952	1.038	1.050	0.839	1.019	1.001	1.077		1.006	7.18
10) 1,3-butadiene	*This compound fails Initial Calibration criteria*											
	0.184	0.214	0.225	0.165	0.240				0.235		0.211	14.18
11) bromomethane	0.769	0.619	0.652	0.641	0.564	0.656			0.678		0.654	9.53
12) chloroethane	0.633	0.585	0.500	0.543	0.547	0.454	0.565	0.647	0.561		0.559	10.76
13) trichlorofluoromethane	1.301	1.195	1.181	1.251	1.237	1.097	1.217	1.128	1.264	1.065	1.194	6.40
14) ethyl ether	0.229	0.219	0.202	0.211	0.210	0.206	0.205	0.199	0.207	0.193	0.208	4.85
15) acrolein	0.093	0.090	0.094	0.095	0.092	0.085			0.094		0.092	3.72
16) 1,1-dichloroethene	0.393	0.380	0.336	0.356	0.376	0.332	0.337	0.366	0.385		0.362	6.38
17) freon 113	0.422	0.419	0.377	0.388	0.397	0.362	0.366	0.355	0.406		0.388	6.34
18) acetone	0.040	0.036	0.033	0.034	0.036	0.031	0.034	0.031	0.038		0.035	8.68
19) acetonitrile	0.036	0.036	0.036	0.037	0.035	0.036			0.038		0.036	2.50
20) iodomethane	0.841	0.819	0.767	0.791	0.810	0.760	0.795	0.785	0.820	0.671	0.786	6.03
21) carbon disulfide	1.088	1.004	0.938	0.981	0.997	0.922	0.939	1.013	1.016	1.151	1.005	7.03
22) methylene chloride	0.630	0.503	0.445	0.468	0.473	0.440	0.471		0.496		0.491	12.29
23) methyl acetate												

Initial Calibration Summary

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8735-ICC8735
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	0.254	0.242	0.231	0.236	0.249	0.228	0.230	0.295	0.269		0.248	8.87
24) methyl tert butyl ether	1.330	1.179	1.076	1.134	1.147	1.043	1.122	1.167	1.145	1.045	1.139	7.25
25) trans-1,2-dichloroethene	0.525	0.479	0.425	0.450	0.464	0.418	0.436	0.418	0.466	0.363	0.444	9.79
26) hexane	*This compound fails Initial Calibration criteria*											
	0.708	0.730	0.667	0.689	0.706	0.640	0.675	0.715	0.707	0.616	0.685	5.26
27) di-isopropyl ether	1.541	1.439	1.282	1.349	1.386	1.273	1.310	1.248	1.375	1.150	1.335	8.15
28) 2-butanone	0.032	0.032	0.036	0.038	0.036	0.037	0.034		0.036		0.035	6.21
29) 1,1-dichloroethane	1.111	1.028	0.958	1.002	1.008	0.952	1.001	1.023	1.010	0.881	0.998	5.98
30) chloroprene	0.827	0.754	0.705	0.739	0.738	0.707	0.725	0.652	0.746	0.629	0.722	7.64
31) acrylonitrile	0.122	0.153	0.159	0.153	0.155	0.141			0.146		0.147	8.46
32) vinyl acetate			0.074	0.076	0.077	0.072	0.059		0.064		0.070	10.28
33) ethyl tert-butyl ether	1.997	1.845	1.746	1.832	1.811	1.670	1.791	1.817	1.834	1.749	1.809	4.69
34) ethyl acetate			0.040	0.043	0.048	0.039	0.038		0.049		0.043	11.18
35) 2,2-dichloropropane	0.811	0.755	0.628	0.665	0.689	0.615	0.687	0.741	0.707	0.594	0.689	9.77
36) cis-1,2-dichloroethene	0.632	0.537	0.485	0.510	0.523	0.479	0.515	0.489	0.513	0.440	0.512	9.78
37) propionitrile	0.056	0.056	0.051	0.055	0.054	0.050	0.053		0.055		0.054	3.90
38) tert-butyl formate	0.352	0.345	0.415	0.422	0.395	0.422	0.354		0.364		0.384	8.69
39) bromochloromethane	0.269	0.285	0.259	0.270	0.272	0.253	0.260	0.246	0.269		0.265	4.34
40) tetrahydrofuran	0.104	0.078	0.080	0.083	0.077	0.093			0.084		0.086	11.45
41) chloroform	1.222	1.026	0.857	0.909	0.909	0.849	0.915	1.157	0.935		0.976	13.59
42) dibromofluoromethane (s)	0.504	0.508	0.489	0.492	0.504	0.484	0.507	0.510	0.512	0.498	0.501	1.88
43) methacrylonitrile	0.127	0.144	0.158	0.159	0.158	0.159	0.137		0.151		0.149	8.01
44) 1,1,1-trichloroethane	0.821	0.801	0.785	0.802	0.810	0.781	0.757	0.725	0.790	0.697	0.777	5.07
45) cyclohexane	0.756	0.692	0.689	0.725	0.709	0.674	0.728	0.632	0.726	0.624	0.696	6.13
46) 1,1-dichloropropene	0.670	0.613	0.570	0.592	0.587	0.568	0.561	0.559	0.583	0.528	0.583	6.51
47) isobutyl alcohol	0.009	0.013	0.011	0.012	0.011	0.012	0.010		0.011		0.011	10.27
48) carbon tetrachloride	0.795	0.744	0.695	0.726	0.736	0.693	0.694	0.698	0.729	0.564	0.707	8.40
49) tert-amyl alcohol	0.017	0.015	0.016	0.016	0.016	0.017	0.015		0.015		0.016	5.18
50) I	1,4-difluorobenzene	-----ISTD-----										
51) 1,2-dichloroethane-d4 (s)	0.436	0.435	0.426	0.429	0.431	0.429	0.441	0.438	0.432	0.441	0.434	1.21
52) benzene	1.347	1.232	1.123	1.182	1.179	1.120	1.148	1.144	1.175	1.042	1.169	6.87
53) iso-octane												

Initial Calibration Summary

Job Number: JD43253
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		1.555	1.479	1.324	1.382	1.429	1.274	1.349	1.413	1.406	1.305	1.391	6.07
54)	tert-amyl methyl ether												
		1.039	0.931	0.833	0.884	0.894	0.816	0.896	0.872	0.928	0.892	0.899	6.82
55)	heptane												
		0.283	0.287	0.251	0.258	0.261	0.245	0.252	0.248	0.260	0.237	0.258	6.20
56)	isopropyl acetate												
		0.041	0.054	0.056	0.054	0.055	0.044		0.048		0.050	11.94	
57)	1,2-dichloroethane												
		0.690	0.594	0.566	0.580	0.571	0.570	0.551	0.617	0.570	0.668	0.598	7.81
58)	n-butyl alcohol												
		0.007	0.006	0.007	0.008	0.007	0.008	0.006		0.007		0.007	10.04
59)	ethyl acrylate												
		0.346	0.386	0.403	0.377	0.382	0.336		0.351		0.369	6.71	
60)	trichloroethene												
		0.401	0.371	0.369	0.384	0.375	0.366	0.336	0.329	0.362		0.366	6.11
61)	2-nitropropane												
		0.066	0.060	0.071	0.069	0.064	0.077	0.062		0.061		0.066	8.84
62)	2-chloroethyl vinyl ether												
		0.223	0.208	0.223	0.232	0.224	0.221	0.205	0.176	0.212		0.214	7.85
63)	methyl methacrylate												
		0.157	0.141	0.170	0.177	0.167	0.169	0.156		0.162		0.162	6.69
64)	1,2-dichloropropane												
		0.471	0.390	0.371	0.396	0.397	0.363	0.384	0.421	0.380	0.395	0.397	7.69
65)	dibromomethane												
		0.258	0.232	0.214	0.225	0.222	0.212	0.216	0.225	0.219	0.218	0.224	5.98
66)	methylcyclohexane												
		0.520	0.550	0.513	0.534	0.544	0.502	0.499	0.484	0.526	0.510	0.518	4.03
67)	bromodichloromethane												
		0.514	0.487	0.501	0.516	0.504	0.504	0.469	0.419	0.485	0.393	0.479	8.68
68)	epichlorohydrin												
		0.031	0.029	0.029	0.031	0.030	0.030	0.028		0.028		0.030	3.60
69)	cis-1,3-dichloropropene												
		0.561	0.517	0.550	0.568	0.550	0.544	0.508	0.472	0.534	0.479	0.528	6.28
70)	4-methyl-2-pentanone												
		0.127	0.127	0.120	0.126	0.124	0.120	0.118		0.121		0.123	3.02
71)	3-methyl-1-butanol												
		0.010	0.010	0.011	0.012	0.011	0.012	0.010		0.011		0.011	9.16
72)	I chlorobenzene-d5	-----ISTD-----											
73)	toluene-d8 (s)												
		1.207	1.212	1.137	1.161	1.181	1.130	1.193	1.207	1.196	1.196	1.182	2.49
74)	toluene												
		0.857	0.771	0.762	0.804	0.790	0.759	0.767	0.783	0.779	0.733	0.780	4.24
75)	trans-1,3-dichloropropene												
		0.512	0.449	0.509	0.525	0.498	0.501	0.448	0.397	0.474	0.429	0.474	8.84
76)	ethyl methacrylate												
		0.277	0.287	0.355	0.365	0.345	0.352	0.290		0.328		0.325	10.78
77)	1,1,2-trichloroethane												
		0.276	0.256	0.245	0.262	0.259	0.238	0.264	0.223	0.253	0.238	0.251	6.20
78)	tetrachloroethene												
		0.371	0.357	0.326	0.347	0.348	0.324	0.334	0.335	0.347	0.270	0.336	8.08
79)	1,3-dichloropropane												
		0.538	0.486	0.449	0.481	0.478	0.440	0.472	0.428	0.469	0.418	0.466	7.39
80)	2-hexanone												
		0.113	0.110	0.104	0.112	0.111	0.101	0.108	0.084	0.111		0.106	8.63
81)	butyl acetate												
		0.195	0.199	0.197	0.209	0.197	0.195	0.183	0.153	0.209		0.193	8.80
82)	dibromochloromethane												
		0.429	0.383	0.401	0.417	0.411	0.396	0.370	0.327	0.387	0.345	0.387	8.26
83)	1,2-dibromoethane												

Initial Calibration Summary

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8735-ICC8735
Lab FileID: 2D200612.D

	0.327	0.303	0.319	0.335	0.332	0.313	0.311	0.281	0.318	0.235	0.307	9.67
84) n-butyl ether	1.747	1.677	1.542	1.648	1.641	1.489	1.557	1.383	1.651	1.362	1.570	8.13
85) chlorobenzene	1.077	1.028	0.963	1.000	0.995	0.950	0.953	0.983	0.983	0.904	0.984	4.78
86) 1,1,1,2-tetrachloroethane	0.439	0.387	0.377	0.394	0.396	0.374	0.372	0.344	0.388	0.301	0.377	9.51
87) ethylbenzene	1.797	1.669	1.426	1.530	1.576	1.404	1.551	1.625	1.613	1.461	1.565	7.62
88) m,p-xylene	1.403	1.293	1.181	1.242	1.266	1.175	1.243	1.174	1.287	1.222	1.249	5.60
89) o-xylene	0.692	0.675	0.634	0.669	0.676	0.650	0.626	0.589	0.668	0.607	0.649	5.17
90) styrene	1.080	1.025	1.012	1.065	1.075	1.024	0.987	0.829	1.047		1.016	7.52
91) butyl acrylate	0.605	0.586	0.723	0.731	0.690	0.718	0.584		0.644		0.660	9.54
92) n-amyl acetate	0.193	0.201	0.200	0.209	0.206	0.200	0.192		0.196		0.200	3.02
93) bromoform	0.261	0.238	0.294	0.303	0.284	0.289	0.239		0.259		0.271	9.24
94) isopropylbenzene	1.885	1.730	1.632	1.723	1.776	1.596	1.680	1.611	1.761	1.473	1.687	6.81
95) cis-1,4-dichloro-2-butene	0.138	0.138	0.129	0.139	0.100			0.111		0.126	13.01	
96) I 1,4-dichlorobenzene-d -----ISTD-----												
97) 4-bromofluorobenzene (s)	0.823	0.819	0.841	0.830	0.819	0.842	0.820	0.830	0.808	0.832	0.826	1.27
98) bromobenzene	0.871	0.843	0.864	0.907	0.892	0.856	0.828	0.754	0.835	0.771	0.842	5.79
99) 1,1,2,2-tetrachloroethane	0.717	0.663	0.697	0.716	0.687	0.690	0.643	0.639	0.676	0.583	0.671	6.10
100) trans-1,4-dichloro-2-butene	0.209	0.206	0.178	0.214	0.155			0.162		0.187	13.63	
101) 1,2,3-trichloropropane	0.198	0.197	0.182	0.189	0.191	0.185	0.183	0.177	0.181		0.187	3.81
102) n-propylbenzene	3.902	3.481	3.419	3.572	3.548	3.354	3.483	3.132	3.469	2.850	3.421	8.12
103) 2-chlorotoluene	0.843	0.732	0.751	0.773	0.765	0.753	0.710	0.690	0.733	0.635	0.738	7.42
104) 4-chlorotoluene	2.397	2.158	2.052	2.127	2.118	2.052	2.097	2.025	2.076	2.206	2.131	5.08
105) 1,3,5-trimethylbenzene	2.734	2.423	2.461	2.549	2.510	2.460	2.420	2.309	2.505	2.118	2.449	6.51
106) tert-butylbenzene	2.241	2.146	2.294	2.347	2.279	2.268	2.092	1.907	2.156	1.946	2.167	6.86
107) 1,2,4-trimethylbenzene	2.657	2.598	2.549	2.644	2.638	2.507	2.476	2.308	2.550	2.422	2.535	4.36
108) sec-butylbenzene	3.470	3.333	3.393	3.484	3.433	3.316	3.255	2.983	3.336	2.718	3.272	7.38
109) 1,3-dichlorobenzene	1.803	1.655	1.639	1.699	1.696	1.646	1.615	1.601	1.658	1.485	1.650	4.91
110) p-isopropyltoluene	2.896	2.737	2.917	2.962	2.893	2.917	2.682	2.650	2.774	2.134	2.756	8.86
111) 1,2,3-trimethylbenzene	2.540	2.599	2.580	2.657	2.599	2.545	2.448	2.394	2.542	2.193	2.510	5.36
112) 1,4-dichlorobenzene	1.785	1.713	1.659	1.704	1.638	1.649	1.543	1.610	1.618	1.624	1.654	4.03
113) 1,2-dichlorobenzene												

Initial Calibration Summary

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Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8735-ICC8735
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	1.685	1.593	1.658	1.736	1.676	1.602	1.573	1.522	1.615	1.431	1.609	5.48
114) benzyl chloride												
	1.187	1.136	1.354	1.386	1.279	1.345	1.036		1.145		1.234	10.21
115) n-butylbenzene												
	1.412	1.437	1.506	1.524	1.477	1.457	1.337	1.101	1.385	1.160	1.380	10.37
116) 1,2-dibromo-3-chloropropane												
	0.139	0.184	0.183	0.161	0.182	0.128			0.139		0.159	15.08
117) 1,3,5-trichlorobenzene												
	1.302	1.308	1.476	1.513	1.420	1.399	1.199	1.176	1.294	1.279	1.337	8.39
118) hexachlorobutadiene												
	0.564	0.521	0.573	0.588	0.555	0.556	0.505	0.471	0.518	0.422	0.527	9.69
119) naphthalene												
	1.919	1.947	2.212	2.307	2.139	2.112	1.860	1.706	2.010	1.850	2.006	9.23
120) 1,2,4-trichlorobenzene												
	1.119	1.055	1.247	1.284	1.180	1.185	1.000	0.990	1.070	1.228	1.136	9.19
121) 1,2,3-trichlorobenzene												
	0.986	0.926	1.081	1.113	1.018	1.026	0.842	0.879	0.928	0.822	0.962	10.27
122) hexachloroethane												
	0.416	0.563	0.565	0.511	0.561	0.412			0.441		0.496	14.31
123) 2-methylnaphthalene												
	1.321	1.310	1.105	1.318					0.974		1.206	13.18

(#) = Out of Range ### Number of calibration levels exceeded format ###

M2D8735.M

Mon Apr 04 14:20:05 2022 GCMS2D

Initial Calibration Verification

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Job Number: JD43253
 Account: GESNYP Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8735-ICV8735
 Lab FileID: 2D200617.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2D8735\2D200617.D Vial: 16
 Acq On : 31 Mar 2022 11:10 pm Operator: brittank
 Sample : icv8735-50 Inst : MS2D
 Misc : MS55663,V2D8735,5,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D8735.M (RTE Integrator)
 Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Mon Apr 04 14:17:39 2022
 Last Update : Mon Apr 04 14:17:39 2022
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	99	-0.01	7.07
2	tertiary butyl alcohol	1.553	1.571	-1.2	100	-0.01	7.20
3	ethanol	0.155	0.141	9.0	96	0.00	5.73
4	1,4-dioxane	0.105	0.109	-3.8	95	0.00	11.83
5 I	pentafluorobenzene	1.000	1.000	0.0	101	0.00	9.75
6	chlorodifluoromethane			-----NA-----			
7	dichlorodifluoromethane	0.933	0.750	19.6	74	0.00	3.71
8	chloromethane	1.078	0.974	9.6	94	-0.01	4.08
9	vinyl chloride	1.006	1.115	-10.8	109	-0.02	4.29
10	1,3-butadiene	0.211	0.856	-305.7#	406#	-0.01	4.32
11	bromomethane	0.654	0.714	-9.2	111	0.00	4.89
12	chloroethane	0.559	0.539	3.6	100	0.00	5.04
13	trichlorofluoromethane	1.194	1.259	-5.4	102	0.00	5.51
14	ethyl ether	0.208	0.248	-19.2	119	0.00	5.92
15	acrolein	0.092	0.093	-1.1	100	0.00	6.15
16	1,1-dichloroethene	0.362	0.467	-29.0	133	0.00	6.33
17	freon 113	0.388	0.462	-19.1	121	0.00	6.35
18	acetone	0.035	0.035	0.0	102	0.00	6.38
19	acetonitrile			-----NA-----			
20	iodomethane	0.786	1.082	-37.7#	139	-0.01	6.60
21	carbon disulfide	1.005	1.572	-56.4#	162	0.00	6.73
22	methylene chloride	0.491	0.524	-6.7	113	0.00	7.08
23	methyl acetate	0.248	0.237	4.4	102	0.00	6.89
24	methyl tert butyl ether	1.139	1.187	-4.2	106	0.00	7.51
25	trans-1,2-dichloroethene	0.444	0.505	-13.7	113	0.00	7.52
26	hexane	0.685	0.926	-35.2#	136	0.00	7.91
27	di-isopropyl ether	1.335	1.356	-1.6	102	0.00	8.22
28	2-butanone	0.035	0.038	-8.6	102	0.00	9.02
29	1,1-dichloroethane	0.998	1.068	-7.0	108	0.00	8.16
30	chloroprene	0.722	0.824	-14.1	113	0.00	8.30
31	acrylonitrile			-----NA-----			
32	vinyl acetate	0.070	0.074	-5.7	99	0.00	8.18
33	ethyl tert-butyl ether	1.809	1.771	2.1	98	0.00	8.77
34	ethyl acetate	0.043	0.045	-4.7	106	0.00	9.08
35	2,2-dichloropropane	0.689	0.683	0.9	104	0.00	9.06
36	cis-1,2-dichloroethene	0.512	0.545	-6.4	108	0.00	9.04
37	propionitrile	0.054	0.050	7.4	93	-0.01	9.10
38	tert-butyl formate	0.384	0.374	2.6	90	0.00	9.59
39	bromochloromethane	0.265	0.283	-6.8	106	0.00	9.41
40	tetrahydrofuran	0.086	0.081	5.8	102	0.00	9.49
41	chloroform	0.976	0.921	5.6	102	0.00	9.49

Initial Calibration Verification

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8735-ICV8735
Lab FileID: 2D200617.D

42	S	dibromofluoromethane (s)	0.501	0.484	3.4	100	0.00	9.74
43		methacrylonitrile	0.149	0.162	-8.7	103	0.00	9.36
44		1,1,1-trichloroethane	0.777	0.854	-9.9	108	-0.01	9.83
45		cyclohexane	0.696	0.804	-15.5	112	-0.01	9.94
46		1,1-dichloropropene	0.583	0.637	-9.3	109	0.00	10.06
47		isobutyl alcohol	0.011	0.011	0.0	92	0.00	10.09
48		carbon tetrachloride	0.707	0.779	-10.2	109	0.00	10.09
49		tert-amyl alcohol	0.016	0.016	0.0	98	0.00	10.26
50	I	1,4-difluorobenzene	1.000	1.000	0.0	99	0.00	10.89
51	S	1,2-dichloroethane-d4 (s)	0.434	0.431	0.7	100	0.00	10.27
52		benzene	1.169	1.279	-9.4	108	0.00	10.38
53		iso-octane	1.391	1.452	-4.4	105	0.00	10.48
54		tert-amyl methyl ether	0.899	0.842	6.3	95	0.00	10.49
55		heptane	0.258	0.290	-12.4	112	0.00	10.71
56		isopropyl acetate	0.050	0.056	-12.0	100	0.00	10.36
57		1,2-dichloroethane	0.598	0.600	-0.3	103	0.00	10.38
58		n-butyl alcohol	0.007	0.007	0.0	93	0.00	11.07
59		ethyl acrylate	0.369	0.390	-5.7	96	0.00	11.39
60		trichloroethene	0.366	0.401	-9.6	104	0.00	11.32
61		2-nitropropane	0.066	0.070	-6.1	102	0.00	12.36
62		2-chloroethyl vinyl ether	0.214	0.234	-9.3	100	0.00	12.43
63		methyl methacrylate	0.162	0.176	-8.6	99	0.00	11.75
64		1,2-dichloropropane	0.397	0.384	3.3	97	-0.01	11.66
65		dibromomethane	0.224	0.229	-2.2	101	0.00	11.84
66		methylcyclohexane	0.518	0.617	-19.1	115	0.00	11.64
67		bromodichloromethane	0.479	0.517	-7.9	100	0.00	12.04
68		epichlorohydrin	0.030	0.029	3.3	95	0.00	12.55
69		cis-1,3-dichloropropene	0.528	0.569	-7.8	100	0.00	12.70
70		4-methyl-2-pentanone	0.123	0.123	0.0	97	0.00	12.88
71		3-methyl-1-butanol	0.011	0.012	-9.1	97	0.00	12.91
72	I	chlorobenzene-d5	1.000	1.000	0.0	101	0.00	15.14
73	S	toluene-d8 (s)	1.182	1.140	3.6	99	0.00	13.11
74		toluene	0.780	0.814	-4.4	102	0.00	13.21
75		trans-1,3-dichloropropene	0.474	0.505	-6.5	97	0.00	13.47
76		ethyl methacrylate	0.325	0.359	-10.5	99	0.00	13.55
77		1,1,2-trichloroethane	0.251	0.255	-1.6	98	0.00	13.74
78		tetrachloroethene			-----NA-----			
79		1,3-dichloropropane	0.466	0.473	-1.5	99	0.00	14.00
80		2-hexanone	0.106	0.105	0.9	94	0.00	14.05
81		butyl acetate	0.193	0.210	-8.8	101	0.00	14.20
82		dibromochloromethane	0.387	0.409	-5.7	99	0.00	14.33
83		1,2-dibromoethane	0.307	0.335	-9.1	100	0.00	14.52
84	m	n-butyl ether	1.570	1.573	-0.2	96	0.00	15.21
85		chlorobenzene	0.984	0.984	0.0	99	0.00	15.18
86		1,1,1,2-tetrachloroethane	0.377	0.404	-7.2	103	0.00	15.27
87		ethylbenzene	1.565	1.534	2.0	101	0.00	15.30
88		m,p-xylene	1.249	1.247	0.2	101	0.00	15.45
89		o-xylene	0.649	0.663	-2.2	100	0.00	15.99
90		styrene	1.016	1.060	-4.3	100	0.00	16.00
91		butyl acrylate	0.660	0.718	-8.8	99	0.00	15.84
92		n-amyl acetate	0.200	0.194	3.0	93	0.00	16.13
93		bromoform	0.271	0.294	-8.5	98	0.00	16.28
94		isopropylbenzene	1.687	1.757	-4.1	103	0.00	16.46
95		cis-1,4-dichloro-2-butene	0.126	0.124	1.6	90	0.00	16.52
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	101	0.00	18.00
97	S	4-bromofluorobenzene (s)	0.826	0.825	0.1	100	0.00	16.67
98		bromobenzene	0.842	0.906	-7.6	101	0.00	16.89

Initial Calibration Verification

Page 3 of 3

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8735-ICV8735
Lab FileID: 2D200617.D

99	1,1,2,2-tetrachloroethane	0.671	0.704	-4.9	99	0.00	16.80
100	trans-1,4-dichloro-2-bute	0.187	0.201	-7.5	98	0.00	16.86
101	1,2,3-trichloropropane	0.187	0.188	-0.5	101	0.00	16.88
102	n-propylbenzene	3.421	3.572	-4.4	101	0.00	16.96
103	2-chlorotoluene	0.738	0.784	-6.2	102	0.00	17.10
104	4-chlorotoluene	2.131	2.126	0.2	101	0.00	17.22
105	1,3,5-trimethylbenzene	2.449	2.566	-4.8	101	0.00	17.15
106	tert-butylbenzene	2.167	2.393	-10.4	103	0.00	17.54
107	1,2,4-trimethylbenzene	2.535	2.593	-2.3	99	0.00	17.59
108	sec-butylbenzene	3.272	3.507	-7.2	101	0.00	17.78
109	1,3-dichlorobenzene	1.650	1.676	-1.6	99	0.00	17.93
110	p-isopropyltoluene	2.756	2.962	-7.5	101	0.00	17.91
111	1,2,3-trimethylbenzene	-----NA-----					
112	1,4-dichlorobenzene	1.654	1.656	-0.1	98	0.00	18.02
113	1,2-dichlorobenzene	1.609	1.696	-5.4	98	0.00	18.41
114	benzyl chloride	1.234	1.197	3.0	87	0.00	18.14
115	n-butylbenzene	1.380	1.539	-11.5	102	0.00	18.34
116	1,2-dibromo-3-chloropropa	0.159	0.181	-13.8	99	0.00	19.14
117	1,3,5-trichlorobenzene	1.337	1.480	-10.7	99	0.00	19.33
118	hexachlorobutadiene	0.527	0.587	-11.4	101	0.00	20.02
119	naphthalene	2.006	2.239	-11.6	98	0.00	20.14
120	1,2,4-trichlorobenzene	1.136	1.286	-13.2	101	0.00	19.89
121 m	1,2,3-trichlorobenzene	0.962	1.103	-14.7	100	0.00	20.35
122	hexachloroethane	0.496	0.564	-13.7	101	0.00	18.67
123	2-methylnaphthalene	1.206	1.237	-2.6	95	0.00	21.17

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

2D200612.D M2D8735.M

Mon Apr 04 14:19:52 2022 GCMS2D

6.7.2
6

Initial Calibration Verification

Job Number: JD43253
 Account: GESNYP Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8735-ICV8735
 Lab FileID: 2D200618.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2D8735\2D200618.D Vial: 17
 Acq On : 31 Mar 2022 11:40 pm Operator: brittank
 Sample : icv8735-50 Inst : MS2D
 Misc : MS55663,V2D8735,5,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D8735.M (RTE Integrator)
 Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:55:46 2022
 Last Update : Fri Apr 01 09:55:46 2022
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	109	0.00	7.08
2	tertiary butyl alcohol			-----NA-----			
3	ethanol			-----NA-----			
4	1,4-dioxane			-----NA-----			
5 I	pentafluorobenzene	1.000	1.000	0.0	107	0.00	9.76
6	chlorodifluoromethane	0.209	0.931	-345.5#	478#	0.00	3.74
7	dichlorodifluoromethane			-----NA-----			
8	chloromethane			-----NA-----			
9	vinyl chloride			-----NA-----			
	----- True		Calc.	% Drift			
10	1,3-butadiene			-----NA-----			
	----- AvgRF		CCRF	% Dev			
11	bromomethane			-----NA-----			
12	chloroethane			-----NA-----			
13	trichlorofluoromethane			-----NA-----			
14	ethyl ether			-----NA-----			
15	acrolein			-----NA-----			
16	1,1-dichloroethene			-----NA-----			
17	freon 113			-----NA-----			
18	acetone			-----NA-----			
19	acetonitrile	0.036	0.036	0.0	105	0.00	6.82
20	iodomethane			-----NA-----			
21	carbon disulfide			-----NA-----			
22	methylene chloride			-----NA-----			
23	methyl acetate			-----NA-----			
24	methyl tert butyl ether			-----NA-----			
25	trans-1,2-dichloroethene			-----NA-----			
26	hexane			-----NA-----			
27	di-isopropyl ether			-----NA-----			
28	2-butanone			-----NA-----			
29	1,1-dichloroethane			-----NA-----			
30	chloroprene			-----NA-----			
31	acrylonitrile	0.147	0.127	13.6	86	0.00	7.45
32	vinyl acetate			-----NA-----			
33	ethyl tert-butyl ether			-----NA-----			
34	ethyl acetate			-----NA-----			
35	2,2-dichloropropane			-----NA-----			
36	cis-1,2-dichloroethene			-----NA-----			
37	propionitrile			-----NA-----			

Initial Calibration Verification

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8735-ICV8735
Lab FileID: 2D200618.D

38	tert-butyl formate		-----NA-----				
39	bromochloromethane		-----NA-----				
40	tetrahydrofuran		-----NA-----				
41	chloroform		-----NA-----				
42 S	dibromofluoromethane (s)	0.501	0.494	1.4	107	0.00	9.74
43	methacrylonitrile		-----NA-----				
44	1,1,1-trichloroethane		-----NA-----				
45	cyclohexane		-----NA-----				
46	1,1-dichloropropene		-----NA-----				
47	isobutyl alcohol		-----NA-----				
48	carbon tetrachloride		-----NA-----				
49	tert-amyl alcohol		-----NA-----				
50 I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	10.89
51 S	1,2-dichloroethane-d4 (s)	0.434	0.435	-0.2	105	0.00	10.27
52	benzene		-----NA-----				
53	iso-octane		-----NA-----				
54	tert-amyl methyl ether		-----NA-----				
55	heptane		-----NA-----				
56	isopropyl acetate		-----NA-----				
57	1,2-dichloroethane		-----NA-----				
58	n-butyl alcohol		-----NA-----				
59	ethyl acrylate		-----NA-----				
60	trichloroethene		-----NA-----				
61	2-nitropropane		-----NA-----				
62	2-chloroethyl vinyl ether		-----NA-----				
63	methyl methacrylate		-----NA-----				
64	1,2-dichloropropane		-----NA-----				
65	dibromomethane		-----NA-----				
66	methylcyclohexane		-----NA-----				
67	bromodichloromethane		-----NA-----				
68	epichlorohydrin		-----NA-----				
69	cis-1,3-dichloropropene		-----NA-----				
70	4-methyl-2-pentanone		-----NA-----				
71	3-methyl-1-butanol		-----NA-----				
72 I	chlorobenzene-d5	1.000	1.000	0.0	97	0.00	15.14
73 S	toluene-d8 (s)	1.182	1.231	-4.1	103	0.00	13.11
74	toluene		-----NA-----				
75	trans-1,3-dichloropropene		-----NA-----				
76	ethyl methacrylate		-----NA-----				
77	1,1,2-trichloroethane		-----NA-----				
78	tetrachloroethene	0.336	0.341	-1.5	96	0.00	14.00
79	1,3-dichloropropane		-----NA-----				
80	2-hexanone		-----NA-----				
81	butyl acetate		-----NA-----				
82	dibromochloromethane		-----NA-----				
83	1,2-dibromoethane		-----NA-----				
84 m	n-butyl ether		-----NA-----				
85	chlorobenzene		-----NA-----				
86	1,1,1,2-tetrachloroethane		-----NA-----				
87	ethylbenzene		-----NA-----				
88	m,p-xylene		-----NA-----				
89	o-xylene		-----NA-----				
90	styrene		-----NA-----				
91	butyl acrylate		-----NA-----				
92	n-amyl acetate		-----NA-----				
93	bromoform		-----NA-----				
94	isopropylbenzene		-----NA-----				
95	cis-1,4-dichloro-2-butene		-----NA-----				

Initial Calibration Verification

Page 3 of 3

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8735-ICV8735
Lab FileID: 2D200618.D

96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	18.00
97	S	4-bromofluorobenzene (s)	0.826	0.818	1.0	104	0.00	16.67
98		bromobenzene						
99		1,1,2,2-tetrachloroethane						
100		trans-1,4-dichloro-2-bute						
101		1,2,3-trichloropropane						
102		n-propylbenzene						
103		2-chlorotoluene						
104		4-chlorotoluene						
105		1,3,5-trimethylbenzene						
106		tert-butylbenzene						
107		1,2,4-trimethylbenzene						
108		sec-butylbenzene						
109		1,3-dichlorobenzene						
110		p-isopropyltoluene						
111		1,2,3-trimethylbenzene	2.510	2.660	-6.0	105	0.00	18.05
112		1,4-dichlorobenzene						
113		1,2-dichlorobenzene						
114		benzyl chloride						
115		n-butylbenzene						
116		1,2-dibromo-3-chloropropa						
117		1,3,5-trichlorobenzene						
118		hexachlorobutadiene						
119		naphthalene						
120		1,2,4-trichlorobenzene						
121	m	1,2,3-trichlorobenzene						
122		hexachloroethane						
123		2-methylnaphthalene						

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D200612.D M2D8735.M Fri Apr 01 16:53:34 2022 GCMS2D

Initial Calibration Verification

Page 1 of 3

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8735-ICV8735
Lab FileID: 2D200622.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2D8735\2D200622.D Vial: 21
Acq On : 1 Apr 2022 10:58 am Operator: brittank
Sample : icv8735-50 Inst : MS2D
Misc : MS55663,V2D8735,5,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D8735.M (RTE Integrator)
Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Mon Apr 04 14:17:39 2022
Last Update : Mon Apr 04 14:17:39 2022
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	95	-0.03	7.05
2	tertiary butyl alcohol			-----NA-----			
3	ethanol			-----NA-----			
4	1,4-dioxane			-----NA-----			
5 I	pentafluorobenzene	1.000	1.000	0.0	97	-0.01	9.74
6	chlorodifluoromethane			-----NA-----			
7	dichlorodifluoromethane			-----NA-----			
8	chloromethane			-----NA-----			
9	vinyl chloride			-----NA-----			
10	1,3-butadiene			-----NA-----			
11	bromomethane			-----NA-----			
12	chloroethane			-----NA-----			
13	trichlorofluoromethane			-----NA-----			
14	ethyl ether			-----NA-----			
15	acrolein			-----NA-----			
16	1,1-dichloroethene			-----NA-----			
17	freon 113			-----NA-----			
18	acetone			-----NA-----			
19	acetonitrile			-----NA-----			
20	iodomethane	0.786	0.908	-15.5	111	-0.02	6.59
21	carbon disulfide	1.005	1.296	-29.0	128	-0.02	6.72
22	methylene chloride			-----NA-----			
23	methyl acetate			-----NA-----			
24	methyl tert butyl ether			-----NA-----			
25	trans-1,2-dichloroethene			-----NA-----			
26	hexane			-----NA-----			
27	di-isopropyl ether			-----NA-----			
28	2-butanone			-----NA-----			
29	1,1-dichloroethane			-----NA-----			
30	chloroprene			-----NA-----			
31	acrylonitrile			-----NA-----			
32	vinyl acetate			-----NA-----			
33	ethyl tert-butyl ether			-----NA-----			
34	ethyl acetate			-----NA-----			
35	2,2-dichloropropane			-----NA-----			
36	cis-1,2-dichloroethene			-----NA-----			
37	propionitrile			-----NA-----			
38	tert-butyl formate			-----NA-----			
39	bromochloromethane			-----NA-----			
40	tetrahydrofuran			-----NA-----			
41	chloroform			-----NA-----			

Initial Calibration Verification

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Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8735-ICV8735
Lab FileID: 2D200622.D

42	S	dibromofluoromethane (s)	0.501	0.496	1.0	98	-0.02	9.73
43		methacrylonitrile		-----NA-----				
44		1,1,1-trichloroethane		-----NA-----				
45		cyclohexane		-----NA-----				
46		1,1-dichloropropene		-----NA-----				
47		isobutyl alcohol		-----NA-----				
48		carbon tetrachloride		-----NA-----				
49		tert-amyl alcohol		-----NA-----				
50	I	1,4-difluorobenzene	1.000	1.000	0.0	95	-0.02	10.88
51	S	1,2-dichloroethane-d4 (s)	0.434	0.436	-0.5	97	-0.02	10.26
52		benzene		-----NA-----				
53		iso-octane		-----NA-----				
54		tert-amyl methyl ether		-----NA-----				
55		heptane		-----NA-----				
56		isopropyl acetate		-----NA-----				
57		1,2-dichloroethane		-----NA-----				
58		n-butyl alcohol		-----NA-----				
59		ethyl acrylate		-----NA-----				
60		trichloroethene		-----NA-----				
61		2-nitropropane		-----NA-----				
62		2-chloroethyl vinyl ether		-----NA-----				
63		methyl methacrylate		-----NA-----				
64		1,2-dichloropropane		-----NA-----				
65		dibromomethane		-----NA-----				
66		methylcyclohexane		-----NA-----				
67		bromodichloromethane		-----NA-----				
68		epichlorohydrin		-----NA-----				
69		cis-1,3-dichloropropene		-----NA-----				
70		4-methyl-2-pentanone		-----NA-----				
71		3-methyl-1-butanol		-----NA-----				
72	I	chlorobenzene-d5	1.000	1.000	0.0	97	-0.01	15.13
73	S	toluene-d8 (s)	1.182	1.151	2.6	96	-0.01	13.10
74		toluene		-----NA-----				
75		trans-1,3-dichloropropene		-----NA-----				
76		ethyl methacrylate		-----NA-----				
77		1,1,2-trichloroethane		-----NA-----				
78		tetrachloroethene		-----NA-----				
79		1,3-dichloropropane		-----NA-----				
80		2-hexanone		-----NA-----				
81		butyl acetate		-----NA-----				
82		dibromochloromethane		-----NA-----				
83		1,2-dibromoethane		-----NA-----				
84	m	n-butyl ether		-----NA-----				
85		chlorobenzene		-----NA-----				
86		1,1,1,2-tetrachloroethane		-----NA-----				
87		ethylbenzene		-----NA-----				
88		m,p-xylene		-----NA-----				
89		o-xylene		-----NA-----				
90		styrene		-----NA-----				
91		butyl acrylate		-----NA-----				
92		n-amyl acetate		-----NA-----				
93		bromoform		-----NA-----				
94		isopropylbenzene		-----NA-----				
95		cis-1,4-dichloro-2-butene		-----NA-----				
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	-0.01	17.99
97	S	4-bromofluorobenzene (s)	0.826	0.810	1.9	96	-0.01	16.67
98		bromobenzene		-----NA-----				

Initial Calibration Verification

Page 3 of 3

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8735-ICV8735
Lab FileID: 2D200622.D

99	1,1,2,2-tetrachloroethane	-----NA-----
100	trans-1,4-dichloro-2-bute	-----NA-----
101	1,2,3-trichloropropane	-----NA-----
102	n-propylbenzene	-----NA-----
103	2-chlorotoluene	-----NA-----
104	4-chlorotoluene	-----NA-----
105	1,3,5-trimethylbenzene	-----NA-----
106	tert-butylbenzene	-----NA-----
107	1,2,4-trimethylbenzene	-----NA-----
108	sec-butylbenzene	-----NA-----
109	1,3-dichlorobenzene	-----NA-----
110	p-isopropyltoluene	-----NA-----
111	1,2,3-trimethylbenzene	-----NA-----
112	1,4-dichlorobenzene	-----NA-----
113	1,2-dichlorobenzene	-----NA-----
114	benzyl chloride	-----NA-----
115	n-butylbenzene	-----NA-----
116	1,2-dibromo-3-chloropropa	-----NA-----
117	1,3,5-trichlorobenzene	-----NA-----
118	hexachlorobutadiene	-----NA-----
119	naphthalene	-----NA-----
120	1,2,4-trichlorobenzene	-----NA-----
121 m	1,2,3-trichlorobenzene	-----NA-----
122	hexachloroethane	-----NA-----
123	2-methylnaphthalene	-----NA-----

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

2D200612.D M2D8735.M

Mon Apr 04 14:19:55 2022 GCMS2D

6.7.4

6

Continuing Calibration Summary

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8765-CC8735
Lab FileID: 2D201298.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ni...22\v2d8765\2d201298.d Vial: 3
 Acq On : 22 Apr 2022 9:28 am Operator: nickw
 Sample : cc8735-20 Inst : MS2D
 Misc : MS58319,V2D8765,5,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D8735.M (RTE Integrator)
 Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2mm Mon Apr 04 14:17:39 2022
 Last Update : Mon Apr 04 14:17:39 2022
 Response via : Multiple Level Calibration

Min. RRF : 0.000 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)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	83	-0.07	7.01
2	tertiary butyl alcohol	1.553	1.484	4.4	82	-0.07	7.14
3	ethanol	0.155	0.158	-1.9	94	-0.06	5.68
4	1,4-dioxane	0.105	0.112	-6.7	87	-0.05	11.78
5 I	pentafluorobenzene	1.000	1.000	0.0	103	-0.06	9.70
6	chlorodifluoromethane	0.209	0.281	-34.4#	139	-0.04	3.70
7	dichlorodifluoromethane	0.933	0.857	8.1	92	-0.04	3.67
8	chloromethane	1.078	0.872	19.1	84	-0.05	4.04
9	vinyl chloride	1.006	1.036	-3.0	102	-0.06	4.24
10	1,3-butadiene	0.211	0.337	-59.7#	154	-0.05	4.28
11	bromomethane	0.654	0.655	-0.2	105	-0.05	4.85
12	chloroethane	0.559	0.501	10.4	95	-0.05	5.00
13	trichlorofluoromethane	1.194	1.220	-2.2	102	-0.06	5.46
14	ethyl ether	0.208	0.156	25.0#	77	-0.05	5.88
15	acrolein	0.092	0.057	38.0#	62	-0.06	6.09
16	1,1-dichloroethene	0.362	0.347	4.1	95	-0.05	6.28
17	freon 113	0.388	0.419	-8.0	109	-0.04	6.31
18	acetone	0.035	0.025	28.6#	72	-0.06	6.33
19	acetonitrile	0.036	0.026	27.8#	74	-0.06	6.77
20	iodomethane	0.786	0.763	2.9	97	-0.06	6.55
21	carbon disulfide	1.005	0.954	5.1	99	-0.06	6.68
22	methylene chloride	0.491	0.424	13.6	93	-0.06	7.03
23	methyl acetate	0.248	0.148	40.3#	61	-0.06	6.83
24	methyl tert butyl ether	1.139	0.885	22.3#	80	-0.06	7.45
25	trans-1,2-dichloroethene	0.444	0.407	8.3	91	-0.06	7.46
26	hexane	0.685	0.620	9.5	91	-0.06	7.86
27	di-isopropyl ether	1.335	1.133	15.1	84	-0.06	8.16
28	2-butanone	0.035	0.027	22.9#	76	-0.05	8.97
29	1,1-dichloroethane	0.998	0.884	11.4	91	-0.06	8.10
30	chloroprene	0.722	0.598	17.2	84	-0.06	8.25
31	acrylonitrile	0.147	0.109	25.9#	74	-0.05	7.39
32	vinyl acetate	0.070	0.052	25.7#	70	-0.05	8.14
33	ethyl tert-butyl ether	1.809	1.502	17.0	86	-0.06	8.72
34	ethyl acetate	0.043	0.030	30.2#	65	-0.04	9.04
35	2,2-dichloropropane	0.689	0.680	1.3	102	-0.06	9.01
36	cis-1,2-dichloroethene	0.512	0.452	11.7	89	-0.06	8.98
37	propionitrile	0.054	0.039	27.8#	75	-0.06	9.05
38	tert-butyl formate	0.384	0.322	16.1	84	-0.06	9.53
39	bromochloromethane	0.265	0.231	12.8	88	-0.06	9.35
40	tetrahydrofuran	0.086	0.055	36.0#	69	-0.05	9.44
41	chloroform	0.976	0.874	10.5	99	-0.06	9.44

Continuing Calibration Summary

Page 2 of 3

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8765-CC8735
Lab FileID: 2D201298.D

42	S	dibromofluoromethane (s)	0.501	0.482	3.8	99	-0.06	9.68
43		methacrylonitrile	0.149	0.110	26.2#	72	-0.05	9.30
44		1,1,1-trichloroethane	0.777	0.723	6.9	92	-0.06	9.78
45		cyclohexane	0.696	0.610	12.4	89	-0.06	9.89
46		1,1-dichloropropene	0.583	0.498	14.6	88	-0.06	10.01
47		isobutyl alcohol	0.011	0.009	18.2	80	-0.06	10.03
48		carbon tetrachloride	0.707	0.665	5.9	93	-0.06	10.03
49		tert-amyl alcohol	0.016	0.012	25.0#	76	-0.05	10.22
50	I	1,4-difluorobenzene	1.000	1.000	0.0	97	-0.06	10.84
51	S	1,2-dichloroethane-d4 (s)	0.434	0.406	6.5	92	-0.06	10.22
52		benzene	1.169	1.078	7.8	89	-0.06	10.33
53		iso-octane	1.391	1.236	11.1	84	-0.06	10.42
54		tert-amyl methyl ether	0.899	0.776	13.7	84	-0.06	10.44
55		heptane	0.258	0.233	9.7	87	-0.06	10.65
56		isopropyl acetate	0.050	0.039	22.0#	71	-0.05	10.32
57		1,2-dichloroethane	0.598	0.513	14.2	87	-0.06	10.33
58		n-butyl alcohol	0.007	0.006	14.3	81	-0.05	11.02
59		ethyl acrylate	0.369	0.287	22.2#	74	-0.05	11.34
60		trichloroethene	0.366	0.350	4.4	91	-0.05	11.27
61		2-nitropropane	0.066	0.049	25.8#	75	-0.05	12.31
62		2-chloroethyl vinyl ether	0.214	0.171	20.1#	74	-0.06	12.38
63		methyl methacrylate	0.162	0.134	17.3	78	-0.05	11.70
64		1,2-dichloropropane	0.397	0.364	8.3	89	-0.06	11.61
65		dibromomethane	0.224	0.199	11.2	87	-0.06	11.79
66		methylcyclohexane	0.518	0.497	4.1	89	-0.06	11.59
67		bromodichloromethane	0.479	0.474	1.0	91	-0.05	11.99
68		epichlorohydrin	0.030	0.022	26.7#	73	-0.05	12.50
69		cis-1,3-dichloropropene	0.528	0.500	5.3	88	-0.05	12.64
70		4-methyl-2-pentanone	0.123	0.099	19.5	78	-0.05	12.83
71		3-methyl-1-butanol	0.011	0.010	9.1	87	-0.05	12.86
72	I	chlorobenzene-d5	1.000	1.000	0.0	98	-0.05	15.09
73	S	toluene-d8 (s)	1.182	1.157	2.1	96	-0.05	13.06
74		toluene	0.780	0.722	7.4	90	-0.05	13.16
75		trans-1,3-dichloropropene	0.474	0.443	6.5	87	-0.05	13.43
76		ethyl methacrylate	0.325	0.274	15.7	78	-0.05	13.50
77		1,1,2-trichloroethane	0.251	0.222	11.6	84	-0.05	13.70
78		tetrachloroethene	0.336	0.346	-3.0	98	-0.05	13.95
79		1,3-dichloropropane	0.466	0.417	10.5	86	-0.05	13.95
80		2-hexanone	0.106	0.089	16.0	79	-0.04	14.01
81		butyl acetate	0.193	0.159	17.6	79	-0.04	14.16
82		dibromochloromethane	0.387	0.371	4.1	89	-0.05	14.29
83		1,2-dibromoethane	0.307	0.281	8.5	83	-0.05	14.47
84	m	n-butyl ether	1.570	1.460	7.0	87	-0.05	15.17
85		chlorobenzene	0.984	0.917	6.8	90	-0.05	15.13
86		1,1,1,2-tetrachloroethane	0.377	0.376	0.3	93	-0.05	15.22
87		ethylbenzene	1.565	1.452	7.2	90	-0.05	15.26
88		m,p-xylene	1.249	1.161	7.0	90	-0.05	15.40
89		o-xylene	0.649	0.621	4.3	90	-0.05	15.95
90		styrene	1.016	0.987	2.9	90	-0.05	15.96
91		butyl acrylate	0.660	0.552	16.4	79	-0.04	15.80
92		n-amyl acetate	0.200	0.172	14.0	82	-0.04	16.09
93		bromoform	0.271	0.250	7.7	86	-0.04	16.24
94		isopropylbenzene	1.687	1.594	5.5	88	-0.05	16.41
95		cis-1,4-dichloro-2-butene	0.126	0.103	18.3	79	-0.04	16.48
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	100	-0.04	17.96
97	S	4-bromofluorobenzene (s)	0.826	0.765	7.4	93	-0.05	16.63
98		bromobenzene	0.842	0.848	-0.7	95	-0.04	16.85

6.7.5
6

Continuing Calibration Summary

Page 3 of 3

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2D8765-CC8735
Lab FileID: 2D201298.D

99	1,1,2,2-tetrachloroethane	0.671	0.552	17.7	80	-0.04	16.76
100	trans-1,4-dichloro-2-bute	0.187	0.140	25.1#	79	-0.04	16.83
101	1,2,3-trichloropropane	0.187	0.150	19.8	78	-0.04	16.84
102	n-propylbenzene	3.421	3.128	8.6	88	-0.04	16.92
103	2-chlorotoluene	0.738	0.677	8.3	89	-0.04	17.06
104	4-chlorotoluene	2.131	1.891	11.3	89	-0.04	17.18
105	1,3,5-trimethylbenzene	2.449	2.220	9.4	88	-0.04	17.12
106	tert-butylbenzene	2.167	1.980	8.6	87	-0.04	17.50
107	1,2,4-trimethylbenzene	2.535	2.346	7.5	89	-0.04	17.55
108	sec-butylbenzene	3.272	2.916	10.9	85	-0.04	17.74
109	1,3-dichlorobenzene	1.650	1.586	3.9	94	-0.04	17.90
110	p-isopropyltoluene	2.756	2.552	7.4	88	-0.04	17.88
111	1,2,3-trimethylbenzene	2.510	2.324	7.4	89	-0.04	18.02
112	1,4-dichlorobenzene	1.654	1.543	6.7	94	-0.04	17.99
113	1,2-dichlorobenzene	1.609	1.574	2.2	94	-0.04	18.37
114	benzyl chloride	1.234	1.163	5.8	91	-0.03	18.11
115	n-butylbenzene	1.380	1.236	10.4	84	-0.04	18.30
116	1,2-dibromo-3-chloropropa	0.159	0.139	12.6	86	-0.03	19.11
117	1,3,5-trichlorobenzene	1.337	1.396	-4.4	98	-0.04	19.29
118	hexachlorobutadiene	0.527	0.550	-4.4	99	-0.04	19.98
119	naphthalene	2.006	1.771	11.7	83	-0.04	20.10
120	1,2,4-trichlorobenzene	1.136	1.126	0.9	95	-0.04	19.86
121 m	1,2,3-trichlorobenzene	0.962	0.928	3.5	91	-0.03	20.32
122	hexachloroethane	0.496	0.496	0.0	97	-0.04	18.64
123	2-methylnaphthalene	1.206	0.950	21.2#	86	-0.04	21.13

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

2D200611.D M2D8735.M

Mon Apr 25 03:12:09 2022

6.7.5
6

Initial Calibration Summary

Job Number: JD43253

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7392-ICC7392

Lab FileID: 3D174409.D

Page 1 of 5

Response Factor Report MS3D												
Method : C:\msdchem\1\METHODS\M3D7392.M (RTE Integrator)												
Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Apr 07 17:17:48 2022												
Last Update : Thu Apr 07 17:17:48 2022												
Response via : Initial Calibration												
Calibration Files												
1 =3D174404.D 0.5 =3D174403.D 100 =3D174410.D 50 =3D174409.D												
20 =3D174408.D 200 =3D174411.D 4 =3D174406.D 2 =3D174405.D												
8 =3D174407.D 0.2 =3D174402.D = =												
Compound												
	1	0.5	100	50	20	200	4	2	8	0.2	Avg %RSD	

1) tert butyl alcohol-d9 -----ISTD-----												
2) tertiary butyl alcohol												
	1.593	1.560	1.435	1.442	1.351	1.395	1.596	1.592	1.518	1.498	6.30	
3) ethanol												
	0.111	0.067	0.069	0.080		0.094	0.117	0.097		0.091	21.38	
---- Quadratic regression ---- Coefficient = 0.9962												
Response Ratio = 0.01085 + 0.07902 *A + -0.00066 *A^2												
4) 1,4-dioxane												
	0.101	0.078	0.082	0.087	0.087	0.092	0.088	0.107		0.090	10.56	
5) I pentafluorobenzene -----ISTD-----												
6) chlorodifluoromethane *This compound fails Initial Calibration criteria*												
	0.427	0.414	0.437	0.398	0.502		0.447		0.437	8.28		
7) dichlorodifluoromethane												
	0.529	0.485	0.492	0.525	0.554	0.541	0.493		0.517	5.25		
8) chloromethane												
	0.607	0.437	0.451	0.480	0.387	0.539	0.530	0.504		0.492	13.95	
9) vinyl chloride												
	0.587	0.501	0.519	0.530	0.446	0.572	0.551	0.544		0.531	8.31	
10) 1,3-butadiene												
	0.460	0.470	0.518		0.710		0.564		0.544	18.68		
11) bromomethane												
	0.212	0.217	0.260	0.188	0.181	0.175	0.164	0.145		0.193	18.62	
12) chloroethane												
	0.432	0.318	0.312	0.329	0.300	0.389	0.427	0.357		0.358	14.65	
13) trichlorofluoromethane												
	0.796	0.868	0.682	0.702	0.733	0.631	0.850	0.815	0.766	0.832	10.22	
14) ethyl ether												
	0.254	0.259	0.225	0.231	0.238	0.209	0.279	0.268	0.266	0.248	9.37	
15) acrolein												
	0.064	0.067	0.068	0.062	0.078	0.085	0.066		0.070	11.99		
16) freon 113												
	0.339	0.361	0.338	0.350	0.378	0.328	0.413	0.392	0.399	0.382	0.368	7.87
17) 1,1-dichloroethene												
	0.363	0.381	0.324	0.340	0.363	0.302	0.449	0.390	0.382	0.366	11.64	
18) acetone												
	0.023	0.027	0.030	0.022	0.034	0.025	0.032		0.028	15.82		
19) acetonitrile												
	0.031	0.036	0.037	0.028		0.046		0.036	19.83			
20) iodomethane *This compound fails Initial Calibration criteria*												
	0.445	0.344	0.249	0.464	0.159	0.132	0.182		0.282	48.46		
21) carbon disulfide												
	1.091	1.136	0.929	0.971	1.041	0.839	1.193	1.111	1.112	1.047	10.80	

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7392-ICC7392
Lab FileID: 3D174409.D

22)	methylene chloride	0.403	0.410	0.438	0.366	0.534	0.523	0.462		0.448	14.02		
23)	methyl acetate	0.224	0.250	0.260	0.203	0.346		0.289		0.262	19.46		
24)	methyl tert butyl ether	1.183	1.145	1.077	1.140	1.204	0.969	1.376	1.244	1.277	1.261	1.188	9.58
25)	trans-1,2-dichloroethene	0.440	0.469	0.376	0.394	0.422	0.350	0.490	0.452	0.453		0.427	10.70
26)	di-isopropyl ether	1.219		1.019	1.085	1.185	0.901	1.417	1.275	1.255		1.169	13.87
27)	2-butanone	0.046		0.040	0.043	0.043	0.040	0.054	0.040	0.048		0.044	11.19
28)	1,1-dichloroethane	0.828	0.762	0.633	0.670	0.728	0.572	0.835	0.803	0.749	0.770	0.735	11.70
29)	chloroprene	0.627	0.690	0.557	0.584	0.610	0.502	0.689	0.639	0.658	0.719	0.628	10.61
30)	acrylonitrile		0.119	0.124	0.120	0.113	0.139		0.126			0.123	7.11
31)	hexane	0.438		0.342	0.353	0.369	0.309	0.440	0.389	0.385		0.378	11.97
32)	vinyl acetate	0.111	0.110	0.103	0.108	0.112	0.103	0.123	0.096	0.105		0.108	6.98
33)	ethyl tert-butyl ether	1.399	1.255	1.200	1.255	1.318	1.072	1.438	1.337	1.406	1.284	1.296	8.45
34)	ethyl acetate		0.051	0.052	0.058	0.050	0.069	0.062	0.066			0.058	13.13
35)	2,2-dichloropropane	0.733		0.622	0.642	0.687	0.550	0.797	0.767	0.744		0.693	12.05
36)	cis-1,2-dichloroethene	0.481	0.490	0.441	0.450	0.466	0.406	0.530	0.494	0.490	0.555	0.480	8.94
37)	methyl acrylate	0.075	0.075	0.063	0.066	0.066	0.062	0.086	0.069	0.073		0.071	10.80
38)	propionitrile	0.051		0.040	0.044	0.046	0.037	0.058	0.047	0.053		0.047	14.97
39)	bromochloromethane	0.284	0.267	0.247	0.246	0.235	0.244	0.260	0.220	0.254		0.251	7.32
40)	tetrahydrofuran		0.079	0.091	0.101	0.079			0.124			0.095	19.88
41)	chloroform	0.705		0.479	0.486	0.514	0.436	0.622	0.562	0.554		0.545	15.94
42)	t-butyl formate	0.388	0.463	0.385	0.413	0.408	0.357	0.479	0.467	0.442	0.490	0.429	10.56
43)	dibromofluoromethane (s)	0.437	0.444	0.438	0.424	0.430	0.423	0.443	0.437	0.439	0.425	0.434	1.84
44)	methacrylonitrile	0.172		0.150	0.164	0.167	0.152	0.216	0.159	0.178		0.170	12.28
45)	1,1,1-trichloroethane	0.761	0.819	0.693	0.703	0.709	0.645	0.826	0.719	0.752	0.882	0.751	9.64
46)	cyclohexane	0.798	0.740	0.637	0.650	0.661	0.595	0.698	0.699	0.681		0.684	8.69
47)	1,1-dichloropropene	0.586	0.563	0.530	0.549	0.574	0.482	0.657	0.602	0.582	0.601	0.572	8.19
48)	iso-butyl alcohol		0.007	0.008	0.009	0.007	0.011		0.010			0.009#	18.23
49)	carbon tetrachloride	0.641	0.653	0.626	0.644	0.656	0.586	0.721	0.632	0.691	0.614	0.646	5.90
50)	tert amyl alcohol	*This compound fails Initial Calibration criteria*											
		0.008	0.010	0.010			0.011		0.014			0.011	21.18
	----- Quadratic regression -----												Coefficient = 0.9920
		Response Ratio = 0.00049 + 0.01135 *A + -0.00033 *A^2											

Initial Calibration Summary

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7392-ICC7392
Lab FileID: 3D174409.D

51) I	1,4-difluorobenzene	-----ISTD-----		
52)	1,2-dichloroethane-d4 (s)			
	0.348 0.348 0.309 0.312 0.326 0.294 0.343 0.343 0.344 0.338 0.330		5.84	
53)	n-butyl alcohol			
	0.003 0.004 0.004 0.004 0.005 0.004 0.005	0.004#	14.51	
54)	2,2,4-trimethylpentane			
	0.983 0.778 0.818 0.869 0.715 1.004 0.967 0.917	0.881	11.87	
55)	benzene			
	1.159 1.161 0.998 1.051 1.100 0.901 1.302 1.170 1.171	1.113	10.49	
56)	tert-amyl methyl ether			
	0.241 0.229 0.208 0.216 0.219 0.207 0.254 0.216 0.229 0.198 0.222		7.69	
57)	heptane			
	0.262 0.306 0.230 0.229 0.234 0.215 0.258 0.255 0.244	0.248	10.73	
58)	isopropyl acetate			
	0.066 0.068 0.068 0.066 0.077	0.076	0.070	7.08
59)	1,2-dichloroethane			
	0.445 0.361 0.382 0.400 0.335 0.463 0.466 0.435	0.411	11.89	
60)	trichloroethene			
	0.333 0.322 0.350 0.357 0.339 0.349 0.365 0.326 0.347 0.356 0.344		4.10	
61)	ethyl acrylate			
	0.290 0.317 0.323 0.275 0.397	0.363	0.328	13.89
62)	2-nitropropane			
	0.074 0.080 0.083 0.074 0.097 0.089 0.100	0.085	12.21	
63)	2-chloroethyl vinyl ether			
	0.151 0.151 0.161 0.170 0.174 0.148 0.191 0.165 0.188 0.144 0.164		10.15	
64)	methyl methacrylate			
	0.081 0.070 0.077 0.079 0.080 0.077 0.091 0.074 0.084	0.079	7.55	
65)	1,2-dichloropropane			
	0.309 0.316 0.270 0.280 0.281 0.256 0.341 0.282 0.299 0.275 0.291		8.65	
66)	dibromomethane			
	0.207 0.212 0.178 0.188 0.184 0.176 0.226 0.187 0.202	0.195	8.73	
67)	methylcyclohexane			
	0.500 0.575 0.487 0.499 0.513 0.458 0.588 0.537 0.560	0.524	8.29	
68)	bromodichloromethane			
	0.441 0.548 0.412 0.417 0.423 0.389 0.468 0.443 0.435	0.442	10.33	
69)	epichlorohydrin			
	0.022 0.024 0.024 0.022	0.028	0.024	9.96
70)	cis-1,3-dichloropropene			
	0.469 0.576 0.486 0.498 0.495 0.465 0.566 0.490 0.506 0.466 0.502		7.81	
71)	4-methyl-2-pentanone			
	0.092 0.103 0.086 0.091 0.091 0.081 0.106 0.088 0.101	0.093	8.94	
72)	3-methyl-1-butanol			
	0.007 0.007 0.008 0.007 0.010 0.010 0.009	0.008#	17.64	
73) I	chlorobenzene-d5	-----ISTD-----		
74)	toluene-d8 (s)			
	1.313 1.290 1.181 1.202 1.268 1.157 1.329 1.316 1.317 1.316 1.269		5.08	
75)	toluene			
	0.825 0.953 0.746 0.791 0.819 0.686 0.972 0.905 0.887 0.961 0.855		11.37	
76)	trans-1,3-dichloropropene			
	0.463 0.512 0.457 0.483 0.490 0.440 0.543 0.481 0.515 0.542 0.493		7.10	
77)	ethyl methacrylate			
	0.437 0.365 0.390 0.415 0.339 0.487 0.435 0.441	0.414	11.46	
78)	1,1,2-trichloroethane			
	0.226 0.216 0.229 0.230 0.212 0.285 0.243 0.265	0.238	10.54	
79)	tetrachloroethene			
	0.303 0.318 0.294 0.307 0.318 0.286 0.366 0.329 0.347 0.332 0.320		7.63	
80)	1,3-dichloropropane			

Initial Calibration Summary

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7392-ICC7392
Lab FileID: 3D174409.D

	0.491	0.497	0.421	0.454	0.484	0.403	0.565	0.499	0.520	0.535	0.487	10.21
81)	2-hexanone											
	0.093	0.102	0.077	0.087	0.094	0.074	0.112	0.096	0.105	0.101	0.094	12.82
82)	butyl acetate											
	0.159	0.171	0.182	0.155	0.227	0.202	0.201				0.185	14.07
83)	dibromochloromethane											
	0.365	0.390	0.353	0.369	0.359	0.359	0.381	0.362	0.378	0.412	0.373	4.80
84)	1,2-dibromoethane											
	0.305	0.339	0.291	0.313	0.311	0.292	0.340	0.302	0.318	0.264	0.307	7.41
85)	n-butyl ether											
	1.417	1.607	1.092	1.227	1.331	0.941	1.567	1.546	1.489	1.589	1.380	16.60
86)	chlorobenzene											
	1.015	1.045	0.906	0.931	0.960	0.817	1.092	0.971	1.019	1.059	0.982	8.36
87)	1,1,1,2-tetrachloroethane											
	0.352	0.388	0.352	0.349	0.347	0.329	0.398	0.327	0.372	0.356	0.357	6.42
88)	ethylbenzene											
	1.658	1.581	1.291	1.449	1.576	1.109	1.842	1.636	1.730		1.541	14.68
89)	m,p-xylene											
	0.666	0.708	0.590	0.641	0.649	0.519	0.770	0.680	0.700	0.677	0.660	10.36
90)	o-xylene											
	0.644	0.663	0.632	0.657	0.684	0.567	0.745	0.661	0.694	0.731	0.668	7.56
91)	styrene											
	1.107	1.037	0.994	1.097	1.099	0.858	1.233	1.077	1.163	1.251	1.092	10.50
92)	bromoform											
	0.234	0.211	0.283	0.276	0.243	0.276	0.258	0.224	0.255	0.220	0.248	10.38
93)	butyl acrylate											
	0.520	0.564	0.578	0.475	0.672			0.623			0.572	12.34
94)	n-amyl acetate											
	0.268	0.275	0.213	0.234	0.231	0.199	0.261	0.229	0.250		0.240	10.65
95)	isopropylbenzene											
	1.731	1.752	1.518	1.661	1.672	1.269	1.802	1.684	1.733	1.654	1.648	9.30
96)	cis-1,4-dichloro-2-butene											
	0.123	0.127	0.112	0.123	0.112	0.095	0.107				0.114	9.84
97) I	1,4-dichlorobenzene-d -----ISTD-----											
98)	4-bromofluorobenzene (s)											
	0.935	0.925	0.855	0.820	0.953	0.867	0.931	0.946	0.939	0.929	0.910	5.02
99)	bromobenzene											
	0.838	0.875	0.741	0.723	0.822	0.708	0.879	0.791	0.878		0.806	8.50
100)	1,1,1,2-tetrachloroethane											
	0.720	0.728	0.574	0.585	0.665	0.562	0.741	0.722	0.693		0.665	10.90
101)	trans-1,4-dichloro-2-butene											
	0.122	0.129	0.144	0.126	0.164			0.161			0.141	12.81
102)	1,2,3-trichloropropane											
	0.189	0.195	0.220	0.186	0.255	0.204	0.241				0.213	12.59
103)	n-propylbenzene											
	3.396	3.803	2.732	3.063	3.588	2.392	4.101	3.698	3.848		3.402	16.61
104)	2-chlorotoluene											
	0.748	0.899	0.720	0.737	0.791	0.684	0.938	0.851	0.859	0.828	0.806	10.29
105)	4-chlorotoluene											
	0.910	0.788	0.736	0.778	0.826	0.690	0.874	0.830	0.871	0.889	0.819	8.66
106)	1,3,5-trimethylbenzene											
	2.425	2.746	2.132	2.362	2.645	1.889	2.944	2.644	2.739	2.712	2.524	12.73
107)	tert-butylbenzene											
	0.697	0.585	0.584	0.600	0.635	0.566	0.712	0.633	0.629		0.627	8.03
108)	1,2,4-trimethylbenzene											
	2.583	2.569	2.190	2.425	2.682	1.937	3.002	2.719	2.792	2.415	2.531	12.12
109)	sec-butylbenzene											
	3.108	3.189	2.687	2.977	3.290	2.373	3.669	3.270	3.418	3.300	3.128	11.88
110)	1,3-dichlorobenzene											

Initial Calibration Summary

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7392-ICC7392
Lab FileID: 3D174409.D

	1.369	1.589	1.416	1.502	1.574	1.312	1.660	1.552	1.598	1.542	1.511	7.36
111)	p-isopropyltoluene											
	2.586	2.624	2.337	2.599	2.846	2.056	3.062	2.741	2.886	2.714	2.645	10.80
112)	1,4-dichlorobenzene											
	1.368	1.640	1.369	1.466	1.468	1.263	1.667	1.610	1.586	1.746	1.518	10.23
113)	1,2,3-trimethylbenzene											
	2.507	2.127	2.357	2.517	1.892	2.945	2.680	2.769		2.474		13.90
114)	benzyl chloride											
	1.336	1.564	1.211	1.329	1.392	1.152	1.513	1.468	1.523	1.327	1.382	9.88
115)	1,2-dichlorobenzene											
	1.372	1.442	1.303	1.401	1.432	1.200	1.633	1.447	1.550	1.530	1.431	8.68
116)	n-butylbenzene											
	1.144	1.238	1.128	1.204	1.325	1.057	1.392	1.296	1.364	1.423	1.257	9.78
117)	1,2-dibromo-3-chloropropane											
	0.151	0.126	0.163	0.159	0.160	0.178	0.177	0.161	0.152		0.159	9.84
118)	1,3,5-trichlorobenzene											
	0.932	0.884	1.010	1.024	1.047	1.011	1.103	1.096	1.054	1.111	1.027	7.18
119)	1,2,4-trichlorobenzene											
	0.856	0.769	0.835	0.814	0.807	0.845	0.894	0.830	0.828	0.904	0.838	4.75
120)	hexachlorobutadiene											
	0.263	0.298	0.319	0.324	0.322	0.333	0.342	0.358	0.337		0.322	8.58
121)	naphthalene											
	1.864	1.848	1.795	1.888	1.924	1.726	2.115	1.843	2.017	2.082	1.910	6.56
122)	1,2,3-trichlorobenzene											
	0.589	0.677	0.718	0.693	0.686	0.745	0.772	0.687	0.718	0.648	0.693	7.34
123)	hexachloroethane											
	0.361	0.413	0.399	0.403	0.420	0.401	0.384	0.361			0.393	5.63
124)	2-methylnaphthalene											
	0.831	0.999	0.964	0.859	1.125	0.928	0.830	0.935			0.934	10.62
125)	pentafluorobenzene(a) -----ISTD-----											
126)	vinyl bromide											
	0.614	0.467	0.447	0.455	0.445	0.444	0.395	0.458			0.466	13.68
127)	allyl chloride											
	0.276	0.275	0.281	0.270	0.259	0.250	0.234	0.256			0.263	6.06
128)	1,4-dichlorobenzene-d -----ISTD-----											
129)	4-ethyltoluene											
	2.862	2.710	2.933	3.111	2.342	2.729	2.547	2.838			2.759	8.60

(#) = Out of Range ### Number of calibration levels exceeded format ###

M3D7392.M

Thu Apr 07 17:18:17 2022 3D

Initial Calibration Verification

Job Number: JD43253
 Account: GESNYP Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7392-ICV7392
 Lab FileID: 3D174414.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V3D7392\3D174414.D Vial: 14
 Acq On : 10 Mar 2022 6:18 pm Operator: brittank
 Sample : icv7392-50 Inst : MS3D
 Misc : MS57062,V3D7392,5,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D7392.M (RTE Integrator)
 Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xFri Mar 11 09:53:10 2022
 Last Update : Fri Mar 11 09:53:10 2022
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	tert butyl alcohol-d9	1.000	1.000	0.0	100	0.00	2.87
2 M	tertiary butyl alcohol	1.498	1.484	0.9	102	0.00	2.93
	----- True Calc. % Drift -----						
3	ethanol	5000.000	4416.386	11.7	94	0.00	2.32
	----- AvgRF CCRF % Dev -----						
4 M	1,4-dioxane	0.090	0.077	14.4	92	0.00	5.04
5 I	pentafluorobenzene	1.000	1.000	0.0	99	0.00	4.06
6	chlorodifluoromethane			-----NA-----			
7 M	dichlorodifluoromethane	0.517	0.441	14.7	90	0.00	1.53
8 M	chloromethane	0.492	0.483	1.8	106	0.00	1.67
9 M	vinyl chloride	0.531	0.611	-15.1	117	0.00	1.75
10	1,3-butadiene	0.544	0.578	-6.2	122	0.00	1.78
11 M	bromomethane	0.193	0.278	-44.0#	147	0.00	1.99
12 M	chloroethane	0.358	0.342	4.5	109	0.00	2.06
13 M	trichlorofluoromethane	0.768	0.718	6.5	101	0.00	2.24
14 M	ethyl ether	0.248	0.257	-3.6	111	0.00	2.42
15 M	acrolein	0.070	0.063	10.0	93	0.00	2.50
16	freon 113	0.368	0.363	1.4	103	0.00	2.59
17 M	1,1-dichloroethene	0.366	0.366	0.0	107	0.00	2.59
18 M	acetone	0.028	0.028	0.0	102	0.00	2.59
19 M	acetonitrile			-----NA-----			
20 M	iodomethane	0.282	0.358	-27.0	103	0.00	2.69
21 M	carbon disulfide	1.047	1.124	-7.4	115	0.00	2.75
22 M	methylene chloride	0.448	0.445	0.7	107	0.00	2.90
23 M	methyl acetate	0.262	0.255	2.7	101	0.00	2.79
24 M	methyl tert butyl ether	1.188	1.210	-1.9	105	0.00	3.06
25 M	trans-1,2-dichloroethene	0.427	0.427	0.0	107	0.00	3.08
26 M	di-isopropyl ether	1.169	1.108	5.2	101	0.00	3.37
27 M	2-butanone	0.044	0.046	-4.5	106	0.00	3.71
28 M	1,1-dichloroethane	0.735	0.713	3.0	105	0.00	3.36
29 M	chloroprene	0.628	0.623	0.8	106	0.00	3.42
30 M	acrylonitrile			-----NA-----			
31	hexane	0.378	0.315	16.7	88	0.00	3.26
32 M	vinyl acetate	0.108	0.111	-2.8	102	0.00	3.34
33 M	ethyl tert-butyl ether	1.296	1.241	4.2	98	0.00	3.61
34 M	ethyl acetate	0.058	0.056	3.4	106	0.00	3.73
35 M	2,2-dichloropropane	0.693	0.671	3.2	104	0.00	3.75
36 M	cis-1,2-dichloroethene	0.480	0.477	0.6	105	0.00	3.74
37	methyl acrylate	0.071	0.072	-1.4	108	0.00	3.77

Initial Calibration Verification

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7392-ICV7392
Lab FileID: 3D174414.D

38	M	propionitrile	0.047	0.043	8.5	97	0.00	3.75
39	M	bromochloromethane	0.251	0.268	-6.8	108	0.00	3.90
40	M	tetrahydrofuran	0.095	0.097	-2.1	106	0.00	3.92
41	M	chloroform	0.545	0.517	5.1	105	0.00	3.96
42	M	t-butyl formate	0.429	0.374	12.8	90	0.00	3.98
43	S	dibromofluoromethane (s)	0.434	0.441	-1.6	103	0.00	4.07
44	M	methacrylonitrile	0.170	0.167	1.8	101	0.00	3.86
45	M	1,1,1-trichloroethane	0.751	0.740	1.5	104	0.00	4.10
46		cyclohexane	0.684	0.725	-6.0	111	0.00	4.17
47		1,1-dichloropropene	0.572	0.597	-4.4	108	0.00	4.21
48		iso-butyl alcohol	0.009	0.008#	11.1	99	0.00	4.20
49		carbon tetrachloride	0.646	0.688	-6.5	106	0.00	4.21

		True	Calc.	% Drift			
50	tert amyl alcohol	250.000	231.701	7.3	94	0.00	4.29

		AvgRF	CCRF	% Dev				
51	I	1,4-difluorobenzene	1.000	1.000	0.0	101	0.00	4.62
52	S	1,2-dichloroethane-d4 (s)	0.330	0.314	4.8	101	0.00	4.31
53	M	n-butyl alcohol	0.004	0.004#	0.0	100	0.00	4.68
54		2,2,4-trimethylpentane	0.881	0.838	4.9	103	0.00	4.42
55	M	benzene	1.113	1.129	-1.4	108	0.00	4.35
56	M	tert-amyl methyl ether	0.222	0.215	3.2	100	0.00	4.42
57	M	heptane	0.248	0.246	0.8	108	0.00	4.54
58	M	isopropyl acetate	0.070	0.070	0.0	103	0.00	4.32
59	M	1,2-dichloroethane	0.411	0.400	2.7	105	0.00	4.37
60	M	trichloroethene	0.344	0.371	-7.8	105	0.00	4.82
61		ethyl acrylate	0.328	0.319	2.7	101	0.00	4.83
62	M	2-nitropropane	0.085	0.083	2.4	104	0.00	5.34
63	M	2-chloroethyl vinyl ether	0.164	0.182	-11.0	108	0.00	5.39
64	M	methyl methacrylate	0.079	0.084	-6.3	107	0.00	5.01
65	M	1,2-dichloropropane	0.291	0.277	4.8	100	0.00	5.00
66	M	dibromomethane	0.195	0.195	0.0	105	0.00	5.07
67	M	methylcyclohexane	0.524	0.544	-3.8	110	0.00	5.01
68	M	bromodichloromethane	0.442	0.439	0.7	106	0.00	5.19
69		epichlorohydrin	0.024	0.024	0.0	103	0.00	5.43
70	M	cis-1,3-dichloropropene	0.502	0.518	-3.2	105	0.00	5.53
71	M	4-methyl-2-pentanone	0.093	0.095	-2.2	104	0.00	5.62
72	M	3-methyl-1-butanol	0.008	0.008#	0.0	109	0.00	5.65

73	I	chlorobenzene-d5	1.000	1.000	0.0	101	0.00	7.00
74	S	toluene-d8 (s)	1.269	1.209	4.7	102	0.00	5.76
75		toluene	0.855	0.837	2.1	107	0.00	5.81
76		trans-1,3-dichloropropene	0.493	0.498	-1.0	104	0.00	5.98
77		ethyl methacrylate	0.414	0.403	2.7	105	0.00	6.01
78		1,1,2-trichloroethane	0.238	0.239	-0.4	106	0.00	6.15
79	M	tetrachloroethene			-----NA-----			
80	M	1,3-dichloropropane	0.487	0.480	1.4	107	0.00	6.29
81		2-hexanone	0.094	0.091	3.2	105	0.00	6.31
82	M	butyl acetate	0.185	0.185	0.0	109	0.00	6.40
83	M	dibromochloromethane	0.373	0.379	-1.6	104	0.00	6.48
84	M	1,2-dibromoethane	0.307	0.327	-6.5	106	0.00	6.59
85		n-butyl ether	1.380	1.215	12.0	100	0.00	7.09
86	M	chlorobenzene	0.982	0.979	0.3	106	0.00	7.03
87	M	1,1,1,2-tetrachloroethane	0.357	0.368	-3.1	107	0.00	7.09
88	M	ethylbenzene	1.541	1.506	2.3	105	0.00	7.10
89	M	m,p-xylene	0.660	0.674	-2.1	106	0.00	7.22
90	M	o-xylene	0.668	0.684	-2.4	105	0.00	7.57
91	M	styrene	1.092	1.123	-2.8	104	0.00	7.59

Initial Calibration Verification

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7392-ICV7392
Lab FileID: 3D174414.D

92	M	bromoform	0.248	0.288	-16.1	106	0.00	7.76
93		butyl acrylate	0.572	0.594	-3.8	107	0.00	7.49
94		n-amyl acetate	0.240	0.233	2.9	101	0.00	7.70
95		isopropylbenzene	1.648	1.730	-5.0	105	0.00	7.91
96		cis-1,4-dichloro-2-butene	0.114	0.129	-13.2	102	0.00	7.95
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	9.18
98	S	4-bromofluorobenzene (s)	0.910	0.870	4.4	104	0.00	8.07
99	M	bromobenzene	0.806	0.819	-1.6	111	0.00	8.21
100	M	1,1,2,2-tetrachloroethane	0.665	0.642	3.5	108	0.00	8.18
101	M	trans-1,4-dichloro-2-bute	0.141	0.144	-2.1	109	0.00	8.22
102	M	1,2,3-trichloropropane	0.213	0.216	-1.4	108	0.00	8.24
103	M	n-propylbenzene	3.402	3.252	4.4	104	0.00	8.31
104	M	2-chlorotoluene	0.806	0.795	1.4	106	0.00	8.40
105	M	4-chlorotoluene	0.819	0.823	-0.5	104	0.00	8.51
106	M	1,3,5-trimethylbenzene	2.524	2.485	1.5	103	0.00	8.48
107	M	tert-butylbenzene	0.627	0.691	-10.2	113	0.00	8.78
108	M	1,2,4-trimethylbenzene	2.531	2.444	3.4	99	0.00	8.84
109	M	sec-butylbenzene	3.128	3.127	0.0	103	0.00	8.99
110	M	1,3-dichlorobenzene	1.511	1.568	-3.8	102	0.00	9.12
111	M	p-isopropyltoluene	2.645	2.733	-3.3	103	0.00	9.14
112	M	1,4-dichlorobenzene	1.518	1.539	-1.4	103	0.00	9.21
113		1,2,3-trimethylbenzene			-----NA-----			
114		benzyl chloride	1.382	1.295	6.3	96	0.00	9.31
115	M	1,2-dichlorobenzene	1.431	1.453	-1.5	102	0.00	9.56
116	M	n-butylbenzene	1.257	1.275	-1.4	104	0.00	9.54
117	M	1,2-dibromo-3-chloropropa	0.159	0.181	-13.8	111	0.00	10.32
118		1,3,5-trichlorobenzene	1.027	1.061	-3.3	102	0.00	10.52
119	M	1,2,4-trichlorobenzene	0.838	0.872	-4.1	105	0.00	11.15
120	M	hexachlorobutadiene	0.322	0.336	-4.3	102	0.00	11.30
121	M	naphthalene	1.910	1.996	-4.5	104	0.00	11.40
122	M	1,2,3-trichlorobenzene	0.693	0.745	-7.5	105	0.00	11.63
123	m	hexachloroethane	0.393	0.432	-9.9	106	0.00	9.84
124		2-methylnaphthalene	0.934	0.969	-3.7	99	0.00	12.54

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 3D174409.D M3D7392.M Fri Mar 11 18:53:38 2022 3D

Initial Calibration Verification

Page 1 of 3

Job Number: JD43253
 Account: GESNYP Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7392-ICV7392
 Lab FileID: 3D174415.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V3D7392\3D174415.D Vial: 15
 Acq On : 10 Mar 2022 6:42 pm Operator: brittank
 Sample : icv7392-50 Inst : MS3D
 Misc : MS57062,V3D7392,5,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D7392.M (RTE Integrator)
 Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xFri Mar 11 09:53:10 2022
 Last Update : Fri Mar 11 09:53:10 2022
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	tert butyl alcohol-d9	1.000	1.000	0.0	101	0.00	2.87
2 M	tertiary butyl alcohol			-----NA-----			
	----- True	Calc.	% Drift	-----			
3	ethanol			-----NA-----			
	----- AvgRF	CCRF	% Dev	-----			
4 M	1,4-dioxane			-----NA-----			
5 I	pentafluorobenzene	1.000	1.000	0.0	97	0.00	4.06
6	chlorodifluoromethane	0.437	0.610	-39.6#	143	0.00	1.54
7 M	dichlorodifluoromethane			-----NA-----			
8 M	chloromethane			-----NA-----			
9 M	vinyl chloride			-----NA-----			
10	1,3-butadiene			-----NA-----			
11 M	bromomethane			-----NA-----			
12 M	chloroethane			-----NA-----			
13 M	trichlorofluoromethane			-----NA-----			
14 M	ethyl ether			-----NA-----			
15 M	acrolein			-----NA-----			
16	freon 113			-----NA-----			
17 M	1,1-dichloroethene			-----NA-----			
18 M	acetone			-----NA-----			
19 M	acetonitrile	0.036	0.039	-8.3	105	0.00	2.76
20 M	iodomethane			-----NA-----			
21 M	carbon disulfide			-----NA-----			
22 M	methylene chloride			-----NA-----			
23 M	methyl acetate			-----NA-----			
24 M	methyl tert butyl ether			-----NA-----			
25 M	trans-1,2-dichloroethene			-----NA-----			
26 M	di-isopropyl ether			-----NA-----			
27 M	2-butanone			-----NA-----			
28 M	1,1-dichloroethane			-----NA-----			
29 M	chloroprene			-----NA-----			
30 M	acrylonitrile	0.123	0.136	-10.6	106	0.00	3.03
31	hexane			-----NA-----			
32 M	vinyl acetate			-----NA-----			
33 M	ethyl tert-butyl ether			-----NA-----			
34 M	ethyl acetate			-----NA-----			
35 M	2,2-dichloropropane			-----NA-----			
36 M	cis-1,2-dichloroethene			-----NA-----			
37	methyl acrylate			-----NA-----			

Initial Calibration Verification

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Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7392-ICV7392
Lab FileID: 3D174415.D

38	M	propionitrile	-----NA-----
39	M	bromochloromethane	-----NA-----
40	M	tetrahydrofuran	-----NA-----
41	M	chloroform	-----NA-----
42	M	t-butyl formate	-----NA-----
43	S	dibromofluoromethane (s)	0.434 0.437 -0.7 100 0.00 4.07
44	M	methacrylonitrile	-----NA-----
45	M	1,1,1-trichloroethane	-----NA-----
46		cyclohexane	-----NA-----
47		1,1-dichloropropene	-----NA-----
48		iso-butyl alcohol	-----NA-----
49		carbon tetrachloride	-----NA-----

		True	Calc.	% Drift	
50		tert amyl alcohol	-----NA-----		

		AvgRF	CCRF	% Dev	
51	I	1,4-difluorobenzene	1.000	0.0	96 0.00 4.62
52	S	1,2-dichloroethane-d4 (s)	0.330	-4.8	106 0.00 4.31
53	M	n-butyl alcohol	-----NA-----		
54		2,2,4-trimethylpentane	-----NA-----		
55	M	benzene	-----NA-----		
56	M	tert-amyl methyl ether	-----NA-----		
57	M	heptane	-----NA-----		
58	M	isopropyl acetate	-----NA-----		
59	M	1,2-dichloroethane	-----NA-----		
60	M	trichloroethene	-----NA-----		
61		ethyl acrylate	-----NA-----		
62	M	2-nitropropane	-----NA-----		
63	M	2-chloroethyl vinyl ether	-----NA-----		
64	M	methyl methacrylate	-----NA-----		
65	M	1,2-dichloropropane	-----NA-----		
66	M	dibromomethane	-----NA-----		
67	M	methylcyclohexane	-----NA-----		
68	M	bromodichloromethane	-----NA-----		
69		epichlorohydrin	-----NA-----		
70	M	cis-1,3-dichloropropene	-----NA-----		
71	M	4-methyl-2-pentanone	-----NA-----		
72	M	3-methyl-1-butanol	-----NA-----		

73	I	chlorobenzene-d5	1.000	1.000	0.0	88	0.00	7.00
74	S	toluene-d8 (s)	1.269	1.319	-3.9	97	0.00	5.76
75		toluene	-----NA-----					
76		trans-1,3-dichloropropene	-----NA-----					
77		ethyl methacrylate	-----NA-----					
78		1,1,2-trichloroethane	-----NA-----					
79	M	tetrachloroethene	0.320	0.293	8.4	84	0.00	6.26
80	M	1,3-dichloropropane	-----NA-----					
81		2-hexanone	-----NA-----					
82	M	butyl acetate	-----NA-----					
83	M	dibromochloromethane	-----NA-----					
84	M	1,2-dibromoethane	-----NA-----					
85		n-butyl ether	-----NA-----					
86	M	chlorobenzene	-----NA-----					
87	M	1,1,1,2-tetrachloroethane	-----NA-----					
88	M	ethylbenzene	-----NA-----					
89	M	m,p-xylene	-----NA-----					
90	M	o-xylene	-----NA-----					
91	M	styrene	-----NA-----					

6.7.8

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Sample: V3D7392-ICV7392
Lab FileID: 3D174415.D

```
(#) = Out of Range          SPCC's out = 0  CCC's out = 0
3D174409.D M3D7392.M      Fri Mar 11 18:53:16 2022  3D
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Initial Calibration Verification

Job Number: JD43253
 Account: GESNYP Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7392-ICV7392
 Lab FileID: 3D174419.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V3D7392\3D174419.D Vial: 19
 Acq On : 11 Mar 2022 9:41 am Operator: brittank
 Sample : icv7392-50 Inst : MS3D
 Misc : MS57062,V3D7392,5,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D7392.M (RTE Integrator)
 Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xFri Mar 11 09:53:10 2022
 Last Update : Fri Mar 11 09:53:10 2022
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	tert butyl alcohol-d9	1.000	1.000	0.0	76	0.00	2.87
2 M	tertiary butyl alcohol			-----NA-----			
	----- True	Calc.	% Drift	-----			
3	ethanol			-----NA-----			
	----- AvgRF	CCRF	% Dev	-----			
4 M	1,4-dioxane			-----NA-----			
5 I	pentafluorobenzene	1.000	1.000	0.0	91	0.00	4.06
6	chlorodifluoromethane			-----NA-----			
7 M	dichlorodifluoromethane			-----NA-----			
8 M	chloromethane			-----NA-----			
9 M	vinyl chloride			-----NA-----			
10	1,3-butadiene			-----NA-----			
11 M	bromomethane	0.193	0.177	8.3	86	0.00	1.99
12 M	chloroethane			-----NA-----			
13 M	trichlorofluoromethane			-----NA-----			
14 M	ethyl ether			-----NA-----			
15 M	acrolein			-----NA-----			
16	freon 113			-----NA-----			
17 M	1,1-dichloroethene			-----NA-----			
18 M	acetone			-----NA-----			
19 M	acetonitrile			-----NA-----			
20 M	iodomethane			-----NA-----			
21 M	carbon disulfide			-----NA-----			
22 M	methylene chloride			-----NA-----			
23 M	methyl acetate			-----NA-----			
24 M	methyl tert butyl ether			-----NA-----			
25 M	trans-1,2-dichloroethene			-----NA-----			
26 M	di-isopropyl ether			-----NA-----			
27 M	2-butanone			-----NA-----			
28 M	1,1-dichloroethane			-----NA-----			
29 M	chloroprene			-----NA-----			
30 M	acrylonitrile			-----NA-----			
31	hexane			-----NA-----			
32 M	vinyl acetate			-----NA-----			
33 M	ethyl tert-butyl ether			-----NA-----			
34 M	ethyl acetate			-----NA-----			
35 M	2,2-dichloropropane			-----NA-----			
36 M	cis-1,2-dichloroethene			-----NA-----			
37	methyl acrylate			-----NA-----			

Initial Calibration Verification

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7392-ICV7392
Lab FileID: 3D174419.D

38	M	propionitrile								-----NA-----
39	M	bromochloromethane								-----NA-----
40	M	tetrahydrofuran								-----NA-----
41	M	chloroform								-----NA-----
42	M	t-butyl formate								-----NA-----
43	S	dibromofluoromethane (s)	0.434	0.440	-1.4	95	0.00	4.06		
44	M	methacrylonitrile								-----NA-----
45	M	1,1,1-trichloroethane								-----NA-----
46		cyclohexane								-----NA-----
47		1,1-dichloropropene								-----NA-----
48		iso-butyl alcohol								-----NA-----
49		carbon tetrachloride								-----NA-----
----- True Calc. % Drift -----										
50		tert amyl alcohol								-----NA-----
----- AvgRF CCRF % Dev -----										
51	I	1,4-difluorobenzene	1.000	1.000	0.0	90	0.00	4.62		
52	S	1,2-dichloroethane-d4 (s)	0.330	0.337	-2.1	97	0.00	4.31		
53	M	n-butyl alcohol								-----NA-----
54		2,2,4-trimethylpentane								-----NA-----
55	M	benzene								-----NA-----
56	M	tert-amyl methyl ether								-----NA-----
57	M	heptane								-----NA-----
58	M	isopropyl acetate								-----NA-----
59	M	1,2-dichloroethane								-----NA-----
60	M	trichloroethene								-----NA-----
61		ethyl acrylate								-----NA-----
62	M	2-nitropropane								-----NA-----
63	M	2-chloroethyl vinyl ether								-----NA-----
64	M	methyl methacrylate								-----NA-----
65	M	1,2-dichloropropane								-----NA-----
66	M	dibromomethane								-----NA-----
67	M	methylcyclohexane								-----NA-----
68	M	bromodichloromethane								-----NA-----
69		epichlorohydrin								-----NA-----
70	M	cis-1,3-dichloropropene								-----NA-----
71	M	4-methyl-2-pentanone								-----NA-----
72	M	3-methyl-1-butanol								-----NA-----

73	I	chlorobenzene-d5	1.000	1.000	0.0	86	0.00	6.99		
74	S	toluene-d8 (s)	1.269	1.314	-3.5	94	0.00	5.76		
75		toluene								-----NA-----
76		trans-1,3-dichloropropene								-----NA-----
77		ethyl methacrylate								-----NA-----
78		1,1,2-trichloroethane								-----NA-----
79	M	tetrachloroethene								-----NA-----
80	M	1,3-dichloropropane								-----NA-----
81		2-hexanone								-----NA-----
82	M	butyl acetate								-----NA-----
83	M	dibromochloromethane								-----NA-----
84	M	1,2-dibromoethane								-----NA-----
85		n-butyl ether								-----NA-----
86	M	chlorobenzene								-----NA-----
87	M	1,1,1,2-tetrachloroethane								-----NA-----
88	M	ethylbenzene								-----NA-----
89	M	m,p-xylene								-----NA-----
90	M	o-xylene								-----NA-----
91	M	styrene								-----NA-----

Initial Calibration Verification

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Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7392-ICV7392
Lab FileID: 3D174419.D

92	M	bromoform	-----NA-----
93		butyl acrylate	-----NA-----
94		n-amyl acetate	-----NA-----
95		isopropylbenzene	-----NA-----
96		cis-1,4-dichloro-2-butene	-----NA-----
97	I	1,4-dichlorobenzene-d4	1.000 1.000 0.0 72 0.00 9.19
98	S	4-bromofluorobenzene (s)	0.910 0.957 -5.2 84 0.00 8.07
99	M	bromobenzene	-----NA-----
100	M	1,1,2,2-tetrachloroethane	-----NA-----
101	M	trans-1,4-dichloro-2-bute	-----NA-----
102	M	1,2,3-trichloropropane	-----NA-----
103	M	n-propylbenzene	-----NA-----
104	M	2-chlorotoluene	-----NA-----
105	M	4-chlorotoluene	-----NA-----
106	M	1,3,5-trimethylbenzene	-----NA-----
107	M	tert-butylbenzene	-----NA-----
108	M	1,2,4-trimethylbenzene	-----NA-----
109	M	sec-butylbenzene	-----NA-----
110	M	1,3-dichlorobenzene	-----NA-----
111	M	p-isopropyltoluene	-----NA-----
112	M	1,4-dichlorobenzene	-----NA-----
113		1,2,3-trimethylbenzene	-----NA-----
114		benzyl chloride	-----NA-----
115	M	1,2-dichlorobenzene	-----NA-----
116	M	n-butylbenzene	-----NA-----
117	M	1,2-dibromo-3-chloropropa	-----NA-----
118		1,3,5-trichlorobenzene	-----NA-----
119	M	1,2,4-trichlorobenzene	-----NA-----
120	M	hexachlorobutadiene	-----NA-----
121	M	naphthalene	-----NA-----
122	M	1,2,3-trichlorobenzene	-----NA-----
123	m	hexachloroethane	-----NA-----
124		2-methylnaphthalene	-----NA-----

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 3D174409.D M3D7392.M Fri Mar 11 18:53:27 2022 3D

6.7.9
6

Continuing Calibration Summary

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7465-CC7392
Lab FileID: 3D176495.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...65-halfway\3d176495.d Vial: 6
 Acq On : 25 Apr 2022 11:45 am Operator: nickw
 Sample : cc7392-20 Inst : MS3D
 Misc : MS58411,V3D7465,5,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D7392.M (RTE Integrator)
 Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022
 Last Update : Mon Apr 11 11:49:38 2022
 Response via : Multiple Level Calibration

Min. RRF : 0.010 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)	R.T.
1	tert butyl alcohol-d9	1.000	1.000	0.0	65	0.00	2.87
2 M	tertiary butyl alcohol	1.498	1.416	5.5	68	0.00	2.92
	----- True Calc. % Drift -----						
3	ethanol	2000.000	1547.597	22.6#	51	0.00	2.32
	----- AvgRF CCRF % Dev -----						
4 M	1,4-dioxane	0.090	0.062	31.1#	46#	0.00	5.04
5 I	pentafluorobenzene	1.000	1.000	0.0	121	0.00	4.06
6	chlorodifluoromethane	0.437	0.443	-1.4	123	0.00	1.54
7 M	dichlorodifluoromethane	0.517	0.713	-37.9#	176	0.00	1.53
8 M	chloromethane	0.492	0.487	1.0	123	0.00	1.67
9 M	vinyl chloride	0.531	0.571	-7.5	131	0.00	1.75
10	1,3-butadiene	0.544	0.440	19.1	103	0.00	1.78
11 M	bromomethane	0.193	0.271	-40.4#	182	0.00	1.99
12 M	chloroethane	0.358	0.346	3.4	128	0.00	2.06
13 M	trichlorofluoromethane	0.768	0.807	-5.1	134	0.00	2.24
14 M	ethyl ether	0.248	0.300	-21.0#	153	0.00	2.42
15 M	acrolein	0.070	0.049	30.0#	88	0.00	2.51
16	freon 113	0.368	0.389	-5.7	125	0.00	2.59
17 M	1,1-dichloroethene	0.366	0.418	-14.2	140	0.00	2.59
18 M	acetone	0.028	0.027	3.6	110	0.00	2.59
19 M	acetonitrile	0.036	0.034	5.6	109	0.00	2.76
20 M	iodomethane	0.282	0.270	4.3	132	0.00	2.69
21 M	carbon disulfide	1.047	1.248	-19.2	146	0.00	2.75
22 M	methylene chloride	0.448	0.515	-15.0	143	0.00	2.89
23 M	methyl acetate	0.262	0.268	-2.3	125	0.00	2.79
24 M	methyl tert butyl ether	1.188	1.313	-10.5	132	0.00	3.06
25 M	trans-1,2-dichloroethene	0.427	0.471	-10.3	135	0.00	3.08
26 M	di-isopropyl ether	1.169	1.345	-15.1	138	0.00	3.36
27 M	2-butanone	0.044	0.040	9.1	113	0.00	3.71
28 M	1,1-dichloroethane	0.735	0.795	-8.2	133	0.00	3.36
29 M	chloroprene	0.628	0.660	-5.1	131	0.00	3.42
30 M	acrylonitrile	0.123	0.107	13.0	109	0.00	3.03
31	hexane	0.378	0.312	17.5	103	0.00	3.26
32 M	vinyl acetate	0.108	0.105	2.8	113	0.00	3.34
33 M	ethyl tert-butyl ether	1.296	1.423	-9.8	131	0.00	3.61
34 M	ethyl acetate	0.058	0.062	-6.9	128	0.00	3.73
35 M	2,2-dichloropropane	0.693	0.674	2.7	119	0.00	3.75
36 M	cis-1,2-dichloroethene	0.480	0.507	-5.6	132	0.00	3.74
37	methyl acrylate	0.071	0.063	11.3	117	0.00	3.76

Continuing Calibration Summary

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7465-CC7392
Lab FileID: 3D176495.D

38 M	propionitrile	0.047	0.042	10.6	110	0.00	3.74
39 M	bromochloromethane	0.251	0.244	2.8	126	0.00	3.90
40 M	tetrahydrofuran	0.095	0.090	5.3	108	0.00	3.92
41 M	chloroform	0.545	0.560	-2.8	132	0.00	3.96
42 M	t-butyl formate	0.429	0.295	31.2#	88	0.00	3.98
43 S	dibromofluoromethane (s)	0.434	0.441	-1.6	125	0.00	4.06
44 M	methacrylonitrile	0.170	0.173	-1.8	125	0.00	3.86
45 M	1,1,1-trichloroethane	0.751	0.692	7.9	119	0.00	4.10
46	cyclohexane	0.684	0.707	-3.4	130	0.00	4.17
47	1,1-dichloropropene	0.572	0.628	-9.8	133	0.00	4.20
48	iso-butyl alcohol	0.009	0.006#	33.3#	79	0.00	4.20
49	carbon tetrachloride	0.646	0.599	7.3	111	0.00	4.22

	----- True	Calc.	% Drift	-----			
50	tert amyl alcohol	100.000	60.482	39.5#	81	0.00	4.29

	----- AvgRF	CCRF	% Dev	-----			
51 I	1,4-difluorobenzene	1.000	1.000	0.0	123	0.00	4.62
52 S	1,2-dichloroethane-d4 (s)	0.330	0.327	0.9	123	0.00	4.31
53 M	n-butyl alcohol	0.004	0.002#	50.0#	56	0.00	4.67
54	2,2,4-trimethylpentane	0.881	0.829	5.9	117	0.00	4.42
55 M	benzene	1.113	1.220	-9.6	136	0.00	4.35
56 M	tert-amyl methyl ether	0.222	0.222	0.0	124	0.00	4.42
57 M	heptane	0.248	0.235	5.2	123	0.00	4.53
58 M	isopropyl acetate	0.070	0.069	1.4	124	0.00	4.32
59 M	1,2-dichloroethane	0.411	0.392	4.6	120	0.00	4.37
60 M	trichloroethene	0.344	0.332	3.5	120	0.00	4.81
61	ethyl acrylate	0.328	0.303	7.6	115	0.00	4.83
62 M	2-nitropropane	0.085	0.054	36.5#	80	0.00	5.34
63 M	2-chloroethyl vinyl ether	0.164	0.163	0.6	115	0.00	5.39
64 M	methyl methacrylate	0.079	0.078	1.3	120	0.00	5.01
65 M	1,2-dichloropropane	0.291	0.308	-5.8	134	0.00	5.00
66 M	dibromomethane	0.195	0.170	12.8	113	0.00	5.07
67 M	methylcyclohexane	0.524	0.505	3.6	121	0.00	5.01
68 M	bromodichloromethane	0.442	0.423	4.3	123	0.00	5.19
69	epichlorohydrin	0.024	0.019	20.8#	95	0.00	5.43
70 M	cis-1,3-dichloropropene	0.502	0.518	-3.2	128	0.00	5.53
71 M	4-methyl-2-pentanone	0.093	0.091	2.2	122	0.00	5.62
72 M	3-methyl-1-butanol	0.008	0.004#	50.0#	65	0.00	5.65

73 I	chlorobenzene-d5	1.000	1.000	0.0	123	0.00	7.00
74 S	toluene-d8 (s)	1.269	1.241	2.2	121	0.00	5.76
75	toluene	0.855	0.831	2.8	125	0.00	5.81
76	trans-1,3-dichloropropene	0.493	0.479	2.8	120	0.00	5.98
77	ethyl methacrylate	0.414	0.421	-1.7	125	0.00	6.01
78	1,1,2-trichloroethane	0.238	0.242	-1.7	130	0.00	6.15
79 M	tetrachloroethene	0.320	0.289	9.7	112	0.00	6.25
80 M	1,3-dichloropropane	0.487	0.492	-1.0	125	0.00	6.29
81	2-hexanone	0.094	0.085	9.6	111	0.00	6.31
82 M	butyl acetate	0.185	0.173	6.5	117	0.00	6.40
83 M	dibromochloromethane	0.373	0.323	13.4	111	0.00	6.48
84 M	1,2-dibromoethane	0.307	0.286	6.8	113	0.00	6.59
85	n-butyl ether	1.380	1.371	0.7	127	0.00	7.09
86 M	chlorobenzene	0.982	0.936	4.7	120	0.00	7.03
87 M	1,1,1,2-tetrachloroethane	0.357	0.309	13.4	109	0.00	7.09
88 M	ethylbenzene	1.541	1.567	-1.7	122	0.00	7.10
89 M	m,p-xylene	0.660	0.625	5.3	119	0.00	7.22
90 M	o-xylene	0.668	0.637	4.6	115	0.00	7.57
91 M	styrene	1.092	1.049	3.9	117	0.00	7.59

Continuing Calibration Summary

Page 3 of 3

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V3D7465-CC7392
Lab FileID: 3D176495.D

92	M	bromoform	0.248	0.184	25.8#	93	0.00	7.76
93		butyl acrylate	0.572	0.513	10.3	109	0.00	7.49
94		n-amyl acetate	0.240	0.217	9.6	115	0.00	7.70
95		isopropylbenzene	1.648	1.604	2.7	118	0.00	7.91
96		cis-1,4-dichloro-2-butene	0.114	0.076	33.3#	84	0.00	7.95
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	111	0.00	9.18
98	S	4-bromofluorobenzene (s)	0.910	1.036	-13.8	120	0.00	8.07
99	M	bromobenzene	0.806	0.802	0.5	108	0.00	8.21
100	M	1,1,2,2-tetrachloroethane	0.665	0.706	-6.2	117	0.00	8.18
101	M	trans-1,4-dichloro-2-bute	0.141	0.132	6.4	102	0.00	8.22
102	M	1,2,3-trichloropropane	0.213	0.214	-0.5	108	0.00	8.24
103	M	n-propylbenzene	3.402	3.775	-11.0	116	0.00	8.30
104	M	2-chlorotoluene	0.806	0.772	4.2	108	0.00	8.39
105	M	4-chlorotoluene	0.819	0.804	1.8	108	0.00	8.51
106	M	1,3,5-trimethylbenzene	2.524	2.633	-4.3	110	0.00	8.48
107	M	tert-butylbenzene	0.627	0.595	5.1	104	0.00	8.78
108	M	1,2,4-trimethylbenzene	2.531	2.717	-7.3	112	0.00	8.84
109	M	sec-butylbenzene	3.128	3.175	-1.5	107	0.00	8.99
110	M	1,3-dichlorobenzene	1.511	1.578	-4.4	111	0.00	9.11
111	M	p-isopropyltoluene	2.645	2.763	-4.5	107	0.00	9.14
112	M	1,4-dichlorobenzene	1.518	1.528	-0.7	115	0.00	9.21
113		1,2,3-trimethylbenzene	2.474	2.630	-6.3	116	0.00	9.23
114		benzyl chloride	1.382	1.258	9.0	100	0.00	9.31
115	M	1,2-dichlorobenzene	1.431	1.427	0.3	110	0.00	9.56
116	M	n-butylbenzene	1.257	1.287	-2.4	107	0.00	9.54
117	M	1,2-dibromo-3-chloropropa	0.159	0.147	7.5	102	0.00	10.32
118		1,3,5-trichlorobenzene	1.027	1.002	2.4	106	0.00	10.52
119	M	1,2,4-trichlorobenzene	0.838	0.802	4.3	110	0.00	11.15
120	M	hexachlorobutadiene	0.322	0.315	2.2	108	0.00	11.30
121	M	naphthalene	1.910	1.988	-4.1	114	0.00	11.40
122	M	1,2,3-trichlorobenzene	0.693	0.660	4.8	106	0.00	11.63
123	m	hexachloroethane	0.393	0.325	17.3	89	0.00	9.84
124		2-methylnaphthalene	0.934	0.752	19.5	97	0.00	12.54
125		pentafluorobenzene(a)	1.000	1.000	0.0	105	0.00	4.06
126		vinyl bromide		-----NA-----				
127		allyl chloride		-----NA-----				
128		1,4-dichlorobenzene-d4(a)	1.000	1.000	0.0	99	0.00	9.18
129		4-ethyltoluene		-----NA-----				

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

3D174408.D M3D7392.M

Tue Apr 26 05:54:25 2022

6.7.10
6

Run Sequence Report

Page 1 of 1

Job Number: JD43253**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Run ID: V2D8735	Method: SW846 8260D	Instrument ID: GCMS2D

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2D8735-BFB	2D200604.D	03/31/22 16:25	n/a	BFB Tune
V2D8735-IC8735	2D200605.D	03/31/22 17:12	n/a	Initial cal 0.2
V2D8735-IC8735	2D200606.D	03/31/22 17:42	n/a	Initial cal 0.5
V2D8735-IC8735	2D200607.D	03/31/22 18:12	n/a	Initial cal 1
V2D8735-IC8735	2D200608.D	03/31/22 18:42	n/a	Initial cal 2
V2D8735-IC8735	2D200609.D	03/31/22 19:12	n/a	Initial cal 4
V2D8735-IC8735	2D200610.D	03/31/22 19:42	n/a	Initial cal 8
V2D8735-IC8735	2D200611.D	03/31/22 20:12	n/a	Initial cal 20
V2D8735-IC8735	2D200612.D	03/31/22 20:41	n/a	Initial cal 50
V2D8735-IC8735	2D200613.D	03/31/22 21:11	n/a	Initial cal 100
V2D8735-IC8735	2D200614.D	03/31/22 21:41	n/a	Initial cal 200
V2D8735-ICV8735	2D200617.D	03/31/22 23:10	n/a	Initial cal verification 50
V2D8735-ICV8735	2D200618.D	03/31/22 23:40	n/a	Initial cal verification 50
V2D8735-BFB2	2D200621.D	04/01/22 10:29	n/a	BFB Tune
V2D8735-ICV8735	2D200622.D	04/01/22 10:58	n/a	Initial cal verification 50

6.8.1

6

Run Sequence Report

Page 1 of 1

Job Number: JD43253

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Run ID: V2D8765	Method: SW846 8260D	Instrument ID: GCMS2D

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2D8765-BFB	2D201298.D	04/22/22 09:28	n/a	BFB Tune
V2D8765-CC8735	2D201298.D	04/22/22 09:28	n/a	Continuing cal 20
V2D8765-BS	2D201300.D	04/22/22 10:47	n/a	Blank Spike
V2D8765-MB	2D201302.D	04/22/22 11:53	n/a	Method Blank
ZZZZZZ	2D201303.D	04/22/22 12:33	n/a	(unrelated sample)
ZZZZZZ	2D201304.D	04/22/22 13:02	n/a	(unrelated sample)
ZZZZZZ	2D201305.D	04/22/22 13:32	n/a	(unrelated sample)
ZZZZZZ	2D201306.D	04/22/22 14:01	n/a	(unrelated sample)
ZZZZZZ	2D201307.D	04/22/22 14:30	n/a	(unrelated sample)
ZZZZZZ	2D201308.D	04/22/22 14:59	n/a	(unrelated sample)
JD43253-1MS	2D201309.D	04/22/22 15:29	n/a	Matrix Spike
JD43253-1MSD	2D201310.D	04/22/22 15:58	n/a	Matrix Spike Duplicate
ZZZZZZ	2D201312.D	04/22/22 16:56	n/a	(unrelated sample)
ZZZZZZ	2D201313.D	04/22/22 17:26	n/a	(unrelated sample)
JD43253-6	2D201314.D	04/22/22 17:55	n/a	FIELD BLANK
JD43253-7	2D201315.D	04/22/22 18:24	n/a	EQUIPMENT BLANK
JD43253-8	2D201316.D	04/22/22 18:53	n/a	TRIP BLANK
ZZZZZZ	2D201317.D	04/22/22 19:23	n/a	(unrelated sample)
JD43253-1	2D201318.D	04/22/22 19:52	n/a	MW-4
JD43253-3	2D201320.D	04/22/22 20:50	n/a	MW-8A
JD43253-4	2D201321.D	04/22/22 21:19	n/a	MW-E

6.8.2

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Run Sequence Report

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Job Number: JD43253

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Run ID: V3D7392	Method: SW846 8260D	Instrument ID: GCMS3D

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V3D7392-BFB	3D174401.D	03/10/22 13:03	n/a	BFB Tune
V3D7392-IC7392	3D174402.D	03/10/22 13:38	n/a	Initial cal 0.2
V3D7392-IC7392	3D174403.D	03/10/22 14:01	n/a	Initial cal 0.5
V3D7392-IC7392	3D174404.D	03/10/22 14:25	n/a	Initial cal 1
V3D7392-IC7392	3D174405.D	03/10/22 14:48	n/a	Initial cal 2
V3D7392-IC7392	3D174406.D	03/10/22 15:11	n/a	Initial cal 4
V3D7392-IC7392	3D174407.D	03/10/22 15:35	n/a	Initial cal 8
V3D7392-IC7392	3D174408.D	03/10/22 15:58	n/a	Initial cal 20
V3D7392-ICC7392	3D174409.D	03/10/22 16:21	n/a	Initial cal 50
V3D7392-IC7392	3D174410.D	03/10/22 16:45	n/a	Initial cal 100
V3D7392-IC7392	3D174411.D	03/10/22 17:08	n/a	Initial cal 200
V3D7392-ICV7392	3D174414.D	03/10/22 18:18	n/a	Initial cal verification 50
V3D7392-ICV7392	3D174415.D	03/10/22 18:42	n/a	Initial cal verification 50
V3D7392-BFB2	3D174418.D	03/11/22 09:18	n/a	BFB Tune
V3D7392-ICV7392	3D174419.D	03/11/22 09:41	n/a	Initial cal verification 50

6.8.3

6

Run Sequence Report

Page 1 of 1

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Run ID: V3D7465	Method: SW846 8260D	Instrument ID: GCMS3D

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V3D7465-BFB	3D176495.D	04/25/22 11:45	n/a	BFB Tune
V3D7465-CC7392	3D176495.D	04/25/22 11:45	n/a	Continuing cal 20
V3D7465-BS	3D176497.D	04/25/22 12:35	n/a	Blank Spike
V3D7465-MB	3D176499.D	04/25/22 13:22	n/a	Method Blank
JD43253-2	3D176500.D	04/25/22 13:52	n/a	MW-5
ZZZZZZ	3D176501.D	04/25/22 14:15	n/a	(unrelated sample)
ZZZZZZ	3D176503.D	04/25/22 15:02	n/a	(unrelated sample)
ZZZZZZ	3D176504.D	04/25/22 15:26	n/a	(unrelated sample)
ZZZZZZ	3D176505.D	04/25/22 15:49	n/a	(unrelated sample)
JD43519-11	3D176506.D	04/25/22 16:12	n/a	(used for QC only; not part of job JD43253)
ZZZZZZ	3D176507.D	04/25/22 16:36	n/a	(unrelated sample)
ZZZZZZ	3D176508.D	04/25/22 16:59	n/a	(unrelated sample)
ZZZZZZ	3D176509.D	04/25/22 17:22	n/a	(unrelated sample)
ZZZZZZ	3D176510.D	04/25/22 17:46	n/a	(unrelated sample)
JD43519-11MS	3D176511.D	04/25/22 18:09	n/a	Matrix Spike
JD43519-11MSD	3D176512.D	04/25/22 18:33	n/a	Matrix Spike Duplicate
JD43253-2	3D176513.D	04/25/22 18:56	n/a	MW-5
ZZZZZZ	3D176514.D	04/25/22 19:20	n/a	(unrelated sample)
ZZZZZZ	3D176515.D	04/25/22 19:43	n/a	(unrelated sample)
ZZZZZZ	3D176516.D	04/25/22 20:06	n/a	(unrelated sample)
ZZZZZZ	3D176517.D	04/25/22 20:30	n/a	(unrelated sample)
ZZZZZZ	3D176518.D	04/25/22 20:53	n/a	(unrelated sample)
JD43253-5	3D176519.D	04/25/22 21:16	n/a	DUPLICATE
ZZZZZZ	3D176520.D	04/25/22 21:40	n/a	(unrelated sample)
ZZZZZZ	3D176521.D	04/25/22 22:03	n/a	(unrelated sample)
ZZZZZZ	3D176522.D	04/25/22 22:27	n/a	(unrelated sample)

6.8.4

6



MS Volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201318.d
 Acq On : 22 Apr 2022 7:52 pm
 Operator : nickw
 Sample : jd43253-1 Inst : MS2D
 Misc : MS58347,V2D8765,5,,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 25 03:46:13 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2mm Mon Apr 04 14:17:39 2022

QLast Update : Mon Apr 04 14:17:39 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.023	65	131883	500.00	ug/L	-0.05
5) pentafluorobenzene	9.702	168	496129	50.00	ug/L	-0.05
50) 1,4-difluorobenzene	10.840	114	646754	50.00	ug/L	-0.06
72) chlorobenzene-d5	15.098	117	620592	50.00	ug/L	-0.05
96) 1,4-dichlorobenzene-d4	17.960	152	378359	50.00	ug/L	-0.04
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.687	113	240267	48.35	ug/L	-0.06
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.70%
51) 1,2-dichloroethane-d4 (s)	10.222	65	269002	47.95	ug/L	-0.05
Spiked Amount	50.000	Range	81 - 124	Recovery	=	95.90%
73) toluene-d8 (s)	13.063	98	730340	49.78	ug/L	-0.05
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.56%
97) 4-bromofluorobenzene (s)	16.629	95	283637	45.35	ug/L	-0.05
Spiked Amount	50.000	Range	80 - 120	Recovery	=	90.70%
Target Compounds						
9) vinyl chloride	4.255	62	6563	0.66	ug/L	92
36) cis-1,2-dichloroethene	8.989	96	46598	9.16	ug/L	91
60) trichloroethene	11.275	130	3116	0.66	ug/L	85

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
Data File : 2d201318.d
Acq On : 22 Apr 2022 7:52 pm
Operator : nickw
Sample : jd43253-1 Inst : MS2D
Misc : MS58347,V2D8765,5,,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

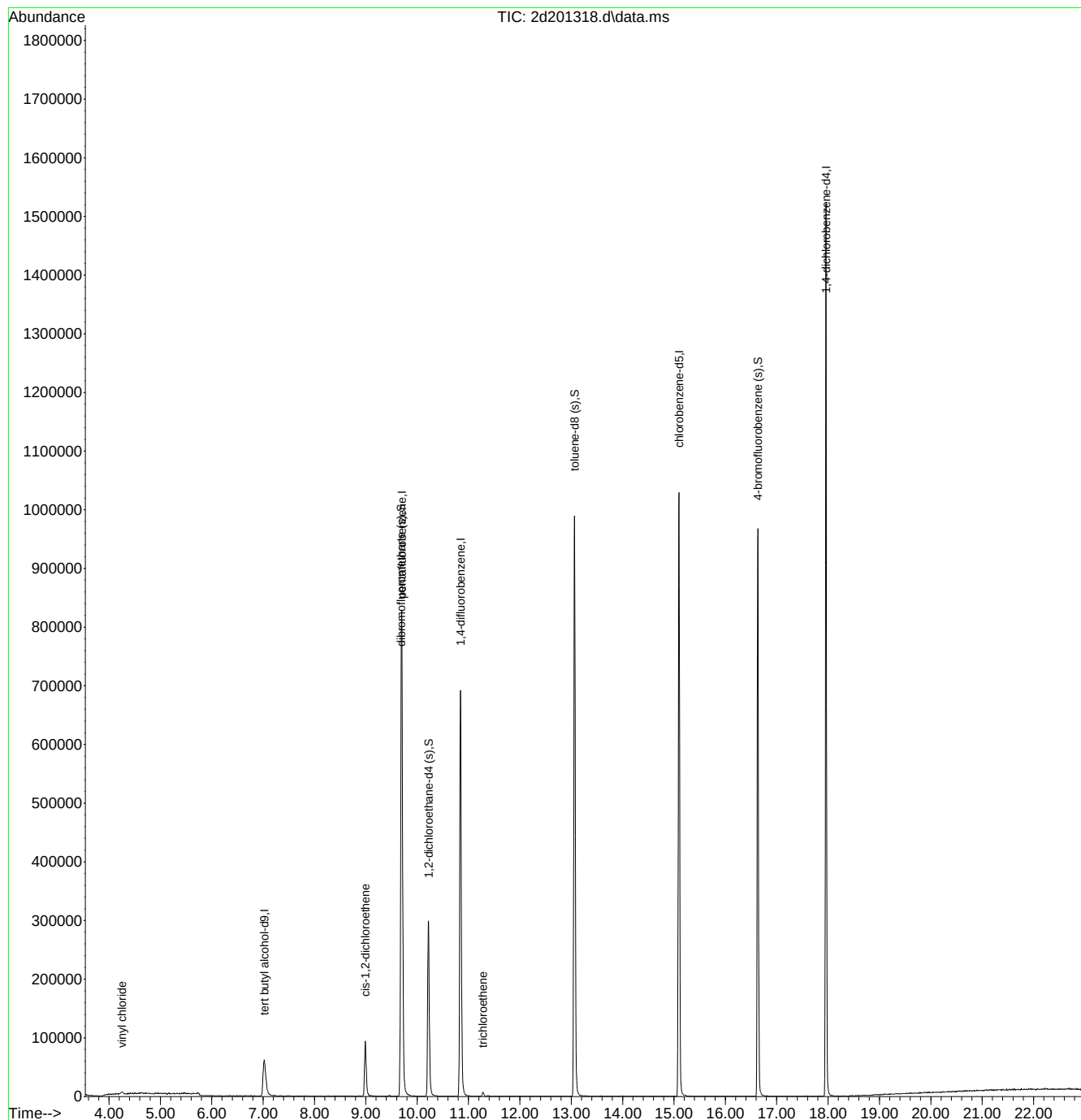
Quant Results File: M2D8735.RES

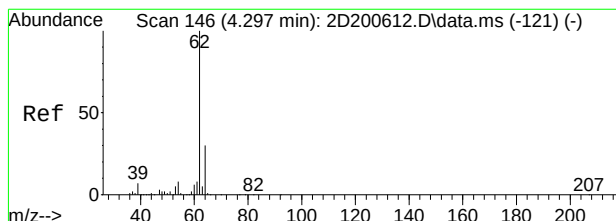
Quant Time: Apr 25 03:46:13 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2mm Mon Apr 04 14:17:39 2022

QLast Update : Mon Apr 04 14:17:39 2022

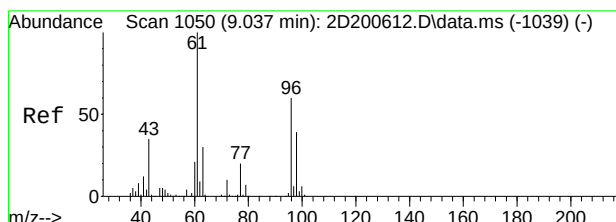
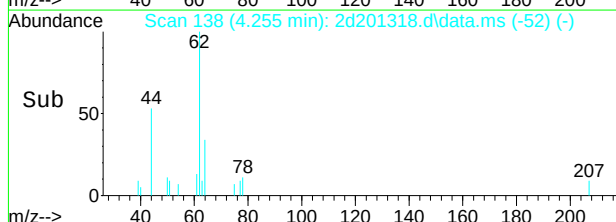
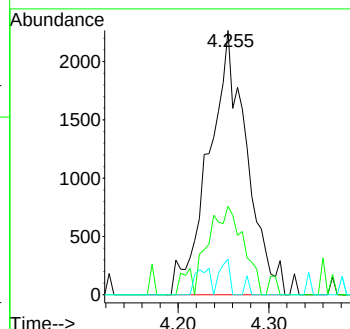
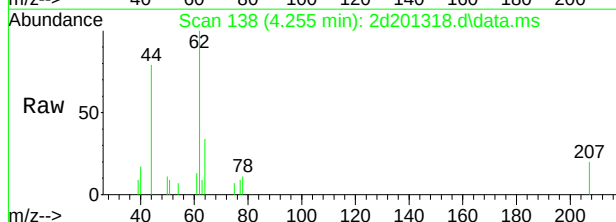
Response via : Initial Calibration





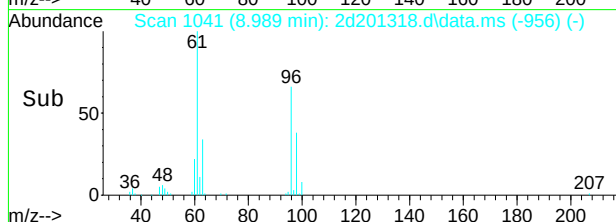
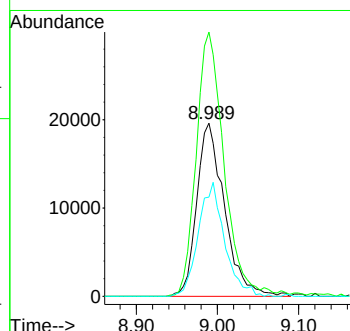
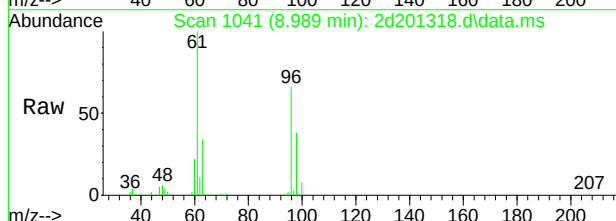
#9
vinyl chloride
Concen: 0.66 ug/L
RT: 4.255 min Scan# 138
Delta R.T. -0.047 min
Lab File: 2d201318.d
Acq: 22 Apr 2022 7:52 pm

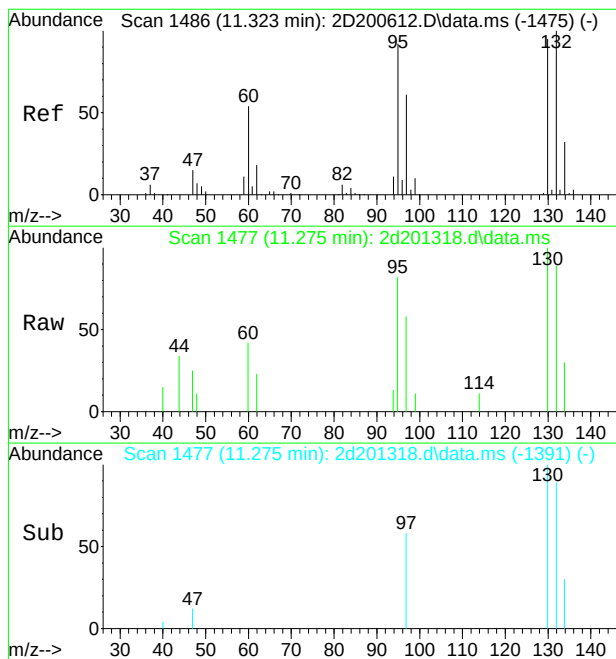
Tgt Ion	Ratio	Resp	Lower	Upper
62	100	6563		
64	33.6		0.0	60.0
61	13.4		0.0	38.1



#36
cis-1,2-dichloroethene
Concen: 9.16 ug/L
RT: 8.989 min Scan# 1041
Delta R.T. -0.053 min
Lab File: 2d201318.d
Acq: 22 Apr 2022 7:52 pm

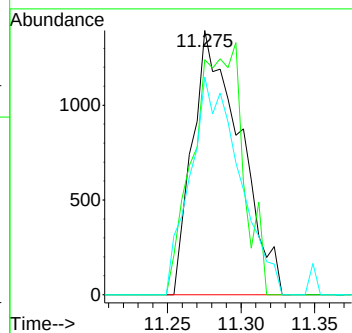
Tgt Ion	Ratio	Resp	Lower	Upper
96	100	46598		
61	152.6		135.7	195.7
98	57.3		34.1	94.1





#60
trichloroethene
Concen: 0.66 ug/L
RT: 11.275 min Scan# 1477
Delta R.T. -0.047 min
Lab File: 2d201318.d
Acq: 22 Apr 2022 7:52 pm

Tgt Ion	Ratio	Resp	Lower	Upper
130	100	3116		
132	88.9		74.7	134.7
95	82.4		66.1	126.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
 Data File : 3d176500.d
 Acq On : 25 Apr 2022 1:52 pm
 Operator : nickw
 Sample : jd43253-2 Inst : MS3D
 Misc : MS58347,V3D7465,5,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M
 Quant Results File: M3D7392.RES
 Quant Time: Apr 26 06:04:12 2022
 Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022
 QLast Update : Mon Apr 11 11:49:38 2022
 Response via : Initial Calibration

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

Internal Standards						
1) tert butyl alcohol-d9	2.868	65	59068	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	446801	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.623	114	691326	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	654388	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.184	152	332097	50.00	ug/L	0.00
125) pentafluorobenzene(a)	4.063	168	446801	50.00	ug/L	0.00
128) 1,4-dichlorobenzene-d4(a)	9.184	152	332164	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.063	113	205273	52.92	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	105.84%	
52) 1,2-dichloroethane-d4 (s)	4.313	65	222191	48.63	ug/L	0.00
Spiked Amount 50.000	Range 81	- 124	Recovery	=	97.26%	
74) toluene-d8 (s)	5.757	98	831959	50.10	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	100.20%	
98) 4-bromofluorobenzene (s)	8.074	95	338617	56.02	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	112.04%	
Target Compounds						
						Qvalue
9) vinyl chloride	1.752	62	108773	22.91	ug/L	98
18) acetone	2.587	58	19370	78.74	ug/L	96
21) carbon disulfide	2.752	76	10297	1.10	ug/L	90
22) methylene chloride	2.898	84	5656	1.41	ug/L	80
25) trans-1,2-dichloroethene	3.081	96	14861	3.89	ug/L #	78
27) 2-butanone	3.709	72	86292	217.94	ug/L #	82
36) cis-1,2-dichloroethene	3.740	96	864187	201.38	ug/L	93
41) chloroform	3.959	85	15871	3.26	ug/L	81
60) trichloroethene	4.813	130	18175	3.82	ug/L	94
75) toluene	5.812	92	2566	0.23	ug/L	94
79) tetrachloroethene	6.257	164	2131	0.51	ug/L #	87
81) 2-hexanone	6.318	58	1683	1.37	ug/L	92
88) ethylbenzene	7.099	91	6266	0.31	ug/L	76
89) m,p-xylene	7.208	106	6096	0.71	ug/L	86
90) o-xylene	7.574	106	4896	0.56	ug/L	86

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
Data File : 3d176500.d
Acq On : 25 Apr 2022 1:52 pm
Operator : nickw
Sample : jd43253-2
Misc : MS58347,V3D7465,5,,,,,1
ALS Vial : 11 Sample Multiplier: 1

Inst : MS3D

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

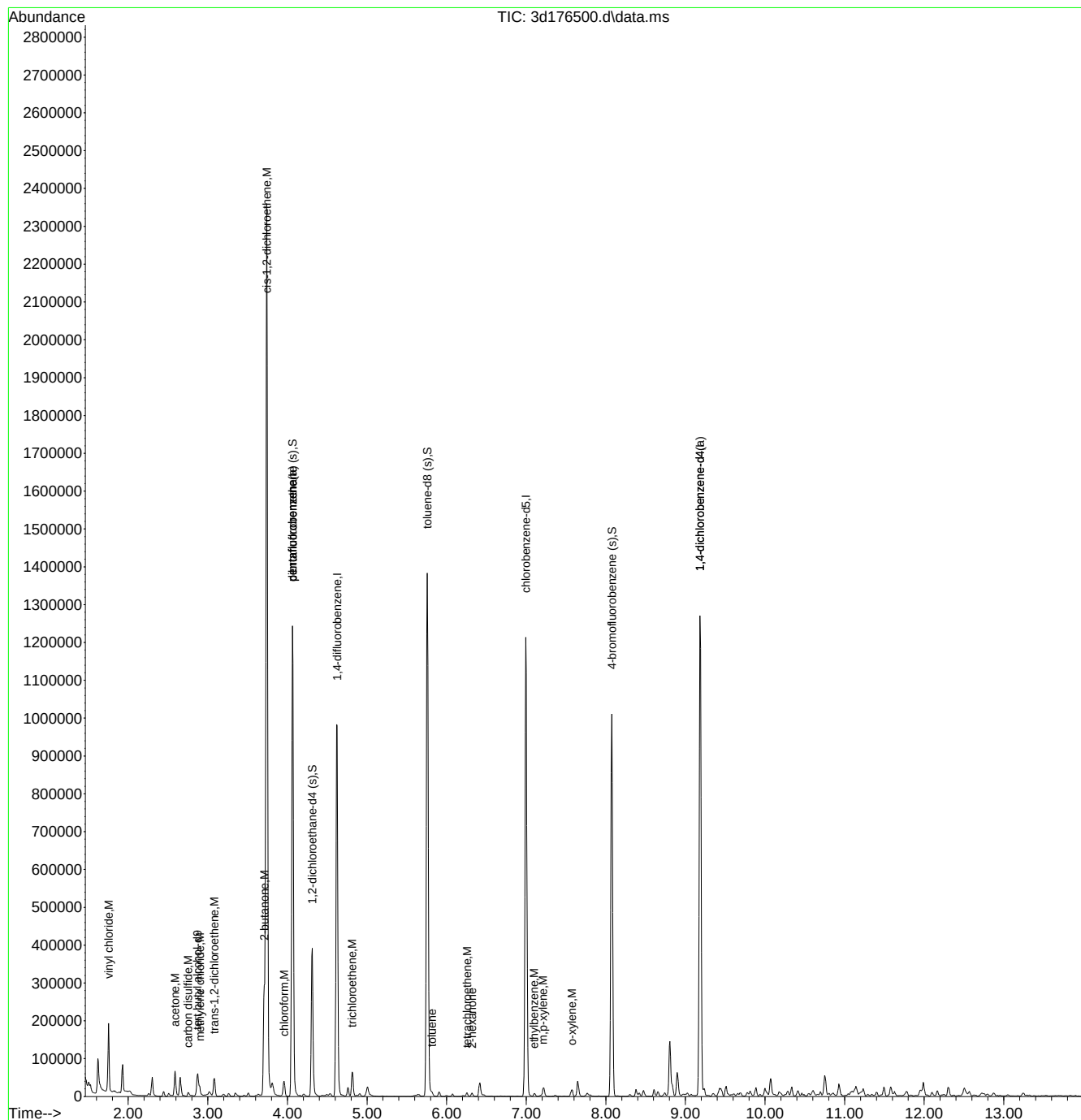
Quant Results File: M3D7392.RES

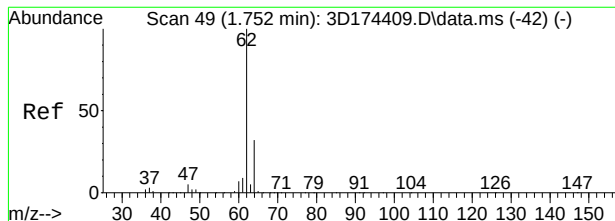
Quant Time: Apr 26 06:04:12 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

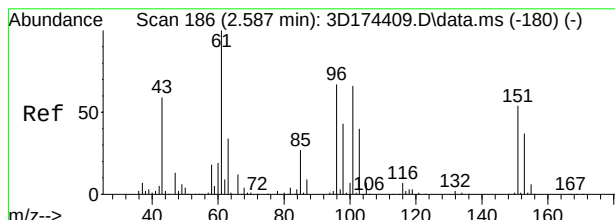
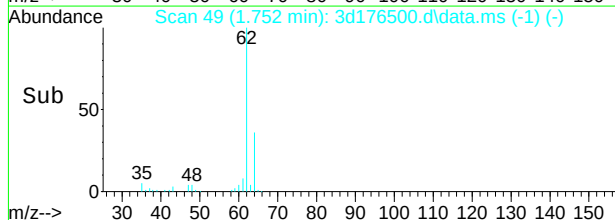
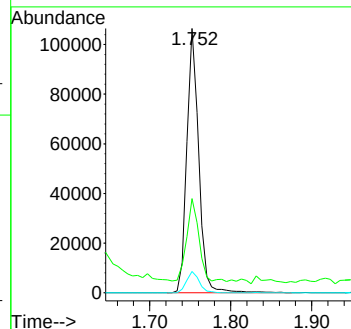
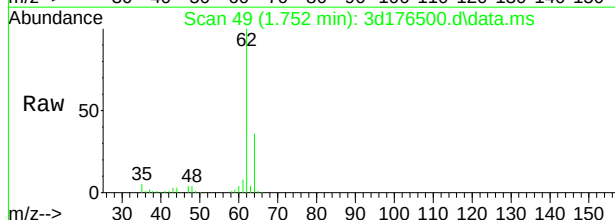
Response via : Initial Calibration





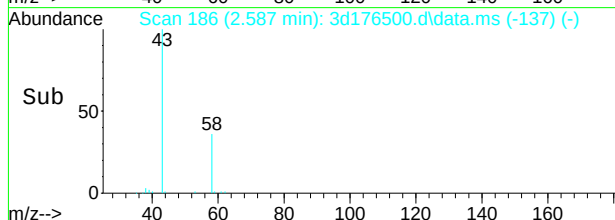
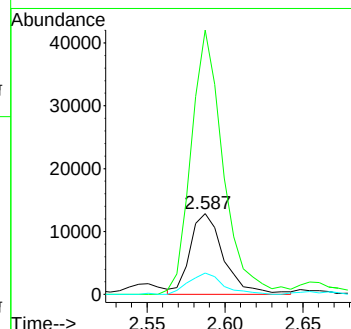
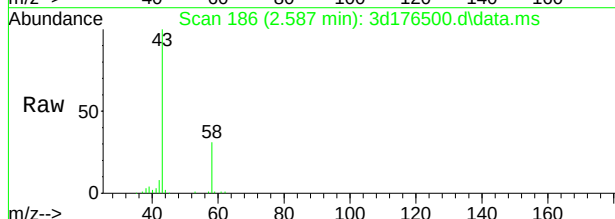
#9
vinyl chloride
Concen: 22.91 ug/L
RT: 1.752 min Scan# 49
Delta R.T. 0.000 min
Lab File: 3d176500.d
Acq: 25 Apr 2022 1:52 pm

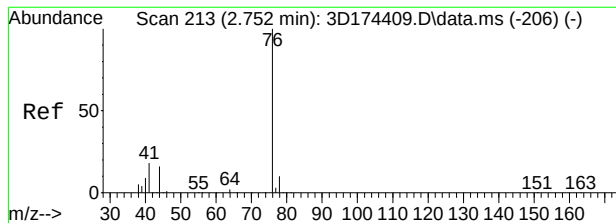
Tgt Ion:	62	Resp:	108773
Ion	Ratio	Lower	Upper
62	100		
64	31.4	2.3	62.3
61	8.1	0.0	39.0



#18
acetone
Concen: 78.74 ug/L
RT: 2.587 min Scan# 186
Delta R.T. 0.000 min
Lab File: 3d176500.d
Acq: 25 Apr 2022 1:52 pm

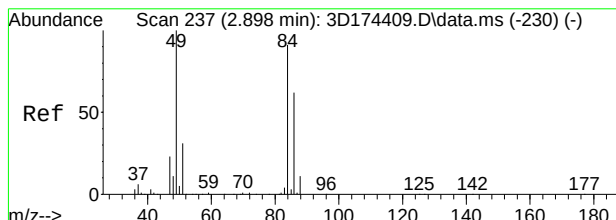
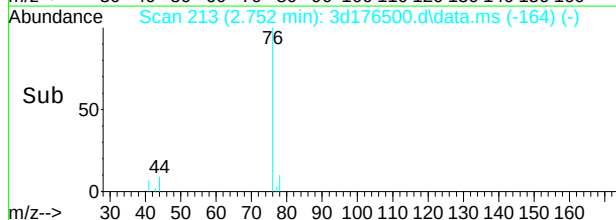
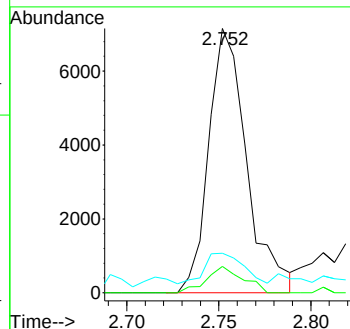
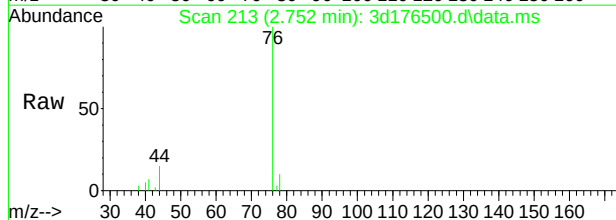
Tgt Ion:	58	Resp:	19370
Ion	Ratio	Lower	Upper
58	100		
43	331.8	294.2	354.2
42	27.3	0.0	59.2





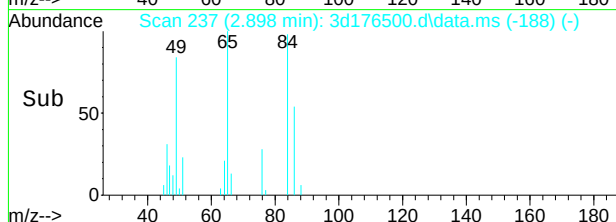
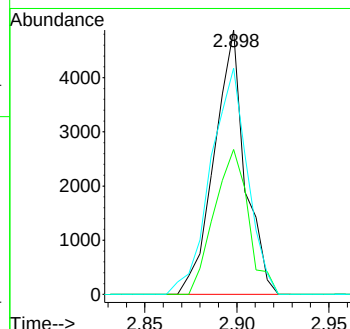
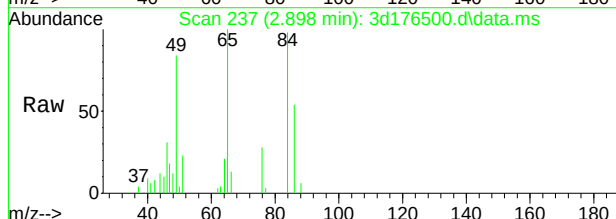
#21
carbon disulfide
Concen: 1.10 ug/L
RT: 2.752 min Scan# 213
Delta R.T. 0.001 min
Lab File: 3d176500.d
Acq: 25 Apr 2022 1:52 pm

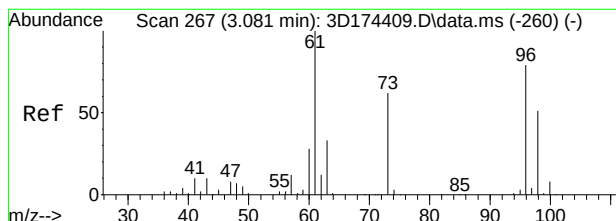
Tgt Ion:	76	Resp:	10297
Ion Ratio	Lower	Upper	
76	100		
78	10.0	0.0	39.5
44	9.8	0.0	45.9



#22
methylene chloride
Concen: 1.41 ug/L
RT: 2.898 min Scan# 237
Delta R.T. 0.000 min
Lab File: 3d176500.d
Acq: 25 Apr 2022 1:52 pm

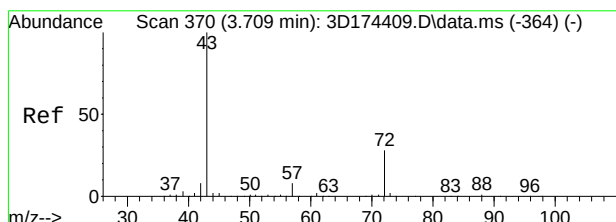
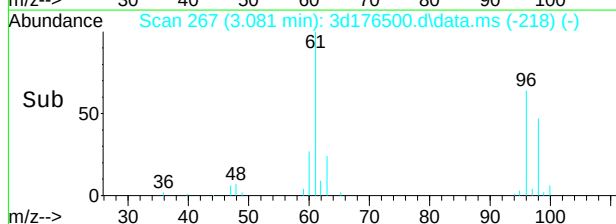
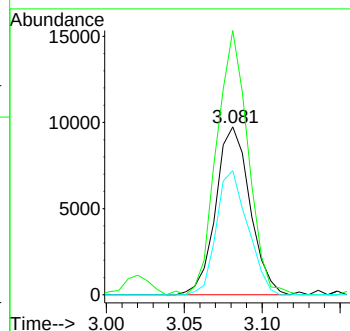
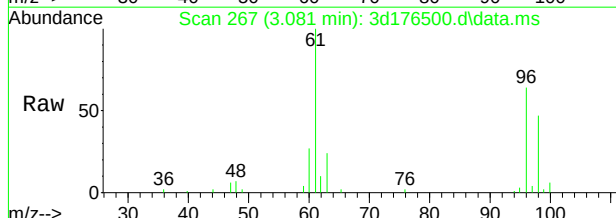
Tgt Ion:	84	Resp:	5656
Ion Ratio	Lower	Upper	
84	100		
86	54.8	37.5	97.5
49	85.5	79.4	139.4





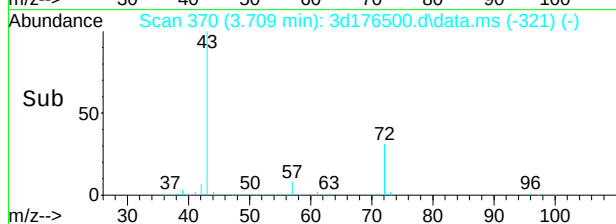
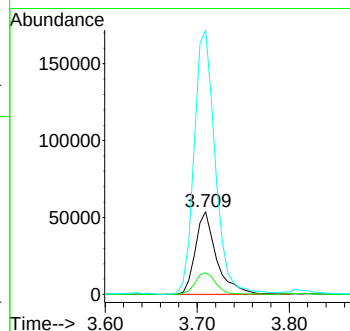
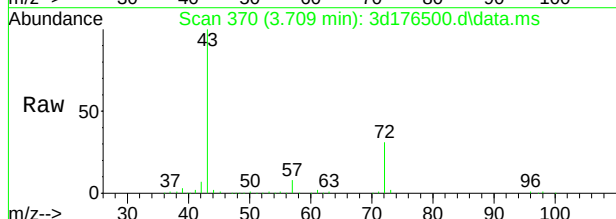
#25
trans-1,2-dichloroethene
Concen: 3.89 ug/L
RT: 3.081 min Scan# 267
Delta R.T. 0.000 min
Lab File: 3d176500.d
Acq: 25 Apr 2022 1:52 pm

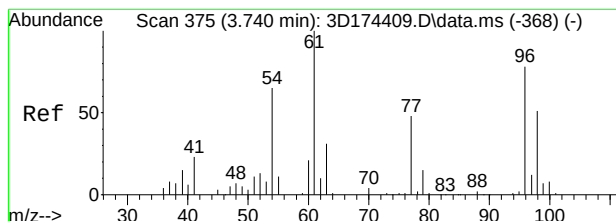
Tgt Ion:	96	Resp:	14861
Ion	Ratio	Lower	Upper
96	100		
61	157.5	96.0	156.0#
98	74.0	34.7	94.7



#27
2-butanone
Concen: 217.94 ug/L
RT: 3.709 min Scan# 370
Delta R.T. 0.000 min
Lab File: 3d176500.d
Acq: 25 Apr 2022 1:52 pm

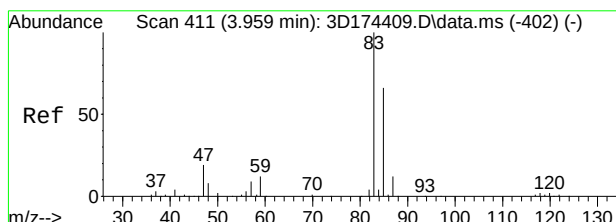
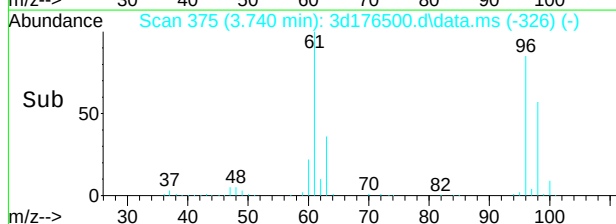
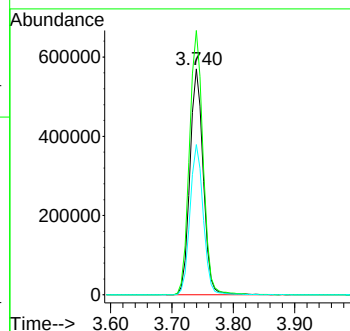
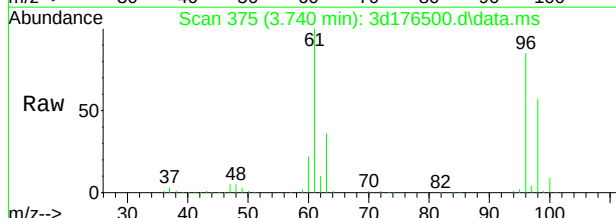
Tgt Ion:	72	Resp:	86292
Ion	Ratio	Lower	Upper
72	100		
57	26.0	0.0	58.1
43	319.5	331.5	391.5#





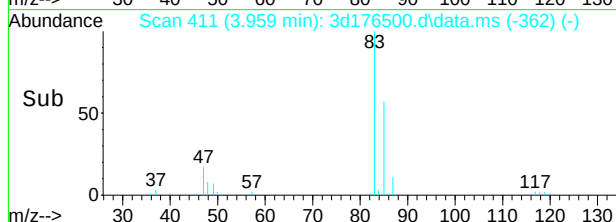
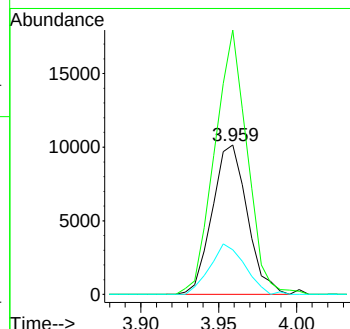
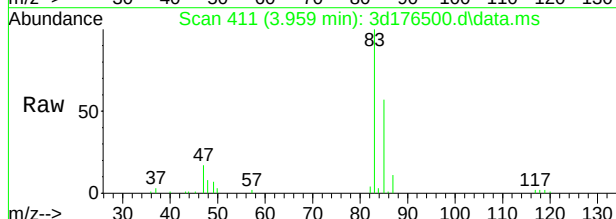
#36
cis-1,2-dichloroethene
Concen: 201.38 ug/L
RT: 3.740 min Scan# 375
Delta R.T. 0.000 min
Lab File: 3d176500.d
Acq: 25 Apr 2022 1:52 pm

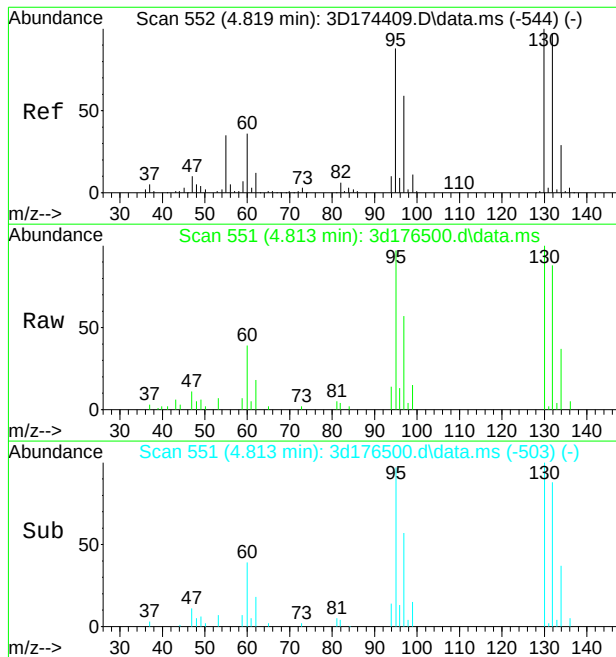
Tgt Ion	Ratio	Lower	Upper
96	100		
61	116.9	98.0	158.0
98	66.5	34.8	94.8



#41
chloroform
Concen: 3.26 ug/L
RT: 3.959 min Scan# 411
Delta R.T. 0.000 min
Lab File: 3d176500.d
Acq: 25 Apr 2022 1:52 pm

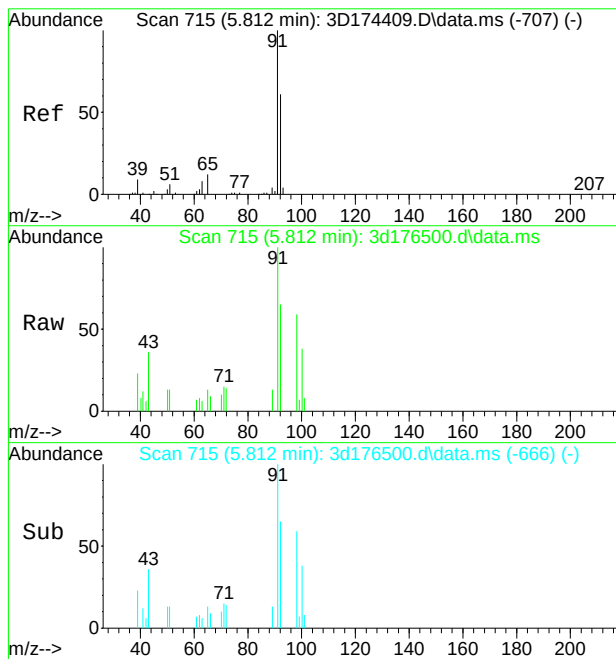
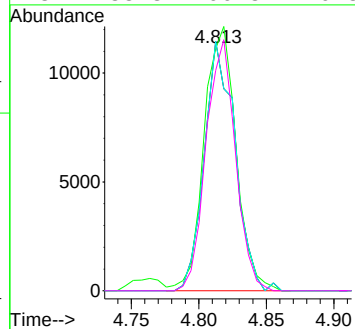
Tgt Ion	Ratio	Lower	Upper
85	100		
83	176.9	120.6	180.6
47	29.9	5.6	65.6





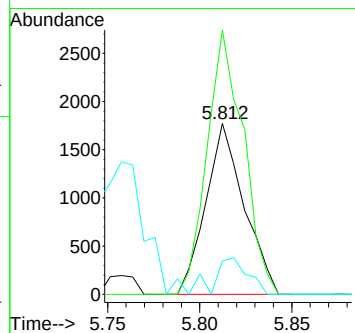
#60
trichloroethene
Concen: 3.82 ug/L
RT: 4.813 min Scan# 551
Delta R.T. -0.006 min
Lab File: 3d176500.d
Acq: 25 Apr 2022 1:52 pm

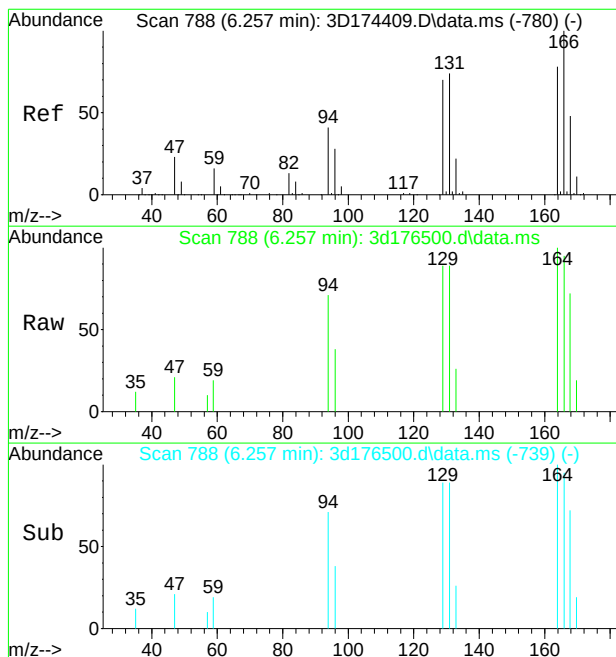
Tgt Ion	Ratio	Resp	Lower	Upper
130	100	18175		
95	96.9	57.7	117.7	
130	100.0	70.0	130.0	
132	88.3	66.8	126.8	



#75
toluene
Concen: 0.23 ug/L
RT: 5.812 min Scan# 715
Delta R.T. 0.000 min
Lab File: 3d176500.d
Acq: 25 Apr 2022 1:52 pm

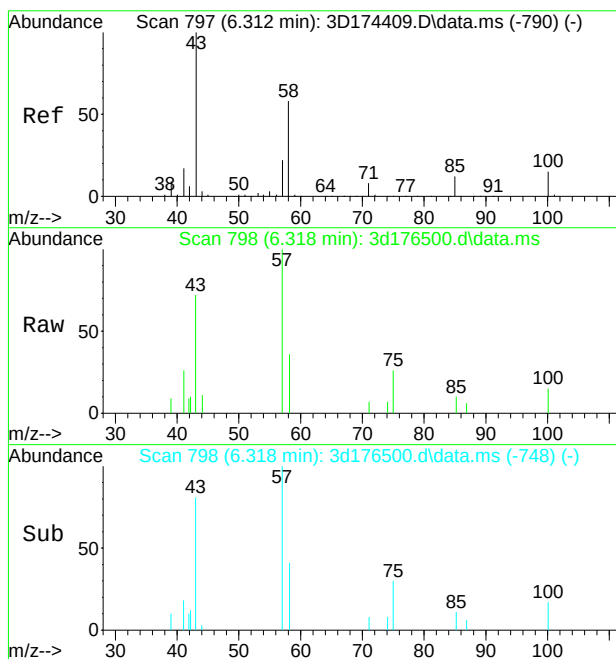
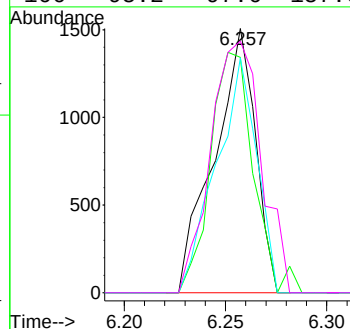
Tgt Ion	Ratio	Resp	Lower	Upper
92	100	2566		
91	154.6	144.2	184.2	
65	19.6	0.0	40.0	





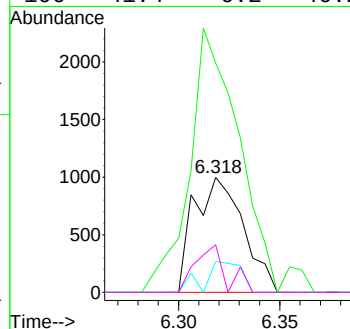
#79
tetrachloroethene
Concen: 0.51 ug/L
RT: 6.257 min Scan# 788
Delta R.T. 0.000 min
Lab File: 3d176500.d
Acq: 25 Apr 2022 1:52 pm

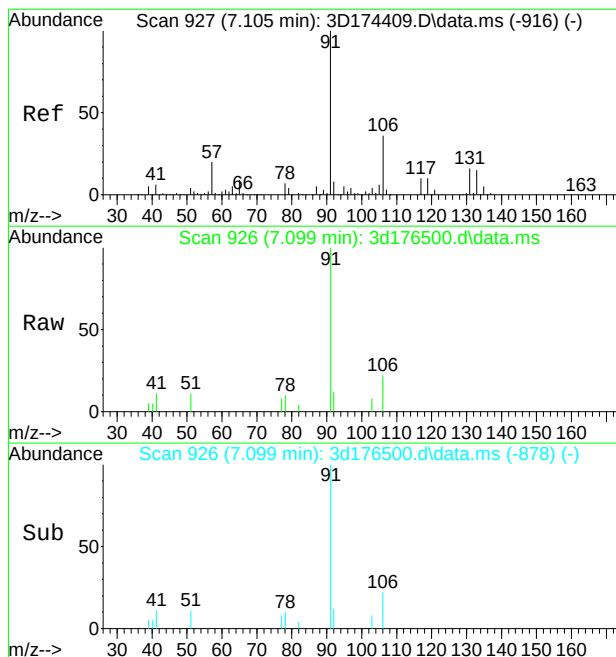
Tgt Ion	Ratio	Lower	Upper
164	100		
129	89.1	59.4	119.4
131	88.9	64.6	124.6
166	95.2	97.6	157.6#



#81
2-hexanone
Concen: 1.37 ug/L
RT: 6.318 min Scan# 798
Delta R.T. 0.006 min
Lab File: 3d176500.d
Acq: 25 Apr 2022 1:52 pm

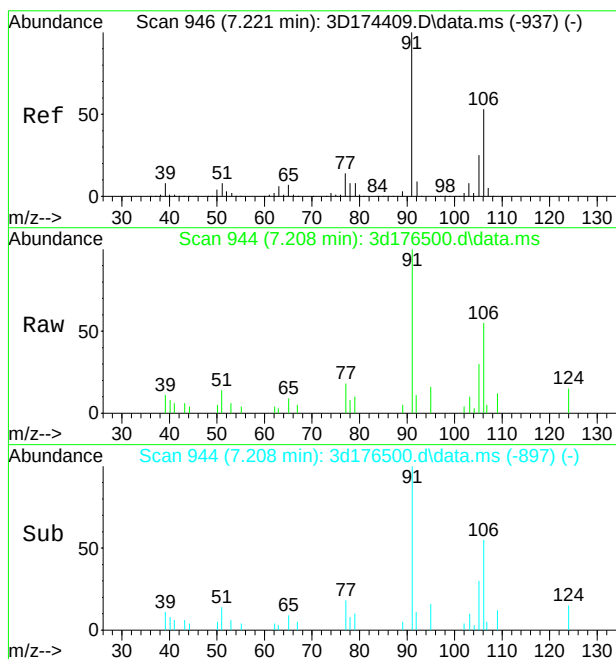
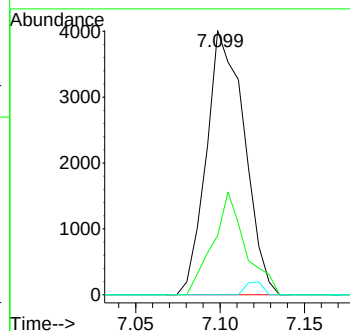
Tgt Ion	Ratio	Lower	Upper
58	100		
43	166.5	151.2	191.2
85	26.9	0.4	40.4
100	41.4	6.2	46.2





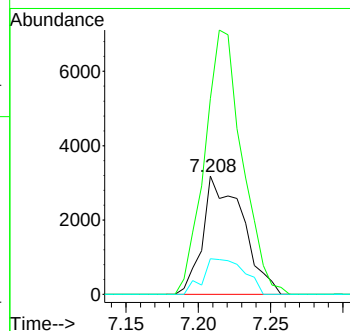
#88
ethylbenzene
Concen: 0.31 ug/L
RT: 7.099 min Scan# 926
Delta R.T. -0.005 min
Lab File: 3d176500.d
Acq: 25 Apr 2022 1:52 pm

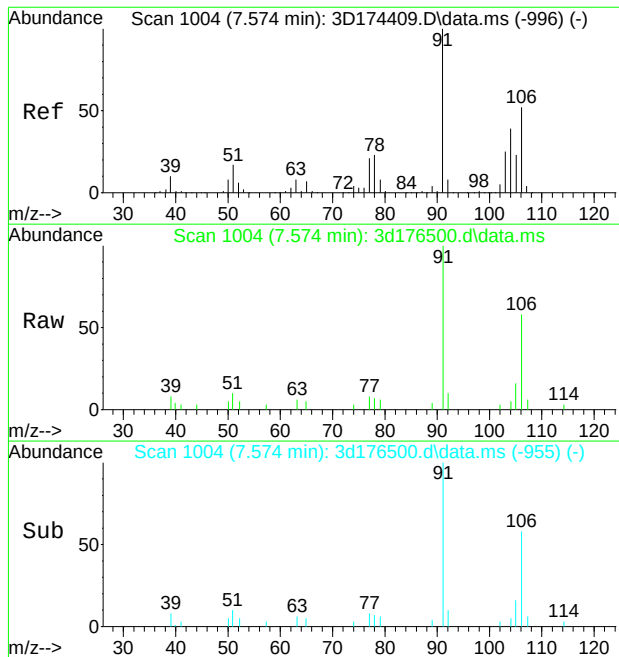
Tgt Ion:	91	Resp:	6266
Ion Ratio	Lower	Upper	
91	100		
106	22.4	6.2	66.2
65	0.0	0.0	39.1



#89
m,p-xylene
Concen: 0.71 ug/L
RT: 7.208 min Scan# 944
Delta R.T. -0.012 min
Lab File: 3d176500.d
Acq: 25 Apr 2022 1:52 pm

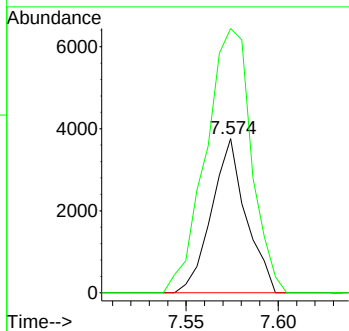
Tgt Ion:	106	Resp:	6096
Ion Ratio	Lower	Upper	
106	100		
91	165.1	156.9	216.9
77	30.1	0.0	56.4





#90
o-xylene
Concen: 0.56 ug/L
RT: 7.574 min Scan# 1004
Delta R.T. 0.000 min
Lab File: 3d176500.d
Acq: 25 Apr 2022 1:52 pm

Tgt Ion	Ratio	Lower	Upper
106	100		
91	171.6	162.7	222.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
 Data File : 3d176513.d
 Acq On : 25 Apr 2022 6:56 pm
 Operator : nickw
 Sample : jd43253-2 Inst : MS3D
 Misc : MS58347,V3D7465,5,,,,10
 ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Results File: M3D7392.RES

Quant Time: Apr 26 06:11:54 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Mon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.868	65	96749	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	477249	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.623	114	738830	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	687841	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.190	152	352782	50.00	ug/L	0.00
125) pentafluorobenzene(a)	4.063	168	477249	50.00	ug/L	0.00
128) 1,4-dichlorobenzene-d4(a)	9.190	152	352782	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.069	113	224555	54.20	ug/L	0.00
Spiked Amount 50.000	Range	80 - 120	Recovery	=	108.40%	
52) 1,2-dichloroethane-d4 (s)	4.313	65	254883	52.20	ug/L	0.00
Spiked Amount 50.000	Range	81 - 124	Recovery	=	104.40%	
74) toluene-d8 (s)	5.757	98	871005	49.90	ug/L	0.00
Spiked Amount 50.000	Range	80 - 120	Recovery	=	99.80%	
98) 4-bromofluorobenzene (s)	8.074	95	364936	56.84	ug/L	0.00
Spiked Amount 50.000	Range	80 - 120	Recovery	=	113.68%	
Target Compounds						
9) vinyl chloride	1.752	62	8946	1.76	ug/L	69
18) acetone	2.587	58	2727	10.38	ug/L #	85
25) trans-1,2-dichloroethene	3.075	96	1547	0.38	ug/L #	58
27) 2-butanone	3.715	72	9851	23.29	ug/L #	76
36) cis-1,2-dichloroethene	3.740	96	87615	19.11	ug/L	97
41) chloroform	3.965	85	6400	1.23	ug/L	86
60) trichloroethene	4.819	130	1600	0.31	ug/L	90

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
Data File : 3d176513.d
Acq On : 25 Apr 2022 6:56 pm
Operator : nickw
Sample : jd43253-2 Inst : MS3D
Misc : MS58347,V3D7465,5,,,,,10
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

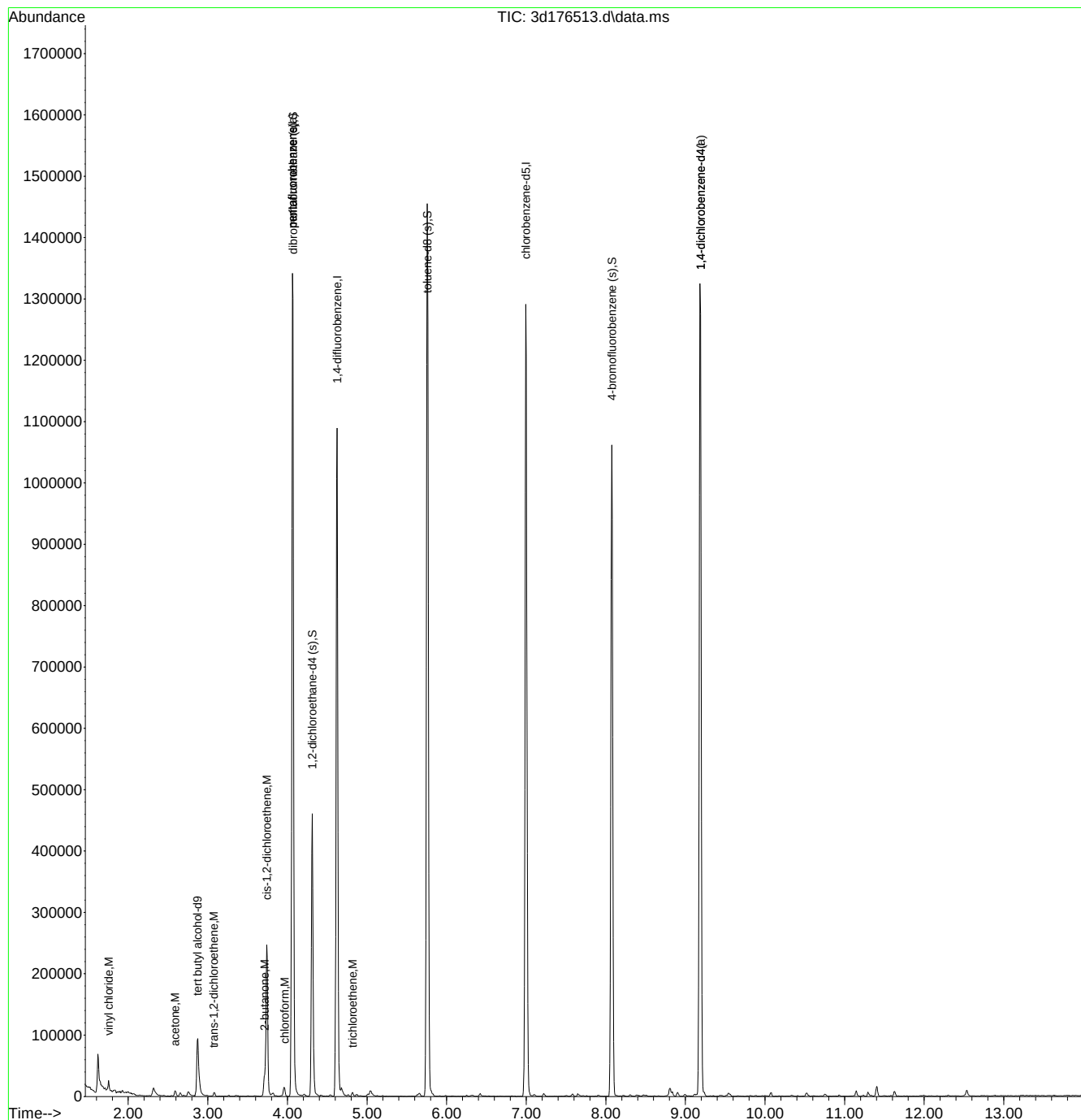
Quant Results File: M3D7392.RES

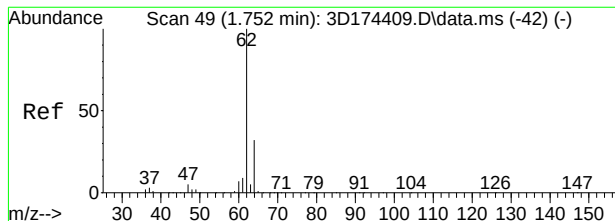
Quant Time: Apr 26 06:11:54 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

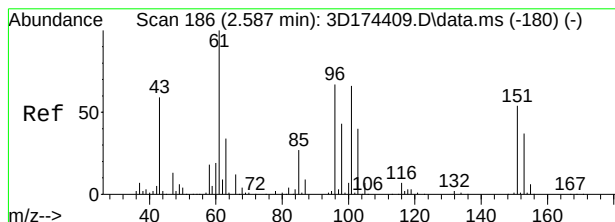
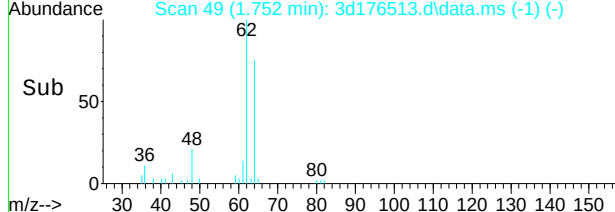
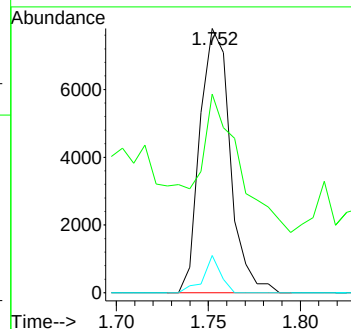
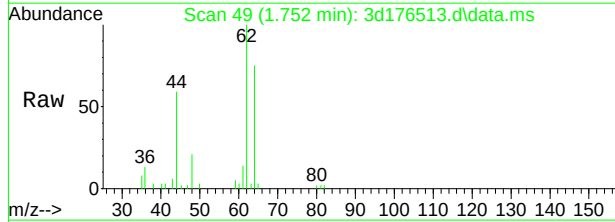
Response via : Initial Calibration





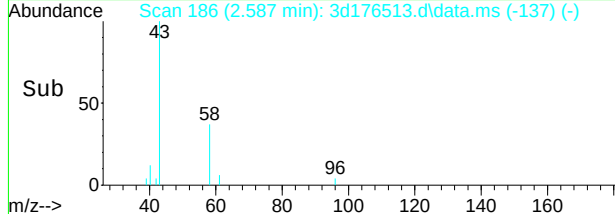
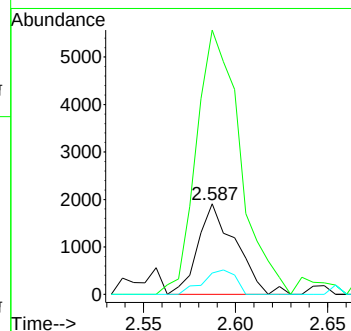
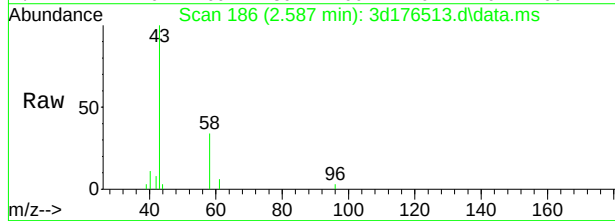
#9
vinyl chloride
Concen: 1.76 ug/L
RT: 1.752 min Scan# 49
Delta R.T. 0.000 min
Lab File: 3d176513.d
Acq: 25 Apr 2022 6:56 pm

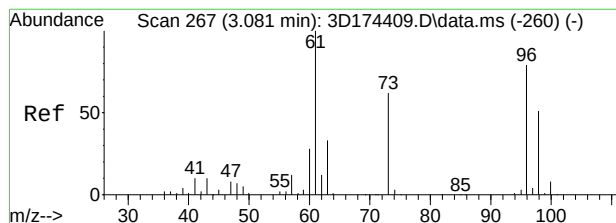
Tgt Ion:	62	Resp:	8946
Ion	Ratio	Lower	Upper
62	100		
64	52.3	2.3	62.3
61	14.1	0.0	39.0



#18
acetone
Concen: 10.38 ug/L
RT: 2.587 min Scan# 186
Delta R.T. 0.000 min
Lab File: 3d176513.d
Acq: 25 Apr 2022 6:56 pm

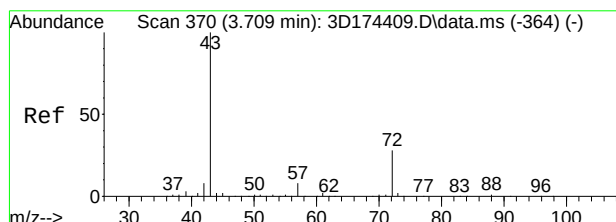
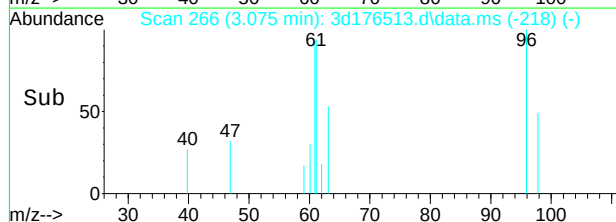
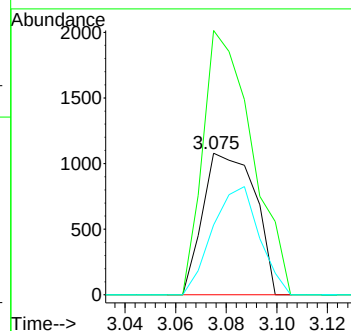
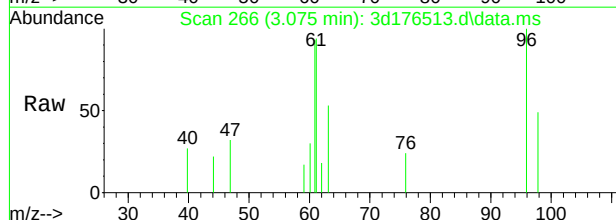
Tgt Ion:	58	Resp:	2727
Ion	Ratio	Lower	Upper
58	100		
43	291.6	294.2	354.2#
42	23.7	0.0	59.2





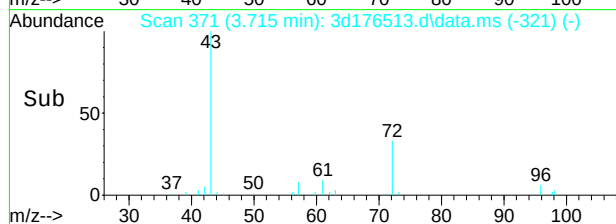
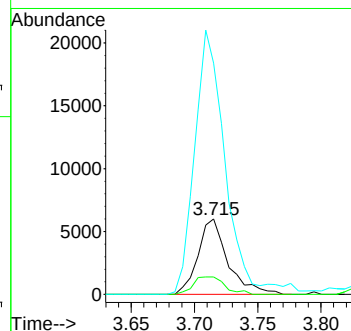
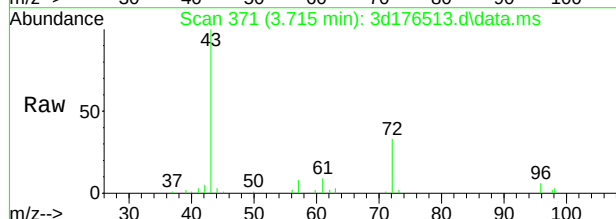
#25
trans-1,2-dichloroethene
Concen: 0.38 ug/L
RT: 3.075 min Scan# 266
Delta R.T. -0.006 min
Lab File: 3d176513.d
Acq: 25 Apr 2022 6:56 pm

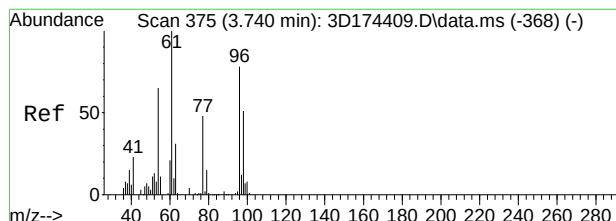
Tgt Ion	Ratio	Lower	Upper
96	100		
61	186.7	96.0	156.0#
98	49.3	34.7	94.7



#27
2-butanone
Concen: 23.29 ug/L
RT: 3.715 min Scan# 371
Delta R.T. 0.006 min
Lab File: 3d176513.d
Acq: 25 Apr 2022 6:56 pm

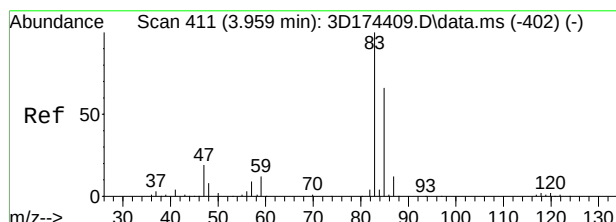
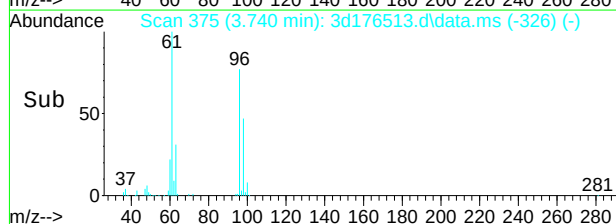
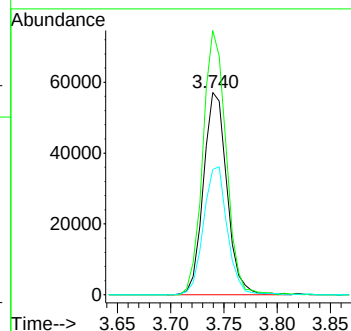
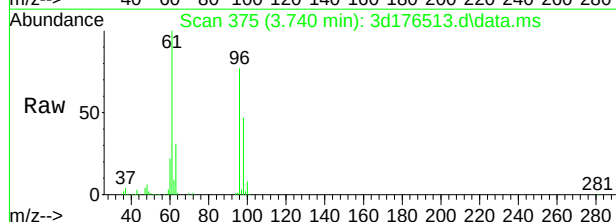
Tgt Ion	Ratio	Lower	Upper
72	100		
57	23.2	0.0	58.1
43	306.2	331.5	391.5#





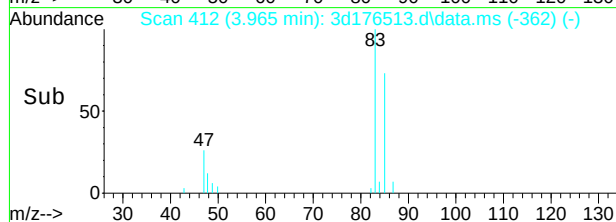
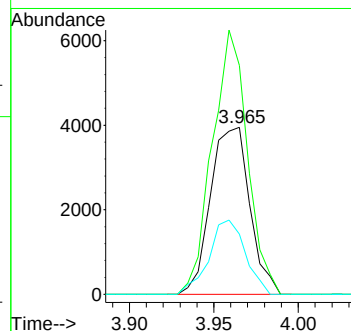
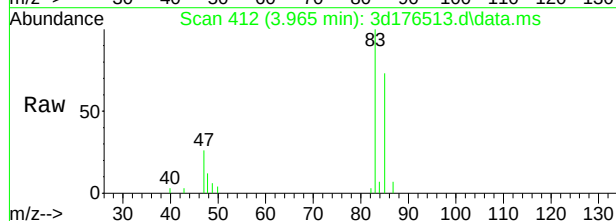
#36
cis-1,2-dichloroethene
Concen: 19.11 ug/L
RT: 3.740 min Scan# 375
Delta R.T. -0.000 min
Lab File: 3d176513.d
Acq: 25 Apr 2022 6:56 pm

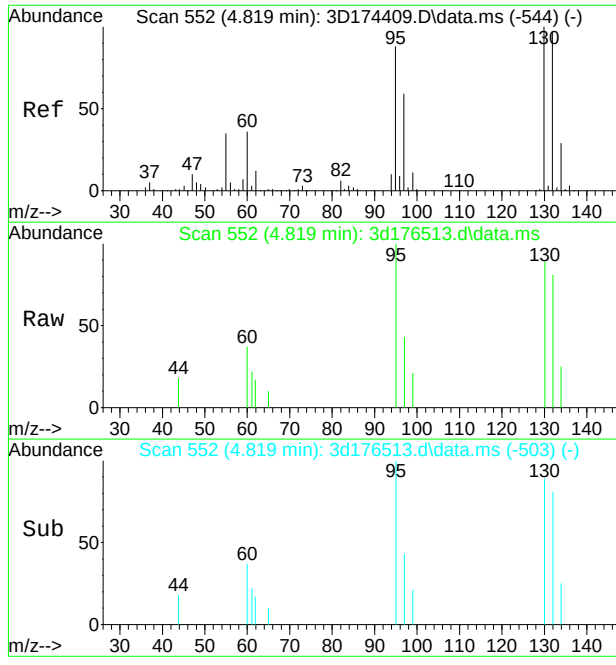
Tgt Ion	Ratio	Lower	Upper
96	100		
61	130.7	98.0	158.0
98	62.0	34.8	94.8



#41
chloroform
Concen: 1.23 ug/L
RT: 3.965 min Scan# 412
Delta R.T. 0.006 min
Lab File: 3d176513.d
Acq: 25 Apr 2022 6:56 pm

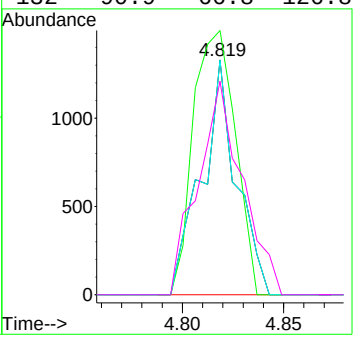
Tgt Ion	Ratio	Lower	Upper
85	100		
83	137.0	120.6	180.6
47	52.4	5.6	65.6





#60
trichloroethene
Concen: 0.31 ug/L
RT: 4.819 min Scan# 552
Delta R.T. -0.000 min
Lab File: 3d176513.d
Acq: 25 Apr 2022 6:56 pm

Tgt Ion	130	Resp	1600
Ion Ratio	Lower	Upper	
130	100		
95	112.5	57.7	117.7
130	100.0	70.0	130.0
132	90.9	66.8	126.8



7.1.3
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201320.d
 Acq On : 22 Apr 2022 8:50 pm
 Operator : nickw
 Sample : jd43253-3 Inst : MS2D
 Misc : MS58347,V2D8765,5,,,,,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 25 03:46:49 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2mm Mon Apr 04 14:17:39 2022

QLast Update : Mon Apr 04 14:17:39 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.023	65	149159	500.00	ug/L	-0.05
5) pentafluorobenzene	9.703	168	489922	50.00	ug/L	-0.05
50) 1,4-difluorobenzene	10.846	114	651558	50.00	ug/L	-0.05
72) chlorobenzene-d5	15.098	117	615194	50.00	ug/L	-0.05
96) 1,4-dichlorobenzene-d4	17.960	152	372415	50.00	ug/L	-0.04
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.692	113	243198	49.56	ug/L	-0.05
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.12%
51) 1,2-dichloroethane-d4 (s)	10.216	65	271085	47.97	ug/L	-0.06
Spiked Amount	50.000	Range	81 - 124	Recovery	=	95.94%
73) toluene-d8 (s)	13.063	98	735867	50.60	ug/L	-0.05
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.20%
97) 4-bromofluorobenzene (s)	16.629	95	278699	45.28	ug/L	-0.05
Spiked Amount	50.000	Range	80 - 120	Recovery	=	90.56%
Target Compounds						
36) cis-1,2-dichloroethene	8.990	96	3674	0.73	ug/L	91
60) trichloroethene	11.281	130	6992	1.47	ug/L	84
78) tetrachloroethene	13.955	164	1784	0.43	ug/L #	76

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
Data File : 2d201320.d
Acq On : 22 Apr 2022 8:50 pm
Operator : nickw
Sample : jd43253-3
Misc : MS58347,V2D8765,5,,,,,1
ALS Vial : 25 Sample Multiplier: 1

Inst : MS2D

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

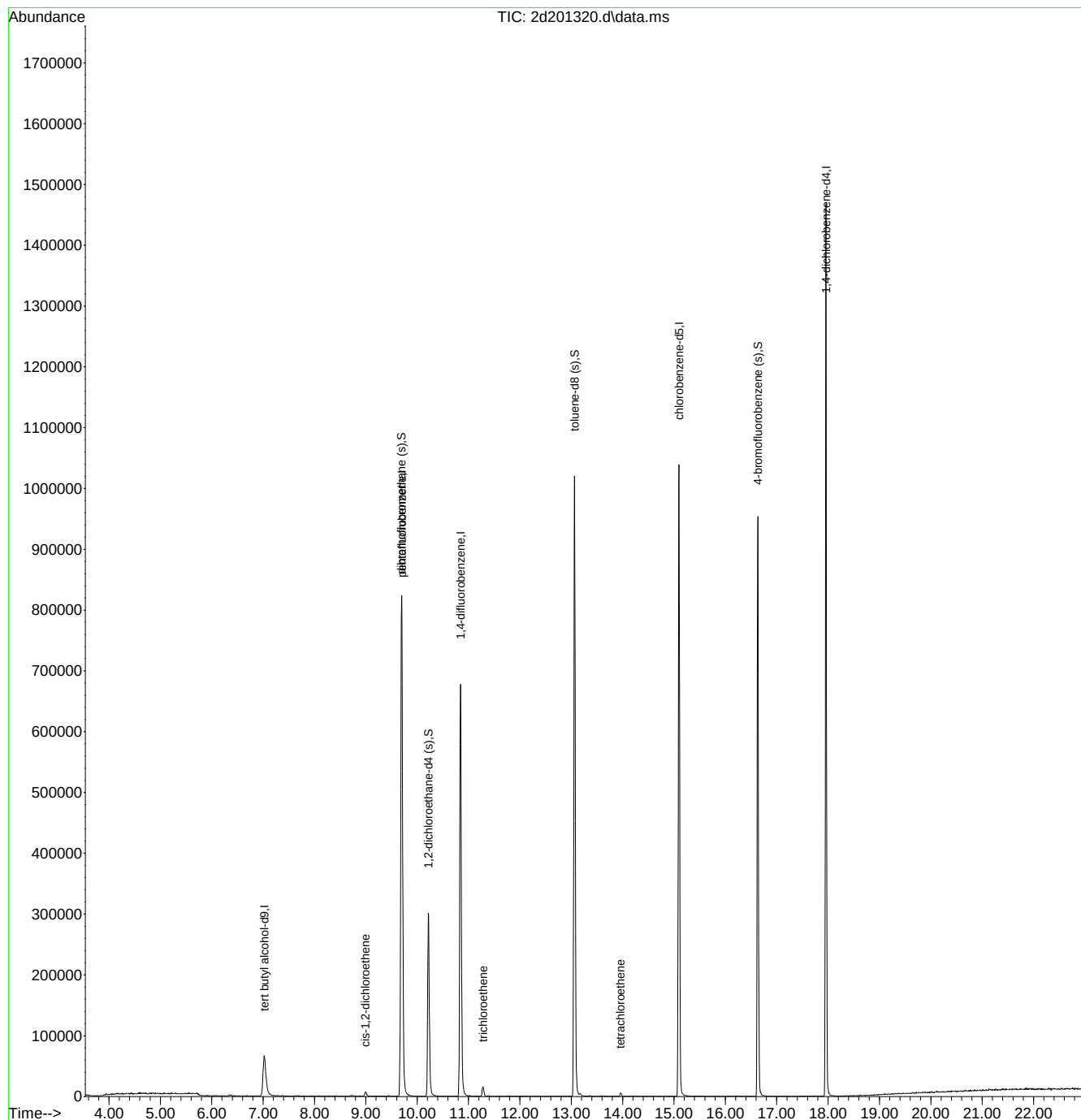
Quant Results File: M2D8735.RES

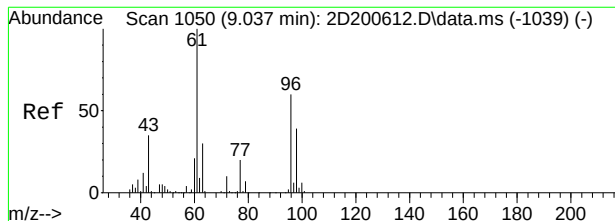
Quant Time: Apr 25 03:46:49 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2mm Mon Apr 04 14:17:39 2022

QLast Update : Mon Apr 04 14:17:39 2022

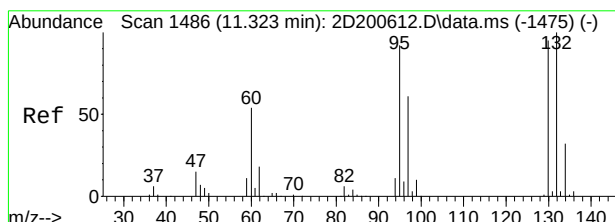
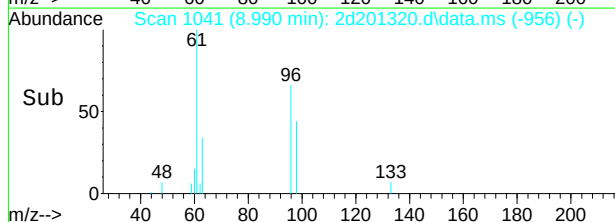
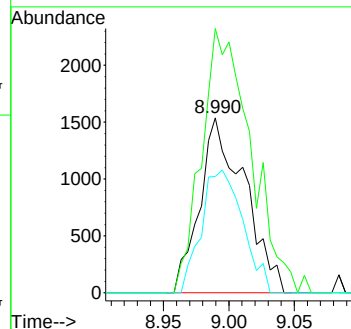
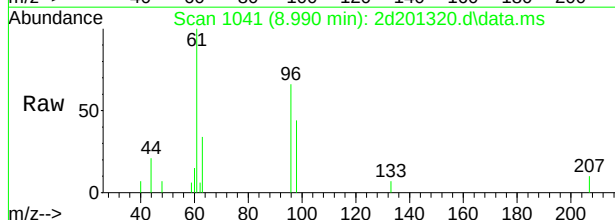
Response via : Initial Calibration





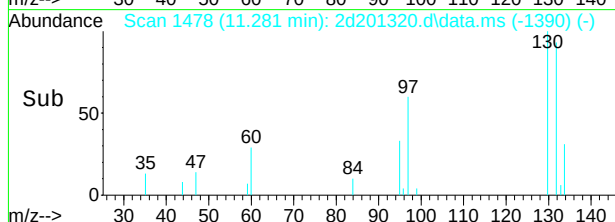
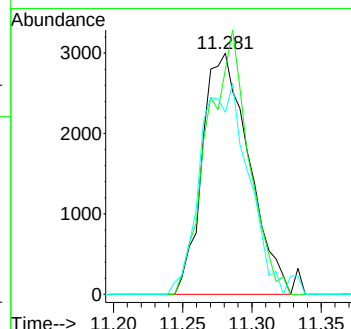
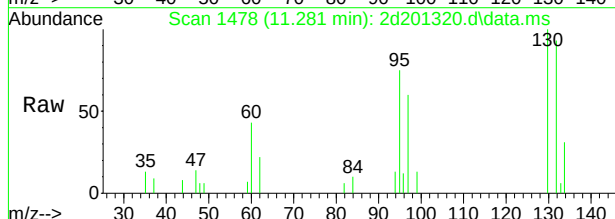
#36
cis-1,2-dichloroethene
Concen: 0.73 ug/L
RT: 8.990 min Scan# 1041
Delta R.T. -0.052 min
Lab File: 2d201320.d
Acq: 22 Apr 2022 8:50 pm

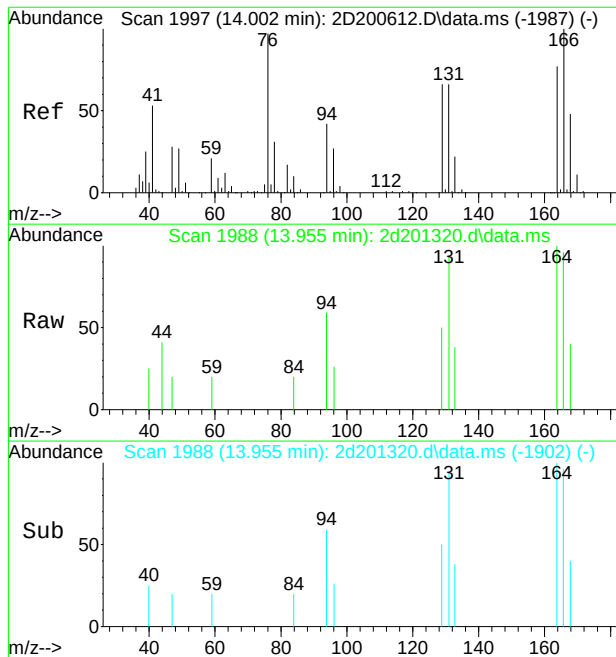
Tgt Ion:	96	Resp:	3674
Ion	Ratio	Lower	Upper
96	100		
61	151.1	135.7	195.7
98	66.5	34.1	94.1



#60
trichloroethene
Concen: 1.47 ug/L
RT: 11.281 min Scan# 1478
Delta R.T. -0.041 min
Lab File: 2d201320.d
Acq: 22 Apr 2022 8:50 pm

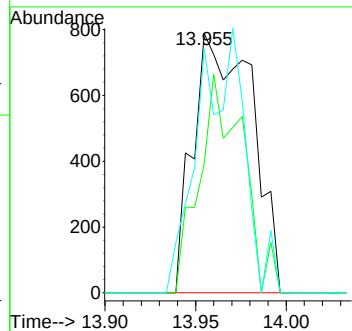
Tgt Ion:	130	Resp:	6992
Ion	Ratio	Lower	Upper
130	100		
132	93.2	74.7	134.7
95	75.4	66.1	126.1





#78
 tetrachloroethene
 Concen: 0.43 ug/L
 RT: 13.955 min Scan# 1988
 Delta R.T. -0.047 min
 Lab File: 2d201320.d
 Acq: 22 Apr 2022 8:50 pm

Tgt Ion	Ratio	Lower	Upper
164	100		
129	49.7	55.8	115.8#
131	94.0	55.5	115.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201321.d
 Acq On : 22 Apr 2022 9:19 pm
 Operator : nickw
 Sample : jd43253-4 Inst : MS2D
 Misc : MS58347,V2D8765,5,,,,,1
 ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 25 03:47:19 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2mm Mon Apr 04 14:17:39 2022

QLast Update : Mon Apr 04 14:17:39 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.023	65	118558	500.00	ug/L	-0.05
5) pentafluorobenzene	9.702	168	438205	50.00	ug/L	-0.05
50) 1,4-difluorobenzene	10.840	114	574627	50.00	ug/L	-0.06
72) chlorobenzene-d5	15.098	117	541899	50.00	ug/L	-0.05
96) 1,4-dichlorobenzene-d4	17.960	152	326797	50.00	ug/L	-0.04
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.687	113	216046	49.23	ug/L	-0.06
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.46%
51) 1,2-dichloroethane-d4 (s)	10.216	65	241576	48.47	ug/L	-0.06
Spiked Amount	50.000	Range	81 - 124	Recovery	=	96.94%
73) toluene-d8 (s)	13.063	98	648401	50.61	ug/L	-0.05
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.22%
97) 4-bromofluorobenzene (s)	16.628	95	246363	45.61	ug/L	-0.05
Spiked Amount	50.000	Range	80 - 120	Recovery	=	91.22%
Target Compounds						
18) acetone	6.352	58	970	3.17	ug/L	Qvalue # 19
36) cis-1,2-dichloroethene	8.989	96	17154	3.82	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
Data File : 2d201321.d
Acq On : 22 Apr 2022 9:19 pm
Operator : nickw
Sample : jd43253-4 Inst : MS2D
Misc : MS58347,V2D8765,5,,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

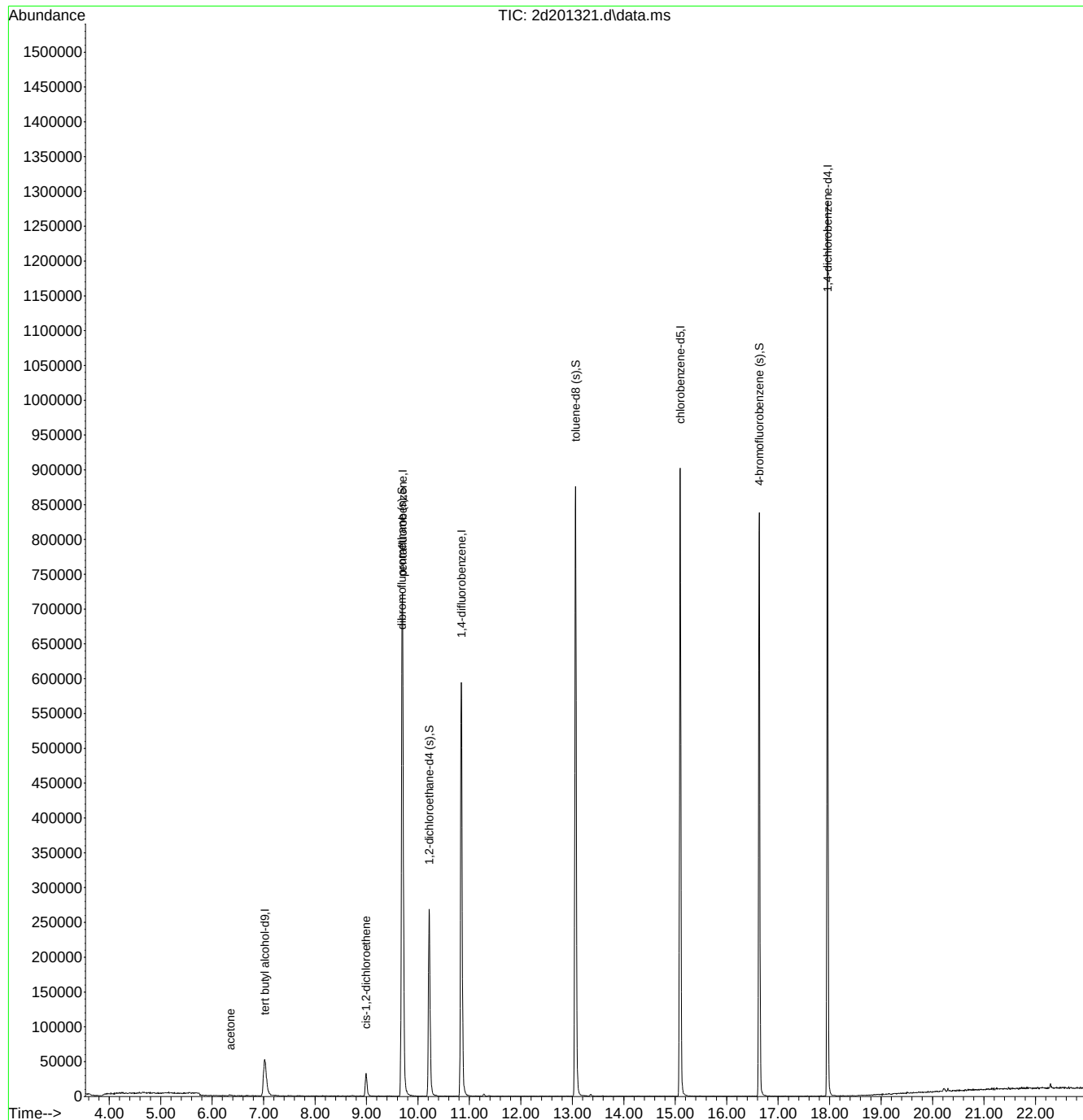
Quant Results File: M2D8735.RES

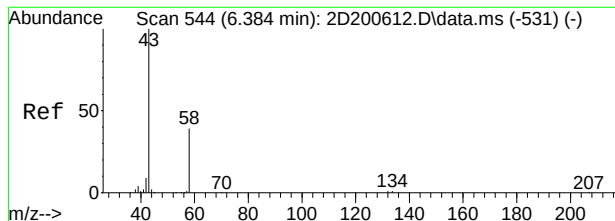
Quant Time: Apr 25 03:47:19 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2mm Mon Apr 04 14:17:39 2022

QLast Update : Mon Apr 04 14:17:39 2022

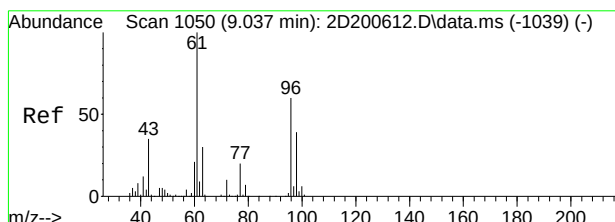
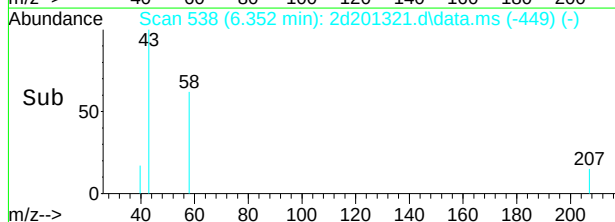
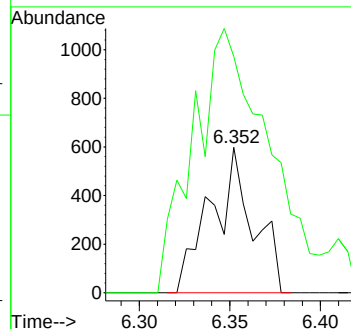
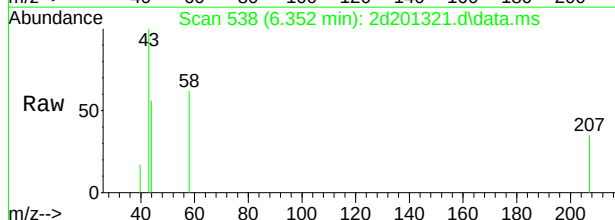
Response via : Initial Calibration





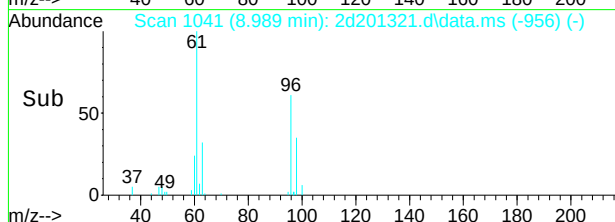
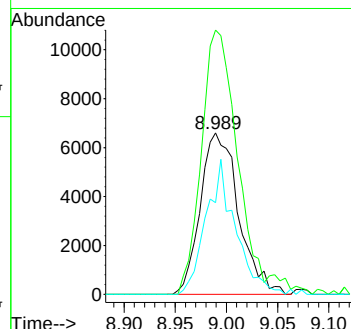
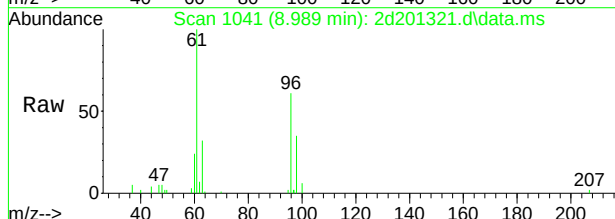
#18
acetone
Concen: 3.17 ug/L
RT: 6.352 min Scan# 538
Delta R.T. -0.032 min
Lab File: 2d201321.d
Acq: 22 Apr 2022 9:19 pm

Tgt Ion: 58 Resp: 970
Ion Ratio Lower Upper
58 100
43 111.9 225.6 285.6#



#36
cis-1,2-dichloroethene
Concen: 3.82 ug/L
RT: 8.989 min Scan# 1041
Delta R.T. -0.053 min
Lab File: 2d201321.d
Acq: 22 Apr 2022 9:19 pm

Tgt Ion: 96 Resp: 17154
Ion Ratio Lower Upper
96 100
61 163.9 135.7 195.7
98 56.8 34.1 94.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-27-22\v3d7465_04262022dm\
 Data File : 3d176519.d
 Acq On : 25 Apr 2022 9:16 pm
 Operator : nickw
 Sample : jd43253-5 Inst : MS3D
 Misc : MS58347,V3D7465,5,,,,,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M
 Quant Results File: M3D7392.RES
 Quant Time: Apr 27 03:17:10 2022
 Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022
 QLast Update : Mon Apr 11 11:49:38 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.874	65	86086	500.00	ug/L	0.00
5) pentafluorobenzene	4.069	168	474735	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.623	114	720212	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	695534	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.190	152	357806	50.00	ug/L	0.00
125) pentafluorobenzene(a)	4.069	168	474735	50.00	ug/L	0.00
128) 1,4-dichlorobenzene-d4(a)	9.190	152	357806	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.069	113	220057	53.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	106.78%	
52) 1,2-dichloroethane-d4 (s)	4.313	65	256071	53.80	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	107.60%	
74) toluene-d8 (s)	5.757	98	862455	48.86	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	97.72%	
98) 4-bromofluorobenzene (s)	8.074	95	368195	56.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	113.08%	
Target Compounds						
9) vinyl chloride	1.758	62	3480	0.69	ug/L	Qvalue # 1
36) cis-1,2-dichloroethene	3.739	96	50563	11.09	ug/L	97
60) trichloroethene	4.812	130	3134	0.63	ug/L	88

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-27-22\v3d7465_04262022dm\
Data File : 3d176519.d
Acq On : 25 Apr 2022 9:16 pm
Operator : nickw
Sample : jd43253-5 Inst : MS3D
Misc : MS58347,V3D7465,5,,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

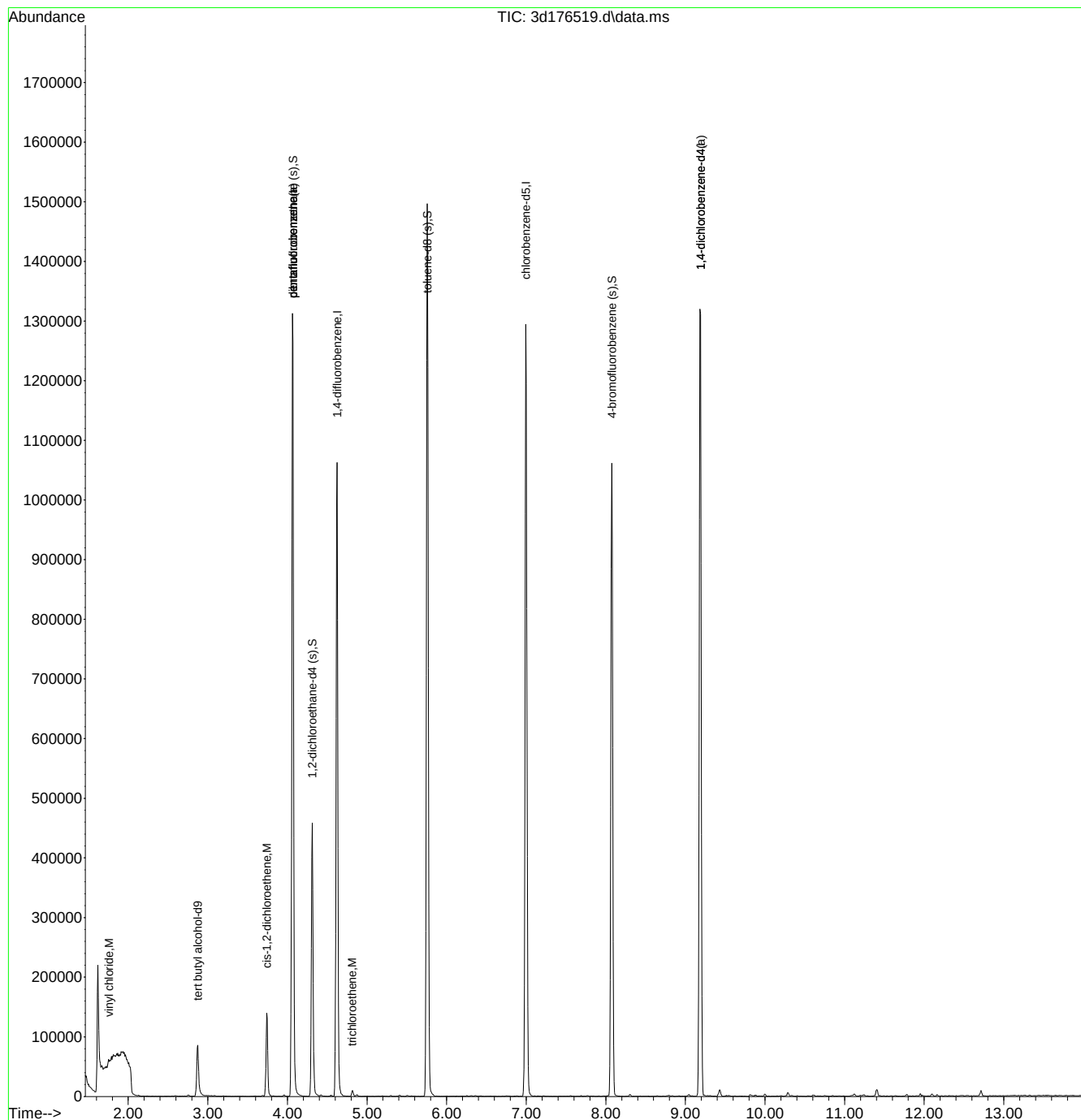
Quant Results File: M3D7392.RES

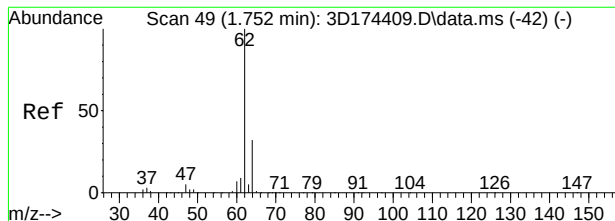
Quant Time: Apr 27 03:17:10 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

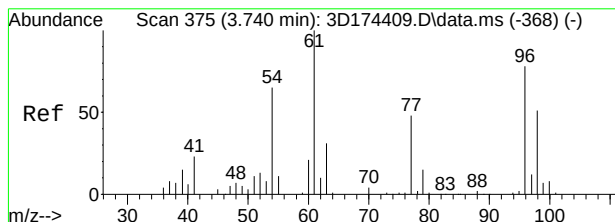
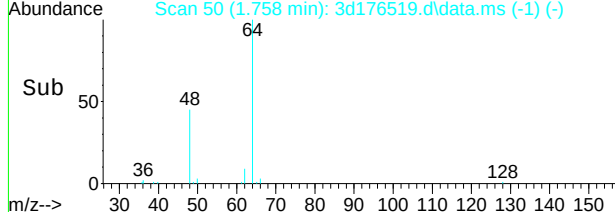
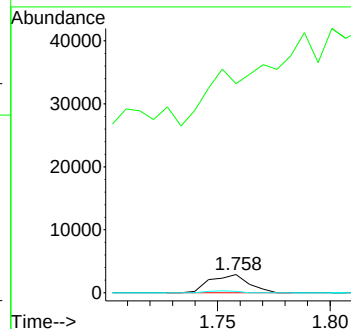
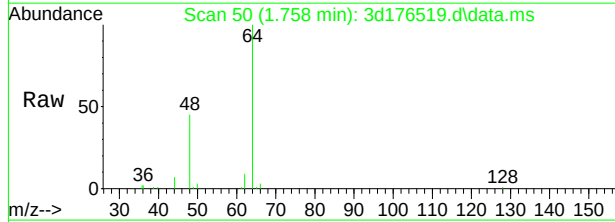
Response via : Initial Calibration





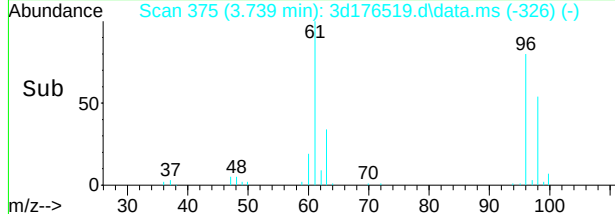
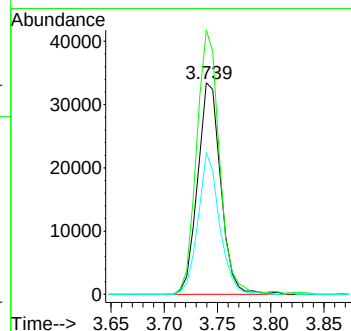
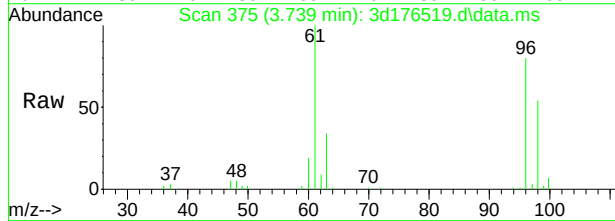
#9
vinyl chloride
Concen: 0.69 ug/L
RT: 1.758 min Scan# 50
Delta R.T. 0.006 min
Lab File: 3d176519.d
Acq: 25 Apr 2022 9:16 pm

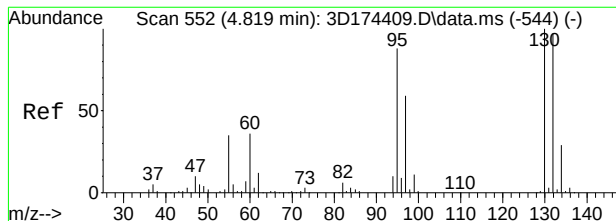
Tgt	Ion: 62	Resp:	3480
Ion	Ratio	Lower	Upper
62	100		
64	126.8	2.3	62.3#
61	8.4	0.0	39.0



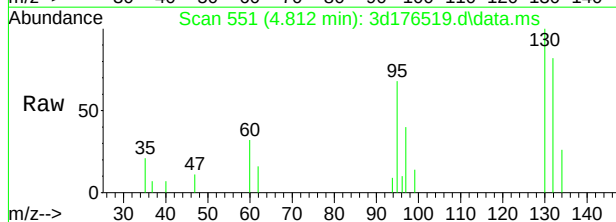
#36
cis-1,2-dichloroethene
Concen: 11.09 ug/L
RT: 3.739 min Scan# 375
Delta R.T. -0.000 min
Lab File: 3d176519.d
Acq: 25 Apr 2022 9:16 pm

Tgt	Ion: 96	Resp:	50563
Ion	Ratio	Lower	Upper
96	100		
61	125.0	98.0	158.0
98	67.1	34.8	94.8

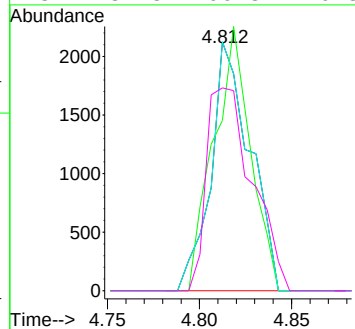
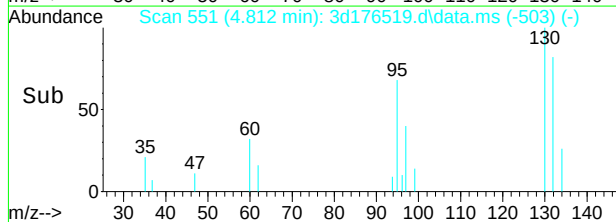




#60
trichloroethene
Concen: 0.63 ug/L
RT: 4.812 min Scan# 551
Delta R.T. -0.006 min
Lab File: 3d176519.d
Acq: 25 Apr 2022 9:16 pm



Tgt Ion:	130	Resp:	3134
Ion	Ratio	Lower	Upper
130	100		
95	68.5	57.7	117.7
130	100.0	70.0	130.0
132	81.5	66.8	126.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
Data File : 2d201314.d
Acq On : 22 Apr 2022 5:55 pm
Operator : nickw
Sample : jd43253-6 Inst : MS2D
Misc : MS58347,V2D8765,5,,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M
Quant Results File: M2D8735.RES
Quant Time: Apr 25 03:43:20 2022
Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Mon Apr 04 14:17:39 2022
QLast Update : Mon Apr 04 14:17:39 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.018	65	134548	500.00	ug/L	-0.06
5) pentafluorobenzene	9.703	168	514611	50.00	ug/L	-0.05
50) 1,4-difluorobenzene	10.840	114	669934	50.00	ug/L	-0.06
72) chlorobenzene-d5	15.098	117	637553	50.00	ug/L	-0.05
96) 1,4-dichlorobenzene-d4	17.960	152	385064	50.00	ug/L	-0.04
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.687	113	250703	48.64	ug/L	-0.06
Spiked Amount	50.000	Range	80 - 120	Recovery	=	97.28%
51) 1,2-dichloroethane-d4 (s)	10.216	65	276849	47.65	ug/L	-0.06
Spiked Amount	50.000	Range	81 - 124	Recovery	=	95.30%
73) toluene-d8 (s)	13.063	98	747882	49.62	ug/L	-0.05
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.24%
97) 4-bromofluorobenzene (s)	16.629	95	290575	45.65	ug/L	-0.05
Spiked Amount	50.000	Range	80 - 120	Recovery	=	91.30%

Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
Data File : 2d201314.d
Acq On : 22 Apr 2022 5:55 pm
Operator : nickw
Sample : jd43253-6
Misc : MS58347,V2D8765,5,,,,,1
ALS Vial : 19 Sample Multiplier: 1

Inst : MS2D

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

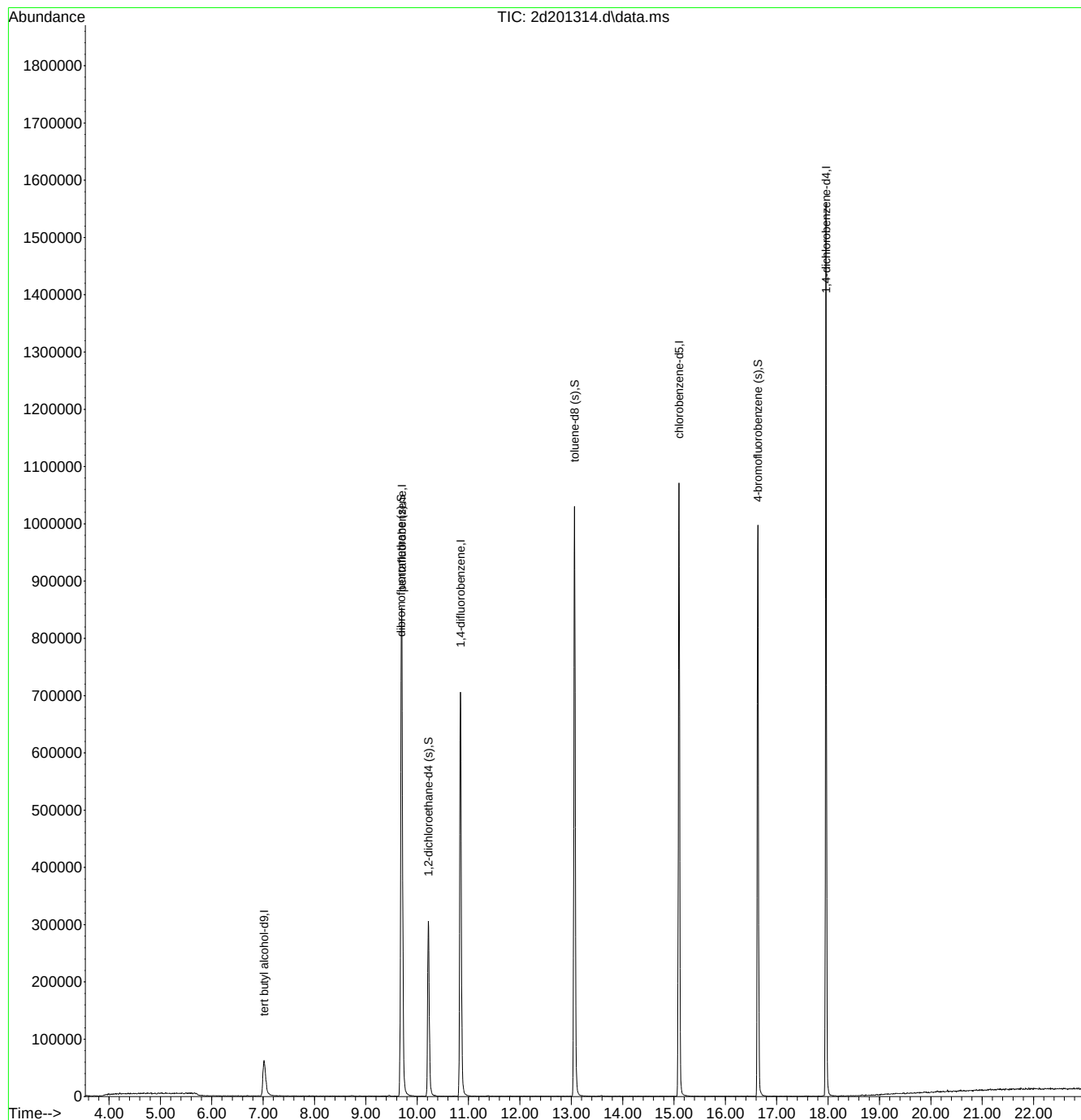
Quant Results File: M2D8735.RES

Quant Time: Apr 25 03:43:20 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2mm Mon Apr 04 14:17:39 2022

QLast Update : Mon Apr 04 14:17:39 2022

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
Data File : 2d201315.d
Acq On : 22 Apr 2022 6:24 pm
Operator : nickw
Sample : jd43253-7 Inst : MS2D
Misc : MS58347,V2D8765,5,,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M
Quant Results File: M2D8735.RES
Quant Time: Apr 25 03:43:54 2022
Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Mon Apr 04 14:17:39 2022
QLast Update : Mon Apr 04 14:17:39 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.029	65	137660	500.00	ug/L	-0.05
5) pentafluorobenzene	9.703	168	509841	50.00	ug/L	-0.05
50) 1,4-difluorobenzene	10.846	114	671851	50.00	ug/L	-0.05
72) chlorobenzene-d5	15.098	117	639185	50.00	ug/L	-0.05
96) 1,4-dichlorobenzene-d4	17.960	152	389900	50.00	ug/L	-0.04
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.692	113	253073	49.56	ug/L	-0.05
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.12%
51) 1,2-dichloroethane-d4 (s)	10.222	65	277044	47.54	ug/L	-0.05
Spiked Amount	50.000	Range	81 - 124	Recovery	=	95.08%
73) toluene-d8 (s)	13.063	98	756912	50.09	ug/L	-0.05
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.18%
97) 4-bromofluorobenzene (s)	16.634	95	294076	45.63	ug/L	-0.04
Spiked Amount	50.000	Range	80 - 120	Recovery	=	91.26%

Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
Data File : 2d201315.d
Acq On : 22 Apr 2022 6:24 pm
Operator : nickw
Sample : jd43253-7 Inst : MS2D
Misc : MS58347,V2D8765,5,,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

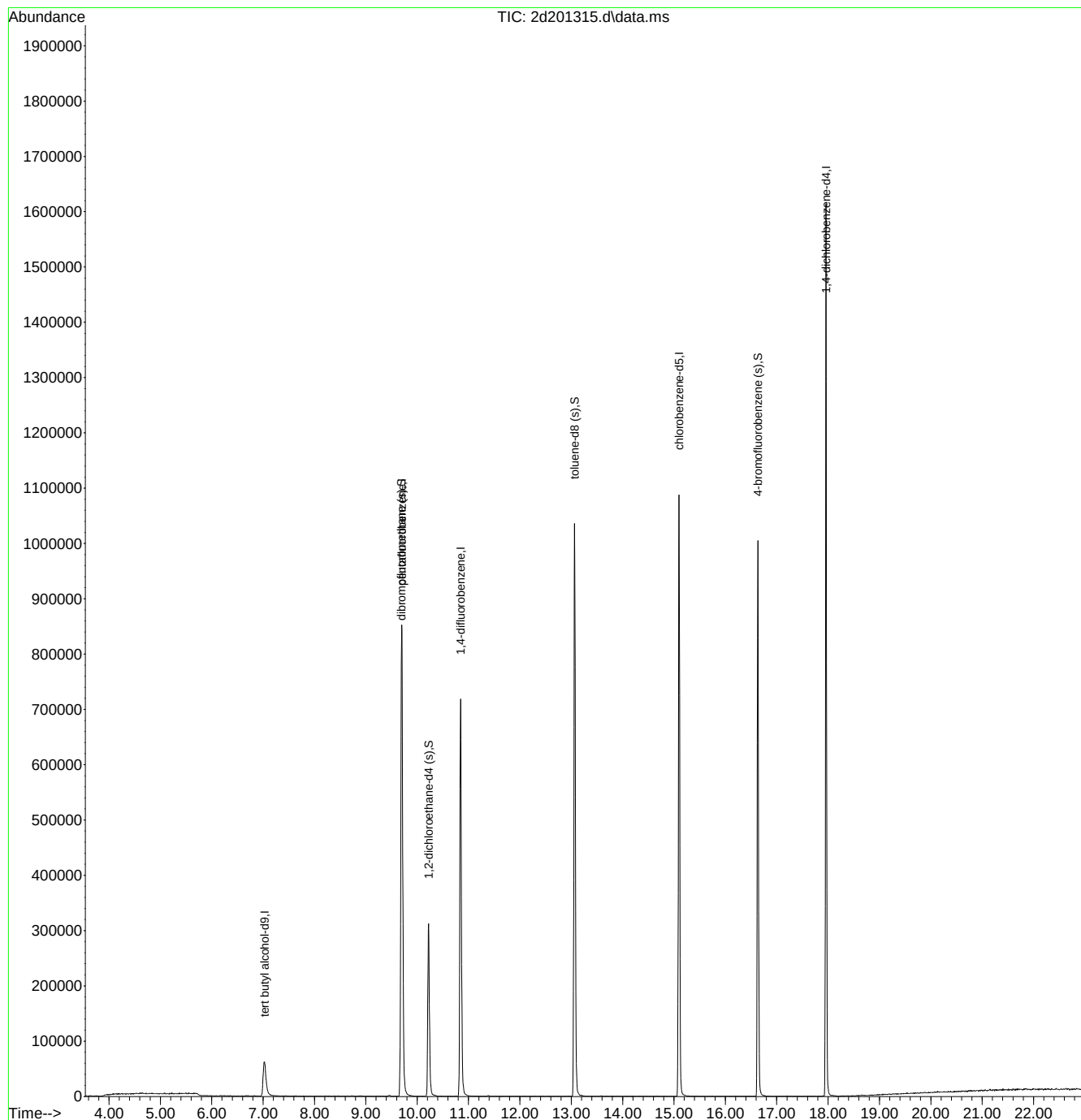
Quant Results File: M2D8735.RES

Quant Time: Apr 25 03:43:54 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2mm Mon Apr 04 14:17:39 2022

QLast Update : Mon Apr 04 14:17:39 2022

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201316.d
 Acq On : 22 Apr 2022 6:53 pm
 Operator : nickw
 Sample : jd43253-8 Inst : MS2D
 Misc : MS58347,V2D8765,5,,,,,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M
 Quant Results File: M2D8735.RES
 Quant Time: Apr 25 03:44:19 2022
 Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2mm Mon Apr 04 14:17:39 2022
 QLast Update : Mon Apr 04 14:17:39 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.024	65	135136	500.00	ug/L	-0.05
5) pentafluorobenzene	9.703	168	509525	50.00	ug/L	-0.05
50) 1,4-difluorobenzene	10.846	114	671846	50.00	ug/L	-0.05
72) chlorobenzene-d5	15.098	117	640719	50.00	ug/L	-0.05
96) 1,4-dichlorobenzene-d4	17.960	152	385548	50.00	ug/L	-0.04
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.687	113	253005	49.58	ug/L	-0.06
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.16%
51) 1,2-dichloroethane-d4 (s)	10.222	65	279182	47.91	ug/L	-0.05
Spiked Amount	50.000	Range	81 - 124	Recovery	=	95.82%
73) toluene-d8 (s)	13.063	98	756491	49.94	ug/L	-0.05
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.88%
97) 4-bromofluorobenzene (s)	16.634	95	292142	45.84	ug/L	-0.04
Spiked Amount	50.000	Range	80 - 120	Recovery	=	91.68%

Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
Data File : 2d201316.d
Acq On : 22 Apr 2022 6:53 pm
Operator : nickw
Sample : jd43253-8 Inst : MS2D
Misc : MS58347,V2D8765,5,,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

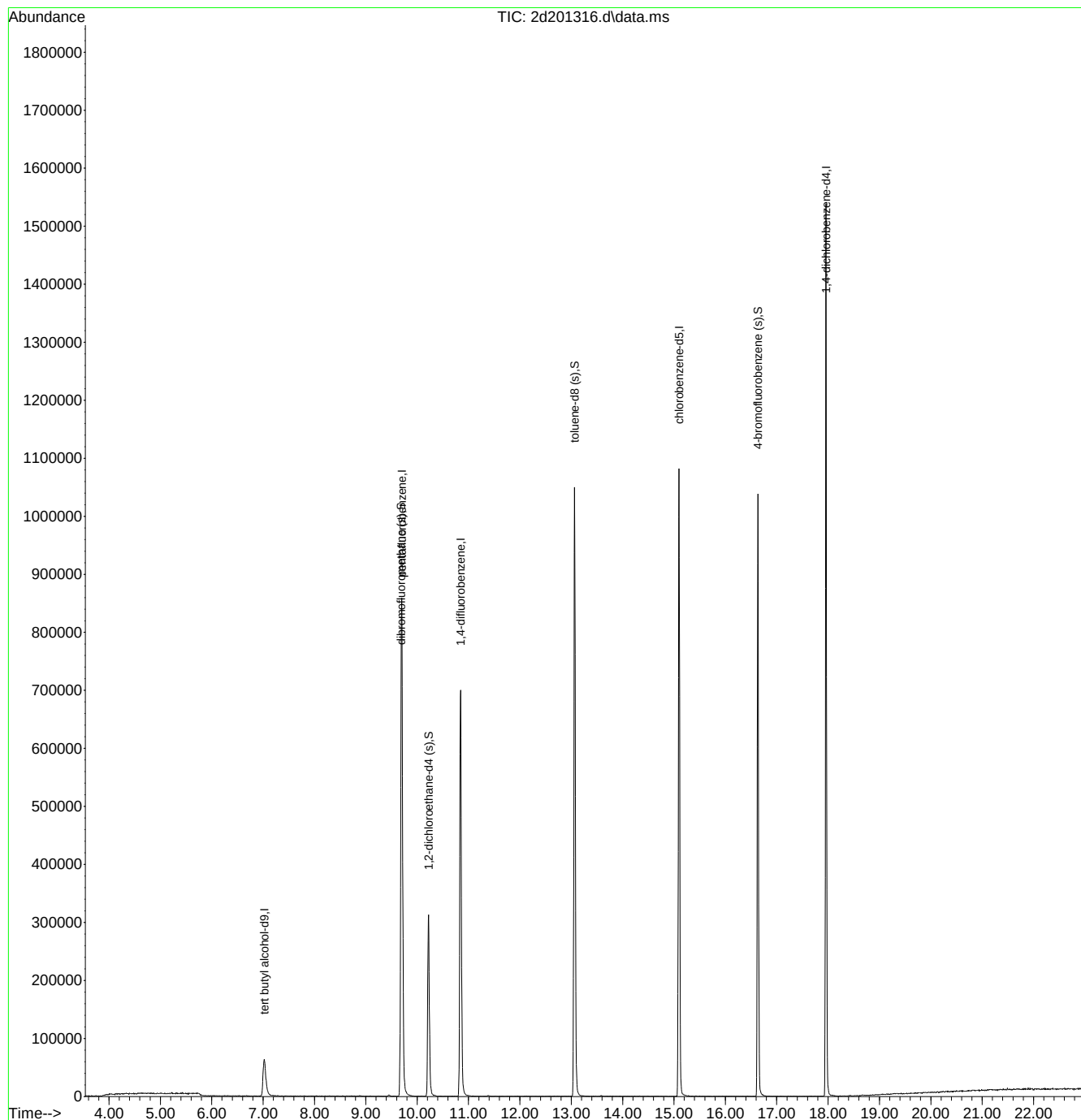
Quant Results File: M2D8735.RES

Quant Time: Apr 25 03:44:19 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2mm Mon Apr 04 14:17:39 2022

QLast Update : Mon Apr 04 14:17:39 2022

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201302.d
 Acq On : 22 Apr 2022 11:53 am
 Operator : nickw
 Sample : mb Inst : MS2D
 Misc : MS58389,V2D8765,5,,,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 25 03:23:29 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.013	65	144435	500.00	ug/L	-0.04
5) pentafluorobenzene	9.697	168	525546	50.00	ug/L	-0.04
50) 1,4-difluorobenzene	10.840	114	678921	50.00	ug/L	-0.04
72) chlorobenzene-d5	15.092	117	647617	50.00	ug/L	-0.03
96) 1,4-dichlorobenzene-d4	17.960	152	401111	50.00	ug/L	-0.02
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.681	113	255199	48.48	ug/L	-0.04
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.96%
51) 1,2-dichloroethane-d4 (s)	10.216	65	283194	48.09	ug/L	-0.04
Spiked Amount	50.000	Range	81 - 124	Recovery	=	96.18%
73) toluene-d8 (s)	13.058	98	767344	50.12	ug/L	-0.03
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.24%
97) 4-bromofluorobenzene (s)	16.629	95	302514	45.63	ug/L	-0.03
Spiked Amount	50.000	Range	80 - 120	Recovery	=	91.26%
Target Compounds						
41) chloroform	9.446	83	2299	0.22	ug/L	88
119) naphthalene	20.120	128	3139	0.20	ug/L	77

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

7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
Data File : 2d201302.d
Acq On : 22 Apr 2022 11:53 am
Operator : nickw
Sample : mb
Misc : MS58389,V2D8765,5,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Inst : MS2D

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

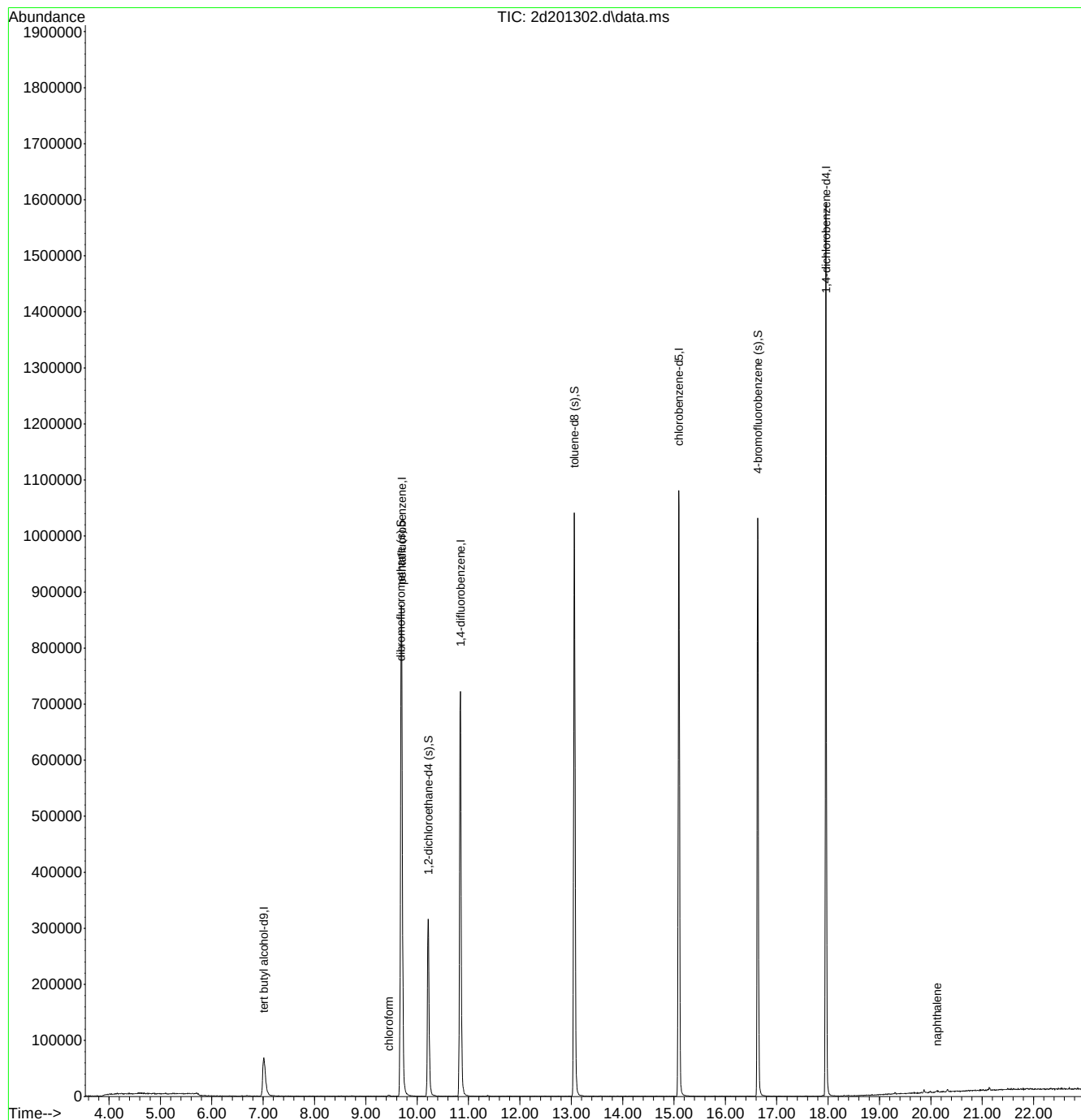
Quant Results File: M2D8735.RES

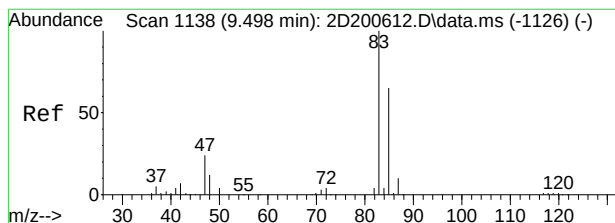
Quant Time: Apr 25 03:23:29 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

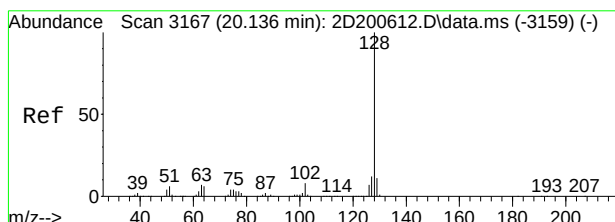
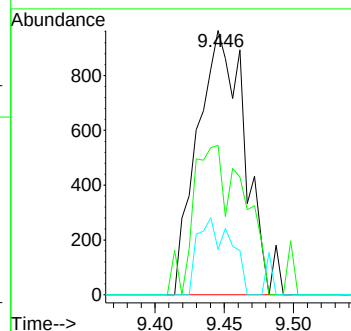
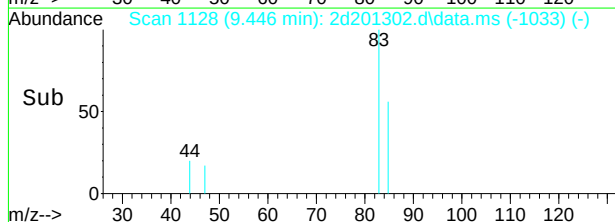
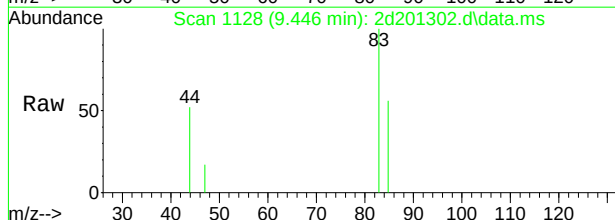
Response via : Initial Calibration





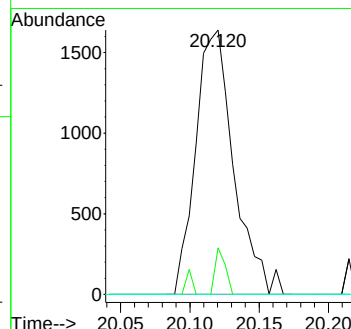
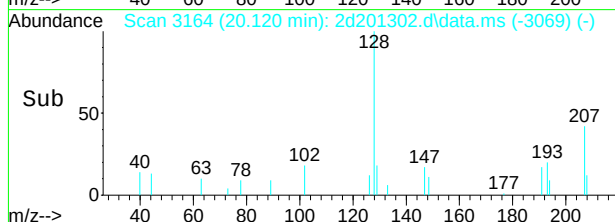
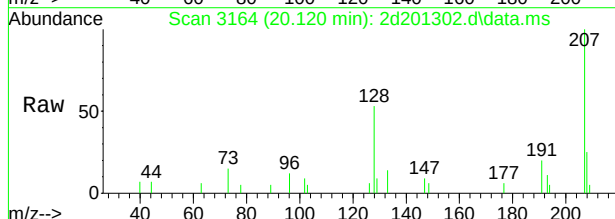
#41
chloroform
Concen: 0.22 ug/L
RT: 9.446 min Scan# 1128
Delta R.T. -0.033 min
Lab File: 2d201302.d
Acq: 22 Apr 2022 11:53 am

Tgt Ion	Ratio	Lower	Upper
83	100		
85	56.5	35.2	95.2
47	17.1	0.0	55.1



#119
naphthalene
Concen: 0.20 ug/L
RT: 20.120 min Scan# 3164
Delta R.T. -0.001 min
Lab File: 2d201302.d
Acq: 22 Apr 2022 11:53 am

Tgt Ion	Ratio	Lower	Upper
128	100		
102	17.6	0.0	38.1
51	0.0	0.0	36.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
 Data File : 3d176499.d
 Acq On : 25 Apr 2022 1:22 pm
 Operator : nickw
 Sample : mb Inst : MS3D
 Misc : MS58373,V3D7465,5,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M
 Quant Results File: M3D7392.RES
 Quant Time: Apr 26 03:12:31 2022
 Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022
 QLast Update : Mon Apr 11 11:49:38 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.874	65	71642	500.00	ug/L	0.00
5) pentafluorobenzene	4.069	168	472875	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.623	114	705893	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	659067	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.190	152	338043	50.00	ug/L	0.00
125) pentafluorobenzene(a)	4.069	168	472875	50.00	ug/L	0.00
128) 1,4-dichlorobenzene-d4(a)	9.190	152	338043	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.069	113	213534	52.01	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	104.02%	
52) 1,2-dichloroethane-d4 (s)	4.313	65	235934	50.58	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	101.16%	
74) toluene-d8 (s)	5.757	98	837346	50.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	100.12%	
98) 4-bromofluorobenzene (s)	8.074	95	345621	56.18	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	112.36%	
Target Compounds						
21) carbon disulfide	2.752	76	2035	0.21	ug/L	75
41) chloroform	3.965	85	1135	0.22	ug/L #	66
121) naphthalene	11.397	128	2957	0.23	ug/L	89
122) 1,2,3-trichlorobenzene	11.634	180	869	0.19	ug/L #	49
124) 2-methylnaphthalene	12.543	142	941	0.15	ug/L	93

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

7.2.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
Data File : 3d176499.d
Acq On : 25 Apr 2022 1:22 pm
Operator : nickw
Sample : mb
Misc : MS58373,V3D7465,5,,,,,1
ALS Vial : 10 Sample Multiplier: 1

Inst : MS3D

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

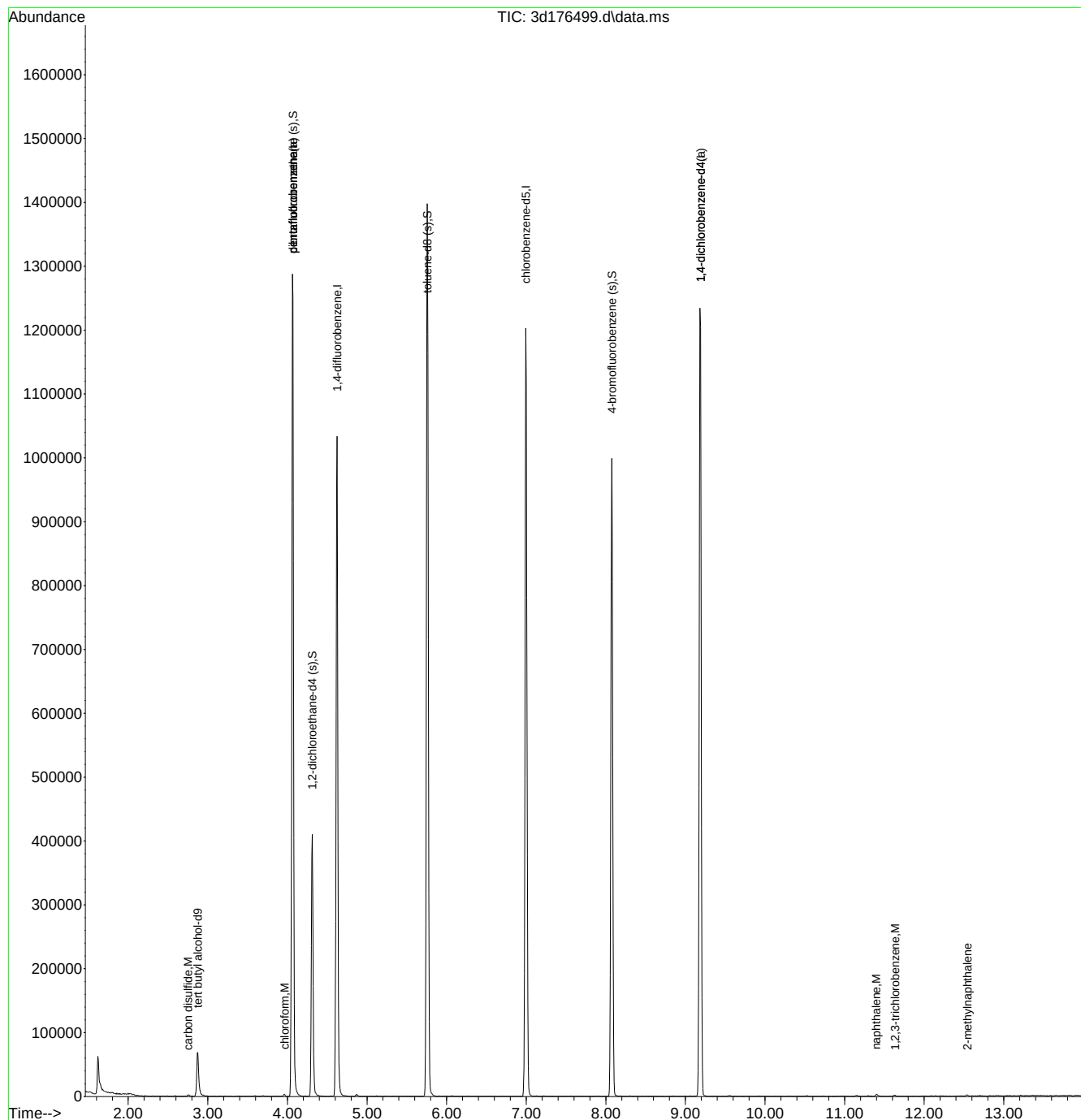
Quant Results File: M3D7392.RES

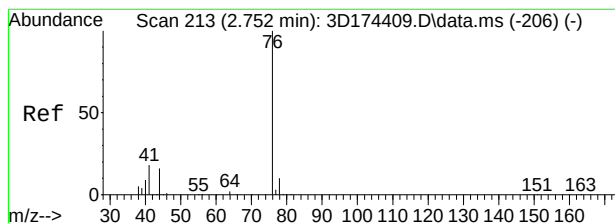
Quant Time: Apr 26 03:12:31 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

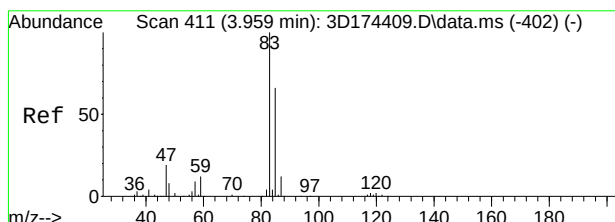
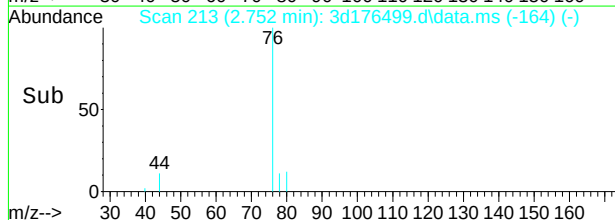
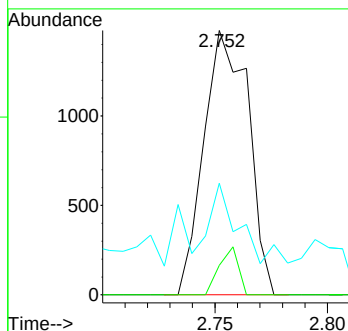
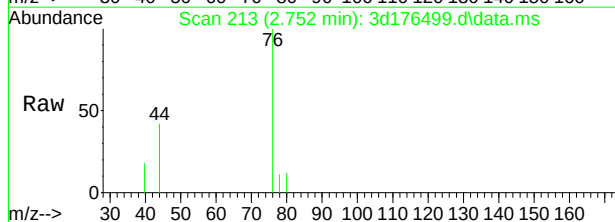
Response via : Initial Calibration





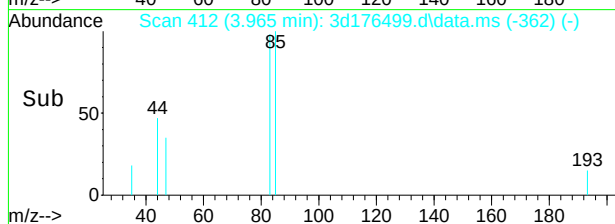
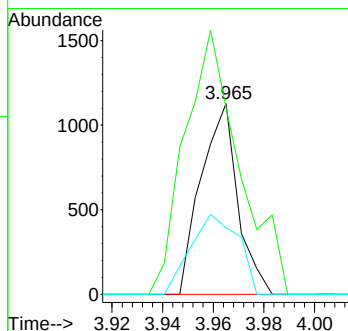
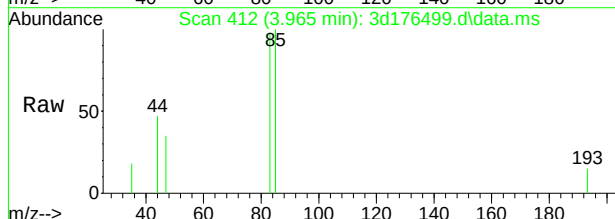
#21
carbon disulfide
Concen: 0.21 ug/L
RT: 2.752 min Scan# 213
Delta R.T. 0.001 min
Lab File: 3d176499.d
Acq: 25 Apr 2022 1:22 pm

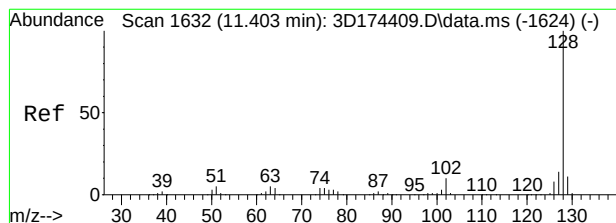
Tgt	Ion	76	Resp:	2035
Ion	Ratio	Lower	Upper	
76	100			
78	11.2	0.0	39.5	
44	31.4	0.0	45.9	



#41
chloroform
Concen: 0.22 ug/L
RT: 3.965 min Scan# 412
Delta R.T. 0.006 min
Lab File: 3d176499.d
Acq: 25 Apr 2022 1:22 pm

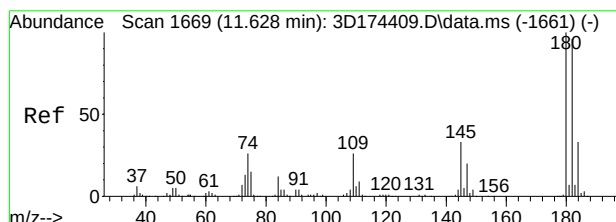
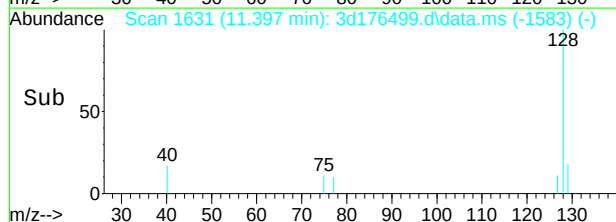
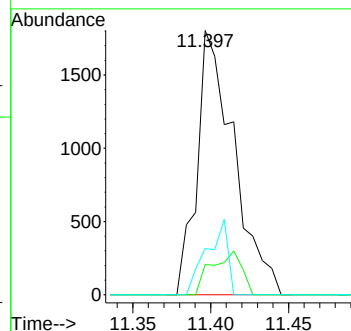
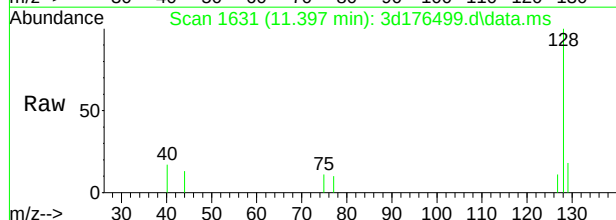
Tgt	Ion	85	Resp:	1135
Ion	Ratio	Lower	Upper	
85	100			
83	97.7	120.6	180.6#	
47	34.9	5.6	65.6	





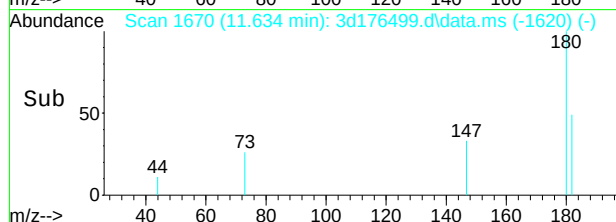
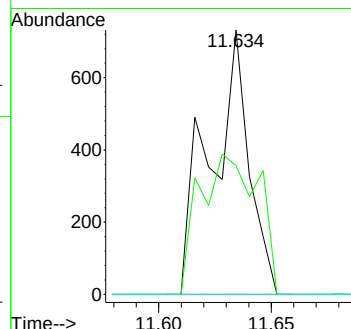
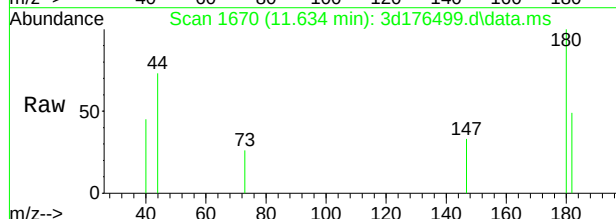
#121
naphthalene
Concen: 0.23 ug/L
RT: 11.397 min Scan# 1631
Delta R.T. -0.006 min
Lab File: 3d176499.d
Acq: 25 Apr 2022 1:22 pm

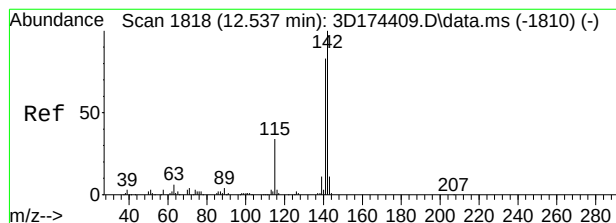
Tgt Ion	Ratio	Lower	Upper
128	100		
127	11.5	0.0	43.9
129	17.6	0.0	41.1



#122
1,2,3-trichlorobenzene
Concen: 0.19 ug/L
RT: 11.634 min Scan# 1670
Delta R.T. 0.006 min
Lab File: 3d176499.d
Acq: 25 Apr 2022 1:22 pm

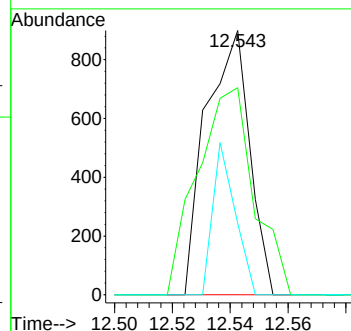
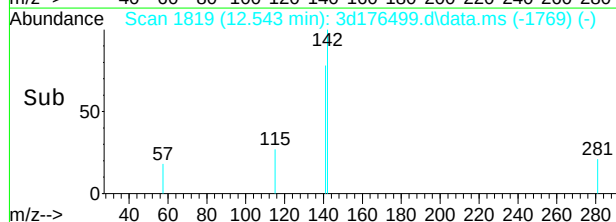
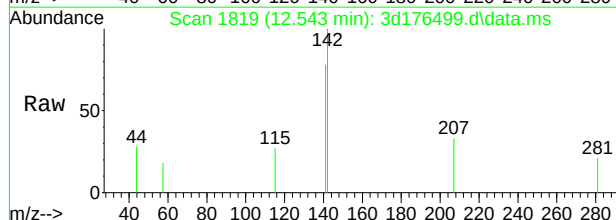
Tgt Ion	Ratio	Lower	Upper
180	100		
182	48.6	66.3	126.3#
145	0.0	3.1	63.1#





#124
2-methylnaphthalene
Concen: 0.15 ug/L
RT: 12.543 min Scan# 1819
Delta R.T. 0.007 min
Lab File: 3d176499.d
Acq: 25 Apr 2022 1:22 pm

Tgt Ion	Ratio	Resp	Lower	Upper
142	100	941		
141	78.3		63.4	103.4
115	27.0		13.8	53.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201300.d
 Acq On : 22 Apr 2022 10:47 am
 Operator : nickw
 Sample : bs Inst : MS2D
 Misc : MS58319,V2D8765,5,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 22 11:16:15 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.018	65	124332	500.00	ug/L	-0.04
5) pentafluorobenzene	9.703	168	466455	50.00	ug/L	-0.03
50) 1,4-difluorobenzene	10.840	114	620699	50.00	ug/L	-0.04
72) chlorobenzene-d5	15.093	117	628204	50.00	ug/L	-0.03
96) 1,4-dichlorobenzene-d4	17.960	152	360408	50.00	ug/L	-0.02
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.687	113	224448	48.04	ug/L	-0.04
Spiked Amount 50.000	Range 80 - 120		Recovery =	96.08%		
51) 1,2-dichloroethane-d4 (s)	10.217	65	255847	47.52	ug/L	-0.04
Spiked Amount 50.000	Range 81 - 124		Recovery =	95.04%		
73) toluene-d8 (s)	13.063	98	715124	48.15	ug/L	-0.03
Spiked Amount 50.000	Range 80 - 120		Recovery =	96.30%		
97) 4-bromofluorobenzene (s)	16.629	95	283306	47.56	ug/L	-0.03
Spiked Amount 50.000	Range 80 - 120		Recovery =	95.12%		
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	7.149	59	97269	251.92	ug/L	95
3) ethanol	5.687	45	188992	4913.41	ug/L	100
4) 1,4-dioxane	11.779	88	35871	1375.20	ug/L	95
6) chlorodifluoromethane	3.705	51	139308	71.45	ug/L	83
7) dichlorodifluoromethane	3.684	85	429092	49.32	ug/L	98
8) chloromethane	4.045	50	417704	41.52	ug/L	99
9) vinyl chloride	4.255	62	496487	52.89	ug/L	100
10) 1,3-butadiene	4.292	54	155483	79.16	ug/L	96
11) bromomethane	4.853	94	310264	50.84	ug/L	96
12) chloroethane	5.005	64	247027	47.33	ug/L	99
13) trichlorofluoromethane	5.477	101	577044	51.82	ug/L	96
14) ethyl ether	5.875	74	70967	36.54	ug/L	89
15) acrolein	6.101	56	28384	33.15	ug/L	93
16) 1,1-dichloroethene	6.289	96	171023	50.60	ug/L	99
17) freon 113	6.305	151	202172	55.87	ug/L	90
18) acetone	6.326	58	85133	261.74	ug/L	98
19) acetonitrile	6.767	41	128229	380.25	ug/L	98
20) iodomethane	6.552	142	377271	51.47	ug/L	98
21) carbon disulfide	6.688	76	472563	50.40	ug/L	99
22) methylene chloride	7.034	84	202791	44.30	ug/L	100
23) methyl acetate	6.845	43	74113	31.99	ug/L	93
24) methyl tert butyl ether	7.459	73	429636	40.44	ug/L	97
25) trans-1,2-dichloroethene	7.464	96	195229	47.09	ug/L	98
26) hexane	7.868	57	315541	49.36	ug/L	97
27) di-isopropyl ether	8.172	45	553619	44.45	ug/L	95
28) 2-butanone	8.969	72	66671	203.26	ug/L	97
29) 1,1-dichloroethane	8.109	63	428147	46.00	ug/L	98
30) chloroprene	8.250	53	301498	44.75	ug/L	98
31) acrylonitrile	7.396	53	52582	38.37	ug/L	97
32) vinyl acetate	8.135	86	25689	39.26	ug/L	# 87
33) ethyl tert-butyl ether	8.722	59	739103	43.79	ug/L	99
34) ethyl acetate	9.037	45	15661	39.10	ug/L	97
35) 2,2-dichloropropane	9.011	77	324171	50.41	ug/L	99
36) cis-1,2-dichloroethene	8.984	96	219245	45.86	ug/L	97
37) propionitrile	9.058	54	184979	369.49	ug/L	98
38) tert-butyl formate	9.535	59	169641	47.39	ug/L	91
39) bromochloromethane	9.351	128	111868	45.26	ug/L	96
40) tetrahydrofuran	9.435	42	26494	33.19	ug/L	91
41) chloroform	9.446	83	403556	44.34	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201300.d
 Acq On : 22 Apr 2022 10:47 am
 Operator : nickw
 Sample : bs Inst : MS2D
 Misc : MS58319,V2D8765,5,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 22 11:16:15 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) methacrylonitrile	9.304	67	55449	39.85	ug/L	99
44) 1,1,1-trichloroethane	9.781	97	369155	50.93	ug/L	97
45) cyclohexane	9.891	84	302004	46.54	ug/L #	73
46) 1,1-dichloropropene	10.012	75	248641	45.71	ug/L	97
47) isobutyl alcohol	10.044	43	41633	401.90	ug/L	95
48) carbon tetrachloride	10.038	117	331976	50.30	ug/L	98
49) tert-amyl alcohol	10.211	73	32320	216.43	ug/L	97
52) benzene	10.332	78	698612	48.13	ug/L	99
53) iso-octane	10.426	57	847740	49.08	ug/L	100
54) tert-amyl methyl ether	10.442	73	507279	45.47	ug/L	98
55) heptane	10.657	57	160276	49.97	ug/L	100
56) isopropyl acetate	10.316	87	27797	44.47	ug/L #	92
57) 1,2-dichloroethane	10.332	62	334131	45.03	ug/L	97
58) n-butyl alcohol	11.019	56	209615	2428.85	ug/L	95
59) ethyl acrylate	11.344	55	198190	43.30	ug/L	98
60) trichloroethene	11.270	130	234559	51.64	ug/L	98
61) 2-nitropropane	12.308	41	33499	40.70	ug/L	92
62) 2-chloroethyl vinyl ether	12.387	63	598332	225.46	ug/L	99
63) methyl methacrylate	11.695	69	86695	43.05	ug/L	97
64) 1,2-dichloropropane	11.611	63	237061	48.13	ug/L	95
65) dibromomethane	11.789	93	126869	45.56	ug/L	98
66) methylcyclohexane	11.595	83	343571	53.40	ug/L	99
67) bromodichloromethane	11.989	83	317295	53.35	ug/L	100
68) epichlorohydrin	12.508	57	78637	214.51	ug/L	95
69) cis-1,3-dichloropropene	12.644	75	338947	51.69	ug/L	99
70) 4-methyl-2-pentanone	12.828	58	265073	174.06	ug/L	99
71) 3-methyl-1-butanol	12.864	55	136669	1025.46	ug/L	97
74) toluene	13.158	92	474688	48.42	ug/L	98
75) trans-1,3-dichloropropene	13.425	75	304121	51.06	ug/L	98
76) ethyl methacrylate	13.504	69	190422	46.65	ug/L	98
77) 1,1,2-trichloroethane	13.703	83	146315	46.31	ug/L	96
78) tetrachloroethene	13.955	164	227134	53.85	ug/L	96
79) 1,3-dichloropropane	13.950	76	267709	45.73	ug/L	100
80) 2-hexanone	14.007	58	276106	206.97	ug/L	97
81) butyl acetate	14.154	56	107069	44.17	ug/L	97
82) dibromochloromethane	14.285	129	245693	50.57	ug/L	99
83) 1,2-dibromoethane	14.474	107	185150	47.93	ug/L	98
84) n-butyl ether	15.171	57	969926	49.18	ug/L	99
85) chlorobenzene	15.134	112	614072	49.69	ug/L	99
86) 1,1,1,2-tetrachloroethane	15.229	131	253051	53.41	ug/L	97
87) ethylbenzene	15.255	91	935924	47.59	ug/L	99
88) m,p-xylene	15.407	91	1511046	96.33	ug/L	100
89) o-xylene	15.947	106	411919	50.55	ug/L	100
90) styrene	15.958	104	641824	50.28	ug/L	98
91) butyl acrylate	15.795	55	390019	47.02	ug/L	99
92) n-amyl acetate	16.089	70	112850	44.96	ug/L	97
93) bromoform	16.236	173	175175	51.46	ug/L	98
94) isopropylbenzene	16.414	105	1065077	50.26	ug/L	100
95) cis-1,4-dichloro-2-butene	16.477	88	74745	47.25	ug/L	92
98) bromobenzene	16.849	156	319260	52.59	ug/L	87
99) 1,1,2,2-tetrachloroethane	16.760	83	216283	44.71	ug/L	99
100) trans-1,4-dichloro-2-b...	16.828	53	59265	43.92	ug/L #	83
101) 1,2,3-trichloropropane	16.838	110	56841	42.21	ug/L #	86
102) n-propylbenzene	16.922	91	1178459	47.79	ug/L	99
103) 2-chlorotoluene	17.059	126	267013	50.16	ug/L	98
104) 4-chlorotoluene	17.179	91	704833	45.89	ug/L	98
105) 1,3,5-trimethylbenzene	17.116	105	860948	48.77	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201300.d
 Acq On : 22 Apr 2022 10:47 am
 Operator : nickw
 Sample : bs Inst : MS2D
 Misc : MS58319,V2D8765,5,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 22 11:16:15 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106)	tert-butylbenzene	17.504	119	787005	50.37	ug/L	99
107)	1,2,4-trimethylbenzene	17.552	105	893421	48.90	ug/L	100
108)	sec-butylbenzene	17.740	105	1146494	48.61	ug/L	99
109)	1,3-dichlorobenzene	17.898	146	588353	49.48	ug/L	98
110)	p-isopropyltoluene	17.877	119	994793	50.07	ug/L	99
111)	1,2,3-trimethylbenzene	18.018	105	899823	49.74	ug/L	97
112)	1,4-dichlorobenzene	17.981	146	578843	48.54	ug/L	99
113)	1,2-dichlorobenzene	18.375	146	584090	50.36	ug/L	100
114)	benzyl chloride	18.107	91	449666	50.57	ug/L	99
115)	n-butylbenzene	18.301	92	495358	49.81	ug/L	99
116)	1,2-dibromo-3-chloropr...	19.103	157	57550	50.06	ug/L	97
117)	1,3,5-trichlorobenzene	19.292	180	552981	57.39	ug/L	100
118)	hexachlorobutadiene	19.984	225	221436	58.26	ug/L	97
119)	naphthalene	20.105	128	704420	48.71	ug/L	99
120)	1,2,4-trichlorobenzene	19.858	180	450647	55.04	ug/L	98
121)	1,2,3-trichlorobenzene	20.320	180	372674	53.73	ug/L	96
122)	hexachloroethane	18.642	201	208390	58.32	ug/L	98
123)	2-methylnaphthalene	21.133	142	207835	23.91	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
 Data File : 3d176497.d
 Acq On : 25 Apr 2022 12:35 pm
 Operator : nickw
 Sample : bs Inst : MS3D
 Misc : MS58373,V3D7465,5,,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M
 Quant Results File: M3D7392.RES
 Quant Time: Apr 26 05:37:50 2022
 Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Mon Apr 11 11:49:38 2022
 QLast Update : Mon Apr 11 11:49:38 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.868	65	59940	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	417507	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.623	114	650480	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	635223	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.190	152	305739	50.00	ug/L	0.00
125) pentafluorobenzene(a)	4.063	168	417507	50.00	ug/L	0.00
128) 1,4-dichlorobenzene-d4(a)	9.190	152	305739	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.069	113	187582	51.75	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	103.50%	
52) 1,2-dichloroethane-d4 (s)	4.313	65	209435	48.72	ug/L	0.00
Spiked Amount 50.000	Range 81	- 124	Recovery	=	97.44%	
74) toluene-d8 (s)	5.757	98	768444	47.67	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	95.34%	
98) 4-bromofluorobenzene (s)	8.074	95	310076	55.72	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	111.44%	
Target Compounds						Qvalue
2) tertiary butyl alcohol	2.923	59	42658	237.56	ug/L	90
3) ethanol	2.319	45	34542	3821.03	ug/L	99
4) 1,4-dioxane	5.050	88	8536	788.27	ug/L	96
6) chlorodifluoromethane	1.545	51	199846	54.72	ug/L	97
7) dichlorodifluoromethane	1.533	85	332526	77.02	ug/L	96
8) chloromethane	1.673	50	216702	52.76	ug/L	99
9) vinyl chloride	1.752	62	249072	56.14	ug/L	96
10) 1,3-butadiene	1.783	54	191268	42.08	ug/L	96
11) bromomethane	1.996	94	116262	72.20	ug/L	97
12) chloroethane	2.063	64	159577	53.39	ug/L	96
13) trichlorofluoromethane	2.246	101	357921	55.84	ug/L	96
14) ethyl ether	2.417	74	138419	66.88	ug/L	98
15) acrolein	2.502	56	23285	39.96	ug/L	84
16) freon 113	2.587	151	171262	55.75	ug/L	97
17) 1,1-dichloroethene	2.587	96	186745	61.11	ug/L	96
18) acetone	2.587	58	92743	403.45	ug/L	# 85
19) acetoneitrile	2.764	41	162872	546.11	ug/L	98
20) iodomethane	2.691	142	166305	70.60	ug/L	97
21) carbon disulfide	2.752	76	560118	64.08	ug/L	95
22) methylene chloride	2.898	84	228345	61.06	ug/L	98
23) methyl acetate	2.788	43	132577	60.61	ug/L	96
24) methyl tert butyl ether	3.069	73	600093	60.52	ug/L	98
25) trans-1,2-dichloroethene	3.081	96	205963	57.71	ug/L	98
26) di-isopropyl ether	3.368	45	587419	60.16	ug/L	95
27) 2-butanone	3.709	72	105221	284.40	ug/L	97
28) 1,1-dichloroethane	3.362	63	342435	55.79	ug/L	99
29) chloroprene	3.416	53	291223	55.57	ug/L	97
30) acrylonitrile	3.026	53	55464	53.82	ug/L	96
31) hexane	3.264	56	147014	46.57	ug/L	93
32) vinyl acetate	3.337	86	50668	56.19	ug/L	# 77
33) ethyl tert-butyl ether	3.605	59	641484	59.26	ug/L	97
34) ethyl acetate	3.727	45	28654	58.90	ug/L	# 87
35) 2,2-dichloropropane	3.752	77	294746	50.96	ug/L	98
36) cis-1,2-dichloroethene	3.740	96	219034	54.62	ug/L	97
37) methyl acrylate	3.770	85	31765	53.91	ug/L	96
38) propionitrile	3.746	54	192419	490.35	ug/L	95
39) bromochloromethane	3.904	128	107249	51.24	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
 Data File : 3d176497.d
 Acq On : 25 Apr 2022 12:35 pm
 Operator : nickw
 Sample : bs Inst : MS3D
 Misc : MS58373,V3D7465,5,,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Results File: M3D7392.RES

Quant Time: Apr 26 05:37:50 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) tetrahydrofuran	3.916	42	45262	57.23	ug/L	94
41) chloroform	3.959	85	239705	52.70	ug/L	95
42) t-butyl formate	3.977	59	145618	40.63	ug/L #	81
44) methacrylonitrile	3.855	67	84697	59.69	ug/L	94
45) 1,1,1-trichloroethane	4.099	97	320835	51.16	ug/L	95
46) cyclohexane	4.166	84	320484	56.09	ug/L	93
47) 1,1-dichloropropene	4.209	75	279640	58.52	ug/L	98
48) iso-butyl alcohol	4.203	43	31802m	429.27	ug/L	
49) carbon tetrachloride	4.215	117	264724	49.05	ug/L	98
50) tert amyl alcohol	4.294	55	18646	223.23	ug/L	88
53) n-butyl alcohol	4.678	56	77508	1438.15	ug/L	92
54) 2,2,4-trimethylpentane	4.422	57	551785	48.12	ug/L	97
55) benzene	4.349	78	808019	55.82	ug/L	98
56) tert-amyl methyl ether	4.416	87	153760	53.29	ug/L	95
57) heptane	4.538	71	159548	49.38	ug/L	91
58) isopropyl acetate	4.325	87	46906	51.41	ug/L	94
59) 1,2-dichloroethane	4.367	62	258069	48.28	ug/L	96
60) trichloroethene	4.819	130	228958	51.13	ug/L	97
61) ethyl acrylate	4.831	55	220605	51.77	ug/L	97
62) 2-nitropropane	5.337	41	44341	39.89	ug/L	94
63) 2-chloroethyl vinyl ether	5.386	63	582484	272.48	ug/L	99
64) methyl methacrylate	5.014	100	58874	57.02	ug/L	95
65) 1,2-dichloropropane	5.001	63	210709	55.71	ug/L	100
66) dibromomethane	5.069	93	120611	47.42	ug/L	92
67) methylcyclohexane	5.008	83	345892	50.74	ug/L	94
68) bromodichloromethane	5.190	83	290678	50.56	ug/L	95
69) epichlorohydrin	5.428	57	74883	238.95	ug/L	98
70) cis-1,3-dichloropropene	5.532	75	364739	55.89	ug/L	97
71) 4-methyl-2-pentanone	5.623	58	264576	217.89	ug/L	99
72) 3-methyl-1-butanol	5.648	55	72059	665.82	ug/L	96
75) toluene	5.812	92	535710	49.35	ug/L	97
76) trans-1,3-dichloropropene	5.977	75	326696	52.20	ug/L	96
77) ethyl methacrylate	6.007	69	277856	52.89	ug/L	98
78) 1,1,2-trichloroethane	6.148	83	159177	52.58	ug/L	91
79) tetrachloroethene	6.257	164	189727	46.68	ug/L	96
80) 1,3-dichloropropane	6.288	76	327852	53.00	ug/L	98
81) 2-hexanone	6.312	58	276964	231.61	ug/L	99
82) butyl acetate	6.404	56	119201	50.63	ug/L	97
83) dibromochloromethane	6.477	129	222723	47.04	ug/L	97
84) 1,2-dibromoethane	6.593	107	194362	49.76	ug/L	100
85) n-butyl ether	7.086	57	860053	49.04	ug/L	98
86) chlorobenzene	7.025	112	593488	47.59	ug/L	95
87) 1,1,1,2-tetrachloroethane	7.093	131	204162	45.03	ug/L	93
88) ethylbenzene	7.105	91	966087	49.33	ug/L	97
89) m,p-xylene	7.221	106	787776	93.95	ug/L	100
90) o-xylene	7.574	106	404700	47.69	ug/L	95
91) styrene	7.586	104	659216	47.54	ug/L	97
92) bromoform	7.757	173	132467	42.06	ug/L	98
93) butyl acrylate	7.495	55	362599	49.90	ug/L	94
94) n-amyl acetate	7.702	70	154316	50.61	ug/L	97
95) isopropylbenzene	7.909	105	1004386	47.98	ug/L	98
96) cis-1,4-dichloro-2-butene	7.952	88	61149	42.20	ug/L	86
99) bromobenzene	8.214	156	250027	50.72	ug/L	88
100) 1,1,2,2-tetrachloroethane	8.184	83	233306	57.34	ug/L	94
101) trans-1,4-dichloro-2-b...	8.220	53	47978	55.67	ug/L	89
102) 1,2,3-trichloropropane	8.239	110	68105	52.32	ug/L	99
103) n-propylbenzene	8.300	91	1132090	54.42	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
 Data File : 3d176497.d
 Acq On : 25 Apr 2022 12:35 pm
 Operator : nickw
 Sample : bs Inst : MS3D
 Misc : MS58373,V3D7465,5,,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Results File: M3D7392.RES

Quant Time: Apr 26 05:37:50 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 2-chlorotoluene	8.391	126	243994	49.54	ug/L	86
105) 4-chlorotoluene	8.507	126	243044	48.53	ug/L #	76
106) 1,3,5-trimethylbenzene	8.476	105	805813	52.22	ug/L	95
107) tert-butylbenzene	8.775	134	187888	49.03	ug/L #	86
108) 1,2,4-trimethylbenzene	8.836	105	822298	53.12	ug/L	95
109) sec-butylbenzene	8.995	105	981778	51.33	ug/L	97
110) 1,3-dichlorobenzene	9.117	146	485183	52.50	ug/L	97
111) p-isopropyltoluene	9.141	119	810056	50.08	ug/L	96
112) 1,4-dichlorobenzene	9.208	146	462596	49.83	ug/L	95
113) 1,2,3-trimethylbenzene	9.232	105	801867	53.00	ug/L	95
114) benzyl chloride	9.312	91	446423	52.85	ug/L	92
115) 1,2-dichlorobenzene	9.562	146	442635	50.58	ug/L	99
116) n-butylbenzene	9.537	92	412272	53.63	ug/L	93
117) 1,2-dibromo-3-chloropr...	10.317	157	51687	53.30	ug/L	89
118) 1,3,5-trichlorobenzene	10.525	180	315276	50.19	ug/L	96
119) 1,2,4-trichlorobenzene	11.147	180	263747	51.45	ug/L	99
120) hexachlorobutadiene	11.299	225	98975	50.31	ug/L	99
121) naphthalene	11.403	128	674842	57.77	ug/L	98
122) 1,2,3-trichlorobenzene	11.628	180	219406	51.75	ug/L	97
123) hexachloroethane	9.836	201	111227	46.30	ug/L	94
124) 2-methylnaphthalene	12.537	142	156403	27.39	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
Data File : 3d176497.d
Acq On : 25 Apr 2022 12:35 pm
Operator : nickw
Sample : bs
Misc : MS58373,V3D7465,5,,,,,1
ALS Vial : 8 Sample Multiplier: 1

Inst : MS3D

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

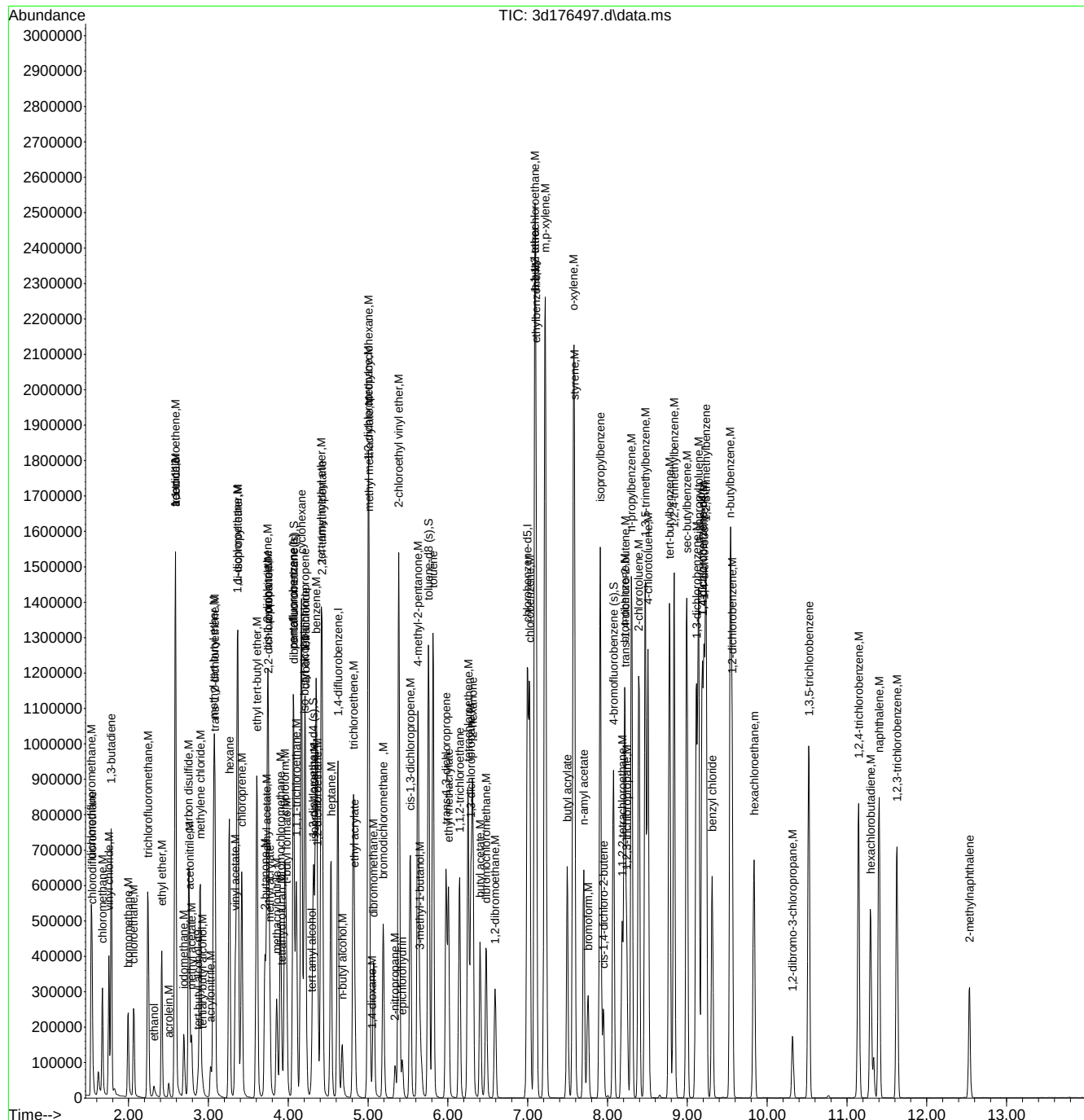
Quant Results File: M3D7392.RES

Quant Time: Apr 26 05:37:50 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: V3D7465-BS

Method: SW846 8260D

Lab FileID: 3D176497.D

Analyst approved: 04/26/22 06:35 Dave Moriente

Injection Time: 04/25/22 12:35

Supervisor approved: 04/27/22 12:13 Mei Chen

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl alcohol	78-83-1		4.20	Poor instrument integration

7.3.2.1
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
Data File : 3d176497.d
Acq On : 25 Apr 2022 12:35 pm
Operator : nickw
Sample : bs
Misc : MS58373,V3D7465,5,,,,,1
ALS Vial : 8 Sample Multiplier: 1

Inst : MS3D

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

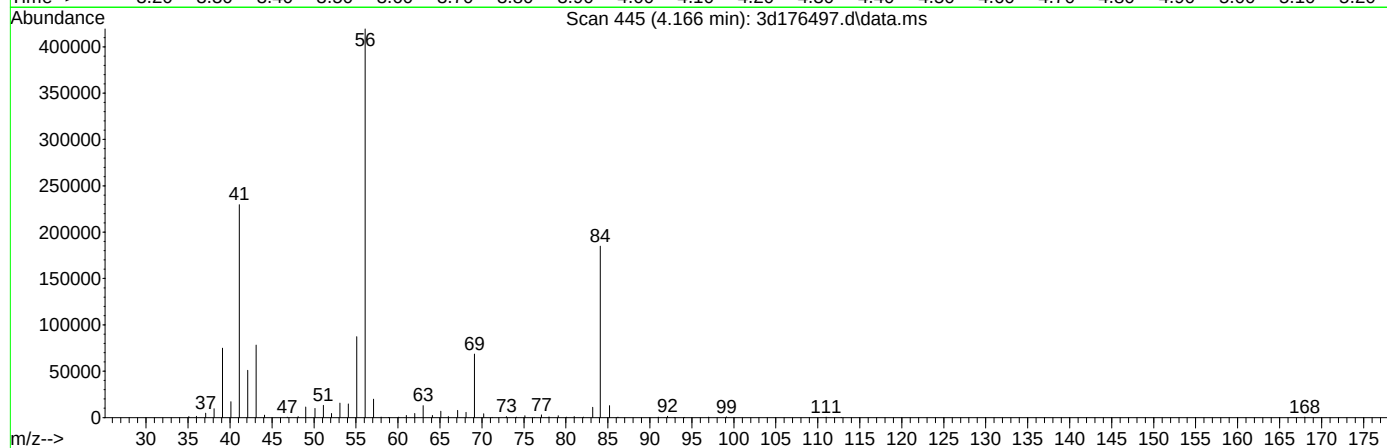
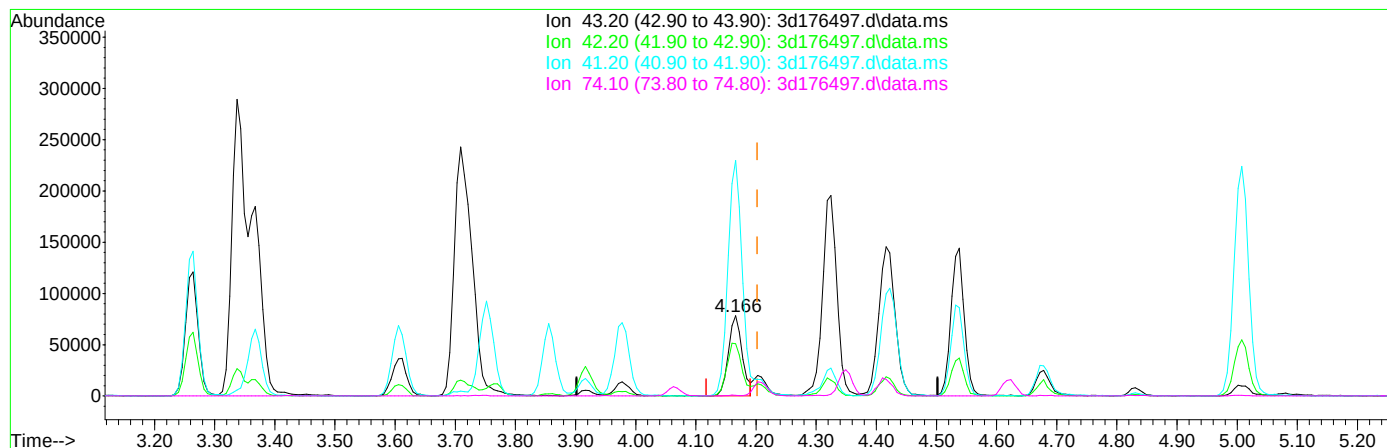
Quant Results File: M3D7392.RES

Quant Time: Apr 25 12:52:25 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

Response via : Initial Calibration



TIC: 3d176497.d\data.ms

(48) iso-butyl alcohol

4.166min (-0.036) 1687.68ug/L

response 125030

Ion	Exp%	Act%
43.20	100	100
42.20	57.60	65.43
41.20	79.30	294.21#
74.10	58.00	0.76#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
Data File : 3d176497.d
Acq On : 25 Apr 2022 12:35 pm
Operator : nickw
Sample : bs
Misc : MS58373,V3D7465,5,,,,,1
ALS Vial : 8 Sample Multiplier: 1

Inst : MS3D

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

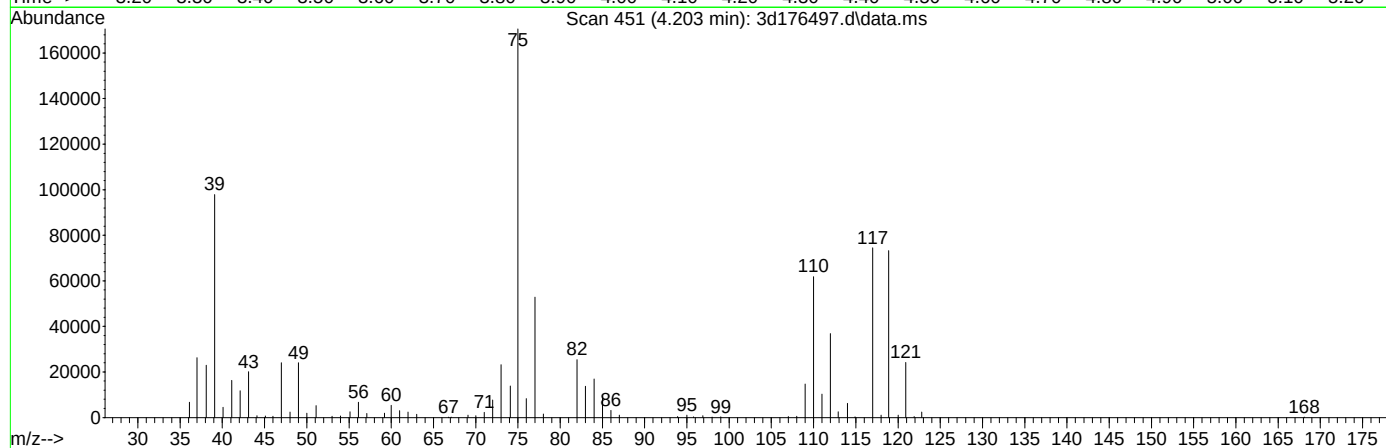
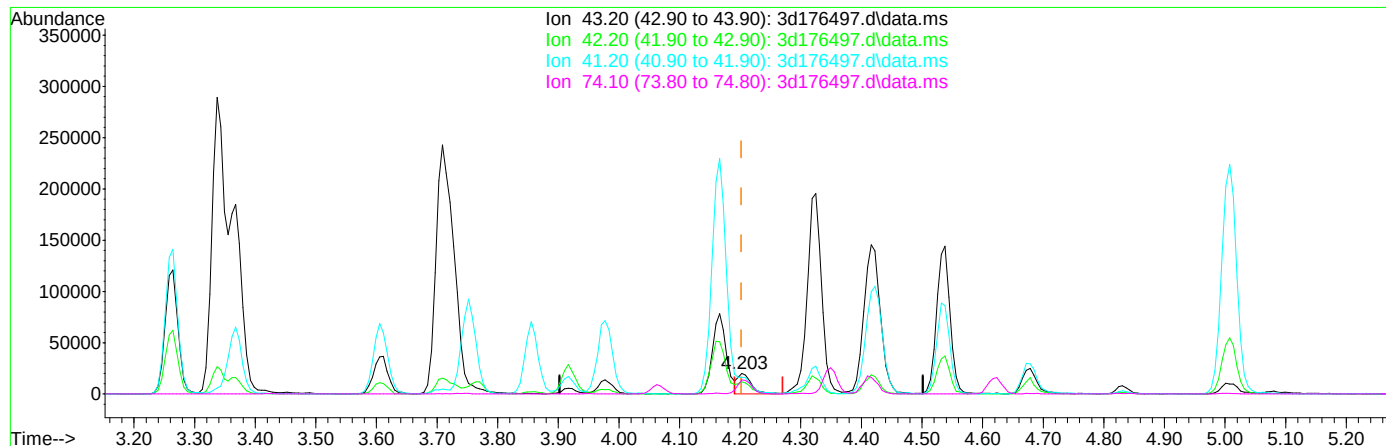
Quant Results File: M3D7392.RES

Quant Time: Apr 25 12:52:25 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

Response via : Initial Calibration



TIC: 3d176497.d\data.ms

(48) iso-butyl alcohol

4.203min (+0.001) 429.27ug/L m

response 31802

Ion	Exp%	Act%
43.20	100	100
42.20	57.60	58.60
41.20	79.30	81.28
74.10	58.00	68.98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201309.d
 Acq On : 22 Apr 2022 3:29 pm
 Operator : nickw
 Sample : jd43253-1ms Inst : MS2D
 Misc : MS58347,V2D8765,5,,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 25 03:38:32 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.018	65	121265	500.00	ug/L	-0.04
5) pentafluorobenzene	9.703	168	463271	50.00	ug/L	-0.03
50) 1,4-difluorobenzene	10.845	114	610513	50.00	ug/L	-0.03
72) chlorobenzene-d5	15.098	117	619610	50.00	ug/L	-0.03
96) 1,4-dichlorobenzene-d4	17.960	152	347086	50.00	ug/L	-0.02
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.692	113	220698	47.57	ug/L	-0.03
Spiked Amount	50.000	Range	80 - 120	Recovery	=	95.14%
51) 1,2-dichloroethane-d4 (s)	10.222	65	250738	47.35	ug/L	-0.03
Spiked Amount	50.000	Range	81 - 124	Recovery	=	94.70%
73) toluene-d8 (s)	13.063	98	708371	48.36	ug/L	-0.03
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.72%
97) 4-bromofluorobenzene (s)	16.634	95	275253	47.98	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	95.96%
Target Compounds						
2) tertiary butyl alcohol	7.149	59	107717	286.03	ug/L	96
3) ethanol	5.692	45	196355	5233.95	ug/L	93
4) 1,4-dioxane	11.784	88	38839	1526.65	ug/L	99
6) chlorodifluoromethane	3.704	51	273760	141.38	ug/L	72
7) dichlorodifluoromethane	3.683	85	366042	42.36	ug/L	100
8) chloromethane	4.045	50	350480	35.08	ug/L	97
9) vinyl chloride	4.260	62	459373	49.27	ug/L	99
10) 1,3-butadiene	4.286	54	336788	172.65	ug/L	95
11) bromomethane	4.858	94	287063	47.36	ug/L	98
12) chloroethane	5.010	64	232366	44.83	ug/L	99
13) trichlorofluoromethane	5.471	101	610023	55.16	ug/L	98
14) ethyl ether	5.880	74	105864	54.88	ug/L	99
15) acrolein	6.106	56	29980	35.25	ug/L	95
16) 1,1-dichloroethene	6.289	96	232764	69.34	ug/L	99
17) freon 113	6.305	151	252882	70.36	ug/L	93
18) acetone	6.331	58	57489	177.97	ug/L	97
19) acetonitrile	6.772	41	155590	464.56	ug/L	99
20) iodomethane	6.557	142	526023	72.26	ug/L	98
21) carbon disulfide	6.693	76	724928	77.85	ug/L	99
22) methylene chloride	7.039	84	256081	56.33	ug/L	94
23) methyl acetate	6.845	43	95265	41.41	ug/L	92
24) methyl tert butyl ether	7.464	73	538569	51.05	ug/L	97
25) trans-1,2-dichloroethene	7.469	96	252102	61.22	ug/L	98
26) hexane	7.873	57	403698	63.59	ug/L	97
27) di-isopropyl ether	8.172	45	670045	54.17	ug/L	99
28) 2-butanone	8.974	72	60452	185.56	ug/L	98
29) 1,1-dichloroethane	8.114	63	534828	57.86	ug/L	97
30) chloroprene	8.255	53	387108	57.85	ug/L	100
31) acrylonitrile	7.396	53	56027	41.17	ug/L	98
32) vinyl acetate	8.135	86	32412	49.88	ug/L	# 81
33) ethyl tert-butyl ether	8.727	59	885923	52.85	ug/L	99
34) ethyl acetate	9.037	45	17185	43.20	ug/L	# 77
35) 2,2-dichloropropane	9.016	77	394694	61.80	ug/L	99
36) cis-1,2-dichloroethene	8.989	96	311864	65.69	ug/L	99
37) propionitrile	9.063	54	209455	421.26	ug/L	98
38) tert-butyl formate	9.540	59	93714	26.36	ug/L	94
39) bromochloromethane	9.356	128	135497	55.20	ug/L	99
40) tetrahydrofuran	9.435	42	32601	41.12	ug/L	95
41) chloroform	9.446	83	472325	52.26	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201309.d
 Acq On : 22 Apr 2022 3:29 pm
 Operator : nickw
 Sample : jd43253-1ms Inst : MS2D
 Misc : MS58347,V2D8765,5,,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 25 03:38:32 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) methacrylonitrile	9.309	67	65116	47.12	ug/L	99
44) 1,1,1-trichloroethane	9.786	97	452260	62.83	ug/L	99
45) cyclohexane	9.891	84	292412	45.37	ug/L #	76
46) 1,1-dichloropropene	10.012	75	310042	57.39	ug/L	99
47) isobutyl alcohol	10.043	43	44492	432.45	ug/L	97
48) carbon tetrachloride	10.043	117	408793	62.37	ug/L	98
49) tert-amyl alcohol	10.216	73	34604	233.32	ug/L	98
52) benzene	10.337	78	868592	60.84	ug/L	99
53) iso-octane	10.431	57	977577	57.54	ug/L	99
54) tert-amyl methyl ether	10.447	73	579582	52.82	ug/L	98
55) heptane	10.662	57	189079	59.93	ug/L	96
56) isopropyl acetate	10.321	87	31970	52.00	ug/L #	88
57) 1,2-dichloroethane	10.337	62	395921	54.25	ug/L	99
58) n-butyl alcohol	11.024	56	222332	2619.18	ug/L	95
59) ethyl acrylate	11.344	55	222172	49.35	ug/L	98
60) trichloroethene	11.275	130	295692	66.19	ug/L	98
61) 2-nitropropane	12.314	41	39830	49.20	ug/L	91
63) methyl methacrylate	11.700	69	97905	49.43	ug/L	93
64) 1,2-dichloropropane	11.616	63	276572	57.09	ug/L	99
65) dibromomethane	11.794	93	146751	53.58	ug/L	96
66) methylcyclohexane	11.600	83	411762	65.06	ug/L	97
67) bromodichloromethane	11.999	83	363361	62.11	ug/L	98
68) epichlorohydrin	12.513	57	77738	215.59	ug/L	99
69) cis-1,3-dichloropropene	12.649	75	402901	62.47	ug/L	95
70) 4-methyl-2-pentanone	12.833	58	295289	197.13	ug/L	97
71) 3-methyl-1-butanol	12.864	55	145021	1106.29	ug/L	98
74) toluene	13.163	92	571721	59.12	ug/L	99
75) trans-1,3-dichloropropene	13.425	75	341237	58.08	ug/L	98
76) ethyl methacrylate	13.504	69	215633	53.55	ug/L	96
77) 1,1,2-trichloroethane	13.708	83	165036	52.96	ug/L	99
78) tetrachloroethene	13.955	164	277418	66.68	ug/L	95
79) 1,3-dichloropropane	13.955	76	302937	52.47	ug/L	100
80) 2-hexanone	14.012	58	251979	191.50	ug/L	99
81) butyl acetate	14.159	56	118377	49.51	ug/L	96
82) dibromochloromethane	14.285	129	283630	59.18	ug/L	97
83) 1,2-dibromoethane	14.479	107	213490	56.03	ug/L	99
84) n-butyl ether	15.171	57	1106561	56.89	ug/L	99
85) chlorobenzene	15.140	112	712808	58.49	ug/L	99
86) 1,1,1,2-tetrachloroethane	15.229	131	291415	62.36	ug/L	97
87) ethylbenzene	15.255	91	1088453	56.11	ug/L	99
88) m,p-xylene	15.407	91	1778067	114.92	ug/L	99
89) o-xylene	15.952	106	477923	59.46	ug/L	99
90) styrene	15.957	104	734100	58.30	ug/L	100
91) butyl acrylate	15.800	55	449029	54.88	ug/L	98
92) n-amyl acetate	16.094	70	130304	52.63	ug/L	97
93) bromoform	16.241	173	196465	58.51	ug/L	99
94) isopropylbenzene	16.419	105	1240110	59.33	ug/L	98
95) cis-1,4-dichloro-2-butene	16.482	88	58693	37.62	ug/L	96
98) bromobenzene	16.849	156	367741	62.91	ug/L	93
99) 1,1,2,2-tetrachloroethane	16.765	83	233063	50.02	ug/L	100
100) trans-1,4-dichloro-2-b...	16.833	53	48490	37.31	ug/L #	70
101) 1,2,3-trichloropropane	16.844	110	64105	49.43	ug/L #	80
102) n-propylbenzene	16.927	91	1388820	58.48	ug/L	100
103) 2-chlorotoluene	17.064	126	306736	59.84	ug/L	98
104) 4-chlorotoluene	17.179	91	810614	54.80	ug/L	100
105) 1,3,5-trimethylbenzene	17.116	105	994430	58.50	ug/L	99
106) tert-butylbenzene	17.504	119	918364	61.04	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201309.d
 Acq On : 22 Apr 2022 3:29 pm
 Operator : nickw
 Sample : jd43253-1ms Inst : MS2D
 Misc : MS58347,V2D8765,5,,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 25 03:38:32 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107)	1,2,4-trimethylbenzene	17.551	105	1026751	58.35	ug/L	99
108)	sec-butylbenzene	17.745	105	1339792	58.99	ug/L	98
109)	1,3-dichlorobenzene	17.897	146	676048	59.04	ug/L	99
110)	p-isopropyltoluene	17.882	119	1154878	60.36	ug/L	99
111)	1,2,3-trimethylbenzene	18.018	105	1024747	58.82	ug/L	100
112)	1,4-dichlorobenzene	17.986	146	669162	58.27	ug/L	98
113)	1,2-dichlorobenzene	18.380	146	665060	59.54	ug/L	99
114)	benzyl chloride	18.112	91	496284	57.96	ug/L	98
115)	n-butylbenzene	18.301	92	569534	59.47	ug/L	98
116)	1,2-dibromo-3-chloropr...	19.108	157	60490	54.63	ug/L	97
117)	1,3,5-trichlorobenzene	19.297	180	629445	67.84	ug/L	98
118)	hexachlorobutadiene	19.989	225	249962	68.29	ug/L	98
119)	naphthalene	20.105	128	762367	54.74	ug/L	99
120)	1,2,4-trichlorobenzene	19.863	180	501354	63.59	ug/L	99
121)	1,2,3-trichlorobenzene	20.320	180	405377	60.69	ug/L	97
122)	hexachloroethane	18.642	201	239198	69.52	ug/L	98
123)	2-methylnaphthalene	21.138	142	219673	26.25	ug/L	98

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

7.4.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
Data File : 2d201309.d
Acq On : 22 Apr 2022 3:29 pm
Operator : nickw
Sample : jd43253-1ms
Misc : MS58347,V2D8765,5,,,,,1
ALS Vial : 14 Sample Multiplier: 1

Inst : MS2D

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

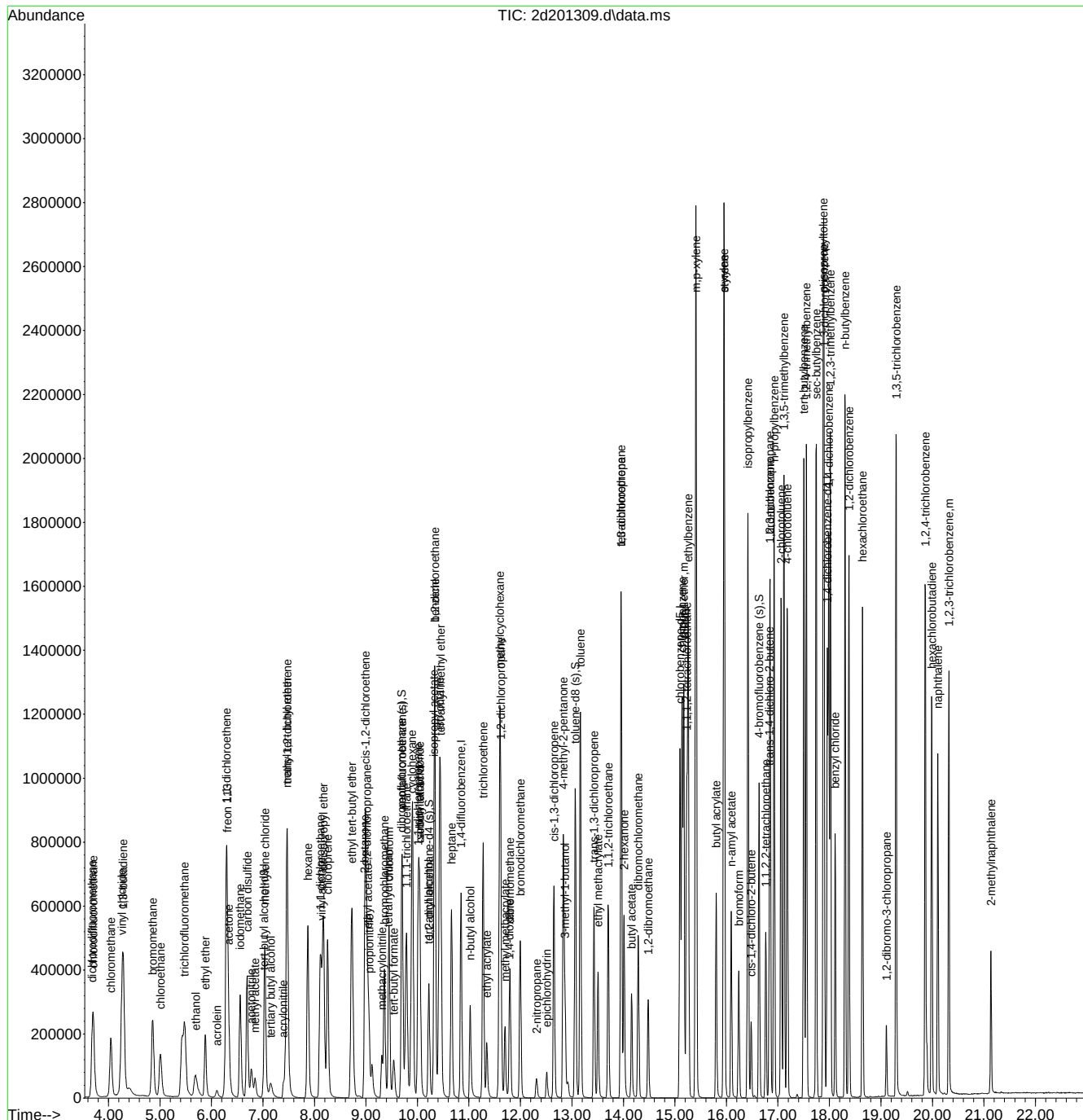
Quant Results File: M2D8735.RES

Quant Time: Apr 25 03:38:32 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201310.d
 Acq On : 22 Apr 2022 3:58 pm
 Operator : nickw
 Sample : jd43253-1msd Inst : MS2D
 Misc : MS58347,V2D8765,5,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 25 03:39:14 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.023	65	129325	500.00	ug/L	-0.03
5) pentafluorobenzene	9.703	168	505619	50.00	ug/L	-0.03
50) 1,4-difluorobenzene	10.845	114	671168	50.00	ug/L	-0.03
72) chlorobenzene-d5	15.098	117	671040	50.00	ug/L	-0.03
96) 1,4-dichlorobenzene-d4	17.960	152	374995	50.00	ug/L	-0.02
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.692	113	238572	47.11	ug/L	-0.03
Spiked Amount 50.000	Range 80 - 120		Recovery =	94.22%		
51) 1,2-dichloroethane-d4 (s)	10.216	65	271557	46.65	ug/L	-0.04
Spiked Amount 50.000	Range 81 - 124		Recovery =	93.30%		
73) toluene-d8 (s)	13.063	98	763597	48.13	ug/L	-0.03
Spiked Amount 50.000	Range 80 - 120		Recovery =	96.26%		
97) 4-bromofluorobenzene (s)	16.634	95	290545	46.88	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery =	93.76%		
Target Compounds						
2) tertiary butyl alcohol	7.149	59	113525	282.67	ug/L	96
3) ethanol	5.676	45	210537	5262.22	ug/L	98
4) 1,4-dioxane	11.779	88	42141	1553.21	ug/L	97
6) chlorodifluoromethane	3.704	51	284813	134.77	ug/L	70
7) dichlorodifluoromethane	3.678	85	414379	43.94	ug/L	99
8) chloromethane	4.035	50	378610	34.72	ug/L	99
9) vinyl chloride	4.250	62	495975	48.74	ug/L	98
10) 1,3-butadiene	4.281	54	340545	159.95	ug/L	95
11) bromomethane	4.853	94	307240	46.45	ug/L	100
12) chloroethane	5.000	64	253212	44.76	ug/L	96
13) trichlorofluoromethane	5.461	101	666277	55.20	ug/L	99
14) ethyl ether	5.875	74	108823	51.69	ug/L	93
15) acrolein	6.101	56	31966	34.44	ug/L	96
16) 1,1-dichloroethene	6.284	96	232819	63.54	ug/L	97
17) freon 113	6.289	151	260514	66.41	ug/L	91
18) acetone	6.331	58	56688	160.79	ug/L	89
19) acetonitrile	6.766	41	158267	432.98	ug/L	98
20) iodomethane	6.551	142	538010	67.72	ug/L	98
21) carbon disulfide	6.683	76	737780	72.60	ug/L	98
22) methylene chloride	7.029	84	253378	51.07	ug/L	98
23) methyl acetate	6.845	43	95980	38.23	ug/L	91
24) methyl tert butyl ether	7.453	73	551773	47.92	ug/L	94
25) trans-1,2-dichloroethene	7.464	96	253187	56.33	ug/L	99
26) hexane	7.867	57	411501	59.39	ug/L	97
27) di-isopropyl ether	8.166	45	676542	50.11	ug/L	99
28) 2-butanone	8.969	72	61781	173.76	ug/L	94
29) 1,1-dichloroethane	8.109	63	539284	53.46	ug/L	99
30) chloroprene	8.250	53	399678	54.73	ug/L	98
31) acrylonitrile	7.396	53	59450	40.02	ug/L	97
32) vinyl acetate	8.135	86	32472	45.79	ug/L	# 91
33) ethyl tert-butyl ether	8.722	59	909448	49.71	ug/L	99
34) ethyl acetate	9.037	45	17392	40.06	ug/L	# 81
35) 2,2-dichloropropane	9.010	77	402698	57.77	ug/L	99
36) cis-1,2-dichloroethene	8.984	96	321869	62.11	ug/L	94
37) propionitrile	9.058	54	211555	389.84	ug/L	98
38) tert-butyl formate	9.535	59	75507	19.46	ug/L	94
39) bromochloromethane	9.356	128	137667	51.38	ug/L	94
40) tetrahydrofuran	9.430	42	33005	38.14	ug/L	91
41) chloroform	9.446	83	481859	48.85	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201310.d
 Acq On : 22 Apr 2022 3:58 pm
 Operator : nickw
 Sample : jd43253-1msd Inst : MS2D
 Misc : MS58347,V2D8765,5,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 25 03:39:14 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) methacrylonitrile	9.304	67	65011	43.10	ug/L	97
44) 1,1,1-trichloroethane	9.781	97	459767	58.52	ug/L	99
45) cyclohexane	9.886	84	314373	44.69	ug/L	92
46) 1,1-dichloropropene	10.012	75	319343	54.16	ug/L	98
47) isobutyl alcohol	10.043	43	45948	409.20	ug/L	96
48) carbon tetrachloride	10.043	117	419352	58.62	ug/L	98
49) tert-amyl alcohol	10.211	73	36067	222.81	ug/L	95
52) benzene	10.337	78	879491	56.04	ug/L	100
53) iso-octane	10.426	57	963869	51.61	ug/L	99
54) tert-amyl methyl ether	10.447	73	595329	49.35	ug/L	99
55) heptane	10.657	57	189697	54.70	ug/L	99
56) isopropyl acetate	10.316	87	34828	51.53	ug/L	96
57) 1,2-dichloroethane	10.332	62	405000	50.48	ug/L	99
58) n-butyl alcohol	11.019	56	228892	2452.78	ug/L	93
59) ethyl acrylate	11.344	55	227726	46.01	ug/L	98
60) trichloroethene	11.275	130	302495	61.59	ug/L	97
61) 2-nitropropane	12.308	41	40426	45.42	ug/L	90
63) methyl methacrylate	11.700	69	101287	46.52	ug/L	95
64) 1,2-dichloropropane	11.611	63	277175	52.05	ug/L	100
65) dibromomethane	11.794	93	149868	49.77	ug/L	96
66) methylcyclohexane	11.595	83	421305	60.56	ug/L	99
67) bromodichloromethane	11.994	83	371842	57.82	ug/L	97
68) epichlorohydrin	12.513	57	78517	198.07	ug/L	99
69) cis-1,3-dichloropropene	12.649	75	412376	58.16	ug/L	98
70) 4-methyl-2-pentanone	12.833	58	300456	182.46	ug/L	95
71) 3-methyl-1-butanol	12.864	55	150572	1044.83	ug/L	97
74) toluene	13.163	92	584919	55.85	ug/L	99
75) trans-1,3-dichloropropene	13.425	75	349922	55.00	ug/L	98
76) ethyl methacrylate	13.504	69	223738	51.31	ug/L	96
77) 1,1,2-trichloroethane	13.703	83	167058	49.50	ug/L	96
78) tetrachloroethene	13.955	164	278631	61.84	ug/L	96
79) 1,3-dichloropropane	13.955	76	306431	49.00	ug/L	99
80) 2-hexanone	14.012	58	260137	182.55	ug/L	98
81) butyl acetate	14.159	56	120623	46.58	ug/L	99
82) dibromochloromethane	14.285	129	290880	56.04	ug/L	99
83) 1,2-dibromoethane	14.479	107	214310	51.93	ug/L	98
84) n-butyl ether	15.171	57	1120283	53.18	ug/L	100
85) chlorobenzene	15.140	112	721792	54.68	ug/L	98
86) 1,1,1,2-tetrachloroethane	15.229	131	291176	57.53	ug/L	99
87) ethylbenzene	15.255	91	1109867	52.83	ug/L	99
88) m,p-xylene	15.407	91	1805427	107.75	ug/L	99
89) o-xylene	15.952	106	491653	56.48	ug/L	96
90) styrene	15.957	104	747229	54.80	ug/L	99
91) butyl acrylate	15.800	55	464205	52.39	ug/L	97
92) n-amyl acetate	16.094	70	134411	50.13	ug/L	96
93) bromoform	16.241	173	201623	55.44	ug/L	100
94) isopropylbenzene	16.419	105	1261387	55.72	ug/L	98
95) cis-1,4-dichloro-2-butene	16.482	88	66595	39.41	ug/L	96
98) bromobenzene	16.849	156	372345	58.95	ug/L	93
99) 1,1,2,2-tetrachloroethane	16.765	83	237569	47.19	ug/L	98
100) trans-1,4-dichloro-2-b...	16.833	53	52247	37.21	ug/L #	71
101) 1,2,3-trichloropropane	16.844	110	63703	45.46	ug/L #	74
102) n-propylbenzene	16.922	91	1414184	55.12	ug/L	98
103) 2-chlorotoluene	17.064	126	316784	57.20	ug/L	95
104) 4-chlorotoluene	17.179	91	832270	52.08	ug/L	98
105) 1,3,5-trimethylbenzene	17.116	105	1012672	55.13	ug/L	99
106) tert-butylbenzene	17.504	119	942862	58.00	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201310.d
 Acq On : 22 Apr 2022 3:58 pm
 Operator : nickw
 Sample : jd43253-1msd Inst : MS2D
 Misc : MS58347,V2D8765,5,,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 25 03:39:14 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107)	1,2,4-trimethylbenzene	17.551	105	1048921	55.17	ug/L	99
108)	sec-butylbenzene	17.740	105	1365623	55.65	ug/L	99
109)	1,3-dichlorobenzene	17.897	146	686714	55.51	ug/L	99
110)	p-isopropyltoluene	17.882	119	1172817	56.74	ug/L	99
111)	1,2,3-trimethylbenzene	18.018	105	1039608	55.23	ug/L	99
112)	1,4-dichlorobenzene	17.987	146	684223	55.15	ug/L	99
113)	1,2-dichlorobenzene	18.380	146	678921	56.26	ug/L	99
114)	benzyl chloride	18.112	91	500789	54.13	ug/L	98
115)	n-butylbenzene	18.301	92	580380	56.09	ug/L	99
116)	1,2-dibromo-3-chloropr...	19.109	157	62278	52.06	ug/L	95
117)	1,3,5-trichlorobenzene	19.297	180	646351	64.48	ug/L	98
118)	hexachlorobutadiene	19.984	225	262491	66.37	ug/L	99
119)	naphthalene	20.105	128	790250	52.52	ug/L	99
120)	1,2,4-trichlorobenzene	19.858	180	520724	61.13	ug/L	99
121)	1,2,3-trichlorobenzene	20.320	180	424368	58.80	ug/L	98
122)	hexachloroethane	18.642	201	250957	67.50	ug/L	99
123)	2-methylnaphthalene	21.132	142	234790	25.97	ug/L	97

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\  
Data File : 2d201310.d  
Acq On    : 22 Apr 2022    3:58 pm  
Operator  : nickw  
Sample    : jd43253-1msd                      Inst      : MS2D  
Misc      : MS58347,V2D8765,5,,,1  
ALS Vial  : 15      Sample Multiplier: 1
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Quant Method : C:\msdchem\1\METHODS\M2D8735.M

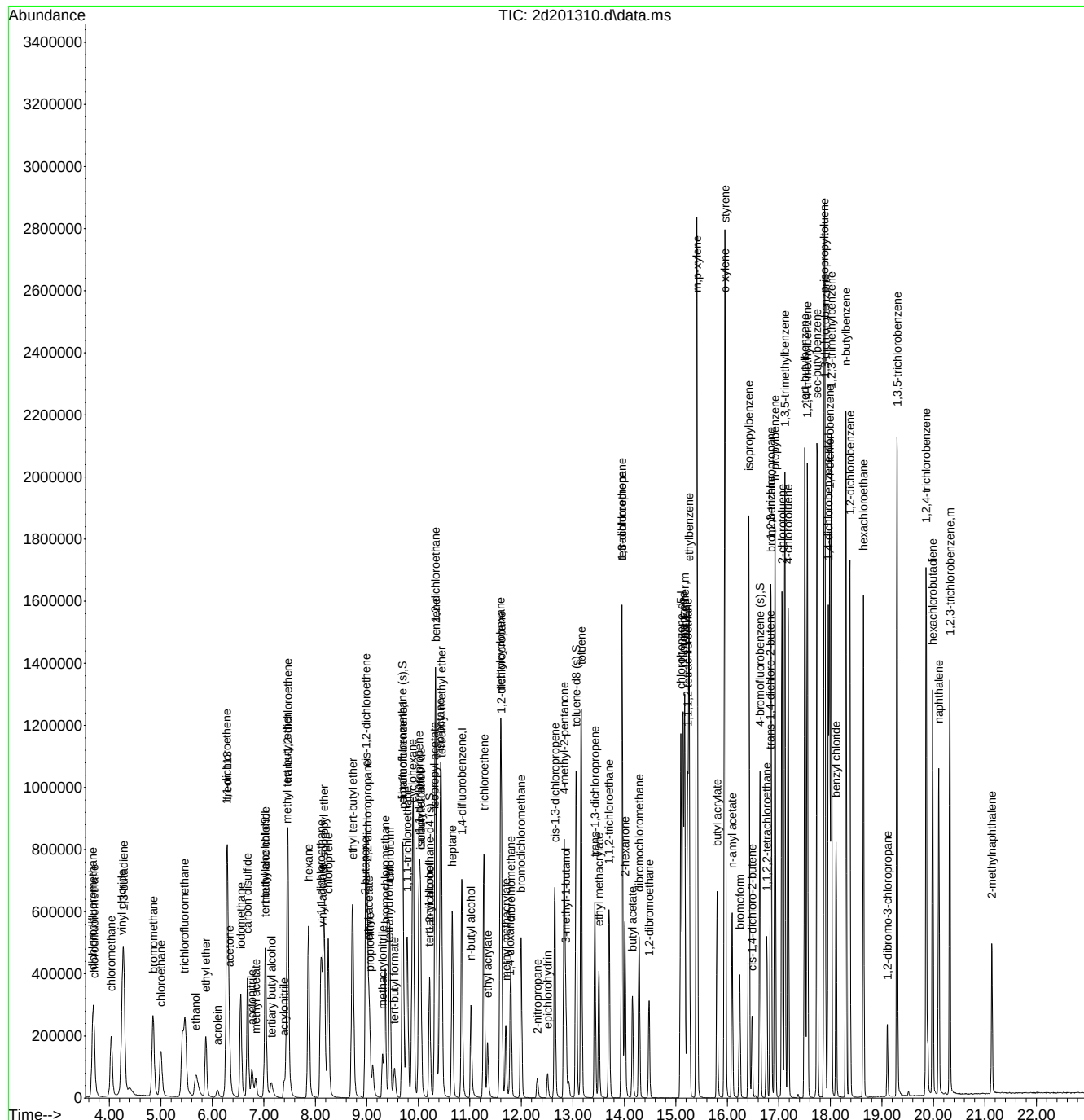
Quant Results File: M2D8735.RES

Quant Time: Apr 25 03:39:14 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration



M2D8735.M Mon Apr 25 03:39:36 2022

Page: 4

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7.4.2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
 Data File : 3d176511.d
 Acq On : 25 Apr 2022 6:09 pm
 Operator : nickw
 Sample : jd43519-11ms Inst : MS3D
 Misc : MS58446,V3D7465,5,,,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M
 Quant Results File: M3D7392.RES
 Quant Time: Apr 26 05:56:17 2022
 Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Mon Apr 11 11:49:38 2022
 QLast Update : Mon Apr 11 11:49:38 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.868	65	98765	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	433345	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.623	114	688890	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	683856	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.184	152	322536	50.00	ug/L	0.00
125) pentafluorobenzene(a)	4.063	168	433345	50.00	ug/L	0.00
128) 1,4-dichlorobenzene-d4(a)	9.184	152	322632	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.069	113	204243	54.29	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	108.58%	
52) 1,2-dichloroethane-d4 (s)	4.313	65	235869	51.81	ug/L	0.00
Spiked Amount 50.000	Range 81	- 124	Recovery	=	103.62%	
74) toluene-d8 (s)	5.757	98	820358	47.27	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	94.54%	
98) 4-bromofluorobenzene (s)	8.074	95	345793	58.91	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	117.82%	
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	2.929	59	65391	221.00	ug/L	96
3) ethanol	2.319	45	58219	3916.87	ug/L	96
4) 1,4-dioxane	5.050	88	14245	798.36	ug/L	77
6) chlorodifluoromethane	1.545	51	191715	50.57	ug/L	96
7) dichlorodifluoromethane	1.533	85	309376	69.04	ug/L	98
8) chloromethane	1.673	50	206946	48.54	ug/L	98
9) vinyl chloride	1.752	62	268760	58.36	ug/L	100
10) 1,3-butadiene	1.783	54	219698	46.57	ug/L	94
11) bromomethane	1.990	94	70152	41.98	ug/L	96
12) chloroethane	2.063	64	157466	50.76	ug/L	94
13) trichlorofluoromethane	2.240	101	344898	51.85	ug/L	96
14) ethyl ether	2.417	74	140077	65.20	ug/L	99
15) acrolein	2.502	56	35005	57.88	ug/L	95
16) freon 113	2.587	151	162920	51.10	ug/L	97
17) 1,1-dichloroethene	2.587	96	184198	58.08	ug/L	97
18) acetone	2.587	58	56743	237.82	ug/L	96
19) acetonitrile	2.764	41	190717	616.10	ug/L	98
20) iodomethane	2.691	142	169902	69.49	ug/L	99
21) carbon disulfide	2.752	76	578648	63.78	ug/L	94
22) methylene chloride	2.898	84	224518	57.84	ug/L	99
23) methyl acetate	2.789	43	138487	60.99	ug/L	98
24) methyl tert butyl ether	3.069	73	614268	59.68	ug/L	100
25) trans-1,2-dichloroethene	3.081	96	202578	54.68	ug/L	93
26) di-isopropyl ether	3.368	45	594779	58.69	ug/L	95
27) 2-butanone	3.709	72	87533	227.94	ug/L	95
28) 1,1-dichloroethane	3.362	63	345094	54.17	ug/L	98
29) chloroprene	3.416	53	301084	55.35	ug/L	97
30) acrylonitrile	3.026	53	69986	65.43	ug/L	95
31) hexane	3.264	56	145907	44.53	ug/L	90
32) vinyl acetate	3.337	86	52472	56.06	ug/L	# 72
33) ethyl tert-butyl ether	3.605	59	654571	58.26	ug/L	95
34) ethyl acetate	3.727	45	31022	61.43	ug/L	# 84
35) 2,2-dichloropropane	3.752	77	315277	52.51	ug/L	99
36) cis-1,2-dichloroethene	3.740	96	309926	74.46	ug/L	98
37) methyl acrylate	3.770	85	30262	49.48	ug/L	# 70
38) propionitrile	3.746	54	214643	526.99	ug/L	97
39) bromochloromethane	3.904	128	109737	50.51	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
 Data File : 3d176511.d
 Acq On : 25 Apr 2022 6:09 pm
 Operator : nickw
 Sample : jd43519-11ms Inst : MS3D
 Misc : MS58446,V3D7465,5,,,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Results File: M3D7392.RES

Quant Time: Apr 26 05:56:17 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Mon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40)	tetrahydrofuran	3.916	42	53911	65.68	ug/L	81
41)	chloroform	3.959	85	240153	50.87	ug/L	98
42)	t-butyl formate	3.977	59	108262	29.11	ug/L	80
44)	methacrylonitrile	3.855	67	85559	58.10	ug/L	90
45)	1,1,1-trichloroethane	4.099	97	326055	50.09	ug/L	97
46)	cyclohexane	4.166	84	296833	50.05	ug/L #	83
47)	1,1-dichloropropene	4.209	75	283839	57.23	ug/L	96
48)	iso-butyl alcohol	4.203	43	41412	538.56	ug/L	93
49)	carbon tetrachloride	4.215	117	270956	48.37	ug/L	97
50)	tert amyl alcohol	4.294	55	23494	282.57	ug/L	94
53)	n-butyl alcohol	4.678	56	119138	2087.33	ug/L	96
54)	2,2,4-trimethylpentane	4.422	57	561736	46.25	ug/L	97
55)	benzene	4.349	78	813846	53.09	ug/L	98
56)	tert-amyl methyl ether	4.416	87	154036	50.41	ug/L	92
57)	heptane	4.538	71	163517	47.78	ug/L	98
58)	isopropyl acetate	4.325	87	49784	51.53	ug/L	93
59)	1,2-dichloroethane	4.367	62	265829	46.96	ug/L	98
60)	trichloroethene	4.819	130	231287	48.77	ug/L	96
61)	ethyl acrylate	4.831	55	233607	51.77	ug/L	98
62)	2-nitropropane	5.343	41	47360	40.24	ug/L	93
64)	methyl methacrylate	5.014	100	59850	54.73	ug/L	93
65)	1,2-dichloropropane	5.001	63	211766	52.87	ug/L	100
66)	dibromomethane	5.069	93	123136	45.72	ug/L	89
67)	methylcyclohexane	5.008	83	342841	47.48	ug/L	97
68)	bromodichloromethane	5.190	83	291642	47.90	ug/L	97
69)	epichlorohydrin	5.428	57	84757	255.38	ug/L	91
70)	cis-1,3-dichloropropene	5.532	75	375068	54.27	ug/L	98
71)	4-methyl-2-pentanone	5.623	58	281378	218.81	ug/L	96
72)	3-methyl-1-butanol	5.648	55	96359	840.71	ug/L	97
75)	toluene	5.812	92	539983	46.20	ug/L	98
76)	trans-1,3-dichloropropene	5.977	75	323623	48.03	ug/L	97
77)	ethyl methacrylate	6.007	69	288688	51.04	ug/L	98
78)	1,1,2-trichloroethane	6.148	83	159575	48.96	ug/L	95
79)	tetrachloroethene	6.251	164	187762	42.91	ug/L	98
80)	1,3-dichloropropane	6.288	76	332399	49.91	ug/L	97
81)	2-hexanone	6.312	58	261855	203.40	ug/L	96
82)	butyl acetate	6.404	56	125743	49.61	ug/L	98
83)	dibromochloromethane	6.477	129	214657	42.11	ug/L	99
84)	1,2-dibromoethane	6.593	107	195258	46.43	ug/L	99
85)	n-butyl ether	7.086	57	866472	45.89	ug/L	99
86)	chlorobenzene	7.025	112	598763	44.60	ug/L	94
87)	1,1,1,2-tetrachloroethane	7.093	131	202444	41.48	ug/L	96
88)	ethylbenzene	7.105	91	986727	46.80	ug/L	95
89)	m,p-xylene	7.221	106	790400	87.56	ug/L	95
90)	o-xylene	7.574	106	405197	44.35	ug/L	95
91)	styrene	7.586	104	658443	44.10	ug/L	96
92)	bromoform	7.757	173	131823	38.88	ug/L	94
93)	butyl acrylate	7.495	55	384439	49.14	ug/L	94
94)	n-amyl acetate	7.702	70	163653	49.86	ug/L	95
95)	isopropylbenzene	7.909	105	1016717	45.11	ug/L	99
96)	cis-1,4-dichloro-2-butene	7.946	88	47819	30.65	ug/L #	82
99)	bromobenzene	8.214	156	249524	47.98	ug/L	88
100)	1,1,2,2-tetrachloroethane	8.184	83	242659	56.53	ug/L	94
101)	trans-1,4-dichloro-2-b...	8.220	53	37670	41.43	ug/L #	68
102)	1,2,3-trichloropropane	8.239	110	70604	51.42	ug/L	97
103)	n-propylbenzene	8.300	91	1146681	52.25	ug/L	94
104)	2-chlorotoluene	8.391	126	237615	45.73	ug/L #	72

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
 Data File : 3d176511.d
 Acq On : 25 Apr 2022 6:09 pm
 Operator : nickw
 Sample : jd43519-11ms Inst : MS3D
 Misc : MS58446,V3D7465,5,,,,,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M
 Quant Results File: M3D7392.RES
 Quant Time: Apr 26 05:56:17 2022
 Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022
 QLast Update : Mon Apr 11 11:49:38 2022
 Response via : Initial Calibration

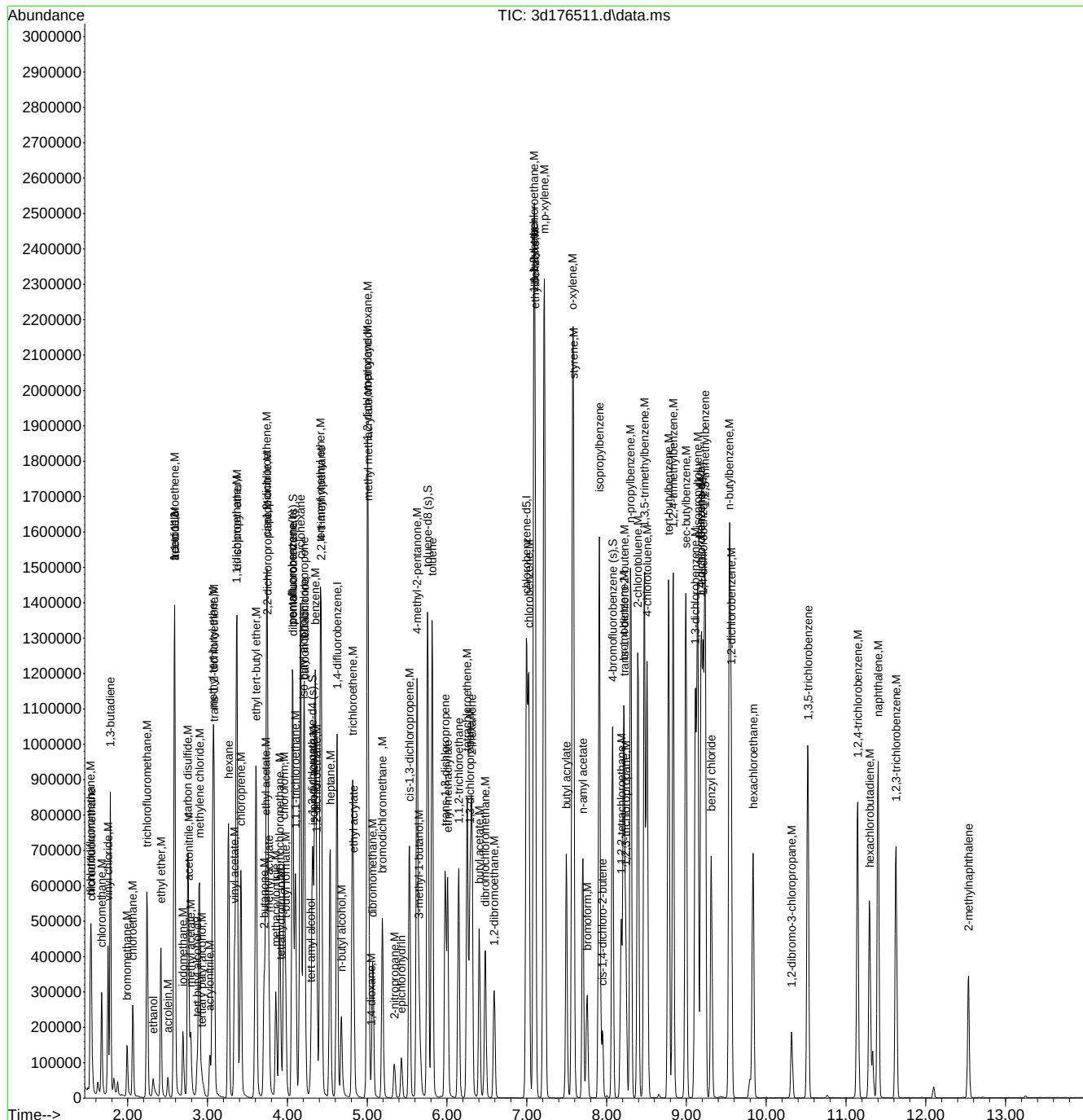
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105)	4-chlorotoluene	8.507	126	248553	47.05	ug/L #	82
106)	1,3,5-trimethylbenzene	8.476	105	808923	49.69	ug/L	96
107)	tert-butylbenzene	8.775	134	184219	45.57	ug/L #	79
108)	1,2,4-trimethylbenzene	8.836	105	829809	50.82	ug/L	95
109)	sec-butylbenzene	8.995	105	992561	49.19	ug/L	96
110)	1,3-dichlorobenzene	9.110	146	478054	49.03	ug/L	98
111)	p-isopropyltoluene	9.141	119	827921	48.52	ug/L	96
112)	1,4-dichlorobenzene	9.208	146	457974	46.76	ug/L	98
113)	1,2,3-trimethylbenzene	9.232	105	801804	50.23	ug/L	96
114)	benzyl chloride	9.312	91	483390	54.24	ug/L	92
115)	1,2-dichlorobenzene	9.562	146	435398	47.17	ug/L	99
116)	n-butylbenzene	9.537	92	432458	53.33	ug/L	93
117)	1,2-dibromo-3-chloropr...	10.318	157	52597	51.42	ug/L	92
118)	1,3,5-trichlorobenzene	10.525	180	312881	47.22	ug/L	95
119)	1,2,4-trichlorobenzene	11.147	180	257092	47.54	ug/L	99
120)	hexachlorobutadiene	11.299	225	103255	49.75	ug/L	96
121)	naphthalene	11.403	128	749292	60.81	ug/L	99
122)	1,2,3-trichlorobenzene	11.628	180	214962	48.06	ug/L	97
123)	hexachloroethane	9.836	201	112179	44.27	ug/L	94
124)	2-methylnaphthalene	12.537	142	165640	27.50	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
Data File : 3d176511.d
Acq On : 25 Apr 2022 6:09 pm
Operator : nickw
Sample : jd43519-11ms
Misc : MS58446,V3D7465,5,,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Results File: M3D7392.RES
Quant Time: Apr 26 05:56:17 2022
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022
QLast Update : Mon Apr 11 11:49:38 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
 Data File : 3d176512.d
 Acq On : 25 Apr 2022 6:33 pm
 Operator : nickw
 Sample : jd43519-11msd Inst : MS3D
 Misc : MS58446,V3D7465,5,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Results File: M3D7392.RES

Quant Time: Apr 26 05:58:30 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Mon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.868	65	94525	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	436133	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.624	114	696127	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	686647	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.190	152	332039	50.00	ug/L	0.00
125) pentafluorobenzene(a)	4.063	168	436133	50.00	ug/L	0.00
128) 1,4-dichlorobenzene-d4(a)	9.190	152	332039	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.063	113	203593	53.77	ug/L	0.00
Spiked Amount 50.000	Range	80 - 120	Recovery	=	107.54%	
52) 1,2-dichloroethane-d4 (s)	4.313	65	236931	51.50	ug/L	0.00
Spiked Amount 50.000	Range	81 - 124	Recovery	=	103.00%	
74) toluene-d8 (s)	5.758	98	826118	47.41	ug/L	0.00
Spiked Amount 50.000	Range	80 - 120	Recovery	=	94.82%	
98) 4-bromofluorobenzene (s)	8.074	95	346426	57.32	ug/L	0.00
Spiked Amount 50.000	Range	80 - 120	Recovery	=	114.64%	

Target Compounds

						Qvalue
2) tertiary butyl alcohol	2.923	59	68371	241.44	ug/L	98
3) ethanol	2.319	45	64420	4595.53	ug/L	91
4) 1,4-dioxane	5.038	88	18615	1090.07	ug/L	97
6) chlorodifluoromethane	1.545	51	197512	51.77	ug/L	97
7) dichlorodifluoromethane	1.533	85	297112	65.88	ug/L	98
8) chloromethane	1.673	50	204411	47.64	ug/L	99
9) vinyl chloride	1.752	62	266096	57.41	ug/L	96
10) 1,3-butadiene	1.783	54	219218	46.17	ug/L	98
11) bromomethane	1.990	94	78901	46.91	ug/L	95
12) chloroethane	2.063	64	155424	49.78	ug/L	94
13) trichlorofluoromethane	2.240	101	334374	49.94	ug/L	98
14) ethyl ether	2.417	74	137308	63.51	ug/L	96
15) acrolein	2.502	56	33352	54.80	ug/L	95
16) freon 113	2.587	151	166383	51.85	ug/L	97
17) 1,1-dichloroethene	2.587	96	188157	58.95	ug/L	98
18) acetone	2.587	58	56318	234.53	ug/L	# 83
19) acetoneitrile	2.764	41	184780	593.11	ug/L	96
20) iodomethane	2.691	142	224059	91.06	ug/L	96
21) carbon disulfide	2.752	76	582585	63.80	ug/L	95
22) methylene chloride	2.898	84	229072	58.63	ug/L	95
23) methyl acetate	2.789	43	135659	59.37	ug/L	99
24) methyl tert butyl ether	3.063	73	625704	60.40	ug/L	96
25) trans-1,2-dichloroethene	3.081	96	206450	55.37	ug/L	96
26) di-isopropyl ether	3.368	45	604907	59.30	ug/L	96
27) 2-butanone	3.709	72	88837	229.86	ug/L	98
28) 1,1-dichloroethane	3.362	63	351186	54.78	ug/L	95
29) chloroprene	3.417	53	301887	55.15	ug/L	96
30) acrylonitrile	3.026	53	70420	65.42	ug/L	97
31) hexane	3.264	56	150014	45.49	ug/L	95
32) vinyl acetate	3.337	86	52460	55.69	ug/L	# 77
33) ethyl tert-butyl ether	3.605	59	665157	58.82	ug/L	96
34) ethyl acetate	3.727	45	31528	62.04	ug/L	# 67
35) 2,2-dichloropropane	3.752	77	322888	53.44	ug/L	100
36) cis-1,2-dichloroethene	3.740	96	317583	75.81	ug/L	97
37) methyl acrylate	3.770	85	30246	49.14	ug/L	90
38) propionitrile	3.746	54	214287	522.75	ug/L	95
39) bromochloromethane	3.904	128	112289	51.36	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
 Data File : 3d176512.d
 Acq On : 25 Apr 2022 6:33 pm
 Operator : nickw
 Sample : jd43519-11msd Inst : MS3D
 Misc : MS58446,V3D7465,5,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Results File: M3D7392.RES

Quant Time: Apr 26 05:58:30 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Mon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) tetrahydrofuran	3.916	42	51654	62.53	ug/L	90
41) chloroform	3.959	85	246361	51.85	ug/L	97
42) t-butyl formate	3.977	59	97055	25.93	ug/L #	80
44) methacrylonitrile	3.855	67	84969	57.33	ug/L	84
45) 1,1,1-trichloroethane	4.099	97	338334	51.65	ug/L	96
46) cyclohexane	4.166	84	287012	48.08	ug/L #	83
47) 1,1-dichloropropene	4.203	75	293184	58.73	ug/L	96
48) iso-butyl alcohol	4.203	43	39678	512.71	ug/L	94
49) carbon tetrachloride	4.215	117	274597	48.71	ug/L	98
50) tert amyl alcohol	4.294	55	21627	253.12	ug/L	92
53) n-butyl alcohol	4.678	56	116213	2014.92	ug/L	94
54) 2,2,4-trimethylpentane	4.422	57	574926	46.85	ug/L	97
55) benzene	4.349	78	836922	54.03	ug/L	96
56) tert-amyl methyl ether	4.416	87	157408	50.98	ug/L #	88
57) heptane	4.538	71	168129	48.62	ug/L	95
58) isopropyl acetate	4.325	87	49245	50.44	ug/L #	86
59) 1,2-dichloroethane	4.368	62	272146	47.57	ug/L	98
60) trichloroethene	4.813	130	241017	50.29	ug/L	95
61) ethyl acrylate	4.831	55	237782	52.15	ug/L	96
62) 2-nitropropane	5.337	41	49038	41.23	ug/L	87
64) methyl methacrylate	5.014	100	60258	54.53	ug/L #	84
65) 1,2-dichloropropane	5.002	63	216689	53.53	ug/L	98
66) dibromomethane	5.069	93	124080	45.59	ug/L	91
67) methylcyclohexane	5.008	83	353334	48.43	ug/L	99
68) bromodichloromethane	5.191	83	303528	49.33	ug/L	99
69) epichlorohydrin	5.428	57	82657	246.46	ug/L	91
70) cis-1,3-dichloropropene	5.532	75	380504	54.48	ug/L	99
71) 4-methyl-2-pentanone	5.623	58	279789	215.31	ug/L	95
72) 3-methyl-1-butanol	5.648	55	92453	798.25	ug/L	97
75) toluene	5.812	92	557160	47.48	ug/L	98
76) trans-1,3-dichloropropene	5.977	75	334422	49.43	ug/L	97
77) ethyl methacrylate	6.007	69	295148	51.97	ug/L	97
78) 1,1,2-trichloroethane	6.148	83	170307	52.04	ug/L	88
79) tetrachloroethene	6.251	164	194940	44.37	ug/L	98
80) 1,3-dichloropropane	6.288	76	341280	51.04	ug/L	97
81) 2-hexanone	6.312	58	259681	200.89	ug/L	99
82) butyl acetate	6.404	56	126201	49.59	ug/L	98
83) dibromochloromethane	6.483	129	221480	43.27	ug/L	96
84) 1,2-dibromoethane	6.593	107	199251	47.19	ug/L	98
85) n-butyl ether	7.087	57	890209	46.96	ug/L	99
86) chlorobenzene	7.026	112	615819	45.68	ug/L	95
87) 1,1,1,2-tetrachloroethane	7.093	131	206792	42.20	ug/L	94
88) ethylbenzene	7.105	91	1003738	47.42	ug/L	97
89) m,p-xylene	7.221	106	813258	89.72	ug/L	97
90) o-xylene	7.574	106	421327	45.93	ug/L	93
91) styrene	7.586	104	678650	45.27	ug/L	96
92) bromoform	7.757	173	135713	39.86	ug/L	93
93) butyl acrylate	7.495	55	398037	50.67	ug/L	96
94) n-amyl acetate	7.702	70	171315	51.98	ug/L	97
95) isopropylbenzene	7.910	105	1034704	45.73	ug/L	98
96) cis-1,4-dichloro-2-butene	7.946	88	43499	27.77	ug/L	83
99) bromobenzene	8.214	156	254824	47.60	ug/L	87
100) 1,1,2,2-tetrachloroethane	8.184	83	245098	55.46	ug/L	96
101) trans-1,4-dichloro-2-b...	8.220	53	37390	39.95	ug/L #	76
102) 1,2,3-trichloropropane	8.239	110	72922	51.58	ug/L	98
103) n-propylbenzene	8.300	91	1191096	52.72	ug/L	93
104) 2-chlorotoluene	8.397	126	251143	46.95	ug/L #	79

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
 Data File : 3d176512.d
 Acq On : 25 Apr 2022 6:33 pm
 Operator : nickw
 Sample : jd43519-11msd Inst : MS3D
 Misc : MS58446,V3D7465,5,,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M
 Quant Results File: M3D7392.RES
 Quant Time: Apr 26 05:58:30 2022
 Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022
 QLast Update : Mon Apr 11 11:49:38 2022
 Response via : Initial Calibration

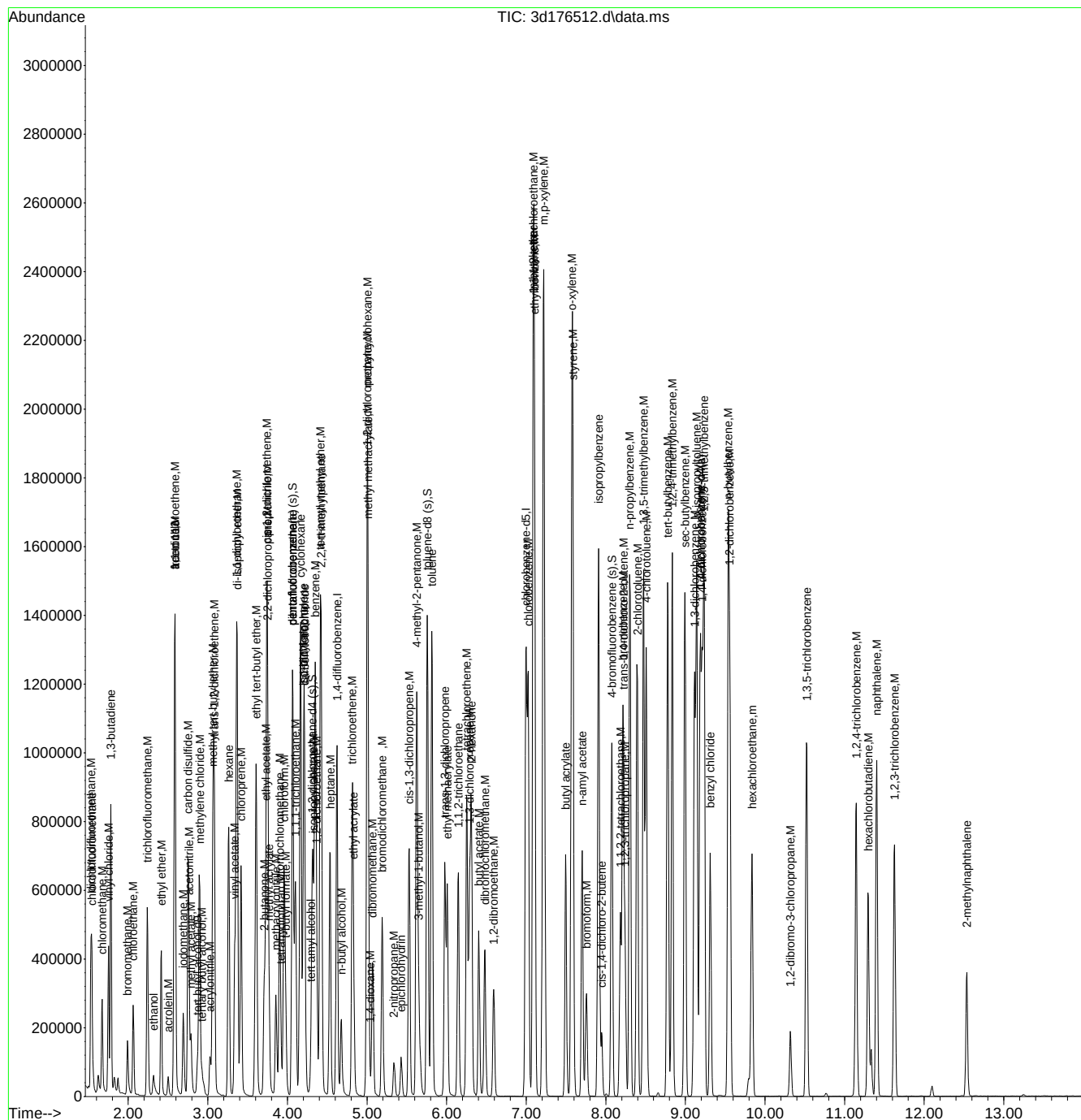
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105)	4-chlorotoluene	8.507	126	249909	45.95	ug/L #	76
106)	1,3,5-trimethylbenzene	8.476	105	838909	50.05	ug/L	96
107)	tert-butylbenzene	8.775	134	189964	45.65	ug/L #	84
108)	1,2,4-trimethylbenzene	8.836	105	861009	51.22	ug/L	94
109)	sec-butylbenzene	8.995	105	1028059	49.49	ug/L	96
110)	1,3-dichlorobenzene	9.117	146	494474	49.27	ug/L	98
111)	p-isopropyltoluene	9.141	119	859293	48.92	ug/L	96
112)	1,4-dichlorobenzene	9.208	146	472419	46.86	ug/L	95
113)	1,2,3-trimethylbenzene	9.232	105	834735	50.80	ug/L	94
114)	benzyl chloride	9.312	91	490943	53.51	ug/L	92
115)	1,2-dichlorobenzene	9.556	146	454269	47.80	ug/L	96
116)	n-butylbenzene	9.537	92	439605	52.66	ug/L	97
117)	1,2-dibromo-3-chloropr...	10.318	157	52982	50.31	ug/L	88
118)	1,3,5-trichlorobenzene	10.525	180	321138	47.08	ug/L	97
119)	1,2,4-trichlorobenzene	11.147	180	270610	48.61	ug/L	99
120)	hexachlorobutadiene	11.299	225	107489	50.31	ug/L	97
121)	naphthalene	11.403	128	772284	60.88	ug/L	99
122)	1,2,3-trichlorobenzene	11.628	180	229323	49.80	ug/L	97
123)	hexachloroethane	9.836	201	117254	44.94	ug/L	95
124)	2-methylnaphthalene	12.537	142	180453	29.10	ug/L	99

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\data\davem\04-26-22\v3d7465-halfway\  
Data File : 3d176512.d  
Acq On    : 25 Apr 2022    6:33 pm  
Operator  : nickw  
Sample    : jd43519-11msd  
Misc      : MS58446,V3D7465,5,,,,,1  
ALS Vial  : 23    Sample Multiplier: 1
```

Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Results File: M3D7392.RES
Quant Time: Apr 26 05:58:30 2022
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022
QLast Update : Mon Apr 11 11:49:38 2022
Response via : Initial Calibration



7.4.4

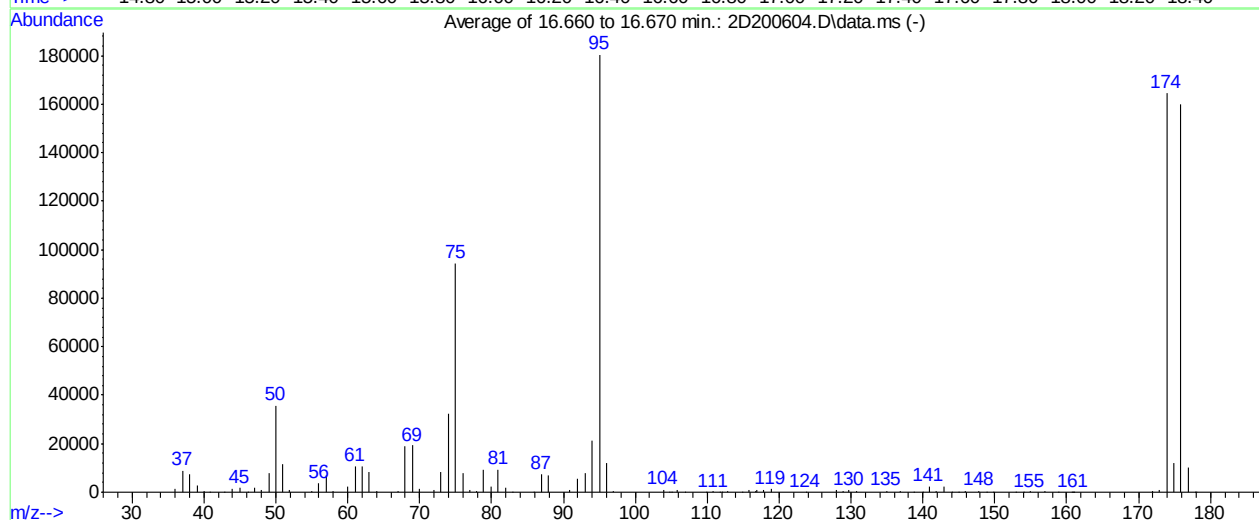
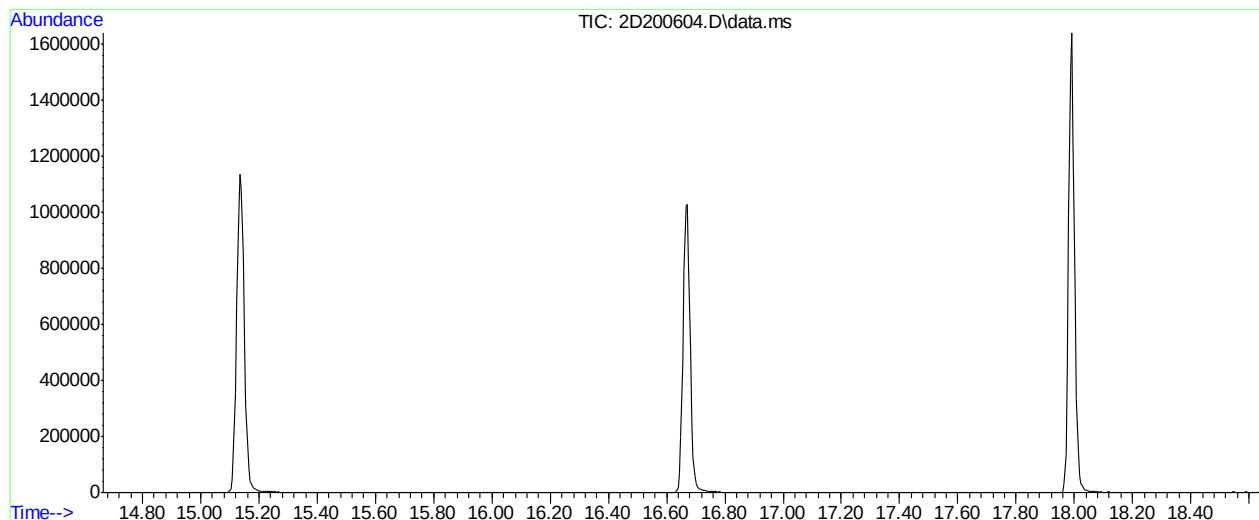


BFB

Data File : C:\msdchem\1\DATA\V2D8735\2D200604.D
Acq On : 31 Mar 2022 4:25 pm
Sample : bfb
Misc : MS55663,V2D8735,5,,,1
MS Integration Params: rteint.p

Vial: 3
Operator: brittank
Inst : MS2D
Multiplr: 1.00

Method : C:\msdchem\1\METHODS\M2D8735.M (RTE Integrator)
Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:55:46 2022



AutoFind: Scans 2504, 2505, 2506; Background Corrected with Scan 2496

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.8	35712	PASS
75	95	30	60	52.3	94397	PASS
95	95	100	100	100.0	180480	PASS
96	95	5	9	6.6	11960	PASS
173	174	0.00	2	0.6	1007	PASS
174	95	50	120	91.3	164736	PASS
175	174	5	9	7.3	11950	PASS
176	174	95	101	97.0	159754	PASS
177	176	5	9	6.4	10231	PASS

2D200604.D M2D8735.M Fri Apr 01 16:46:03 2022 GCMS2D

Average of 16.660 to 16.670 min.: 2D200604.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1424	47.95	1033	62.00	10538	76.00	7859
37.00	8799	49.00	7933	63.00	8413	76.95	990
38.00	7488	50.00	35712	64.00	659	77.95	619
39.05	2844	51.00	11368	66.95	561	78.90	9393
40.05	261	51.95	730	68.00	18957	79.95	2520
40.80	58	54.95	628	69.00	19360	80.90	9259
42.90	57	56.00	3924	70.00	1591	81.90	2017
44.00	1264	57.00	6886	72.00	1107	82.90	134
45.00	1717	57.95	291	73.00	8457	85.80	51
46.10	175	60.00	2123	74.00	32464	86.95	7608
47.00	1924	61.00	10636	75.00	94397	87.95	6916

Average of 16.660 to 16.670 min.: 2D200604.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
90.85	853	106.90	218	118.90	1325	141.85	281
91.95	5482	109.85	183	123.70	60	142.90	2361
93.00	7740	110.85	351	127.95	781	143.95	145
94.00	21421	111.70	68	128.85	390	144.90	89
95.00	180480	112.00	91	129.75	803	145.85	318
96.00	11960	112.90	322	130.85	278	147.80	573
96.90	370	114.90	176	134.95	574	148.85	132
103.90	1062	115.85	789	136.85	332	149.80	82
104.80	74	116.80	392	138.80	91	152.90	58
105.00	184	116.95	1041	140.00	58	154.00	62
105.85	1038	117.90	945	140.85	2519	154.90	454

Average of 16.660 to 16.670 min.: 2D200604.D\data.ms

bfb

Modified:subtracted

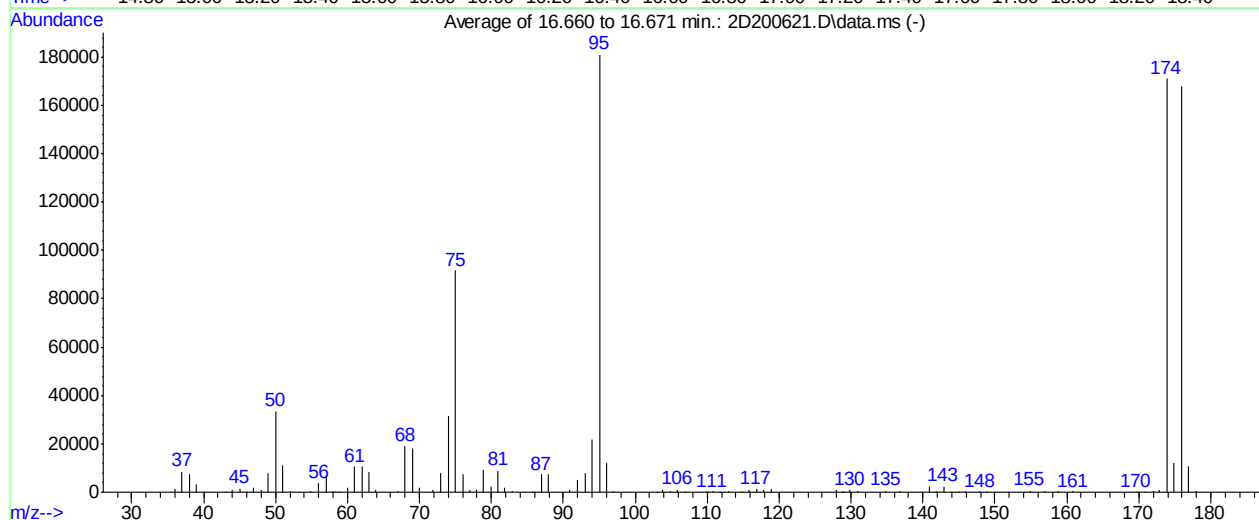
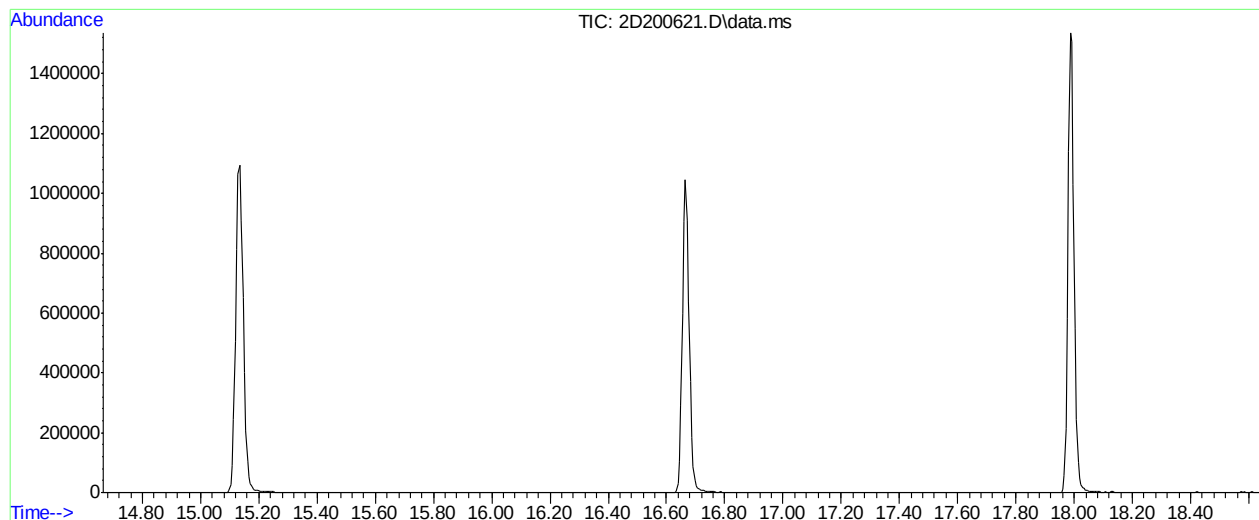
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
157.00	328	177.80	178				
158.90	243	178.00	109				
160.70	54						
160.80	103						
160.95	148						
171.95	276						
172.85	1007						
173.90	164736						
174.90	11950						
175.90	159754						
176.90	10231						

BFB

Data File : C:\msdchem\1\DATA\V2D8735\2D200621.D
 Acq On : 1 Apr 2022 10:29 am
 Sample : BFB2
 Misc : MS55663,V2D8735,5,,,1
 MS Integration Params: rteint.p

Vial: 20
 Operator: brittank
 Inst : MS2D
 Multiplr: 1.00

Method : C:\msdchem\1\METHODS\M2D8735.M (RTE Integrator)
 Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:55:46 2022



AutoFind: Scans 2504, 2505, 2506; Background Corrected with Scan 2495

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	33474	PASS
75	95	30	60	50.7	91749	PASS
95	95	100	100	100.0	181056	PASS
96	95	5	9	6.6	11879	PASS
173	174	0.00	2	0.6	1013	PASS
174	95	50	120	94.4	170922	PASS
175	174	5	9	6.9	11861	PASS
176	174	95	101	98.1	167658	PASS
177	176	5	9	6.4	10720	PASS

Average of 16.660 to 16.671 min.: 2D200621.D\data.ms

BFB2

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1298	49.00	7820	59.95	1913	74.00	31538
37.00	8384	50.00	33474	61.00	10568	75.00	91749
38.00	7573	51.00	11068	62.00	10509	76.00	7518
39.00	3052	52.05	423	63.00	8378	76.95	876
40.00	132	54.95	670	63.95	798	77.95	756
43.00	74	56.00	3813	66.95	510	78.90	9152
43.95	1102	57.00	6753	68.00	19240	79.90	2363
45.05	1543	57.80	139	69.00	18032	80.90	9024
46.00	55	58.00	155	69.95	1820	81.85	2015
47.00	1727	58.30	58	71.90	875	82.95	282
47.95	1114	58.80	51	73.00	8092	85.80	131

Average of 16.660 to 16.671 min.: 2D200621.D\data.ms

BFB2

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.00	55	103.85	1107	115.80	815	139.85	131
86.95	7390	104.95	355	116.85	1387	140.90	2453
87.95	7389	105.90	1158	117.85	884	141.85	282
90.90	1043	106.85	213	118.90	1279	142.90	2476
91.95	5310	109.80	52	127.90	739	143.90	86
93.00	7968	110.00	133	128.70	80	144.90	218
94.00	21981	110.80	269	128.85	210	145.80	314
95.00	181056	111.80	195	129.85	740	147.95	439
96.00	11879	112.95	281	130.85	346	148.80	50
96.95	322	114.70	82	134.85	529	149.95	139
102.95	125	114.95	206	136.85	443	151.80	50

Average of 16.660 to 16.671 min.: 2D200621.D\data.ms

BFB2

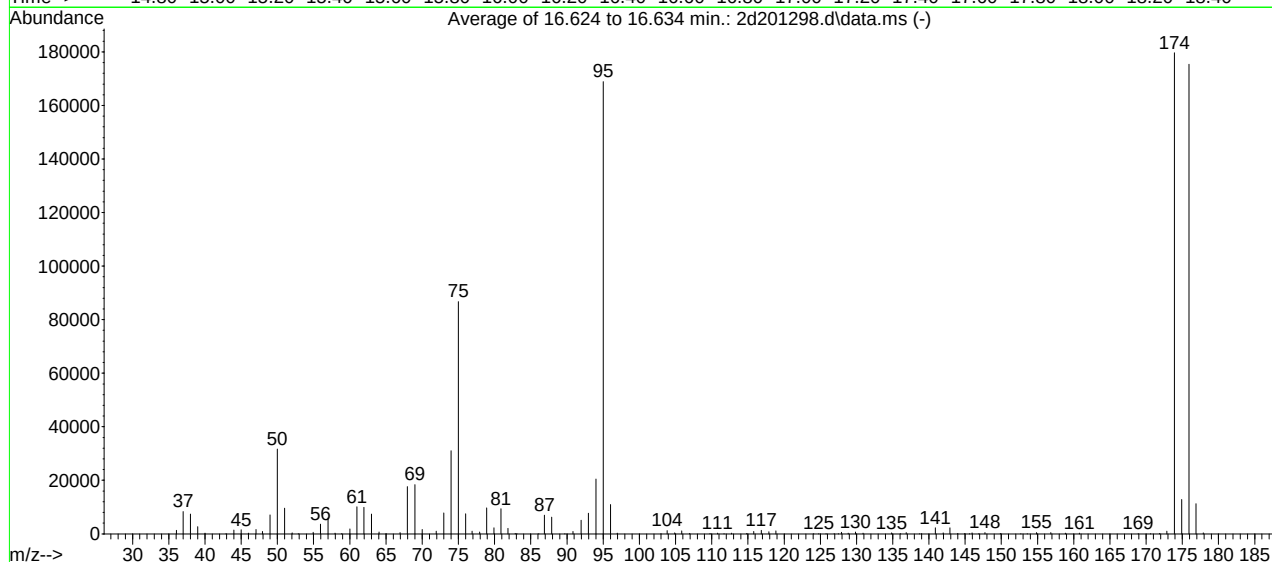
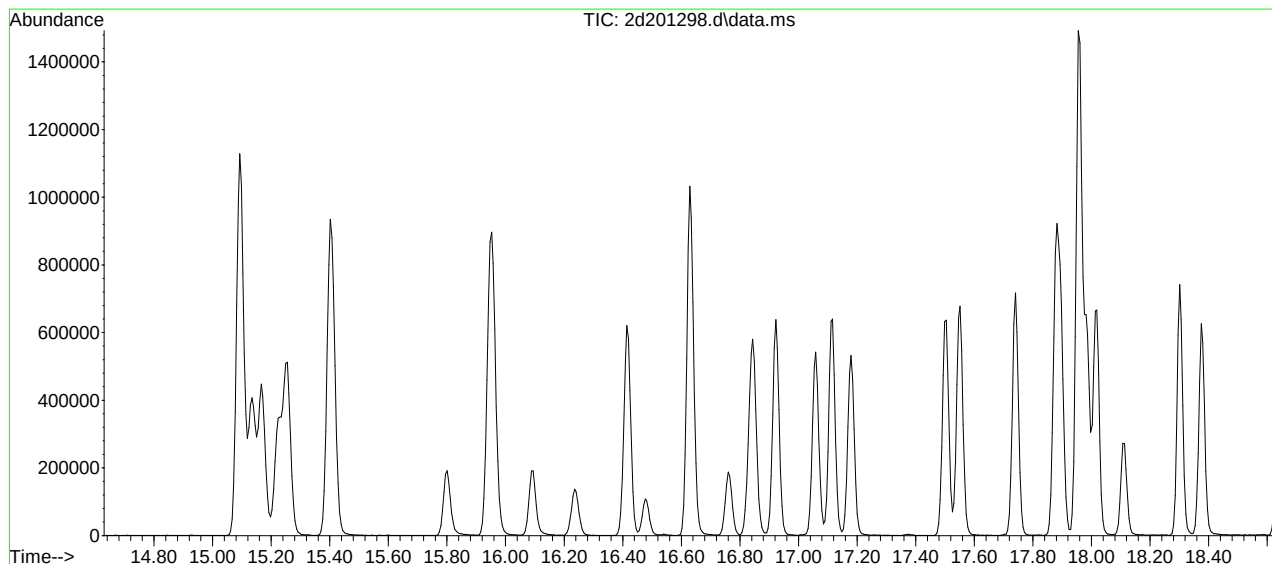
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
153.90	126	174.90	11861				
154.85	473	175.90	167658				
156.90	286	176.90	10720				
158.85	349	177.95	265				
160.85	260						
169.70	59						
170.10	65						
170.80	85						
172.00	249						
172.85	1013						
173.90	170922						

BFB

Data File : C:\msdchem\1\data\ni...22\v2d8765\2d201298.d Vial: 3
 Acq On : 22 Apr 2022 9:28 am Operator: nickw
 Sample : bfb Inst : MS2D
 Misc : MS58319,V2D8765,5,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D8735.M (RTE Integrator)
 Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2 Mon Apr 04 14:17:39 2022



AutoFind: Scans 2497, 2498, 2499; Background Corrected with Scan 2489

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.8	31704	PASS
75	95	30	60	51.4	86715	PASS
95	95	100	100	100.0	168853	PASS
96	95	5	9	6.5	10937	PASS
173	174	0.00	2	0.6	1001	PASS
174	95	50	120	106.4	179648	PASS
175	174	5	9	7.1	12801	PASS
176	174	95	101	97.6	175381	PASS
177	176	5	9	6.4	11264	PASS

2d201298.d M2D8735.M Mon Apr 25 03:09:07 2022

Average of 16.624 to 16.634 min.: 2d201298.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	1285	49.00	7100	61.00	10057	74.00	31091
37.00	8381	50.00	31704	61.95	9902	75.00	86715
38.00	7340	51.00	9604	63.00	7434	76.00	7538
39.00	2724	52.05	395	64.05	692	76.90	990
40.00	241	52.90	50	65.00	82	77.95	674
42.90	87	54.95	578	66.95	486	78.90	9685
44.00	1398	55.95	3617	67.95	17683	79.90	2276
45.00	1551	57.00	5918	69.00	18357	80.90	9349
46.00	256	57.95	226	70.00	1668	81.85	2045
47.05	1652	58.85	108	71.95	977	82.85	153
47.95	950	60.00	1824	73.00	7850	83.10	110

Average of 16.624 to 16.634 min.: 2d201298.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.10	56	103.00	51	116.85	1328	130.90	266
86.90	6949	103.85	1184	117.90	813	134.85	420
87.90	6220	104.90	406	118.85	1159	136.10	57
89.70	59	105.85	1158	124.10	53	136.85	473
90.85	873	106.95	139	124.80	54	138.70	73
91.95	5117	109.75	137	125.80	51	139.00	56
92.95	7693	110.80	315	126.90	58	140.90	2261
94.00	20456	111.70	55	127.50	59	141.95	330
95.00	168853	112.75	288	127.90	550	142.90	2221
96.00	10937	114.85	198	128.85	268	144.00	125
96.95	279	115.80	880	129.85	693	144.95	184

Average of 16.624 to 16.634 min.: 2d201298.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
145.60	91	168.90	55				
145.95	363	170.60	71				
146.90	54	171.85	190				
147.75	435	172.85	1001				
149.85	160	173.90	179648				
152.70	60	174.90	12801				
153.60	60	175.90	175381				
154.85	499	176.90	11264				
156.85	444	177.90	365				
158.85	250						
160.80	287						

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V3D7392\3D174401.D

Vial: 2

Acq On : 10 Mar 2022 1:03 pm

Operator: brittank

Sample : bfb

Inst : MS3D

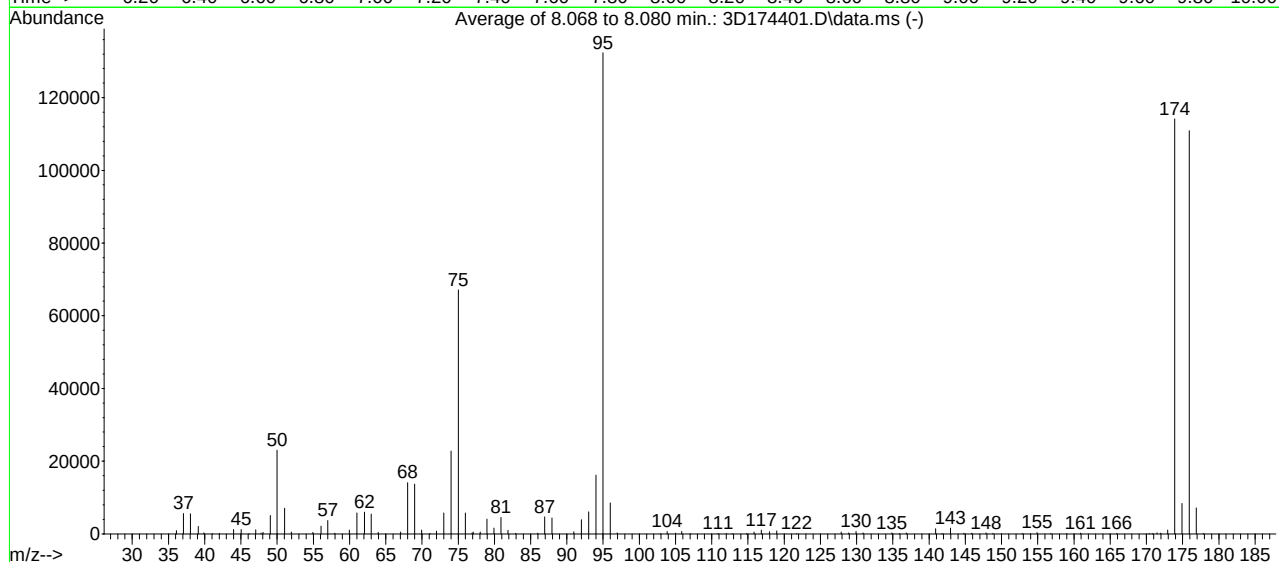
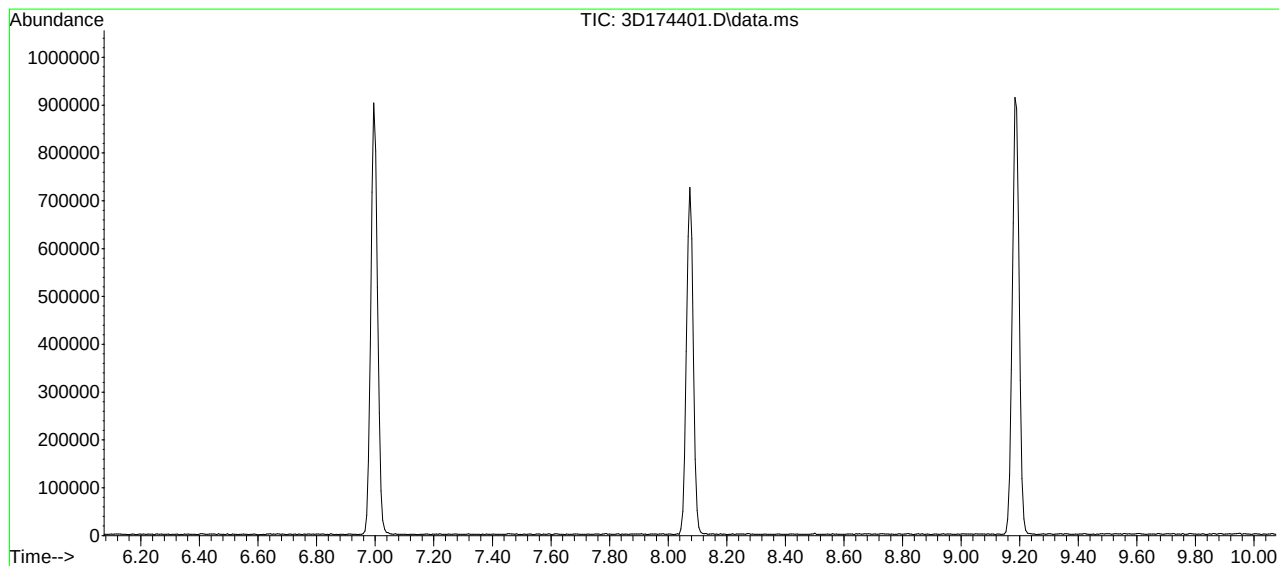
Misc : MS57062,V3D7392,5,,,,,1

Multiplr: 1.00

MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D7392.M (RTE Integrator)

Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Fri Mar 11 09:53:10 2022



AutoFind: Scans 1085, 1086, 1087; Background Corrected with Scan 1077

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	22989	PASS
75	95	30	60	50.7	67101	PASS
95	95	100	100	100.0	132330	PASS
96	95	5	9	6.4	8493	PASS
173	174	0.00	2	1.0	1085	PASS
174	95	50	120	86.2	114125	PASS
175	174	5	9	7.4	8390	PASS
176	174	95	101	97.2	110925	PASS
177	176	5	9	6.4	7141	PASS

3D174401.D M3D7392.M Fri Mar 11 18:39:44 2022 3D

Average of 8.068 to 8.080 min.: 3D174401.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	908	47.80	233	61.00	5712	74.00	22760
37.05	5588	48.05	466	62.05	6016	75.00	67101
38.05	5523	49.05	5048	63.00	5417	76.00	5737
39.10	2082	50.00	22989	63.95	396	76.90	281
39.90	248	51.05	7083	67.05	480	77.05	506
41.10	71	51.95	513	68.00	14081	78.05	494
42.00	81	54.95	450	69.00	13704	78.95	4070
44.00	1204	56.05	2100	69.95	1015	79.95	1584
45.05	1224	57.00	3661	71.10	87	80.90	4538
46.10	54	57.95	222	72.00	707	81.85	951
47.05	1145	59.95	1045	73.00	5758	82.90	158

Average of 8.068 to 8.080 min.: 3D174401.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.95	219	103.85	682	118.95	809	142.95	1586
86.95	4648	105.00	228	121.70	67	144.80	204
87.95	4388	105.85	662	127.85	521	145.90	164
90.95	621	107.10	78	128.90	286	147.85	306
92.00	3924	110.90	150	129.90	647	148.80	119
93.00	6037	112.00	76	130.90	273	150.00	73
94.00	16182	112.80	58	134.85	304	152.85	142
95.00	132330	114.80	51	135.90	57	154.00	71
96.00	8493	115.85	483	136.85	284	154.90	332
96.95	276	116.85	1020	140.90	1467	156.80	124
102.90	57	117.95	565	141.80	144	159.00	62

Average of 8.068 to 8.080 min.: 3D174401.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
160.90	185	177.85	115				
165.90	69						
170.40	97						
170.80	80						
171.45	286						
171.95	178						
172.95	1085						
173.90	114125						
174.90	8390						
175.90	110925						
176.90	7141						

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V3D7392\3D174418.D

Vial: 18

Acq On : 11 Mar 2022 9:18 am

Operator: brittbank

Sample : bfb2

Inst : MS3D

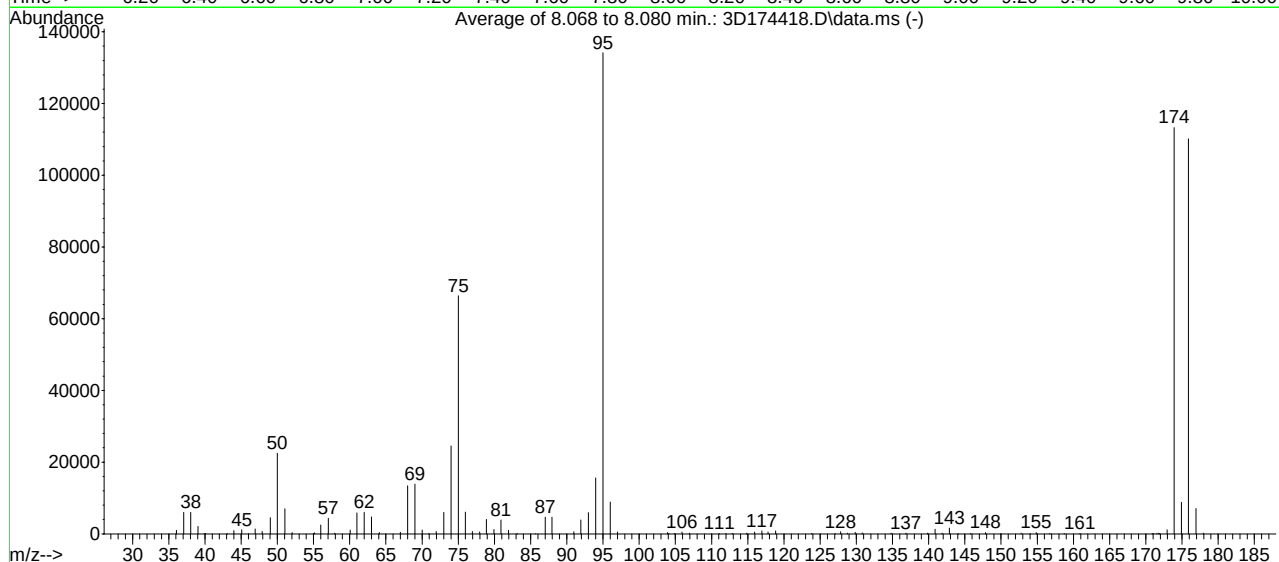
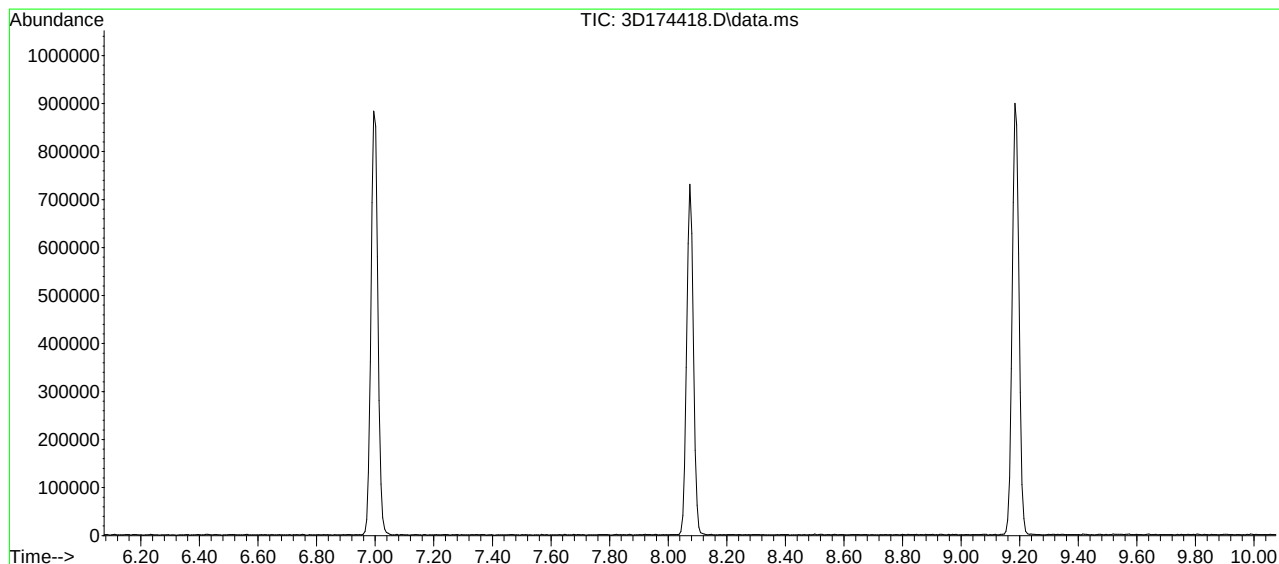
Misc : MS57062,V3D7392,5,,,,,1

Multiplr: 1.00

MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D7392.M (RTE Integrator)

Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Fri Mar 11 09:53:10 2022



AutoFind: Scans 1085, 1086, 1087; Background Corrected with Scan 1077

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.8	22472	PASS
75	95	30	60	49.5	66368	PASS
95	95	100	100	100.0	134130	PASS
96	95	5	9	6.6	8876	PASS
173	174	0.00	2	1.0	1119	PASS
174	95	50	120	84.4	113250	PASS
175	174	5	9	7.7	8771	PASS
176	174	95	101	97.3	110176	PASS
177	176	5	9	6.4	7095	PASS

3D174418.D M3D7392.M Fri Mar 11 18:55:02 2022 3D

Average of 8.068 to 8.080 min.: 3D174418.D\data.ms

bfb2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	965	47.90	705	61.00	5862	74.00	24525
37.05	5975	49.05	4481	62.00	5976	75.00	66368
38.05	6006	50.00	22472	63.00	4720	76.00	6049
39.05	2054	51.05	7032	64.10	390	76.95	671
39.90	52	52.05	388	67.00	452	77.95	543
40.10	140	55.00	129	68.00	13406	78.90	4056
43.10	10	55.15	292	69.00	13916	79.95	1217
44.00	909	56.00	2478	70.00	1057	80.90	3856
45.10	1162	57.05	4376	70.95	135	81.95	975
46.00	79	57.95	202	71.95	663	83.15	118
46.95	1401	60.05	1047	73.00	5994	85.70	52

Average of 8.068 to 8.080 min.: 3D174418.D\data.ms

bfb2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.00	4695	104.90	145	123.85	127	142.85	1605
87.95	4666	105.90	512	127.10	60	144.10	80
90.95	566	106.95	176	127.85	558	145.80	119
91.95	3864	111.10	72	128.75	174	147.85	388
93.00	5929	112.00	54	129.85	470	150.00	56
94.00	15580	112.85	116	130.80	242	152.75	167
95.00	134130	114.85	191	134.80	215	154.00	68
96.00	8876	115.95	500	136.85	227	154.85	347
97.00	480	116.95	839	139.85	170	156.75	139
103.90	365	117.80	534	140.90	1290	158.75	112
104.10	134	118.85	794	141.85	219	160.90	115

Average of 8.068 to 8.080 min.: 3D174418.D\data.ms

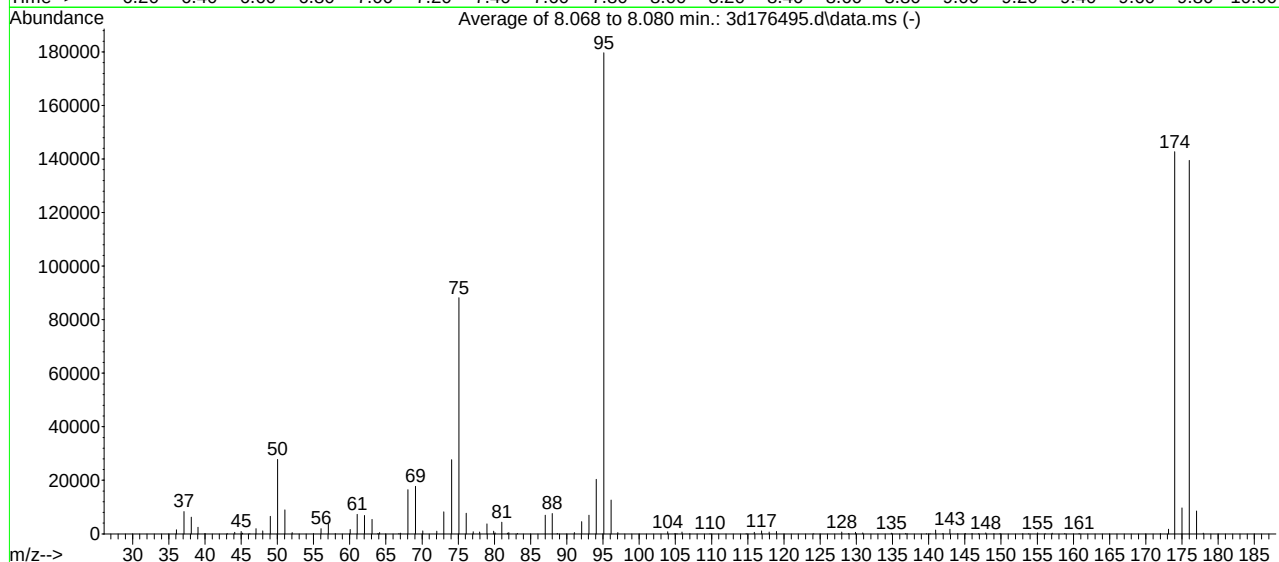
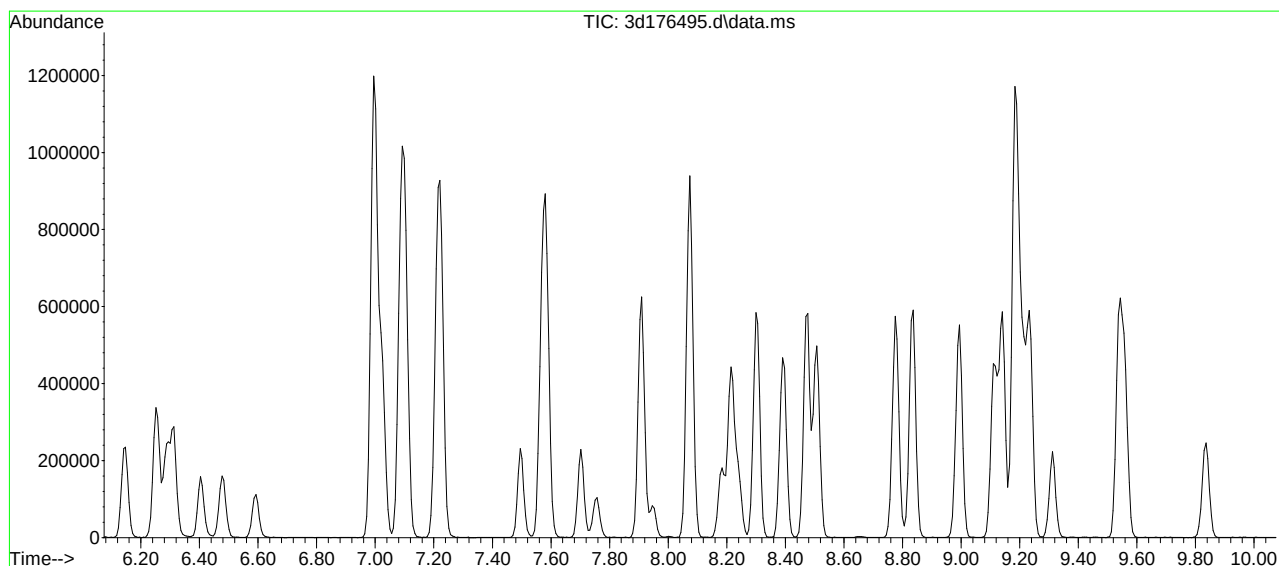
bfb2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
170.90	95						
171.10	62						
171.50	68						
171.70	189						
171.90	136						
172.95	1119						
173.90	113250						
174.90	8771						
175.90	110176						
176.95	7095						
177.95	219						

SW-846 Method 8260

Data File : C:\msdchem\1\data\da...65-halfway\3d176495.d Vial: 6
Acq On : 25 Apr 2022 11:45 am Operator: nickw
Sample : bfb Inst : MS3D
Misc : MS58411,V3D7465,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D7392.M (RTE Integrator)
Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022



AutoFind: Scans 1085, 1086, 1087; Background Corrected with Scan 1077

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.5	27797	PASS
75	95	30	60	49.1	88216	PASS
95	95	100	100	100.0	179669	PASS
96	95	5	9	7.1	12667	PASS
173	174	0.00	2	1.2	1708	PASS
174	95	50	120	79.5	142792	PASS
175	174	5	9	6.8	9733	PASS
176	174	95	101	97.7	139539	PASS
177	176	5	9	6.1	8498	PASS

3d176495.d M3D7392.M Tue Apr 26 05:52:08 2022

Average of 8.068 to 8.080 min.: 3d176495.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	1473	48.00	1083	62.05	6877	74.10	27691
37.10	8318	49.05	6505	63.10	5424	75.10	88216
38.10	6198	50.05	27797	63.90	191	76.10	7656
39.05	2503	51.05	8941	64.15	431	77.05	789
40.00	147	52.05	483	66.80	139	77.95	732
43.10	52	55.00	102	67.05	316	78.95	3673
44.10	588	56.05	1913	68.05	16463	79.90	952
45.00	944	57.05	3758	69.10	17729	80.10	396
45.20	286	58.00	86	70.10	1117	81.00	4338
46.20	87	60.05	1593	72.05	1054	81.80	258
47.05	1945	61.05	7295	73.00	8187	82.00	441

Average of 8.068 to 8.080 min.: 3d176495.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
83.20	156	103.95	757	124.10	53	141.95	199
87.00	6961	104.95	136	128.00	691	142.95	1687
88.00	7609	105.20	57	128.95	175	144.00	67
88.70	177	105.90	714	129.90	580	145.05	137
91.05	522	107.00	51	130.90	328	146.00	184
92.05	4554	109.80	62	134.85	279	146.90	92
93.05	6969	114.80	56	136.80	148	147.90	369
94.05	20357	115.90	578	137.00	51	149.00	54
95.10	179669	116.90	1064	139.70	74	149.85	211
96.10	12667	117.95	684	140.20	64	153.00	72
97.05	489	118.95	898	140.95	1426	153.80	68

Average of 8.068 to 8.080 min.: 3d176495.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
155.05	379	177.95	311				
156.10	57						
157.05	301						
158.80	144						
160.80	113						
172.00	93						
173.15	1708						
174.00	142792						
175.00	9733						
176.00	139539						
177.00	8498						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
Data File : 3d176495.d
Acq On : 25 Apr 2022 11:45 am
Operator : nickw
Sample : cc7392-20
Misc : MS58411,V3D7465,5,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Inst : MS3D

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

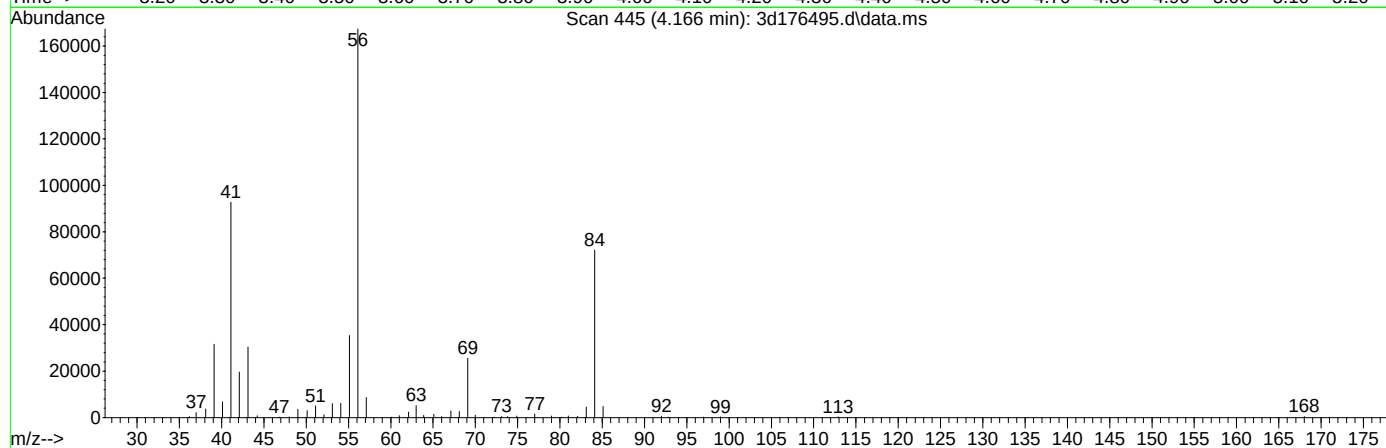
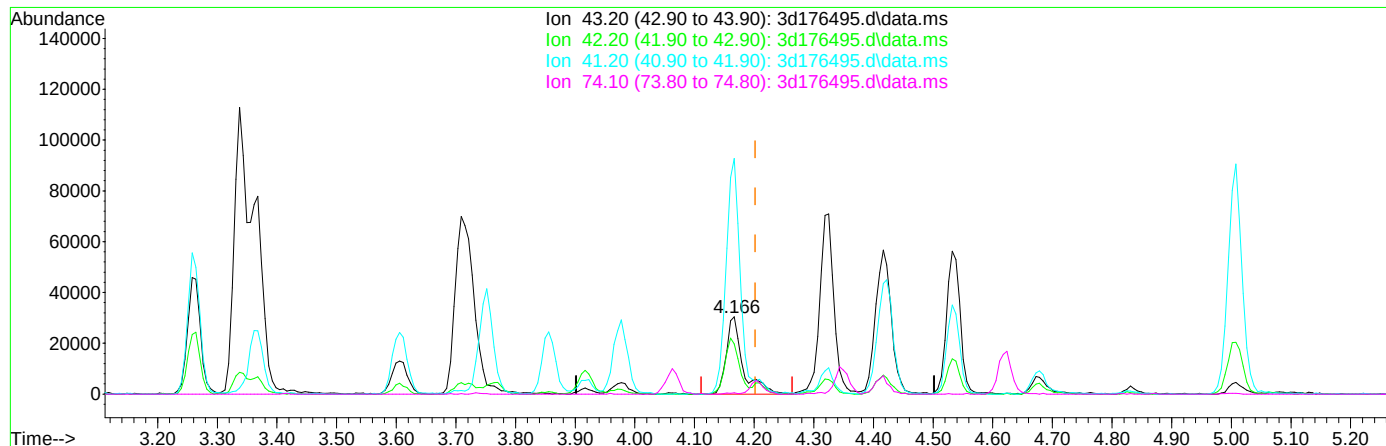
Quant Results File: M3D7392.RES

Quant Time: Apr 25 18:27:25 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

Response via : Initial Calibration



TIC: 3d176495.d\data.ms

(48) iso-butyl alcohol

4.166min (-0.036) 757.19ug/L

response 58995

Ion	Exp%	Act%
43.20	100	100
42.20	57.60	64.73
41.20	79.30	305.61#
74.10	58.00	1.52#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
Data File : 3d176495.d
Acq On : 25 Apr 2022 11:45 am
Operator : nickw
Sample : cc7392-20
Misc : MS58411,V3D7465,5,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Inst : MS3D

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

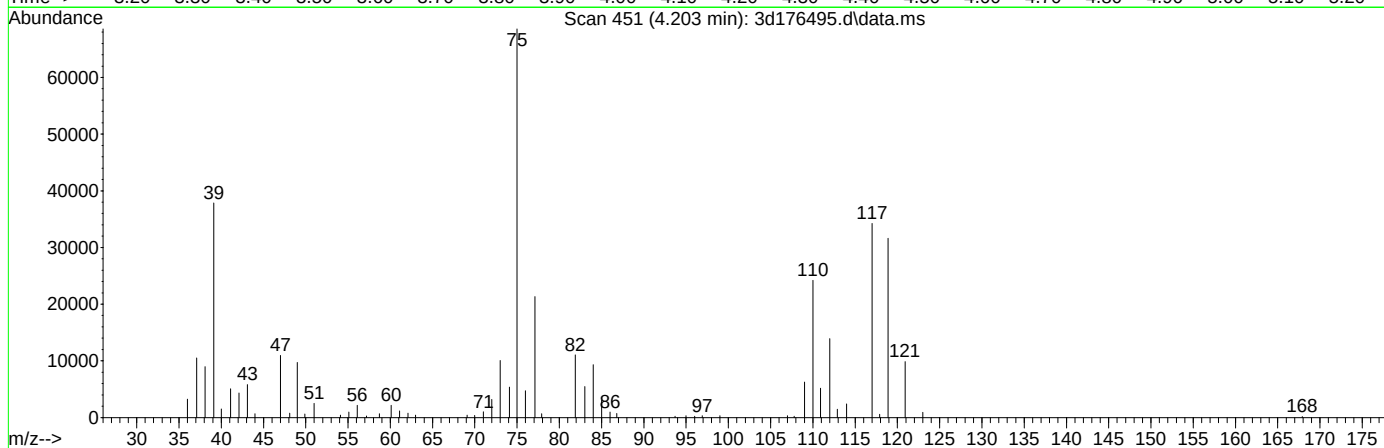
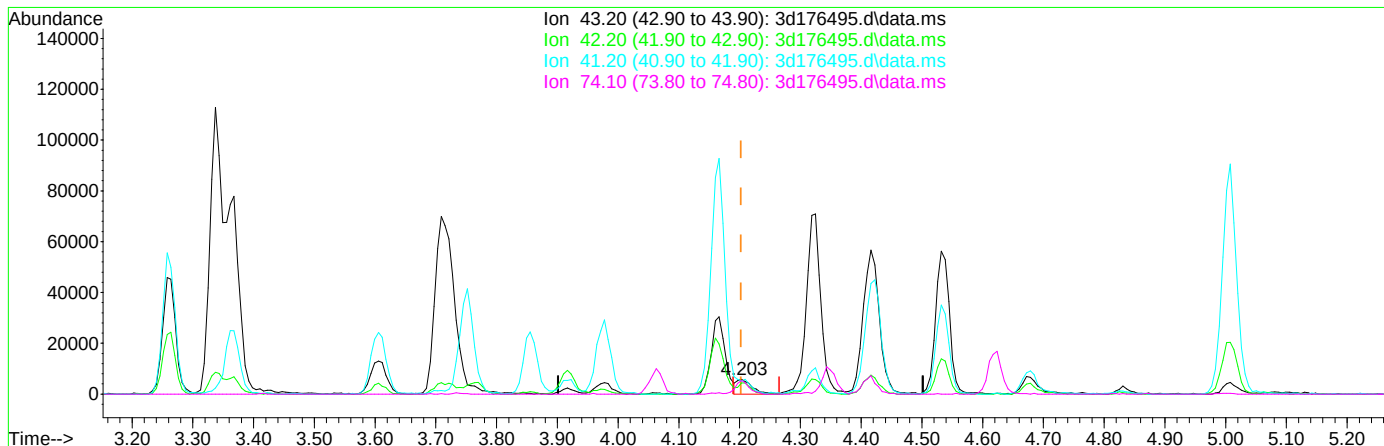
Quant Results File: M3D7392.RES

Quant Time: Apr 25 18:27:25 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

Response via : Initial Calibration



TIC: 3d176495.d\data.ms

(48) iso-butyl alcohol

4.203min (+0.001) 127.93ug/L m

response 9967

Ion	Exp%	Act%
43.20	100	100
42.20	57.60	74.44
41.20	79.30	87.56
74.10	58.00	92.46#

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200605.D
 Acq On : 31 Mar 2022 5:12 pm
 Operator : brittank
 Sample : ic8735-0.2
 Misc : MS55663,V2D8735,5,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 01 16:46:51 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.065	65	186448	500.00	ug/L	0.00
5) pentafluorobenzene	9.745	168	510869	50.00	ug/L	-0.01
50) 1,4-difluorobenzene	10.888	114	700417	50.00	ug/L	0.00
72) chlorobenzene-d5	15.134	117	671267	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.992	152	392504	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.734	113	254270	50.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	101.20%		
51) 1,2-dichloroethane-d4 (s)	10.264	65	308665	51.97	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	103.94%		
73) toluene-d8 (s)	13.105	98	802846	51.51	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	103.02%		
97) 4-bromofluorobenzene (s)	16.665	95	326504	50.12	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	100.24%		
Target Compounds						
7) dichlorodifluoromethane	3.720	85	1600	0.15	ug/L	89
13) trichlorofluoromethane	5.519	101	2176	0.17	ug/L	78
14) ethyl ether	5.922	74	395	0.18	ug/L #	51
20) iodomethane	6.599	142	1371	0.17	ug/L	77
21) carbon disulfide	6.740	76	2353	0.23	ug/L	79
24) methyl tert butyl ether	7.506	73	2135	0.18	ug/L	99
25) trans-1,2-dichloroethene	7.511	96	742	0.16	ug/L #	38
26) hexane	7.915	57	1258	0.18	ug/L #	55
27) di-isopropyl ether	8.229	45	2349	0.17	ug/L	86
29) 1,1-dichloroethane	8.151	63	1800	0.18	ug/L	69
30) chloroprene	8.303	53	1285	0.17	ug/L	89
33) ethyl tert-butyl ether	8.790	59	3575	0.19	ug/L	69
35) 2,2-dichloropropane	9.063	77	1214	0.18	ug/L	66
36) cis-1,2-dichloroethene	9.037	96	900	0.17	ug/L	83
44) 1,1,1-trichloroethane	9.829	97	1424	0.17	ug/L #	18
45) cyclohexane	9.933	84	1276	0.17	ug/L #	61
46) 1,1-dichloropropene	10.064	75	1079	0.18	ug/L #	61
48) carbon tetrachloride	10.096	117	1153	0.16	ug/L #	68
52) benzene	10.384	78	2918	0.18	ug/L	86
53) iso-octane	10.468	57	3655	0.19	ug/L	93
54) tert-amyl methyl ether	10.489	73	2500	0.20	ug/L	79
55) heptane	10.715	57	664	0.18	ug/L #	41
57) 1,2-dichloroethane	10.390	62	1872	0.23	ug/L	81
64) 1,2-dichloropropane	11.658	63	1106	0.20	ug/L	50
65) dibromomethane	11.847	93	612	0.19	ug/L #	66
66) methylcyclohexane	11.643	83	1430	0.19	ug/L	88
67) bromodichloromethane	12.046	83	1101	0.15	ug/L #	51
69) cis-1,3-dichloropropene	12.707	75	1343	0.17	ug/L	94
74) toluene	13.216	92	1967	0.18	ug/L #	76
75) trans-1,3-dichloropropene	13.504	75	1153	0.16	ug/L #	49
77) 1,1,2-trichloroethane	13.761	83	639	0.18	ug/L #	87
78) tetrachloroethene	13.997	164	725	0.16	ug/L	86

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200605.D
 Acq On : 31 Mar 2022 5:12 pm
 Operator : brittank
 Sample : ic8735-0.2
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 01 16:46:51 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) 1,3-dichloropropane	14.007	76	1122	0.17	ug/L	85
82) dibromochloromethane	14.338	129	926	0.17	ug/L	88
83) 1,2-dibromoethane	14.537	107	632	0.14	ug/L	81
84) n-butyl ether	15.218	57	3656	0.17	ug/L	68
85) chlorobenzene	15.187	112	2428	0.18	ug/L	81
86) 1,1,1,2-tetrachloroethane	15.281	131	808	0.15	ug/L #	48
87) ethylbenzene	15.302	91	3923	0.19	ug/L	98
88) m,p-xylene	15.460	91	6563	0.39	ug/L	86
89) o-xylene	16.005	106	1630	0.18	ug/L	88
94) isopropylbenzene	16.456	105	3954	0.17	ug/L	88
98) bromobenzene	16.891	156	1210	0.17	ug/L #	62
99) 1,1,2,2-tetrachloroethane	16.802	83	915	0.16	ug/L	82
102) n-propylbenzene	16.970	91	4475	0.16	ug/L	92
103) 2-chlorotoluene	17.101	126	997	0.16	ug/L #	65
104) 4-chlorotoluene	17.226	91	3464	0.21	ug/L	96
105) 1,3,5-trimethylbenzene	17.153	105	3326	0.17	ug/L	83
106) tert-butylbenzene	17.536	119	3055	0.17	ug/L	83
107) 1,2,4-trimethylbenzene	17.593	105	3803	0.18	ug/L	77
108) sec-butylbenzene	17.772	105	4267	0.16	ug/L	94
109) 1,3-dichlorobenzene	17.934	146	2331	0.17	ug/L	85
110) p-isopropyltoluene	17.913	119	3350	0.14	ug/L	92
111) 1,2,3-trimethylbenzene	18.055	105	3443	0.17	ug/L	93
112) 1,4-dichlorobenzene	18.018	146	2550	0.19	ug/L	74
113) 1,2-dichlorobenzene	18.417	146	2246	0.16	ug/L	92
115) n-butylbenzene	18.343	92	1821	0.15	ug/L	97
117) 1,3,5-trichlorobenzene	19.329	180	2008	0.17	ug/L	92
118) hexachlorobutadiene	20.021	225	663	0.14	ug/L #	67
119) naphthalene	20.147	128	2905	0.16	ug/L	83
120) 1,2,4-trichlorobenzene	19.906	180	1928	0.19	ug/L	79
121) 1,2,3-trichlorobenzene	20.357	180	1291	0.15	ug/L	88

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200606.D
 Acq On : 31 Mar 2022 5:42 pm
 Operator : brittank
 Sample : ic8735-0.5
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 14:17:42 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.071	65	173217	500.00	ug/L	0.00
5) pentafluorobenzene	9.750	168	504217	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.888	114	697608	50.00	ug/L	0.00
72) chlorobenzene-d5	15.140	117	667026	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.992	152	390462	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.739	113	256971	51.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	103.62%		
51) 1,2-dichloroethane-d4 (s)	10.264	65	305833	51.70	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	103.40%		
73) toluene-d8 (s)	13.105	98	805052	51.98	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	103.96%		
97) 4-bromofluorobenzene (s)	16.665	95	324018	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	100.00%		
Target Compounds						
						Qvalue
7) dichlorodifluoromethane	3.720	85	4596	0.44	ug/L	83
8) chloromethane	4.082	50	6249	0.59	ug/L	98
9) vinyl chloride	4.302	62	5047	0.48	ug/L	97
12) chloroethane	5.047	64	3262	0.60	ug/L	66
13) trichlorofluoromethane	5.508	101	5689	0.45	ug/L	91
14) ethyl ether	5.933	74	1004	0.47	ug/L #	46
16) 1,1-dichloroethene	6.352	96	1845	0.51	ug/L #	48
17) freon 113	6.352	151	1791	0.46	ug/L #	64
18) acetone	6.389	58	629	1.82	ug/L #	40
20) iodomethane	6.609	142	3956	0.50	ug/L	88
21) carbon disulfide	6.735	76	5110	0.52	ug/L	73
23) methyl acetate	6.919	43	1488	0.63	ug/L	86
24) methyl tert butyl ether	7.527	73	5885	0.52	ug/L	83
25) trans-1,2-dichloroethene	7.527	96	2108	0.46	ug/L #	59
26) hexane	7.920	57	3607	0.52	ug/L	79
27) di-isopropyl ether	8.219	45	6293	0.46	ug/L	98
29) 1,1-dichloroethane	8.161	63	5160	0.51	ug/L	91
30) chloroprene	8.313	53	3287	0.44	ug/L	92
33) ethyl tert-butyl ether	8.775	59	9161	0.50	ug/L	99
35) 2,2-dichloropropane	9.068	77	3735	0.56	ug/L	83
36) cis-1,2-dichloroethene	9.042	96	2467	0.48	ug/L	90
39) bromochloromethane	9.414	128	1242	0.46	ug/L	90
41) chloroform	9.493	83	5836	0.64	ug/L	88
44) 1,1,1-trichloroethane	9.839	97	3657	0.45	ug/L #	55
45) cyclohexane	9.923	84	3185	0.44	ug/L #	36
46) 1,1-dichloropropene	10.064	75	2820	0.47	ug/L	86
48) carbon tetrachloride	10.091	117	3519	0.48	ug/L	94
52) benzene	10.384	78	7980	0.48	ug/L	97
53) iso-octane	10.473	57	9856	0.51	ug/L	87
54) tert-amyl methyl ether	10.494	73	6086	0.49	ug/L	95
55) heptane	10.704	57	1729	0.48	ug/L	87
57) 1,2-dichloroethane	10.390	62	4302	0.53	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200606.D
 Acq On : 31 Mar 2022 5:42 pm
 Operator : brittank
 Sample : ic8735-0.5
 Misc : MS55663,V2D8735,5,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 14:17:42 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

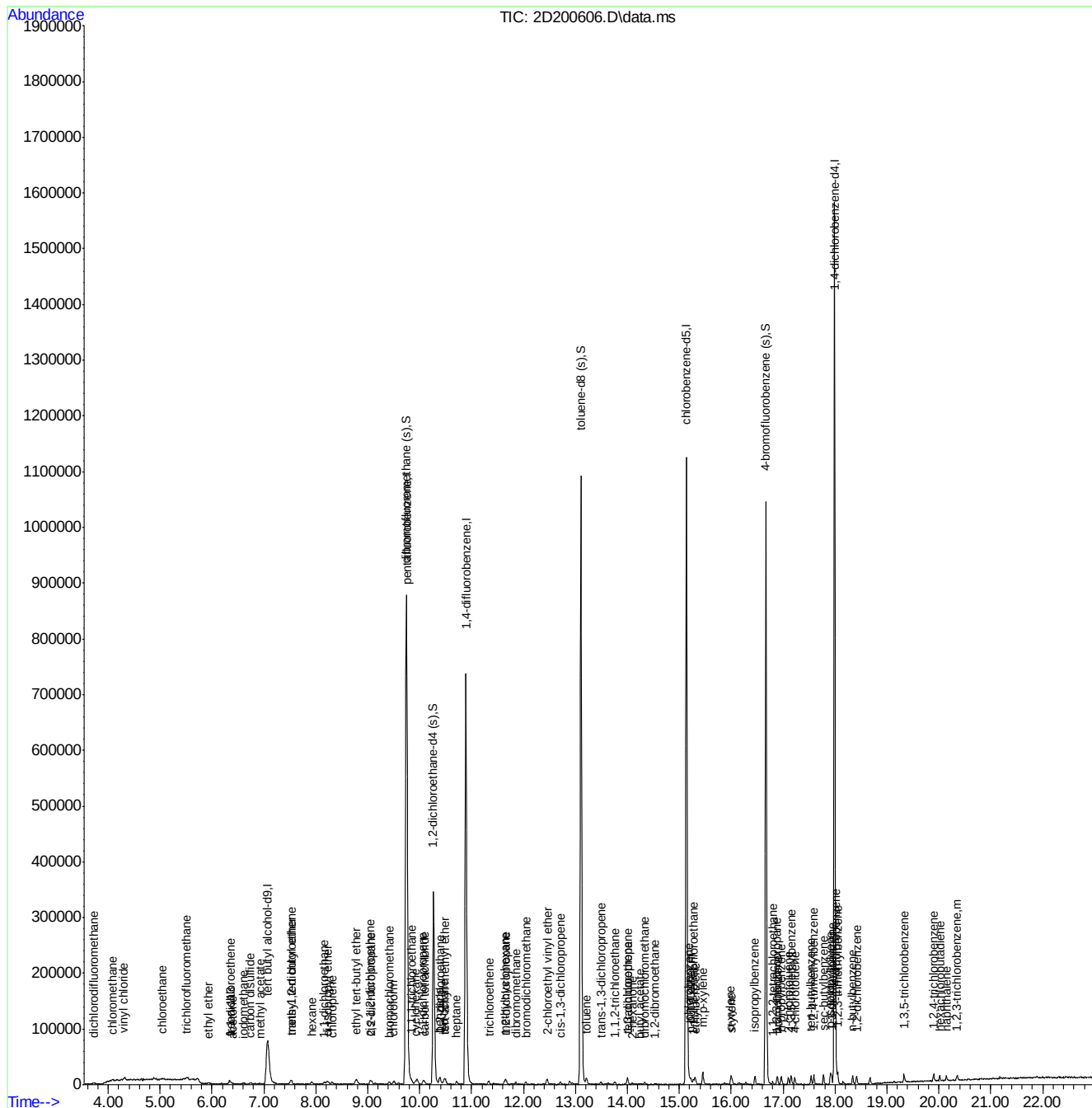
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
60) trichloroethene	11.333	130	2294	0.43	ug/L #	78
62) 2-chloroethyl vinyl ether	12.455	63	6131	1.89	ug/L	96
64) 1,2-dichloropropane	11.669	63	2934	0.53	ug/L	91
65) dibromomethane	11.852	93	1573	0.50	ug/L #	73
66) methylcyclohexane	11.643	83	3376	0.45	ug/L	76
67) bromodichloromethane	12.052	83	2921	0.41	ug/L	97
69) cis-1,3-dichloropropene	12.712	75	3294	0.42	ug/L	84
74) toluene	13.205	92	5220	0.49	ug/L #	81
75) trans-1,3-dichloropropene	13.488	75	2645	0.38	ug/L	84
77) 1,1,2-trichloroethane	13.761	83	1486	0.43	ug/L #	86
78) tetrachloroethene	14.007	164	2236	0.48	ug/L	99
79) 1,3-dichloropropane	14.002	76	2857	0.45	ug/L	93
80) 2-hexanone	14.096	58	2245	1.50	ug/L #	75
81) butyl acetate	14.233	56	1018	0.37	ug/L #	67
82) dibromochloromethane	14.327	129	2182	0.39	ug/L	76
83) 1,2-dibromoethane	14.532	107	1875	0.42	ug/L	83
84) n-butyl ether	15.218	57	9228	0.42	ug/L	98
85) chlorobenzene	15.176	112	6554	0.49	ug/L	87
86) 1,1,1,2-tetrachloroethane	15.276	131	2294	0.44	ug/L	86
87) ethylbenzene	15.308	91	10841	0.53	ug/L	98
88) m,p-xylene	15.454	91	15668	0.95	ug/L	93
89) o-xylene	15.994	106	3927	0.44	ug/L	99
90) styrene	16.010	104	5532	0.39	ug/L	88
94) isopropylbenzene	16.456	105	10745	0.47	ug/L	96
98) bromobenzene	16.896	156	2944	0.42	ug/L	89
99) 1,1,2,2-tetrachloroethane	16.802	83	2497	0.45	ug/L	90
101) 1,2,3-trichloropropane	16.880	110	692	0.47	ug/L #	43
102) n-propylbenzene	16.970	91	12231	0.44	ug/L	93
103) 2-chlorotoluene	17.106	126	2695	0.45	ug/L #	70
104) 4-chlorotoluene	17.226	91	7908	0.48	ug/L	99
105) 1,3,5-trimethylbenzene	17.153	105	9016	0.45	ug/L	99
106) tert-butylbenzene	17.541	119	7448	0.41	ug/L	98
107) 1,2,4-trimethylbenzene	17.588	105	9013	0.44	ug/L	98
108) sec-butylbenzene	17.777	105	11649	0.43	ug/L	100
109) 1,3-dichlorobenzene	17.940	146	6250	0.47	ug/L	95
110) p-isopropyltoluene	17.913	119	10347	0.45	ug/L	93
111) 1,2,3-trimethylbenzene	18.050	105	9347	0.45	ug/L	87
112) 1,4-dichlorobenzene	18.018	146	6288	0.47	ug/L	98
113) 1,2-dichlorobenzene	18.417	146	5942	0.44	ug/L	96
115) n-butylbenzene	18.343	92	4300	0.36	ug/L	92
117) 1,3,5-trichlorobenzene	19.329	180	4591	0.39	ug/L	93
118) hexachlorobutadiene	20.021	225	1839	0.40	ug/L	92
119) naphthalene	20.142	128	6661	0.37	ug/L	91
120) 1,2,4-trichlorobenzene	19.895	180	3866	0.39	ug/L	98
121) 1,2,3-trichlorobenzene	20.351	180	3434	0.40	ug/L	80

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
Data File : 2D200606.D
Acq On : 31 Mar 2022 5:42 pm
Operator : brittank
Sample : ic8735-0.5
Misc : MS55663,V2D8735,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 14:17:42 2022
Quant Method : C:\msdchem\1\METHODS\M2D8735.M
Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022
QLast Update : Fri Apr 01 09:36:05 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200607.D
 Acq On : 31 Mar 2022 6:12 pm
 Operator : brittank
 Sample : ic8735-1
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 01 16:48:30 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.071	65	166542	500.00	ug/L	0.00
5) pentafluorobenzene	9.750	168	497307	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.893	114	687387	50.00	ug/L	0.00
72) chlorobenzene-d5	15.140	117	658020	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.992	152	383452	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.739	113	250677	51.25	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.50%
51) 1,2-dichloroethane-d4 (s)	10.269	65	299901	51.45	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	102.90%
73) toluene-d8 (s)	13.111	98	794320	51.99	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.98%
97) 4-bromofluorobenzene (s)	16.671	95	315430	49.57	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.14%
Target Compounds						
2) tertiary butyl alcohol	7.197	59	2810	5.43	ug/L	63
3) ethanol	5.734	45	6859	143.49	ug/L	86
4) 1,4-dioxane	11.852	88	708	18.71	ug/L #	57
6) chlorodifluoromethane	3.736	51	2404	1.16	ug/L	70
7) dichlorodifluoromethane	3.710	85	9382	0.92	ug/L	98
8) chloromethane	4.087	50	12353	1.19	ug/L	95
9) vinyl chloride	4.297	62	10498	1.02	ug/L	90
12) chloroethane	5.031	64	6299	1.17	ug/L	94
13) trichlorofluoromethane	5.529	101	12939	1.04	ug/L	87
14) ethyl ether	5.928	74	2280	1.09	ug/L	91
16) 1,1-dichloroethene	6.347	96	3911	1.10	ug/L #	72
17) freon 113	6.347	151	4197	1.09	ug/L #	80
18) acetone	6.410	58	1603	4.70	ug/L #	15
20) iodomethane	6.609	142	8366	1.06	ug/L	95
21) carbon disulfide	6.740	76	10819	1.11	ug/L	94
22) methylene chloride	7.086	84	6265	1.35	ug/L	85
23) methyl acetate	6.919	43	2523	1.07	ug/L	71
24) methyl tert butyl ether	7.511	73	13228	1.17	ug/L	93
25) trans-1,2-dichloroethene	7.522	96	5224	1.17	ug/L #	76
26) hexane	7.936	57	7037	1.03	ug/L	88
27) di-isopropyl ether	8.229	45	15323	1.14	ug/L	94
28) 2-butanone	9.063	72	1270	3.37	ug/L #	36
29) 1,1-dichloroethane	8.156	63	11054	1.12	ug/L	93
30) chloroprene	8.313	53	8230	1.12	ug/L	94
33) ethyl tert-butyl ether	8.775	59	19858	1.09	ug/L	87
35) 2,2-dichloropropane	9.063	77	8063	1.22	ug/L	90
36) cis-1,2-dichloroethene	9.042	96	6287	1.24	ug/L #	70
37) propionitrile	9.142	54	5574	10.24	ug/L	91
38) tert-butyl formate	9.593	59	3505	0.84	ug/L #	74
39) bromochloromethane	9.420	128	2678	1.00	ug/L	89
41) chloroform	9.498	83	12156	1.34	ug/L	91
43) methacrylonitrile	9.399	67	1266	0.80	ug/L #	68

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200607.D
 Acq On : 31 Mar 2022 6:12 pm
 Operator : brittank
 Sample : ic8735-1
 Misc : MS55663,V2D8735,5,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 01 16:48:30 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,1,1-trichloroethane	9.834	97	8162	1.02	ug/L #	78
45) cyclohexane	9.939	84	7519	1.04	ug/L	85
46) 1,1-dichloropropene	10.064	75	6661	1.13	ug/L	90
47) isobutyl alcohol	10.106	43	880	7.53	ug/L #	81
48) carbon tetrachloride	10.091	117	7906	1.10	ug/L	92
49) tert-amyl alcohol	10.274	73	841	5.13	ug/L #	82
52) benzene	10.390	78	18524	1.14	ug/L	100
53) iso-octane	10.479	57	21373	1.13	ug/L	94
54) tert-amyl methyl ether	10.500	73	14288	1.18	ug/L	98
55) heptane	10.709	57	3897	1.10	ug/L	86
57) 1,2-dichloroethane	10.395	62	9488	1.19	ug/L	90
58) n-butyl alcohol	11.124	56	4630	43.46	ug/L	89
60) trichloroethene	11.328	130	5519	1.04	ug/L	81
61) 2-nitropropane	12.371	41	913	0.97	ug/L #	63
62) 2-chloroethyl vinyl ether	12.445	63	15347	4.80	ug/L	96
63) methyl methacrylate	11.768	69	2152	0.89	ug/L	75
64) 1,2-dichloropropane	11.664	63	6473	1.19	ug/L	94
65) dibromomethane	11.858	93	3553	1.15	ug/L	86
66) methylcyclohexane	11.648	83	7148	0.97	ug/L	95
67) bromodichloromethane	12.046	83	7068	1.00	ug/L	88
68) epichlorohydrin	12.576	57	2121	5.04	ug/L	90
69) cis-1,3-dichloropropene	12.707	75	7707	0.99	ug/L	91
70) 4-methyl-2-pentanone	12.885	58	6971	4.02	ug/L	89
71) 3-methyl-1-butanol	12.938	55	2620	16.07	ug/L	90
74) toluene	13.210	92	11277	1.07	ug/L	97
75) trans-1,3-dichloropropene	13.478	75	6733	0.98	ug/L	90
76) ethyl methacrylate	13.562	69	3652	0.76	ug/L	94
77) 1,1,2-trichloroethane	13.756	83	3636	1.05	ug/L	98
78) tetrachloroethene	14.002	164	4880	1.07	ug/L	85
79) 1,3-dichloropropane	14.007	76	7076	1.12	ug/L	92
80) 2-hexanone	14.070	58	5948	4.02	ug/L	87
81) butyl acetate	14.217	56	2560	0.93	ug/L #	62
82) dibromochloromethane	14.332	129	5649	1.03	ug/L	86
83) 1,2-dibromoethane	14.537	107	4301	0.97	ug/L	72
84) n-butyl ether	15.218	57	22995	1.06	ug/L	99
85) chlorobenzene	15.187	112	14176	1.08	ug/L	95
86) 1,1,1,2-tetrachloroethane	15.271	131	5772	1.11	ug/L	92
87) ethylbenzene	15.302	91	23648	1.17	ug/L	93
88) m,p-xylene	15.454	91	36933	2.26	ug/L	97
89) o-xylene	15.994	106	9102	1.03	ug/L	97
90) styrene	16.010	104	14218	1.01	ug/L	97
91) butyl acrylate	15.858	55	7968	0.83	ug/L	89
92) n-amyl acetate	16.146	70	2540	0.92	ug/L #	62
93) bromoform	16.283	173	3432	0.86	ug/L	94
94) isopropylbenzene	16.456	105	24805	1.09	ug/L	98
98) bromobenzene	16.891	156	6683	0.96	ug/L	91
99) 1,1,2,2-tetrachloroethane	16.802	83	5497	1.00	ug/L	93
101) 1,2,3-trichloropropane	16.891	110	1515	1.05	ug/L #	67
102) n-propylbenzene	16.964	91	29927	1.09	ug/L	97
103) 2-chlorotoluene	17.101	126	6465	1.09	ug/L	87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200607.D
 Acq On : 31 Mar 2022 6:12 pm
 Operator : brittank
 Sample : ic8735-1
 Misc : MS55663,V2D8735,5,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 01 16:48:30 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

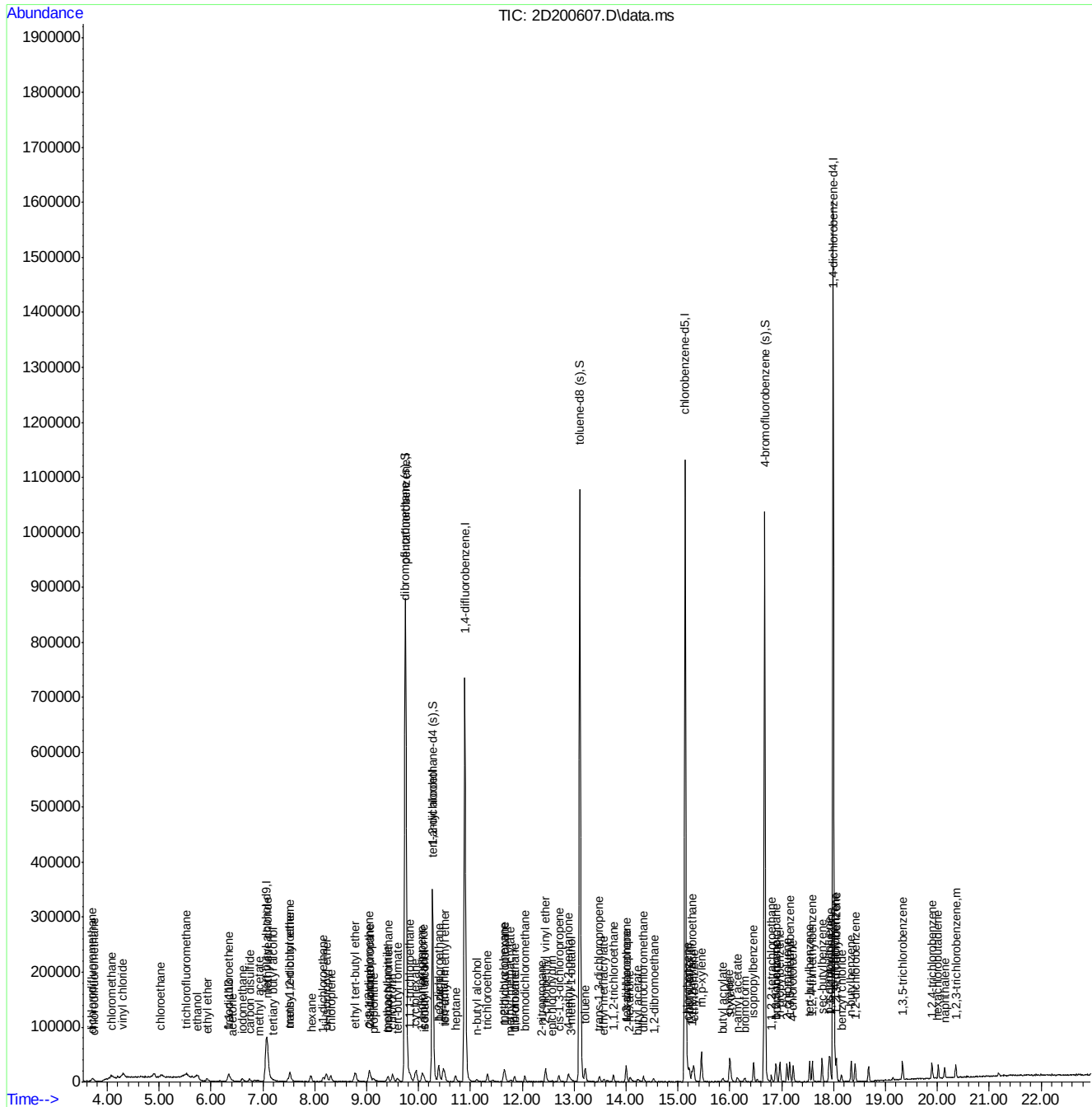
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104)	4-chlorotoluene	17.221	91	18386	1.13	ug/L	93
105)	1,3,5-trimethylbenzene	17.158	105	20966	1.07	ug/L	98
106)	tert-butylbenzene	17.541	119	17188	0.95	ug/L	93
107)	1,2,4-trimethylbenzene	17.588	105	20373	1.00	ug/L	97
108)	sec-butylbenzene	17.777	105	26611	0.99	ug/L	98
109)	1,3-dichlorobenzene	17.934	146	13824	1.06	ug/L	99
110)	p-isopropyltoluene	17.913	119	22206	0.98	ug/L	97
111)	1,2,3-trimethylbenzene	18.050	105	19481	0.96	ug/L	97
112)	1,4-dichlorobenzene	18.023	146	13690	1.05	ug/L	93
113)	1,2-dichlorobenzene	18.417	146	12921	0.97	ug/L	95
114)	benzyl chloride	18.149	91	9103	0.86	ug/L	90
115)	n-butylbenzene	18.338	92	10832	0.93	ug/L	93
117)	1,3,5-trichlorobenzene	19.329	180	9986	0.86	ug/L	94
118)	hexachlorobutadiene	20.016	225	4329	0.96	ug/L	87
119)	naphthalene	20.147	128	14720	0.83	ug/L	99
120)	1,2,4-trichlorobenzene	19.900	180	8581	0.87	ug/L	99
121)	1,2,3-trichlorobenzene	20.357	180	7562	0.89	ug/L	96

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

(QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
Data File : 2D200607.D
Acq On : 31 Mar 2022 6:12 pm
Operator : brittank
Sample : ic8735-1
Misc : MS55663,V2D8735,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 01 16:48:30 2022
Quant Method : C:\msdchem\1\METHODS\M2D8735.M
Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2
QLast Update : Fri Apr 01 09:36:05 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200608.D
 Acq On : 31 Mar 2022 6:42 pm
 Operator : brittank
 Sample : ic8735-2
 Misc : MS55663,V2D8735,5,,,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 01 16:49:09 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.065	65	166979	500.00	ug/L	0.00
5) pentafluorobenzene	9.750	168	484691	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.893	114	680675	50.00	ug/L	0.00
72) chlorobenzene-d5	15.140	117	648423	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.992	152	375161	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.739	113	246289	51.66	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	103.32%		
51) 1,2-dichloroethane-d4 (s)	10.269	65	295926	51.27	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	102.54%		
73) toluene-d8 (s)	13.110	98	785737	52.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	104.38%		
97) 4-bromofluorobenzene (s)	16.671	95	307430	49.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	98.76%		
Target Compounds						
2) tertiary butyl alcohol	7.191	59	5110	9.84	ug/L	88
3) ethanol	5.728	45	11492	239.78	ug/L	84
4) 1,4-dioxane	11.842	88	1711	45.09	ug/L	85
6) chlorodifluoromethane	3.741	51	4039	2.00	ug/L	81
7) dichlorodifluoromethane	3.710	85	16845	1.69	ug/L	97
8) chloromethane	4.077	50	21960	2.16	ug/L	98
9) vinyl chloride	4.297	62	19879	1.98	ug/L	94
11) bromomethane	4.910	94	14914	2.35	ug/L	76
12) chloroethane	5.047	64	11347	2.15	ug/L	90
13) trichlorofluoromethane	5.513	101	23176	1.91	ug/L	98
14) ethyl ether	5.928	74	4240	2.07	ug/L	97
15) acrolein	6.153	56	1809	1.99	ug/L	86
16) 1,1-dichloroethene	6.336	96	7360	2.13	ug/L	89
17) freon 113	6.357	151	8123	2.16	ug/L #	79
18) acetone	6.389	58	2755	8.28	ug/L #	75
19) acetonitrile	6.835	41	6955	19.76	ug/L	93
20) iodomethane	6.604	142	15871	2.07	ug/L	99
21) carbon disulfide	6.740	76	19462	2.05	ug/L	92
22) methylene chloride	7.086	84	9745	2.15	ug/L	98
23) methyl acetate	6.908	43	4686	2.05	ug/L	96
24) methyl tert butyl ether	7.500	73	22856	2.08	ug/L	90
25) trans-1,2-dichloroethene	7.521	96	9292	2.13	ug/L	81
26) hexane	7.930	57	14153	2.12	ug/L	91
27) di-isopropyl ether	8.229	45	27896	2.13	ug/L	88
28) 2-butanone	9.042	72	2494	6.79	ug/L #	40
29) 1,1-dichloroethane	8.156	63	19939	2.07	ug/L	91
30) chloroprene	8.308	53	14613	2.04	ug/L	93
31) acrylonitrile	7.490	53	2367	1.54	ug/L	76
33) ethyl tert-butyl ether	8.774	59	35779	2.02	ug/L	99
35) 2,2-dichloropropane	9.063	77	14629	2.27	ug/L	99
36) cis-1,2-dichloroethene	9.042	96	10404	2.10	ug/L	87
37) propionitrile	9.131	54	10780	20.31	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200608.D
 Acq On : 31 Mar 2022 6:42 pm
 Operator : brittank
 Sample : ic8735-2
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 01 16:49:09 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) tert-butyl formate	9.587	59	6684	1.63	ug/L	91
39) bromochloromethane	9.409	128	5520	2.11	ug/L	84
40) tetrahydrofuran	9.498	42	2025	2.60	ug/L	75
41) chloroform	9.498	83	19885	2.26	ug/L	98
43) methacrylonitrile	9.377	67	2795	1.81	ug/L	86
44) 1,1,1-trichloroethane	9.834	97	15531	2.00	ug/L	83
45) cyclohexane	9.949	84	13420	1.91	ug/L #	83
46) 1,1-dichloropropene	10.070	75	11877	2.07	ug/L	92
47) isobutyl alcohol	10.117	43	2457	21.57	ug/L #	79
48) carbon tetrachloride	10.091	117	14429	2.05	ug/L	96
49) tert-amyl alcohol	10.284	73	1479	9.26	ug/L	89
52) benzene	10.389	78	33552	2.09	ug/L	95
53) iso-octane	10.473	57	40261	2.14	ug/L	98
54) tert-amyl methyl ether	10.499	73	25358	2.11	ug/L	98
55) heptane	10.720	57	7826	2.23	ug/L	85
56) isopropyl acetate	10.389	87	1109	1.48	ug/L #	30
57) 1,2-dichloroethane	10.389	62	16165	2.05	ug/L	92
58) n-butyl alcohol	11.108	56	8076	76.55	ug/L	86
59) ethyl acrylate	11.422	55	9410	1.71	ug/L	67
60) trichloroethene	11.333	130	10092	1.93	ug/L	97
61) 2-nitropropane	12.361	41	1645	1.76	ug/L #	71
62) 2-chloroethyl vinyl ether	12.439	63	28253	8.93	ug/L	100
63) methyl methacrylate	11.774	69	3852	1.60	ug/L	93
64) 1,2-dichloropropane	11.663	63	10619	1.97	ug/L	88
65) dibromomethane	11.847	93	6321	2.06	ug/L	76
66) methylcyclohexane	11.642	83	14980	2.06	ug/L	95
67) bromodichloromethane	12.046	83	13247	1.89	ug/L	97
68) epichlorohydrin	12.570	57	3962	9.50	ug/L	97
69) cis-1,3-dichloropropene	12.702	75	14089	1.82	ug/L	99
70) 4-methyl-2-pentanone	12.890	58	13865	8.08	ug/L	93
71) 3-methyl-1-butanol	12.922	55	5247	32.50	ug/L	76
74) toluene	13.210	92	20008	1.92	ug/L #	85
75) trans-1,3-dichloropropene	13.477	75	11643	1.71	ug/L	95
76) ethyl methacrylate	13.567	69	7447	1.57	ug/L	93
77) 1,1,2-trichloroethane	13.750	83	6647	1.96	ug/L	93
78) tetrachloroethene	14.002	164	9250	2.06	ug/L	93
79) 1,3-dichloropropane	14.002	76	12617	2.02	ug/L	91
80) 2-hexanone	14.070	58	11426	7.83	ug/L	97
81) butyl acetate	14.217	56	5165	1.91	ug/L	91
82) dibromochloromethane	14.327	129	9939	1.84	ug/L	89
83) 1,2-dibromoethane	14.531	107	7853	1.81	ug/L	93
84) n-butyl ether	15.213	57	43500	2.04	ug/L	98
85) chlorobenzene	15.187	112	26661	2.06	ug/L	92
86) 1,1,1,2-tetrachloroethane	15.271	131	10043	1.96	ug/L	88
87) ethylbenzene	15.302	91	43298	2.18	ug/L	98
88) m,p-xylene	15.454	91	67064	4.17	ug/L	99
89) o-xylene	15.994	106	17517	2.02	ug/L	95
90) styrene	16.010	104	26596	1.93	ug/L	92
91) butyl acrylate	15.853	55	15210	1.60	ug/L	96
92) n-amyl acetate	16.141	70	5221	1.92	ug/L #	79

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200608.D
 Acq On : 31 Mar 2022 6:42 pm
 Operator : brittank
 Sample : ic8735-2
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 01 16:49:09 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

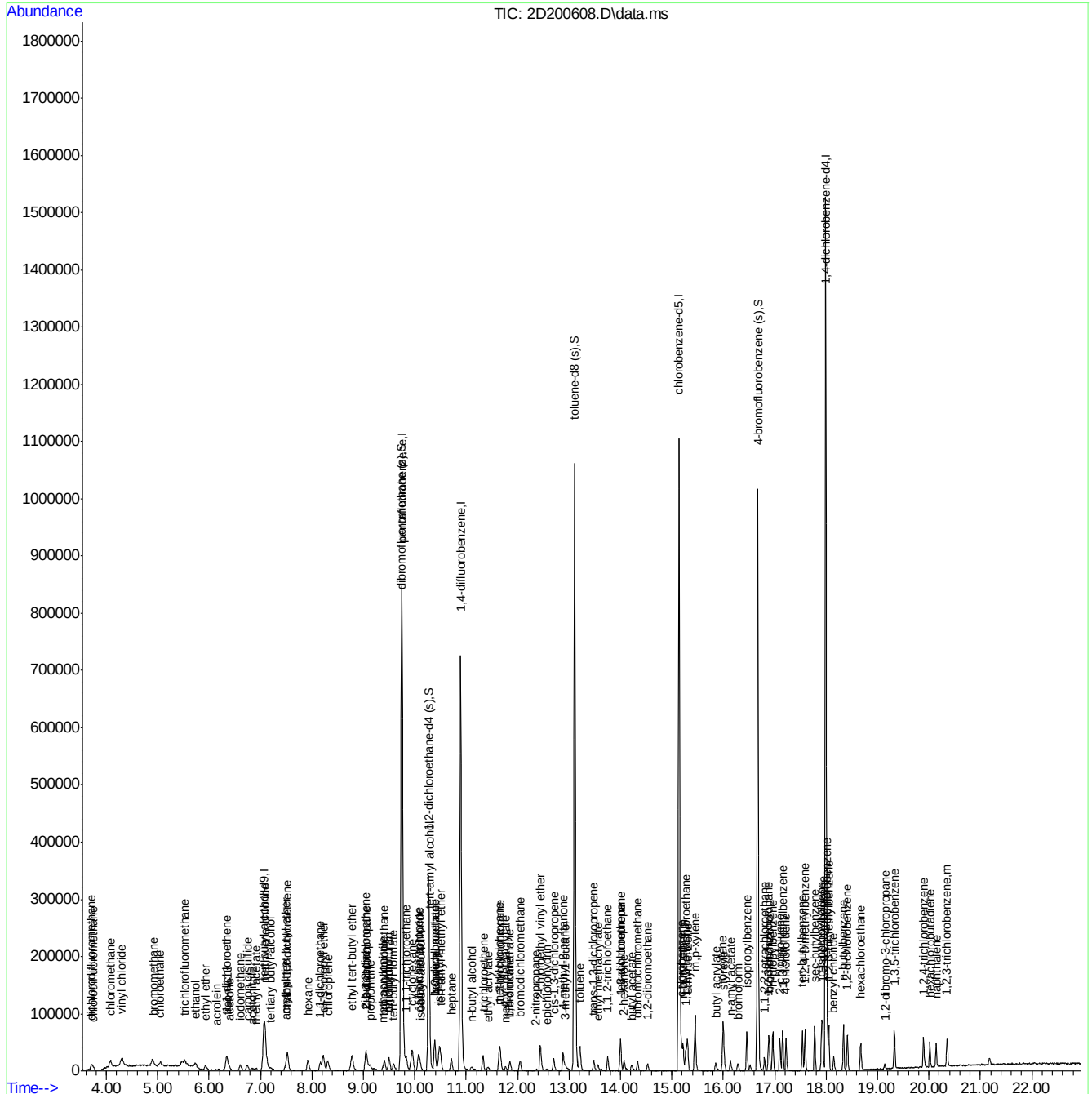
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) bromoform	16.288	173	6181	1.57	ug/L	92
94) isopropylbenzene	16.461	105	44880	2.01	ug/L	97
98) bromobenzene	16.891	156	12644	1.86	ug/L	97
99) 1,1,2,2-tetrachloroethane	16.802	83	9950	1.85	ug/L	98
101) 1,2,3-trichloropropane	16.880	110	2950	2.09	ug/L #	35
102) n-propylbenzene	16.964	91	52238	1.95	ug/L	99
103) 2-chlorotoluene	17.100	126	10982	1.89	ug/L #	81
104) 4-chlorotoluene	17.221	91	32382	2.03	ug/L	96
105) 1,3,5-trimethylbenzene	17.153	105	36354	1.90	ug/L	93
106) tert-butylbenzene	17.541	119	32197	1.83	ug/L	95
107) 1,2,4-trimethylbenzene	17.588	105	38990	1.97	ug/L	98
108) sec-butylbenzene	17.777	105	50011	1.91	ug/L	97
109) 1,3-dichlorobenzene	17.934	146	24832	1.95	ug/L	98
110) p-isopropyltoluene	17.913	119	41069	1.85	ug/L	98
111) 1,2,3-trimethylbenzene	18.055	105	39001	1.96	ug/L	99
112) 1,4-dichlorobenzene	18.018	146	25712	2.01	ug/L	92
113) 1,2-dichlorobenzene	18.411	146	23901	1.83	ug/L	98
114) benzyl chloride	18.144	91	17044	1.64	ug/L	96
115) n-butylbenzene	18.338	92	21566	1.89	ug/L	94
116) 1,2-dibromo-3-chloropr...	19.145	157	2081	1.51	ug/L	76
117) 1,3,5-trichlorobenzene	19.329	180	19628	1.73	ug/L	91
118) hexachlorobutadiene	20.021	225	7820	1.77	ug/L	87
119) naphthalene	20.141	128	29225	1.69	ug/L	97
120) 1,2,4-trichlorobenzene	19.900	180	15837	1.64	ug/L	98
121) 1,2,3-trichlorobenzene	20.351	180	13896	1.66	ug/L	94
122) hexachloroethane	18.673	201	6241	1.47	ug/L	87

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
Data File : 2D200608.D
Acq On : 31 Mar 2022 6:42 pm
Operator : brittank
Sample : ic8735-2
Misc : MS55663,V2D8735,5,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 01 16:49:09 2022
Quant Method : C:\msdchem\1\METHODS\M2D8735.M
Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2
QLast Update : Fri Apr 01 09:36:05 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200609.D
 Acq On : 31 Mar 2022 7:12 pm
 Operator : brittank
 Sample : ic8735-4
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 01 16:49:36 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.065	65	169365	500.00	ug/L	0.00
5) pentafluorobenzene	9.755	168	496974	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.893	114	693629	50.00	ug/L	0.00
72) chlorobenzene-d5	15.140	117	672819	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.992	152	386229	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.739	113	251762	51.50	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.00%
51) 1,2-dichloroethane-d4 (s)	10.269	65	305588	51.95	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	103.90%
73) toluene-d8 (s)	13.111	98	802841	51.39	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.78%
97) 4-bromofluorobenzene (s)	16.671	95	316646	49.40	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.80%
Target Compounds						
2) tertiary butyl alcohol	7.212	59	9495	18.03	ug/L	88
3) ethanol	5.734	45	19739	406.06	ug/L	83
4) 1,4-dioxane	11.842	88	3594	93.39	ug/L	80
6) chlorodifluoromethane	3.736	51	7703	3.73	ug/L	90
7) dichlorodifluoromethane	3.710	85	36538	3.57	ug/L	95
8) chloromethane	4.082	50	42519	4.08	ug/L	97
9) vinyl chloride	4.292	62	40514	3.93	ug/L	98
10) 1,3-butadiene	4.323	54	9529	4.49	ug/L	80
11) bromomethane	4.905	94	26093	4.01	ug/L	92
12) chloroethane	5.047	64	22444	4.16	ug/L	92
13) trichlorofluoromethane	5.513	101	48402	3.89	ug/L	91
14) ethyl ether	5.928	74	8169	3.90	ug/L	97
15) acrolein	6.158	56	3375	3.62	ug/L	90
16) 1,1-dichloroethene	6.337	96	13381	3.78	ug/L	98
17) freon 113	6.342	151	14552	3.78	ug/L #	80
18) acetone	6.384	58	5456	15.99	ug/L	92
19) acetonitrile	6.829	41	14221	39.40	ug/L	86
20) iodomethane	6.609	142	31593	4.02	ug/L	98
21) carbon disulfide	6.746	76	37349	3.83	ug/L	99
22) methylene chloride	7.086	84	18726	4.03	ug/L	97
23) methyl acetate	6.898	43	9152	3.90	ug/L	92
24) methyl tert butyl ether	7.511	73	44611	3.96	ug/L	93
25) trans-1,2-dichloroethene	7.516	96	17335	3.87	ug/L	97
26) hexane	7.920	57	26855	3.92	ug/L	100
27) di-isopropyl ether	8.219	45	52064	3.88	ug/L	80
28) 2-butanone	9.042	72	5444	14.46	ug/L #	74
29) 1,1-dichloroethane	8.161	63	39788	4.02	ug/L	93
30) chloroprene	8.303	53	28838	3.93	ug/L	97
31) acrylonitrile	7.464	53	5615	3.55	ug/L	99
32) vinyl acetate	8.203	86	2330	3.10	ug/L #	32
33) ethyl tert-butyl ether	8.775	59	71213	3.91	ug/L	99
34) ethyl acetate	9.110	45	1524	3.56	ug/L #	21

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200609.D
 Acq On : 31 Mar 2022 7:12 pm
 Operator : brittank
 Sample : ic8735-4
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 01 16:49:36 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2,2-dichloropropane	9.068	77	27329	4.13	ug/L	97
36) cis-1,2-dichloroethene	9.047	96	20495	4.04	ug/L	92
37) propionitrile	9.121	54	20885	38.38	ug/L	94
38) tert-butyl formate	9.587	59	14091	3.36	ug/L	93
39) bromochloromethane	9.414	128	10346	3.85	ug/L	86
40) tetrahydrofuran	9.503	42	3686	4.61	ug/L	89
41) chloroform	9.493	83	36373	4.02	ug/L	94
43) methacrylonitrile	9.367	67	5452	3.44	ug/L	90
44) 1,1,1-trichloroethane	9.828	97	30088	3.77	ug/L	93
45) cyclohexane	9.939	84	28946	4.02	ug/L	84
46) 1,1-dichloropropene	10.064	75	22287	3.79	ug/L	94
47) isobutyl alcohol	10.106	43	4086	34.99	ug/L	91
48) carbon tetrachloride	10.096	117	27595	3.83	ug/L	93
49) tert-amyl alcohol	10.269	73	2899	17.70	ug/L	92
52) benzene	10.384	78	63678	3.88	ug/L	96
53) iso-octane	10.468	57	74853	3.90	ug/L	95
54) tert-amyl methyl ether	10.494	73	49706	4.06	ug/L	98
55) heptane	10.709	57	13991	3.91	ug/L	93
56) isopropyl acetate	10.384	87	2448	3.21	ug/L #	77
57) 1,2-dichloroethane	10.384	62	30591	3.80	ug/L	95
58) n-butyl alcohol	11.087	56	17296	160.88	ug/L	95
59) ethyl acrylate	11.407	55	18626	3.33	ug/L	86
60) trichloroethene	11.323	130	18647	3.50	ug/L	99
61) 2-nitropropane	12.366	41	3435	3.61	ug/L	87
62) 2-chloroethyl vinyl ether	12.440	63	56801	17.62	ug/L	98
63) methyl methacrylate	11.758	69	8664	3.53	ug/L	88
64) 1,2-dichloropropane	11.664	63	21292	3.87	ug/L	96
65) dibromomethane	11.847	93	11993	3.84	ug/L	92
66) methylcyclohexane	11.643	83	27694	3.74	ug/L	98
67) bromodichloromethane	12.046	83	26021	3.63	ug/L	94
68) epichlorohydrin	12.565	57	7888	18.56	ug/L	90
69) cis-1,3-dichloropropene	12.702	75	28173	3.58	ug/L	99
70) 4-methyl-2-pentanone	12.885	58	26167	14.96	ug/L	96
71) 3-methyl-1-butanol	12.922	55	10648	64.71	ug/L	93
74) toluene	13.210	92	41259	3.81	ug/L	98
75) trans-1,3-dichloropropene	13.478	75	24100	3.41	ug/L	98
76) ethyl methacrylate	13.551	69	15586	3.17	ug/L	96
77) 1,1,2-trichloroethane	13.750	83	14231	4.04	ug/L	96
78) tetrachloroethene	14.002	164	17956	3.85	ug/L	95
79) 1,3-dichloropropane	14.002	76	25407	3.93	ug/L	90
80) 2-hexanone	14.065	58	23316	15.40	ug/L	98
81) butyl acetate	14.212	56	9866	3.51	ug/L	97
82) dibromochloromethane	14.332	129	19925	3.55	ug/L	99
83) 1,2-dibromoethane	14.526	107	16732	3.71	ug/L	90
84) n-butyl ether	15.213	57	83788	3.78	ug/L	99
85) chlorobenzene	15.182	112	51288	3.81	ug/L	99
86) 1,1,1,2-tetrachloroethane	15.271	131	20021	3.77	ug/L	98
87) ethylbenzene	15.302	91	83499	4.06	ug/L	100
88) m,p-xylene	15.449	91	133758	8.01	ug/L	98
89) o-xylene	15.994	106	33702	3.75	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200609.D
 Acq On : 31 Mar 2022 7:12 pm
 Operator : brittank
 Sample : ic8735-4
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 01 16:49:36 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

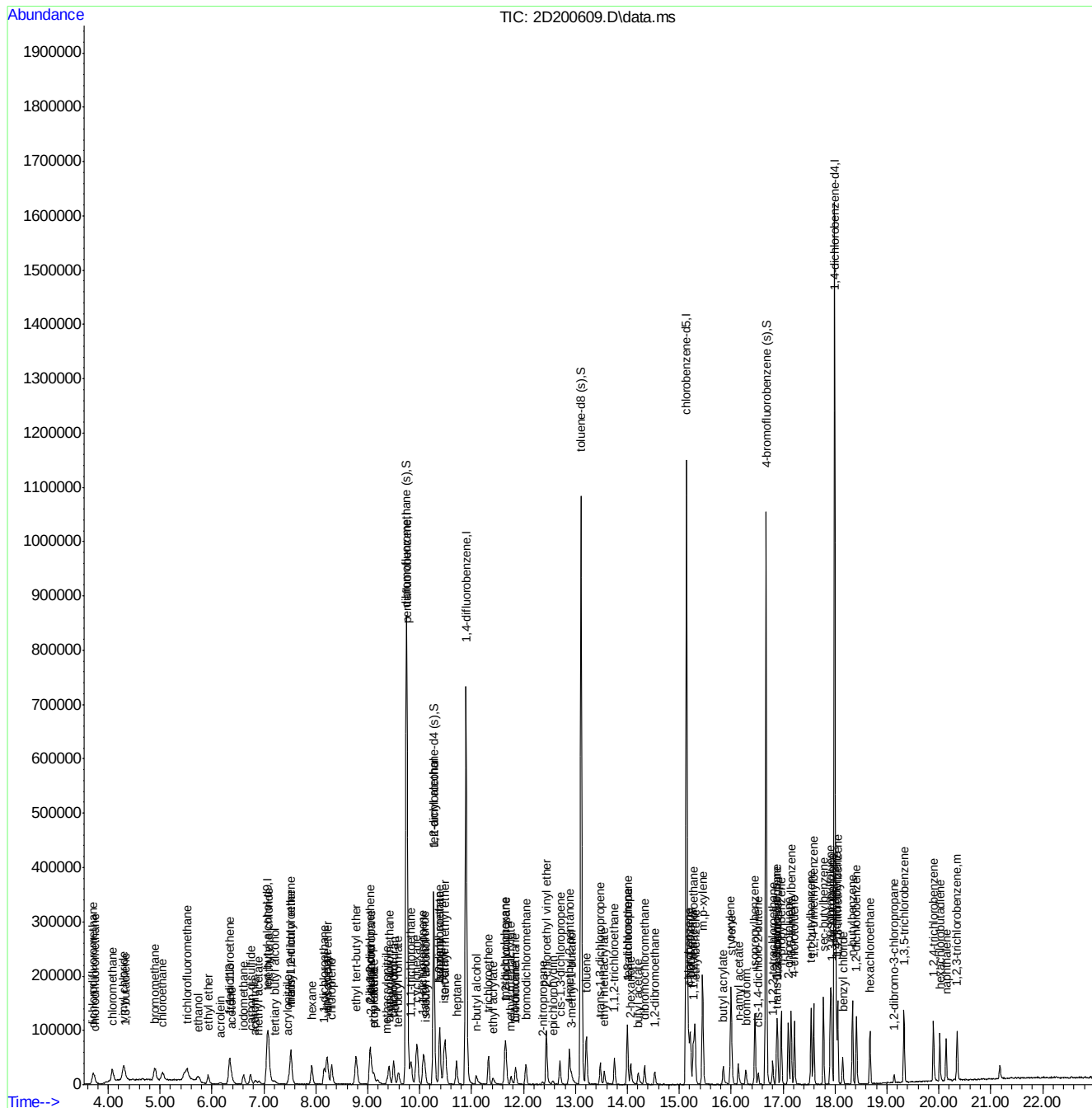
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) styrene	16.005	104	53144	3.71	ug/L	96
91) butyl acrylate	15.847	55	31422	3.19	ug/L	97
92) n-amyl acetate	16.141	70	10336	3.67	ug/L	91
93) bromoform	16.283	173	12874	3.16	ug/L	98
94) isopropylbenzene	16.456	105	90447	3.90	ug/L	96
95) cis-1,4-dichloro-2-butene	16.524	88	5406	2.90	ug/L #	82
98) bromobenzene	16.891	156	25598	3.65	ug/L	93
99) 1,1,2,2-tetrachloroethane	16.802	83	19871	3.59	ug/L	99
100) trans-1,4-dichloro-2-b...	16.870	53	4785	3.01	ug/L	95
101) 1,2,3-trichloropropane	16.880	110	5642	3.87	ug/L #	85
102) n-propylbenzene	16.964	91	107630	3.90	ug/L	96
103) 2-chlorotoluene	17.101	126	21948	3.68	ug/L	92
104) 4-chlorotoluene	17.221	91	64795	3.94	ug/L	99
105) 1,3,5-trimethylbenzene	17.153	105	74781	3.80	ug/L	96
106) tert-butylbenzene	17.541	119	64632	3.57	ug/L	98
107) 1,2,4-trimethylbenzene	17.588	105	76498	3.75	ug/L	99
108) sec-butylbenzene	17.777	105	100576	3.73	ug/L	99
109) 1,3-dichlorobenzene	17.934	146	49904	3.80	ug/L	99
110) p-isopropyltoluene	17.913	119	82858	3.62	ug/L	99
111) 1,2,3-trimethylbenzene	18.050	105	75641	3.69	ug/L	98
112) 1,4-dichlorobenzene	18.023	146	47669	3.62	ug/L	95
113) 1,2-dichlorobenzene	18.411	146	48611	3.62	ug/L	98
114) benzyl chloride	18.149	91	32007	2.99	ug/L	97
115) n-butylbenzene	18.338	92	41314	3.51	ug/L	98
116) 1,2-dibromo-3-chloropr...	19.140	157	3962	2.80	ug/L	80
117) 1,3,5-trichlorobenzene	19.329	180	37052	3.17	ug/L	94
118) hexachlorobutadiene	20.021	225	15603	3.44	ug/L	96
119) naphthalene	20.142	128	57471	3.23	ug/L	100
120) 1,2,4-trichlorobenzene	19.895	180	30899	3.11	ug/L	91
121) 1,2,3-trichlorobenzene	20.351	180	26024	3.03	ug/L	99
122) hexachloroethane	18.679	201	12739	2.92	ug/L	87

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
Data File : 2D200609.D
Acq On : 31 Mar 2022 7:12 pm
Operator : brittank
Sample : ic8735-4
Misc : MS55663,V2D8735,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 01 16:49:36 2022
Quant Method : C:\msdchem\1\METHODS\M2D8735.M
Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022
QLast Update : Fri Apr 01 09:36:05 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200610.D
 Acq On : 31 Mar 2022 7:42 pm
 Operator : brittank
 Sample : ic8735-8
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 01 09:36:34 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.065	65	159053	500.00	ug/L	0.00
5) pentafluorobenzene	9.750	168	471390	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.893	114	670201	50.00	ug/L	0.00
72) chlorobenzene-d5	15.140	117	641929	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.992	152	377244	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.734	113	241365	52.06	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	104.12%
51) 1,2-dichloroethane-d4 (s)	10.269	65	289242	50.89	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	101.78%
73) toluene-d8 (s)	13.105	98	767562	51.49	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.98%
97) 4-bromofluorobenzene (s)	16.671	95	305000	48.72	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	97.44%
Target Compounds						
2) tertiary butyl alcohol	7.196	59	19155	38.74	ug/L	96
3) ethanol	5.734	45	40785	893.40	ug/L	87
4) 1,4-dioxane	11.831	88	6428	177.85	ug/L	90
6) chlorodifluoromethane	3.720	51	16172	8.25	ug/L	90
7) dichlorodifluoromethane	3.710	85	72757	7.50	ug/L	99
8) chloromethane	4.072	50	79536	8.05	ug/L	98
9) vinyl chloride	4.292	62	81236	8.30	ug/L	97
10) 1,3-butadiene	4.318	54	17741	8.81	ug/L	95
11) bromomethane	4.889	94	51100	8.27	ug/L	99
12) chloroethane	5.047	64	42317	8.26	ug/L	99
13) trichlorofluoromethane	5.513	101	95344	8.08	ug/L	95
14) ethyl ether	5.922	74	15647	7.87	ug/L	89
15) acrolein	6.143	56	7054	7.98	ug/L	86
16) 1,1-dichloroethene	6.331	96	29073	8.66	ug/L	92
17) freon 113	6.337	151	30585	8.37	ug/L	96
18) acetone	6.384	58	11492	35.52	ug/L #	75
19) acetonitrile	6.824	41	28425	83.03	ug/L	97
20) iodomethane	6.599	142	61817	8.29	ug/L	99
21) carbon disulfide	6.730	76	76648	8.29	ug/L	99
22) methylene chloride	7.081	84	37415	8.48	ug/L	97
23) methyl acetate	6.892	43	20313	9.13	ug/L	91
24) methyl tert butyl ether	7.501	73	86321	8.08	ug/L	99
25) trans-1,2-dichloroethene	7.516	96	35118	8.27	ug/L	99
26) hexane	7.915	57	53299	8.21	ug/L	98
27) di-isopropyl ether	8.214	45	103671	8.15	ug/L	88
28) 2-butanone	9.037	72	10765	30.14	ug/L	88
29) 1,1-dichloroethane	8.161	63	76160	8.12	ug/L	96
30) chloroprene	8.303	53	56272	8.08	ug/L	96
31) acrylonitrile	7.443	53	10986	7.33	ug/L	96
32) vinyl acetate	8.187	86	4829	6.77	ug/L #	76
33) ethyl tert-butyl ether	8.775	59	138320	8.02	ug/L	98
34) ethyl acetate	9.089	45	3718	9.16	ug/L #	85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200610.D
 Acq On : 31 Mar 2022 7:42 pm
 Operator : brittank
 Sample : ic8735-8
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 01 09:36:34 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2,2-dichloropropane	9.063	77	53349	8.50	ug/L	97
36) cis-1,2-dichloroethene	9.042	96	38688	8.04	ug/L	97
37) propionitrile	9.115	54	41154	79.74	ug/L	97
38) tert-butyl formate	9.587	59	27434	6.90	ug/L	88
39) bromochloromethane	9.409	128	20300	7.97	ug/L	98
40) tetrahydrofuran	9.493	42	6311	8.33	ug/L	91
41) chloroform	9.493	83	70505	8.23	ug/L	99
43) methacrylonitrile	9.362	67	11374	7.57	ug/L	96
44) 1,1,1-trichloroethane	9.828	97	59578	7.88	ug/L	95
45) cyclohexane	9.939	84	54790	8.02	ug/L	99
46) 1,1-dichloropropene	10.059	75	43938	7.87	ug/L	95
47) isobutyl alcohol	10.096	43	8503	76.77	ug/L	87
48) carbon tetrachloride	10.091	117	54967	8.03	ug/L	91
49) tert-amyl alcohol	10.264	73	5805	37.37	ug/L	92
52) benzene	10.384	78	125960	7.95	ug/L	98
53) iso-octane	10.468	57	150722	8.14	ug/L	94
54) tert-amyl methyl ether	10.494	73	99496	8.41	ug/L	98
55) heptane	10.709	57	27912	8.07	ug/L	97
56) isopropyl acetate	10.379	87	5190	7.05	ug/L #	58
57) 1,2-dichloroethane	10.384	62	61114	7.86	ug/L	94
58) n-butyl alcohol	11.082	56	35136	338.25	ug/L	93
59) ethyl acrylate	11.401	55	37679	6.97	ug/L	97
60) trichloroethene	11.323	130	38771	7.53	ug/L	93
61) 2-nitropropane	12.361	41	6500	7.07	ug/L	88
62) 2-chloroethyl vinyl ether	12.434	63	113673	36.49	ug/L	97
63) methyl methacrylate	11.758	69	17363	7.33	ug/L	84
64) 1,2-dichloropropane	11.658	63	40774	7.68	ug/L	95
65) dibromomethane	11.842	93	23491	7.78	ug/L	87
66) methylcyclohexane	11.643	83	56407	7.88	ug/L	99
67) bromodichloromethane	12.046	83	51977	7.51	ug/L	92
68) epichlorohydrin	12.565	57	14891	36.26	ug/L	99
69) cis-1,3-dichloropropene	12.696	75	57212	7.52	ug/L	95
70) 4-methyl-2-pentanone	12.880	58	51790	30.65	ug/L	98
71) 3-methyl-1-butanol	12.917	55	23625	148.60	ug/L	90
74) toluene	13.210	92	80032	7.75	ug/L	95
75) trans-1,3-dichloropropene	13.472	75	48701	7.23	ug/L	98
76) ethyl methacrylate	13.551	69	33725	7.19	ug/L	98
77) 1,1,2-trichloroethane	13.750	83	25961	7.72	ug/L	97
78) tetrachloroethene	14.002	164	35643	8.01	ug/L	93
79) 1,3-dichloropropane	13.997	76	48126	7.79	ug/L	98
80) 2-hexanone	14.060	58	45771	31.69	ug/L	94
81) butyl acetate	14.201	56	21463	8.00	ug/L	84
82) dibromochloromethane	14.332	129	39792	7.43	ug/L	96
83) 1,2-dibromoethane	14.526	107	32710	7.60	ug/L	97
84) n-butyl ether	15.213	57	169569	8.01	ug/L	99
85) chlorobenzene	15.182	112	100949	7.86	ug/L	95
86) 1,1,1,2-tetrachloroethane	15.271	131	39853	7.87	ug/L	97
87) ethylbenzene	15.297	91	165688	8.43	ug/L	97
88) m,p-xylene	15.449	91	264432	16.59	ug/L	99
89) o-xylene	15.994	106	68643	8.00	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200610.D
 Acq On : 31 Mar 2022 7:42 pm
 Operator : brittank
 Sample : ic8735-8
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 01 09:36:34 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

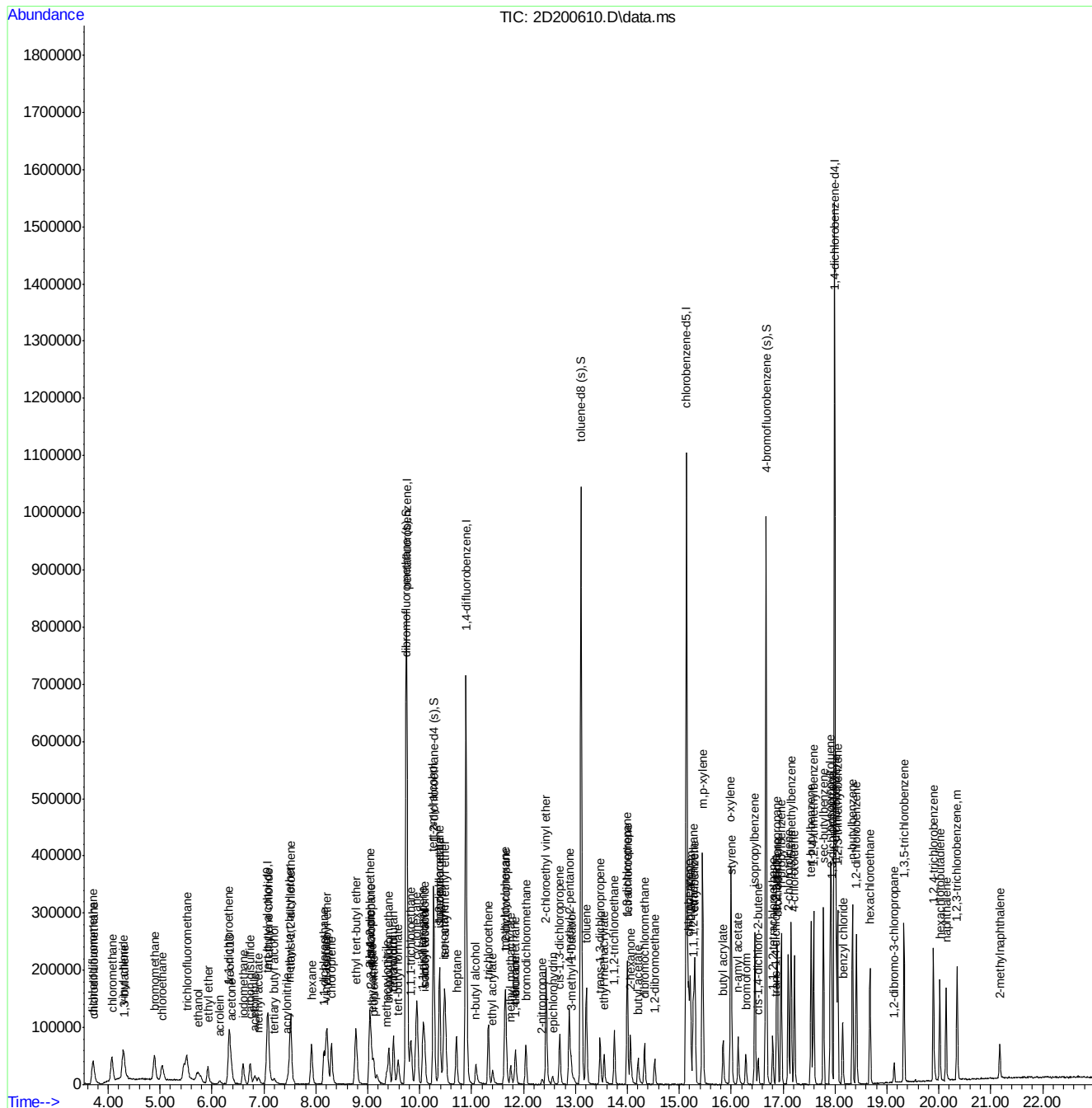
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) styrene	16.005	104	107492	7.86	ug/L	92
91) butyl acrylate	15.847	55	66143	7.05	ug/L	95
92) n-amyl acetate	16.136	70	20152	7.50	ug/L	98
93) bromoform	16.283	173	26618	6.84	ug/L	98
94) isopropylbenzene	16.456	105	180902	8.18	ug/L	100
95) cis-1,4-dichloro-2-butene	16.524	88	11420	6.43	ug/L	96
98) bromobenzene	16.891	156	50380	7.36	ug/L	96
99) 1,1,2,2-tetrachloroethane	16.802	83	40805	7.55	ug/L	92
100) trans-1,4-dichloro-2-b...	16.865	53	9783	6.30	ug/L #	58
101) 1,2,3-trichloropropane	16.880	110	10910	7.67	ug/L #	85
102) n-propylbenzene	16.964	91	209374	7.77	ug/L	98
103) 2-chlorotoluene	17.101	126	44244	7.59	ug/L	90
104) 4-chlorotoluene	17.221	91	125296	7.79	ug/L	99
105) 1,3,5-trimethylbenzene	17.153	105	151187	7.86	ug/L	95
106) tert-butylbenzene	17.541	119	130124	7.35	ug/L	99
107) 1,2,4-trimethylbenzene	17.588	105	153918	7.72	ug/L	97
108) sec-butylbenzene	17.777	105	201335	7.65	ug/L	99
109) 1,3-dichlorobenzene	17.934	146	100081	7.81	ug/L	99
110) p-isopropyltoluene	17.913	119	167464	7.50	ug/L	97
111) 1,2,3-trimethylbenzene	18.050	105	153431	7.65	ug/L	99
112) 1,4-dichlorobenzene	18.018	146	97660	7.60	ug/L	99
113) 1,2-dichlorobenzene	18.411	146	97471	7.44	ug/L	97
114) benzyl chloride	18.149	91	69101	6.61	ug/L	97
115) n-butylbenzene	18.338	92	83574	7.27	ug/L	96
116) 1,2-dibromo-3-chloropr...	19.140	157	8411	6.08	ug/L	90
117) 1,3,5-trichlorobenzene	19.329	180	78132	6.85	ug/L	96
118) hexachlorobutadiene	20.021	225	31273	7.05	ug/L	98
119) naphthalene	20.141	128	121346	6.97	ug/L	99
120) 1,2,4-trichlorobenzene	19.895	180	64562	6.66	ug/L	97
121) 1,2,3-trichlorobenzene	20.351	180	56029	6.67	ug/L	99
122) hexachloroethane	18.673	201	26618	6.24	ug/L	88
123) 2-methylnaphthalene	21.174	142	29388	2.97	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
Data File : 2D200610.D
Acq On : 31 Mar 2022 7:42 pm
Operator : brittank
Sample : ic8735-8
Misc : MS55663,V2D8735,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 01 09:36:34 2022
Quant Method : C:\msdchem\1\METHODS\M2D8735.M
Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022
QLast Update : Fri Apr 01 09:36:05 2022
Response via : Initial Calibration



M2D8735.M Mon Apr 04 14:20:58 2022 GCMS2D

Page: 4

7.6.6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200611.D
 Acq On : 31 Mar 2022 8:12 pm
 Operator : brittank
 Sample : ic8735-20
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 01 09:36:36 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.065	65	158063	500.00	ug/L	0.00
5) pentafluorobenzene	9.755	168	479318	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.893	114	679393	50.00	ug/L	0.00
72) chlorobenzene-d5	15.140	117	664859	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.997	152	380051	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.739	113	241549	51.23	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.46%
51) 1,2-dichloroethane-d4 (s)	10.274	65	292491	50.77	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	101.54%
73) toluene-d8 (s)	13.111	98	785303	50.87	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.74%
97) 4-bromofluorobenzene (s)	16.671	95	311434	49.38	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.76%
Target Compounds						
2) tertiary butyl alcohol	7.202	59	47432	96.52	ug/L	96
3) ethanol	5.734	45	88339	1947.19	ug/L	93
4) 1,4-dioxane	11.831	88	16918	471.03	ug/L	90
6) chlorodifluoromethane	3.741	51	40018	20.07	ug/L	95
7) dichlorodifluoromethane	3.720	85	183986	18.65	ug/L	98
8) chloromethane	4.087	50	204983	20.40	ug/L	99
9) vinyl chloride	4.308	62	201274	20.24	ug/L	99
10) 1,3-butadiene	4.323	54	43230	21.12	ug/L	92
11) bromomethane	4.905	94	122924	19.56	ug/L	93
12) chloroethane	5.052	64	104922	20.15	ug/L	97
13) trichlorofluoromethane	5.524	101	237138	19.77	ug/L	97
14) ethyl ether	5.928	74	40239	19.90	ug/L	90
15) acrolein	6.148	56	18197	20.26	ug/L	96
16) 1,1-dichloroethene	6.342	96	72019	21.09	ug/L	97
17) freon 113	6.342	151	76060	20.47	ug/L	91
18) acetone	6.384	58	27672	84.11	ug/L #	75
19) acetonitrile	6.830	41	70709	203.12	ug/L	98
20) iodomethane	6.609	142	155218	20.48	ug/L	98
21) carbon disulfide	6.746	76	191122	20.32	ug/L	97
22) methylene chloride	7.086	84	90638	20.21	ug/L	95
23) methyl acetate	6.898	43	47819	21.14	ug/L	96
24) methyl tert butyl ether	7.511	73	219973	20.26	ug/L	97
25) trans-1,2-dichloroethene	7.522	96	88880	20.59	ug/L	100
26) hexane	7.925	57	135382	20.50	ug/L	95
27) di-isopropyl ether	8.219	45	265648	20.55	ug/L	92
28) 2-butanone	9.021	72	27796	76.55	ug/L	99
29) 1,1-dichloroethane	8.161	63	193339	20.26	ug/L	98
30) chloroprene	8.303	53	141459	19.97	ug/L	95
31) acrylonitrile	7.448	53	29256	19.20	ug/L	96
32) vinyl acetate	8.187	86	14695	20.27	ug/L #	72
33) ethyl tert-butyl ether	8.780	59	347230	19.79	ug/L	99
34) ethyl acetate	9.089	45	9237	22.37	ug/L	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200611.D
 Acq On : 31 Mar 2022 8:12 pm
 Operator : brittank
 Sample : ic8735-20
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 01 09:36:36 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2,2-dichloropropane	9.063	77	132155	20.72	ug/L	97
36) cis-1,2-dichloroethene	9.042	96	100260	20.50	ug/L	99
37) propionitrile	9.115	54	104254	198.66	ug/L	98
38) tert-butyl formate	9.593	59	75808	18.75	ug/L	94
39) bromochloromethane	9.409	128	52230	20.16	ug/L	99
40) tetrahydrofuran	9.493	42	15873	20.60	ug/L	88
41) chloroform	9.498	83	174322	20.00	ug/L	96
43) methacrylonitrile	9.362	67	30221	19.79	ug/L	92
44) 1,1,1-trichloroethane	9.834	97	155308	20.20	ug/L	99
45) cyclohexane	9.944	84	135935	19.57	ug/L #	83
46) 1,1-dichloropropene	10.064	75	112565	19.84	ug/L	97
47) isobutyl alcohol	10.096	43	21571	191.53	ug/L	98
48) carbon tetrachloride	10.096	117	141193	20.30	ug/L	98
49) tert-amyl alcohol	10.264	73	15607	98.80	ug/L	99
52) benzene	10.390	78	320402	19.95	ug/L	100
53) iso-octane	10.473	57	388320	20.68	ug/L	98
54) tert-amyl methyl ether	10.500	73	243060	20.26	ug/L	99
55) heptane	10.715	57	70917	20.24	ug/L	93
56) isopropyl acetate	10.369	87	14632	19.61	ug/L #	88
57) 1,2-dichloroethane	10.384	62	155116	19.69	ug/L	96
58) n-butyl alcohol	11.076	56	97017	921.33	ug/L	98
59) ethyl acrylate	11.396	55	102414	18.69	ug/L	98
60) trichloroethene	11.328	130	101889	19.51	ug/L	94
61) 2-nitropropane	12.361	41	17406	18.68	ug/L	86
62) 2-chloroethyl vinyl ether	12.434	63	304972	96.59	ug/L	98
63) methyl methacrylate	11.747	69	45320	18.87	ug/L	98
64) 1,2-dichloropropane	11.664	63	108009	20.07	ug/L	98
65) dibromomethane	11.847	93	60361	19.73	ug/L	95
66) methylcyclohexane	11.648	83	147949	20.38	ug/L	99
67) bromodichloromethane	12.041	83	137012	19.54	ug/L	99
68) epichlorohydrin	12.560	57	40734	97.86	ug/L	95
69) cis-1,3-dichloropropene	12.696	75	149442	19.36	ug/L	98
70) 4-methyl-2-pentanone	12.880	58	134263	78.39	ug/L	99
71) 3-methyl-1-butanol	12.911	55	61417	381.09	ug/L	94
74) toluene	13.210	92	209971	19.64	ug/L	99
75) trans-1,3-dichloropropene	13.472	75	132504	19.00	ug/L	97
76) ethyl methacrylate	13.551	69	91709	18.88	ug/L	99
77) 1,1,2-trichloroethane	13.750	83	68811	19.76	ug/L	97
78) tetrachloroethene	14.002	164	92437	20.05	ug/L	99
79) 1,3-dichloropropane	13.997	76	127223	19.89	ug/L	95
80) 2-hexanone	14.060	58	118086	78.94	ug/L	96
81) butyl acetate	14.201	56	52397	18.87	ug/L	99
82) dibromochloromethane	14.332	129	109316	19.72	ug/L	96
83) 1,2-dibromoethane	14.526	107	88284	19.80	ug/L	96
84) n-butyl ether	15.213	57	436493	19.92	ug/L	99
85) chlorobenzene	15.182	112	264485	19.89	ug/L	99
86) 1,1,1,2-tetrachloroethane	15.271	131	105187	20.05	ug/L	97
87) ethylbenzene	15.297	91	419035	20.59	ug/L	99
88) m,p-xylene	15.449	91	673261	40.78	ug/L	99
89) o-xylene	15.989	106	179728	20.21	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200611.D
 Acq On : 31 Mar 2022 8:12 pm
 Operator : brittank
 Sample : ic8735-20
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 01 09:36:36 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

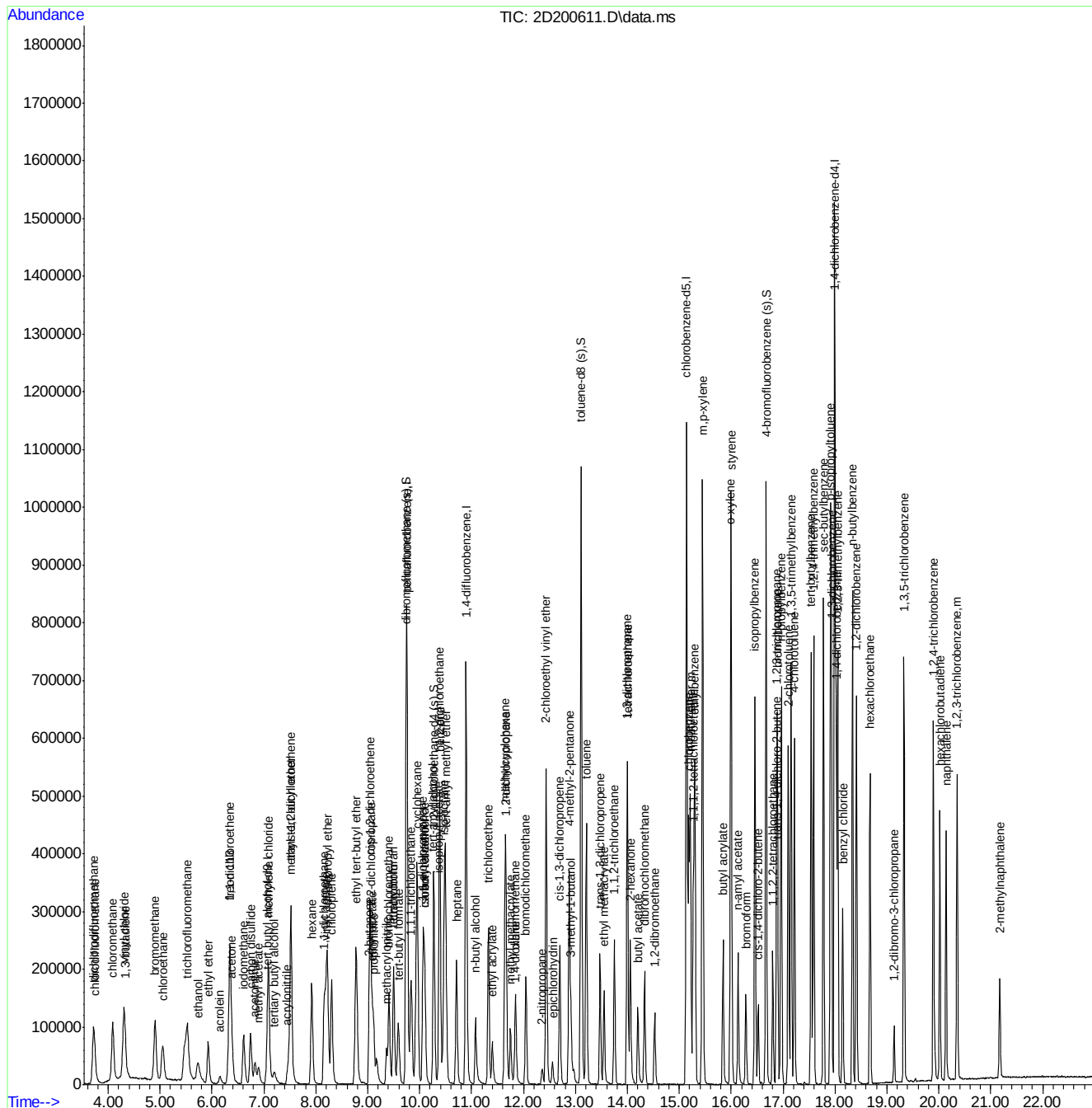
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) styrene	16.000	104	285767	20.18	ug/L	99
91) butyl acrylate	15.842	55	183443	18.87	ug/L	97
92) n-amyl acetate	16.136	70	54857	19.71	ug/L	92
93) bromoform	16.283	173	75535	18.74	ug/L	98
94) isopropylbenzene	16.456	105	472336	20.61	ug/L	100
95) cis-1,4-dichloro-2-butene	16.519	88	34190	18.59	ug/L	95
98) bromobenzene	16.886	156	135631	19.67	ug/L	97
99) 1,1,2,2-tetrachloroethane	16.802	83	104475	19.19	ug/L	97
100) trans-1,4-dichloro-2-b...	16.870	53	27113	17.34	ug/L	97
101) 1,2,3-trichloropropane	16.880	110	29072	20.29	ug/L #	92
102) n-propylbenzene	16.964	91	539441	19.87	ug/L	99
103) 2-chlorotoluene	17.101	126	116282	19.80	ug/L	98
104) 4-chlorotoluene	17.216	91	322043	19.88	ug/L	99
105) 1,3,5-trimethylbenzene	17.153	105	381506	19.69	ug/L	100
106) tert-butylbenzene	17.541	119	346404	19.42	ug/L	99
107) 1,2,4-trimethylbenzene	17.588	105	401014	19.95	ug/L	99
108) sec-butylbenzene	17.777	105	521937	19.69	ug/L	99
109) 1,3-dichlorobenzene	17.934	146	257787	19.96	ug/L	100
110) p-isopropyltoluene	17.913	119	439786	19.54	ug/L	99
111) 1,2,3-trimethylbenzene	18.055	105	395031	19.56	ug/L	99
112) 1,4-dichlorobenzene	18.023	146	248972	19.23	ug/L	99
113) 1,2-dichlorobenzene	18.411	146	254822	19.31	ug/L	100
114) benzyl chloride	18.149	91	194477	18.45	ug/L	99
115) n-butylbenzene	18.338	92	224561	19.39	ug/L	100
116) 1,2-dibromo-3-chloropr...	19.140	157	24538	17.59	ug/L	95
117) 1,3,5-trichlorobenzene	19.329	180	215908	18.78	ug/L	97
118) hexachlorobutadiene	20.021	225	84379	18.88	ug/L	98
119) naphthalene	20.142	128	325104	18.54	ug/L	98
120) 1,2,4-trichlorobenzene	19.895	180	179450	18.38	ug/L	99
121) 1,2,3-trichlorobenzene	20.351	180	154808	18.30	ug/L	98
122) hexachloroethane	18.674	201	77753	18.09	ug/L	96
123) 2-methylnaphthalene	21.174	142	83961	8.43	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
Data File : 2D200611.D
Acq On : 31 Mar 2022 8:12 pm
Operator : brittank
Sample : ic8735-20
Misc : MS55663,V2D8735,5,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 01 09:36:36 2022
Quant Method : C:\msdchem\1\METHODS\M2D8735.M
Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022
QLast Update : Fri Apr 01 09:36:05 2022
Response via : Initial Calibration



M2D8735.M Mon Apr 04 14:21:00 2022 GCMS2D

Page: 4

7.6.7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200612.D
 Acq On : 31 Mar 2022 8:41 pm
 Operator : brittank
 Sample : icc8735-50
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 01 09:36:38 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.071	65	150331	500.00	ug/L	0.00
5) pentafluorobenzene	9.755	168	477168	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.893	114	673523	50.00	ug/L	0.00
72) chlorobenzene-d5	15.140	117	670009	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.992	152	368401	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.739	113	234673	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	100.00%		
51) 1,2-dichloroethane-d4 (s)	10.269	65	288832	50.57	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	101.14%		
73) toluene-d8 (s)	13.111	98	777897	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	100.00%		
97) 4-bromofluorobenzene (s)	16.671	95	305698	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	100.00%		
Target Compounds						
2) tertiary butyl alcohol	7.202	59	116849	250.00	ug/L	100
3) ethanol	5.728	45	219124	5078.40	ug/L	100
4) 1,4-dioxane	11.826	88	42700	1250.00	ug/L	100
6) chlorodifluoromethane	3.736	51	99238	50.00	ug/L	100
7) dichlorodifluoromethane	3.715	85	492366	50.13	ug/L	100
8) chloromethane	4.082	50	502610	50.25	ug/L	100
9) vinyl chloride	4.297	62	495095	50.00	ug/L	100
10) 1,3-butadiene	4.323	54	101900	50.00	ug/L	100
11) bromomethane	4.900	94	310901	49.71	ug/L	100
12) chloroethane	5.047	64	259206	50.00	ug/L	100
13) trichlorofluoromethane	5.519	101	597042	50.00	ug/L	100
14) ethyl ether	5.922	74	100628	50.00	ug/L	100
15) acrolein	6.148	56	44716	50.00	ug/L	100
16) 1,1-dichloroethene	6.337	96	169945	50.00	ug/L	100
17) freon 113	6.347	151	184963	50.00	ug/L	100
18) acetone	6.384	58	65506	200.00	ug/L	100
19) acetonitrile	6.824	41	173280	500.00	ug/L	100
20) iodomethane	6.604	142	377332	50.00	ug/L	100
21) carbon disulfide	6.740	76	468107	50.00	ug/L	100
22) methylene chloride	7.086	84	223223	50.00	ug/L	100
23) methyl acetate	6.898	43	112611	50.00	ug/L	100
24) methyl tert butyl ether	7.506	73	540945	50.04	ug/L	100
25) trans-1,2-dichloroethene	7.516	96	214851	50.00	ug/L	100
26) hexane	7.920	57	328695	50.00	ug/L	100
27) di-isopropyl ether	8.219	45	643503	50.00	ug/L	100
28) 2-butanone	9.016	72	72299	200.00	ug/L	100
29) 1,1-dichloroethane	8.161	63	478292	50.35	ug/L	100
30) chloroprene	8.303	53	352535	50.00	ug/L	100
31) acrylonitrile	7.443	53	75830	50.00	ug/L	100
32) vinyl acetate	8.187	86	36092	50.00	ug/L	100
33) ethyl tert-butyl ether	8.775	59	874038	50.04	ug/L	100
34) ethyl acetate	9.084	45	20553	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200612.D
 Acq On : 31 Mar 2022 8:41 pm
 Operator : brittank
 Sample : icc8735-50
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 01 09:36:38 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2,2-dichloropropane	9.063	77	317501	50.00	ug/L	100
36) cis-1,2-dichloroethene	9.037	96	243408	50.00	ug/L	100
37) propionitrile	9.110	54	261216	500.00	ug/L	100
38) tert-butyl formate	9.587	59	201243	50.00	ug/L	100
39) bromochloromethane	9.409	128	128989	50.00	ug/L	100
40) tetrahydrofuran	9.488	42	38359	50.00	ug/L	100
41) chloroform	9.498	83	433851	50.00	ug/L	100
43) methacrylonitrile	9.357	67	76018	50.00	ug/L	100
44) 1,1,1-trichloroethane	9.834	97	382793	50.00	ug/L	100
45) cyclohexane	9.939	84	345731	50.00	ug/L	100
46) 1,1-dichloropropene	10.064	75	282426	50.00	ug/L	100
47) isobutyl alcohol	10.091	43	56060	500.00	ug/L	100
48) carbon tetrachloride	10.096	117	346272	50.00	ug/L	100
49) tert-amyl alcohol	10.269	73	39313	250.00	ug/L	100
52) benzene	10.384	78	796049	50.00	ug/L	100
53) iso-octane	10.479	57	930657	50.00	ug/L	100
54) tert-amyl methyl ether	10.494	73	595139	50.04	ug/L	100
55) heptane	10.709	57	173717	50.00	ug/L	100
56) isopropyl acetate	10.368	87	37640	50.87	ug/L	100
57) 1,2-dichloroethane	10.384	62	390575	50.00	ug/L	100
58) n-butyl alcohol	11.071	56	260979	2500.00	ug/L	100
59) ethyl acrylate	11.391	55	271628	50.00	ug/L	100
60) trichloroethene	11.323	130	258876	50.00	ug/L	100
61) 2-nitropropane	12.361	41	46192	50.00	ug/L	100
62) 2-chloroethyl vinyl ether	12.434	63	782563	250.00	ug/L	100
63) methyl methacrylate	11.747	69	119017	50.00	ug/L	100
64) 1,2-dichloropropane	11.664	63	266800	50.00	ug/L	100
65) dibromomethane	11.847	93	151641	50.00	ug/L	100
66) methylcyclohexane	11.648	83	359782	50.00	ug/L	100
67) bromodichloromethane	12.041	83	347625	50.00	ug/L	100
68) epichlorohydrin	12.555	57	103168	250.00	ug/L	100
69) cis-1,3-dichloropropene	12.696	75	382537	50.00	ug/L	100
70) 4-methyl-2-pentanone	12.880	58	339596	200.00	ug/L	100
71) 3-methyl-1-butanol	12.911	55	159770	1000.00	ug/L	100
74) toluene	13.210	92	538732	50.00	ug/L	100
75) trans-1,3-dichloropropene	13.472	75	351488	50.00	ug/L	100
76) ethyl methacrylate	13.546	69	244721	50.00	ug/L	100
77) 1,1,2-trichloroethane	13.750	83	175488	50.00	ug/L	100
78) tetrachloroethene	14.002	164	232277	50.00	ug/L	100
79) 1,3-dichloropropane	13.997	76	322255	50.00	ug/L	100
80) 2-hexanone	14.054	58	301482	200.00	ug/L	100
81) butyl acetate	14.201	56	139928	50.00	ug/L	100
82) dibromochloromethane	14.332	129	279312	50.00	ug/L	100
83) 1,2-dibromoethane	14.521	107	224629	50.00	ug/L	100
84) n-butyl ether	15.213	57	1104164	50.00	ug/L	100
85) chlorobenzene	15.182	112	670083	50.00	ug/L	100
86) 1,1,1,2-tetrachloroethane	15.271	131	264315	50.00	ug/L	100
87) ethylbenzene	15.297	91	1025203	50.00	ug/L	100
88) m,p-xylene	15.449	91	1663722	100.00	ug/L	100
89) o-xylene	15.989	106	448034	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200612.D
 Acq On : 31 Mar 2022 8:41 pm
 Operator : brittank
 Sample : icc8735-50
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 01 09:36:38 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

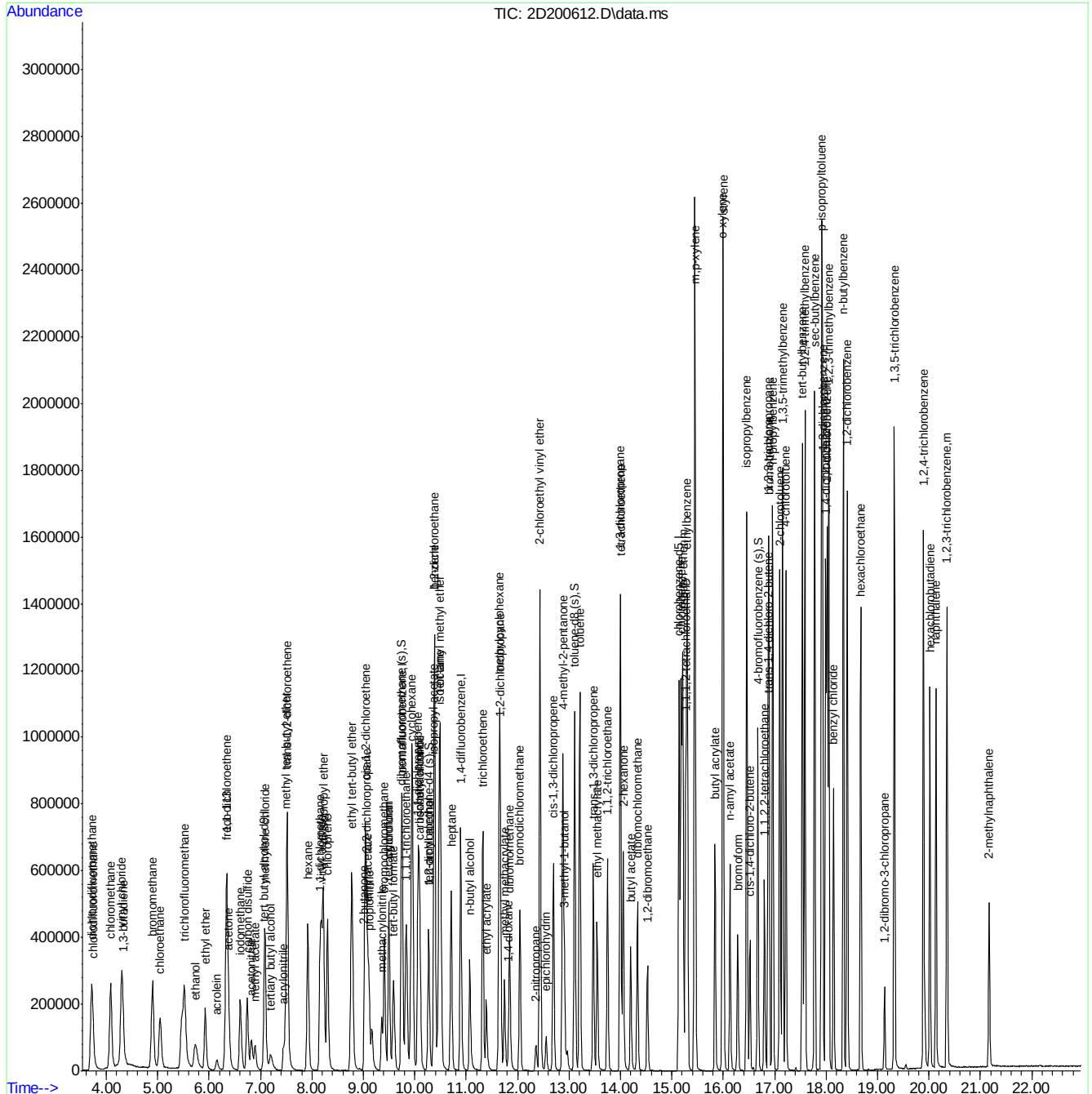
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) styrene	15.999	104	713577	50.00	ug/L	100
91) butyl acrylate	15.837	55	489865	50.00	ug/L	100
92) n-amyl acetate	16.131	70	140248	50.00	ug/L	100
93) bromoform	16.283	173	203130	50.00	ug/L	100
94) isopropylbenzene	16.456	105	1154641	50.00	ug/L	100
95) cis-1,4-dichloro-2-butene	16.519	88	92662	50.00	ug/L	100
98) bromobenzene	16.886	156	334152	50.00	ug/L	100
99) 1,1,2,2-tetrachloroethane	16.802	83	263829	50.00	ug/L	100
100) trans-1,4-dichloro-2-b...	16.870	53	75787	50.00	ug/L	100
101) 1,2,3-trichloropropane	16.880	110	69458	50.00	ug/L	100
102) n-propylbenzene	16.964	91	1315752	50.00	ug/L	100
103) 2-chlorotoluene	17.101	126	284623	50.00	ug/L	100
104) 4-chlorotoluene	17.216	91	783529	49.90	ug/L	100
105) 1,3,5-trimethylbenzene	17.153	105	939225	50.00	ug/L	100
106) tert-butylbenzene	17.541	119	864600	50.00	ug/L	100
107) 1,2,4-trimethylbenzene	17.588	105	974202	50.01	ug/L	100
108) sec-butylbenzene	17.777	105	1283593	49.95	ug/L	100
109) 1,3-dichlorobenzene	17.934	146	625965	50.00	ug/L	100
110) p-isopropyltoluene	17.913	119	1091289	50.03	ug/L	100
111) 1,2,3-trimethylbenzene	18.050	105	978751	50.00	ug/L	100
112) 1,4-dichlorobenzene	18.018	146	627647	50.00	ug/L	100
113) 1,2-dichlorobenzene	18.411	146	639696	50.00	ug/L	100
114) benzyl chloride	18.144	91	510744	50.00	ug/L	100
115) n-butylbenzene	18.338	92	561348	50.00	ug/L	100
116) 1,2-dibromo-3-chloropr...	19.140	157	67598	50.00	ug/L	100
117) 1,3,5-trichlorobenzene	19.329	180	557226	50.00	ug/L	100
118) hexachlorobutadiene	20.021	225	216571	50.00	ug/L	100
119) naphthalene	20.136	128	849859	50.00	ug/L	100
120) 1,2,4-trichlorobenzene	19.895	180	473088	50.00	ug/L	100
121) 1,2,3-trichlorobenzene	20.351	180	409978	50.00	ug/L	100
122) hexachloroethane	18.679	201	208327	50.00	ug/L	100
123) 2-methylnaphthalene	21.169	142	241349	25.00	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
Data File : 2D200612.D
Acq On : 31 Mar 2022 8:41 pm
Operator : brittank
Sample : icc8735-50
Misc : MS55663,V2D8735,5,,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 01 09:36:38 2022
Quant Method : C:\msdchem\1\METHODS\M2D8735.M
Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2
QLast Update : Fri Apr 01 09:36:05 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200613.D
 Acq On : 31 Mar 2022 9:11 pm
 Operator : brittank
 Sample : ic8735-100
 Misc : MS55663,V2D8735,5,,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 01 09:36:40 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.065	65	145229	500.00	ug/L	0.00
5) pentafluorobenzene	9.750	168	469284	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.893	114	664430	50.00	ug/L	0.00
72) chlorobenzene-d5	15.140	117	666234	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.992	152	359574	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.739	113	229706	49.76	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	99.52%		
51) 1,2-dichloroethane-d4 (s)	10.269	65	282774	50.19	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	100.38%		
73) toluene-d8 (s)	13.111	98	757403	48.96	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	97.92%		
97) 4-bromofluorobenzene (s)	16.671	95	302269	50.65	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	101.30%		
Target Compounds						
2) tertiary butyl alcohol	7.196	59	232374	514.63	ug/L	93
3) ethanol	5.728	45	406824	9759.76	ug/L	98
4) 1,4-dioxane	11.826	88	79736	2416.19	ug/L	99
6) chlorodifluoromethane	3.731	51	191110	97.91	ug/L	91
7) dichlorodifluoromethane	3.705	85	945733	97.91	ug/L	99
8) chloromethane	4.077	50	912231	92.74	ug/L	98
9) vinyl chloride	4.292	62	893513	91.75	ug/L	100
10) 1,3-butadiene	4.318	54	173015	86.32	ug/L	95
11) bromomethane	4.884	94	581186	94.48	ug/L	97
12) chloroethane	5.036	64	468826	91.95	ug/L	98
13) trichlorofluoromethane	5.503	101	1108089	94.36	ug/L	97
14) ethyl ether	5.917	74	189735	95.86	ug/L	96
15) acrolein	6.143	56	84389	95.95	ug/L	94
16) 1,1-dichloroethene	6.331	96	315236	94.30	ug/L	99
17) freon 113	6.342	151	353543	97.18	ug/L	95
18) acetone	6.373	58	122386	379.94	ug/L	93
19) acetonitrile	6.814	41	333493	978.46	ug/L	98
20) iodomethane	6.599	142	719427	96.93	ug/L	99
21) carbon disulfide	6.730	76	880392	95.62	ug/L	99
22) methylene chloride	7.076	84	418078	95.22	ug/L	98
23) methyl acetate	6.887	43	216767	97.86	ug/L	95
24) methyl tert butyl ether	7.501	73	1010215	95.01	ug/L	99
25) trans-1,2-dichloroethene	7.511	96	398753	94.36	ug/L	99
26) hexane	7.915	57	625930	96.81	ug/L	98
27) di-isopropyl ether	8.214	45	1203405	95.08	ug/L	98
28) 2-butanone	9.011	72	136246	383.23	ug/L	95
29) 1,1-dichloroethane	8.156	63	899507	96.28	ug/L	99
30) chloroprene	8.297	53	661476	95.39	ug/L	98
31) acrylonitrile	7.438	53	143407	96.15	ug/L	98
32) vinyl acetate	8.177	86	69211	97.49	ug/L #	90
33) ethyl tert-butyl ether	8.769	59	1638449	95.38	ug/L	99
34) ethyl acetate	9.079	45	37502	92.77	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200613.D
 Acq On : 31 Mar 2022 9:11 pm
 Operator : brittank
 Sample : ic8735-100
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 01 09:36:40 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2,2-dichloropropane	9.063	77	589708	94.43	ug/L	96
36) cis-1,2-dichloroethene	9.037	96	455557	95.15	ug/L	99
37) propionitrile	9.105	54	479055	932.38	ug/L	97
38) tert-butyl formate	9.587	59	389659	98.44	ug/L	97
39) bromochloromethane	9.404	128	243162	95.84	ug/L	98
40) tetrahydrofuran	9.482	42	72757	96.43	ug/L	96
41) chloroform	9.493	83	804433	94.27	ug/L	99
43) methacrylonitrile	9.351	67	147915	98.92	ug/L	95
44) 1,1,1-trichloroethane	9.828	97	737174	97.91	ug/L	99
45) cyclohexane	9.939	84	647136	95.16	ug/L #	81
46) 1,1-dichloropropene	10.059	75	535295	96.36	ug/L	99
47) isobutyl alcohol	10.085	43	103477	938.42	ug/L	98
48) carbon tetrachloride	10.091	117	652405	95.79	ug/L	99
49) tert-amyl alcohol	10.258	73	76835	496.82	ug/L	96
52) benzene	10.384	78	1492068	95.00	ug/L	100
53) iso-octane	10.479	57	1759305	95.81	ug/L	98
54) tert-amyl methyl ether	10.494	73	1106645	94.33	ug/L	99
55) heptane	10.704	57	333942	97.43	ug/L	97
56) isopropyl acetate	10.363	87	71998	98.64	ug/L #	90
57) 1,2-dichloroethane	10.379	62	752061	97.59	ug/L	98
58) n-butyl alcohol	11.066	56	497977	4835.56	ug/L	94
59) ethyl acrylate	11.391	55	512939	95.71	ug/L	98
60) trichloroethene	11.323	130	490039	95.94	ug/L	98
61) 2-nitropropane	12.356	41	94610	103.81	ug/L	94
62) 2-chloroethyl vinyl ether	12.434	63	1482880	480.21	ug/L	99
63) methyl methacrylate	11.742	69	225277	95.94	ug/L	98
64) 1,2-dichloropropane	11.658	63	493053	93.67	ug/L	98
65) dibromomethane	11.842	93	283907	94.89	ug/L	98
66) methylcyclohexane	11.643	83	681440	96.00	ug/L	100
67) bromodichloromethane	12.041	83	666163	97.13	ug/L	100
68) epichlorohydrin	12.550	57	195761	480.87	ug/L	98
69) cis-1,3-dichloropropene	12.691	75	730622	96.80	ug/L	97
70) 4-methyl-2-pentanone	12.875	58	635862	379.61	ug/L	97
71) 3-methyl-1-butanol	12.906	55	301319	1911.76	ug/L	96
74) toluene	13.205	92	1015306	94.77	ug/L	99
75) trans-1,3-dichloropropene	13.467	75	678229	97.03	ug/L	99
76) ethyl methacrylate	13.546	69	472979	97.18	ug/L	96
77) 1,1,2-trichloroethane	13.745	83	326911	93.67	ug/L	94
78) tetrachloroethene	13.997	164	434154	93.99	ug/L	98
79) 1,3-dichloropropane	13.997	76	598451	93.38	ug/L	100
80) 2-hexanone	14.049	58	553219	369.08	ug/L	99
81) butyl acetate	14.196	56	262883	94.47	ug/L	98
82) dibromochloromethane	14.327	129	534246	96.18	ug/L	98
83) 1,2-dibromoethane	14.521	107	425371	95.22	ug/L	98
84) n-butyl ether	15.208	57	2054104	93.54	ug/L	99
85) chlorobenzene	15.182	112	1283156	96.29	ug/L	99
86) 1,1,1,2-tetrachloroethane	15.271	131	501870	95.48	ug/L	99
87) ethylbenzene	15.297	91	1899667	93.17	ug/L	98
88) m,p-xylene	15.449	91	3147133	190.23	ug/L	100
89) o-xylene	15.989	106	844592	94.79	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200613.D
 Acq On : 31 Mar 2022 9:11 pm
 Operator : brittank
 Sample : ic8735-100
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 01 09:36:40 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

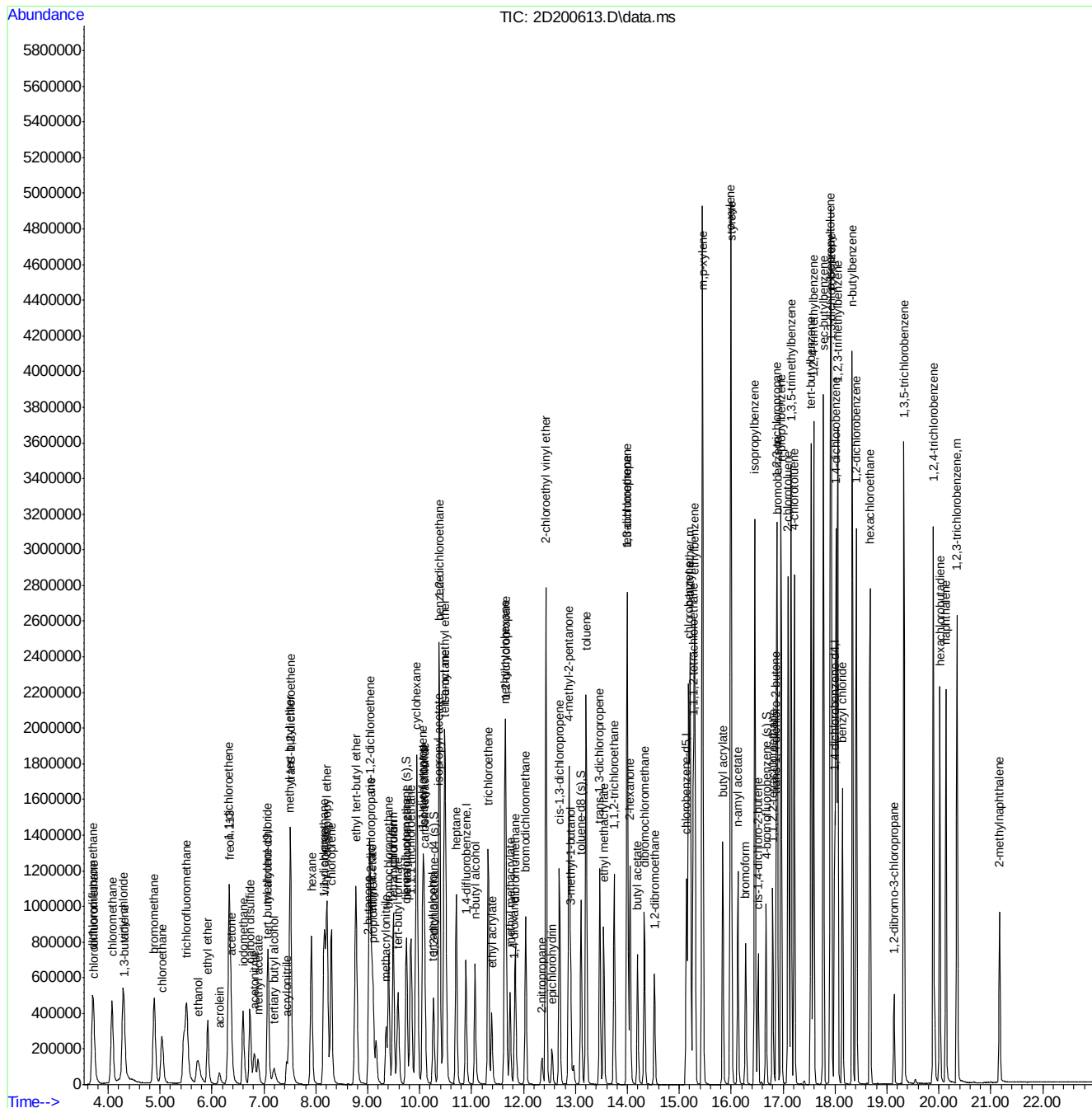
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) styrene	15.999	104	1348144	95.00	ug/L	99
91) butyl acrylate	15.837	55	963655	98.92	ug/L	98
92) n-amyl acetate	16.131	70	266564	95.57	ug/L	97
93) bromoform	16.277	173	391740	96.97	ug/L	98
94) isopropylbenzene	16.456	105	2174742	94.71	ug/L	99
95) cis-1,4-dichloro-2-butene	16.519	88	183507	99.58	ug/L	98
98) bromobenzene	16.886	156	621401	95.26	ug/L	97
99) 1,1,2,2-tetrachloroethane	16.802	83	501566	97.39	ug/L	100
100) trans-1,4-dichloro-2-b...	16.865	53	150111	101.47	ug/L #	69
101) 1,2,3-trichloropropane	16.880	110	131050	96.65	ug/L #	91
102) n-propylbenzene	16.959	91	2458910	95.74	ug/L	99
103) 2-chlorotoluene	17.095	126	540117	97.21	ug/L	94
104) 4-chlorotoluene	17.216	91	1475430	96.28	ug/L	99
105) 1,3,5-trimethylbenzene	17.153	105	1770126	96.55	ug/L	99
106) tert-butylbenzene	17.541	119	1649487	97.73	ug/L	99
107) 1,2,4-trimethylbenzene	17.588	105	1832932	96.40	ug/L	100
108) sec-butylbenzene	17.777	105	2439927	97.28	ug/L	99
109) 1,3-dichlorobenzene	17.929	146	1178642	96.46	ug/L	98
110) p-isopropyltoluene	17.913	119	2097516	98.51	ug/L	99
111) 1,2,3-trimethylbenzene	18.050	105	1855209	97.10	ug/L	100
112) 1,4-dichlorobenzene	18.018	146	1193096	97.38	ug/L	98
113) 1,2-dichlorobenzene	18.411	146	1192676	95.51	ug/L	99
114) benzyl chloride	18.144	91	973864	97.68	ug/L	99
115) n-butylbenzene	18.333	92	1083074	98.84	ug/L	98
116) 1,2-dibromo-3-chloropr...	19.140	157	132106	100.11	ug/L	98
117) 1,3,5-trichlorobenzene	19.329	180	1061746	97.61	ug/L	98
118) hexachlorobutadiene	20.021	225	411718	97.39	ug/L	100
119) naphthalene	20.136	128	1591092	95.91	ug/L	100
120) 1,2,4-trichlorobenzene	19.895	180	896661	97.09	ug/L	100
121) 1,2,3-trichlorobenzene	20.351	180	777457	97.14	ug/L	98
122) hexachloroethane	18.673	201	404969	99.58	ug/L	97
123) 2-methylnaphthalene	21.169	142	475160	50.43	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
Data File : 2D200613.D
Acq On : 31 Mar 2022 9:11 pm
Operator : brittank
Sample : ic8735-100
Misc : MS55663,V2D8735,5,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 01 09:36:40 2022
Quant Method : C:\msdchem\1\METHODS\M2D8735.M
Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022
QLast Update : Fri Apr 01 09:36:05 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200614.D
 Acq On : 31 Mar 2022 9:41 pm
 Operator : brittank
 Sample : ic8735-200
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 01 09:36:42 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.076	65	142060	500.00	ug/L	0.00
5) pentafluorobenzene	9.755	168	465732	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.898	114	658499	50.00	ug/L	0.00
72) chlorobenzene-d5	15.145	117	668811	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.997	152	358619	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.745	113	225580	49.24	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	98.48%		
51) 1,2-dichloroethane-d4 (s)	10.274	65	282803	50.65	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	101.30%		
73) toluene-d8 (s)	13.111	98	756051	48.68	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	97.36%		
97) 4-bromofluorobenzene (s)	16.676	95	302134	50.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	101.54%		
Target Compounds						
2) tertiary butyl alcohol	7.207	59	466742	1056.74	ug/L	96
3) ethanol	5.739	45	727358	17838.66	ug/L	96
4) 1,4-dioxane	11.831	88	162077	5020.88	ug/L	99
6) chlorodifluoromethane	3.741	51	360213	185.95	ug/L	97
7) dichlorodifluoromethane	3.715	85	1745955	182.14	ug/L	100
8) chloromethane	4.087	50	1625140	166.48	ug/L	99
9) vinyl chloride	4.302	62	1563337	161.76	ug/L	99
10) 1,3-butadiene	4.329	54	307317	154.50	ug/L	95
11) bromomethane	4.895	94	1050688	172.10	ug/L	97
12) chloroethane	5.047	64	845487	167.10	ug/L	100
13) trichlorofluoromethane	5.519	101	2043892	175.37	ug/L	99
14) ethyl ether	5.928	74	383147	195.05	ug/L	98
15) acrolein	6.148	56	171870	196.90	ug/L	89
16) 1,1-dichloroethene	6.337	96	619365	186.70	ug/L	99
17) freon 113	6.347	151	675299	187.03	ug/L	95
18) acetone	6.384	58	233780	731.29	ug/L	92
19) acetonitrile	6.824	41	651530	1926.15	ug/L	98
20) iodomethane	6.609	142	1415944	192.23	ug/L	98
21) carbon disulfide	6.740	76	1716708	187.87	ug/L	97
22) methylene chloride	7.086	84	818919	187.93	ug/L	99
23) methyl acetate	6.892	43	425412	193.52	ug/L	93
24) methyl tert butyl ether	7.511	73	1942220	184.07	ug/L	98
25) trans-1,2-dichloroethene	7.522	96	779438	185.84	ug/L	98
26) hexane	7.920	57	1191543	185.70	ug/L	97
27) di-isopropyl ether	8.224	45	2371530	188.79	ug/L	96
28) 2-butanone	9.021	72	274772	778.76	ug/L	93
29) 1,1-dichloroethane	8.161	63	1774137	191.34	ug/L	99
30) chloroprene	8.303	53	1317146	191.40	ug/L	98
31) acrylonitrile	7.443	53	288703	195.04	ug/L	93
32) vinyl acetate	8.182	86	134371	190.72	ug/L #	91
33) ethyl tert-butyl ether	8.780	59	3111856	182.53	ug/L	99
34) ethyl acetate	9.084	45	72242	180.06	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200614.D
 Acq On : 31 Mar 2022 9:41 pm
 Operator : brittank
 Sample : ic8735-200
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 01 09:36:42 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2,2-dichloropropane	9.068	77	1146463	184.98	ug/L	95
36) cis-1,2-dichloroethene	9.042	96	892246	187.78	ug/L	98
37) propionitrile	9.115	54	939058	1841.61	ug/L	100
38) tert-butyl formate	9.593	59	785737	200.01	ug/L	96
39) bromochloromethane	9.409	128	471324	187.19	ug/L	94
40) tetrahydrofuran	9.488	42	144320	192.74	ug/L	93
41) chloroform	9.498	83	1581861	186.78	ug/L	99
43) methacrylonitrile	9.357	67	296663	199.92	ug/L	93
44) 1,1,1-trichloroethane	9.839	97	1454625	194.67	ug/L	99
45) cyclohexane	9.949	84	1255324	186.00	ug/L #	60
46) 1,1-dichloropropene	10.064	75	1058582	192.01	ug/L	99
47) isobutyl alcohol	10.091	43	218643	1997.96	ug/L	98
48) carbon tetrachloride	10.096	117	1290799	190.96	ug/L	99
49) tert-amyl alcohol	10.264	73	156325	1018.52	ug/L	98
52) benzene	10.390	78	2950867	189.57	ug/L	100
53) iso-octane	10.484	57	3355770	184.40	ug/L	98
54) tert-amyl methyl ether	10.500	73	2150076	184.92	ug/L	99
55) heptane	10.709	57	646185	190.23	ug/L	96
56) isopropyl acetate	10.369	87	145602	201.29	ug/L #	90
57) 1,2-dichloroethane	10.390	62	1502455	196.73	ug/L	98
58) n-butyl alcohol	11.071	56	1024182	10034.80	ug/L	95
59) ethyl acrylate	11.391	55	1007170	189.62	ug/L	99
60) trichloroethene	11.323	130	965187	190.67	ug/L	98
61) 2-nitropropane	12.361	41	203470	225.27	ug/L	96
62) 2-chloroethyl vinyl ether	12.440	63	2905997	949.54	ug/L	98
63) methyl methacrylate	11.742	69	443994	190.78	ug/L	94
64) 1,2-dichloropropane	11.669	63	955046	183.07	ug/L	99
65) dibromomethane	11.847	93	559496	188.69	ug/L	99
66) methylcyclohexane	11.648	83	1322097	187.93	ug/L	99
67) bromodichloromethane	12.046	83	1326565	195.16	ug/L	99
68) epichlorohydrin	12.555	57	395208	979.53	ug/L	99
69) cis-1,3-dichloropropene	12.696	75	1432364	191.49	ug/L	97
70) 4-methyl-2-pentanone	12.880	58	1259157	758.48	ug/L	94
71) 3-methyl-1-butanol	12.911	55	611832	3916.83	ug/L	98
74) toluene	13.210	92	2029513	188.70	ug/L	98
75) trans-1,3-dichloropropene	13.472	75	1339326	190.86	ug/L	98
76) ethyl methacrylate	13.551	69	940975	192.60	ug/L	96
77) 1,1,2-trichloroethane	13.750	83	637202	181.88	ug/L	95
78) tetrachloroethene	14.002	164	866351	186.82	ug/L	99
79) 1,3-dichloropropane	13.997	76	1177008	182.95	ug/L	95
80) 2-hexanone	14.054	58	1084661	720.84	ug/L	96
81) butyl acetate	14.196	56	521214	186.58	ug/L	97
82) dibromochloromethane	14.332	129	1060280	190.14	ug/L	98
83) 1,2-dibromoethane	14.526	107	836962	186.63	ug/L	98
84) n-butyl ether	15.213	57	3983560	180.71	ug/L	99
85) chlorobenzene	15.182	112	2541026	189.94	ug/L	99
86) 1,1,1,2-tetrachloroethane	15.276	131	1000153	189.54	ug/L	98
87) ethylbenzene	15.302	91	3756728	183.55	ug/L	98
88) m,p-xylene	15.454	91	6285005	378.44	ug/L	97
89) o-xylene	15.994	106	1740148	194.55	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200614.D
 Acq On : 31 Mar 2022 9:41 pm
 Operator : brittank
 Sample : ic8735-200
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 01 09:36:42 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022

QLast Update : Fri Apr 01 09:36:05 2022

Response via : Initial Calibration

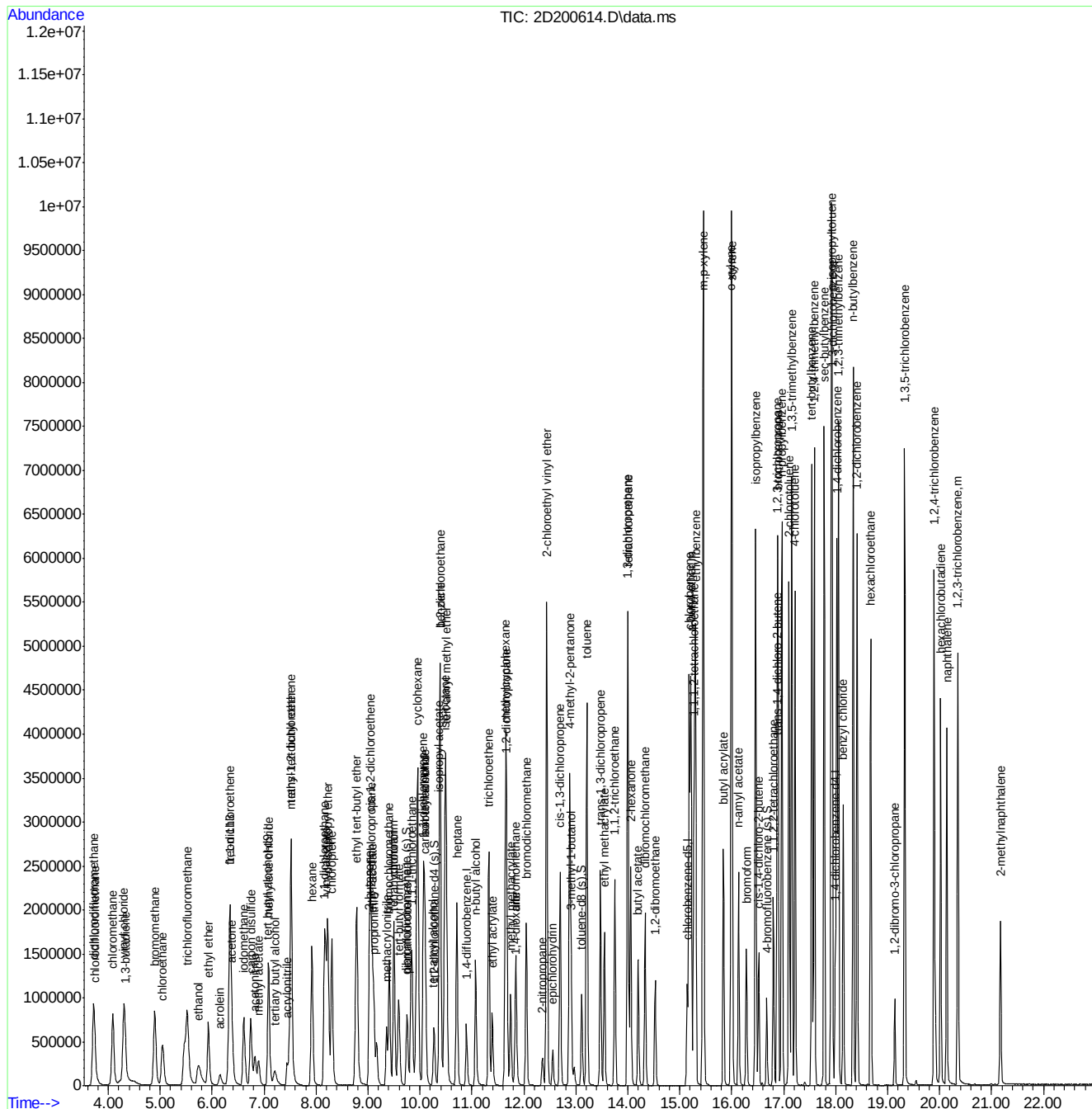
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) styrene	16.005	104	2739372	192.29	ug/L	95
91) butyl acrylate	15.837	55	1921366	196.46	ug/L	99
92) n-amyl acetate	16.131	70	535099	191.11	ug/L	97
93) bromoform	16.283	173	773361	190.70	ug/L	99
94) isopropylbenzene	16.461	105	4270724	185.27	ug/L	98
95) cis-1,4-dichloro-2-butene	16.519	88	372333	201.27	ug/L	98
98) bromobenzene	16.886	156	1228354	188.82	ug/L	96
99) 1,1,2,2-tetrachloroethane	16.802	83	989338	192.61	ug/L	98
100) trans-1,4-dichloro-2-b...	16.870	53	306282	207.58	ug/L #	81
101) 1,2,3-trichloropropane	16.880	110	265029	195.99	ug/L #	91
102) n-propylbenzene	16.964	91	4811058	187.81	ug/L	99
103) 2-chlorotoluene	17.101	126	1079557	194.82	ug/L	95
104) 4-chlorotoluene	17.221	91	2944101	192.62	ug/L	98
105) 1,3,5-trimethylbenzene	17.153	105	3529476	193.02	ug/L	97
106) tert-butylbenzene	17.541	119	3252727	193.24	ug/L	98
107) 1,2,4-trimethylbenzene	17.588	105	3596327	189.65	ug/L	99
108) sec-butylbenzene	17.777	105	4756550	190.14	ug/L	98
109) 1,3-dichlorobenzene	17.934	146	2361020	193.73	ug/L	97
110) p-isopropyltoluene	17.919	119	4184482	197.06	ug/L	98
111) 1,2,3-trimethylbenzene	18.055	105	3650648	191.58	ug/L	97
112) 1,4-dichlorobenzene	18.023	146	2365860	193.61	ug/L	98
113) 1,2-dichlorobenzene	18.411	146	2298214	184.53	ug/L	99
114) benzyl chloride	18.144	91	1929454	194.04	ug/L	99
115) n-butylbenzene	18.338	92	2089746	191.21	ug/L	97
116) 1,2-dibromo-3-chloropr...	19.140	157	260516	197.95	ug/L	99
117) 1,3,5-trichlorobenzene	19.329	180	2006340	184.94	ug/L	97
118) hexachlorobutadiene	20.021	225	797283	189.09	ug/L	99
119) naphthalene	20.142	128	3029246	183.08	ug/L	99
120) 1,2,4-trichlorobenzene	19.895	180	1699304	184.50	ug/L	99
121) 1,2,3-trichlorobenzene	20.351	180	1472101	184.43	ug/L	97
122) hexachloroethane	18.679	201	804150	198.27	ug/L	97
123) 2-methylnaphthalene	21.174	142	945548	100.62	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
Data File : 2D200614.D
Acq On : 31 Mar 2022 9:41 pm
Operator : brittank
Sample : ic8735-200
Misc : MS55663,V2D8735,5,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 01 09:36:42 2022
Quant Method : C:\msdchem\1\METHODS\M2D8735.M
Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:36:05 2022
QLast Update : Fri Apr 01 09:36:05 2022
Response via : Initial Calibration



M2D8735.M Mon Apr 04 14:21:06 2022 GCMS2D

Page: 4

7.6.10



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200617.D
 Acq On : 31 Mar 2022 11:10 pm
 Operator : brittank
 Sample : icv8735-50
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 04 14:18:19 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:55:46 2022

QLast Update : Mon Apr 04 14:17:39 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.065	65	148822	500.00	ug/L	-0.01
5) pentafluorobenzene	9.750	168	482910	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.893	114	669890	50.00	ug/L	0.00
72) chlorobenzene-d5	15.140	117	673789	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.997	152	371003	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.739	113	233769	48.33	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.66%
51) 1,2-dichloroethane-d4 (s)	10.269	65	288793	49.70	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	99.40%
73) toluene-d8 (s)	13.110	98	768167	48.23	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.46%
97) 4-bromofluorobenzene (s)	16.670	95	306206	49.93	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.86%
Target Compounds						
2) tertiary butyl alcohol	7.196	59	116889	252.91	ug/L	97
3) ethanol	5.734	45	210461	4571.17	ug/L	93
4) 1,4-dioxane	11.826	88	40384	1293.45	ug/L	92
7) dichlorodifluoromethane	3.710	85	362293	40.22	ug/L	99
8) chloromethane	4.077	50	470468	45.17	ug/L	99
9) vinyl chloride	4.286	62	538506	55.41	ug/L	100
10) 1,3-butadiene	4.318	54	413313	203.26	ug/L	96
11) bromomethane	4.889	94	344777	54.57	ug/L	96
12) chloroethane	5.041	64	260434	48.20	ug/L	97
13) trichlorofluoromethane	5.513	101	607944	52.73	ug/L	98
14) ethyl ether	5.922	74	119584	59.47	ug/L	94
15) acrolein	6.148	56	44802	50.54	ug/L	94
16) 1,1-dichloroethene	6.331	96	225534	64.45	ug/L	98
17) freon 113	6.347	151	223332	59.61	ug/L	96
18) acetone	6.378	58	66837	198.49	ug/L	96
20) iodomethane	6.599	142	522713	68.89	ug/L	97
21) carbon disulfide	6.735	76	759026	78.20	ug/L	97
22) methylene chloride	7.081	84	253255	53.44	ug/L	100
23) methyl acetate	6.892	43	114344	47.68	ug/L	95
24) methyl tert butyl ether	7.506	73	573012	52.10	ug/L	100
25) trans-1,2-dichloroethene	7.516	96	243658	56.76	ug/L	96
26) hexane	7.915	57	447329	67.59	ug/L	98
27) di-isopropyl ether	8.219	45	654863	50.79	ug/L	97
28) 2-butanone	9.021	72	74099	218.20	ug/L	98
29) 1,1-dichloroethane	8.156	63	515589	53.51	ug/L	99
30) chloroprene	8.303	53	397811	57.03	ug/L	96
32) vinyl acetate	8.182	86	35717	52.73	ug/L #	89
33) ethyl tert-butyl ether	8.774	59	855424	48.95	ug/L	100
34) ethyl acetate	9.079	45	21858	52.71	ug/L	93
35) 2,2-dichloropropane	9.063	77	329905	49.55	ug/L	96
36) cis-1,2-dichloroethene	9.037	96	263178	53.18	ug/L	99
37) propionitrile	9.105	54	243016	468.88	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200617.D
 Acq On : 31 Mar 2022 11:10 pm
 Operator : brittank
 Sample : icv8735-50
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 04 14:18:19 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:55:46 2022

QLast Update : Mon Apr 04 14:17:39 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) tert-butyl formate	9.587	59	180685	48.76	ug/L	94
39) bromochloromethane	9.409	128	136679	53.41	ug/L	99
40) tetrahydrofuran	9.488	42	39066	47.27	ug/L	94
41) chloroform	9.493	83	444674	47.20	ug/L	99
43) methacrylonitrile	9.356	67	78060	54.19	ug/L	91
44) 1,1,1-trichloroethane	9.828	97	412534	54.98	ug/L	99
45) cyclohexane	9.938	84	388491	57.83	ug/L	96
46) 1,1-dichloropropene	10.064	75	307805	54.66	ug/L	98
47) isobutyl alcohol	10.085	43	51685	481.93	ug/L	97
48) carbon tetrachloride	10.090	117	376172	55.06	ug/L	99
49) tert-amyl alcohol	10.258	73	38385	248.28	ug/L	98
52) benzene	10.384	78	856632	54.69	ug/L	100
53) iso-octane	10.478	57	972919	52.19	ug/L	99
54) tert-amyl methyl ether	10.494	73	564150	46.86	ug/L	100
55) heptane	10.709	57	194323	56.14	ug/L	99
56) isopropyl acetate	10.363	87	37477	55.56	ug/L	# 92
57) 1,2-dichloroethane	10.384	62	401933	50.19	ug/L	97
58) n-butyl alcohol	11.066	56	242598	2604.61	ug/L	97
59) ethyl acrylate	11.391	55	261085	52.85	ug/L	97
60) trichloroethene	11.323	130	268378	54.75	ug/L	97
61) 2-nitropropane	12.355	41	47200	53.13	ug/L	91
62) 2-chloroethyl vinyl ether	12.434	63	782516	273.21	ug/L	99
63) methyl methacrylate	11.747	69	118160	54.37	ug/L	98
64) 1,2-dichloropropane	11.658	63	257566	48.46	ug/L	97
65) dibromomethane	11.842	93	153606	51.11	ug/L	99
66) methylcyclohexane	11.642	83	413005	59.48	ug/L	80
67) bromodichloromethane	12.041	83	346523	53.98	ug/L	99
68) epichlorohydrin	12.555	57	97817	247.23	ug/L	98
69) cis-1,3-dichloropropene	12.696	75	381027	53.84	ug/L	98
70) 4-methyl-2-pentanone	12.880	58	329876	200.70	ug/L	99
71) 3-methyl-1-butanol	12.906	55	155166	1078.76	ug/L	98
74) toluene	13.210	92	548266	52.14	ug/L	100
75) trans-1,3-dichloropropene	13.472	75	340048	53.23	ug/L	98
76) ethyl methacrylate	13.551	69	242036	55.28	ug/L	98
77) 1,1,2-trichloroethane	13.745	83	171960	50.75	ug/L	96
79) 1,3-dichloropropane	13.997	76	318912	50.79	ug/L	99
80) 2-hexanone	14.054	58	283167	197.90	ug/L	98
81) butyl acetate	14.201	56	141705	54.50	ug/L	95
82) dibromochloromethane	14.332	129	275602	52.88	ug/L	98
83) 1,2-dibromoethane	14.521	107	225571	54.44	ug/L	100
84) n-butyl ether	15.213	57	1059714	50.10	ug/L	100
85) chlorobenzene	15.181	112	662790	50.01	ug/L	98
86) 1,1,1,2-tetrachloroethane	15.271	131	272066	53.54	ug/L	98
87) ethylbenzene	15.297	91	1033711	49.01	ug/L	98
88) m,p-xylene	15.449	91	1680586	99.89	ug/L	100
89) o-xylene	15.989	106	446841	51.12	ug/L	99
90) styrene	15.999	104	714209	52.16	ug/L	99
91) butyl acrylate	15.837	55	484023	54.40	ug/L	97
92) n-amyl acetate	16.130	70	130419	48.44	ug/L	96
93) bromoform	16.282	173	198403	54.34	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200617.D
 Acq On : 31 Mar 2022 11:10 pm
 Operator : brittank
 Sample : icv8735-50
 Misc : MS55663,V2D8735,5,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 04 14:18:19 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:55:46 2022

QLast Update : Mon Apr 04 14:17:39 2022

Response via : Initial Calibration

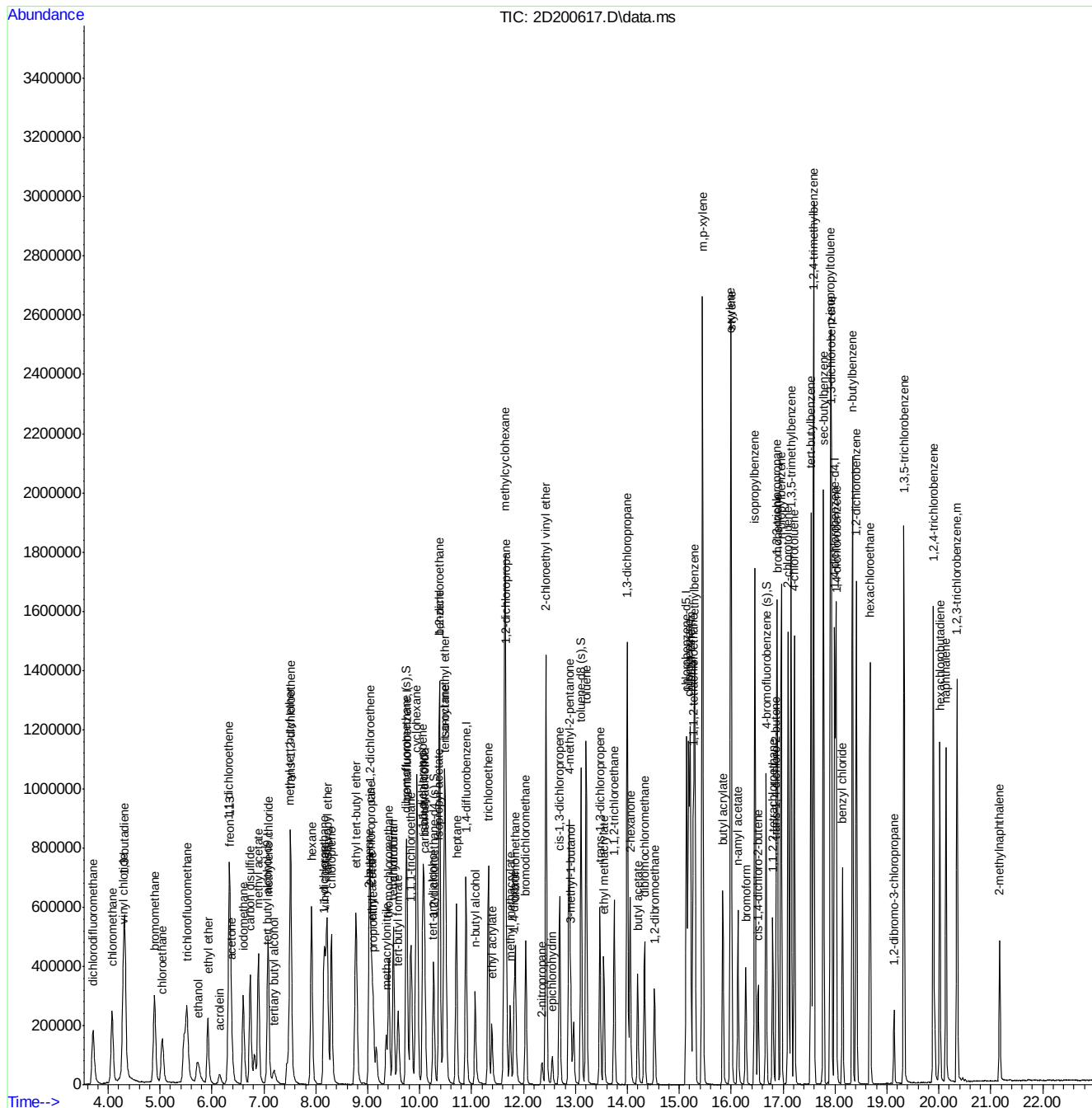
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	isopropylbenzene	16.456	105	1184036	52.09	ug/L	100
95)	cis-1,4-dichloro-2-butene	16.518	88	83249	49.07	ug/L	98
98)	bromobenzene	16.885	156	336271	53.81	ug/L	96
99)	1,1,2,2-tetrachloroethane	16.802	83	261134	52.43	ug/L	99
100)	trans-1,4-dichloro-2-b...	16.864	53	74532	53.65	ug/L #	69
101)	1,2,3-trichloropropane	16.880	110	69877	50.41	ug/L	94
102)	n-propylbenzene	16.964	91	1325228	52.21	ug/L	100
103)	2-chlorotoluene	17.095	126	290962	53.10	ug/L	90
104)	4-chlorotoluene	17.216	91	788886	49.89	ug/L	99
105)	1,3,5-trimethylbenzene	17.153	105	951840	52.38	ug/L	100
106)	tert-butylbenzene	17.541	119	887730	55.20	ug/L	99
107)	1,2,4-trimethylbenzene	17.588	105	961861	51.14	ug/L	99
108)	sec-butylbenzene	17.777	105	1300931	53.58	ug/L	99
109)	1,3-dichlorobenzene	17.929	146	621636	50.79	ug/L	99
110)	p-isopropyltoluene	17.913	119	1098936	53.74	ug/L	99
112)	1,4-dichlorobenzene	18.023	146	614381	50.05	ug/L	98
113)	1,2-dichlorobenzene	18.411	146	629139	52.69	ug/L	99
114)	benzyl chloride	18.144	91	444175	48.53	ug/L	99
115)	n-butylbenzene	18.338	92	570828	55.76	ug/L	99
116)	1,2-dibromo-3-chloropr...	19.140	157	67072	56.67	ug/L	98
117)	1,3,5-trichlorobenzene	19.329	180	549252	55.38	ug/L	98
118)	hexachlorobutadiene	20.021	225	217915	55.69	ug/L	99
119)	naphthalene	20.136	128	830509	55.79	ug/L	100
120)	1,2,4-trichlorobenzene	19.895	180	477135	56.61	ug/L	98
121)	1,2,3-trichlorobenzene	20.351	180	409382	57.33	ug/L	99
122)	hexachloroethane	18.673	201	209417	56.94	ug/L	97
123)	2-methylnaphthalene	21.169	142	229478	25.65	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
Data File : 2D200617.D
Acq On : 31 Mar 2022 11:10 pm
Operator : brittank
Sample : icv8735-50
Misc : MS55663,V2D8735,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 04 14:18:19 2022
Quant Method : C:\msdchem\1\METHODS\M2D8735.M
Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:55:46 2022
QLast Update : Mon Apr 04 14:17:39 2022
Response via : Initial Calibration



7.6.11

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200618.D
 Acq On : 31 Mar 2022 11:40 pm
 Operator : brittank
 Sample : icv8735-50
 Misc : MS55663,V2D8735,5,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 01 16:50:49 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Fri Apr 01 09:55:46 2022

QLast Update : Fri Apr 01 09:55:46 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.076	65	163183	500.00	ug/L	0.00
5) pentafluorobenzene	9.755	168	509813	50.00	ug/L	0.00
50) 1,4-difluorobenzene	10.893	114	698198	50.00	ug/L	0.00
72) chlorobenzene-d5	15.140	117	652577	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.997	152	387163	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.745	113	252026	49.36	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	98.72%		
51) 1,2-dichloroethane-d4 (s)	10.274	65	304035	50.21	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	100.42%		
73) toluene-d8 (s)	13.111	98	803586	52.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	104.18%		
97) 4-bromofluorobenzene (s)	16.671	95	316651	49.48	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	98.96%		
Target Compounds						
6) chlorodifluoromethane	3.741	51	474718	222.78	ug/L	63
19) acetonitrile	6.824	41	181741	493.10	ug/L	99
31) acrylonitrile	7.448	53	64866	43.31	ug/L	97
78) tetrachloroethene	14.002	164	222298	50.73	ug/L	99
111) 1,2,3-trimethylbenzene	18.050	105	1029695	52.99	ug/L	99

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

7.6.12

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
Data File : 2D200618.D
Acq On : 31 Mar 2022 11:40 pm
Operator : brittank
Sample : icv8735-50
Misc : MS55663,V2D8735,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

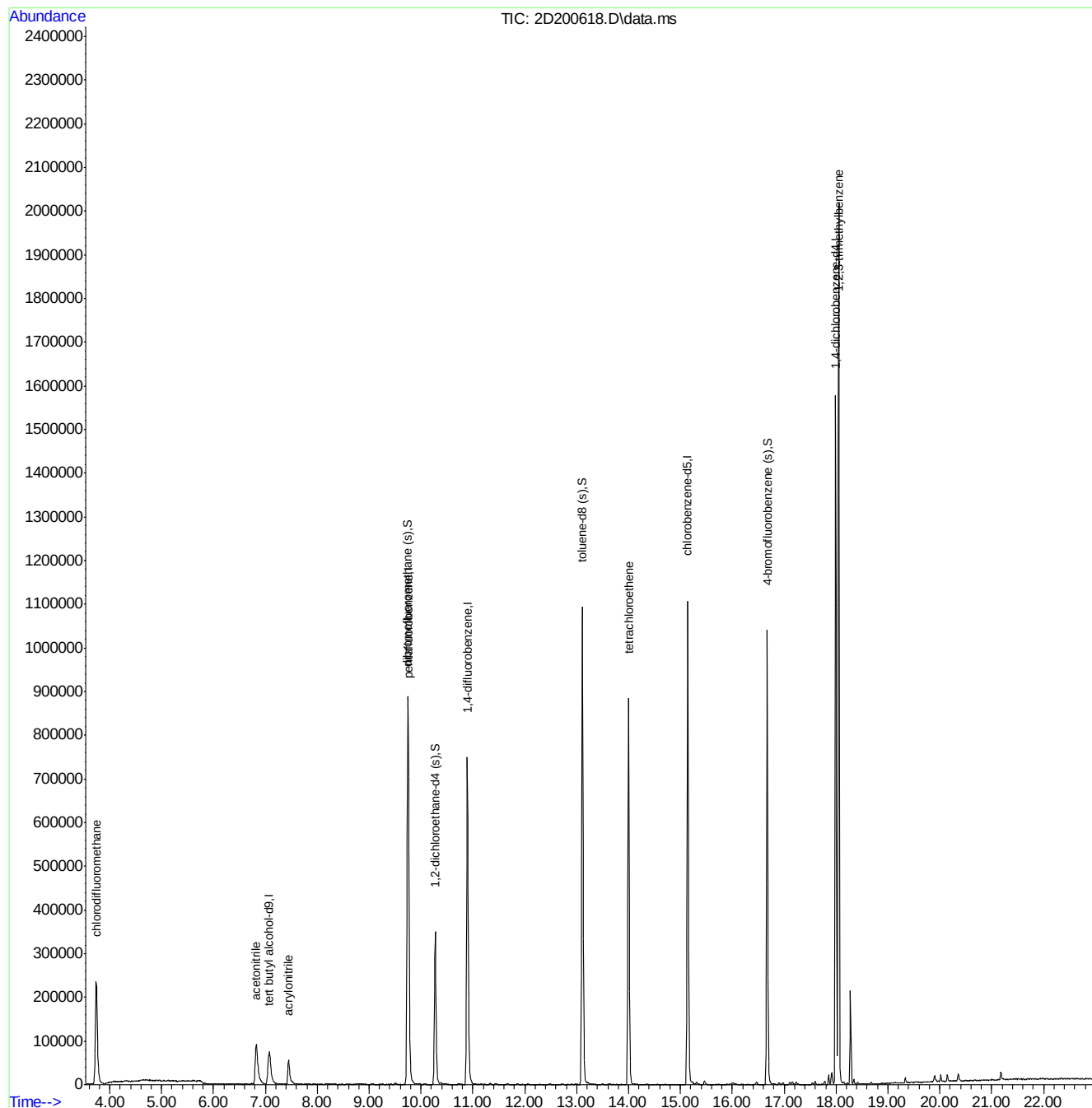
Quant Time: Apr 01 16:50:49 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2

QLast Update : Fri Apr 01 09:55:46 2022

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
 Data File : 2D200622.D
 Acq On : 1 Apr 2022 10:58 am
 Operator : brittank
 Sample : icv8735-50
 Misc : MS55663,V2D8735,5,,,,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Apr 04 14:19:43 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Mon Apr 04 14:17:39 2022

QLast Update : Mon Apr 04 14:17:39 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.050	65	143359	500.00	ug/L	-0.03
5) pentafluorobenzene	9.745	168	463329	50.00	ug/L	-0.01
50) 1,4-difluorobenzene	10.882	114	641796	50.00	ug/L	-0.02
72) chlorobenzene-d5	15.134	117	649243	50.00	ug/L	-0.01
96) 1,4-dichlorobenzene-d4	17.987	152	361968	50.00	ug/L	-0.01
System Monitoring Compounds						
42) dibromofluoromethane (s)	9.729	113	230016	49.57	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery =	99.14%		
51) 1,2-dichloroethane-d4 (s)	10.258	65	279878	50.28	ug/L	-0.02
Spiked Amount 50.000	Range 81 - 124		Recovery =	100.56%		
73) toluene-d8 (s)	13.100	98	747084	48.67	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery =	97.34%		
97) 4-bromofluorobenzene (s)	16.665	95	293321	49.03	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery =	98.06%		
Target Compounds						
20) iodomethane	6.588	142	420617	57.78	ug/L	98
21) carbon disulfide	6.725	76	600521	64.49	ug/L	98

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

7.6.13

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D8735\
Data File : 2D200622.D
Acq On : 1 Apr 2022 10:58 am
Operator : brittank
Sample : icv8735-50
Misc : MS55663,V2D8735,5,,,,,1
ALS Vial : 21 Sample Multiplier: 1

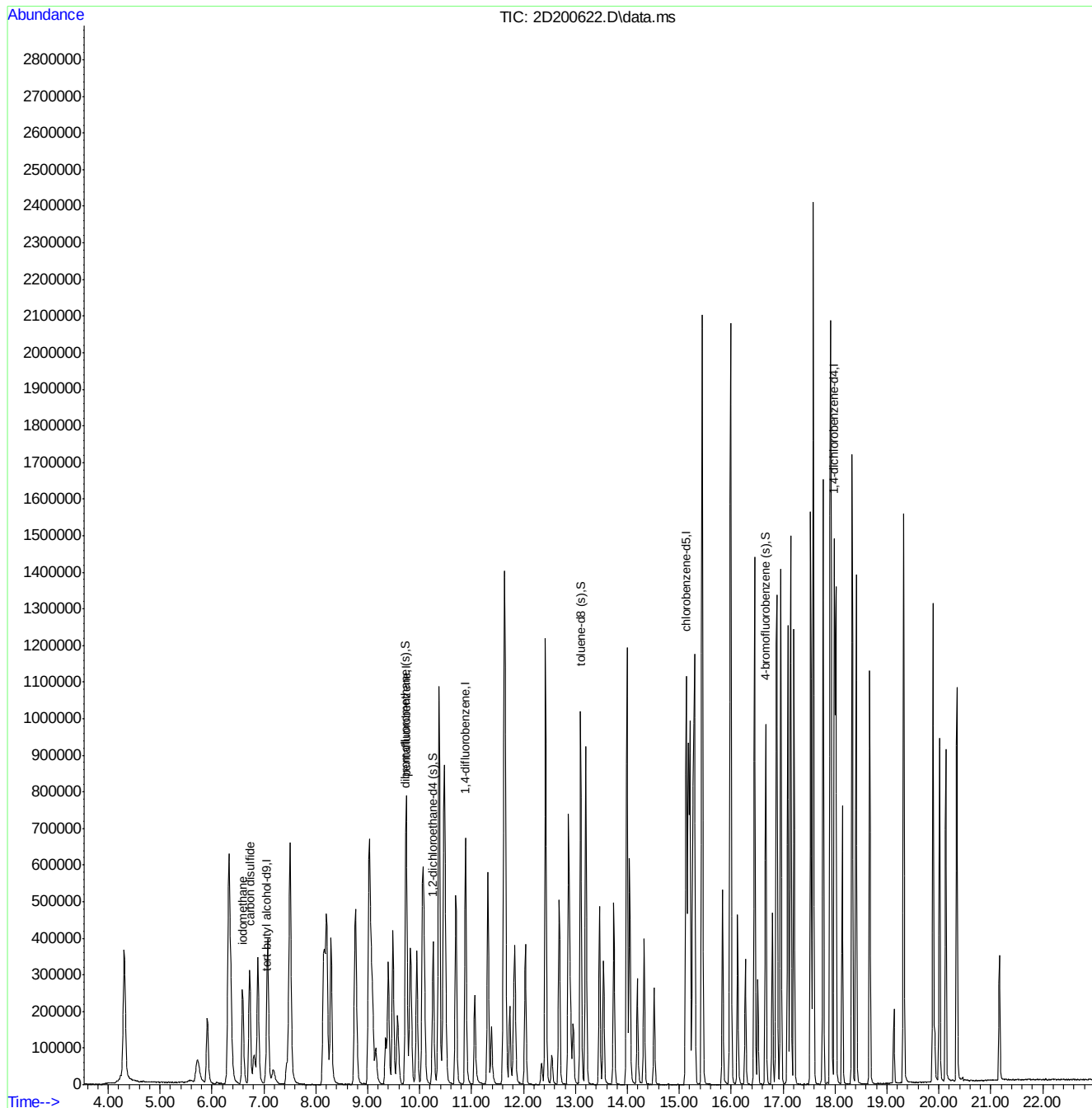
Quant Time: Apr 04 14:19:43 2022

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Mon Apr 04 14:17:39 2022

QLast Update : Mon Apr 04 14:17:39 2022

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201298.d
 Acq On : 22 Apr 2022 9:28 am
 Operator : nickw
 Sample : cc8735-20 Inst : MS2D
 Misc : MS58319,V2D8765,5,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 22 09:52:49 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.008	65	130924	500.00	ug/L	-0.05
5) pentafluorobenzene	9.697	168	494990	50.00	ug/L	-0.04
50) 1,4-difluorobenzene	10.840	114	659974	50.00	ug/L	-0.04
72) chlorobenzene-d5	15.093	117	652870	50.00	ug/L	-0.03
96) 1,4-dichlorobenzene-d4	17.955	152	380181	50.00	ug/L	-0.02

System Monitoring Compounds

42) dibromofluoromethane (s)	9.682	113	238350	48.08	ug/L	-0.04
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.16%
51) 1,2-dichloroethane-d4 (s)	10.217	65	267892	46.80	ug/L	-0.04
Spiked Amount	50.000	Range	81 - 124	Recovery	=	93.60%
73) toluene-d8 (s)	13.058	98	755147	48.93	ug/L	-0.03
Spiked Amount	50.000	Range	80 - 120	Recovery	=	97.86%
97) 4-bromofluorobenzene (s)	16.629	95	290692	46.26	ug/L	-0.03
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.52%

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.139	59	38865	95.59	ug/L	95
3) ethanol	5.676	45	82717	2042.20	ug/L	94
4) 1,4-dioxane	11.779	88	14681	534.49	ug/L	77
6) chlorodifluoromethane	3.699	51	55706	26.93	ug/L	80
7) dichlorodifluoromethane	3.673	85	169710	18.38	ug/L	98
8) chloromethane	4.035	50	172567	16.17	ug/L	93
9) vinyl chloride	4.245	62	205030	20.58	ug/L	96
10) 1,3-butadiene	4.276	54	66737	32.02	ug/L	97
11) bromomethane	4.848	94	129593	20.01	ug/L	94
12) chloroethane	5.000	64	99269	17.92	ug/L	99
13) trichlorofluoromethane	5.461	101	241472	20.43	ug/L	97
14) ethyl ether	5.875	74	30937	15.01	ug/L	86
15) acrolein	6.090	56	11357	12.50	ug/L	97
16) 1,1-dichloroethene	6.284	96	68621	19.13	ug/L	99
17) freon 113	6.305	151	83011	21.62	ug/L	88
18) acetone	6.326	58	19916	57.70	ug/L	87
19) acetonitrile	6.767	41	52046	145.44	ug/L	99
20) iodomethane	6.552	142	151053	19.42	ug/L	99
21) carbon disulfide	6.677	76	188844	18.98	ug/L	98
22) methylene chloride	7.029	84	83960	17.29	ug/L	93
23) methyl acetate	6.835	43	29243	11.90	ug/L	97
24) methyl tert butyl ether	7.453	73	175247	15.55	ug/L	100
25) trans-1,2-dichloroethene	7.459	96	80662	18.33	ug/L	97
26) hexane	7.862	57	122692	18.09	ug/L	99
27) di-isopropyl ether	8.161	45	224306	16.97	ug/L	91
28) 2-butanone	8.969	72	21009	60.36	ug/L	96
29) 1,1-dichloroethane	8.104	63	175014	17.72	ug/L	98
30) chloroprene	8.245	53	118356	16.55	ug/L	97
31) acrylonitrile	7.391	53	21678	14.91	ug/L	93
32) vinyl acetate	8.135	86	10223	14.72	ug/L	# 88
33) ethyl tert-butyl ether	8.717	59	297375	16.60	ug/L	99
34) ethyl acetate	9.042	45	5968	14.04	ug/L	# 55
35) 2,2-dichloropropane	9.005	77	134706	19.74	ug/L	97
36) cis-1,2-dichloroethene	8.984	96	89554	17.65	ug/L	95
37) propionitrile	9.053	54	77717	146.29	ug/L	94
38) tert-butyl formate	9.535	59	63723	16.78	ug/L	97
39) bromochloromethane	9.351	128	45730	17.44	ug/L	92
40) tetrahydrofuran	9.435	42	10939	12.91	ug/L	91
41) chloroform	9.441	83	172969	17.91	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201298.d
 Acq On : 22 Apr 2022 9:28 am
 Operator : nickw
 Sample : cc8735-20 Inst : MS2D
 Misc : MS58319,V2D8765,5,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 22 09:52:49 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) methacrylonitrile	9.304	67	21878	14.82	ug/L	92
44) 1,1,1-trichloroethane	9.776	97	143087	18.60	ug/L	97
45) cyclohexane	9.886	84	120834	17.55	ug/L	87
46) 1,1-dichloropropene	10.007	75	98516	17.07	ug/L	95
47) isobutyl alcohol	10.033	43	17216	156.61	ug/L	92
48) carbon tetrachloride	10.033	117	131698	18.81	ug/L	98
49) tert-amyl alcohol	10.217	73	11910	75.16	ug/L	99
52) benzene	10.332	78	284486	18.43	ug/L	100
53) iso-octane	10.421	57	326419	17.77	ug/L	97
54) tert-amyl methyl ether	10.442	73	204818	17.27	ug/L	98
55) heptane	10.652	57	61572	18.05	ug/L	93
56) isopropyl acetate	10.321	87	10414	15.67	ug/L #	77
57) 1,2-dichloroethane	10.327	62	135516	17.18	ug/L	98
58) n-butyl alcohol	11.019	56	78907	859.90	ug/L	95
59) ethyl acrylate	11.344	55	75818	15.58	ug/L	98
60) trichloroethene	11.270	130	92503	19.15	ug/L	98
61) 2-nitropropane	12.309	41	13017	14.87	ug/L	88
62) 2-chloroethyl vinyl ether	12.382	63	226158	80.15	ug/L	98
63) methyl methacrylate	11.695	69	35335	16.50	ug/L	92
64) 1,2-dichloropropane	11.606	63	96122	18.36	ug/L	99
65) dibromomethane	11.789	93	52432	17.71	ug/L	97
66) methylcyclohexane	11.590	83	131242	19.18	ug/L	98
67) bromodichloromethane	11.994	83	125009	19.77	ug/L	99
68) epichlorohydrin	12.503	57	29609	75.96	ug/L	97
69) cis-1,3-dichloropropene	12.644	75	131985	18.93	ug/L	96
70) 4-methyl-2-pentanone	12.828	58	104929	64.80	ug/L	97
71) 3-methyl-1-butanol	12.864	55	53287	376.03	ug/L	95
74) toluene	13.158	92	188583	18.51	ug/L	96
75) trans-1,3-dichloropropene	13.425	75	115597	18.67	ug/L	99
76) ethyl methacrylate	13.504	69	71645	16.89	ug/L	97
77) 1,1,2-trichloroethane	13.698	83	58019	17.67	ug/L	95
78) tetrachloroethene	13.950	164	90275	20.59	ug/L	97
79) 1,3-dichloropropane	13.950	76	108838	17.89	ug/L	98
80) 2-hexanone	14.012	58	92998	67.08	ug/L	94
81) butyl acetate	14.159	56	41492	16.47	ug/L	99
82) dibromochloromethane	14.285	129	96831	19.18	ug/L	97
83) 1,2-dibromoethane	14.474	107	73346	18.27	ug/L	95
84) n-butyl ether	15.166	57	381186	18.60	ug/L	99
85) chlorobenzene	15.134	112	239344	18.64	ug/L	97
86) 1,1,1,2-tetrachloroethane	15.224	131	98316	19.97	ug/L	99
87) ethylbenzene	15.255	91	379110	18.55	ug/L	99
88) m,p-xylene	15.402	91	606388	37.20	ug/L	100
89) o-xylene	15.947	106	162275	19.16	ug/L	100
90) styrene	15.958	104	257798	19.43	ug/L	95
91) butyl acrylate	15.800	55	144108	16.72	ug/L	99
92) n-amyl acetate	16.094	70	45029	17.26	ug/L	89
93) bromoform	16.241	173	65218	18.43	ug/L	98
94) isopropylbenzene	16.414	105	416230	18.90	ug/L	99
95) cis-1,4-dichloro-2-butene	16.477	88	27025	16.44	ug/L	96
98) bromobenzene	16.849	156	129006	20.15	ug/L	88
99) 1,1,2,2-tetrachloroethane	16.760	83	83967	16.45	ug/L	97
100) trans-1,4-dichloro-2-b...	16.828	53	21317	14.98	ug/L	96
101) 1,2,3-trichloropropane	16.838	110	22796	16.05	ug/L #	90
102) n-propylbenzene	16.922	91	475641	18.28	ug/L	98
103) 2-chlorotoluene	17.059	126	103028	18.35	ug/L	97
104) 4-chlorotoluene	17.179	91	287629	17.75	ug/L	98
105) 1,3,5-trimethylbenzene	17.116	105	337568	18.13	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
 Data File : 2d201298.d
 Acq On : 22 Apr 2022 9:28 am
 Operator : nickw
 Sample : cc8735-20 Inst : MS2D
 Misc : MS58319,V2D8765,5,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

Quant Results File: M2D8735.RES

Quant Time: Apr 22 09:52:49 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106)	tert-butylbenzene	17.504	119	301050	18.27	ug/L	99
107)	1,2,4-trimethylbenzene	17.552	105	356706	18.51	ug/L	100
108)	sec-butylbenzene	17.740	105	443385	17.82	ug/L	99
109)	1,3-dichlorobenzene	17.898	146	241246	19.23	ug/L	100
110)	p-isopropyltoluene	17.877	119	388093	18.52	ug/L	97
111)	1,2,3-trimethylbenzene	18.018	105	353446	18.52	ug/L	99
112)	1,4-dichlorobenzene	17.987	146	234652	18.65	ug/L	95
113)	1,2-dichlorobenzene	18.375	146	239375	19.56	ug/L	99
114)	benzyl chloride	18.113	91	176820	18.85	ug/L	97
115)	n-butylbenzene	18.301	92	187889	17.91	ug/L	97
116)	1,2-dibromo-3-chloropr...	19.109	157	21096	17.40	ug/L	97
117)	1,3,5-trichlorobenzene	19.292	180	212264	20.89	ug/L	98
118)	hexachlorobutadiene	19.984	225	83654	20.86	ug/L	97
119)	naphthalene	20.105	128	269254	17.65	ug/L	98
120)	1,2,4-trichlorobenzene	19.858	180	171220	19.83	ug/L	98
121)	1,2,3-trichlorobenzene	20.320	180	141049	19.28	ug/L	97
122)	hexachloroethane	18.642	201	75363	20.00	ug/L	92
123)	2-methylnaphthalene	21.133	142	72197	7.88	ug/L	95

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

7.6.14

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\2022\4_april\4-25-2022\v2d8765\
Data File : 2d201298.d
Acq On : 22 Apr 2022 9:28 am
Operator : nickw
Sample : cc8735-20
Misc : MS58319,V2D8765,5,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Inst : MS2D

Quant Method : C:\msdchem\1\METHODS\M2D8735.M

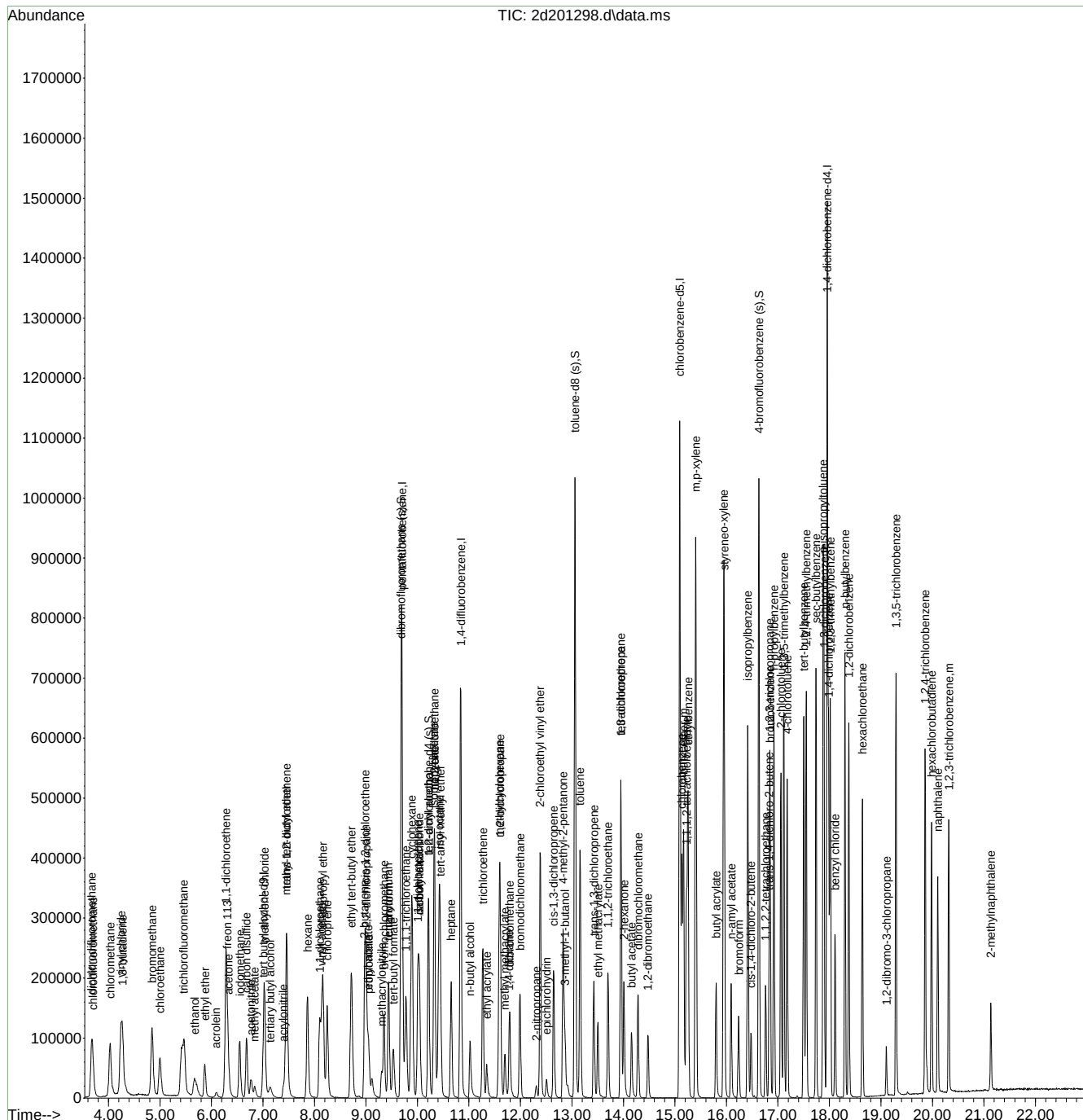
Quant Results File: M2D8735.RES

Quant Time: Apr 22 09:52:49 2022

Quant Title : SW-846 Method 8260C/D / EPA 624.1, DB624 60m x 0.2Wed Apr 20 10:51:59 2022

QLast Update : Wed Apr 20 10:51:59 2022

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174402.D
 Acq On : 10 Mar 2022 1:38 pm
 Operator : brittank
 Sample : ic7392-0.2
 Misc : MS57062,V3D7392,5,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 11 19:43:48 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.868	65	77481	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	385851	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.618	114	528423	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	474957	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.184	152	242997	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.063	113	164070	50.15	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.30%
52) 1,2-dichloroethane-d4 (s)	4.307	65	178374	54.38	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	108.76%
74) toluene-d8 (s)	5.758	98	625124	54.75	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	109.50%
98) 4-bromofluorobenzene (s)	8.074	95	225709	56.67	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	113.34%

Target Compounds

						Qvalue
13) trichlorofluoromethane	2.240	101	1284	0.24	ug/L	75
16) freon 113	2.587	151	589	0.22	ug/L #	58
24) methyl tert butyl ether	3.057	73	1946	0.22	ug/L	88
28) 1,1-dichloroethane	3.368	63	1189	0.23	ug/L	92
29) chloroprene	3.423	53	1110	0.25	ug/L	80
33) ethyl tert-butyl ether	3.606	59	1982	0.20	ug/L #	63
36) cis-1,2-dichloroethene	3.740	96	856	0.25	ug/L #	77
42) t-butyl formate	3.977	59	756	0.24	ug/L #	61
45) 1,1,1-trichloroethane	4.099	97	1361	0.25	ug/L #	43
47) 1,1-dichloropropene	4.209	75	927	0.22	ug/L	83
49) carbon tetrachloride	4.221	117	947	0.19	ug/L #	40
56) tert-amyl methyl ether	4.410	87	418	0.18	ug/L #	1
60) trichloroethene	4.813	130	753	0.20	ug/L	89
63) 2-chloroethyl vinyl ether	5.392	63	1519	0.84	ug/L	91
65) 1,2-dichloropropane	5.008	63	582	0.20	ug/L #	47
70) cis-1,3-dichloropropene	5.526	75	985	0.19	ug/L #	66
75) toluene	5.819	92	1825	0.24	ug/L #	79
76) trans-1,3-dichloropropene	5.977	75	1030	0.22	ug/L	88
79) tetrachloroethene	6.257	164	630	0.22	ug/L #	72
80) 1,3-dichloropropane	6.282	76	1016	0.24	ug/L	81
81) 2-hexanone	6.318	58	770	0.93	ug/L #	26
83) dibromochloromethane	6.477	129	783	0.22	ug/L	92
84) 1,2-dibromoethane	6.593	107	502	0.17	ug/L	70
85) n-butyl ether	7.099	57	3018	0.26	ug/L	91
86) chlorobenzene	7.026	112	2011	0.23	ug/L	96
87) 1,1,1,2-tetrachloroethane	7.093	131	676	0.20	ug/L #	53
89) m,p-xylene	7.215	106	2574	0.42	ug/L #	69
90) o-xylene	7.568	106	1388	0.22	ug/L	86
91) styrene	7.586	104	2376	0.23	ug/L	91
92) bromoform	7.763	173	418	0.16	ug/L	82
95) isopropylbenzene	7.910	105	3143	0.20	ug/L	88
104) 2-chlorotoluene	8.397	126	805	0.22	ug/L #	79
105) 4-chlorotoluene	8.513	126	864	0.23	ug/L #	43
106) 1,3,5-trimethylbenzene	8.477	105	2636	0.23	ug/L	83
108) 1,2,4-trimethylbenzene	8.842	105	2347	0.20	ug/L	78
109) sec-butylbenzene	9.001	105	3208	0.22	ug/L	96
110) 1,3-dichlorobenzene	9.123	146	1499	0.21	ug/L	73
111) p-isopropyltoluene	9.141	119	2638	0.21	ug/L	97
112) 1,4-dichlorobenzene	9.214	146	1697	0.24	ug/L	59
114) benzyl chloride	9.318	91	1290	0.20	ug/L	94
115) 1,2-dichlorobenzene	9.568	146	1487	0.22	ug/L	75

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174402.D
Acq On : 10 Mar 2022 1:38 pm
Operator : brittank
Sample : ic7392-0.2
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 11 19:43:48 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022
QLast Update : Thu Mar 10 17:12:34 2022
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
116) n-butylbenzene	9.537	92	1383	0.24	ug/L	84
118) 1,3,5-trichlorobenzene	10.513	180	1080	0.22	ug/L #	64
119) 1,2,4-trichlorobenzene	11.153	180	879	0.22	ug/L	85
121) naphthalene	11.409	128	2024	0.22	ug/L	98
122) 1,2,3-trichlorobenzene	11.628	180	630	0.19	ug/L #	79

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

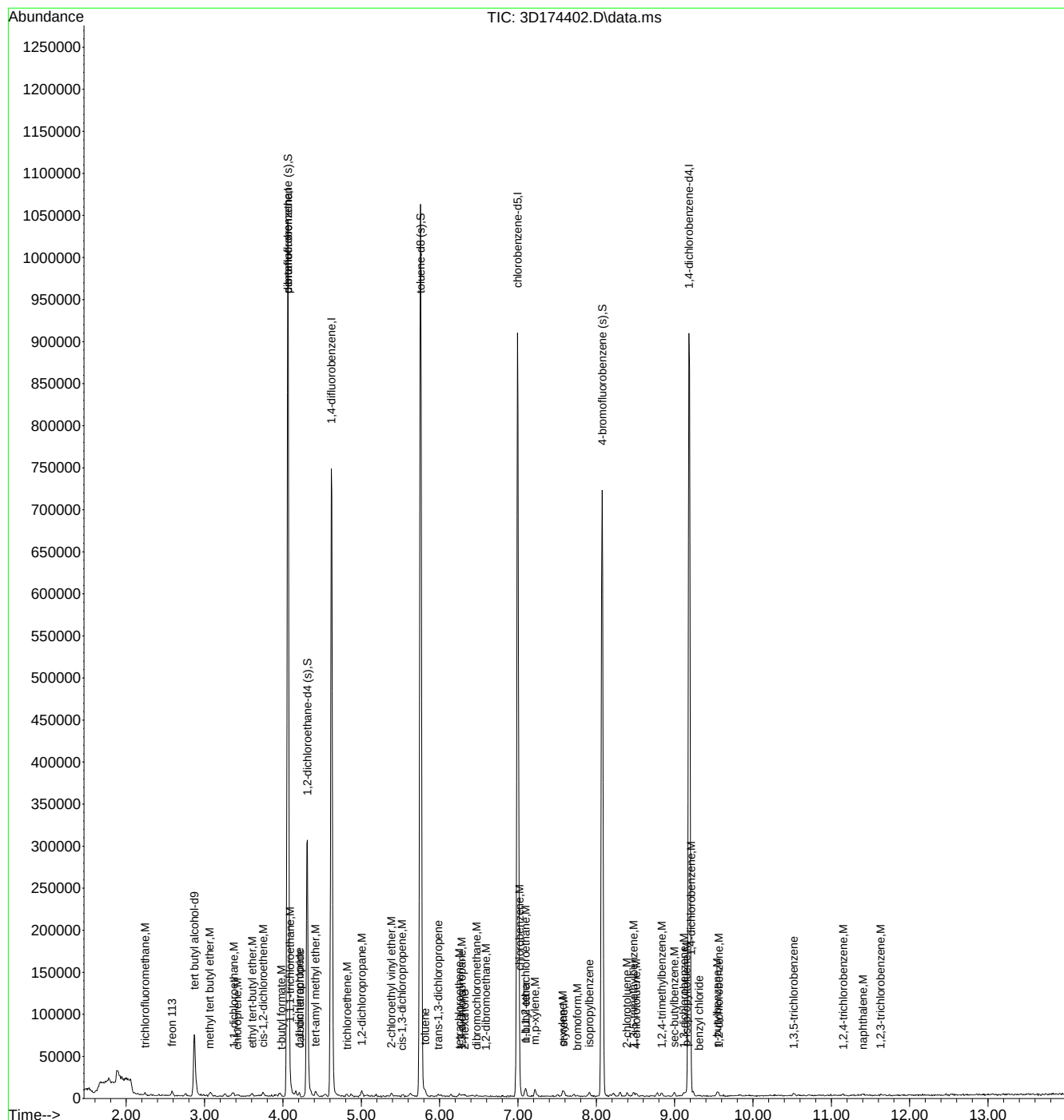
7.6.15

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174402.D
Acq On : 10 Mar 2022 1:38 pm
Operator : brittank
Sample : ic7392-0.2
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 11 19:43:48 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022
QLast Update : Thu Mar 10 17:12:34 2022
Response via : Initial Calibration



7.6.15



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174403.D
 Acq On : 10 Mar 2022 2:01 pm
 Operator : brittank
 Sample : ic7392-0.5
 Misc : MS57062,V3D7392,5,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 11 19:45:41 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.868	65	84222	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	343981	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.623	114	501589	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	471050	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.190	152	245946	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.063	113	152739	52.37	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	104.74%	
52) 1,2-dichloroethane-d4 (s)	4.313	65	174572	56.07	ug/L	0.00
Spiked Amount 50.000	Range 81	- 124	Recovery	=	112.14%	
74) toluene-d8 (s)	5.757	98	607615	53.66	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	107.32%	
98) 4-bromofluorobenzene (s)	8.074	95	227463	56.42	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	112.84%	

Target Compounds

Qvalue

2) tertiary butyl alcohol	2.923	59	657	2.71	ug/L	#	40
11) bromomethane	1.990	94	748	0.58	ug/L	#	55
13) trichlorofluoromethane	2.240	101	2985	0.62	ug/L		96
14) ethyl ether	2.423	74	892	0.56	ug/L	#	51
16) freon 113	2.581	151	1241	0.52	ug/L	#	73
17) 1,1-dichloroethene	2.587	96	1309	0.56	ug/L		88
21) carbon disulfide	2.752	76	3907	0.59	ug/L		97
24) methyl tert butyl ether	3.069	73	3939	0.50	ug/L		73
25) trans-1,2-dichloroethene	3.087	96	1614	0.59	ug/L		87
28) 1,1-dichloroethane	3.368	63	2620	0.57	ug/L		99
29) chloroprene	3.416	53	2373	0.59	ug/L		80
32) vinyl acetate	3.337	86	379	0.51	ug/L	#	34
33) ethyl tert-butyl ether	3.599	59	4316	0.50	ug/L		89
36) cis-1,2-dichloroethene	3.746	96	1685	0.54	ug/L		82
37) methyl acrylate	3.782	85	259	0.57	ug/L	#	1
39) bromochloromethane	3.898	128	917	0.54	ug/L	#	65
42) t-butyl formate	3.971	59	1592	0.56	ug/L	#	66
45) 1,1,1-trichloroethane	4.099	97	2818	0.58	ug/L	#	57
46) cyclohexane	4.166	84	2544	0.56	ug/L		97
47) 1,1-dichloropropene	4.209	75	1935	0.51	ug/L		85
49) carbon tetrachloride	4.215	117	2245	0.51	ug/L	#	78
55) benzene	4.349	78	5823	0.55	ug/L		86
56) tert-amyl methyl ether	4.416	87	1149	0.53	ug/L	#	84
57) heptane	4.532	71	1536	0.67	ug/L	#	75
60) trichloroethene	4.812	130	1615	0.45	ug/L		89
63) 2-chloroethyl vinyl ether	5.392	63	3782	2.21	ug/L		89
64) methyl methacrylate	5.008	100	352	0.44	ug/L	#	60
65) 1,2-dichloropropane	5.008	63	1583	0.56	ug/L		92
66) dibromomethane	5.069	93	1063	0.56	ug/L		95
67) methylcyclohexane	5.008	83	2882	0.58	ug/L		80
68) bromodichloromethane	5.184	83	2750	0.66	ug/L		77
70) cis-1,3-dichloropropene	5.532	75	2887	0.58	ug/L		90
71) 4-methyl-2-pentanone	5.629	58	2076	2.27	ug/L		88
75) toluene	5.812	92	4491	0.60	ug/L		98
76) trans-1,3-dichloropropene	5.977	75	2410	0.53	ug/L		92
79) tetrachloroethene	6.251	164	1497	0.52	ug/L		95
80) 1,3-dichloropropane	6.282	76	2342	0.55	ug/L		96
81) 2-hexanone	6.312	58	1921	2.34	ug/L	#	70
83) dibromochloromethane	6.483	129	1835	0.53	ug/L	#	59
84) 1,2-dibromoethane	6.599	107	1599	0.54	ug/L		84
85) n-butyl ether	7.086	57	7571	0.65	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174403.D
 Acq On : 10 Mar 2022 2:01 pm
 Operator : brittank
 Sample : ic7392-0.5
 Misc : MS57062,V3D7392,5,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 11 19:45:41 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

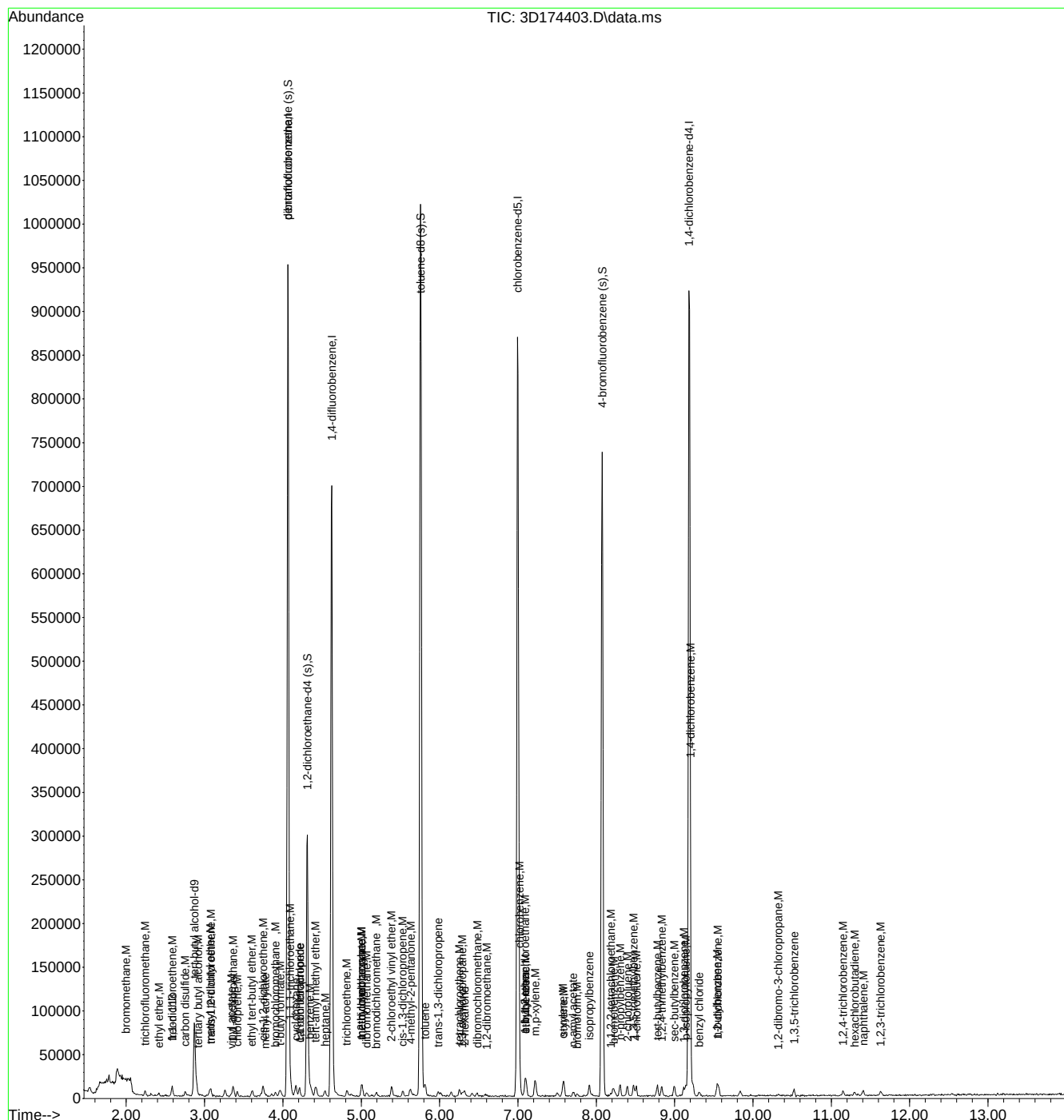
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) chlorobenzene	7.025	112	4924	0.56	ug/L	90
87) 1,1,1,2-tetrachloroethane	7.093	131	1827	0.56	ug/L	81
88) ethylbenzene	7.105	91	7449	0.55	ug/L	93
89) m,p-xylene	7.227	106	6672	1.10	ug/L	91
90) o-xylene	7.568	106	3125	0.50	ug/L	83
91) styrene	7.586	104	4887	0.47	ug/L	91
92) bromoform	7.751	173	992	0.38	ug/L	81
94) n-amyl acetate	7.702	70	1296	0.59	ug/L #	62
95) isopropylbenzene	7.909	105	8252	0.53	ug/L	93
99) bromobenzene	8.214	156	2153	0.61	ug/L	94
100) 1,1,2,2-tetrachloroethane	8.184	83	1790	0.62	ug/L	94
103) n-propylbenzene	8.306	91	9354	0.62	ug/L	90
104) 2-chlorotoluene	8.397	126	2210	0.61	ug/L #	72
105) 4-chlorotoluene	8.513	126	1939	0.51	ug/L #	27
106) 1,3,5-trimethylbenzene	8.476	105	6754	0.58	ug/L	87
107) tert-butylbenzene	8.781	134	1438	0.49	ug/L	91
108) 1,2,4-trimethylbenzene	8.836	105	6318	0.53	ug/L	92
109) sec-butylbenzene	8.995	105	7844	0.54	ug/L	92
110) 1,3-dichlorobenzene	9.117	146	3907	0.53	ug/L	96
111) p-isopropyltoluene	9.141	119	6453	0.50	ug/L	87
112) 1,4-dichlorobenzene	9.208	146	4033	0.56	ug/L	76
114) benzyl chloride	9.306	91	3847	0.59	ug/L	89
115) 1,2-dichlorobenzene	9.555	146	3547	0.51	ug/L	91
116) n-butylbenzene	9.543	92	3045	0.51	ug/L	95
117) 1,2-dibromo-3-chloropr...	10.318	157	309	0.40	ug/L #	41
118) 1,3,5-trichlorobenzene	10.519	180	2173	0.43	ug/L	92
119) 1,2,4-trichlorobenzene	11.153	180	1892	0.47	ug/L	91
120) hexachlorobutadiene	11.299	225	734	0.46	ug/L #	66
121) naphthalene	11.403	128	4546	0.49	ug/L	91
122) 1,2,3-trichlorobenzene	11.628	180	1666	0.49	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174403.D
Acq On : 10 Mar 2022 2:01 pm
Operator : brittanc
Sample : ic7392-0.5
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 11 19:45:41 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rx1-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022
QLast Update : Thu Mar 10 17:12:34 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174404.D
 Acq On : 10 Mar 2022 2:25 pm
 Operator : brittank
 Sample : ic7392-1
 Misc : MS57062,V3D7392,5,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 11 19:47:03 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.868	65	83089	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	344884	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.623	114	506912	50.00	ug/L	0.00
73) chlorobenzene-d5	7.001	117	473285	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.190	152	241162	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.063	113	150799	51.57	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	103.14%	
52) 1,2-dichloroethane-d4 (s)	4.313	65	176406	56.06	ug/L	0.00
Spiked Amount 50.000	Range 81	- 124	Recovery	=	112.12%	
74) toluene-d8 (s)	5.757	98	621627	54.64	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	109.28%	
98) 4-bromofluorobenzene (s)	8.074	95	225560	57.06	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	114.12%	

Target Compounds

						Qvalue
2) tertiary butyl alcohol	2.923	59	1324	5.53	ug/L #	1
3) ethanol	2.319	45	1840	159.74	ug/L	88
4) 1,4-dioxane	5.044	88	420	30.66	ug/L #	22
8) chloromethane	1.673	50	4188	1.35	ug/L	94
9) vinyl chloride	1.752	62	4052	1.13	ug/L	91
11) bromomethane	1.996	94	1464	1.13	ug/L	74
12) chloroethane	2.063	64	2983	1.39	ug/L	88
13) trichlorofluoromethane	2.240	101	5489	1.13	ug/L	95
14) ethyl ether	2.417	74	1754	1.10	ug/L	86
16) freon 113	2.587	151	2341	0.97	ug/L #	72
17) 1,1-dichloroethene	2.587	96	2502	1.07	ug/L	78
21) carbon disulfide	2.752	76	7522	1.12	ug/L	91
24) methyl tert butyl ether	3.069	73	8158	1.04	ug/L	99
25) trans-1,2-dichloroethene	3.081	96	3034	1.12	ug/L	94
26) di-isopropyl ether	3.368	45	8411	1.10	ug/L	90
27) 2-butanone	3.715	72	1268	4.24	ug/L	90
28) 1,1-dichloroethane	3.368	63	5714	1.24	ug/L	93
29) chloroprene	3.416	53	4328	1.07	ug/L	87
31) hexane	3.264	56	3023	1.24	ug/L #	76
32) vinyl acetate	3.349	86	768	1.03	ug/L #	71
33) ethyl tert-butyl ether	3.611	59	9652	1.12	ug/L	88
35) 2,2-dichloropropane	3.758	77	5059	1.14	ug/L	82
36) cis-1,2-dichloroethene	3.739	96	3321	1.07	ug/L	87
37) methyl acrylate	3.776	85	514	1.14	ug/L #	24
38) propionitrile	3.746	54	3520	11.66	ug/L	85
39) bromochloromethane	3.904	128	1956	1.15	ug/L #	76
41) chloroform	3.959	85	4866	1.45	ug/L	92
42) t-butyl formate	3.977	59	2676	0.94	ug/L	85
44) methacrylonitrile	3.861	67	1186	1.05	ug/L #	79
45) 1,1,1-trichloroethane	4.105	97	5248	1.08	ug/L #	66
46) cyclohexane	4.166	84	5502	1.22	ug/L	92
47) 1,1-dichloropropene	4.203	75	4040	1.07	ug/L	82
49) carbon tetrachloride	4.215	117	4424	1.00	ug/L	84
54) 2,2,4-trimethylpentane	4.422	57	9963	1.20	ug/L	91
55) benzene	4.349	78	11755	1.10	ug/L	87
56) tert-amyl methyl ether	4.410	87	2447	1.12	ug/L #	60
57) heptane	4.532	71	2658	1.14	ug/L	93
59) 1,2-dichloroethane	4.367	62	4513	1.17	ug/L	94
60) trichloroethene	4.819	130	3375	0.93	ug/L	98
63) 2-chloroethyl vinyl ether	5.385	63	7635	4.42	ug/L	93
64) methyl methacrylate	5.020	100	824	1.03	ug/L #	30

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174404.D
 Acq On : 10 Mar 2022 2:25 pm
 Operator : brittank
 Sample : ic7392-1
 Misc : MS57062,V3D7392,5,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 11 19:47:03 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

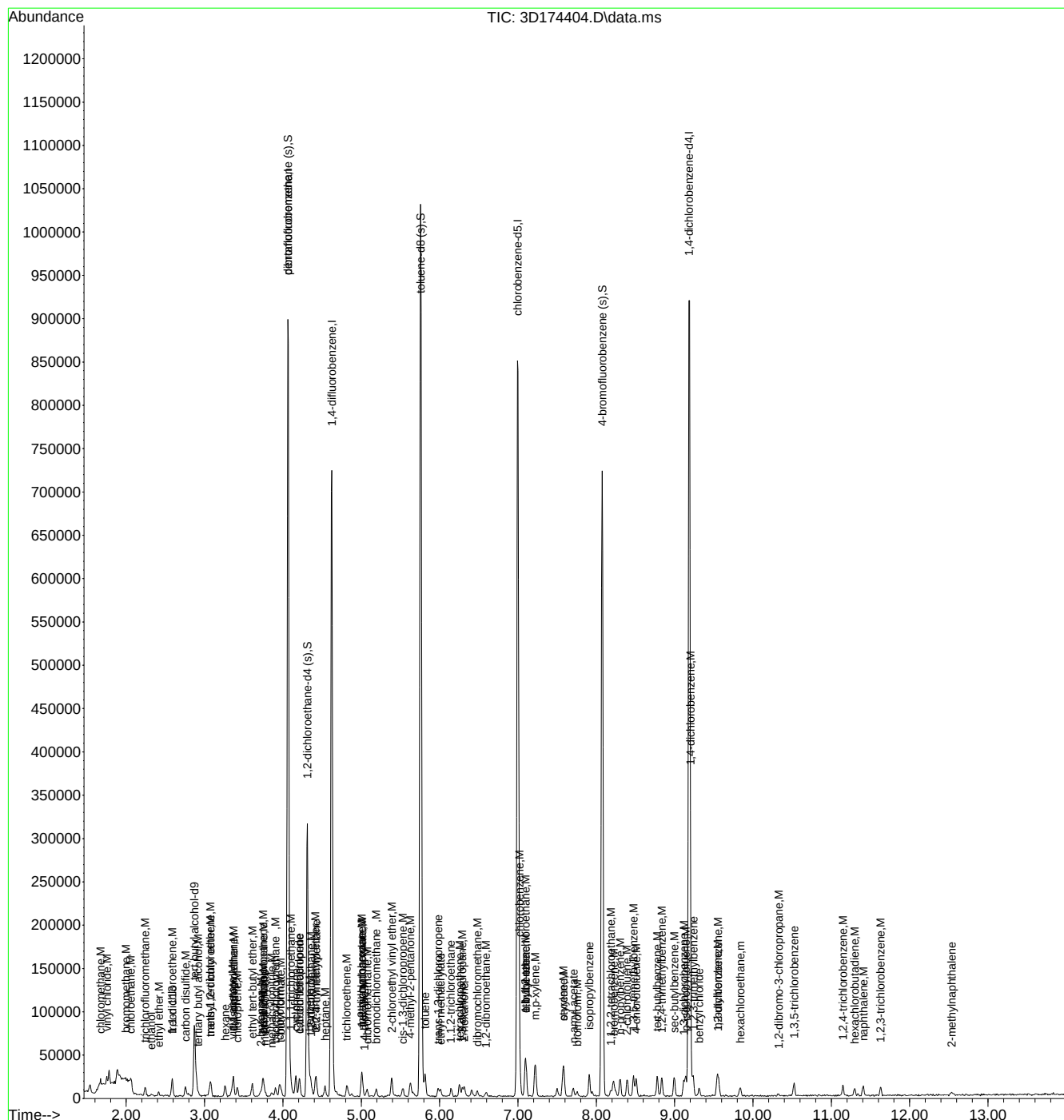
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
65) 1,2-dichloropropane	5.001	63	3129	1.10	ug/L	95
66) dibromomethane	5.075	93	2103	1.11	ug/L	86
67) methylcyclohexane	5.008	83	5074	1.00	ug/L	86
68) bromodichloromethane	5.190	83	4473	1.06	ug/L	83
70) cis-1,3-dichloropropene	5.526	75	4752	0.94	ug/L	81
71) 4-methyl-2-pentanone	5.629	58	3742	4.05	ug/L #	75
75) toluene	5.818	92	7812	1.04	ug/L #	77
76) trans-1,3-dichloropropene	5.983	75	4382	0.96	ug/L	86
77) ethyl methacrylate	6.007	69	4141	1.12	ug/L	91
78) 1,1,2-trichloroethane	6.141	83	2142	0.99	ug/L	95
79) tetrachloroethene	6.263	164	2871	0.99	ug/L	79
80) 1,3-dichloropropane	6.294	76	4652	1.08	ug/L	95
81) 2-hexanone	6.318	58	3516	4.26	ug/L	87
83) dibromochloromethane	6.483	129	3452	0.99	ug/L #	65
84) 1,2-dibromoethane	6.593	107	2885	0.97	ug/L	95
85) n-butyl ether	7.092	57	13410	1.15	ug/L	97
86) chlorobenzene	7.025	112	9611	1.09	ug/L	97
87) 1,1,1,2-tetrachloroethane	7.099	131	3336	1.01	ug/L	83
88) ethylbenzene	7.105	91	15695	1.14	ug/L	94
89) m,p-xylene	7.227	106	12601	2.08	ug/L	93
90) o-xylene	7.574	106	6098	0.98	ug/L	98
91) styrene	7.586	104	10476	1.01	ug/L	93
92) bromoform	7.757	173	2211	0.85	ug/L	91
94) n-amyl acetate	7.708	70	2539	1.15	ug/L #	79
95) isopropylbenzene	7.909	105	16385	1.04	ug/L	97
99) bromobenzene	8.214	156	4041	1.16	ug/L	93
100) 1,1,2,2-tetrachloroethane	8.184	83	3471	1.23	ug/L	87
103) n-propylbenzene	8.306	91	16382	1.11	ug/L	90
104) 2-chlorotoluene	8.397	126	3608	1.02	ug/L	91
105) 4-chlorotoluene	8.513	126	4388	1.17	ug/L	86
106) 1,3,5-trimethylbenzene	8.476	105	11697	1.03	ug/L	97
107) tert-butylbenzene	8.775	134	3362	1.16	ug/L #	85
108) 1,2,4-trimethylbenzene	8.836	105	12460	1.07	ug/L	95
109) sec-butylbenzene	8.995	105	14992	1.04	ug/L	97
110) 1,3-dichlorobenzene	9.116	146	6601	0.91	ug/L	84
111) p-isopropyltoluene	9.147	119	12473	1.00	ug/L	90
112) 1,4-dichlorobenzene	9.208	146	6598	0.93	ug/L	91
113) 1,2,3-trimethylbenzene	9.238	105	12093	1.06	ug/L	98
114) benzyl chloride	9.312	91	6446	1.01	ug/L	93
115) 1,2-dichlorobenzene	9.562	146	6616	0.98	ug/L	86
116) n-butylbenzene	9.543	92	5518	0.95	ug/L	95
117) 1,2-dibromo-3-chloropr...	10.330	157	729	0.95	ug/L	80
118) 1,3,5-trichlorobenzene	10.519	180	4495	0.91	ug/L	97
119) 1,2,4-trichlorobenzene	11.147	180	4129	1.05	ug/L	87
120) hexachlorobutadiene	11.299	225	1268	0.81	ug/L	69
121) naphthalene	11.409	128	8991	0.99	ug/L	97
122) 1,2,3-trichlorobenzene	11.634	180	2841	0.85	ug/L	84
123) hexachloroethane	9.836	201	1743	0.91	ug/L #	79
124) 2-methylnaphthalene	12.537	142	2005	0.43	ug/L	99

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\V3D7392\  
Data File : 3D174404.D  
Acq On : 10 Mar 2022 2:25 pm  
Operator : brittank  
Sample : ic7392-1  
Misc : MS57062,V3D7392,5,,,,1  
ALS Vial : 4 Sample Multiplier: 1
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Quant Time: Mar 11 19:47:03 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022
QLast Update : Thu Mar 10 17:12:34 2022
Response via : Initial Calibration



7.6.17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174405.D
 Acq On : 10 Mar 2022 2:48 pm
 Operator : brittank
 Sample : ic7392-2
 Misc : MS57062,V3D7392,5,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 19:48:10 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.868	65	73370	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	351023	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.624	114	500421	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	461739	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.190	152	233596	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.069	113	153460	51.56	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.12%
52) 1,2-dichloroethane-d4 (s)	4.313	65	171626	55.25	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	110.50%
74) toluene-d8 (s)	5.758	98	607570	54.74	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	109.48%
98) 4-bromofluorobenzene (s)	8.074	95	221036	57.73	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	115.46%

Target Compounds

						Qvalue
2) tertiary butyl alcohol	2.923	59	2336	11.04	ug/L	68
3) ethanol	2.319	45	3427	336.93	ug/L	99
4) 1,4-dioxane	5.050	88	646	53.41	ug/L	91
7) dichlorodifluoromethane	1.527	85	7600	2.23	ug/L	95
8) chloromethane	1.673	50	7444	2.35	ug/L	91
9) vinyl chloride	1.752	62	7735	2.12	ug/L	93
11) bromomethane	1.990	94	2302	1.75	ug/L	96
12) chloroethane	2.063	64	5996	2.74	ug/L	86
13) trichlorofluoromethane	2.240	101	11446	2.32	ug/L	88
14) ethyl ether	2.417	74	3769	2.33	ug/L	97
15) acrolein	2.502	56	1191	2.54	ug/L	# 4
16) freon 113	2.594	151	5508	2.24	ug/L	# 75
17) 1,1-dichloroethene	2.587	96	5471	2.29	ug/L	90
18) acetone	2.581	58	1426	7.63	ug/L	90
20) iodomethane	2.685	142	1856	0.77	ug/L	78
21) carbon disulfide	2.752	76	15604	2.29	ug/L	97
22) methylene chloride	2.892	84	7348	2.55	ug/L	93
24) methyl tert butyl ether	3.063	73	17468	2.18	ug/L	94
25) trans-1,2-dichloroethene	3.081	96	6344	2.29	ug/L	94
26) di-isopropyl ether	3.368	45	17896	2.31	ug/L	99
27) 2-butanone	3.715	72	2241	7.36	ug/L	# 51
28) 1,1-dichloroethane	3.362	63	11272	2.40	ug/L	97
29) chloroprene	3.417	53	8968	2.19	ug/L	82
31) hexane	3.264	56	5455	2.20	ug/L	89
32) vinyl acetate	3.343	86	1346	1.77	ug/L	# 85
33) ethyl tert-butyl ether	3.606	59	18776	2.13	ug/L	95
34) ethyl acetate	3.728	45	870	2.37	ug/L	# 52
35) 2,2-dichloropropane	3.752	77	10767	2.39	ug/L	91
36) cis-1,2-dichloroethene	3.746	96	6931	2.19	ug/L	87
37) methyl acrylate	3.770	85	971	2.11	ug/L	# 81
38) propionitrile	3.746	54	6590	21.44	ug/L	82
39) bromochloromethane	3.904	128	3089	1.79	ug/L	84
41) chloroform	3.959	85	7884	2.31	ug/L	88
42) t-butyl formate	3.977	59	6558	2.26	ug/L	86
44) methacrylonitrile	3.856	67	2237	1.94	ug/L	86
45) 1,1,1-trichloroethane	4.099	97	10097	2.04	ug/L	87
46) cyclohexane	4.166	84	9820	2.14	ug/L	94
47) 1,1-dichloropropene	4.203	75	8449	2.19	ug/L	96
49) carbon tetrachloride	4.215	117	8875	1.96	ug/L	92
53) n-butyl alcohol	4.679	56	4436	113.47	ug/L	89
54) 2,2,4-trimethylpentane	4.423	57	19364	2.36	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174405.D
 Acq On : 10 Mar 2022 2:48 pm
 Operator : brittank
 Sample : ic7392-2
 Misc : MS57062,V3D7392,5,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 19:48:10 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
55) benzene	4.349	78	23416	2.23	ug/L	94
56) tert-amyl methyl ether	4.416	87	4330	2.01	ug/L	94
57) heptane	4.538	71	5113	2.23	ug/L	93
59) 1,2-dichloroethane	4.362	62	9329	2.44	ug/L	97
60) trichloroethene	4.819	130	6517	1.83	ug/L	88
62) 2-nitropropane	5.343	41	1790	2.21	ug/L	90
63) 2-chloroethyl vinyl ether	5.392	63	16475	9.66	ug/L	94
64) methyl methacrylate	5.014	100	1491	1.88	ug/L #	89
65) 1,2-dichloropropane	5.008	63	5650	2.02	ug/L	95
66) dibromomethane	5.075	93	3734	1.99	ug/L	99
67) methylcyclohexane	5.008	83	10753	2.15	ug/L	91
68) bromodichloromethane	5.197	83	8861	2.12	ug/L	89
70) cis-1,3-dichloropropene	5.532	75	9806	1.97	ug/L	86
71) 4-methyl-2-pentanone	5.623	58	7035	7.71	ug/L	94
72) 3-methyl-1-butanol	5.660	55	4092	55.39	ug/L #	49
75) toluene	5.812	92	16719	2.29	ug/L	94
76) trans-1,3-dichloropropene	5.977	75	8892	1.99	ug/L	97
77) ethyl methacrylate	6.008	69	8028	2.23	ug/L	98
78) 1,1,2-trichloroethane	6.148	83	4486	2.13	ug/L	89
79) tetrachloroethene	6.251	164	6075	2.14	ug/L	95
80) 1,3-dichloropropane	6.288	76	9212	2.20	ug/L	93
81) 2-hexanone	6.312	58	7120	8.84	ug/L #	82
82) butyl acetate	6.404	56	3738	2.36	ug/L	94
83) dibromochloromethane	6.483	129	6683	1.96	ug/L	90
84) 1,2-dibromoethane	6.587	107	5578	1.93	ug/L	81
85) n-butyl ether	7.093	57	28545	2.52	ug/L	93
86) chlorobenzene	7.026	112	17934	2.09	ug/L	98
87) 1,1,1,2-tetrachloroethane	7.099	131	6043	1.88	ug/L	87
88) ethylbenzene	7.105	91	30223	2.26	ug/L	92
89) m,p-xylene	7.221	106	25134	4.25	ug/L	94
90) o-xylene	7.574	106	12215	2.01	ug/L	98
91) styrene	7.587	104	19897	1.96	ug/L	93
92) bromoform	7.757	173	4129	1.62	ug/L	92
94) n-amyl acetate	7.702	70	4232	1.96	ug/L	87
95) isopropylbenzene	7.910	105	31108	2.03	ug/L	95
96) cis-1,4-dichloro-2-butene	7.952	88	1749	1.49	ug/L #	81
99) bromobenzene	8.221	156	7395	2.19	ug/L	98
100) 1,1,2,2-tetrachloroethane	8.184	83	6743	2.47	ug/L	73
102) 1,2,3-trichloropropane	8.251	110	1907	2.09	ug/L	95
103) n-propylbenzene	8.306	91	34553	2.42	ug/L	96
104) 2-chlorotoluene	8.391	126	7951	2.31	ug/L	92
105) 4-chlorotoluene	8.513	126	7754	2.14	ug/L	95
106) 1,3,5-trimethylbenzene	8.477	105	24706	2.24	ug/L	95
107) tert-butylbenzene	8.781	134	5912	2.11	ug/L	89
108) 1,2,4-trimethylbenzene	8.836	105	25410	2.24	ug/L	84
109) sec-butylbenzene	8.995	105	30552	2.20	ug/L	97
110) 1,3-dichlorobenzene	9.111	146	14498	2.07	ug/L	92
111) p-isopropyltoluene	9.141	119	25615	2.11	ug/L	99
112) 1,4-dichlorobenzene	9.208	146	15040	2.20	ug/L	93
113) 1,2,3-trimethylbenzene	9.239	105	25046	2.28	ug/L	88
114) benzyl chloride	9.312	91	13717	2.21	ug/L	96
115) 1,2-dichlorobenzene	9.562	146	13517	2.06	ug/L	90
116) n-butylbenzene	9.543	92	12109	2.15	ug/L	86
117) 1,2-dibromo-3-chloropr...	10.324	157	1506	2.03	ug/L	90
118) 1,3,5-trichlorobenzene	10.525	180	10244	2.14	ug/L	97
119) 1,2,4-trichlorobenzene	11.147	180	7759	2.04	ug/L	82
120) hexachlorobutadiene	11.293	225	3341	2.21	ug/L	78
121) naphthalene	11.409	128	17219	1.95	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174405.D
Acq On : 10 Mar 2022 2:48 pm
Operator : brittank
Sample : ic7392-2
Misc : MS57062,V3D7392,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 19:48:10 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022
QLast Update : Thu Mar 10 17:12:34 2022
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
122) 1,2,3-trichlorobenzene	11.635	180	6416	1.98	ug/L	80
123) hexachloroethane	9.836	201	3590	1.93	ug/L	85
124) 2-methylnaphthalene	12.537	142	3876	0.86	ug/L	95

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

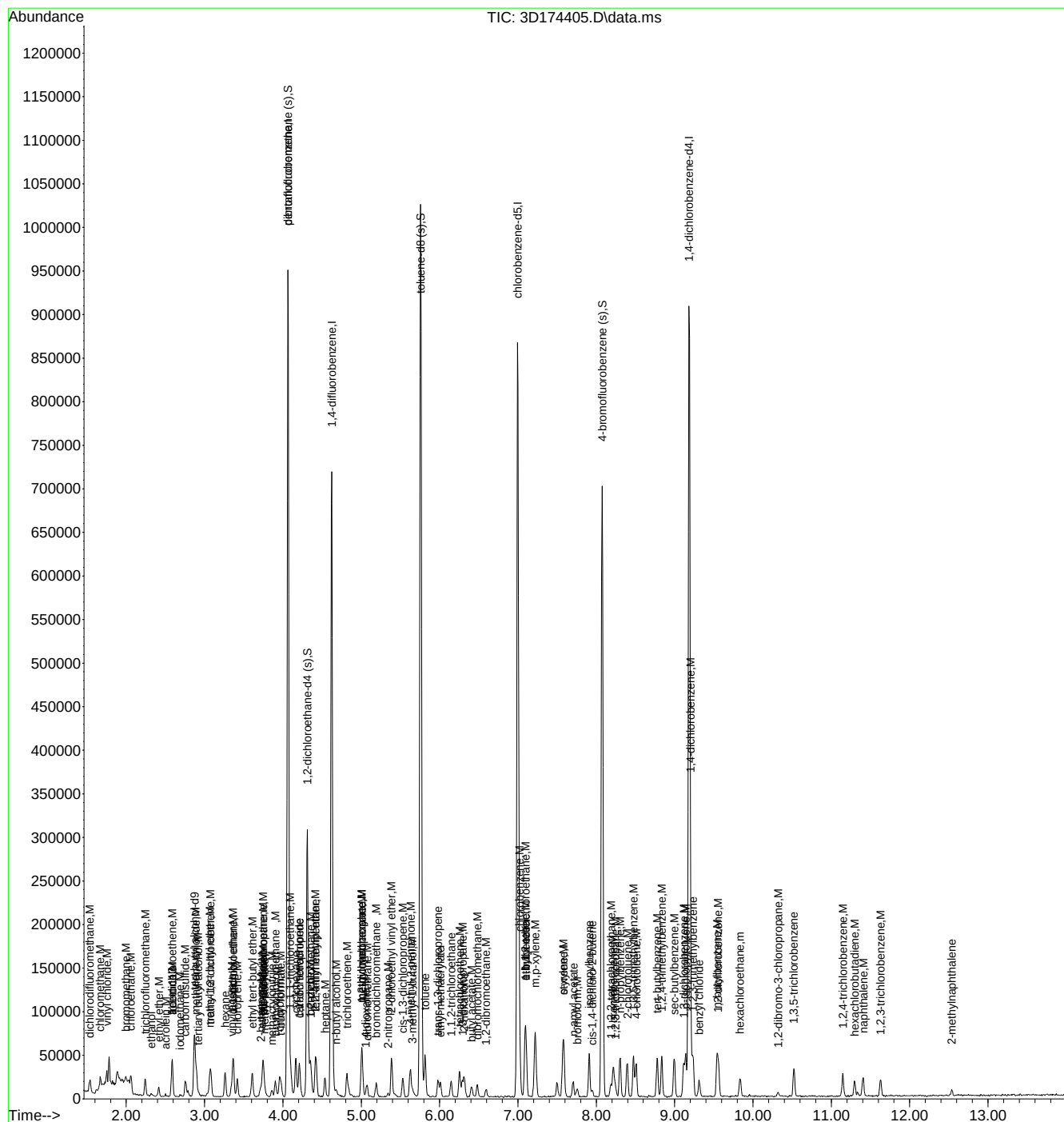
7.6.18

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174405.D
Acq On : 10 Mar 2022 2:48 pm
Operator : brittank
Sample : ic7392-2
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 19:48:10 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rx1-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022
QLast Update : Thu Mar 10 17:12:34 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174406.D
 Acq On : 10 Mar 2022 3:11 pm
 Operator : brittank
 Sample : ic7392-4
 Misc : MS57062,V3D7392,5,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 11 19:49:32 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.868	65	76138	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	347555	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.624	114	508451	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	464403	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.190	152	242681	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.069	113	154064	52.28	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	104.56%	
52) 1,2-dichloroethane-d4 (s)	4.313	65	174205	55.19	ug/L	0.00
Spiked Amount 50.000	Range 81	- 124	Recovery	=	110.38%	
74) toluene-d8 (s)	5.758	98	617045	55.27	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	110.54%	
98) 4-bromofluorobenzene (s)	8.074	95	225984	56.81	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	113.62%	

Target Compounds

						Qvalue
2) tertiary butyl alcohol	2.929	59	4860	22.14	ug/L	72
3) ethanol	2.319	45	5733	543.16	ug/L	96
4) 1,4-dioxane	5.044	88	1402	111.69	ug/L	79
6) chlorodifluoromethane	1.539	51	13967	4.86	ug/L	93
7) dichlorodifluoromethane	1.533	85	15394	4.57	ug/L	93
8) chloromethane	1.667	50	14979	4.78	ug/L	96
9) vinyl chloride	1.752	62	15914	4.41	ug/L	96
10) 1,3-butadiene	1.783	54	19752	6.05	ug/L	90
11) bromomethane	1.990	94	4877	3.73	ug/L	94
12) chloroethane	2.063	64	10807	4.99	ug/L	97
13) trichlorofluoromethane	2.246	101	23638	4.84	ug/L	86
14) ethyl ether	2.417	74	7766	4.84	ug/L	88
15) acrolein	2.502	56	2161	4.66	ug/L	89
16) freon 113	2.587	151	11474	4.72	ug/L #	88
17) 1,1-dichloroethene	2.587	96	12489	5.28	ug/L	96
18) acetone	2.587	58	3784	20.46	ug/L	87
20) iodomethane	2.691	142	4428	1.85	ug/L	69
21) carbon disulfide	2.752	76	33159	4.91	ug/L	98
22) methylene chloride	2.898	84	14844	5.21	ug/L	91
23) methyl acetate	2.789	43	9633	5.55	ug/L	95
24) methyl tert butyl ether	3.063	73	38258	4.83	ug/L	94
25) trans-1,2-dichloroethene	3.081	96	13628	4.97	ug/L	99
26) di-isopropyl ether	3.368	45	39391	5.13	ug/L	93
27) 2-butanone	3.709	72	6035	20.02	ug/L #	76
28) 1,1-dichloroethane	3.362	63	23215	4.98	ug/L	98
29) chloroprene	3.417	53	19157	4.72	ug/L	94
30) acrylonitrile	3.026	53	3851	4.47	ug/L	83
31) hexane	3.264	56	12233	4.99	ug/L	86
32) vinyl acetate	3.343	86	3410	4.54	ug/L #	89
33) ethyl tert-butyl ether	3.606	59	39991	4.59	ug/L	96
34) ethyl acetate	3.734	45	1913	5.26	ug/L #	22
35) 2,2-dichloropropane	3.752	77	22168	4.97	ug/L	98
36) cis-1,2-dichloroethene	3.740	96	14746	4.72	ug/L	90
37) methyl acrylate	3.776	85	2396	5.26	ug/L #	87
38) propionitrile	3.746	54	16238	53.36	ug/L	93
39) bromochloromethane	3.904	128	7228	4.23	ug/L	88
41) chloroform	3.959	85	17297	5.12	ug/L	93
42) t-butyl formate	3.977	59	13326	4.65	ug/L	97
44) methacrylonitrile	3.856	67	6003	5.25	ug/L	83
45) 1,1,1-trichloroethane	4.099	97	22977	4.70	ug/L	89
46) cyclohexane	4.166	84	19406	4.26	ug/L #	88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174406.D
 Acq On : 10 Mar 2022 3:11 pm
 Operator : brittank
 Sample : ic7392-4
 Misc : MS57062,V3D7392,5,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 11 19:49:32 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) 1,1-dichloropropene	4.209	75	18260	4.79	ug/L	91
48) iso-butyl alcohol	4.197	43	3141	52.15	ug/L #	73
49) carbon tetrachloride	4.215	117	20055	4.48	ug/L	87
50) tert amyl alcohol	4.301	55	1462	20.83	ug/L #	80
53) n-butyl alcohol	4.679	56	10553	265.67	ug/L	94
54) 2,2,4-trimethylpentane	4.422	57	40850	4.91	ug/L	98
55) benzene	4.349	78	52959	4.95	ug/L	95
56) tert-amyl methyl ether	4.416	87	10350	4.72	ug/L	90
57) heptane	4.538	71	10503	4.50	ug/L	92
58) isopropyl acetate	4.325	87	3136	4.58	ug/L #	80
59) 1,2-dichloroethane	4.368	62	18823	4.85	ug/L	94
60) trichloroethene	4.813	130	14855	4.10	ug/L	97
61) ethyl acrylate	4.831	55	16157	5.01	ug/L	94
62) 2-nitropropane	5.337	41	3932	4.78	ug/L	87
63) 2-chloroethyl vinyl ether	5.386	63	38899	22.44	ug/L	94
64) methyl methacrylate	5.014	100	3713	4.61	ug/L #	92
65) 1,2-dichloropropane	5.008	63	13860	4.88	ug/L	93
66) dibromomethane	5.069	93	9188	4.82	ug/L	98
67) methylcyclohexane	5.008	83	23903	4.71	ug/L	93
68) bromodichloromethane	5.191	83	19055	4.49	ug/L	96
70) cis-1,3-dichloropropene	5.526	75	23032	4.55	ug/L	99
71) 4-methyl-2-pentanone	5.623	58	17262	18.61	ug/L #	81
72) 3-methyl-1-butanol	5.654	55	8087	107.73	ug/L	84
75) toluene	5.812	92	36116	4.92	ug/L	94
76) trans-1,3-dichloropropene	5.977	75	20181	4.50	ug/L	98
77) ethyl methacrylate	6.008	69	18095	5.00	ug/L	99
78) 1,1,2-trichloroethane	6.148	83	10591	4.99	ug/L #	80
79) tetrachloroethene	6.251	164	13600	4.77	ug/L	91
80) 1,3-dichloropropane	6.288	76	21000	4.98	ug/L	94
81) 2-hexanone	6.312	58	16659	20.56	ug/L	98
82) butyl acetate	6.410	56	8421	5.30	ug/L	90
83) dibromochloromethane	6.483	129	14157	4.14	ug/L	88
84) 1,2-dibromoethane	6.593	107	12642	4.35	ug/L	93
85) n-butyl ether	7.087	57	58216	5.11	ug/L	96
86) chlorobenzene	7.026	112	40588	4.69	ug/L	96
87) 1,1,1,2-tetrachloroethane	7.099	131	14771	4.56	ug/L	84
88) ethylbenzene	7.105	91	68438	5.09	ug/L	99
89) m,p-xylene	7.221	106	57220	9.61	ug/L	98
90) o-xylene	7.574	106	27663	4.53	ug/L	86
91) styrene	7.586	104	45819	4.50	ug/L	96
92) bromoform	7.751	173	9591	3.75	ug/L	88
93) butyl acrylate	7.495	55	24957	4.76	ug/L	97
94) n-amyl acetate	7.702	70	9689	4.46	ug/L #	85
95) isopropylbenzene	7.910	105	66951	4.34	ug/L	98
96) cis-1,4-dichloro-2-butene	7.952	88	4164	3.52	ug/L	89
99) bromobenzene	8.221	156	17075	4.87	ug/L	94
100) 1,1,2,2-tetrachloroethane	8.178	83	14386	5.08	ug/L	96
101) trans-1,4-dichloro-2-b...	8.208	53	3183	5.09	ug/L #	45
102) 1,2,3-trichloropropane	8.239	110	4950	5.23	ug/L	80
103) n-propylbenzene	8.306	91	79610	5.36	ug/L	91
104) 2-chlorotoluene	8.391	126	18213	5.09	ug/L	98
105) 4-chlorotoluene	8.507	126	16964	4.50	ug/L #	73
106) 1,3,5-trimethylbenzene	8.477	105	57151	4.99	ug/L	90
107) tert-butylbenzene	8.775	134	13818	4.74	ug/L	92
108) 1,2,4-trimethylbenzene	8.836	105	58282	4.95	ug/L	88
109) sec-butylbenzene	8.995	105	71237	4.93	ug/L	94
110) 1,3-dichlorobenzene	9.117	146	32228	4.42	ug/L	99
111) p-isopropyltoluene	9.141	119	59452	4.71	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174406.D
Acq On : 10 Mar 2022 3:11 pm
Operator : brittank
Sample : ic7392-4
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 11 19:49:32 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022
QLast Update : Thu Mar 10 17:12:34 2022
Response via : Initial Calibration

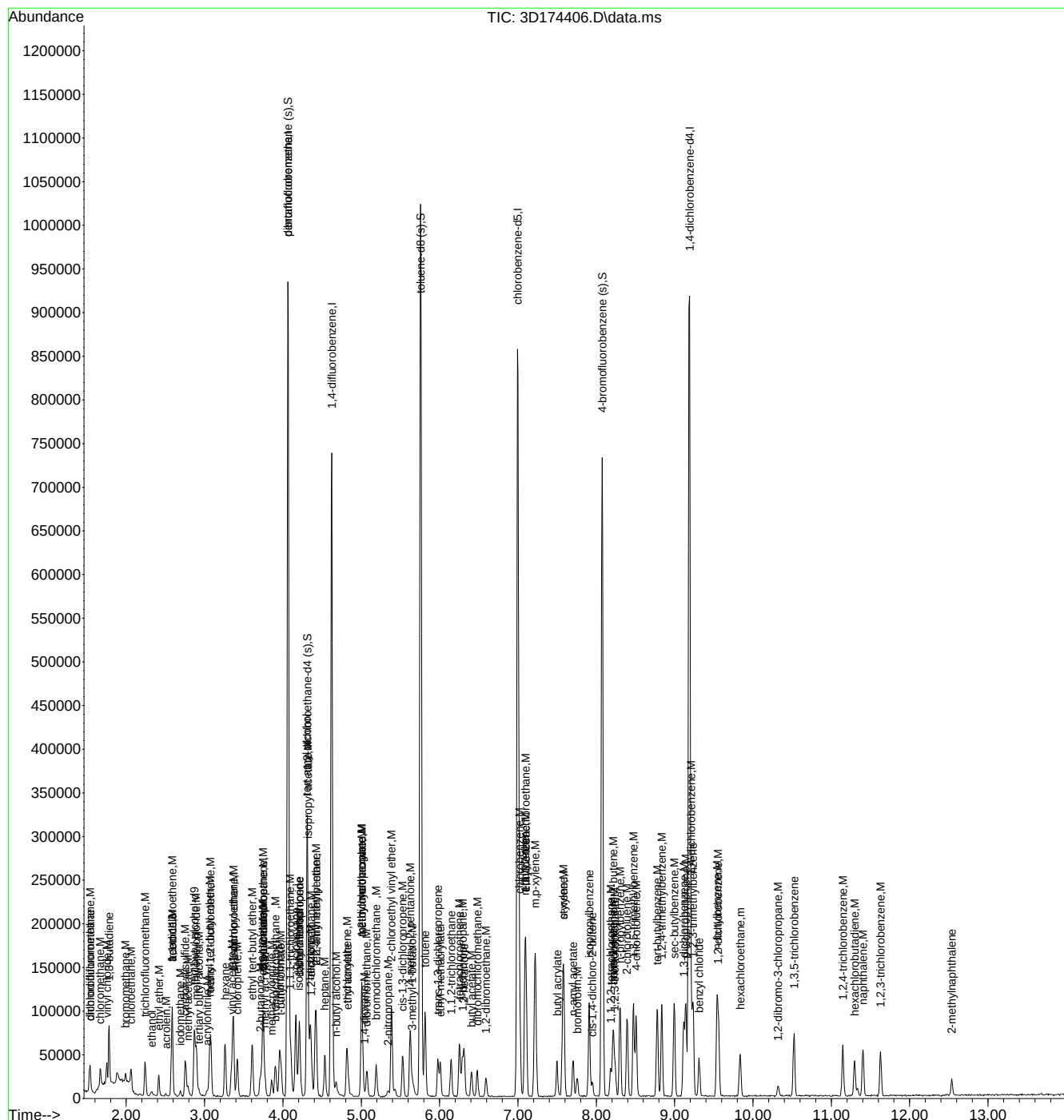
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
112) 1,4-dichlorobenzene	9.214	146	32370	4.55	ug/L	98
113) 1,2,3-trimethylbenzene	9.239	105	57172	5.00	ug/L	91
114) benzyl chloride	9.312	91	29367	4.55	ug/L	88
115) 1,2-dichlorobenzene	9.562	146	31702	4.66	ug/L	94
116) n-butylbenzene	9.543	92	27031	4.63	ug/L	92
117) 1,2-dibromo-3-chloropr...	10.318	157	3439	4.46	ug/L	92
118) 1,3,5-trichlorobenzene	10.525	180	21421	4.31	ug/L	98
119) 1,2,4-trichlorobenzene	11.147	180	17352	4.39	ug/L	97
120) hexachlorobutadiene	11.299	225	6641	4.22	ug/L	85
121) naphthalene	11.403	128	41068	4.48	ug/L	96
122) 1,2,3-trichlorobenzene	11.628	180	14981	4.46	ug/L	89
123) hexachloroethane	9.836	201	7793	4.03	ug/L	89
124) 2-methylnaphthalene	12.537	142	9004	1.93	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174406.D
Acq On : 10 Mar 2022 3:11 pm
Operator : brittank
Sample : ic7392-4
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 11 19:49:32 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022
QLast Update : Thu Mar 10 17:12:34 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174407.D
 Acq On : 10 Mar 2022 3:35 pm
 Operator : brittank
 Sample : ic7392-8
 Misc : MS57062,V3D7392,5,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 10 18:13:35 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.874	65	81538	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	358477	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.624	114	522459	50.00	ug/L	0.00
73) chlorobenzene-d5	7.001	117	482634	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.184	152	251826	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.069	113	157428	51.79	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.58%
52) 1,2-dichloroethane-d4 (s)	4.313	65	179883	55.46	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	110.92%
74) toluene-d8 (s)	5.757	98	635554	54.78	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	109.56%
98) 4-bromofluorobenzene (s)	8.074	95	236575	57.31	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	114.62%

Target Compounds

Qvalue

2) tertiary butyl alcohol	2.929	59	9900	42.11	ug/L	85
3) ethanol	2.319	45	12645	1118.68	ug/L	93
4) 1,4-dioxane	5.050	88	3482	259.03	ug/L	87
6) chlorodifluoromethane	1.545	51	25646	8.65	ug/L	99
7) dichlorodifluoromethane	1.533	85	28296	8.15	ug/L	99
8) chloromethane	1.673	50	28915	8.94	ug/L	97
9) vinyl chloride	1.752	62	31174	8.38	ug/L	96
10) 1,3-butadiene	1.783	54	32341	9.60	ug/L	96
11) bromomethane	1.990	94	8341	6.19	ug/L	97
12) chloroethane	2.063	64	20489	9.17	ug/L	99
13) trichlorofluoromethane	2.246	101	43926	8.72	ug/L	95
14) ethyl ether	2.417	74	15262	9.23	ug/L	93
15) acrolein	2.502	56	3801	7.94	ug/L	86
16) freon 113	2.581	151	22857	9.12	ug/L	96
17) 1,1-dichloroethene	2.587	96	21922	8.99	ug/L	86
18) acetone	2.587	58	7240	37.95	ug/L	97
19) acetonitrile	2.764	41	26663	103.81	ug/L	98
20) iodomethane	2.691	142	10419	4.22	ug/L	96
21) carbon disulfide	2.752	76	63764	9.16	ug/L	98
22) methylene chloride	2.898	84	26505	9.02	ug/L	95
23) methyl acetate	2.789	43	16594	9.28	ug/L	95
24) methyl tert butyl ether	3.063	73	73244	8.96	ug/L	98
25) trans-1,2-dichloroethene	3.081	96	25960	9.18	ug/L	96
26) di-isopropyl ether	3.368	45	71970	9.08	ug/L	96
27) 2-butanone	3.709	72	10960	35.25	ug/L	88
28) 1,1-dichloroethane	3.362	63	42939	8.94	ug/L	97
29) chloroprene	3.416	53	37745	9.01	ug/L	93
30) acrylonitrile	3.032	53	7243	8.14	ug/L	86
31) hexane	3.264	56	22062	8.72	ug/L	98
32) vinyl acetate	3.337	86	6037	7.79	ug/L	97
33) ethyl tert-butyl ether	3.605	59	80616	8.96	ug/L	95
34) ethyl acetate	3.721	45	3786	10.09	ug/L #	37
35) 2,2-dichloropropane	3.752	77	42669	9.27	ug/L	98
36) cis-1,2-dichloroethene	3.740	96	28091	8.71	ug/L	95
37) methyl acrylate	3.770	85	4202	8.94	ug/L	96
38) propionitrile	3.746	54	30406	96.87	ug/L	94
39) bromochloromethane	3.904	128	14573	8.27	ug/L	86
40) tetrahydrofuran	3.916	42	7118	11.24	ug/L	93
41) chloroform	3.959	85	31791	9.12	ug/L	99
42) t-butyl formate	3.977	59	25353	8.57	ug/L	95
44) methacrylonitrile	3.855	67	10218	8.67	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174407.D
 Acq On : 10 Mar 2022 3:35 pm
 Operator : brittank
 Sample : ic7392-8
 Misc : MS57062,V3D7392,5,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 10 18:13:35 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) 1,1,1-trichloroethane	4.099	97	43135	8.55	ug/L	96
46) cyclohexane	4.166	84	39084	8.32	ug/L	91
47) 1,1-dichloropropene	4.209	75	33353	8.48	ug/L	97
48) iso-butyl alcohol	4.203	43	5877	94.61	ug/L #	62
49) carbon tetrachloride	4.215	117	39620	8.59	ug/L	97
50) tert amyl alcohol	4.300	55	4092	56.52	ug/L #	84
53) n-butyl alcohol	4.678	56	18936	463.92	ug/L	91
54) 2,2,4-trimethylpentane	4.422	57	76670	8.97	ug/L	99
55) benzene	4.349	78	97918	8.91	ug/L	99
56) tert-amyl methyl ether	4.416	87	19139	8.50	ug/L	95
57) heptane	4.532	71	20411	8.51	ug/L	92
58) isopropyl acetate	4.325	87	6328	8.99	ug/L #	56
59) 1,2-dichloroethane	4.368	62	36366	9.11	ug/L	96
60) trichloroethene	4.819	130	28966	7.77	ug/L	97
61) ethyl acrylate	4.831	55	30309	9.14	ug/L	93
62) 2-nitropropane	5.343	41	8391	9.93	ug/L	94
63) 2-chloroethyl vinyl ether	5.386	63	78712	44.19	ug/L	96
64) methyl methacrylate	5.008	100	7023	8.48	ug/L #	53
65) 1,2-dichloropropane	5.008	63	24991	8.56	ug/L	96
66) dibromomethane	5.069	93	16864	8.60	ug/L	96
67) methylcyclohexane	5.008	83	46774	8.97	ug/L	87
68) bromodichloromethane	5.191	83	36369	8.34	ug/L	98
69) epichlorohydrin	5.428	57	11710	47.16	ug/L	82
70) cis-1,3-dichloropropene	5.532	75	42265	8.12	ug/L	96
71) 4-methyl-2-pentanone	5.623	58	33636	35.29	ug/L	90
72) 3-methyl-1-butanol	5.648	55	15481	200.70	ug/L	93
75) toluene	5.818	92	68491	8.97	ug/L	96
76) trans-1,3-dichloropropene	5.977	75	39777	8.54	ug/L	97
77) ethyl methacrylate	6.007	69	34038	9.05	ug/L	96
78) 1,1,2-trichloroethane	6.148	83	20488	9.29	ug/L	92
79) tetrachloroethene	6.257	164	26782	9.04	ug/L	92
80) 1,3-dichloropropane	6.288	76	40123	9.15	ug/L	97
81) 2-hexanone	6.312	58	32406	38.48	ug/L	94
82) butyl acetate	6.404	56	15524	9.39	ug/L	98
83) dibromochloromethane	6.483	129	29163	8.20	ug/L	99
84) 1,2-dibromoethane	6.593	107	24528	8.13	ug/L	93
85) n-butyl ether	7.087	57	114983	9.71	ug/L	96
86) chlorobenzene	7.026	112	78673	8.75	ug/L	97
87) 1,1,1,2-tetrachloroethane	7.093	131	28692	8.52	ug/L	96
88) ethylbenzene	7.105	91	133613	9.56	ug/L	93
89) m,p-xylene	7.221	106	108083	17.47	ug/L	98
90) o-xylene	7.574	106	53616	8.45	ug/L	80
91) styrene	7.586	104	89788	8.48	ug/L	97
92) bromoform	7.757	173	19694	7.40	ug/L	98
93) butyl acrylate	7.495	55	48146	8.84	ug/L	94
94) n-amyl acetate	7.702	70	19311	8.56	ug/L	93
95) isopropylbenzene	7.910	105	133860	8.35	ug/L	97
96) cis-1,4-dichloro-2-butene	7.946	88	8286	6.74	ug/L	90
99) bromobenzene	8.220	156	35375	9.72	ug/L	93
100) 1,1,2,2-tetrachloroethane	8.184	83	27926	9.51	ug/L	95
101) trans-1,4-dichloro-2-b...	8.220	53	6471	9.96	ug/L	97
102) 1,2,3-trichloropropane	8.245	110	9710	9.88	ug/L	96
103) n-propylbenzene	8.306	91	155047	10.06	ug/L	95
104) 2-chlorotoluene	8.397	126	34604	9.32	ug/L	93
105) 4-chlorotoluene	8.507	126	35078	8.97	ug/L #	79
106) 1,3,5-trimethylbenzene	8.476	105	110363	9.28	ug/L	97
107) tert-butylbenzene	8.775	134	25344	8.39	ug/L #	84
108) 1,2,4-trimethylbenzene	8.836	105	112497	9.21	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174407.D
Acq On : 10 Mar 2022 3:35 pm
Operator : brittank
Sample : ic7392-8
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 10 18:13:35 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022
QLast Update : Thu Mar 10 17:12:34 2022
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) sec-butylbenzene	8.995	105	137701	9.18	ug/L	96
110) 1,3-dichlorobenzene	9.117	146	64402	8.51	ug/L	98
111) p-isopropyltoluene	9.141	119	116301	8.89	ug/L	97
112) 1,4-dichlorobenzene	9.208	146	63884	8.65	ug/L	97
113) 1,2,3-trimethylbenzene	9.232	105	111583	9.41	ug/L	96
114) benzyl chloride	9.312	91	61358	9.17	ug/L	97
115) 1,2-dichlorobenzene	9.562	146	62443	8.85	ug/L	98
116) n-butylbenzene	9.537	92	54968	9.06	ug/L	96
117) 1,2-dibromo-3-chloropr...	10.318	157	6112	7.64	ug/L	79
118) 1,3,5-trichlorobenzene	10.519	180	42470	8.23	ug/L	92
119) 1,2,4-trichlorobenzene	11.147	180	33370	8.14	ug/L	98
120) hexachlorobutadiene	11.299	225	13595	8.33	ug/L	94
121) naphthalene	11.403	128	81279	8.55	ug/L	98
122) 1,2,3-trichlorobenzene	11.628	180	28944	8.30	ug/L	93
123) hexachloroethane	9.836	201	14546	7.24	ug/L	93
124) 2-methylnaphthalene	12.537	142	18845	3.88	ug/L	99

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

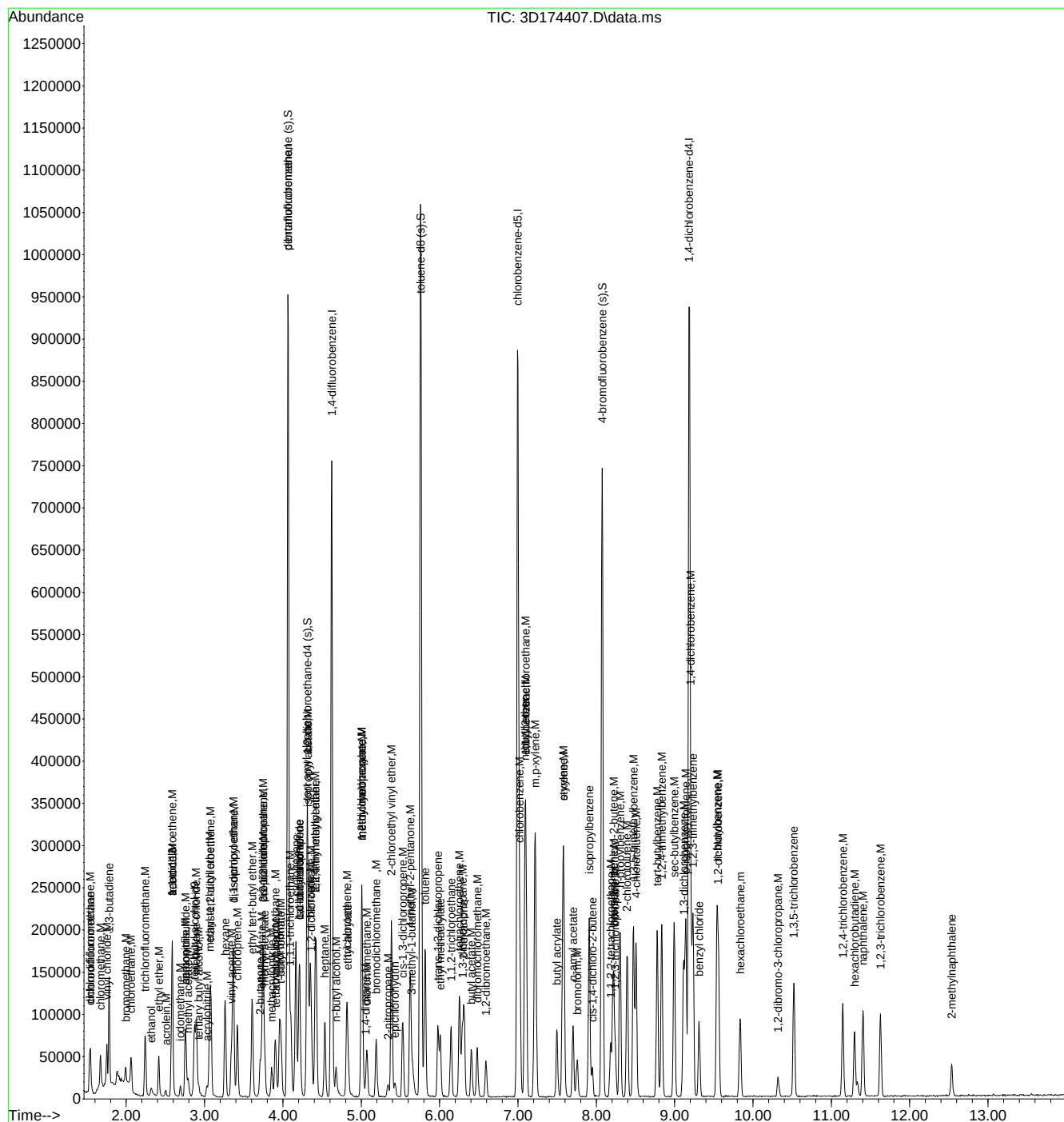
7.6.20

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Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\V3D7392\  
Data File : 3D174407.D  
Acq On : 10 Mar 2022 3:35 pm  
Operator : brittank  
Sample : ic7392-8  
Misc : MS57062,V3D7392,5,,,,1  
ALS Vial : 7 Sample Multiplier: 1
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Quant Time: Mar 10 18:13:35 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022
QLast Update : Thu Mar 10 17:12:34 2022
Response via : Initial Calibration



7.6.20

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174408.D
 Acq On : 10 Mar 2022 3:58 pm
 Operator : brittank
 Sample : ic7392-20
 Misc : MS57062,V3D7392,5,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 10 18:13:36 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.868	65	75553	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	361786	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.624	114	537776	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	513465	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.190	152	275509	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.069	113	155557	50.71	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.42%
52) 1,2-dichloroethane-d4 (s)	4.313	65	175573	52.59	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	105.18%
74) toluene-d8 (s)	5.757	98	651199	52.76	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	105.52%
98) 4-bromofluorobenzene (s)	8.074	95	262516	58.13	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	116.26%

Target Compounds

						Qvalue
2) tertiary butyl alcohol	2.923	59	20408	93.69	ug/L	99
3) ethanol	2.319	45	24064	2297.54	ug/L	98
4) 1,4-dioxane	5.044	88	6592	529.23	ug/L	95
6) chlorodifluoromethane	1.539	51	63228	21.13	ug/L	98
7) dichlorodifluoromethane	1.533	85	71132	20.29	ug/L	98
8) chloromethane	1.667	50	69508	21.29	ug/L	98
9) vinyl chloride	1.752	62	76716	20.42	ug/L	100
10) 1,3-butadiene	1.783	54	74908	22.03	ug/L	98
11) bromomethane	1.990	94	26126	19.22	ug/L	96
12) chloroethane	2.063	64	47558	21.10	ug/L	96
13) trichlorofluoromethane	2.240	101	106111	20.88	ug/L	96
14) ethyl ether	2.417	74	34479	20.65	ug/L	96
15) acrolein	2.502	56	9783	20.25	ug/L	# 66
16) freon 113	2.581	151	54740	21.63	ug/L	98
17) 1,1-dichloroethene	2.587	96	52541	21.35	ug/L	98
18) acetone	2.587	58	17131	88.97	ug/L	88
19) acetonitrile	2.764	41	54018	208.38	ug/L	98
20) iodomethane	2.691	142	36001	14.46	ug/L	97
21) carbon disulfide	2.752	76	150621	21.44	ug/L	98
22) methylene chloride	2.898	84	63381	21.38	ug/L	99
23) methyl acetate	2.789	43	37618	20.84	ug/L	95
24) methyl tert butyl ether	3.063	73	174246	21.12	ug/L	99
25) trans-1,2-dichloroethene	3.081	96	61107	21.42	ug/L	94
26) di-isopropyl ether	3.368	45	171520	21.45	ug/L	98
27) 2-butanone	3.709	72	24939	79.47	ug/L	91
28) 1,1-dichloroethane	3.362	63	105334	21.72	ug/L	97
29) chloroprene	3.416	53	88223	20.86	ug/L	97
30) acrylonitrile	3.032	53	17358	19.33	ug/L	97
31) hexane	3.264	56	53373	20.90	ug/L	97
32) vinyl acetate	3.337	86	16276	20.81	ug/L	95
33) ethyl tert-butyl ether	3.605	59	190690	21.01	ug/L	97
34) ethyl acetate	3.727	45	8448	22.30	ug/L	# 72
35) 2,2-dichloropropane	3.752	77	99380	21.40	ug/L	99
36) cis-1,2-dichloroethene	3.740	96	67423	20.72	ug/L	98
37) methyl acrylate	3.770	85	9550	20.14	ug/L	96
38) propionitrile	3.746	54	66739	210.69	ug/L	98
39) bromochloromethane	3.904	128	34049	19.15	ug/L	97
40) tetrahydrofuran	3.916	42	14602	22.84	ug/L	90
41) chloroform	3.959	85	74351	21.14	ug/L	97
42) t-butyl formate	3.977	59	59076	19.78	ug/L	87
44) methacrylonitrile	3.855	67	24236	20.37	ug/L	88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174408.D
 Acq On : 10 Mar 2022 3:58 pm
 Operator : brittank
 Sample : ic7392-20
 Misc : MS57062,V3D7392,5,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 10 18:13:36 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) 1,1,1-trichloroethane	4.099	97	102587	20.15	ug/L	99
46) cyclohexane	4.166	84	95715	20.19	ug/L	97
47) 1,1-dichloropropene	4.209	75	83068	20.93	ug/L	96
48) iso-butyl alcohol	4.203	43	12636	201.56	ug/L	94
49) carbon tetrachloride	4.215	117	94887	20.38	ug/L	97
50) tert amyl alcohol	4.294	55	7483	102.41	ug/L #	69
53) n-butyl alcohol	4.678	56	40948	974.63	ug/L	99
54) 2,2,4-trimethylpentane	4.422	57	187024	21.25	ug/L	98
55) benzene	4.349	78	236541	20.92	ug/L	99
56) tert-amyl methyl ether	4.416	87	47171	20.35	ug/L	90
57) heptane	4.538	71	50406	20.43	ug/L	98
58) isopropyl acetate	4.325	87	14536	20.06	ug/L #	68
59) 1,2-dichloroethane	4.367	62	86087	20.96	ug/L	100
60) trichloroethene	4.819	130	72867	19.00	ug/L	95
61) ethyl acrylate	4.831	55	69439	20.34	ug/L	99
62) 2-nitropropane	5.337	41	17822	20.48	ug/L	94
63) 2-chloroethyl vinyl ether	5.386	63	187490	102.26	ug/L	98
64) methyl methacrylate	5.014	100	17202	20.19	ug/L #	88
65) 1,2-dichloropropane	5.001	63	60374	20.08	ug/L	98
66) dibromomethane	5.069	93	39655	19.65	ug/L	95
67) methylcyclohexane	5.008	83	110370	20.57	ug/L	95
68) bromodichloromethane	5.190	83	90996	20.27	ug/L	95
69) epichlorohydrin	5.428	57	26165	102.37	ug/L	86
70) cis-1,3-dichloropropene	5.532	75	106559	19.89	ug/L	99
71) 4-methyl-2-pentanone	5.623	58	78454	79.97	ug/L	99
72) 3-methyl-1-butanol	5.648	55	33618	423.42	ug/L	89
75) toluene	5.812	92	168245	20.72	ug/L	98
76) trans-1,3-dichloropropene	5.977	75	100691	20.31	ug/L	97
77) ethyl methacrylate	6.007	69	85263	21.31	ug/L	99
78) 1,1,2-trichloroethane	6.148	83	47226	20.12	ug/L	96
79) tetrachloroethene	6.257	164	65314	20.73	ug/L	93
80) 1,3-dichloropropane	6.288	76	99457	21.32	ug/L	99
81) 2-hexanone	6.312	58	76874	85.81	ug/L	96
82) butyl acetate	6.404	56	37377	21.26	ug/L	94
83) dibromochloromethane	6.477	129	73759	19.49	ug/L	98
84) 1,2-dibromoethane	6.593	107	63845	19.88	ug/L	96
85) n-butyl ether	7.086	57	273371	21.70	ug/L	98
86) chlorobenzene	7.025	112	197090	20.61	ug/L	98
87) 1,1,1,2-tetrachloroethane	7.093	131	71294	19.91	ug/L	96
88) ethylbenzene	7.105	91	323594	21.76	ug/L	95
89) m,p-xylene	7.221	106	266665	40.51	ug/L	98
90) o-xylene	7.574	106	140584	20.83	ug/L	96
91) styrene	7.586	104	225709	20.03	ug/L	98
92) bromoform	7.757	173	49964	17.65	ug/L	99
93) butyl acrylate	7.495	55	118703	20.48	ug/L	97
94) n-amyl acetate	7.702	70	47449	19.76	ug/L	99
95) isopropylbenzene	7.909	105	343459	20.14	ug/L	99
96) cis-1,4-dichloro-2-butene	7.952	88	22923	17.53	ug/L	96
99) bromobenzene	8.220	156	90574	22.74	ug/L	95
100) 1,1,2,2-tetrachloroethane	8.184	83	73329	22.82	ug/L	98
101) trans-1,4-dichloro-2-b...	8.220	53	15822	22.27	ug/L	96
102) 1,2,3-trichloropropane	8.245	110	24268	22.58	ug/L	97
103) n-propylbenzene	8.306	91	395373	23.44	ug/L	96
104) 2-chlorotoluene	8.397	126	87193	21.47	ug/L	99
105) 4-chlorotoluene	8.507	126	91044	21.27	ug/L	87
106) 1,3,5-trimethylbenzene	8.476	105	291477	22.40	ug/L	96
107) tert-butylbenzene	8.781	134	69977	21.16	ug/L	96
108) 1,2,4-trimethylbenzene	8.836	105	295564	22.12	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174408.D
Acq On : 10 Mar 2022 3:58 pm
Operator : brittank
Sample : ic7392-20
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 10 18:13:36 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022
QLast Update : Thu Mar 10 17:12:34 2022
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) sec-butylbenzene	8.995	105	362574	22.10	ug/L	98
110) 1,3-dichlorobenzene	9.117	146	173418	20.95	ug/L	96
111) p-isopropyltoluene	9.141	119	313600	21.90	ug/L	95
112) 1,4-dichlorobenzene	9.214	146	161815	20.03	ug/L	98
113) 1,2,3-trimethylbenzene	9.232	105	277410	21.38	ug/L	93
114) benzyl chloride	9.312	91	153398	20.95	ug/L	97
115) 1,2-dichlorobenzene	9.562	146	157865	20.44	ug/L	98
116) n-butylbenzene	9.537	92	145993	22.01	ug/L	96
117) 1,2-dibromo-3-chloropr...	10.324	157	17624	20.13	ug/L	97
118) 1,3,5-trichlorobenzene	10.525	180	115376	20.44	ug/L	100
119) 1,2,4-trichlorobenzene	11.147	180	88943	19.82	ug/L	93
120) hexachlorobutadiene	11.299	225	35432	19.86	ug/L	95
121) naphthalene	11.403	128	211997	20.38	ug/L	99
122) 1,2,3-trichlorobenzene	11.628	180	75646	19.82	ug/L	96
123) hexachloroethane	9.836	201	44457	20.23	ug/L	98
124) 2-methylnaphthalene	12.537	142	47310	8.91	ug/L	98

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

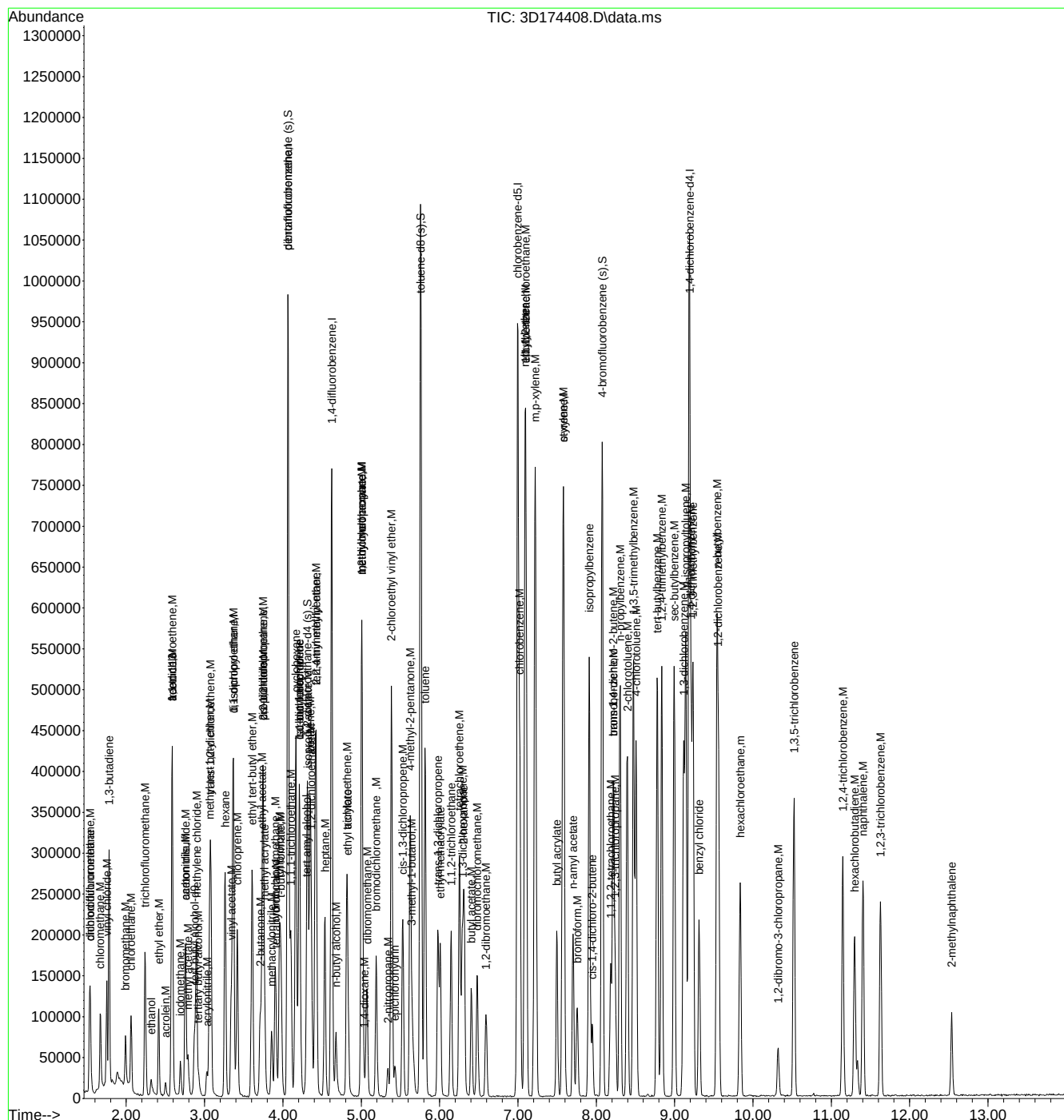
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Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\V3D7392\  
Data File : 3D174408.D  
Acq On : 10 Mar 2022 3:58 pm  
Operator : brittank  
Sample : ic7392-20  
Misc : MS57062,V3D7392,5,,,,,1  
ALS Vial : 8 Sample Multiplier: 1
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Quant Time: Mar 10 18:13:36 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022
QLast Update : Thu Mar 10 17:12:34 2022
Response via : Initial Calibration



7.6.21

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174409.D
 Acq On : 10 Mar 2022 4:21 pm
 Operator : brittank
 Sample : icc7392-50
 Misc : MS57062,V3D7392,5,,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 10 18:13:38 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.868	65	77606	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	399525	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.623	114	582272	50.00	ug/L	0.00
73) chlorobenzene-d5	7.001	117	567932	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.190	152	340284	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.063	113	169377	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	100.00%	
52) 1,2-dichloroethane-d4 (s)	4.313	65	181684	50.27	ug/L	0.00
Spiked Amount 50.000	Range 81	- 124	Recovery	=	100.54%	
74) toluene-d8 (s)	5.757	98	682652	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	100.00%	
98) 4-bromofluorobenzene (s)	8.074	95	278877	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80	- 120	Recovery	=	100.00%	

Target Compounds

						Qvalue
2) tertiary butyl alcohol	2.923	59	55937	250.00	ug/L	100
3) ethanol	2.319	45	53792	5000.00	ug/L	100
4) 1,4-dioxane	5.044	88	15993	1250.00	ug/L	100
6) chlorodifluoromethane	1.545	51	165239	50.00	ug/L	100
7) dichlorodifluoromethane	1.533	85	193581	50.00	ug/L	100
8) chloromethane	1.673	50	180227	50.00	ug/L	100
9) vinyl chloride	1.752	62	207399	50.00	ug/L	100
10) 1,3-butadiene	1.783	54	187773	50.00	ug/L	100
11) bromomethane	1.990	94	75068	50.00	ug/L	100
12) chloroethane	2.063	64	124477	50.00	ug/L	100
13) trichlorofluoromethane	2.240	101	280626	50.00	ug/L	100
14) ethyl ether	2.417	74	92191	50.00	ug/L	100
15) acrolein	2.502	56	26678	50.00	ug/L	100
16) freon 113	2.581	151	139737	50.00	ug/L	100
17) 1,1-dichloroethene	2.587	96	135870	50.00	ug/L	100
18) acetone	2.587	58	42525	200.00	ug/L	100
19) acetonitrile	2.764	41	143133	500.00	ug/L	100
20) iodomethane	2.691	142	137461	50.00	ug/L	100
21) carbon disulfide	2.752	76	387833	50.00	ug/L	100
22) methylene chloride	2.898	84	163715	50.00	ug/L	100
23) methyl acetate	2.789	43	99691	50.00	ug/L	100
24) methyl tert butyl ether	3.069	73	455506	50.00	ug/L	100
25) trans-1,2-dichloroethene	3.081	96	157547	50.00	ug/L	100
26) di-isopropyl ether	3.368	45	433488	49.08	ug/L	99
27) 2-butanone	3.709	72	69307	200.00	ug/L	100
28) 1,1-dichloroethane	3.362	63	267727	50.00	ug/L	100
29) chloroprene	3.416	53	233480	50.00	ug/L	100
30) acrylonitrile	3.026	53	49570	50.00	ug/L	100
31) hexane	3.264	56	141022	50.00	ug/L	100
32) vinyl acetate	3.337	86	43174	49.98	ug/L	99
33) ethyl tert-butyl ether	3.605	59	501247	50.00	ug/L	100
34) ethyl acetate	3.727	45	20913	49.99	ug/L	100
35) 2,2-dichloropropane	3.752	77	256455	50.00	ug/L	100
36) cis-1,2-dichloroethene	3.740	96	179700	50.00	ug/L	100
37) methyl acrylate	3.770	85	26184	50.01	ug/L	97
38) propionitrile	3.746	54	174906	500.00	ug/L	100
39) bromochloromethane	3.904	128	98165	50.00	ug/L	100
40) tetrahydrofuran	3.916	42	36260	51.37	ug/L	100
41) chloroform	3.959	85	194164	50.00	ug/L	100
42) t-butyl formate	3.977	59	164889	50.00	ug/L	100
44) methacrylonitrile	3.855	67	65710	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174409.D
 Acq On : 10 Mar 2022 4:21 pm
 Operator : brittank
 Sample : icc7392-50
 Misc : MS57062,V3D7392,5,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 10 18:13:38 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) 1,1,1-trichloroethane	4.099	97	281057	50.00	ug/L	100
46) cyclohexane	4.166	84	259574	49.59	ug/L	100
47) 1,1-dichloropropene	4.209	75	219152	50.00	ug/L	100
48) iso-butyl alcohol	4.203	43	33532	484.34	ug/L	100
49) carbon tetrachloride	4.215	117	257102	50.00	ug/L	100
50) tert amyl alcohol	4.294	55	19456	241.11	ug/L	100
53) n-butyl alcohol	4.678	56	113272	2490.04	ug/L	100
54) 2,2,4-trimethylpentane	4.422	57	476531	50.00	ug/L	100
55) benzene	4.349	78	612204	50.00	ug/L	100
56) tert-amyl methyl ether	4.416	87	125482	50.00	ug/L	100
57) heptane	4.538	71	133579	50.00	ug/L	100
58) isopropyl acetate	4.325	87	39795	50.72	ug/L	98
59) 1,2-dichloroethane	4.367	62	222327	50.00	ug/L	100
60) trichloroethene	4.819	130	207612	50.00	ug/L	100
61) ethyl acrylate	4.831	55	184787	50.00	ug/L	100
62) 2-nitropropane	5.337	41	46858	49.73	ug/L	99
63) 2-chloroethyl vinyl ether	5.386	63	496314	250.00	ug/L	100
64) methyl methacrylate	5.014	100	46133	50.00	ug/L	100
65) 1,2-dichloropropane	5.001	63	162755	50.00	ug/L	100
66) dibromomethane	5.069	93	109241	50.00	ug/L	100
67) methylcyclohexane	5.008	83	290430	50.00	ug/L	100
68) bromodichloromethane	5.190	83	243008	50.00	ug/L	100
69) epichlorohydrin	5.428	57	69184	250.00	ug/L	100
70) cis-1,3-dichloropropene	5.532	75	290031	50.00	ug/L	100
71) 4-methyl-2-pentanone	5.623	58	212501	200.05	ug/L	100
72) 3-methyl-1-butanol	5.648	55	86075	1001.28	ug/L	100
75) toluene	5.812	92	449072	50.00	ug/L	100
76) trans-1,3-dichloropropene	5.977	75	274114	50.00	ug/L	100
77) ethyl methacrylate	6.007	69	221280	50.00	ug/L	100
78) 1,1,2-trichloroethane	6.148	83	129781	50.00	ug/L	100
79) tetrachloroethene	6.257	164	174237	50.00	ug/L	100
80) 1,3-dichloropropane	6.288	76	257985	50.00	ug/L	100
81) 2-hexanone	6.312	58	198189	200.00	ug/L	100
82) butyl acetate	6.404	56	97224	50.00	ug/L	100
83) dibromochloromethane	6.483	129	209336	50.00	ug/L	100
84) 1,2-dibromoethane	6.593	107	177575	50.00	ug/L	100
85) n-butyl ether	7.086	57	696807	50.00	ug/L	100
86) chlorobenzene	7.025	112	528932	50.00	ug/L	100
87) 1,1,1,2-tetrachloroethane	7.093	131	198041	50.00	ug/L	100
88) ethylbenzene	7.105	91	823213	50.04	ug/L	100
89) m,p-xylene	7.221	106	728121	100.00	ug/L	100
90) o-xylene	7.574	106	373333	50.00	ug/L	100
91) styrene	7.586	104	623062	50.00	ug/L	100
92) bromoform	7.757	173	156548	50.00	ug/L	100
93) butyl acrylate	7.495	55	320549	50.00	ug/L	100
94) n-amyl acetate	7.702	70	132808	50.00	ug/L	100
95) isopropylbenzene	7.909	105	943284	50.00	ug/L	100
96) cis-1,4-dichloro-2-butene	7.952	88	72325	50.00	ug/L	100
99) bromobenzene	8.214	156	246005	50.00	ug/L	100
100) 1,1,2,2-tetrachloroethane	8.184	83	198958	50.13	ug/L	100
101) trans-1,4-dichloro-2-b...	8.220	53	43878	50.00	ug/L	100
102) 1,2,3-trichloropropane	8.245	110	66374	50.00	ug/L	100
103) n-propylbenzene	8.306	91	1042363	50.03	ug/L	100
104) 2-chlorotoluene	8.397	126	250782	50.00	ug/L	100
105) 4-chlorotoluene	8.507	126	264619	50.05	ug/L	100
106) 1,3,5-trimethylbenzene	8.476	105	803647	50.00	ug/L	100
107) tert-butylbenzene	8.781	134	204185	50.00	ug/L	100
108) 1,2,4-trimethylbenzene	8.836	105	825286	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174409.D
Acq On : 10 Mar 2022 4:21 pm
Operator : brittank
Sample : icc7392-50
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 10 18:13:38 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022
QLast Update : Thu Mar 10 17:12:34 2022
Response via : Initial Calibration

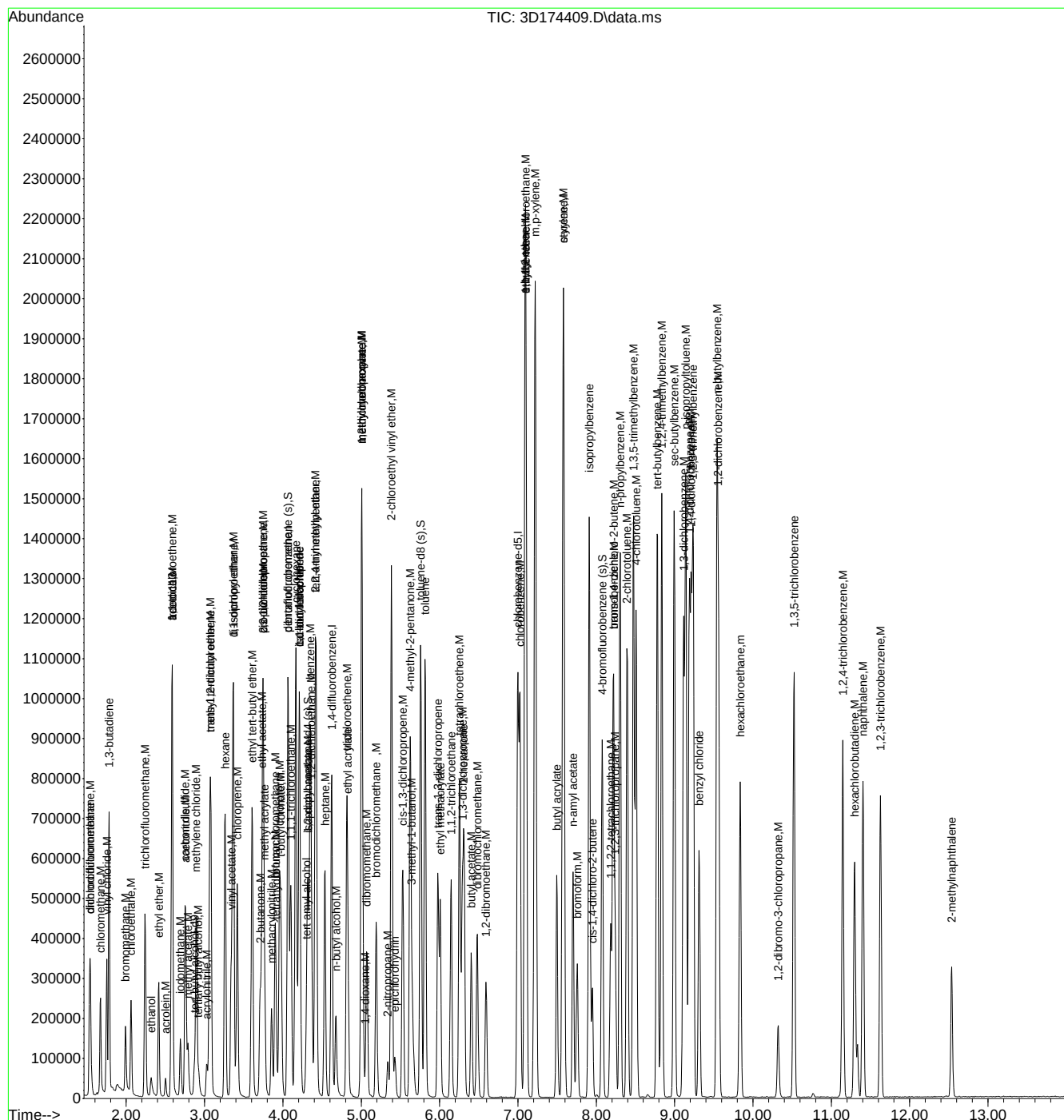
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) sec-butylbenzene	8.995	105	1013053	50.00	ug/L	100
110) 1,3-dichlorobenzene	9.117	146	511214	50.01	ug/L	100
111) p-isopropyltoluene	9.141	119	884371	50.00	ug/L	100
112) 1,4-dichlorobenzene	9.214	146	498995	50.01	ug/L	100
113) 1,2,3-trimethylbenzene	9.238	105	802205	50.06	ug/L	100
114) benzyl chloride	9.312	91	452099	50.00	ug/L	100
115) 1,2-dichlorobenzene	9.562	146	476867	50.00	ug/L	100
116) n-butylbenzene	9.537	92	409717	50.00	ug/L	100
117) 1,2-dibromo-3-chloropr...	10.324	157	54070	50.00	ug/L	100
118) 1,3,5-trichlorobenzene	10.525	180	348556	50.00	ug/L	100
119) 1,2,4-trichlorobenzene	11.147	180	277086	50.00	ug/L	100
120) hexachlorobutadiene	11.299	225	110205	50.00	ug/L	100
121) naphthalene	11.403	128	642496	50.00	ug/L	100
122) 1,2,3-trichlorobenzene	11.628	180	235706	50.00	ug/L	100
123) hexachloroethane	9.836	201	135737	50.00	ug/L	100
124) 2-methylnaphthalene	12.537	142	163962	25.00	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174409.D
Acq On : 10 Mar 2022 4:21 pm
Operator : brittink
Sample : icc7392-50
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 10 18:13:38 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rx1-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022
QLast Update : Thu Mar 10 17:12:34 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174410.D
 Acq On : 10 Mar 2022 4:45 pm
 Operator : brittank
 Sample : ic7392-100
 Misc : MS57062,V3D7392,5,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 10 18:13:39 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.874	65	73025	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	412634	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.624	114	605572	50.00	ug/L	0.00
73) chlorobenzene-d5	7.001	117	613792	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.190	152	360640	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.063	113	180803	51.68	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.36%
52) 1,2-dichloroethane-d4 (s)	4.313	65	187015	49.75	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	99.50%
74) toluene-d8 (s)	5.758	98	724684	49.11	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.22%
98) 4-bromofluorobenzene (s)	8.074	95	308275	52.15	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	104.30%

Target Compounds

						Qvalue
2) tertiary butyl alcohol	2.923	59	104769	497.62	ug/L	97
3) ethanol	2.319	45	98355	9715.66	ug/L	99
4) 1,4-dioxane	5.044	88	28339	2353.90	ug/L	97
6) chlorodifluoromethane	1.539	51	352092	103.16	ug/L	97
7) dichlorodifluoromethane	1.527	85	436861	109.25	ug/L	98
8) chloromethane	1.667	50	360502	96.84	ug/L	99
9) vinyl chloride	1.752	62	413415	96.50	ug/L	98
10) 1,3-butadiene	1.783	54	379358	97.81	ug/L	97
11) bromomethane	1.990	94	214360	138.24	ug/L	98
12) chloroethane	2.063	64	262356	102.04	ug/L	99
13) trichlorofluoromethane	2.240	101	562898	97.11	ug/L	96
14) ethyl ether	2.411	74	186084	97.72	ug/L	97
15) acrolein	2.502	56	52424	95.13	ug/L	94
16) freon 113	2.581	151	278917	96.63	ug/L	97
17) 1,1-dichloroethene	2.587	96	267535	95.32	ug/L	98
18) acetone	2.587	58	76504	348.38	ug/L	89
19) acetonitrile	2.758	41	255135	862.94	ug/L	99
20) iodomethane	2.691	142	366935	129.23	ug/L	97
21) carbon disulfide	2.752	76	766792	95.72	ug/L	99
22) methylene chloride	2.898	84	332313	98.27	ug/L	97
23) methyl acetate	2.789	43	184587	89.64	ug/L	95
24) methyl tert butyl ether	3.063	73	888843	94.47	ug/L	97
25) trans-1,2-dichloroethene	3.081	96	310668	95.46	ug/L	99
26) di-isopropyl ether	3.368	45	840572	92.15	ug/L	98
27) 2-butanone	3.709	72	133391	372.70	ug/L	89
28) 1,1-dichloroethane	3.362	63	522695	94.51	ug/L	96
29) chloroprene	3.417	53	459776	95.33	ug/L	98
30) acrylonitrile	3.026	53	98286	95.99	ug/L	96
31) hexane	3.264	56	282346	96.93	ug/L	98
32) vinyl acetate	3.337	86	85250	95.55	ug/L	97
33) ethyl tert-butyl ether	3.605	59	990554	95.67	ug/L	98
34) ethyl acetate	3.727	45	41907	97.00	ug/L	# 90
35) 2,2-dichloropropane	3.752	77	513445	96.92	ug/L	96
36) cis-1,2-dichloroethene	3.740	96	363880	98.03	ug/L	96
37) methyl acrylate	3.770	85	51967	96.09	ug/L	93
38) propionitrile	3.746	54	326671	904.18	ug/L	97
39) bromochloromethane	3.904	128	203715	100.47	ug/L	96
40) tetrahydrofuran	3.916	42	65117	89.32	ug/L	96
41) chloroform	3.959	85	395205	98.54	ug/L	97
42) t-butyl formate	3.977	59	317614	93.25	ug/L	99
44) methacrylonitrile	3.855	67	123783	91.20	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174410.D
 Acq On : 10 Mar 2022 4:45 pm
 Operator : brittank
 Sample : ic7392-100
 Misc : MS57062,V3D7392,5,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 10 18:13:39 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022

QLast Update : Thu Mar 10 17:12:34 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) 1,1,1-trichloroethane	4.099	97	572081	98.54	ug/L	97
46) cyclohexane	4.166	84	525302	97.17	ug/L	98
47) 1,1-dichloropropene	4.209	75	437233	96.59	ug/L	97
48) iso-butyl alcohol	4.203	43	60477	845.79	ug/L	96
49) carbon tetrachloride	4.215	117	516419	97.24	ug/L	97
50) tert amyl alcohol	4.294	55	33702	404.39	ug/L #	81
53) n-butyl alcohol	4.678	56	210670	4452.94	ug/L	99
54) 2,2,4-trimethylpentane	4.422	57	942119	95.05	ug/L	98
55) benzene	4.349	78	1208931	94.94	ug/L	100
56) tert-amyl methyl ether	4.416	87	252331	96.68	ug/L	98
57) heptane	4.538	71	278744	100.32	ug/L	95
58) isopropyl acetate	4.325	87	79538	97.47	ug/L	95
59) 1,2-dichloroethane	4.368	62	437567	94.62	ug/L	98
60) trichloroethene	4.819	130	423821	98.14	ug/L	98
61) ethyl acrylate	4.831	55	350921	91.30	ug/L	99
62) 2-nitropropane	5.337	41	89653	91.49	ug/L	99
63) 2-chloroethyl vinyl ether	5.386	63	973114	471.31	ug/L	97
64) methyl methacrylate	5.014	100	93110	97.03	ug/L #	88
65) 1,2-dichloropropane	5.002	63	326633	96.48	ug/L	100
66) dibromomethane	5.069	93	215899	95.02	ug/L	95
67) methylcyclohexane	5.008	83	590217	97.70	ug/L	97
68) bromodichloromethane	5.191	83	498973	98.72	ug/L	99
69) epichlorohydrin	5.428	57	135413	470.49	ug/L	97
70) cis-1,3-dichloropropene	5.532	75	588707	97.59	ug/L	99
71) 4-methyl-2-pentanone	5.623	58	416859	377.34	ug/L	94
72) 3-methyl-1-butanol	5.648	55	169474	1895.58	ug/L	96
75) toluene	5.812	92	915309	94.30	ug/L	97
76) trans-1,3-dichloropropene	5.977	75	561563	94.78	ug/L	98
77) ethyl methacrylate	6.007	69	448108	93.69	ug/L	99
78) 1,1,2-trichloroethane	6.148	83	265307	94.58	ug/L	96
79) tetrachloroethene	6.257	164	360345	95.68	ug/L	97
80) 1,3-dichloropropane	6.288	76	516595	92.64	ug/L	98
81) 2-hexanone	6.312	58	379802	354.64	ug/L	97
82) butyl acetate	6.404	56	195033	92.81	ug/L	93
83) dibromochloromethane	6.483	129	433286	95.76	ug/L	95
84) 1,2-dibromoethane	6.593	107	356975	93.00	ug/L	98
85) n-butyl ether	7.087	57	1339920	88.96	ug/L	97
86) chlorobenzene	7.026	112	1112230	97.28	ug/L	99
87) 1,1,1,2-tetrachloroethane	7.093	131	431922	100.90	ug/L	95
88) ethylbenzene	7.105	91	1584950	89.14	ug/L	98
89) m,p-xylene	7.221	106	1447436	183.94	ug/L	89
90) o-xylene	7.574	106	775883	96.15	ug/L	91
91) styrene	7.586	104	1219855	90.58	ug/L	99
92) bromoform	7.757	173	347993	102.84	ug/L	98
93) butyl acrylate	7.495	55	638132	92.10	ug/L	96
94) n-amyl acetate	7.702	70	261335	91.04	ug/L	96
95) isopropylbenzene	7.910	105	1863890	91.42	ug/L	95
96) cis-1,4-dichloro-2-butene	7.952	88	150403	96.21	ug/L	98
99) bromobenzene	8.214	156	534580	102.52	ug/L	93
100) 1,1,2,2-tetrachloroethane	8.184	83	413746	98.36	ug/L	95
101) trans-1,4-dichloro-2-b...	8.220	53	88066	94.68	ug/L	96
102) 1,2,3-trichloropropane	8.245	110	136446	96.98	ug/L	93
103) n-propylbenzene	8.306	91	1970465	89.24	ug/L	95
104) 2-chlorotoluene	8.397	126	519172	97.67	ug/L	93
105) 4-chlorotoluene	8.507	126	530529	94.68	ug/L	93
106) 1,3,5-trimethylbenzene	8.476	105	1537939	90.28	ug/L	98
107) tert-butylbenzene	8.775	134	421289	97.34	ug/L	94
108) 1,2,4-trimethylbenzene	8.836	105	1579371	90.29	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174410.D
 Acq On : 10 Mar 2022 4:45 pm
 Operator : brittank
 Sample : ic7392-100
 Misc : MS57062,V3D7392,5,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 10 18:13:39 2022
 Quant Method : C:\msdchem\1\METHODS\M3D7392.M
 Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Thu Mar 10 17:12:34 2022
 QLast Update : Thu Mar 10 17:12:34 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

109) sec-butylbenzene	8.995	105	1938379	90.27	ug/L	97
110) 1,3-dichlorobenzene	9.117	146	1021232	94.26	ug/L	98
111) p-isopropyltoluene	9.141	119	1685402	89.91	ug/L	97
112) 1,4-dichlorobenzene	9.214	146	987516	93.39	ug/L	97
113) 1,2,3-trimethylbenzene	9.239	105	1533943	90.32	ug/L	98
114) benzyl chloride	9.312	91	873733	91.18	ug/L	98
115) 1,2-dichlorobenzene	9.562	146	940124	93.01	ug/L	99
116) n-butylbenzene	9.537	92	813734	93.70	ug/L	95
117) 1,2-dibromo-3-chloropr...	10.324	157	117821	102.80	ug/L	92
118) 1,3,5-trichlorobenzene	10.525	180	728366	98.59	ug/L	100
119) 1,2,4-trichlorobenzene	11.147	180	601943	102.49	ug/L	99
120) hexachlorobutadiene	11.299	225	229844	98.39	ug/L	98
121) naphthalene	11.403	128	1294563	95.06	ug/L	99
122) 1,2,3-trichlorobenzene	11.628	180	518134	103.71	ug/L	100
123) hexachloroethane	9.836	201	297726	103.48	ug/L	96
124) 2-methylnaphthalene	12.537	142	360387	51.85	ug/L	98

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

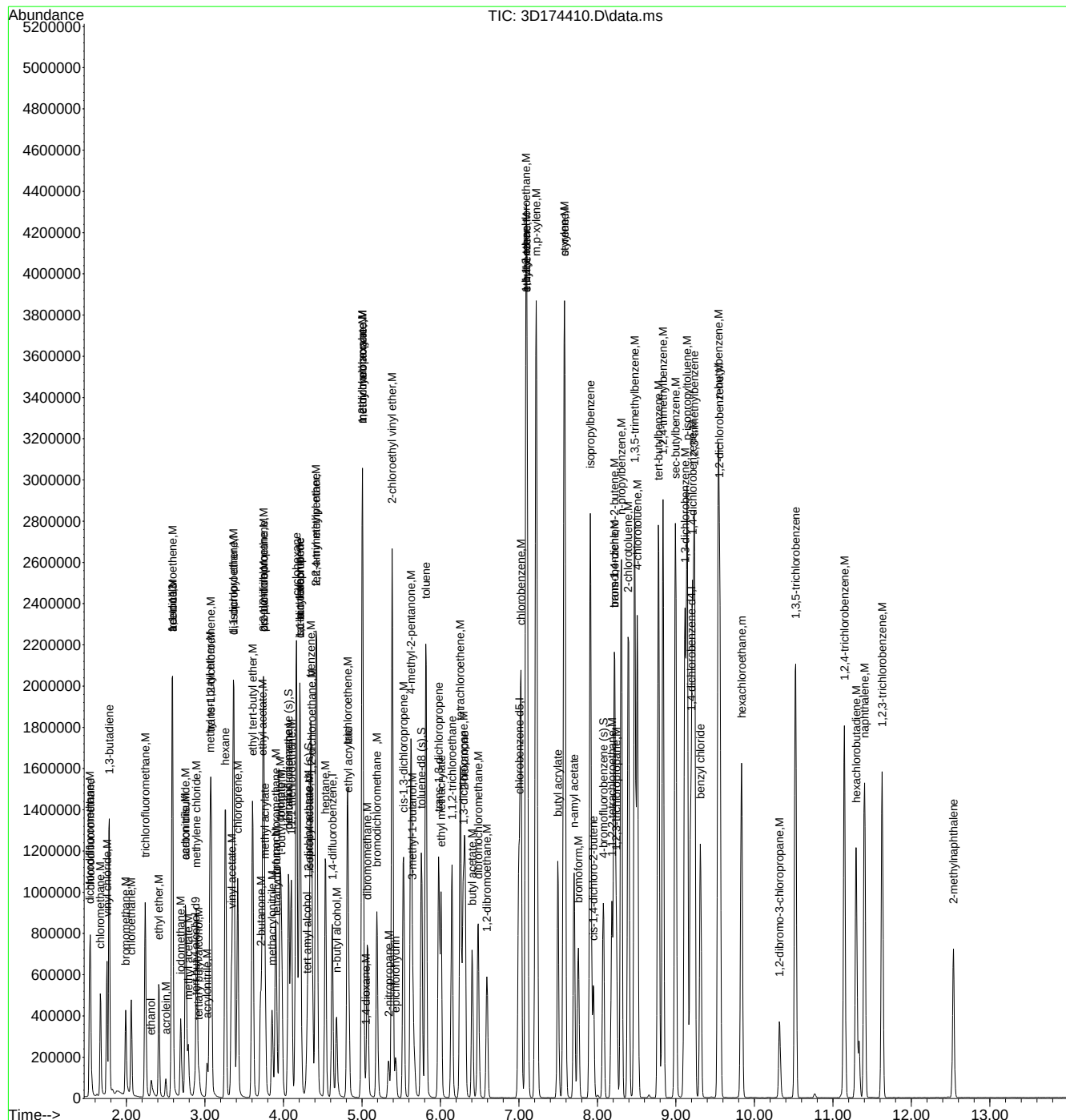
7.6.23

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174410.D
Acq On : 10 Mar 2022 4:45 pm
Operator : brittank
Sample : ic7392-100
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 10 18:13:39 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:12:34 2022
QLast Update : Thu Mar 10 17:12:34 2022
Response via : Initial Calibration



7.6.23



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174411.D
 Acq On : 10 Mar 2022 5:08 pm
 Operator : brittank
 Sample : ic7392-200
 Misc : MS57062,V3D7392,5,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 11 19:49:53 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:23:05 2022

QLast Update : Thu Mar 10 17:24:07 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.874	65	77655	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	451576	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.624	114	647871	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	649688	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.190	152	359892	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.063	113	190873	48.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	97.08%	
52) 1,2-dichloroethane-d4 (s)	4.313	65	190169	43.87	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	87.74%	
74) toluene-d8 (s)	5.758	98	751932	45.16	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	90.32%	
98) 4-bromofluorobenzene (s)	8.074	95	312058	47.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	94.78%	

Target Compounds

Qvalue

2) tertiary butyl alcohol	2.929	59	216721	923.66	ug/L	99
4) 1,4-dioxane	5.044	88	67846	4813.54	ug/L	95
6) chlorodifluoromethane	1.539	51	718532	167.45	ug/L	94
7) dichlorodifluoromethane	1.533	85	949116	180.53	ug/L	97
8) chloromethane	1.667	50	698601	137.33	ug/L	97
9) vinyl chloride	1.752	62	806442	150.33	ug/L	96
12) chloroethane	2.063	64	541957	163.86	ug/L	98
13) trichlorofluoromethane	2.240	101	1140181	161.29	ug/L	97
14) ethyl ether	2.411	74	377361	171.02	ug/L	98
15) acrolein	2.502	56	111473	161.75	ug/L	96
16) freon 113	2.581	151	591893	176.00	ug/L	96
17) 1,1-dichloroethene	2.587	96	545278	163.95	ug/L	94
18) acetone	2.587	58	161521	568.68	ug/L	87
19) acetonitrile	2.764	41	506296	1152.22	ug/L	99
20) iodomethane	2.691	142	838300	403.27	ug/L	98
21) carbon disulfide	2.752	76	1515797	149.13	ug/L	98
22) methylene chloride	2.892	84	660235	141.11	ug/L	99
23) methyl acetate	2.789	43	366561	131.14	ug/L	94
24) methyl tert butyl ether	3.063	73	1749613	159.85	ug/L	94
25) trans-1,2-dichloroethene	3.081	96	632688	151.53	ug/L	95
26) di-isopropyl ether	3.368	45	1627220	145.25	ug/L	97
27) 2-butanone	3.709	72	286914	746.80	ug/L #	87
28) 1,1-dichloroethane	3.362	63	1033218	151.90	ug/L	95
29) chloroprene	3.417	53	907365	156.61	ug/L	95
30) acrylonitrile	3.026	53	203323	179.27	ug/L	96
31) hexane	3.264	56	558876	156.71	ug/L	99
32) vinyl acetate	3.337	86	185641	189.20	ug/L #	77
33) ethyl tert-butyl ether	3.606	59	1936766	162.30	ug/L	95
34) ethyl acetate	3.727	45	89558	166.07	ug/L #	93
35) 2,2-dichloropropane	3.752	77	992580	151.83	ug/L	97
36) cis-1,2-dichloroethene	3.740	96	733530	166.27	ug/L	96
37) methyl acrylate	3.770	85	112341	173.69	ug/L	95
38) propionitrile	3.746	54	670114	1481.16	ug/L	98
39) bromochloromethane	3.904	128	440564	193.96	ug/L	93
40) tetrahydrofuran	3.916	42	142498	128.40	ug/L	95
41) chloroform	3.959	85	787562	149.44	ug/L	99
42) t-butyl formate	3.977	59	644959	163.34	ug/L	100
44) methacrylonitrile	3.856	67	274863	165.78	ug/L	98
45) 1,1,1-trichloroethane	4.099	97	1165238	169.14	ug/L	100
46) cyclohexane	4.166	84	1074808	166.47	ug/L	91
47) 1,1-dichloropropene	4.209	75	869962	165.41	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174411.D
 Acq On : 10 Mar 2022 5:08 pm
 Operator : brittank
 Sample : ic7392-200
 Misc : MS57062,V3D7392,5,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 11 19:49:53 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:23:05 2022

QLast Update : Thu Mar 10 17:24:07 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) iso-butyl alcohol	4.203	43	130721	978.75	ug/L	94
49) carbon tetrachloride	4.215	117	1058687	179.52	ug/L	97
50) tert amyl alcohol	4.294	55	73939	546.42	ug/L	86
53) n-butyl alcohol	4.679	56	475581	8833.14	ug/L	99
54) 2,2,4-trimethylpentane	4.422	57	1851833	149.30	ug/L	96
55) benzene	4.349	78	2334125	154.20	ug/L	97
56) tert-amyl methyl ether	4.416	87	535661	185.01	ug/L #	87
57) heptane	4.538	71	557852	165.13	ug/L	96
58) isopropyl acetate	4.325	87	171993	184.63	ug/L #	87
59) 1,2-dichloroethane	4.368	62	867461	156.57	ug/L	98
60) trichloroethene	4.819	130	903732	202.91	ug/L	98
61) ethyl acrylate	4.831	55	713864	155.47	ug/L	98
62) 2-nitropropane	5.337	41	192317	141.15	ug/L	98
63) 2-chloroethyl vinyl ether	5.386	63	1921873	893.01	ug/L	94
64) methyl methacrylate	5.014	100	199615	193.38	ug/L #	79
65) 1,2-dichloropropane	5.002	63	663218	173.74	ug/L	99
66) dibromomethane	5.069	93	455246	177.47	ug/L	93
67) methylcyclohexane	5.008	83	1186300	165.33	ug/L	96
68) bromodichloromethane	5.191	83	1008845	165.64	ug/L	99
69) epichlorohydrin	5.434	57	284737	894.17	ug/L	95
70) cis-1,3-dichloropropene	5.532	75	1204421	183.80	ug/L	98
71) 4-methyl-2-pentanone	5.623	58	842261	664.09	ug/L	91
72) 3-methyl-1-butanol	5.654	55	342515	2936.34	ug/L	93
75) toluene	5.812	92	1782651	157.11	ug/L	91
76) trans-1,3-dichloropropene	5.977	75	1142780	176.41	ug/L	96
77) ethyl methacrylate	6.008	69	879799	155.15	ug/L	99
78) 1,1,2-trichloroethane	6.148	83	551572	170.10	ug/L	95
79) tetrachloroethene	6.257	164	743778	176.86	ug/L	96
80) 1,3-dichloropropane	6.288	76	1047116	162.39	ug/L	99
81) 2-hexanone	6.312	58	764748	610.47	ug/L	94
82) butyl acetate	6.404	56	402839	142.44	ug/L	95
83) dibromochloromethane	6.477	129	934196	192.14	ug/L	96
84) 1,2-dibromoethane	6.593	107	758285	188.74	ug/L	99
85) n-butyl ether	7.087	57	2445005	131.65	ug/L	94
86) chlorobenzene	7.026	112	2123817	163.48	ug/L	97
87) 1,1,1,2-tetrachloroethane	7.093	131	853906	182.54	ug/L	95
88) ethylbenzene	7.105	91	2881733	135.80	ug/L	93
89) m,p-xylene	7.221	106	2697515	307.24	ug/L	82
90) o-xylene	7.574	106	1473804	167.01	ug/L	84
91) styrene	7.586	104	2228752	153.48	ug/L	96
92) bromoform	7.757	173	716761	225.32	ug/L	97
93) butyl acrylate	7.495	55	1233178	154.37	ug/L	93
94) n-amyl acetate	7.702	70	516879	162.27	ug/L	95
95) isopropylbenzene	7.910	105	3297489	150.18	ug/L	91
96) cis-1,4-dichloro-2-butene	7.952	88	319329	231.45	ug/L	98
99) bromobenzene	8.214	156	1019118	165.48	ug/L	92
100) 1,1,2,2-tetrachloroethane	8.184	83	809409	162.33	ug/L	92
101) trans-1,4-dichloro-2-b...	8.221	53	182091	161.61	ug/L	94
102) 1,2,3-trichloropropane	8.245	110	267267	158.81	ug/L	96
103) n-propylbenzene	8.306	91	3443602	132.42	ug/L	90
104) 2-chlorotoluene	8.397	126	985271	167.14	ug/L	86
105) 4-chlorotoluene	8.513	126	992667	165.48	ug/L #	80
106) 1,3,5-trimethylbenzene	8.477	105	2719266	145.62	ug/L	93
107) tert-butylbenzene	8.781	134	814638	178.43	ug/L #	80
108) 1,2,4-trimethylbenzene	8.836	105	2787985	149.12	ug/L	94
109) sec-butylbenzene	8.995	105	3416546	147.77	ug/L	91
110) 1,3-dichlorobenzene	9.117	146	1889162	171.16	ug/L	95
111) p-isopropyltoluene	9.141	119	2959332	151.68	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174411.D
 Acq On : 10 Mar 2022 5:08 pm
 Operator : brittank
 Sample : ic7392-200
 Misc : MS57062,V3D7392,5,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 11 19:49:53 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Thu Mar 10 17:23:05 2022

QLast Update : Thu Mar 10 17:24:07 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

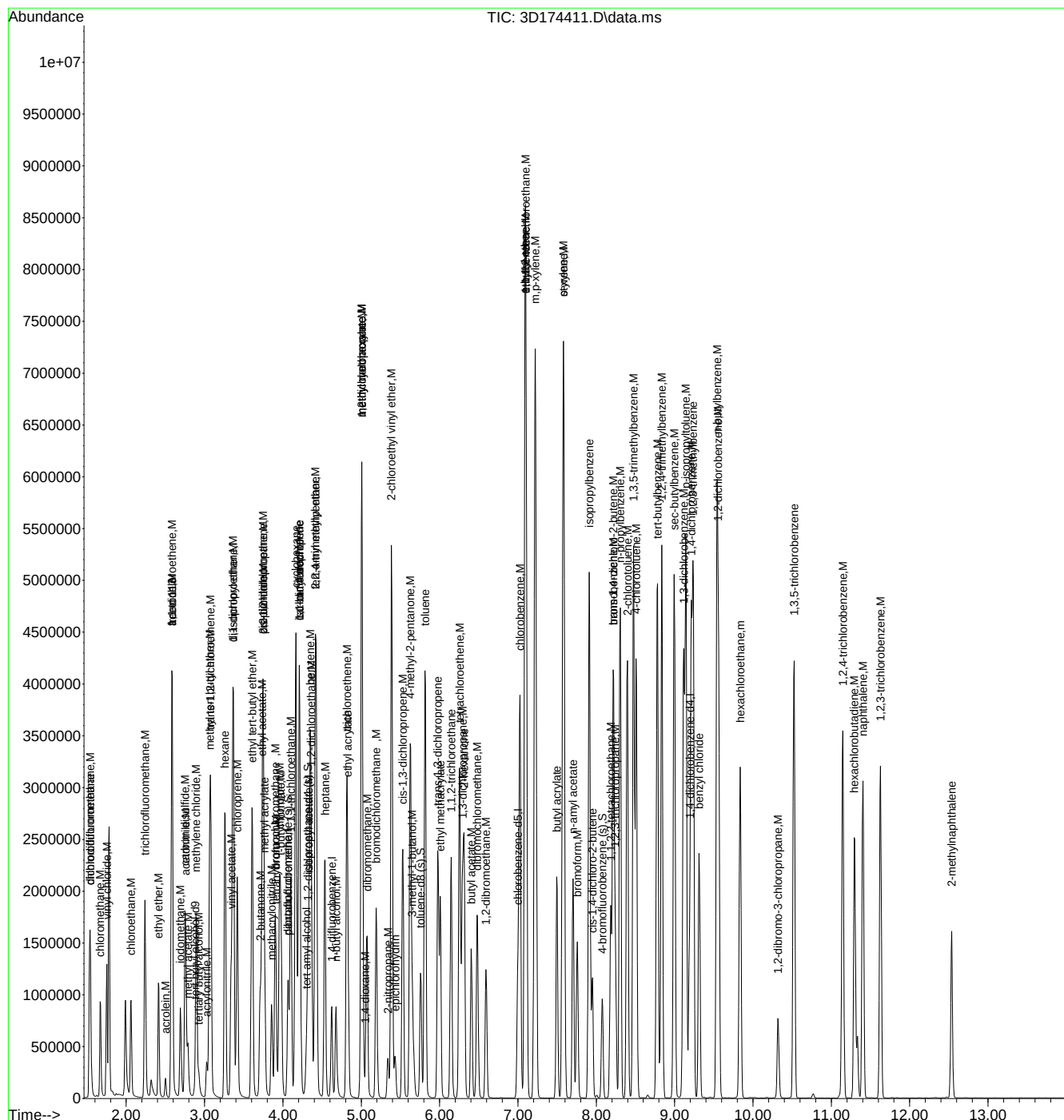
112) 1,4-dichlorobenzene	9.214	146	1817920	163.30	ug/L	93
113) 1,2,3-trimethylbenzene	9.239	105	2723304	143.09	ug/L	93
114) benzyl chloride	9.312	91	1658148	163.73	ug/L	96
115) 1,2-dichlorobenzene	9.562	146	1727928	164.80	ug/L	97
116) n-butylbenzene	9.537	92	1521280	165.20	ug/L	91
117) 1,2-dibromo-3-chloropr...	10.318	157	256554	228.31	ug/L	96
118) 1,3,5-trichlorobenzene	10.525	180	1455529	196.51	ug/L	99
119) 1,2,4-trichlorobenzene	11.147	180	1216462	201.78	ug/L	98
120) hexachlorobutadiene	11.299	225	479883	215.08	ug/L	98
121) naphthalene	11.403	128	2484766	178.80	ug/L	95
122) 1,2,3-trichlorobenzene	11.628	180	1072421	216.68	ug/L	100
123) hexachloroethane	9.836	201	604299	229.63	ug/L	97
124) 2-methylnaphthalene	12.537	142	809955	126.41	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174411.D
Acq On : 10 Mar 2022 5:08 pm
Operator : brittank
Sample : ic7392-200
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 11 19:49:53 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xThu Mar 10 17:23:05 2022
QLast Update : Thu Mar 10 17:24:07 2022
Response via : Initial Calibration



7.6.24



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174414.D
 Acq On : 10 Mar 2022 6:18 pm
 Operator : brittank
 Sample : icv7392-50
 Misc : MS57062,V3D7392,5,,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 11 19:50:52 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Fri Mar 11 09:53:10 2022

QLast Update : Fri Mar 11 09:53:10 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.874	65	77236	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	395829	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.623	114	585682	50.00	ug/L	0.00
73) chlorobenzene-d5	7.001	117	574471	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.184	152	333803	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.069	113	174408	50.75	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	101.50%	
52) 1,2-dichloroethane-d4 (s)	4.313	65	183959	47.53	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	95.06%	
74) toluene-d8 (s)	5.757	98	694261	47.62	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	95.24%	
98) 4-bromofluorobenzene (s)	8.074	95	290558	47.83	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	95.66%	

Target Compounds

Qvalue

2) tertiary butyl alcohol	2.929	59	57309	247.68	ug/L	93
3) ethanol	2.319	45	50779	4416.39	ug/L	100
4) 1,4-dioxane	5.044	88	14783	1059.45	ug/L	93
7) dichlorodifluoromethane	1.533	85	174627	42.66	ug/L	97
8) chloromethane	1.673	50	191247	49.11	ug/L	98
9) vinyl chloride	1.752	62	241736	57.47	ug/L	99
10) 1,3-butadiene	1.783	54	228893	53.12	ug/L	96
11) bromomethane	1.990	94	110048	72.09	ug/L	98
12) chloroethane	2.063	64	135541	47.83	ug/L	99
13) trichlorofluoromethane	2.240	101	284365	46.80	ug/L	99
14) ethyl ether	2.417	74	101888	51.92	ug/L	98
15) acrolein	2.502	56	24764	44.83	ug/L	94
16) freon 113	2.587	151	143575	49.30	ug/L	97
17) 1,1-dichloroethene	2.587	96	144941	50.03	ug/L	97
18) acetone	2.587	58	43577	199.95	ug/L	93
20) iodomethane	2.691	142	141588	63.40	ug/L	99
21) carbon disulfide	2.752	76	444900	53.68	ug/L	98
22) methylene chloride	2.898	84	175988	49.63	ug/L	98
23) methyl acetate	2.788	43	100810	48.61	ug/L	98
24) methyl tert butyl ether	3.063	73	478867	50.94	ug/L	99
25) trans-1,2-dichloroethene	3.081	96	168866	49.90	ug/L	96
26) di-isopropyl ether	3.368	45	438677	47.39	ug/L	100
27) 2-butanone	3.709	72	73565	209.73	ug/L	96
28) 1,1-dichloroethane	3.361	63	282069	48.48	ug/L	98
29) chloroprene	3.416	53	246636	49.64	ug/L	98
31) hexane	3.264	56	124778	41.69	ug/L	100
32) vinyl acetate	3.337	86	43921	51.38	ug/L	99
33) ethyl tert-butyl ether	3.605	59	491089	47.85	ug/L	99
34) ethyl acetate	3.727	45	22214	48.16	ug/L #	77
35) 2,2-dichloropropane	3.752	77	265725	48.45	ug/L	96
36) cis-1,2-dichloroethene	3.739	96	188937	49.70	ug/L	99
37) methyl acrylate	3.770	85	28341	50.73	ug/L	90
38) propionitrile	3.746	54	170202	457.49	ug/L	97
39) bromochloromethane	3.904	128	106173	53.50	ug/L	97
40) tetrahydrofuran	3.916	42	38309	51.09	ug/L	89
41) chloroform	3.959	85	204645	47.45	ug/L	97
42) t-butyl formate	3.977	59	148134	43.60	ug/L	99
44) methacrylonitrile	3.855	67	66104	49.14	ug/L	98
45) 1,1,1-trichloroethane	4.099	97	292833	49.25	ug/L	97
46) cyclohexane	4.166	84	286960	52.97	ug/L	98
47) 1,1-dichloropropene	4.209	75	236379	52.17	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174414.D
 Acq On : 10 Mar 2022 6:18 pm
 Operator : brittank
 Sample : icv7392-50
 Misc : MS57062,V3D7392,5,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 11 19:50:52 2022

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Fri Mar 11 09:53:10 2022

QLast Update : Fri Mar 11 09:53:10 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) iso-butyl alcohol	4.203	43	33106	471.35	ug/L	98
49) carbon tetrachloride	4.215	117	272392	53.24	ug/L	98
50) tert amyl alcohol	4.294	55	18240	231.70	ug/L	91
53) n-butyl alcohol	4.678	56	113461	2338.17	ug/L	98
54) 2,2,4-trimethylpentane	4.422	57	490836	47.54	ug/L	100
55) benzene	4.349	78	661258	50.74	ug/L	99
56) tert-amyl methyl ether	4.416	87	126101	48.54	ug/L	98
57) heptane	4.538	71	144133	49.54	ug/L	95
58) isopropyl acetate	4.325	87	41055	49.98	ug/L	96
59) 1,2-dichloroethane	4.367	62	234099	48.64	ug/L	98
60) trichloroethene	4.819	130	217526	53.95	ug/L	100
61) ethyl acrylate	4.831	55	186852	48.70	ug/L	98
62) 2-nitropropane	5.343	41	48548	48.51	ug/L	98
63) 2-chloroethyl vinyl ether	5.386	63	534230	277.56	ug/L	99
64) methyl methacrylate	5.014	100	49397	53.13	ug/L	98
65) 1,2-dichloropropane	5.001	63	162142	47.61	ug/L	100
66) dibromomethane	5.068	93	114211	49.88	ug/L	99
67) methylcyclohexane	5.008	83	318696	51.92	ug/L	97
68) bromodichloromethane	5.190	83	256966	49.64	ug/L	97
69) epichlorohydrin	5.428	57	71110	252.02	ug/L	92
70) cis-1,3-dichloropropene	5.532	75	303676	51.68	ug/L	99
71) 4-methyl-2-pentanone	5.623	58	221984	203.04	ug/L	96
72) 3-methyl-1-butanol	5.648	55	93536	959.89	ug/L	96
75) toluene	5.812	92	480617	48.95	ug/L	98
76) trans-1,3-dichloropropene	5.977	75	286143	50.55	ug/L	99
77) ethyl methacrylate	6.007	69	231580	48.74	ug/L	99
78) 1,1,2-trichloroethane	6.148	83	137574	50.25	ug/L	98
80) 1,3-dichloropropane	6.288	76	276022	49.34	ug/L	99
81) 2-hexanone	6.312	58	208060	192.39	ug/L	99
82) butyl acetate	6.404	56	106249	49.90	ug/L	97
83) dibromochloromethane	6.483	129	217932	50.89	ug/L	95
84) 1,2-dibromoethane	6.593	107	188063	53.24	ug/L	98
85) n-butyl ether	7.086	57	698011	44.01	ug/L	99
86) chlorobenzene	7.025	112	562134	49.84	ug/L	98
87) 1,1,1,2-tetrachloroethane	7.092	131	211169	51.50	ug/L	96
88) ethylbenzene	7.105	91	865229	48.85	ug/L	99
89) m,p-xylene	7.221	106	774437	102.12	ug/L	93
90) o-xylene	7.574	106	393154	51.23	ug/L	99
91) styrene	7.586	104	645050	51.43	ug/L	99
92) bromoform	7.757	173	165282	58.03	ug/L	99
93) butyl acrylate	7.495	55	341519	51.97	ug/L	97
94) n-amyl acetate	7.702	70	134082	48.62	ug/L	99
95) isopropylbenzene	7.909	105	993879	52.50	ug/L	98
96) cis-1,4-dichloro-2-butene	7.952	88	74056	56.51	ug/L	94
99) bromobenzene	8.214	156	273281	50.77	ug/L	95
100) 1,1,2,2-tetrachloroethane	8.184	83	214286	48.23	ug/L	96
101) trans-1,4-dichloro-2-b...	8.220	53	47998	51.01	ug/L	98
102) 1,2,3-trichloropropane	8.245	110	71950	50.63	ug/L	95
103) n-propylbenzene	8.306	91	1085453	47.79	ug/L	99
104) 2-chlorotoluene	8.397	126	265536	49.38	ug/L	92
105) 4-chlorotoluene	8.507	126	274798	50.26	ug/L	99
106) 1,3,5-trimethylbenzene	8.476	105	829379	49.22	ug/L	99
107) tert-butylbenzene	8.781	134	230608	55.12	ug/L	93
108) 1,2,4-trimethylbenzene	8.836	105	815856	48.28	ug/L	99
109) sec-butylbenzene	8.995	105	1043729	49.98	ug/L	100
110) 1,3-dichlorobenzene	9.116	146	523433	51.88	ug/L	100
111) p-isopropyltoluene	9.141	119	912232	51.66	ug/L	99
112) 1,4-dichlorobenzene	9.214	146	513807	50.69	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174414.D
Acq On : 10 Mar 2022 6:18 pm
Operator : brittank
Sample : icv7392-50
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 11 19:50:52 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Fri Mar 11 09:53:10 2022
QLast Update : Fri Mar 11 09:53:10 2022
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
114) benzyl chloride	9.312	91	432181	46.86	ug/L	99
115) 1,2-dichlorobenzene	9.562	146	485003	50.77	ug/L	98
116) n-butylbenzene	9.537	92	425683	50.72	ug/L	99
117) 1,2-dibromo-3-chloropr...	10.324	157	60257	56.92	ug/L	96
118) 1,3,5-trichlorobenzene	10.525	180	354277	51.66	ug/L	98
119) 1,2,4-trichlorobenzene	11.147	180	291015	52.00	ug/L	99
120) hexachlorobutadiene	11.299	225	112218	52.24	ug/L	97
121) naphthalene	11.403	128	666113	52.23	ug/L	99
122) 1,2,3-trichlorobenzene	11.628	180	248594	53.70	ug/L	96
123) hexachloroethane	9.836	201	144246	55.00	ug/L	99
124) 2-methylnaphthalene	12.537	142	161676	25.93	ug/L	98

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

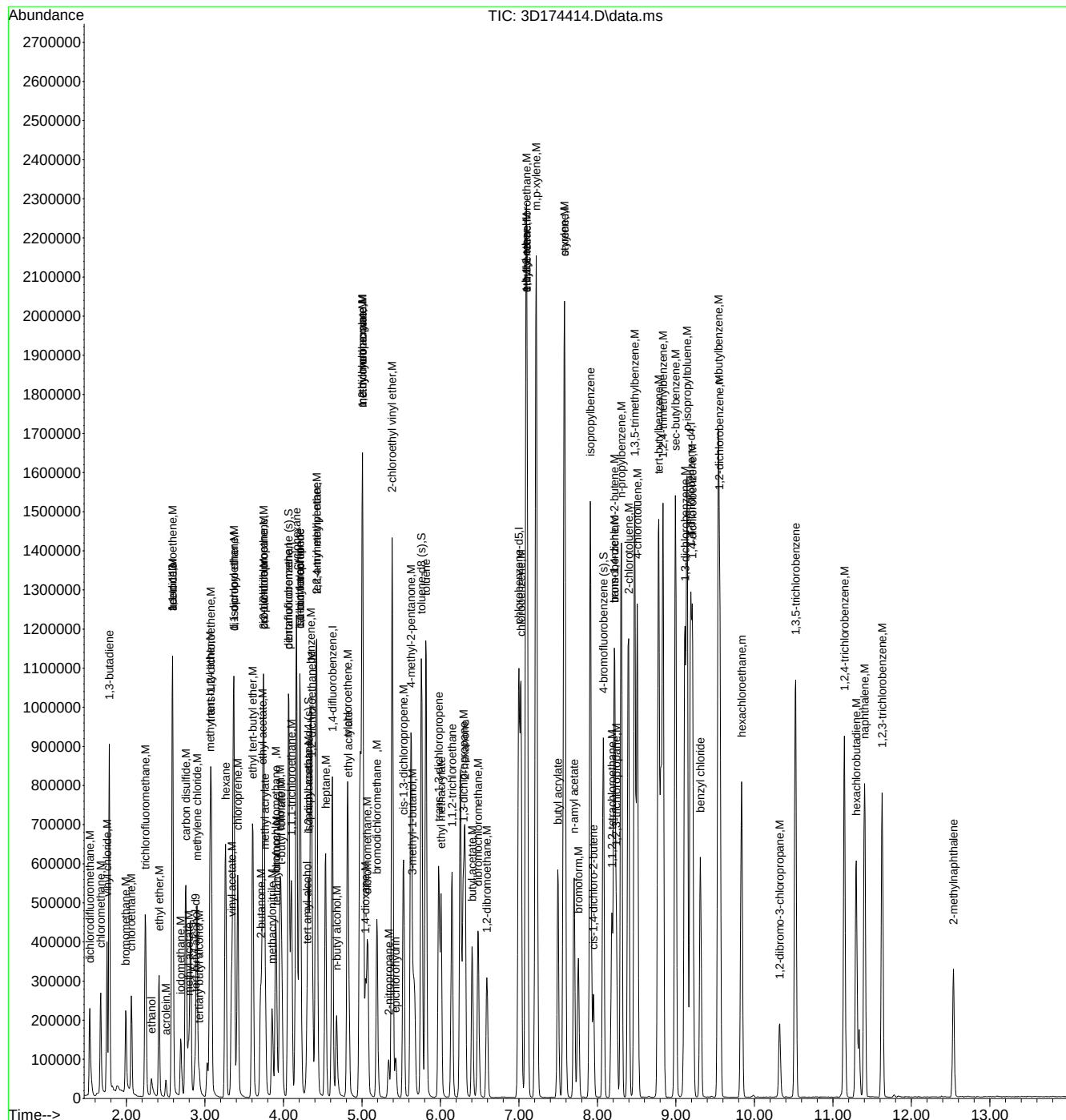
7.6.25

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174414.D
Acq On : 10 Mar 2022 6:18 pm
Operator : brittink
Sample : icv7392-50
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 11 19:50:52 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Fri Mar 11 09:53:10 2022
QLast Update : Fri Mar 11 09:53:10 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174415.D
 Acq On : 10 Mar 2022 6:42 pm
 Operator : brittank
 Sample : icv7392-50
 Misc : MS57062,V3D7392,5,,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 11 19:52:02 2022
 Quant Method : C:\msdchem\1\METHODS\M3D7392.M
 Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Fri Mar 11 09:53:10 2022
 QLast Update : Fri Mar 11 09:53:10 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.868	65	78253	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	387610	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.624	114	557257	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	501829	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.190	152	255016	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.069	113	169231	50.29	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.58%
52) 1,2-dichloroethane-d4 (s)	4.313	65	192801	52.35	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	104.70%
74) toluene-d8 (s)	5.758	98	661866	51.97	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.94%
98) 4-bromofluorobenzene (s)	8.074	95	242188	52.18	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	104.36%

Target Compounds					Qvalue
6) chlorodifluoromethane	1.545	51	236514	69.75	ug/L 95
19) acetonitrile	2.764	41	150418	543.25	ug/L 97
30) acrylonitrile	3.026	53	52773	55.16	ug/L 96
79) tetrachloroethene	6.257	164	147200	45.85	ug/L 96
113) 1,2,3-trimethylbenzene	9.232	105	693863	54.98	ug/L 98

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

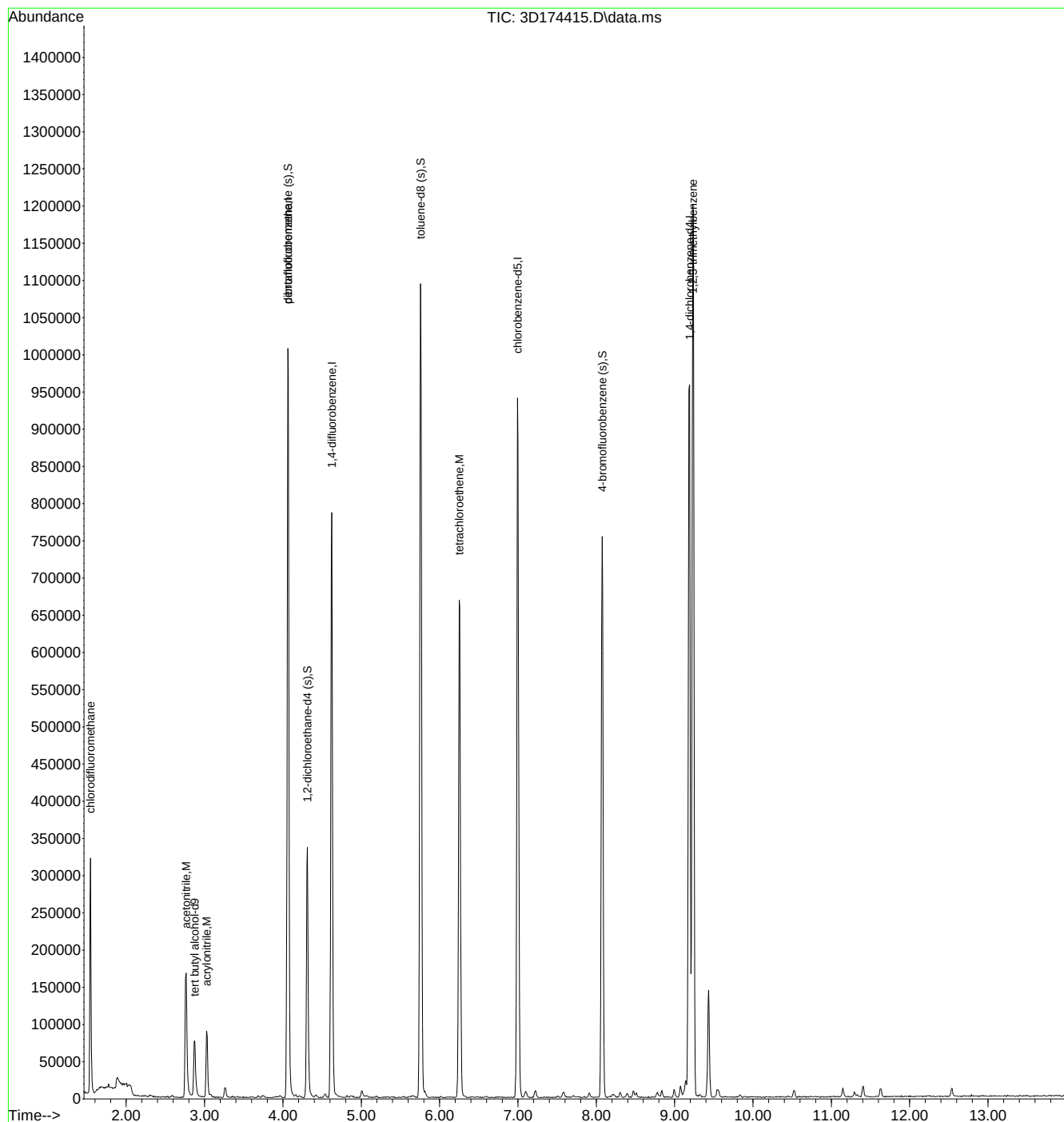
7.6.26

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174415.D
Acq On : 10 Mar 2022 6:42 pm
Operator : brittank
Sample : icv7392-50
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 11 19:52:02 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Fri Mar 11 09:53:10 2022
QLast Update : Fri Mar 11 09:53:10 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
 Data File : 3D174419.D
 Acq On : 11 Mar 2022 9:41 am
 Operator : brittank
 Sample : icv7392-50
 Misc : MS57062,V3D7392,5,,,,,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 11 19:52:55 2022
 Quant Method : C:\msdchem\1\METHODS\M3D7392.M
 Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Fri Mar 11 09:53:10 2022
 QLast Update : Fri Mar 11 09:53:10 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.868	65	58619	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	363995	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.623	114	521815	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	487553	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.190	152	243446	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.063	113	160199	50.69	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	101.38%	
52) 1,2-dichloroethane-d4 (s)	4.313	65	175747	50.96	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	101.92%	
74) toluene-d8 (s)	5.757	98	640574	51.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	103.54%	
98) 4-bromofluorobenzene (s)	8.074	95	233062	52.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	105.20%	
Target Compounds						
11) bromomethane	1.990	94	64559	45.99	ug/L	Qvalue 95

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

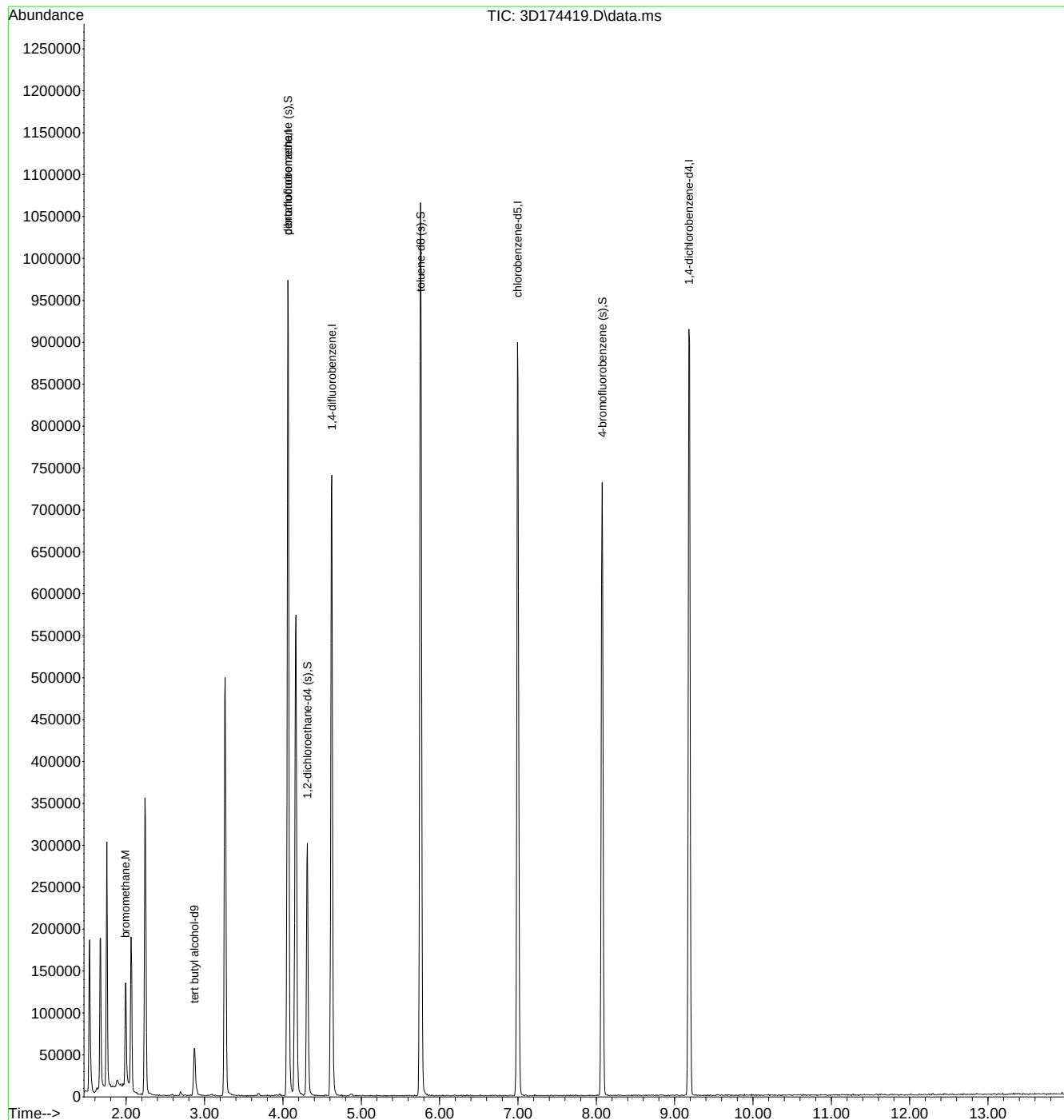
7.6.27

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7392\
Data File : 3D174419.D
Acq On : 11 Mar 2022 9:41 am
Operator : brittank
Sample : icv7392-50
Misc : MS57062,V3D7392,5,,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 11 19:52:55 2022
Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Fri Mar 11 09:53:10 2022
QLast Update : Fri Mar 11 09:53:10 2022
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
Data File : 3d176495.d
Acq On : 25 Apr 2022 11:45 am
Operator : nickw
Sample : cc7392-20 Inst : MS3D
Misc : MS58411,V3D7465,5,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Results File: M3D7392.RES
Quant Time: Apr 26 05:53:34 2022
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022
QLast Update : Mon Apr 11 11:49:38 2022
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.874	65	49341	500.00	ug/L	0.00
5) pentafluorobenzene	4.063	168	439085	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.624	114	659602	50.00	ug/L	0.00
73) chlorobenzene-d5	6.995	117	632105	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.184	152	304898	50.00	ug/L	0.00
125) pentafluorobenzene(a)	4.063	168	439085	50.00	ug/L	0.00
128) 1,4-dichlorobenzene-d4(a)	9.184	152	304898	50.00	ug/L	0.00

System Monitoring Compounds						
43) dibromofluoromethane (s)	4.063	113	193785	50.84	ug/L	0.00
Spiked Amount 50.000	Range	80 - 120	Recovery	=	101.68%	
52) 1,2-dichloroethane-d4 (s)	4.313	65	215987	49.55	ug/L	0.00
Spiked Amount 50.000	Range	81 - 124	Recovery	=	99.10%	
74) toluene-d8 (s)	5.758	98	784744	48.92	ug/L	0.00
Spiked Amount 50.000	Range	80 - 120	Recovery	=	97.84%	
98) 4-bromofluorobenzene (s)	8.074	95	315751	56.90	ug/L	0.00
Spiked Amount 50.000	Range	80 - 120	Recovery	=	113.80%	

Target Compounds						Qvalue
2) tertiary butyl alcohol	2.917	59	13973	94.53	ug/L	88
3) ethanol	2.319	45	12292	1547.60	ug/L	88
4) 1,4-dioxane	5.044	88	3049	342.05	ug/L	96
6) chlorodifluoromethane	1.539	51	77869	20.27	ug/L	95
7) dichlorodifluoromethane	1.533	85	125156	27.57	ug/L	100
8) chloromethane	1.667	50	85603	19.82	ug/L	97
9) vinyl chloride	1.752	62	100253	21.48	ug/L	94
10) 1,3-butadiene	1.783	54	77244	16.16	ug/L	98
11) bromomethane	1.990	94	47673	28.15	ug/L	96
12) chloroethane	2.063	64	60834	19.35	ug/L	94
13) trichlorofluoromethane	2.240	101	141716	21.02	ug/L	99
14) ethyl ether	2.417	74	52678	24.20	ug/L	97
15) acrolein	2.508	56	8571	13.99	ug/L	95
16) freon 113	2.587	151	68251	21.13	ug/L	98
17) 1,1-dichloroethene	2.587	96	73463	22.86	ug/L	98
18) acetone	2.587	58	18760	77.60	ug/L	97
19) acetonitrile	2.764	41	59135	188.54	ug/L	98
20) iodomethane	2.691	142	47403	19.14	ug/L	96
21) carbon disulfide	2.752	76	219166	23.84	ug/L	93
22) methylene chloride	2.892	84	90467	23.00	ug/L	96
23) methyl acetate	2.789	43	47075	20.46	ug/L	99
24) methyl tert butyl ether	3.063	73	230579	22.11	ug/L	99
25) trans-1,2-dichloroethene	3.081	96	82708	22.03	ug/L	96
26) di-isopropyl ether	3.362	45	236253	23.01	ug/L	94
27) 2-butanone	3.709	72	28243	72.59	ug/L	95
28) 1,1-dichloroethane	3.362	63	139586	21.63	ug/L	93
29) chloroprene	3.417	53	115925	21.03	ug/L	97
30) acrylonitrile	3.026	53	18853	17.40	ug/L	89
31) hexane	3.258	56	54875	16.53	ug/L	92
32) vinyl acetate	3.337	86	18377	19.38	ug/L	# 86
33) ethyl tert-butyl ether	3.606	59	249847	21.95	ug/L	98
34) ethyl acetate	3.727	45	10828	21.16	ug/L	# 66
35) 2,2-dichloropropane	3.752	77	118309	19.45	ug/L	91
36) cis-1,2-dichloroethene	3.740	96	88959	21.09	ug/L	98
37) methyl acrylate	3.764	85	11130	17.96	ug/L	98
38) propionitrile	3.740	54	73429	177.93	ug/L	92
39) bromochloromethane	3.898	128	42852	19.47	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
 Data File : 3d176495.d
 Acq On : 25 Apr 2022 11:45 am
 Operator : nickw
 Sample : cc7392-20 Inst : MS3D
 Misc : MS58411,V3D7465,5,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

Quant Results File: M3D7392.RES

Quant Time: Apr 26 05:53:34 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm x Mon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) tetrahydrofuran	3.916	42	15755	18.94	ug/L	97
41) chloroform	3.959	85	98279	20.54	ug/L	92
42) t-butyl formate	3.977	59	51855	13.76	ug/L #	75
44) methacrylonitrile	3.855	67	30377	20.36	ug/L	99
45) 1,1,1-trichloroethane	4.099	97	121598	18.44	ug/L	98
46) cyclohexane	4.166	84	124162	20.66	ug/L	90
47) 1,1-dichloropropene	4.203	75	110266	21.94	ug/L	95
48) iso-butyl alcohol	4.203	43	9967m	127.93	ug/L	
49) carbon tetrachloride	4.215	117	105151	18.53	ug/L	97
50) tert amyl alcohol	4.294	55	6033	60.48	ug/L #	67
53) n-butyl alcohol	4.672	56	22796	417.13	ug/L	85
54) 2,2,4-trimethylpentane	4.422	57	218627	18.80	ug/L	98
55) benzene	4.349	78	321918	21.93	ug/L	98
56) tert-amyl methyl ether	4.416	87	58512	20.00	ug/L	91
57) heptane	4.532	71	61964	18.91	ug/L	89
58) isopropyl acetate	4.319	87	18077	19.54	ug/L #	88
59) 1,2-dichloroethane	4.368	62	103389	19.07	ug/L	99
60) trichloroethene	4.813	130	87651	19.30	ug/L	97
61) ethyl acrylate	4.831	55	80015	18.52	ug/L	97
62) 2-nitropropane	5.337	41	14294	12.68	ug/L #	84
63) 2-chloroethyl vinyl ether	5.386	63	214861	99.12	ug/L	96
64) methyl methacrylate	5.014	100	20657	19.73	ug/L #	81
65) 1,2-dichloropropane	5.002	63	81134	21.15	ug/L	98
66) dibromomethane	5.069	93	44924	17.42	ug/L	92
67) methylcyclohexane	5.008	83	133197	19.27	ug/L	97
68) bromodichloromethane	5.191	83	111506	19.13	ug/L	91
69) epichlorohydrin	5.428	57	24918	78.41	ug/L	88
70) cis-1,3-dichloropropene	5.526	75	136570	20.64	ug/L	98
71) 4-methyl-2-pentanone	5.623	58	95773	77.78	ug/L	95
72) 3-methyl-1-butanol	5.654	55	21796	198.61	ug/L	96
75) toluene	5.812	92	210208	19.46	ug/L	97
76) trans-1,3-dichloropropene	5.977	75	121157	19.45	ug/L	93
77) ethyl methacrylate	6.007	69	106376	20.35	ug/L	95
78) 1,1,2-trichloroethane	6.148	83	61312	20.35	ug/L	89
79) tetrachloroethene	6.251	164	73077	18.07	ug/L	96
80) 1,3-dichloropropane	6.288	76	124368	20.20	ug/L	98
81) 2-hexanone	6.312	58	85628	71.96	ug/L	97
82) butyl acetate	6.404	56	43821	18.71	ug/L	97
83) dibromochloromethane	6.477	129	81704	17.34	ug/L	95
84) 1,2-dibromoethane	6.593	107	72435	18.64	ug/L	96
85) n-butyl ether	7.087	57	346576	19.86	ug/L	97
86) chlorobenzene	7.026	112	236725	19.08	ug/L	95
87) 1,1,1,2-tetrachloroethane	7.093	131	78002	17.29	ug/L	98
88) ethylbenzene	7.105	91	396258	20.33	ug/L	96
89) m,p-xylene	7.221	106	316187	37.89	ug/L	92
90) o-xylene	7.574	106	161033	19.07	ug/L	91
91) styrene	7.586	104	265172	19.22	ug/L	98
92) bromoform	7.757	173	46405	14.81	ug/L	92
93) butyl acrylate	7.495	55	129609	17.92	ug/L	95
94) n-amyl acetate	7.702	70	54797	18.06	ug/L	92
95) isopropylbenzene	7.910	105	405625	19.47	ug/L	96
96) cis-1,4-dichloro-2-butene	7.946	88	19239	13.34	ug/L #	77
99) bromobenzene	8.214	156	97772	19.89	ug/L	87
100) 1,1,2,2-tetrachloroethane	8.184	83	86099	21.22	ug/L	98
101) trans-1,4-dichloro-2-b...	8.220	53	16153	18.79	ug/L	94
102) 1,2,3-trichloropropane	8.239	110	26119	20.12	ug/L	94
103) n-propylbenzene	8.300	91	460374	22.19	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
 Data File : 3d176495.d
 Acq On : 25 Apr 2022 11:45 am
 Operator : nickw
 Sample : cc7392-20 Inst : MS3D
 Misc : MS58411,V3D7465,5,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7392.M
 Quant Results File: M3D7392.RES
 Quant Time: Apr 26 05:53:34 2022
 Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022
 QLast Update : Mon Apr 11 11:49:38 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 2-chlorotoluene	8.391	126	94202	19.18	ug/L #	80
105) 4-chlorotoluene	8.507	126	98059	19.63	ug/L #	76
106) 1,3,5-trimethylbenzene	8.476	105	321109	20.86	ug/L	95
107) tert-butylbenzene	8.775	134	72508	18.97	ug/L #	84
108) 1,2,4-trimethylbenzene	8.836	105	331375	21.47	ug/L	94
109) sec-butylbenzene	8.995	105	387271	20.30	ug/L	94
110) 1,3-dichlorobenzene	9.111	146	192396	20.88	ug/L	98
111) p-isopropyltoluene	9.141	119	336961	20.89	ug/L	95
112) 1,4-dichlorobenzene	9.208	146	186332	20.13	ug/L	98
113) 1,2,3-trimethylbenzene	9.232	105	320793	21.26	ug/L	94
114) benzyl chloride	9.312	91	153466	18.22	ug/L	92
115) 1,2-dichlorobenzene	9.562	146	173975	19.94	ug/L	96
116) n-butylbenzene	9.537	92	156935	20.47	ug/L	91
117) 1,2-dibromo-3-chloropr...	10.324	157	17934	18.55	ug/L	96
118) 1,3,5-trichlorobenzene	10.525	180	122211	19.51	ug/L	98
119) 1,2,4-trichlorobenzene	11.147	180	97842	19.14	ug/L	94
120) hexachlorobutadiene	11.299	225	38364	19.55	ug/L	93
121) naphthalene	11.403	128	242476	20.82	ug/L	98
122) 1,2,3-trichlorobenzene	11.628	180	80471	19.03	ug/L	98
123) hexachloroethane	9.836	201	39626	16.54	ug/L	88
124) 2-methylnaphthalene	12.537	142	45868	8.05	ug/L	95

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

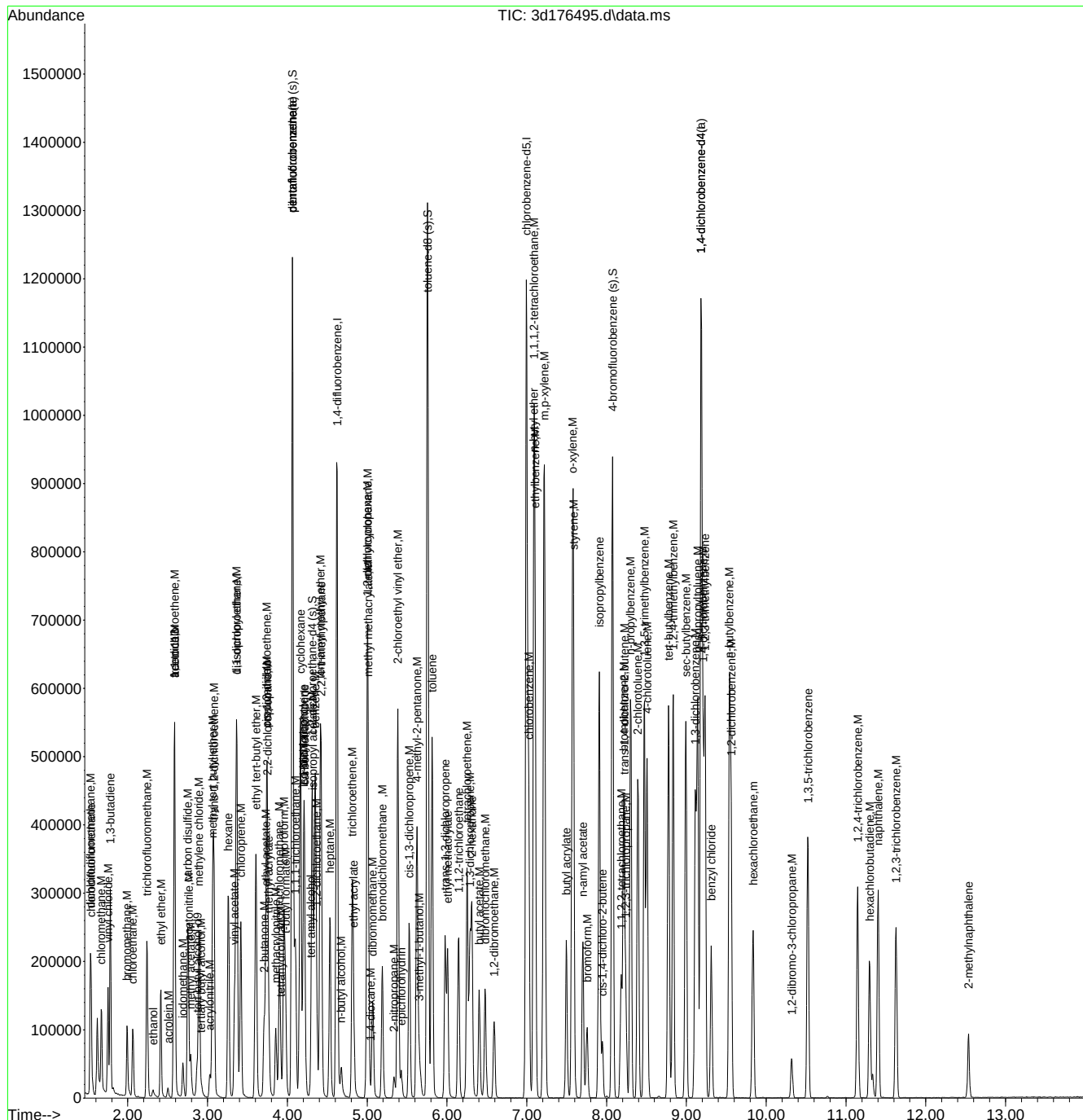
Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
Data File : 3d176495.d
Acq On    : 25 Apr 2022  11:45 am
Operator  : nickw
Sample    : cc7392-20
Misc      : MS58411,V3D7465,5,,,,,1
ALS Vial  : 6      Sample Multiplier: 1
Inst      : MS3D

```

Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Results File: M3D7392.RES
Quant Time: Apr 26 05:53:34 2022
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022
QLast Update : Mon Apr 11 11:49:38 2022
Response via : Initial Calibration



7.6.28

Manual Integration Approval Summary

Sample Number: V3D7465-CC7392

Method: SW846 8260D

Lab FileID: 3D176495.D

Analyst approved: 04/26/22 06:33 Dave Moriente

Injection Time: 04/25/22 11:45

Supervisor approved: 04/27/22 12:13 Mei Chen

Parameter	CAS	Sig#	R.T. (min.)	Reason

Isobutyl alcohol	78-83-1		4.20	Poor instrument integration

7.6.28.1
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
Data File : 3d176495.d
Acq On : 25 Apr 2022 11:45 am
Operator : nickw
Sample : cc7392-20
Misc : MS58411,V3D7465,5,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Inst : MS3D

Quant Method : C:\msdchem\1\METHODS\M3D7392.M

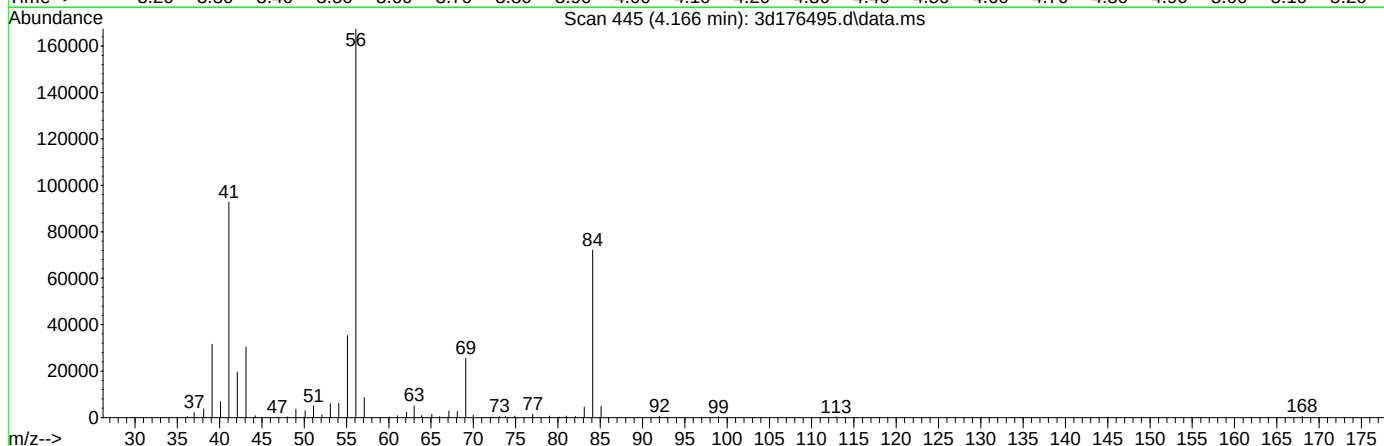
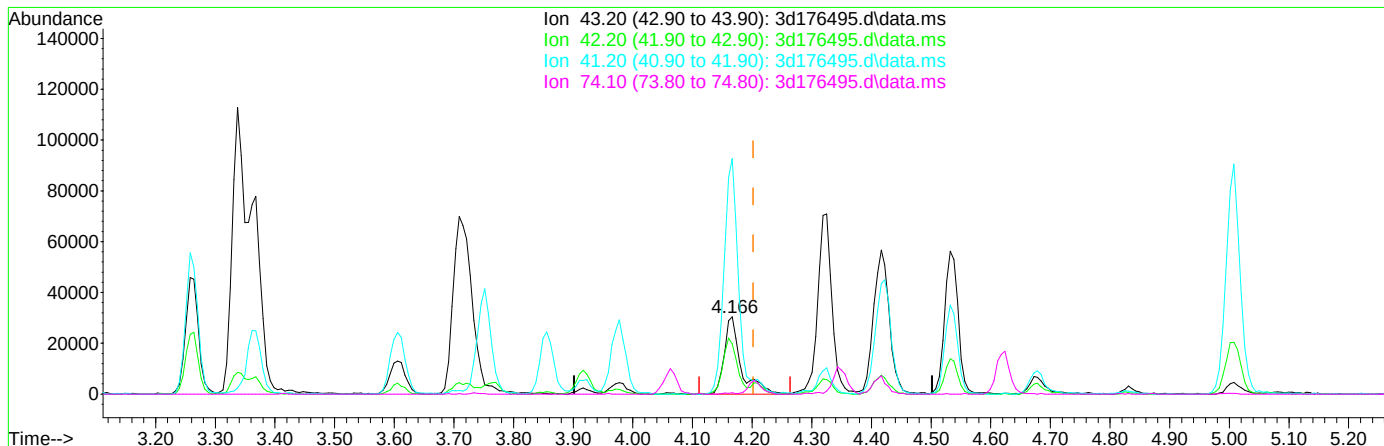
Quant Results File: M3D7392.RES

Quant Time: Apr 25 18:27:25 2022

Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022

QLast Update : Mon Apr 11 11:49:38 2022

Response via : Initial Calibration



TIC: 3d176495.d\data.ms

(48) iso-butyl alcohol

4.166min (-0.036) 757.19ug/L

response 58995

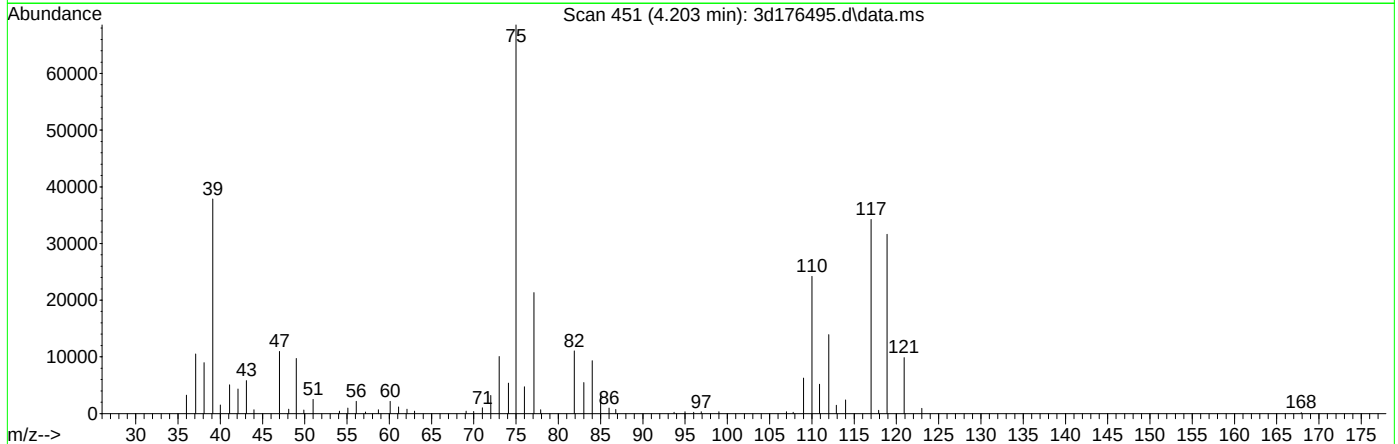
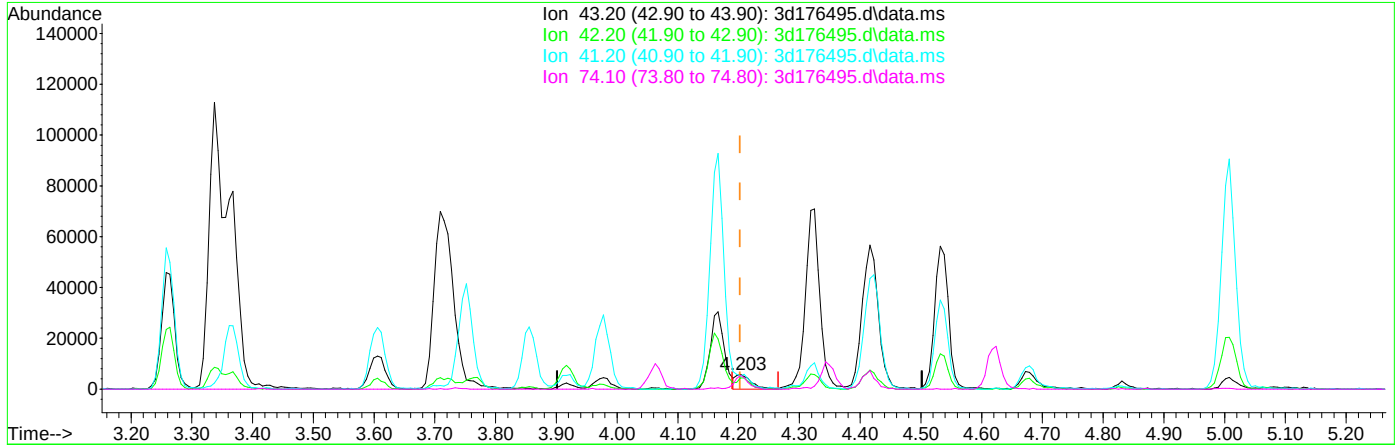
Ion	Exp%	Act%
43.20	100	100
42.20	57.60	64.73
41.20	79.30	305.61#
74.10	58.00	1.52#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\davem1\04-26-22\v3d7465-halfway\
Data File : 3d176495.d
Acq On : 25 Apr 2022 11:45 am
Operator : nickw
Sample : cc7392-20
Misc : MS58411,V3D7465,5,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Inst : MS3D

Quant Method : C:\msdchem\1\METHODS\M3D7392.M
Quant Results File: M3D7392.RES
Quant Time: Apr 25 18:27:25 2022
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xMon Apr 11 11:49:38 2022
QLast Update : Mon Apr 11 11:49:38 2022
Response via : Initial Calibration



TIC: 3d176495.d\data.ms

(48) iso-butyl alcohol

4.203min (+0.001) 127.93ug/L m

response 9967

Ion	Exp%	Act%
43.20	100	100
42.20	57.60	74.44
41.20	79.30	87.56
74.10	58.00	92.46#

GCMS Volatile Run Log

Standard / Reagents		Lot #				Column	
Standard	ABK: V022-2747-11.7	EC: V022-2747-18.11	AA: V022-2747-16.4	Ext. PA: V021-2741-134.2	100-1,000ppm	Method	DB-624(60mx0.25mmx1.4um)
Standard Concentration	100-10,000ppm	100ppm	100ppm	100-1,000ppm	3/31/2022	Init Calib Date	V8260D
Expiration Date	4/23/2022	4/7/2022	4/30/2022	4/5/2022			
Standard	Ext. ABK: V021-2741-133.15	Ext. EC: V022-2747-14.1	Ext. Acrolein: V022-2747-7.2	Ext. Chlorodi fluoromethane: V022-100ppm	3/31/2022	Analysis Date	Brittany Klimek
Standard Concentration	100-10,000ppm	100ppm	100ppm	100ppm		Sequence loaded by	Bridget Kelly
Expiration Date	4/3/2022	4/1/2022	4/22/2022	5/1/2022		Data processed by	V2D8735
						Batch ID	AQ
Internal Surrogate	V022-2747-5					Matrix	MOHUI
I/S Concentration	250/2500ppm					Approved By:	
Expiration Date	4/21/2022		Initial Calibration Method:	M2D8735		Approved Date:	4/6/2022 12:21:09 PM

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
2D 200602	IB		NA			5			1	ok	
2D 200603	IB		NA			5			2	ok	
2D 200604	BFB		NA			5			3	ok	3/31/2022; 4:25PM.
2D 200605	IC8735-0.2		NA		AQ Initial Calibration	5			4	ok	1uL ABK, EC, AA/500mL DI H2O.
2D 200606	IC8735-0.5		NA		AQ Initial Calibration	5			5	ok	1uL ABK, EC, AA/200mL DI H2O.
2D 200607	IC8735-1		NA		AQ Initial Calibration	5			6	ok	1uL ABK, EC, AA/100mL DI H2O.
2D 200608	IC8735-2		NA		AQ Initial Calibration	5			7	ok	2uL ABK, EC, AA/100mL DI H2O.
2D 200609	IC8735-4		NA		AQ Initial Calibration	5			8	ok	4uL ABK, EC, AA/100mL DI H2O.
2D 200610	IC8735-8		NA		AQ Initial Calibration	5			9	ok	8uL ABK, EC, AA/100mL DI H2O.
2D 200611	IC8735-20		NA		AQ Initial Calibration	5			10	ok	20uL ABK, EC, AA/100mL DI H2O.
2D 200612	ICC8735-50		NA		AQ Initial Calibration	5			11	ok	50uL ABK, EC, AA/100mL DI H2O.



Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
2D 200613	IC8735-100		NA		AQ Initial Calibration	5			12	ok	100uL ABK, EC, AA/100mL DI H2O.
2D 200614	IC8735-200		NA		AQ Initial Calibration	5			13	ok	200uL ABK, EC, AA/100mL DI H2O.
2D 200615	IB		NA			5			14	ok	
2D 200616	IB		NA			5			15	ok	
2D 200617	ICV8735-50		NA		AQ Initial Calibration	5			16	ok	50uL Ext. ABK, Ext. EC, Ext. Acrolein/100mL DI H2O.
2D 200618	ICV8735-50		NA		AQ Initial Calibration	5			17	ok	50uL Ext. PA, Ext. Chlorodifluoromethane/100mL DI H2O.
2D 200619	IB		NA			5			18	ok	
2D 200620	IB		NA			5			19	ok	
2D 200621	BFB2		NA			5			20	ok	4/1/2022; 10:29AM.
2D 200622	ICV8735-50		NA		AQ Initial Calibration	5			21	ok	50uL Ext. ABK/100mL DI H2O (V021-2741-133.17; Exp. 4/3/2022)

GCMS Volatile Run Log

Standard / Reagents		Lot #			Column	DB-624(60mx0.25mmx1.4um)
Standard	ABK: V022-2747-25.7	EC: V022-2747-35.8	AA: V022-2747-16.4	Method	v8260d	
Standard Concentration	100-10,000ppm	100ppm	4/30/2022	Init Calib Date	3/31/2022	
Expiration Date	5/4/2022	4/22/2022				
Internal Surrogate	V022-2747-51			Analysis Date	4/22/2022	
Internal Surrogate Concentration	250/2500ppm			Sequence loaded by	nickw	
Expiration Date	5/16/2022			Data processed by	nizele	
				Batch ID	V2D8765	
				Matrix	AQ	
				Approved By:	MEI	
pH paper lot#: 222221 exp. 8/1/24		Initial Calibration Method:	M2D8735	Approved Date:	4/25/2022 1:23:58 PM	

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
2d 201296	IB		NA			5			1	OK	
2d 201297	IB		NA			5			2	OK	
2d 201298	BFB/CC8735-20		NA			5			3	OK/OK	9:28a.m.: 20uL ABK, AA, EC / 100mL
2d 201299	CC8735-1		NA			5			4	OK	1uL ABK, AA, EC / 100mL
2d 201300	BS		NA			5			5	OK	50uL ABK, AA, EC / 100mL
2d 201301	IB		NA			5			6	OK	
2d 201302	MB		NA			5			7	OK	
2d 201303	JD43430-47	1	NA	MS58389	V8260TCL20+	5		1	8	OK	
2d 201304	JD43190-4	2	NA	MS58329	V8260TICS+	5		1	9	OK	
2d 201305	JD43183-4	1	NA	MS58325	V8260BTX	5		1	10	OK	+3d176362
2d 201306	JD43190-3	2	10x	MS58329	V8260BTX-B, VLS	5/50		1	11	OK	+3d176372; 10x

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
2d 201307	JD43190-2	2	20x	MS58329	V8260BTX-B, VLS	2.5/50		1	12	OK	+3d176371; 20x
2d 201308	JD43221-4	1	50x	MS58322	V8260NHF, ETHL	1/50		1	13	OK	+i340969; 50x
2d 201309	JD43253-1MS	6	NA	MS58347	V8260TCL20	5		1	14	OK	20uL ABK, AA, EC / 40mL
2d 201310	JD43253-1MSD	14	NA	MS58347	V8260TCL20	5		1	15	OK	20uL ABK, AA, EC / 40mL
2d 201311	IB		NA			5			16	OK	
2d 201312	JD43178-2	1	NA	MS58296	V8260TCL20+	5		1	17	OK	
2d 201313	JD43178-3	1	NA	MS58296	V8260TCL20+	5		1	18	OK	
2d 201314	JD43253-6	1	NA	MS58347	V8260TCL20	5		1	19	OK	
2d 201315	JD43253-7	2	NA	MS58347	V8260TCL20	5		1	20	OK	
2d 201316	JD43253-8	2	NA	MS58347	V8260TCL20	5		1	21	OK	
2d 201317	JD43178-1	5	5x	MS58296	V8260TCL20+	10/50		1	22	OK	5x
2d 201318	JD43253-1	7	NA	MS58347	V8260TCL20	5		1	23	OK	
2d 201319	JD43253-2	9	NA	MS58347	V8260TCL20	5		1	24	rr	rr NG, bad purged
2d 201320	JD43253-3	6	NA	MS58347	V8260TCL20	5		1	25	OK	
2d 201321	JD43253-4	9	NA	MS58347	V8260TCL20	5		1	26	OK	9:19 pm
2d 201322	JD43253-5	2	NA	MS58347	V8260TCL20	5		1	27	rr	out of bfb
2d 201323	IB		NA			5			28	OK	

GCMS Volatile Run Log

Standard / Reagents		Lot #				Column	Rxt-624(60mx0.25mmx1.4um)
Standard	ABK: V021-2741-118.9	EC: V021-2741-136.9	AA: V021-2741-125.21	Ext. PA: V021-2741-123.1	Method	V8260D	
Standard Concentration	100-10,000ppm	100ppm	100ppm	100-1,000ppm	Init Calib Date	3/10/2022	
Expiration Date	3/24/2022	3/16/2022	4/1/2022	3/26/2022			
Standard	Ext. ABK: V021-2741-133.2	Ext. EC: V021-2741-131.1	Ext. Acrolein: V021-2741-111.5	Ext. Chlorodifluoromethane: 100ppm	Analysis Date	3/10/2022	
Standard Concentration	100-10,000ppm	100ppm	100ppm	100ppm	Sequence loaded by	Brittany Klimek	
Expiration Date	4/3/2022	3/10/2022	3/21/2022	3/26/2022	Data processed by	Bridget Kelly	
Internal Surrogate	V021-2741-116		Standard	Ext. EC: V021-2741-141.2	Batch ID	V3D7392	
Internal Surrogate Concentration	50/500ppm		Standard Concentration	100ppm	Matrix	AQ	
Expiration Date	3/23/2022		Expiration Date	3/18/2022	Approved By:	MOHUI	
			Initial Calibration Method	M3D7392	Approved Date:	3/15/2022 4:47:18 PM	

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
3D 174401	BFB		NA			5			1	ok	3/10/2022; 1:03PM.
3D 174402	IC7392-0.2		NA		AQ Initial Calibration	5			2	ok	1uL ABK, EC, AA/500mL DI H2O.
3D 174403	IC7392-0.5		NA		AQ Initial Calibration	5			3	ok	1uL ABK, EC, AA/200mL DI H2O.
3D 174404	IC7392-1		NA		AQ Initial Calibration	5			4	ok	1uL ABK, EC, AA/100mL DI H2O.
3D 174405	IC7392-2		NA		AQ Initial Calibration	5			5	ok	2uL ABK, EC, AA/100mL DI H2O.
3D 174406	IC7392-4		NA		AQ Initial Calibration	5			6	ok	4uL ABK, EC, AA/100mL DI H2O.
3D 174407	IC7392-8		NA		AQ Initial Calibration	5			7	ok	8uL ABK, EC, AA/100mL DI H2O.
3D 174408	IC7392-20		NA		AQ Initial Calibration	5			8	ok	20uL ABK, EC, AA/100mL DI H2O.
3D 174409	ICC7392-50		NA		AQ Initial Calibration	5			9	ok	50uL ABK, EC, AA/100mL DI H2O.
3D 174410	IC7392-100		NA		AQ Initial Calibration	5			10	ok	100uL ABK, EC, AA/100mL DI H2O.
3D 174411	IC7392-200		NA		AQ Initial Calibration	5			11	ok	200uL ABK, EC, AA/100mL DI H2O.

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
3D 174412	IB		NA			5			12	ok	
3D 174413	IB		NA			5			13	ok	
3D 174414	ICV7392-50		NA		AQ Initial Calibration	5			14	ok	50uL Ext. ABK, Ext. EC, Ext. Acrolein/100mL DI H2O.
3D 174415	ICV7392-50		NA		AQ Initial Calibration	5			15	ok	50uL Ext. PA, Ext. Chlorodifluoromethane/100mL DI H2O.
3D 174416	IB		NA			5			16	ok	
3D 174417	IB		NA			5			17	ok	
3D 174418	BFB2		NA			5			18	ok	3/11/2022; 9:18AM.
3D 174419	ICV7392-50		NA		AQ Initial Calibration	5			19	ok	50uL Ext. EC/100mL DI H2O.

GCMS Volatile Run Log

Standard / Reagents			Lot #		Column	
Standard	ABK: V022-2747-24.4	EC: V022-2747-56.6	AA: V022-2747-16.10		Method	Rxt-624(60mx0.25mmx1.4um)
Standard Concentration	100-10,000ppm	100ppm	4/30/2022		Init Calib Date	v8260d 10 Mar 2022
Expiration Date	5/4/2022	4/27/2022				
Internal Surrogate	V022-2747-52					
Internal Surrogate Concentration	50/500ppm				Analysis Date	4/25/2022
Expiration Date	5/16/2022				Sequence loaded by	nickw
					Data processed by	davem1
					Batch ID	V3D7465
Rough reviewed by					Matrix	AQ
					Approved By:	MEI
pH paper Lot# (wide range):	222221	8/1/2024	Initial Calibration Method	M3D7392	Approved Date:	4/27/2022 11:47:09 AM

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
3d 176490	IB		NA			5			1	ok	
3d 176491	IB		NA			5			2	ok	
3d 176492	BFB/CC7392-20		NA			5			3	ng	
3d 176493	IB		NA			5			4	ok	
3d 176494	IB		NA			5			5	ok	
3d 176495	BFB/CC7392-20		NA			5			6	ok/ok	11:45a.m.; 20uL ABK, AA, EC / 100mL
3d 176496	CC7392-1		NA			5			7	ok	1uL ABK, AA, EC / 100mL
3d 176497	BS		NA			5			8	ok	50uL ABK, AA, EC / 100mL
3d 176498	IB		NA			5			9	ok	
3d 176499	MB		NA			5			10	ok	
3d 176500	JD43253-2	6	NA	MS58347	V8260TCL20	5		1	11	rr	rr 1x BS hit

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
3d 176501	JD43372-8	13	200x	MS58373	V8260TCL20+	0.25/50		1	12	ok/dl	+3d176467+3d176514
3d 176502	JD43372-1	12	NA	MS58373	V8260TCL20+	5		1	13	ok	
3d 176503	JD42965-5	6	NA	MS58187	V8260TCL20	5		1	14	ok	BS hit; Flag Acetone per Bridget
3d 176504	JD43372-4	13	NA	MS58373	V8260TCL20+	5		1	15	ok	BS hit Acetone per Bridget
3d 176505	JD42965-2	18	10x	MS58187	V8260TCL20	5/50		1	16	ok	+2d201184
3d 176506	JD43519-11	4	NA	MS58446	V8260TCL20+	5		1	17	ok	TBA-D9 non-target
3d 176507	JD43519-2	4	NA	MS58446	V8260TCL20+	5		1	18	ok	TBA-D9 non-target
3d 176508	JD43519-4	4	NA	MS58446	V8260TCL20+	5		1	19	ok	TBA-D9 non-target
3d 176509	JD43447-8	2	10x	MS58411	V8260BTX-T, VLS	5/50		1	20	ok	+3d176486
3d 176510	JD43372-4	13	10x	MS58373	V8260TCL20+	5/50		1	21	ok	TBA-D9 non-target
3d 176511	JD43519-11MS	3	NA	MS58446	V8260TCL20+	5		1	22	ok	20uL ABK, AA, EC / 40mL; ISTD out confirmed by QC sample
3d 176512	JD43519-11MSD	5	NA	MS58446	V8260TCL20+	5		1	23	ok	20uL ABK, AA, EC / 40mL
3d 176513	JD43253-2	6	10x	MS58347	V8260TCL20	5/50		1	24	ok	Acetone per Bridget
3d 176514	JD43372-8	13	500x	MS58373	V8260TCL20+	0.1/50		1	25	ok	
3d 176515	JD43519-1	2	NA	MS58446	V8260TCL20+	5		1	26	ok	
3d 176516	JD43519-13	4	NA	MS58446	V8260TCL20+	5		1	27	ok	TBA-D9 non-target
3d 176517	JD43519-7	4	NA	MS58446	V8260TCL20+	5		1	28	rr	rr 1x/10x BS hit - F/D
3d 176518	JD43447-9	2	NA	MS58411	V8260BENZ, VLS	5		1	29	ok	
3d 176519	JD43253-5	1	NA	MS58347	V8260TCL20	5		1	30	ok	
3d 176520	JD43519-3	4	NA	MS58446	V8260TCL20+	5		1	31	rr	rr 1x BS hit

OR048-01

Rev Date: 12/18/2017

Page 2 of 3

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
3d	176521	JD43519-5	4	NA	MS58446	V8260TCL20+	5		1	32	ok	
3d	176522	JD43519-6	4	NA	MS58446	V8260TCL20+	5		1	33	rr	rr 1x BS hit
3d	176523	JD43447-8	2	2x	MS58411	V8260BTX-T, VLS	25/50		1	34	ok/dl	(10:50pm)
3d	176524	IB		NA			5			35	ok	

GC Volatiles

QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GAA2539-MB	AA94382.D	1	04/20/22	WC	n/a	n/a	GAA2539

The QC reported here applies to the following samples: Method: RSK-175

JD43253-1, JD43253-2, JD43253-3, JD43253-4

CAS No.	Compound	Result	RL	Units	Q
74-85-1	Ethene	ND	0.31	ug/l	

8.1.1
8

Laboratory Control Sample Summary

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GAA2539-LCS	AA94380.D	1	04/20/22	WC	n/a	n/a	GAA2539

The QC reported here applies to the following samples: Method: RSK-175

JD43253-1, JD43253-2, JD43253-3, JD43253-4

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
74-85-1	Ethene	31	32.8	106	62-133

8.2.1
8

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD43335-3DUP	AA94384.D	20	04/20/22	WC	n/a	n/a	GAA2539
JD43335-3	AA94383.D	20	04/20/22	WC	n/a	n/a	GAA2539

The QC reported here applies to the following samples: Method: RSK-175

JD43253-1, JD43253-2, JD43253-3, JD43253-4

CAS No.	Compound	JD43335-3 ug/l	DUP Q ug/l	Q	RPD	Limits
74-85-1	Ethene	ND	ND		nc	20

8.3.1
8

* = Outside of Control Limits.

Initial Calibration Summary

Page 1 of 1

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: GAA2456-ICC2456
Lab FileID: AA92263.D

Response Factor Report GCAA

Method : C:\MSDCHEM\1\METHODS\MAA2456.M (ChemStation Integrator)
Title : METHOD V8015 DG by GC-FID
Last Update : Mon Dec 06 16:10:37 2021
Response via : Initial Calibration

Calibration Files

200 =AA92264.d 100 =AA92263.d 20 =AA92262.d 10 =AA92261.d
2 =AA92258.d 1 =AA92256.d 500 =AA92265.d 1000=AA92269.d
= =

Compound	200	100	20	10	2	1	500	1000	Avg	%RSD
1) Methane	2.585	2.531	2.152	2.154	2.718	3.010	2.286	2.195	2.454 E4	12.68
2) Ethane	4.867	4.800	3.704	4.135	4.795	4.358	4.277	4.192	4.391 E4	9.23
3) Ethene	4.908	4.814	3.689	4.094	5.190	4.127	4.310	4.210	4.418 E4	11.38
4) Propane	7.479	7.619	5.136	6.489	7.688	6.323	6.605	6.555	6.737 E4	12.65
5) n-Butane	0.965	1.028	0.705	0.864	1.029	0.940	0.868	0.870	0.909 E5	11.74
6) n-Pentane	1.130	1.243	1.041	1.125	1.267	1.169	1.053	1.085	1.139 E5	7.29
7) Hexane	1.197	1.337	1.165	1.503	1.503	1.741	1.135	1.307	1.361 E5	15.33

(#) = Out of Range ### Number of calibration levels exceeded format ###

MAA2456.M

Tue Dec 07 13:09:06 2021

8.4.1
8

Initial Calibration Verification

Page 1 of 1

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: GAA2456-ICV2456
Lab FileID: AA92270.D

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
Data File : AA92270.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 4:14 pm
Operator : williamc
Sample : icv2456-100
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 16:24:40 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Methane	24.540	25.806 E3	-5.2	102	0.00
2	Ethane	43.912	48.133 E3	-9.6	100	0.00
3	Ethene	44.177	48.632 E3	-10.1	101	0.00
4	Propane	67.367	68.304 E3	-1.4	90	0.00
5	n-Butane	90.851	86.895 E3	4.4	85	0.00
6	n-Pentane	113.932	85.778 E3	24.7#	69	0.00
7	Hexane	136.098	82.086 E3	39.7#	61	0.01

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

MAA2456.M Tue Dec 07 13:08:39 2021

Continuing Calibration Summary

Page 1 of 1

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: GAA2539-CC2456
Lab FileID: AA94379.D

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
 Data File : AA94379.d
 Signal(s) : FID1A.ch
 Acq On : 20 Apr 2022 12:01 pm
 Operator : williamc
 Sample : cc2456-100
 Misc : GC59511,GAA2539,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Apr 20 13:11:21 2022
 Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
 Quant Title : METHOD V8015 DG by GC-FID
 QLast Update : Mon Dec 06 16:10:39 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 0.5 ml
 Signal Phase : Rt-Alumina BOND/Na2SO4
 Signal Info : 50m x 0.53 mm ID x 10um df

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Methane	24.540	24.831 E3	-1.2	98	-0.01
2	Ethane	43.912	46.298 E3	-5.4	96	-0.02
3	Ethene	44.177	46.449 E3	-5.1	96	-0.03
4	Propane	67.367	72.632 E3	-7.8	95	-0.02
5	n-Butane	90.851	97.479 E3	-7.3	95	-0.02
6	n-Pentane	113.932	126.377 E3	-10.9	102	0.00
7	Hexane	136.098	157.778 E3	-15.9#	118	-0.01

Evaluate Continuing Calibration Report - Not Founds

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

MAA2456.M Wed Apr 20 16:32:58 2022

Continuing Calibration Summary

Page 1 of 1

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: GAA2539-CC2456
Lab FileID: AA94392.D

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
 Data File : AA94392.d
 Signal(s) : FID1A.ch
 Acq On : 20 Apr 2022 3:01 pm
 Operator : williamc
 Sample : cc2456-100
 Misc : GC59514,GAA2539,,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Apr 20 16:11:11 2022
 Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
 Quant Title : METHOD V8015 DG by GC-FID
 QLast Update : Mon Dec 06 16:10:39 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 0.5 ml
 Signal Phase : Rt-Alumina BOND/Na2SO4
 Signal Info : 50m x 0.53 mm ID x 10um df

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Methane	24.540	25.433 E3	-3.6	100	0.00
2	Ethane	43.912	47.955 E3	-9.2	100	0.00
3	Ethene	44.177	48.025 E3	-8.7	100	-0.01
4	Propane	67.367	75.080 E3	-11.4	99	-0.01
5	n-Butane	90.851	99.946 E3	-10.0	97	-0.02
6	n-Pentane	113.932	126.279 E3	-10.8	102	-0.02
7	Hexane	136.098	149.009 E3	-9.5	111	-0.04

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

MAA2456.M Wed Apr 20 16:39:28 2022

8.4.4

8

Run Sequence Report

Page 1 of 1

Job Number: JD43253**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Run ID: GAA2456	Method: RSK-175	Instrument ID: GCAA

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GAA2456-IC2456	AA92256.D	12/06/21 11:08	n/a	Initial cal 1
GAA2456-IC2456	AA92258.D	12/06/21 11:35	n/a	Initial cal 2
GAA2456-IC2456	AA92261.D	12/06/21 13:19	n/a	Initial cal 10
GAA2456-IC2456	AA92262.D	12/06/21 13:32	n/a	Initial cal 20
GAA2456-ICC2456	AA92263.D	12/06/21 13:46	n/a	Initial cal 100
GAA2456-IC2456	AA92264.D	12/06/21 13:59	n/a	Initial cal 200
GAA2456-IC2456	AA92265.D	12/06/21 14:28	n/a	Initial cal 500
GAA2456-IC2456	AA92269.D	12/06/21 15:58	n/a	Initial cal 1000
GAA2456-ICV2456	AA92270.D	12/06/21 16:14	n/a	Initial cal verification 100

8.5.1

8

Run Sequence Report

Job Number: JD43253

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Run ID: GAA2539	Method: RSK-175	Instrument ID: GCAA

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GAA2539-CC2456	AA94379.D	04/20/22 12:01	n/a	Continuing cal 100
GAA2539-LCS	AA94380.D	04/20/22 12:14	n/a	Laboratory Control Sample
GAA2539-MB	AA94382.D	04/20/22 12:41	n/a	Method Blank
JD43335-3	AA94383.D	04/20/22 12:56	n/a	(used for QC only; not part of job JD43253)
JD43335-3DUP	AA94384.D	04/20/22 13:08	n/a	Duplicate
ZZZZZZ	AA94385.D	04/20/22 13:21	n/a	(unrelated sample)
ZZZZZZ	AA94386.D	04/20/22 13:34	n/a	(unrelated sample)
JD43253-1	AA94387.D	04/20/22 13:49	n/a	MW-4
JD43253-2	AA94388.D	04/20/22 14:02	n/a	MW-5
JD43253-3	AA94390.D	04/20/22 14:35	n/a	MW-8A
JD43253-4	AA94391.D	04/20/22 14:48	n/a	MW-E
GAA2539-CC2456	AA94392.D	04/20/22 15:01	n/a	Continuing cal 100



Dayton, NJ

Section 9

GC Volatiles

Raw Data

6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94387.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 1:49 pm
Operator : williamc
Sample : jd43253-1
Misc : GC59514,GAA2539,,,,,1
ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Apr 20 16:36:46 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound		R.T.	Response	Conc	Units

Target	Compounds				
1)	Methane	1.347	2987601	121.745	PPMV
2)	Ethane	1.749	41144	0.937	PPMV
3)	Ethene	2.406	6013	0.136	PPMV

(f)=RT Delta > 1/2 Window

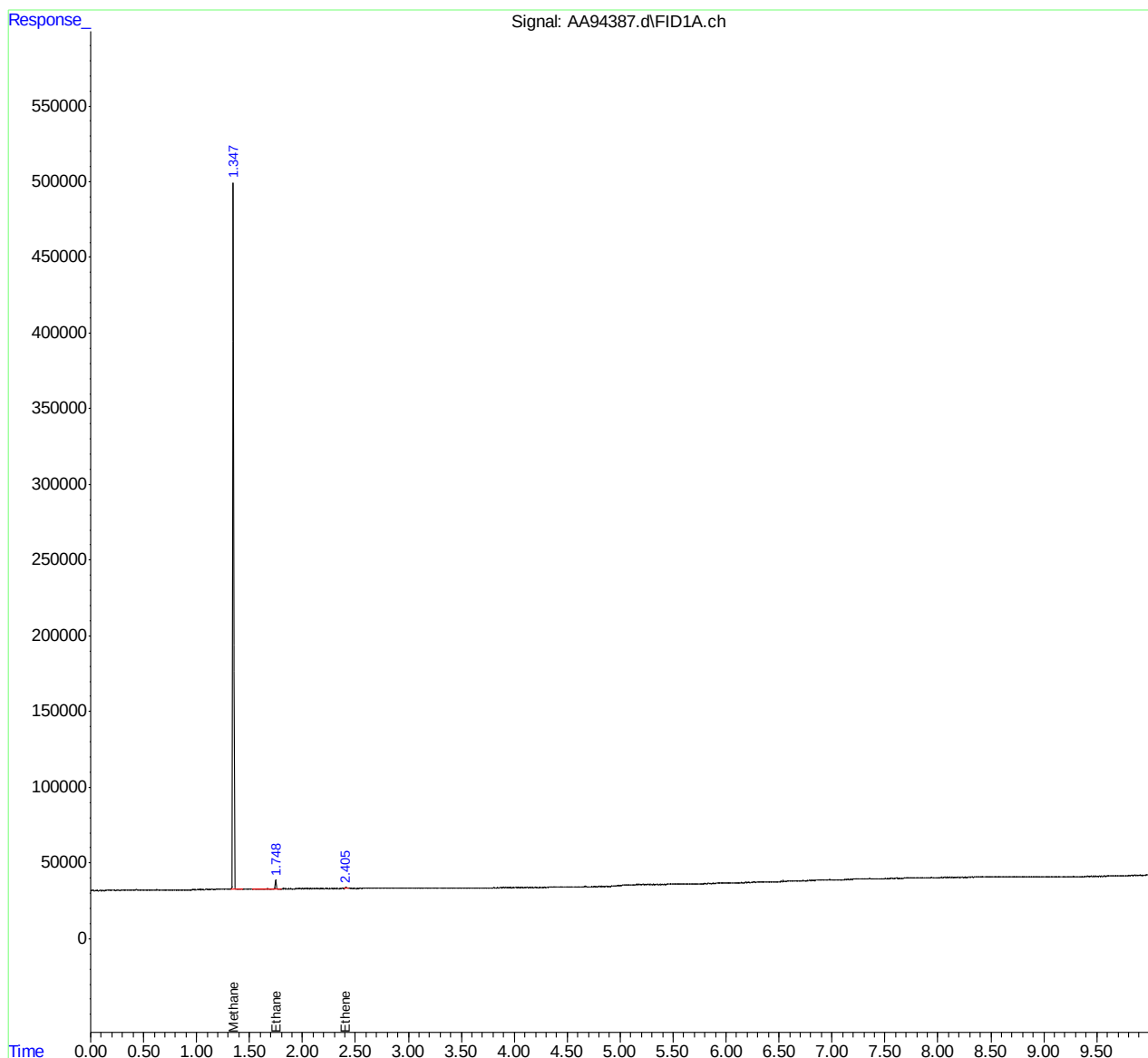
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : AA94387.d
 Signal(s) : FID1A.ch
 Acq On : 20 Apr 2022 1:49 pm
 Operator : williamc
 Sample : jd43253-1
 Misc : GC59514,GAA2539,,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Apr 20 16:36:46 2022
 Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
 Quant Title : METHOD V8015 DG by GC-FID
 QLast Update : Mon Dec 06 16:10:39 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 0.5 ml
 Signal Phase : Rt-Alumina BOND/Na2SO4
 Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

1

Data File Name AA94387.d
Date Acquired 4/20/2022 13:49
Sample Name JD43253-1
Sample Multiplier 1
Temperature(C) 22
Headspace Vol. (cc) 5
Sample Vol(cc) 38

Compound	MW	Volume(L)	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	22.4	55.5	295	24.21	2987600.6	14583	121.15	80.08	10.54	39080	2.753	13.29	0.11	13.29
Ethane	30	22.4	22.4	55.5	295	24.21	41143.5	0	0.94	1.16	0.15	27860	0.056	0.209	0.23	ND
Ethene	28	22.4	22.4	55.5	295	24.21	6013	0	0.14	0.16	0.02	10680	0.020	0.041	0.31	ND
Propane	44	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	33643	#DIV/0!	#DIV/0!	0.32	#DIV/0!
n-Butane	42	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	12937	#DIV/0!	#DIV/0!	0.43	#DIV/0!
n-Pentane	58	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	58287	#DIV/0!	#DIV/0!	0.38	#DIV/0!
Hexane	58	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	40945	#DIV/0!	#DIV/0!	0.41	#DIV/0!

* ppmv is corrected for helium blank background peak area

Definitions:
Molar Volume The volume of 1 mole of any gas at standard temperature and pressure(STP)
Water g/Moles 1 Liter of water is equal to 55.5g-moles
Temp-kelvin Is defined as 273 + degrees C
Corrected Gas Density Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)
Headspace conc(ug/l) Is equal to (ppmv reading) x (mw/corrected gas density)
Water Concentration(ug/l) Is equal to headspace conc(ug/l) x headspace vol/sample vol
Saturation Concentration(ug/l) Gas which remains at equilibrium in the sample is equal to (headspace conc-ppmv) x (mw) x (55.5)/(Henry's Constant)

temp-c	Henry's Constants										
	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Propylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	54039
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Nitrogen Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94388.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 2:02 pm
Operator : williamc
Sample : jd43253-2
Misc : GC59514,GAA2539,,,,,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Apr 20 16:37:14 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Methane	1.346	805151033	32810.099 PPMV
2) Ethane	1.748	355309	8.091 PPMV
3) Ethene	2.406	1269331	28.733 PPMV
6) n-Pentane	5.090	169458	1.487 PPMV

(f)=RT Delta > 1/2 Window

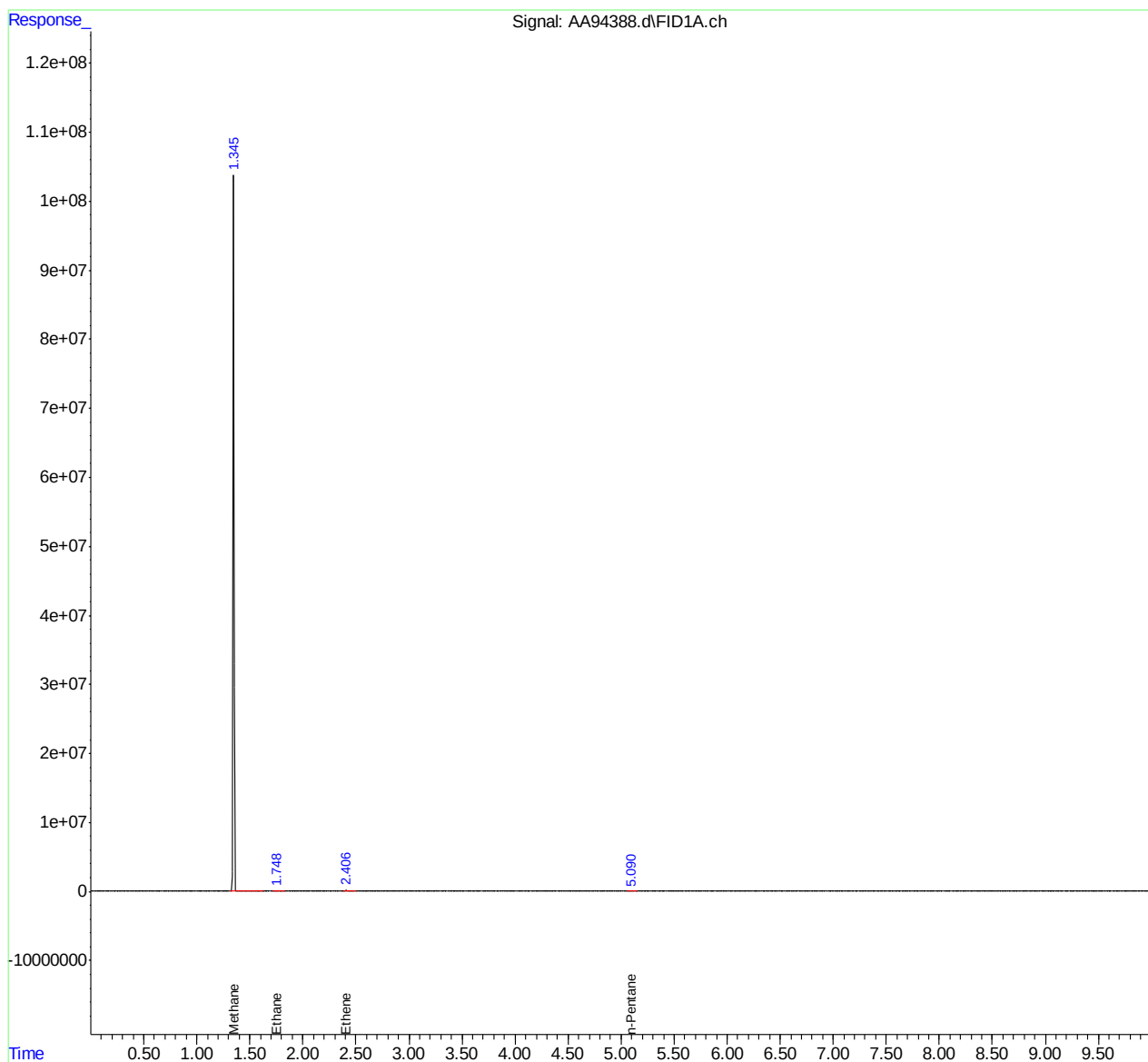
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94388.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 2:02 pm
Operator : williamc
Sample : jd43253-2
Misc : GC59514,GAA2539,,,,,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Apr 20 16:37:14 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

1

Data File Name AA94388.d
Date Acquired 4/20/2022 14:02
Sample Name JD43253-2
Sample Multiplier 1
Temperature(C) 22
Headspace Vol. (cc) 5
Sample Vol(cc) 38

Compound	MW	Volume(L)	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	22.4	55.5	295	24.21	805151033	14583	32809.50	21687.64	2853.64	39080	745.518	3599.15	0.11	3599.15
Ethane	30	22.4	22.4	55.5	295	24.21	355309.13	0	8.09	10.03	1.32	27860	0.484	1.803	0.23	1.803
Ethene	28	22.4	22.4	55.5	295	24.21	1269331	0	28.73	33.24	4.37	10680	4.181	8.554	0.31	8.554
Propane	44	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	33643	#DIV/0!	#DIV/0!	0.32	#DIV/0!
n-Butane	42	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	12937	#DIV/0!	#DIV/0!	0.43	#DIV/0!
n-Pentane	58	22.4	22.4	55.5	295	24.21	169458	0	1.49	3.56	0.47	58287	0.08	0.55	0.38	0.55
Hexane	58	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	40945	#DIV/0!	#DIV/0!	0.41	#DIV/0!

* ppmv is corrected for helium blank background peak area

Definitions:
Molar Volume The volume of 1 mole of any gas at standard temperature and pressure(STP)
Water g/Moles 1 Liter of water is equal to 55.5g-moles
Temp-kelvin Is defined as 273 + degress C
Corrected Gas Density Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)
Headspace conc(ug/l) Is equal to (ppmv reading) x (mw/corrected gas density)
Water Concentration(ug/l) Is equal to headspace conc(ug/l) x headspace vol/sample vol
Saturation Concentration(ug/l) Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)

temp-c	Henry's Constants										
	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Propylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	54039
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Nitrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : AA94390.d
 Signal(s) : FID1A.ch
 Acq On : 20 Apr 2022 2:35 pm
 Operator : williamc
 Sample : jd43253-3
 Misc : GC59514,GAA2539,,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Apr 20 16:38:20 2022
 Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
 Quant Title : METHOD V8015 DG by GC-FID
 QLast Update : Mon Dec 06 16:10:39 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 0.5 ml
 Signal Phase : Rt-Alumina BOND/Na2SO4
 Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Methane	1.347	35252	1.437 PPMV
3) Ethene	2.407	4708	0.107 PPMV

(f)=RT Delta > 1/2 Window

(m)=manual int.

9.1.5

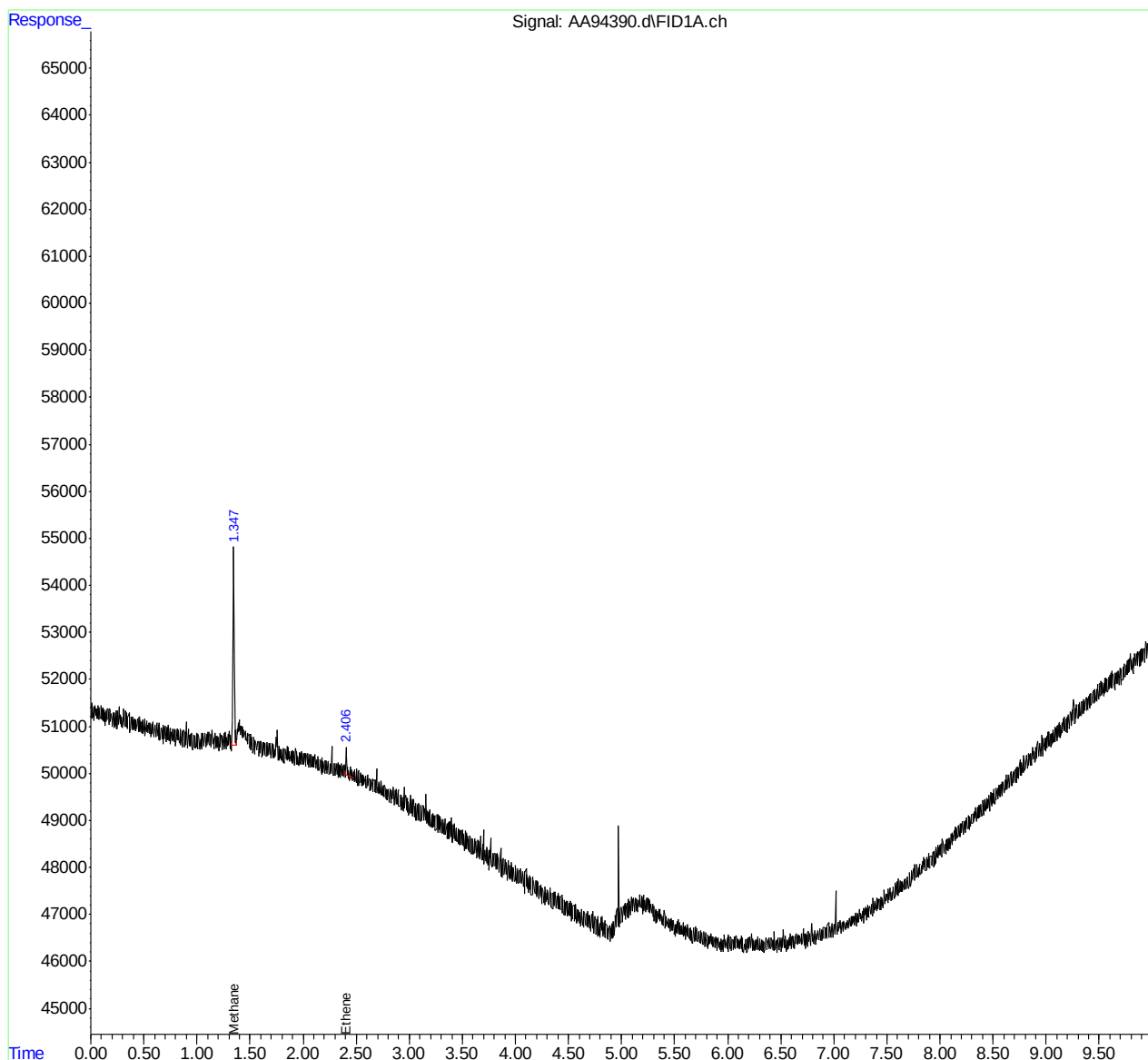
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94390.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 2:35 pm
Operator : williamc
Sample : jd43253-3
Misc : GC59514,GAA2539,,,,,1
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Apr 20 16:38:20 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

1

Data File Name AA94390.d
Date Acquired 4/20/2022 14:35
Sample Name JD43253-3
Sample Multiplier 1
Temperature(C) 22
Headspace Vol. (cc) 5
Sample Vol(cc) 38

Compound	MW	Volume(L)	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	22.4	55.5	295	24.21	35252.412	14583	0.84	0.56	0.07	39080	0.019	0.09	0.11	ND
Ethane	30	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	27860	#DIV/0!	#DIV/0!	0.23	#DIV/0!
Ethene	28	22.4	22.4	55.5	295	24.21	4708	0	0.11	0.12	0.02	10680	0.016	0.032	0.31	ND
Propane	44	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	33643	#DIV/0!	#DIV/0!	0.32	#DIV/0!
n-Butane	42	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	12937	#DIV/0!	#DIV/0!	0.43	#DIV/0!
n-Pentane	58	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	58287	#DIV/0!	#DIV/0!	0.38	#DIV/0!
Hexane	58	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	40945	#DIV/0!	#DIV/0!	0.41	#DIV/0!

* ppmv is corrected for helium blank background peak area

Definitions.

- Molar Volume The volume of 1 mole of any gas at standard temperature and pressure(STP)
Water g/Moles 1 Liter of water is equal to 55.5g-moles
Temp-kelvin Is defined as 273 + degress C
Corrected Gas Density Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)
Headspace conc(ug/l) Is equal to (ppmv reading) x (mw/corrected gas density)
Water Concentration(ug/l) Is equal to headspace conc(ug/l) x headspace vol/sample vol
Saturation Concentration(ug/l) Gas which remains at equilibrium in the sample is equal to (headspace conc-ppmv) x (mw) x (55.5)/(Henry's Constant)

temp-c	Henry's Constants										
	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Propylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	54039
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94391.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 2:48 pm
Operator : williamc
Sample : jd43253-4
Misc : GC59514,GAA2539,,,,,1
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Apr 20 16:38:49 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound		R.T.	Response	Conc	Units

Target Compounds					
1)	Methane	1.349	4941936	201.385	PPMV
2)	Ethane	1.750	70256	1.600	PPMV
3)	Ethene	2.410	7311	0.166	PPMV

(f)=RT Delta > 1/2 Window

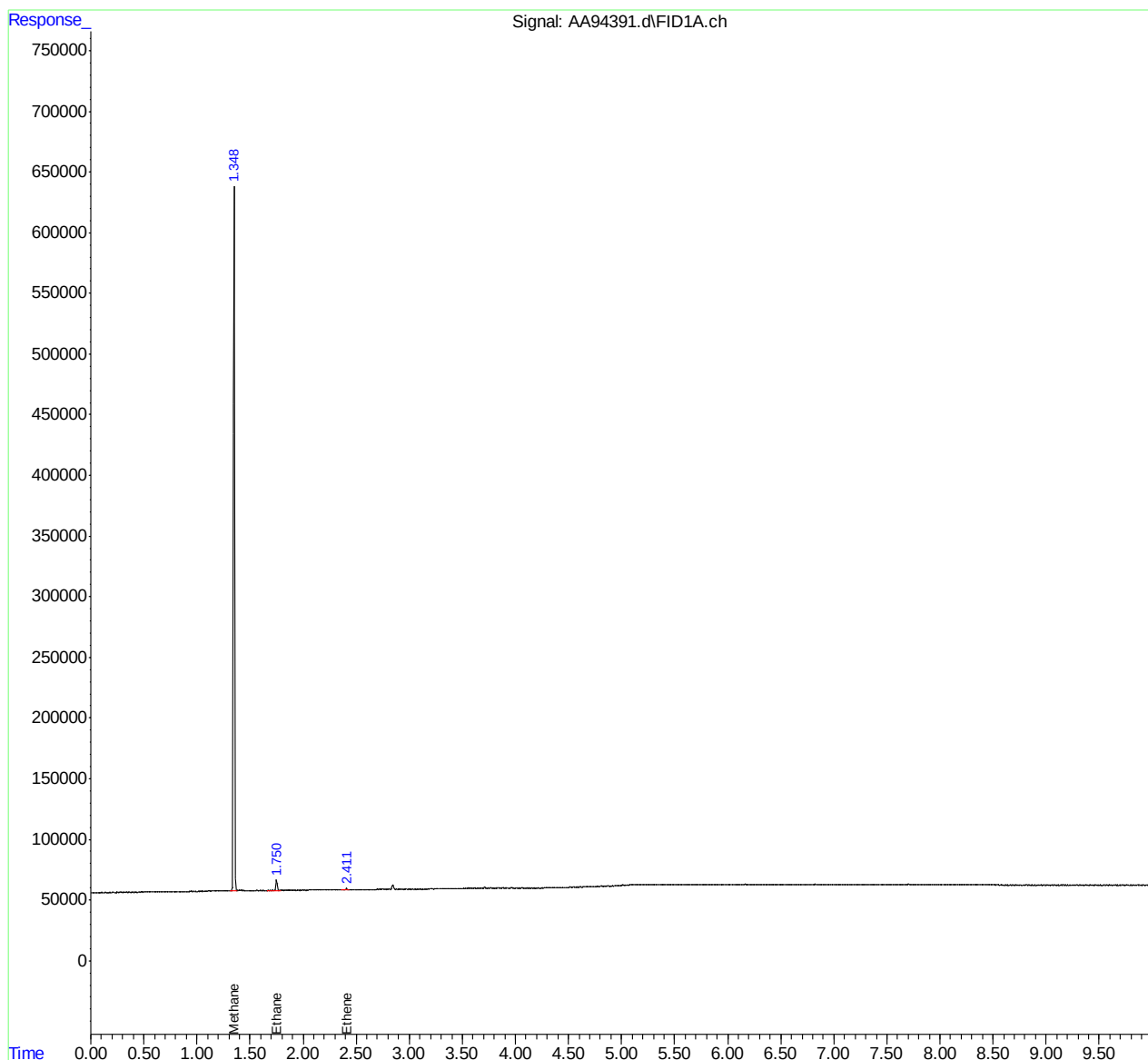
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94391.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 2:48 pm
Operator : williamc
Sample : jd43253-4
Misc : GC59514,GAA2539,,,,,1
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Apr 20 16:38:49 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

1

Data File Name AA94391.d
Date Acquired 4/20/2022 14:48
Sample Name JD43253-4
Sample Multiplier 1
Temperature(C) 22
Headspace Vol. (cc) 5
Sample Vol(cc) 38

Compound	MW	Volume(L)	Molar Volume(L) g-moles/L	Water	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5		295	24.21	4941935.6	14583	200.79	132.73	17.46	39080	4.562	22.03	0.11	22.03
Ethane	30	22.4	55.5		295	24.21	70256.402	0	1.60	1.98	0.26	27860	0.096	0.357	0.23	0.357
Ethene	28	22.4	55.5		295	24.21	7311	0	0.17	0.19	0.03	10680	0.024	0.049	0.31	ND
Propane	44	22.4	55.5		295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	33643	#DIV/0!	#DIV/0!	0.32	#DIV/0!
n-Butane	42	22.4	55.5		295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	12937	#DIV/0!	#DIV/0!	0.43	#DIV/0!
n-Pentane	58	22.4	55.5		295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	58287	#DIV/0!	#DIV/0!	0.38	#DIV/0!
Hexane	58	22.4	55.5		295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	40945	#DIV/0!	#DIV/0!	0.41	#DIV/0!

* ppmv is corrected for helium blank background peak area

Definitions.

Molar Volume The volume of 1 mole of any gas at standard temperature and pressure(STP)
Water g/Moles 1 Liter of water is equal to 55.5g-moles
Temp-kelvin Is defined as 273 + degrees C
Corrected Gas Density Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)
Headspace conc(ug/l) Is equal to (ppmv reading) x (mw/corrected gas density)
Water Concentration(ug/l) Is equal to headspace conc(ug/l) x headspace vol/sample vol
Saturation Concentration(ug/l) Gas which remains at equilibrium in the sample is equal to (headspace conc-ppmv) x (mw) x (55.5)/(Henry's Constant)

temp-c	Henry's Constants										
	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Propylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	54039
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Nitrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94382.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 12:41 pm
Operator : williamc
Sample : mb
Misc : GC59511,GAA2539,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Apr 20 16:34:10 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc Units
Target Compounds			
1) Methane	1.332	14342	0.584 PPMV

(f)=RT Delta > 1/2 Window

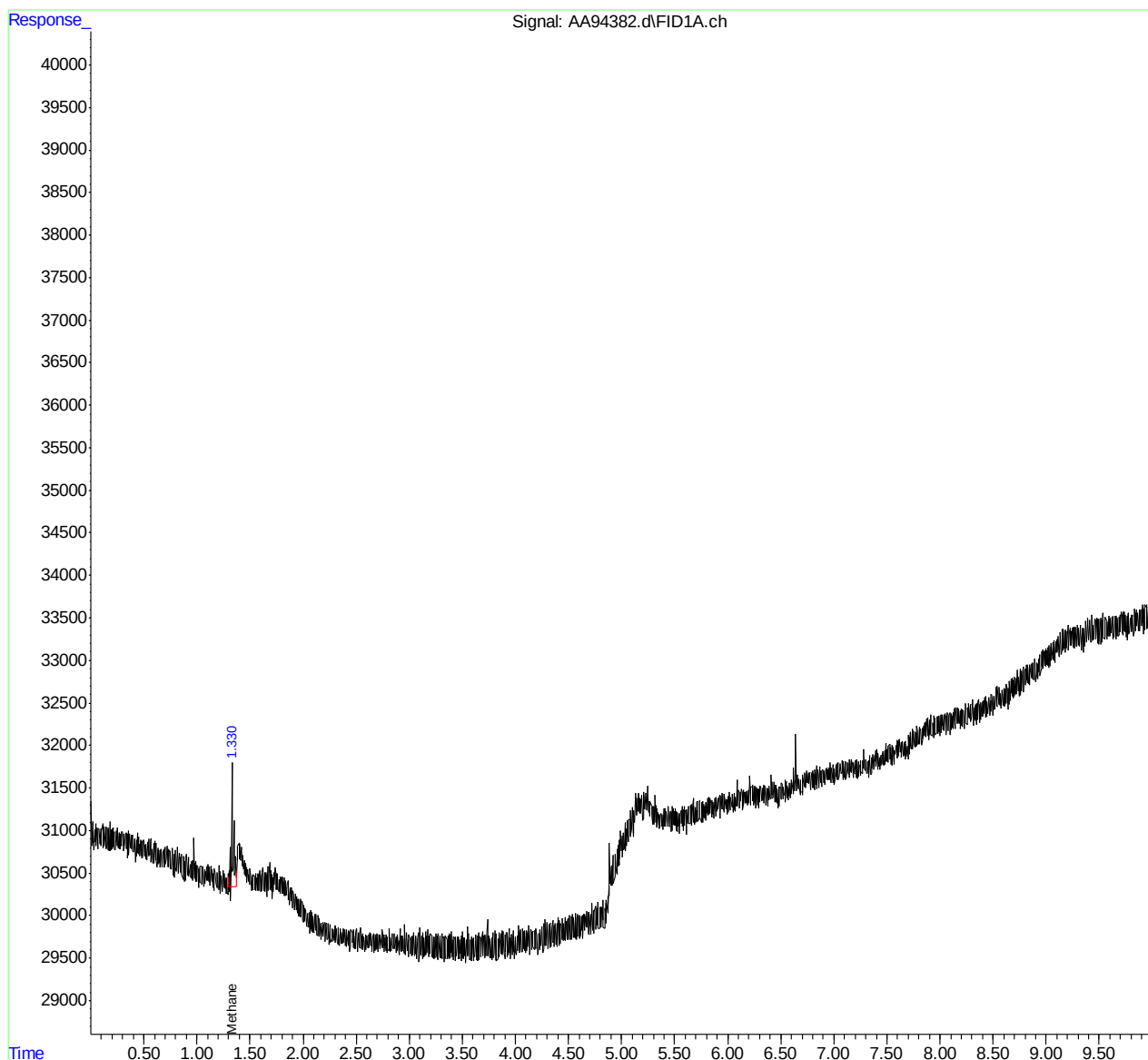
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94382.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 12:41 pm
Operator : williamc
Sample : mb
Misc : GC59511,GAA2539,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Apr 20 16:34:10 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

1

Data File Name AA94382.d
Date Acquired 4/20/2022 12:41
Sample Name mb
Sample Multiplier 1
Temperature(C) 22
Headspace Vol. (cc) 5
Sample Vol(cc) 38

Compound	MW	Volume(L)	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	22.4	55.5	295	24.21	14342.298	14583	-0.01	-0.01	0.00	39080	0.000	0.00	0.11	ND
Ethane	30	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	27860	#DIV/0!	#DIV/0!	0.23	#DIV/0!
Ethene	28	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	10680	#DIV/0!	#DIV/0!	0.31	#DIV/0!
Propane	44	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	33643	#DIV/0!	#DIV/0!	0.32	#DIV/0!
n-Butane	42	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	12937	#DIV/0!	#DIV/0!	0.43	#DIV/0!
n-Pentane	58	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	58287	#DIV/0!	#DIV/0!	0.38	#DIV/0!
Hexane	58	22.4	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	40945	#DIV/0!	#DIV/0!	0.41	#DIV/0!

* ppmv is corrected for helium blank background peak area

Definitions:
Molar Volume The volume of 1 mole of any gas at standard temperature and pressure(STP)
Water g/Moles 1 Liter of water is equal to 55.5g-moles
Temp-kelvin Is defined as 273 + degrees C
Corrected Gas Density Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)
Headspace conc(ug/l) Is equal to (ppmv reading) x (mw/corrected gas density)
Water Concentration(ug/l) Is equal to headspace conc(ug/l) x headspace vol/sample vol
Saturation Concentration(ug/l) Gas which remains at equilibrium in the sample is equal to (headspace conc-ppmv) x (mw) x (55.5)/(Henry's Constant)

temp-c	Henry's Constants										
	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Propylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	54039
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94380.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 12:14 pm
Operator : williamc
Sample : LCS
Misc : GC59511,GAA2539,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Apr 20 13:24:18 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) Methane	1.342	2564585	104.507	PPMV
2) Ethane	1.743	4853272	110.523	PPMV
3) Ethene	2.401	4862565	110.069	PPMV
4) Propane	2.843	7227903	107.292	PPMV
5) n-Butane	4.056	10346915	113.889	PPMV
6) n-Pentane	5.088	12641953	110.961	PPMV
7) Hexane	6.214	16234130	119.283	PPMV

(f)=RT Delta > 1/2 Window

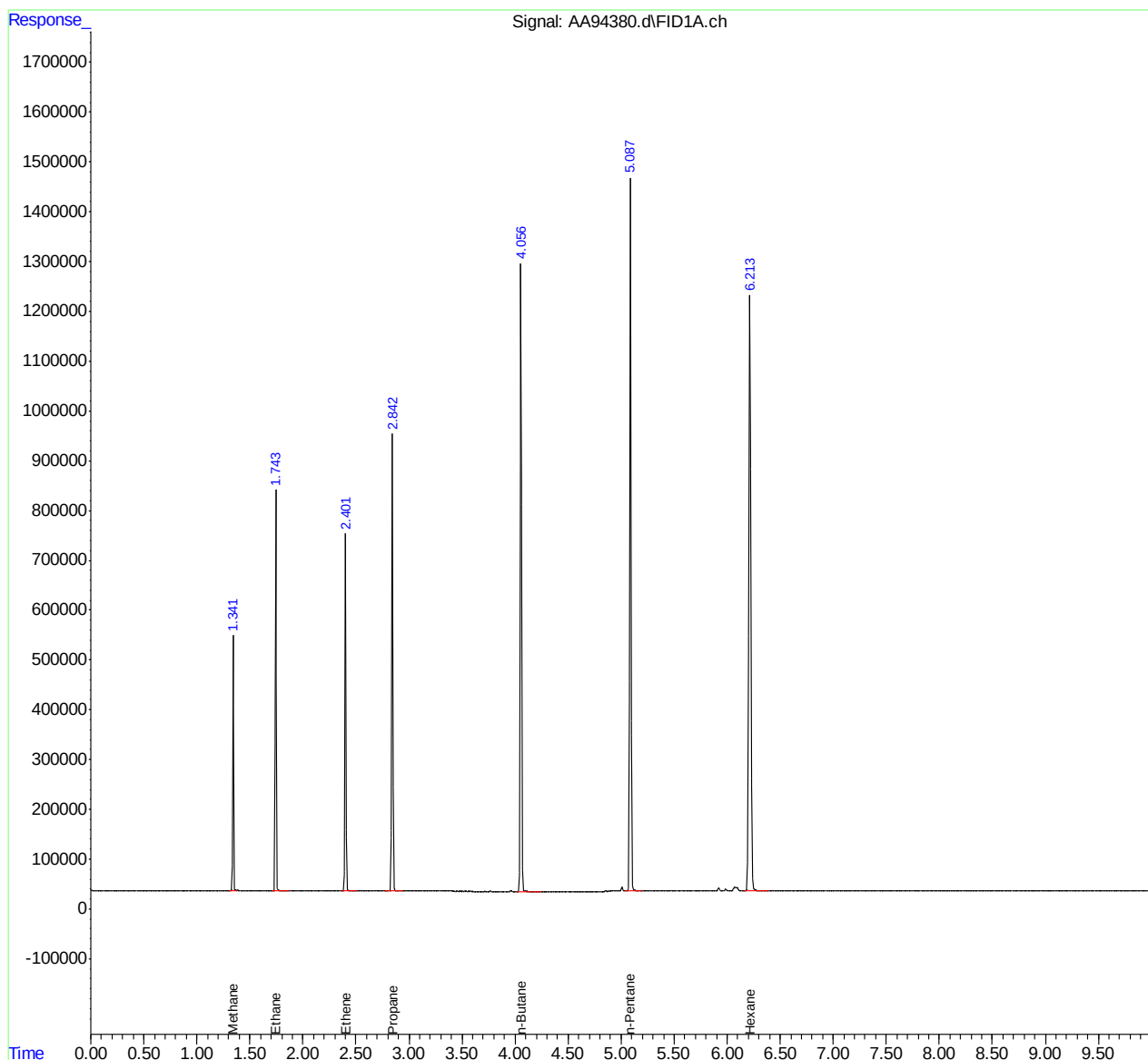
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94380.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 12:14 pm
Operator : williamc
Sample : LCS
Misc : GC59511,GAA2539,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Apr 20 13:24:18 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

1

Data File Name AA94380.d
Date Acquired 4/20/2022 12:14
Sample Name LCS
Sample Multiplier 1
Temperature(C) 22
Headspace Vol. (cc) 5
Sample Vol(cc) 38

Compound	MW	Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	295	24.21	2564585.3	0	104.51	69.08	9.09	39080	2.375	11.46	0.11	11.46
Ethane	30	22.4	55.5	295	24.21	4853272.4	0	110.52	136.98	18.02	27860	6.605	24.629	0.23	24.629
Ethene	28	22.4	55.5	295	24.21	4862565	0	110.07	127.33	16.75	10680	16.016	32.769	0.31	32.769
Propane	44	22.4	55.5	295	24.21	7227903	0	107.29	195.03	25.66	33643	7.79	33.45	0.32	33.45
n-Butane	42	22.4	55.5	295	24.21	10346915	0	113.89	197.62	26.00	12937	20.52	46.52	0.43	46.52
n-Pentane	58	22.4	55.5	295	24.21	12641953	0	110.96	265.88	34.98	58287	6.13	41.11	0.38	41.11
Hexane	58	22.4	55.5	295	24.21	16234130	0	119.28	285.82	37.61	40945	9.38	46.99	0.41	46.99

* ppmv is corrected for helium blank background peak area

Definitions:
Molar Volume The volume of 1 mole of any gas at standard temperature and pressure(STP)
Water g/Moles 1 Liter of water is equal to 55.5g-moles
Temp-kelvin Is defined as 273 + degress C
Corrected Gas Density Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)
Headspace conc(ug/l) Is equal to (ppmv reading) x (mw/corrected gas density)
Water Concentration(ug/l) Is equal to headspace conc(ug/l) x headspace vol/sample vol
Saturation Concentration(ug/l) Gas which remains at equilibrium in the sample is equal to (headspace conc-ppmv) x (mw) x (55.5)/(Henry's Constant)

temp-c	Henry's Constants										
	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Propylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	54239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Hydrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94384.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 1:08 pm
Operator : williamc
Sample : jd43335-3dup
Misc : GC59515,GAA2539,,,,,20
ALS Vial : 6 Sample Multiplier: 20

Integration File: autoint1.e
Quant Time: Apr 20 16:35:17 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) Methane	1.355	8806316	7177.190	PPMV
2) Ethane	1.756	259609	118.241	PPMV

(f)=RT Delta > 1/2 Window

(m)=manual int.

9.4.1

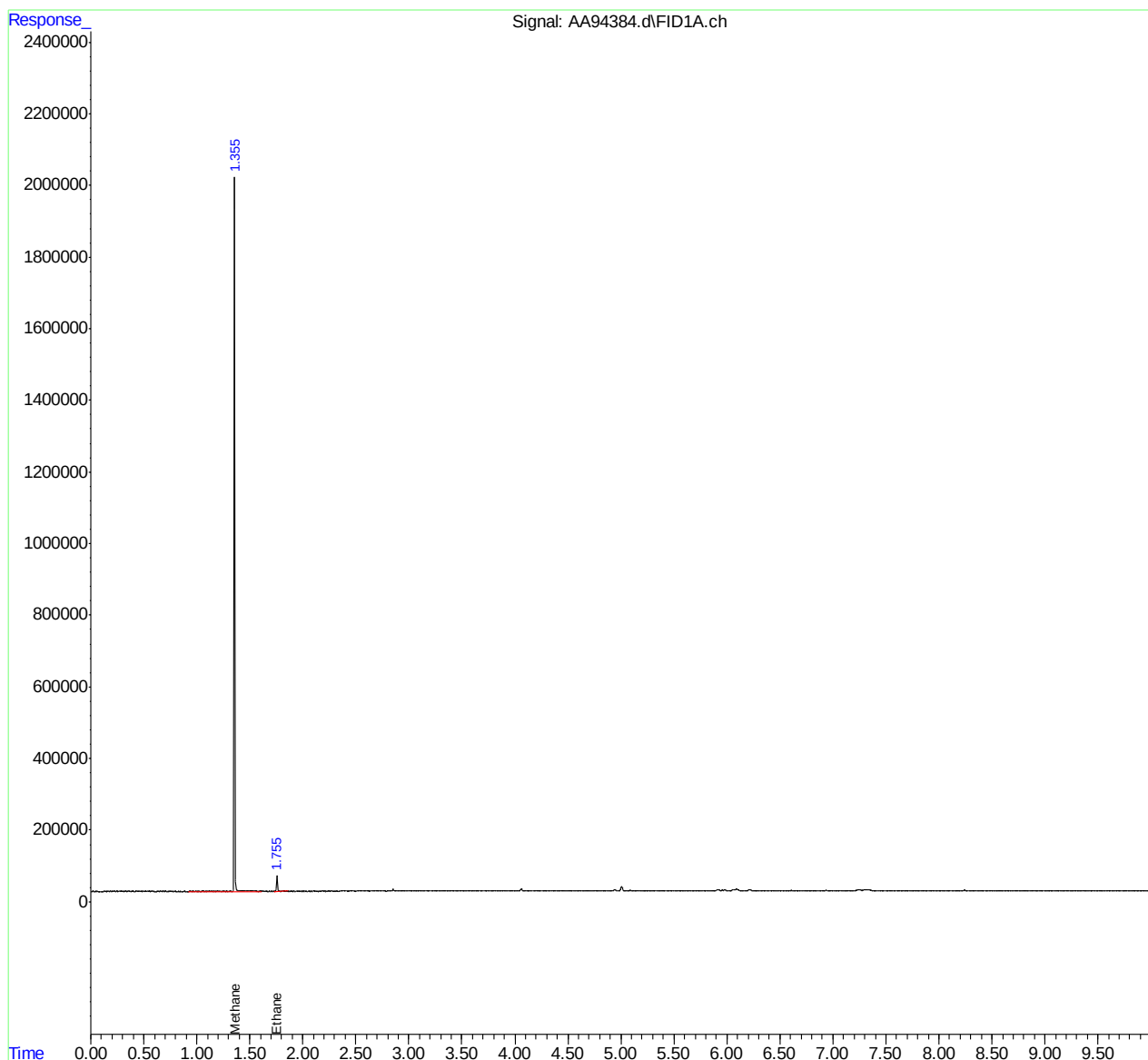
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94384.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 1:08 pm
Operator : williamc
Sample : jd43335-3dup
Misc : GC59515,GAA2539,,,,,20
ALS Vial : 6 Sample Multiplier: 20

Integration File: autoint1.e
Quant Time: Apr 20 16:35:17 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Dissolved Gas Calculation Worksheet

1

Data File Name AA94384.d
Date Acquired 4/20/2022 13:08
Sample Name jd43335-3dup
Sample Multiplier 20
Temperature(C) 22
Headspace Vol. (cc) 5
Sample Vol(cc) 38

Compound	MW	Molar Volume(L)	Water g-moles/L	Temp K	Corrected Gas dens.	Peak Area	Helium Blank	Headspace (ppmv)*	Headspace (ug/l)	Water (ug/l)	Henry's Constant	Saturation Conc.(ug/l)	Total (ug/L)	RL (ug/l)	Report (ug/l)
Methane	16	22.4	55.5	295	24.21	8806316.4	14583	7165.31	4736.39	623.21	39080	162.815	786.02	2.20	786.02
Ethane	30	22.4	55.5	295	24.21	259608.75	0	118.24	146.55	19.28	27860	7.066	26.349	4.60	26.349
Ethene	28	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	10680	#DIV/0!	#DIV/0!	6.20	#DIV/0!
Propane	44	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	33643	#DIV/0!	#DIV/0!	6.40	#DIV/0!
n-Butane	42	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	12937	#DIV/0!	#DIV/0!	8.60	#DIV/0!
n-Pentane	58	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	58287	#DIV/0!	#DIV/0!	7.60	#DIV/0!
Hexane	58	22.4	55.5	295	24.21	0	0	#DIV/0!	#DIV/0!	#DIV/0!	40945	#DIV/0!	#DIV/0!	8.20	#DIV/0!

* ppmv is corrected for helium blank background peak area

Definitions:
Molar Volume The volume of 1 mole of any gas at standard temperature and pressure(STP)
Water g/Moles 1 Liter of water is equal to 55.5g-moles
Temp-kelvin Is defined as 273 + degrees C
Corrected Gas Density Gas density corrected for temperature is equal to (molar volume) x (temp-k/273)
Headspace conc(ug/l) Is equal to (ppmv reading) x (mw/corrected gas density)
Water Concentration(ug/l) Is equal to headspace conc(ug/l) x headspace vol/sample vol
Saturation Concentration(ug/l) Gas which remains at equilibrium in the sample is equal to (headspace conc-ppm) x (mw) x (55.5)/(Henry's Constant)

temp-c	Henry's Constants										
	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43460	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688
Propylene	11959	12440	12937	13451	13981	14529	15094	15677	16279	16899	17539
IsoButane	54757	56501	58287	60118	61993	63913	65879	67892	69953	72062	74220
n-Butane	38111	39507	40945	42425	43947	45514	47125	48782	50486	52238	54239
Oxygen	40100	40840	41580	42320	43060	43800	44540	45280	46020	46760	47500
CO	52600	53680	54760	55840	56920	58000	58800	59600	60400	61200	62000
CO2	14200	14640	15080	15520	15960	16400	16840	17280	17720	18160	18600
Nitrogen	80400	81620	82840	84060	85280	86500	87680	88860	90040	91220	92400
Nitrogen	68300	68780	69260	69740	70220	70700	71140	71580	72020	72460	72900

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92256.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:08 am
Operator : williamc
Sample : ic2456-1
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:56:04 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:54:23 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) Methane	1.344	30096	1.252	PPMV m
2) Ethane	1.754	43584	0.984	PPMV m
3) Ethene	2.427	41265	0.917	PPMV m
4) Propane	2.865	63230	0.925	PPMV m
5) n-Butane	4.078	94031	1.034	PPMV
6) n-Pentane	5.121	116900	1.022	PPMV m
7) Hexane	6.272	174096	1.332	PPMV m

(f)=RT Delta > 1/2 Window

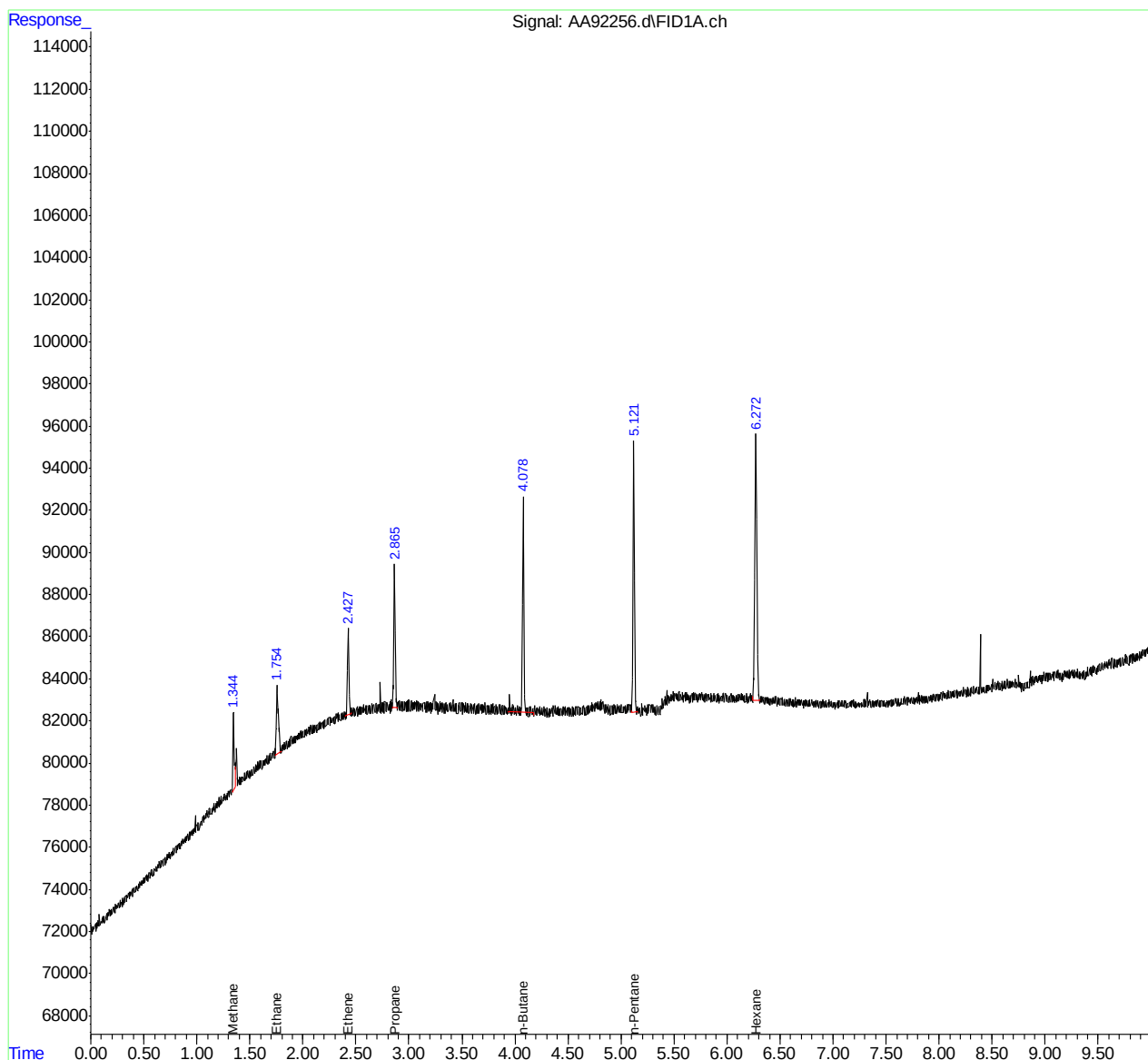
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92256.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:08 am
Operator : williamc
Sample : ic2456-1
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:56:04 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:54:23 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Manual Integration Approval Summary

Sample Number:

GAA2456-IC2456

Method:

RSK-175

Lab FileID:

AA92256.D

Analyst approved:

12/06/21 16:34 William Crusier

Injection Time:

12/06/21 11:08

Supervisor approved:

12/07/21 13:48 Dana Tryon

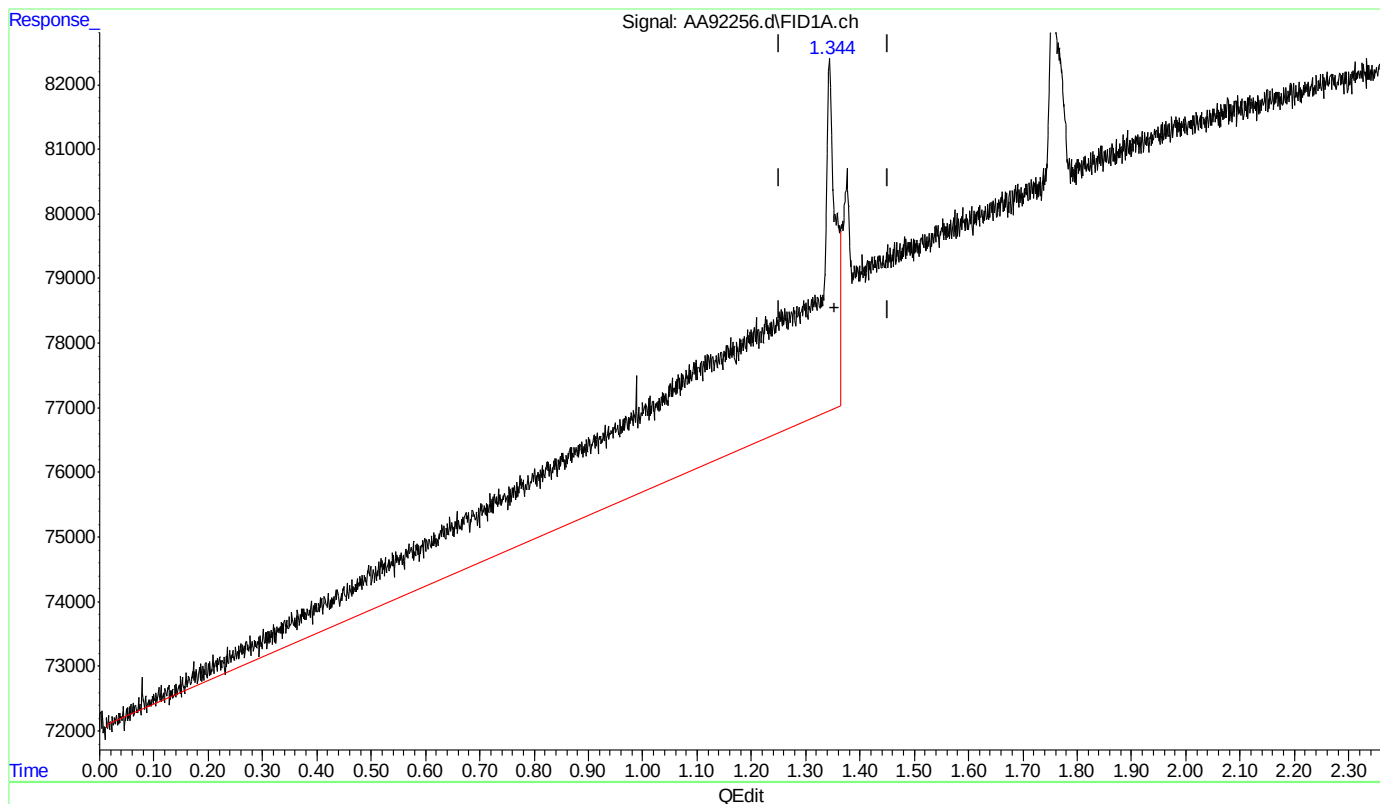
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methane	74-82-8	1	1.34	Poorly defined baseline
Ethane	74-84-0	1	1.75	Poorly defined baseline
Ethene	74-85-1	1	2.43	Poorly defined baseline
Propane	74-98-6	1	2.87	Poorly defined baseline
Pentane	109-66-0	1	5.12	Poorly defined baseline
Hexane	110-54-3	1	6.27	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA92256.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:08 am
Operator : williamc
Sample : ic2456-1
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:54:37 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:54:23 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



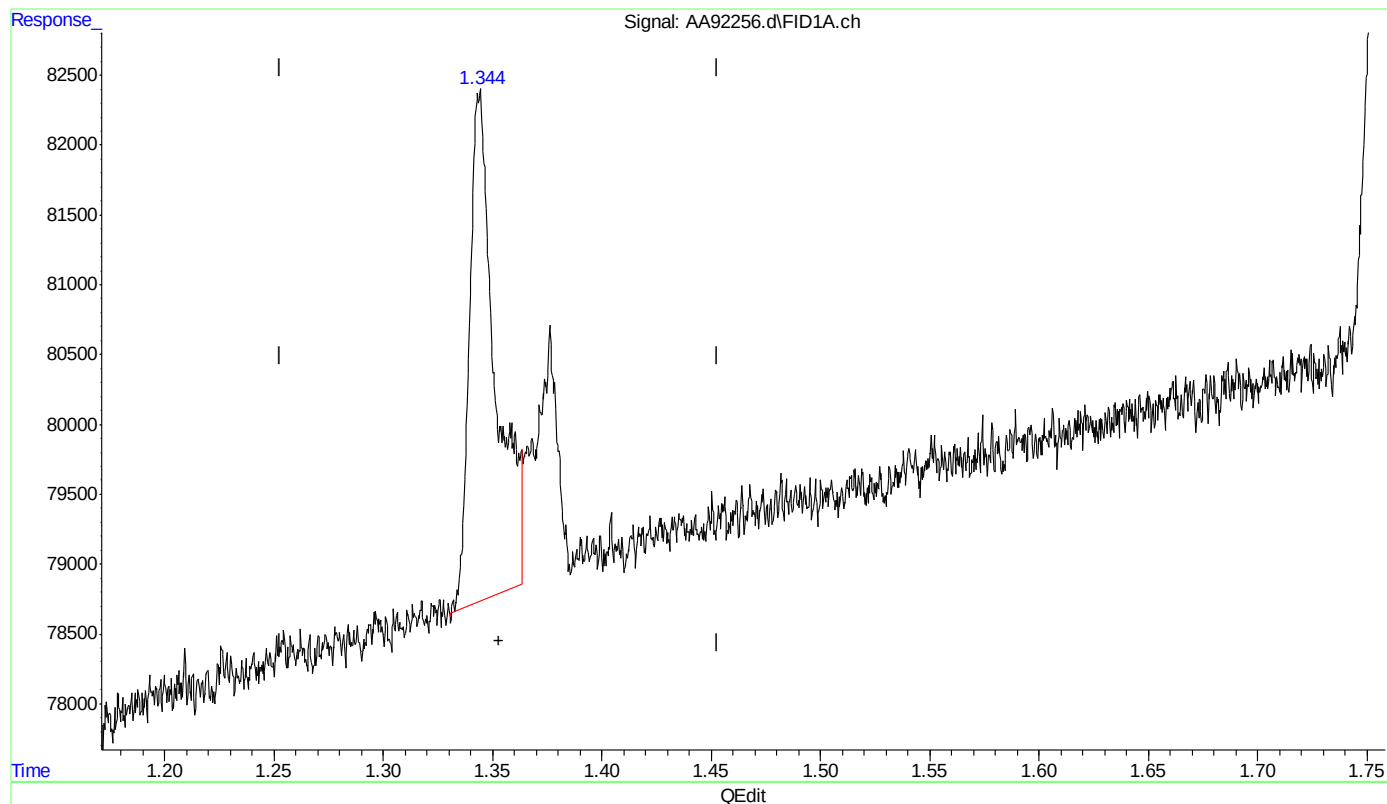
(1) Methane
1.345min 29.013 PPMV
response 697629

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA92256.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:08 am
Operator : williamc
Sample : ic2456-1
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:54:37 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:54:23 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(1) Methane

1.344min 1.252 PPMV m

response 30096

(+) = Expected Retention Time
MAA2456.M Mon Dec 06 15:55:09 2021

Page: 1

SGS

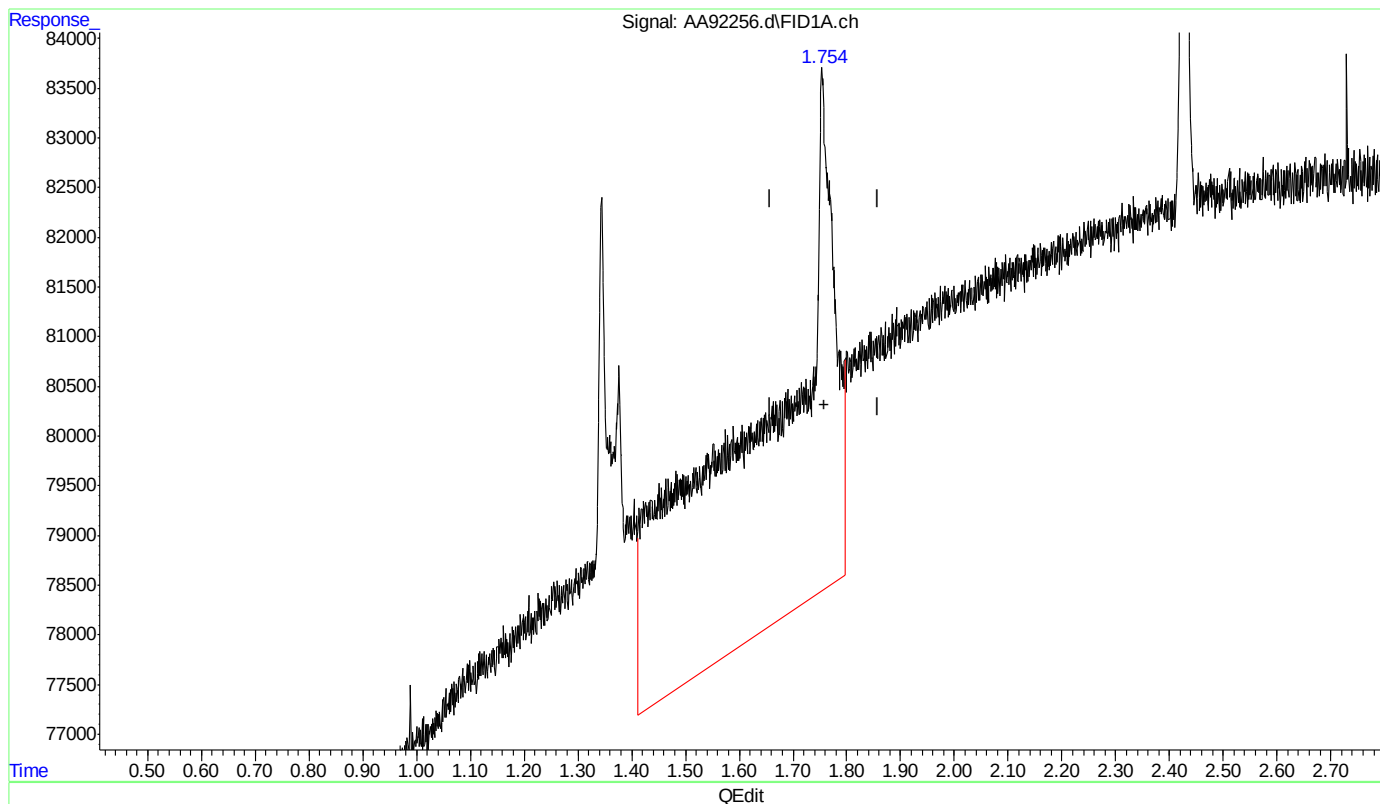
344 of 596

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA92256.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:08 am
Operator : williamc
Sample : ic2456-1
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:54:37 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:54:23 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(2) Ethane

1.756min 11.452 PPMV

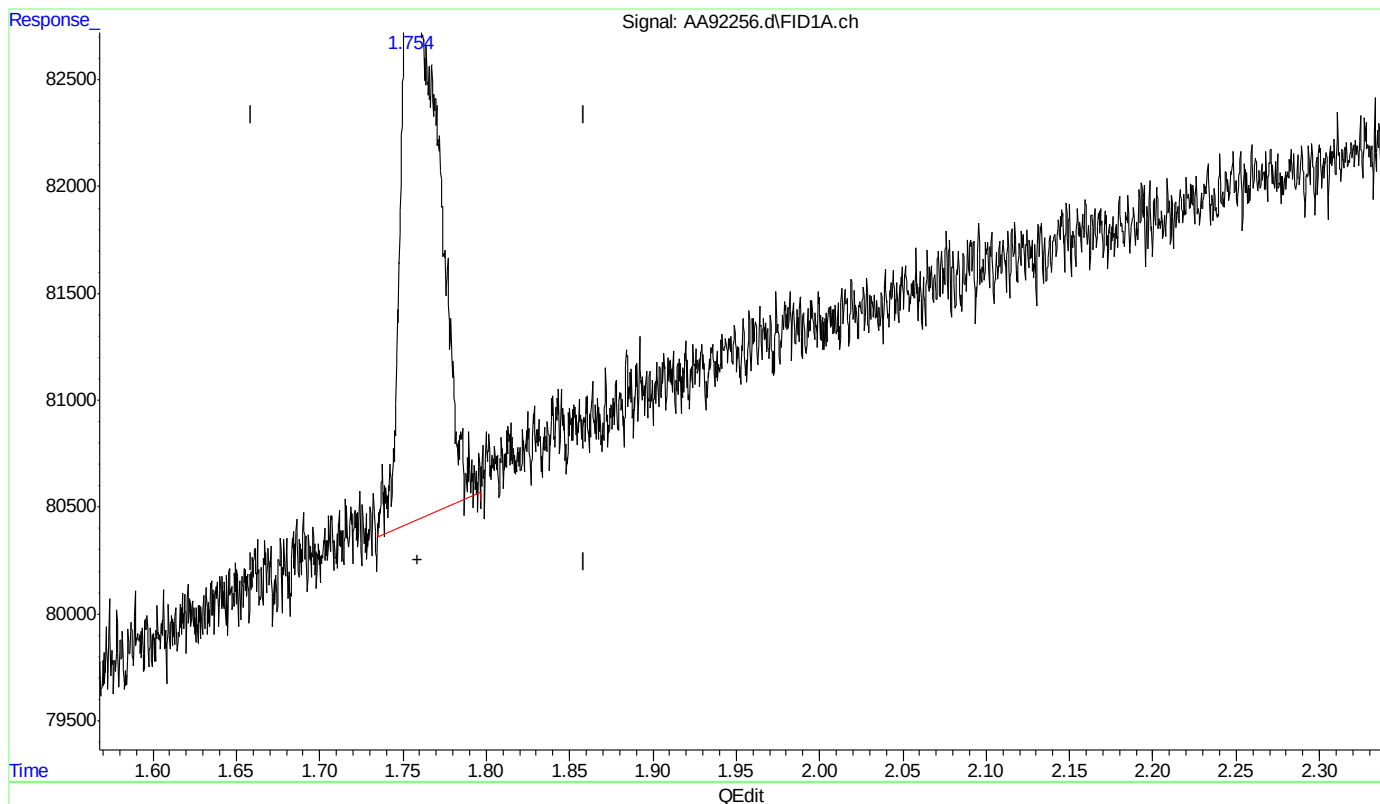
response 507305

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA92256.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:08 am
Operator : williamc
Sample : ic2456-1
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:54:37 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:54:23 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(2) Ethane

1.754min 0.984 PPMV m

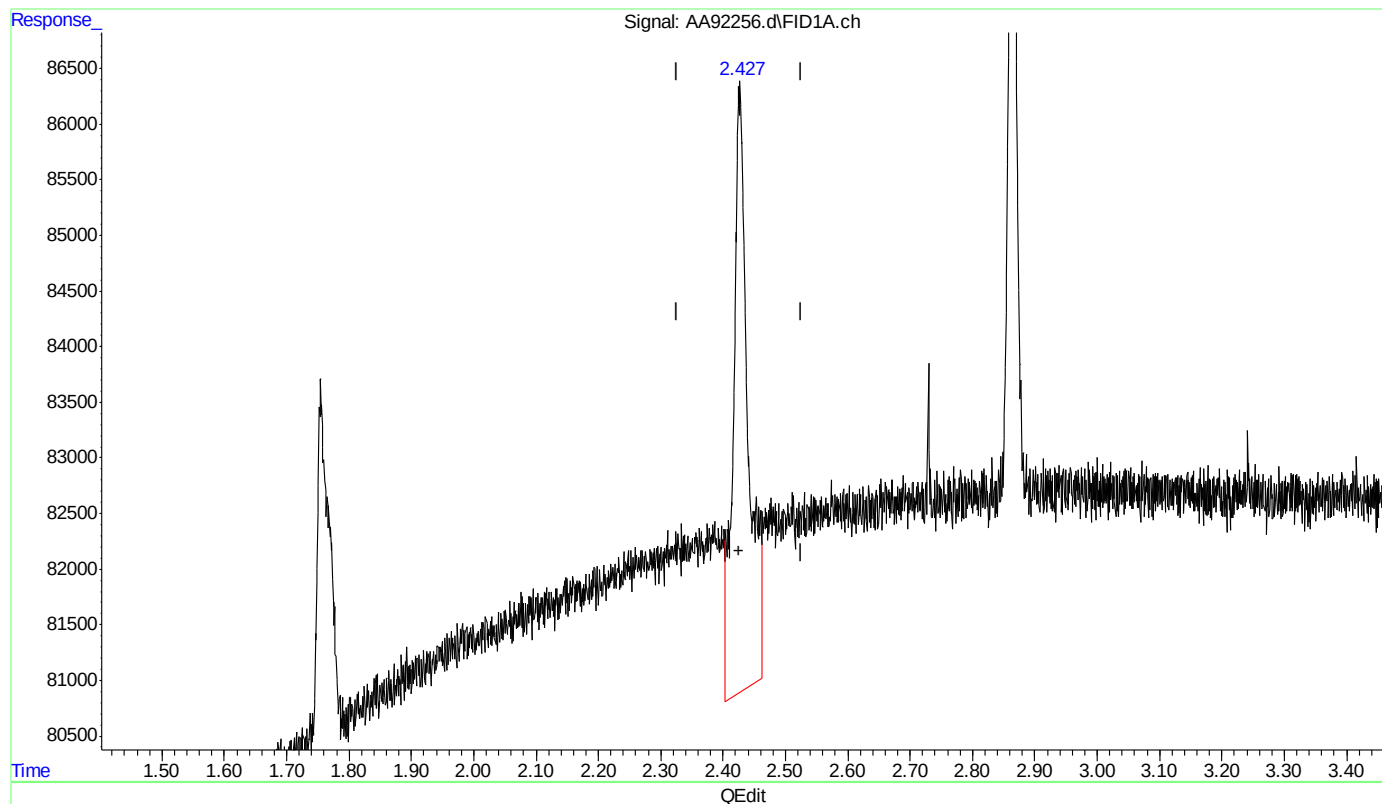
response 43584

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA92256.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:08 am
Operator : williamc
Sample : ic2456-1
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:54:37 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:54:23 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(3) Ethene

2.428min 1.992 PPMV

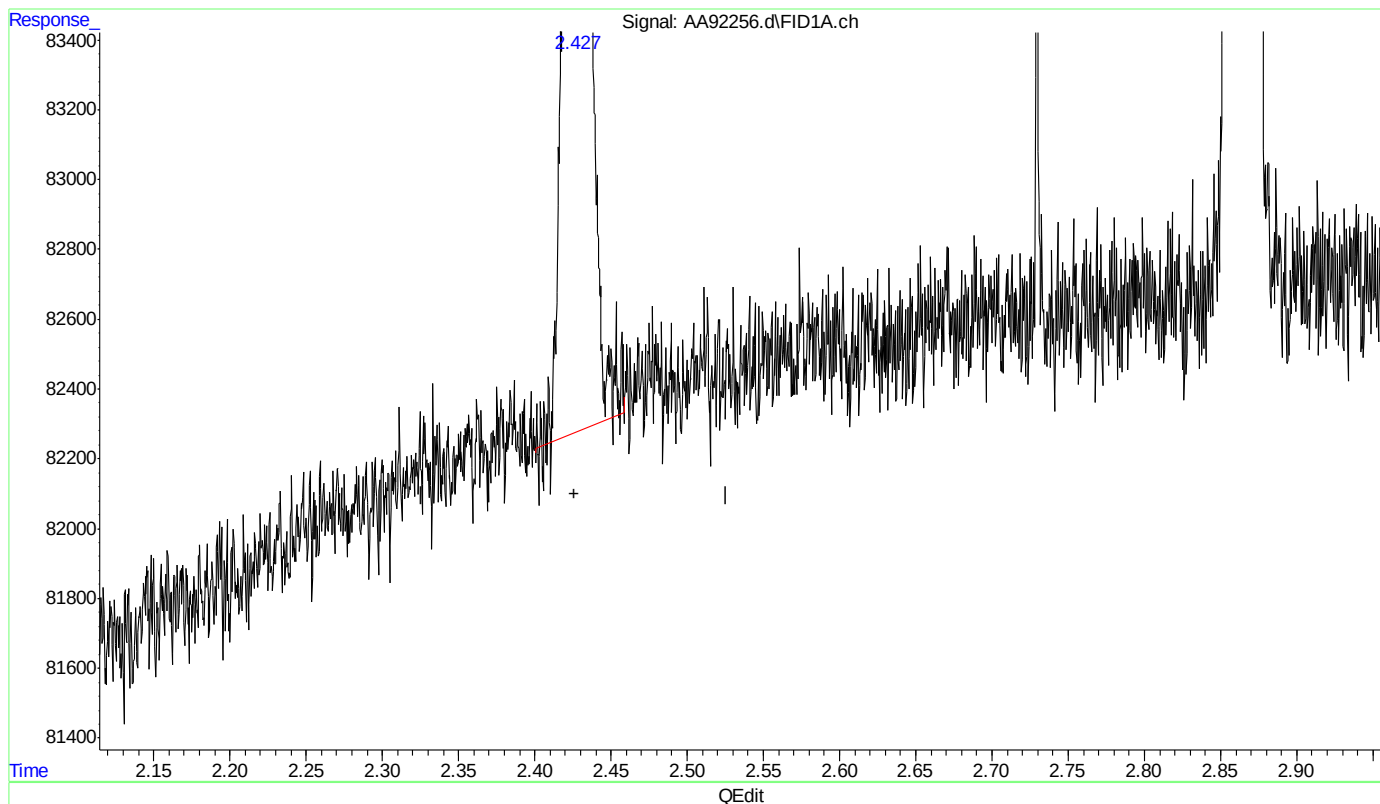
response 89652

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA92256.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:08 am
Operator : williamc
Sample : ic2456-1
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:54:37 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:54:23 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(3) Ethene

2.427min 0.917 PPMV m

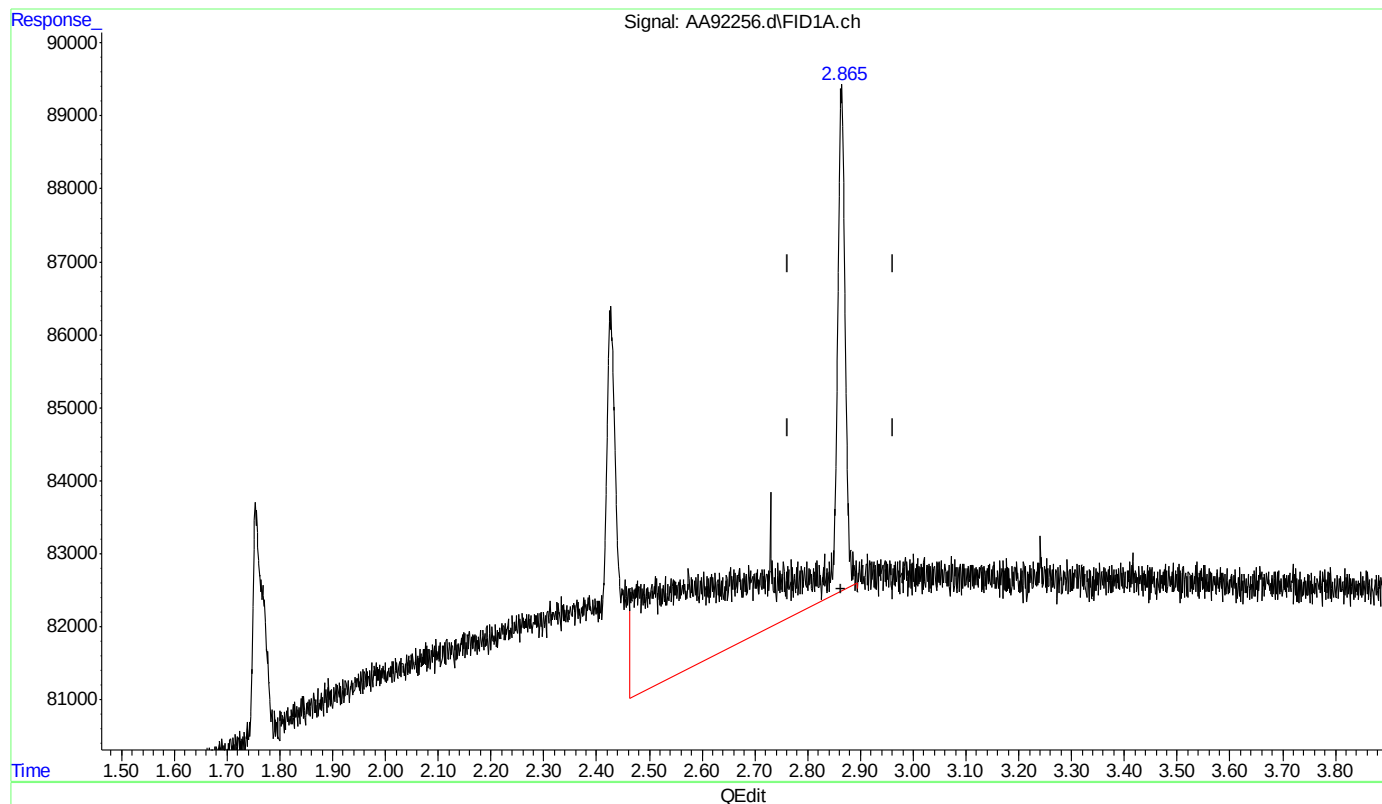
response 41265

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA92256.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:08 am
Operator : williamc
Sample : ic2456-1
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:54:37 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:54:23 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



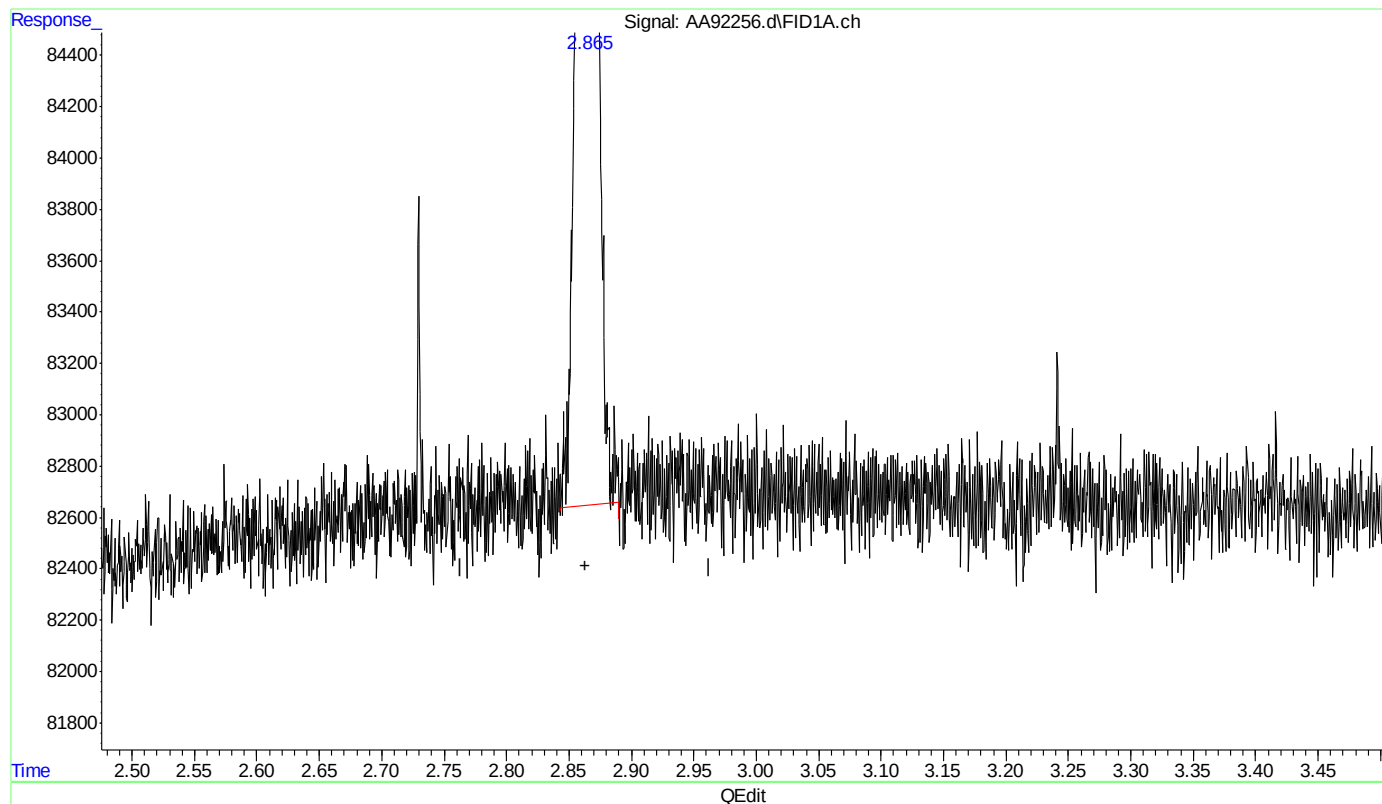
(4) Propane
2.864min 3.817 PPMV
response 260942

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA92256.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:08 am
Operator : williamc
Sample : ic2456-1
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:54:37 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:54:23 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(4) Propane

2.865min 0.925 PPMV m

response 63230

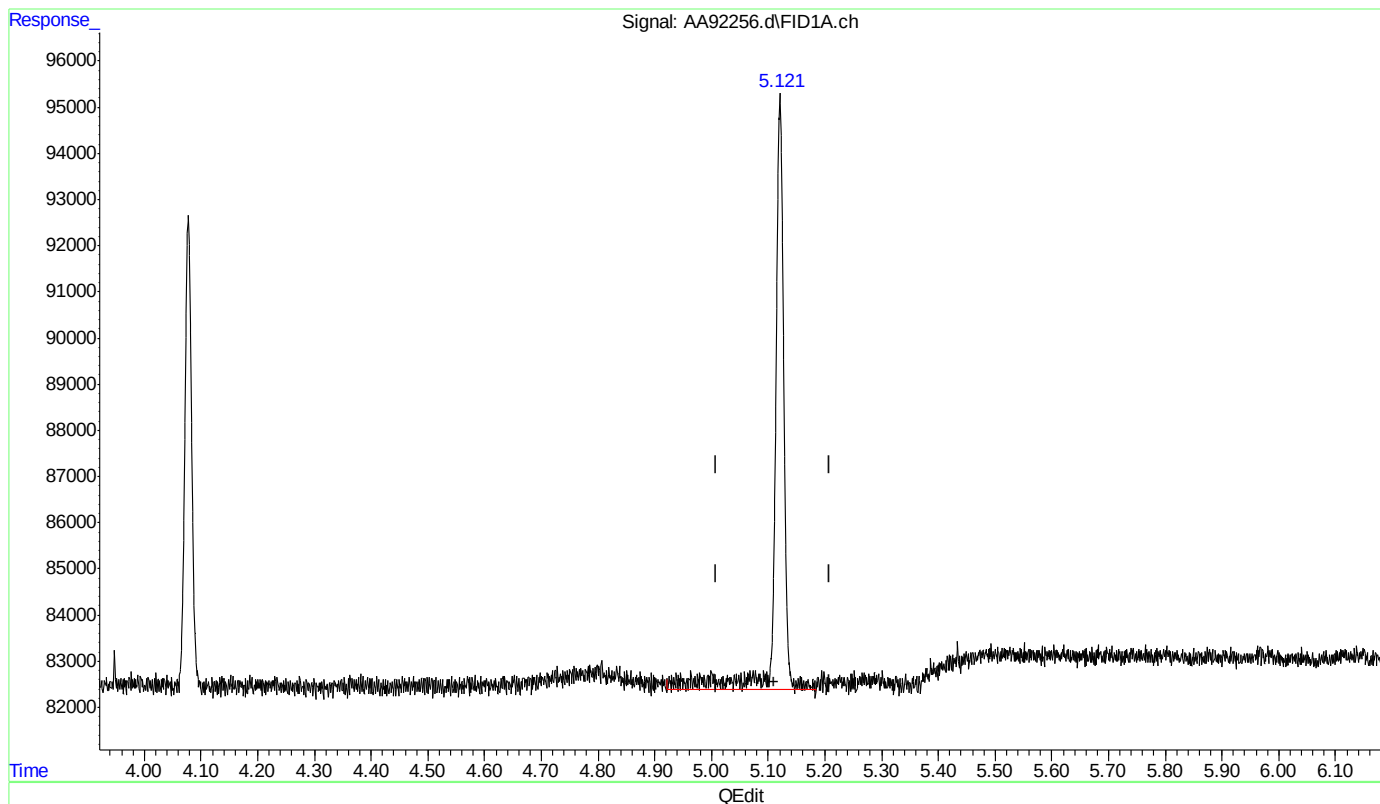
(+) = Expected Retention Time
MAA2456.M Mon Dec 06 15:55:38 2021

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA92256.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:08 am
Operator : williamc
Sample : ic2456-1
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:54:37 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:54:23 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



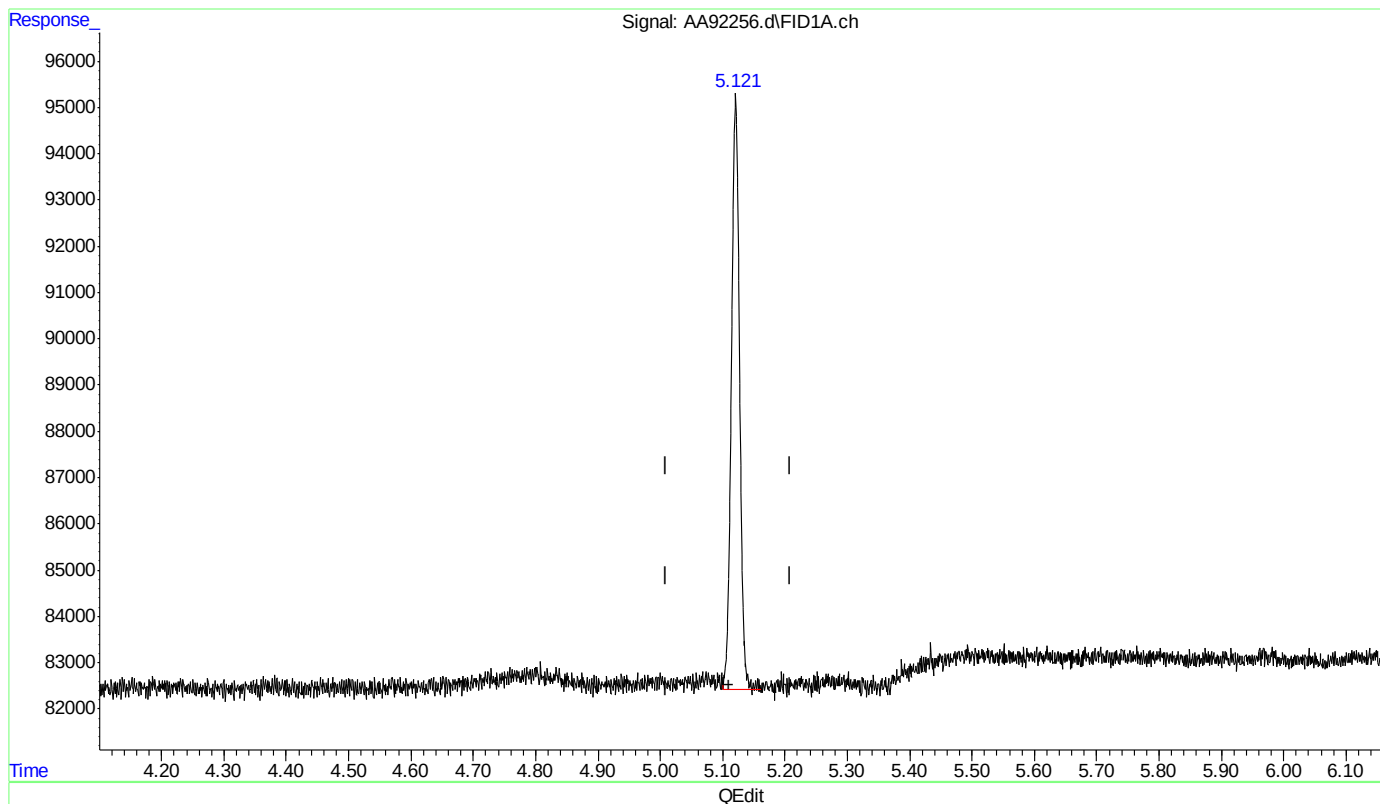
(6) n-Pentane
5.121min 1.219 PPMV
response 139347

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA92256.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:08 am
Operator : williamc
Sample : ic2456-1
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:54:37 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:54:23 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



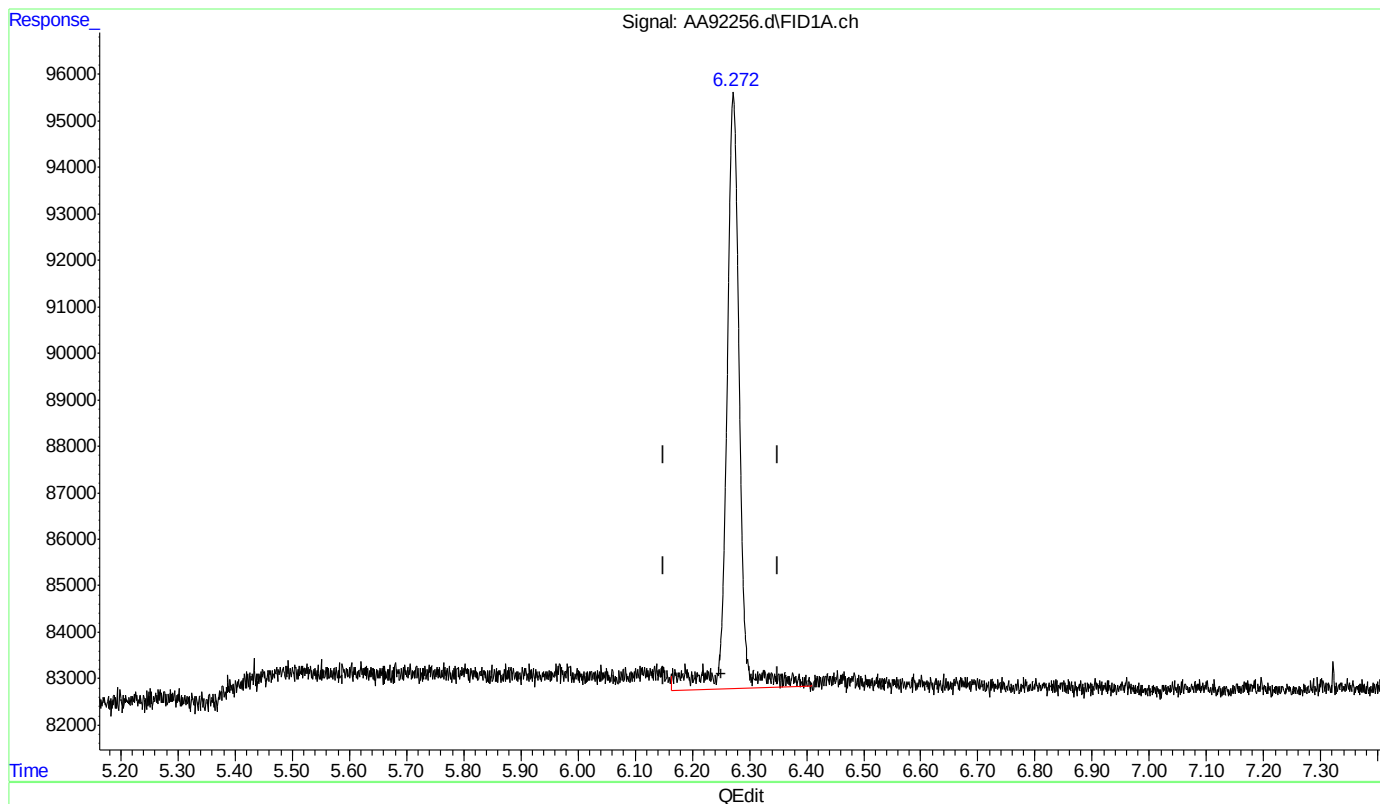
(6) n-Pentane
5.121min 1.022 PPMV m
response 116900

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA92256.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:08 am
Operator : williamc
Sample : ic2456-1
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:54:37 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:54:23 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(7) Hexane

6.272min 1.565 PPMV

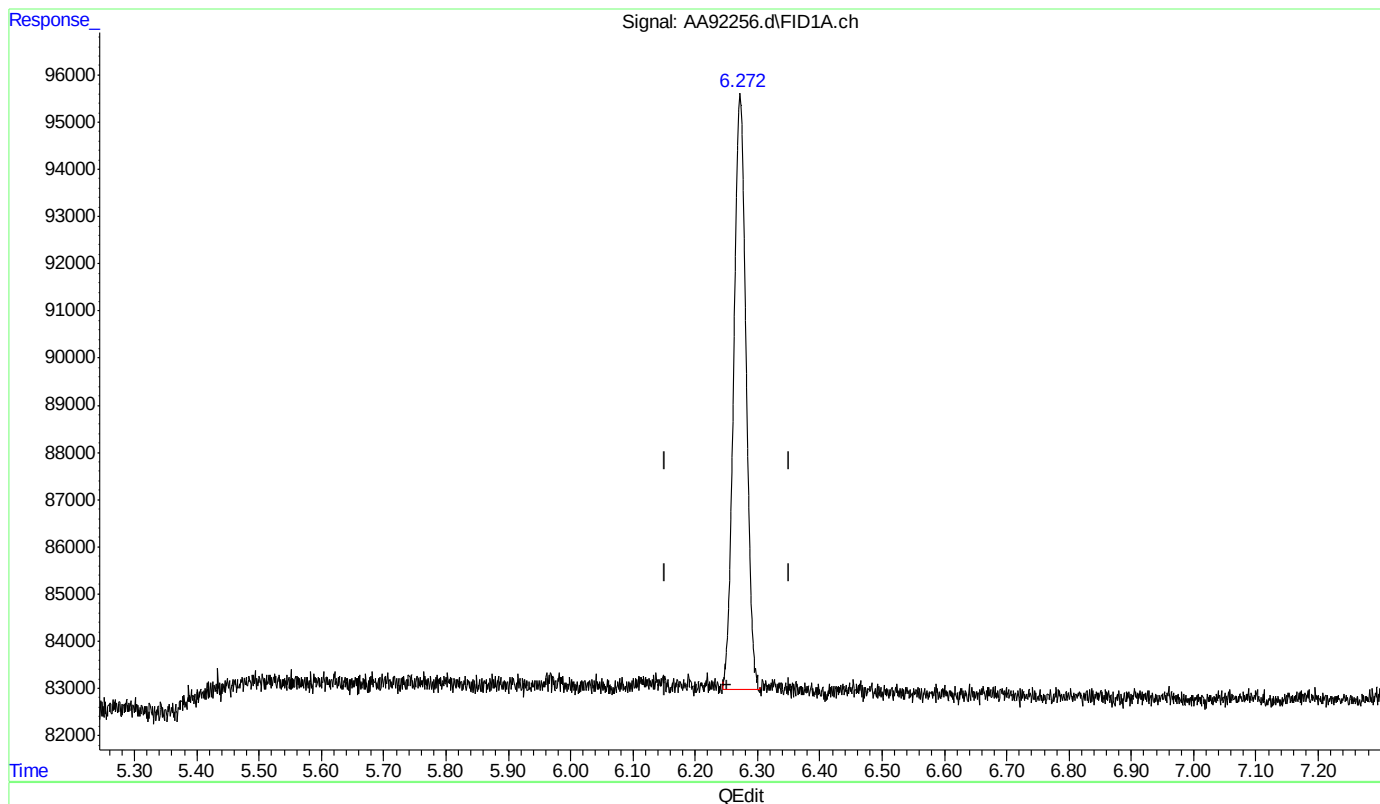
response 204468

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : AA92256.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:08 am
Operator : williamc
Sample : ic2456-1
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:54:37 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:54:23 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



(7) Hexane

6.272min 1.332 PPMV m

response 174096

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92258.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:35 am
Operator : williamc
Sample : ic2456-2
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:54:08 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:53:56 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Methane	1.346	54368	2.322 PPMV
2) Ethane	1.753	95910	2.201 PPMV
3) Ethene	2.424	103807	2.379 PPMV
4) Propane	2.861	153750	2.307 PPMV
5) n-Butane	4.076	205778	2.323 PPMV
6) n-Pentane	5.111	253492	2.266 PPMV
7) Hexane	6.252	300525	2.371 PPMV

(f)=RT Delta > 1/2 Window

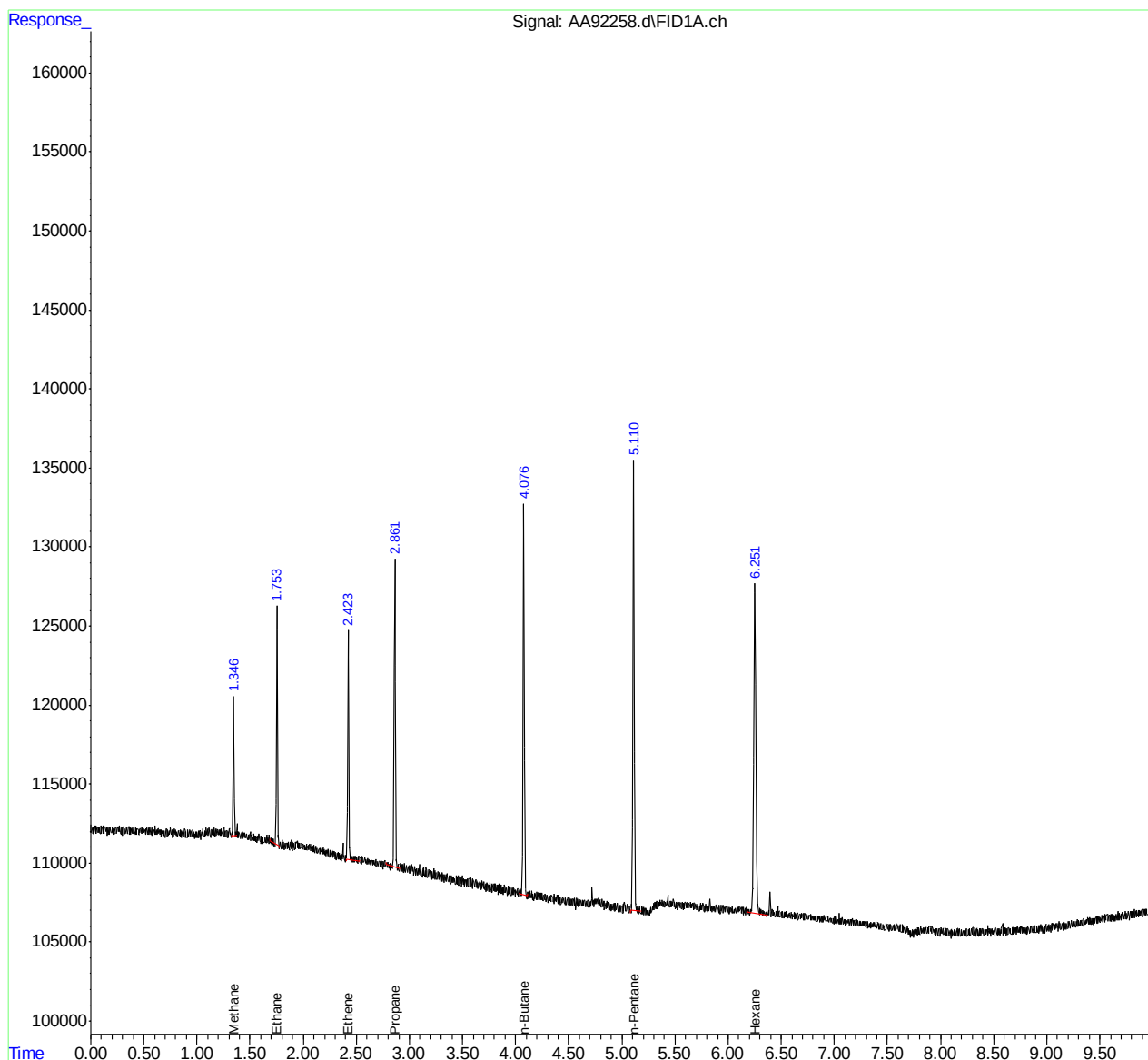
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92258.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 11:35 am
Operator : williamc
Sample : ic2456-2
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:54:08 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:53:56 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92261.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 1:19 pm
Operator : williamc
Sample : ic2456-10
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:53:39 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:53:28 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Methane	1.348	215396	9.017 PPMV
2) Ethane	1.755	413525	9.373 PPMV
3) Ethene	2.425	409380	9.240 PPMV
4) Propane	2.862	648889	9.671 PPMV
5) n-Butane	4.078	863526	9.688 PPMV
6) n-Pentane	5.119	1125193	10.074 PPMV
7) Hexane	6.266	1503370	12.439 PPMV

(f)=RT Delta > 1/2 Window

(m)=manual int.

9.5.3

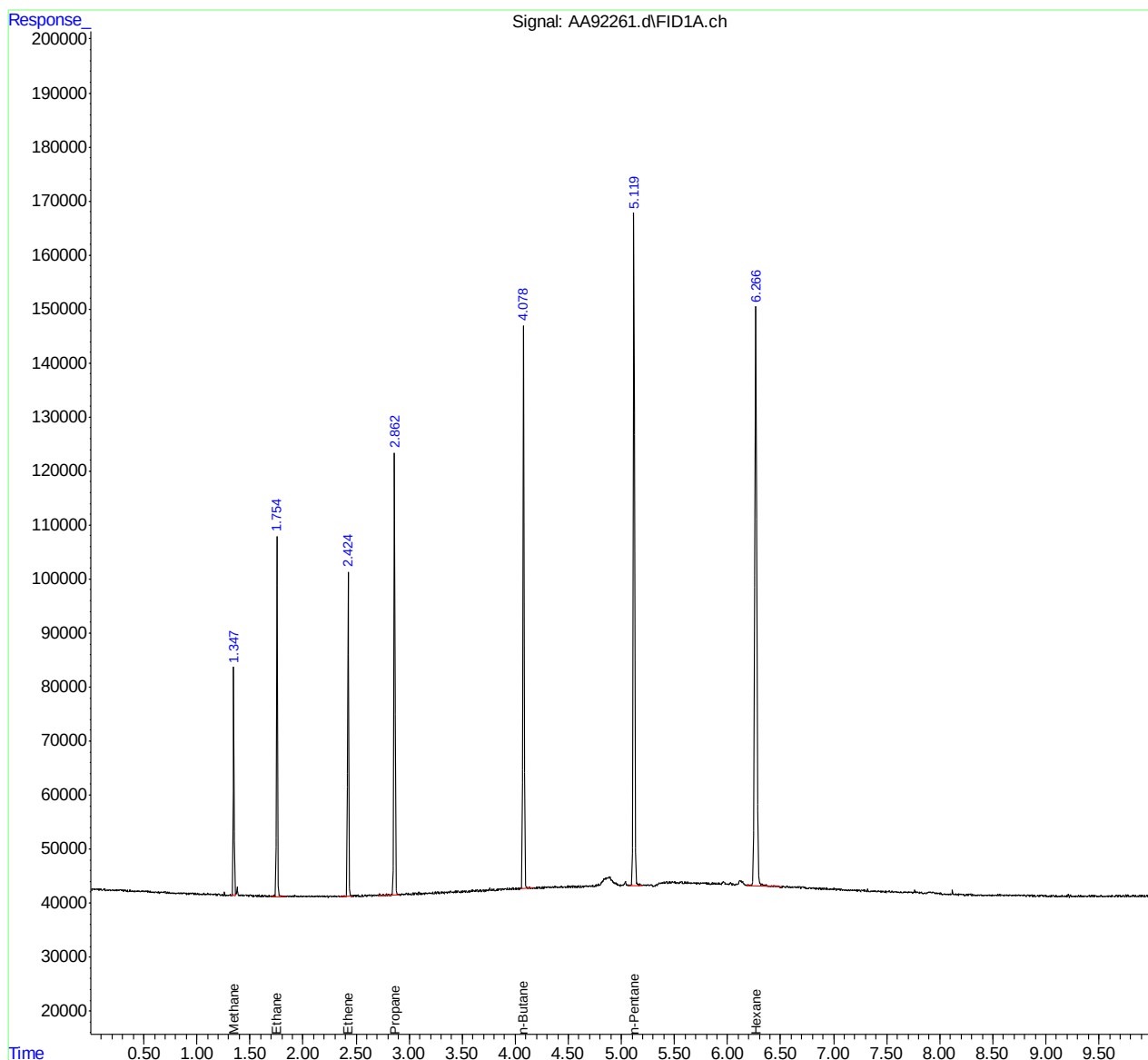
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92261.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 1:19 pm
Operator : williamc
Sample : ic2456-10
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:53:39 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:53:28 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92262.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 1:32 pm
Operator : williamc
Sample : ic2456-20
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:53:14 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:52:38 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Methane	1.341	430378	17.441 PPMV
2) Ethane	1.749	740813	15.938 PPMV
3) Ethene	2.422	737878	15.776 PPMV
4) Propane	2.861	1027185	14.198 PPMV
5) n-Butane	4.078	1410028	14.789 PPMV
6) n-Pentane	5.113	2082942	18.238 PPMV
7) Hexane	6.255	2330542	19.056 PPMV

(f)=RT Delta > 1/2 Window

(m)=manual int.

9.5.4

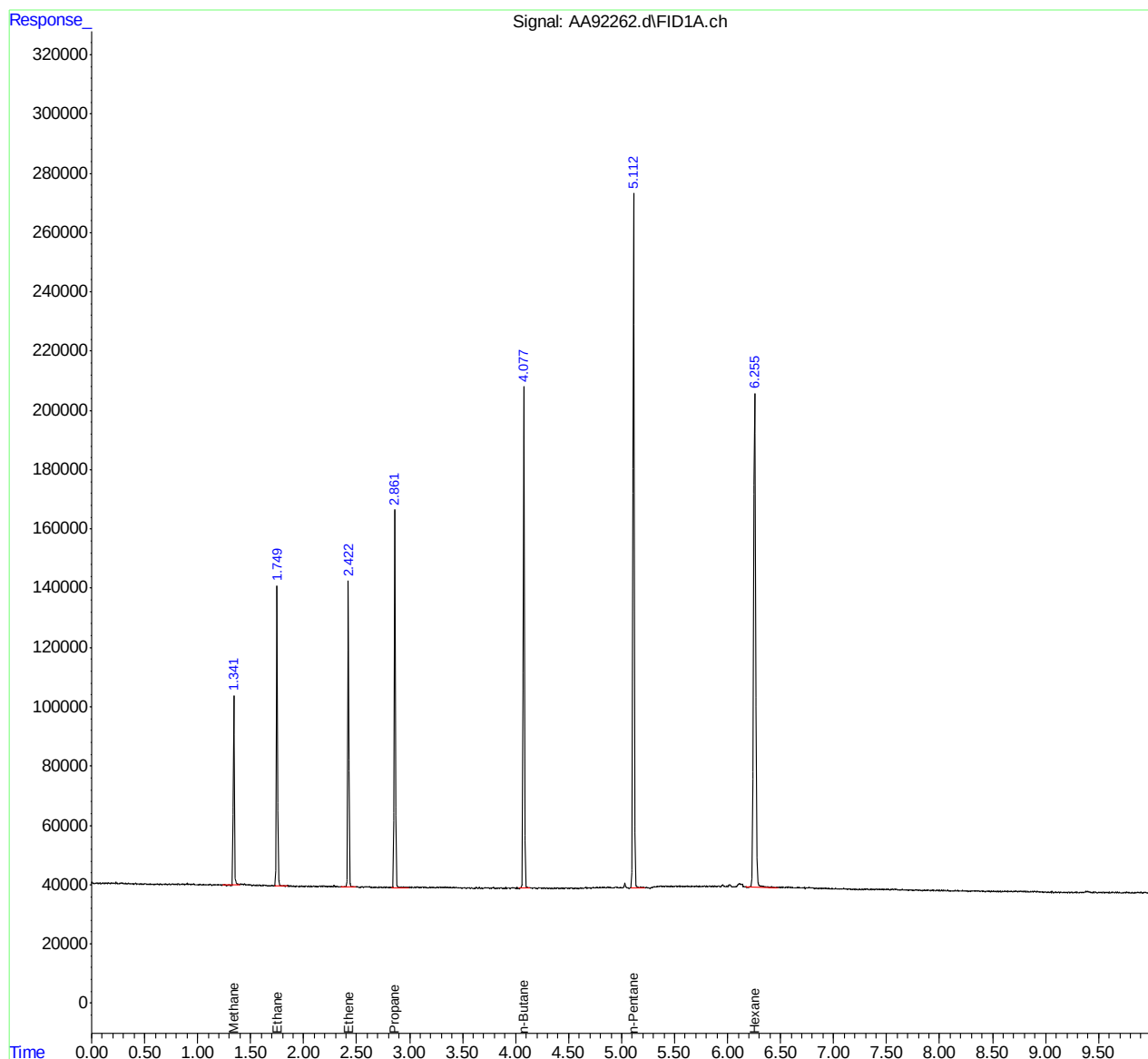
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92262.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 1:32 pm
Operator : williamc
Sample : ic2456-20
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:53:14 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:52:38 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92263.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 1:46 pm
Operator : williamc
Sample : icc2456-100
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:51:05 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:45:54 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound		R.T.	Response	Conc	Units

Target Compounds					
1)	Methane	1.353	2531110	100.098	PPMV
2)	Ethane	1.759	4800360	100.015	PPMV
3)	Ethene	2.426	4813785	100.033	PPMV
4)	Propane	2.863	7619498	100.033	PPMV
5)	n-Butane	4.076	10281601	100.030	PPMV
6)	n-Pentane	5.110	12429786	100.116	PPMV
7)	Hexane	6.251	13369889	100.228	PPMV

(f)=RT Delta > 1/2 Window

(m)=manual int.

9.5.5

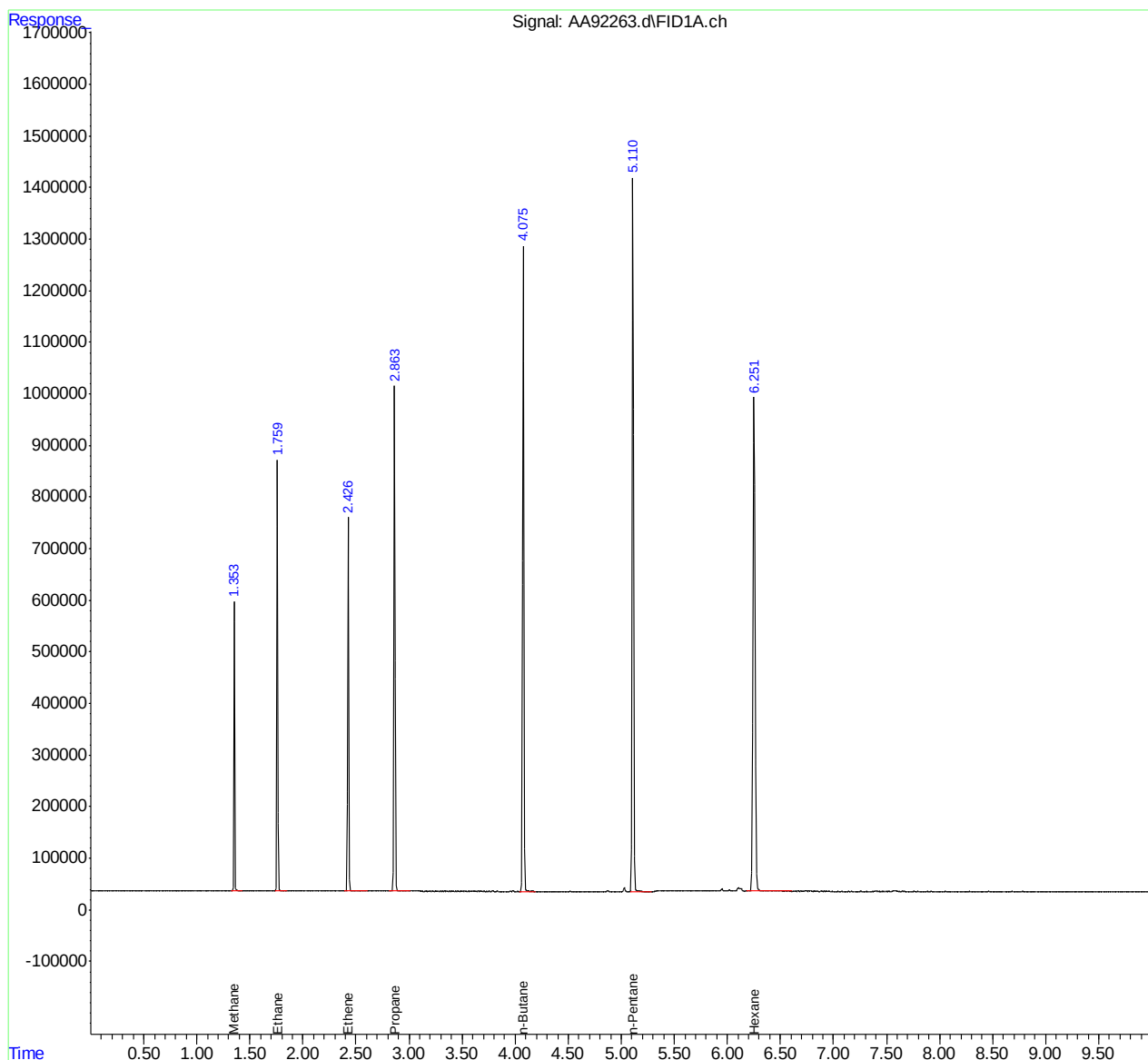
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92263.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 1:46 pm
Operator : williamc
Sample : icc2456-100
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:51:05 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:45:54 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92264.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 1:59 pm
Operator : williamc
Sample : ic2456-200
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 15 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:51:54 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:51:42 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) Methane	1.351	5170793	204.289	PPMV
2) Ethane	1.758	9734086	202.778	PPMV
3) Ethene	2.426	9816954	203.934	PPMV
4) Propane	2.863	14958138	196.314	PPMV
5) n-Butane	4.075	19293103	187.647	PPMV
6) n-Pentane	5.107	22604158	181.855	PPMV
7) Hexane	6.246	23948829	179.125	PPMV

(f)=RT Delta > 1/2 Window

(m)=manual int.

9.5.6

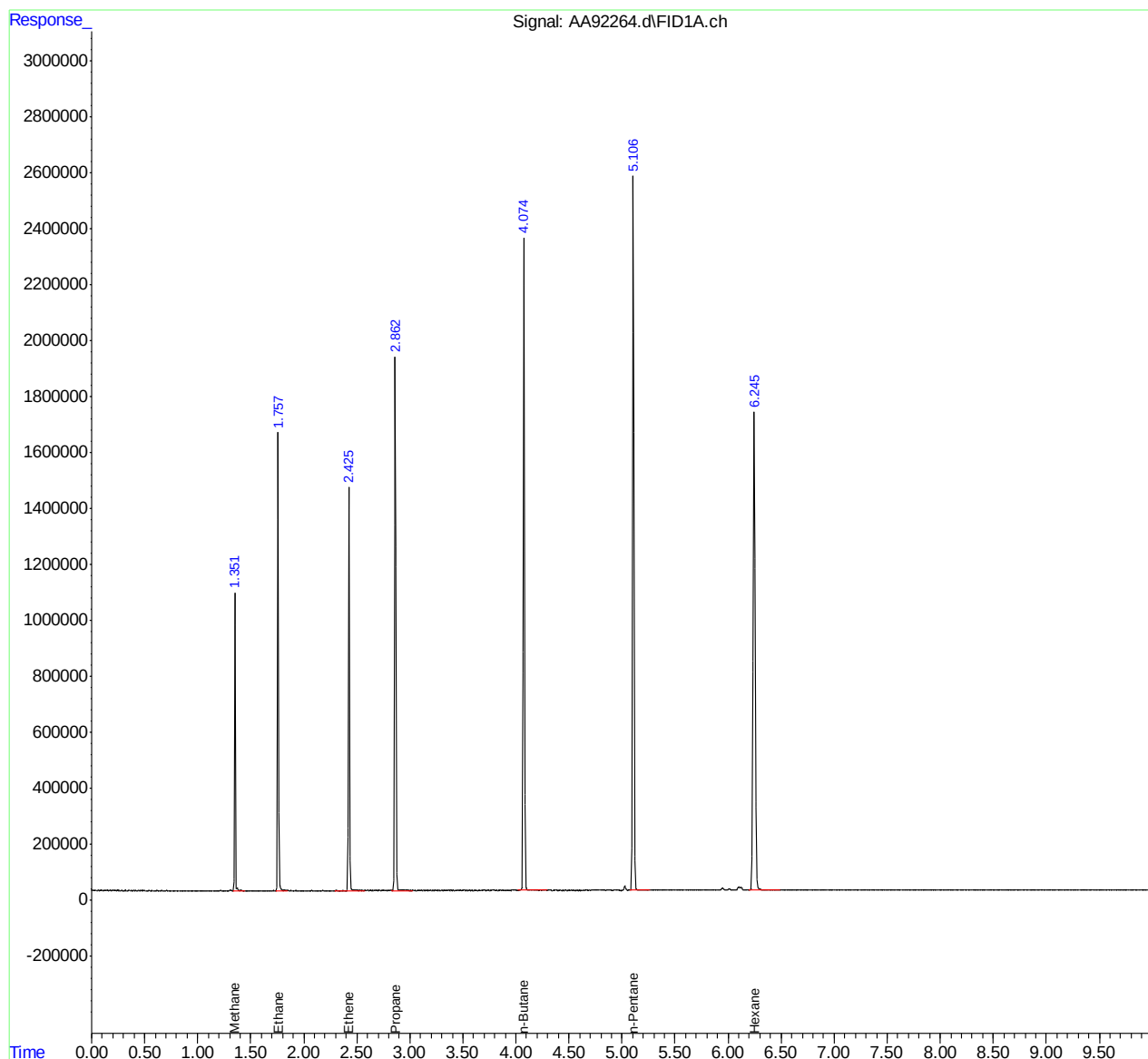
6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92264.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 1:59 pm
Operator : williamc
Sample : ic2456-200
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 15 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:51:54 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:51:42 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92265.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 2:28 pm
Operator : williamc
Sample : ic2456-500
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:52:23 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:52:09 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) Methane	1.350	11431957	446.866	PPMV
2) Ethane	1.756	21383107	442.375	PPMV
3) Ethene	2.423	21548705	443.286	PPMV
4) Propane	2.861	33024817	437.456	PPMV
5) n-Butane	4.074	43378299	435.347	PPMV
6) n-Pentane	5.113	52654165	443.742	PPMV
7) Hexane	6.258	56729421	447.670	PPMV

(f)=RT Delta > 1/2 Window

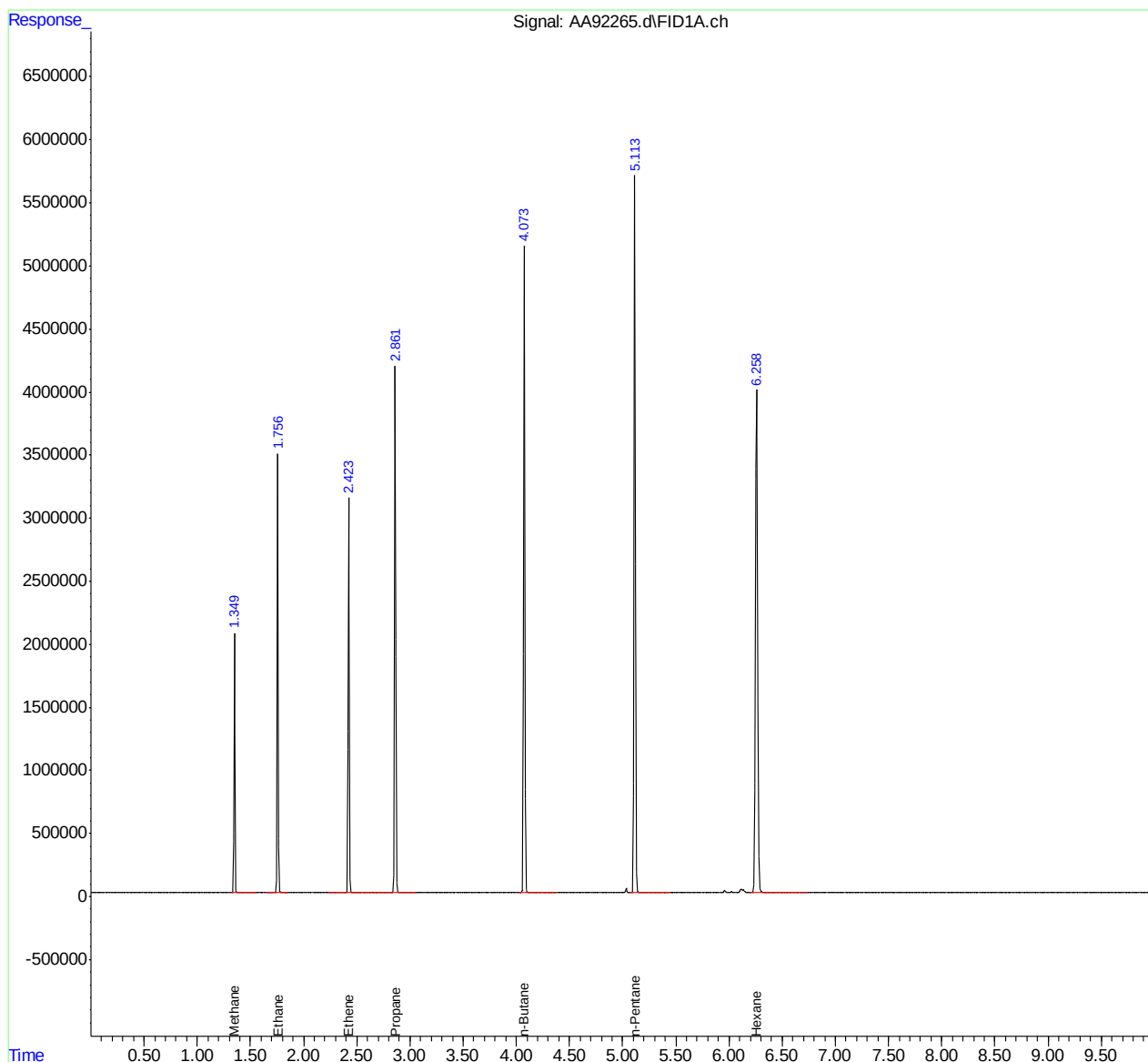
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92265.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 2:28 pm
Operator : williamc
Sample : ic2456-500
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 15:52:23 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:52:09 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92269.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 3:58 pm
Operator : williamc
Sample : ic2456-1000
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 16:08:23 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:56:15 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound		R.T.	Response	Conc	Units

Target Compounds					
1)	Methane	1.348	21950316	881.197	PPMV
2)	Ethane	1.752	41921508	948.534	PPMV
3)	Ethene	2.421	42097652	946.560	PPMV
4)	Propane	2.859	65546281	969.235	PPMV
5)	n-Butane	4.073	86993486	951.771	PPMV
6)	n-Pentane	5.116	108516153	946.041	PPMV
7)	Hexane	6.266	130659928	954.594	PPMV

(f)=RT Delta > 1/2 Window

(m)=manual int.

9.5.8

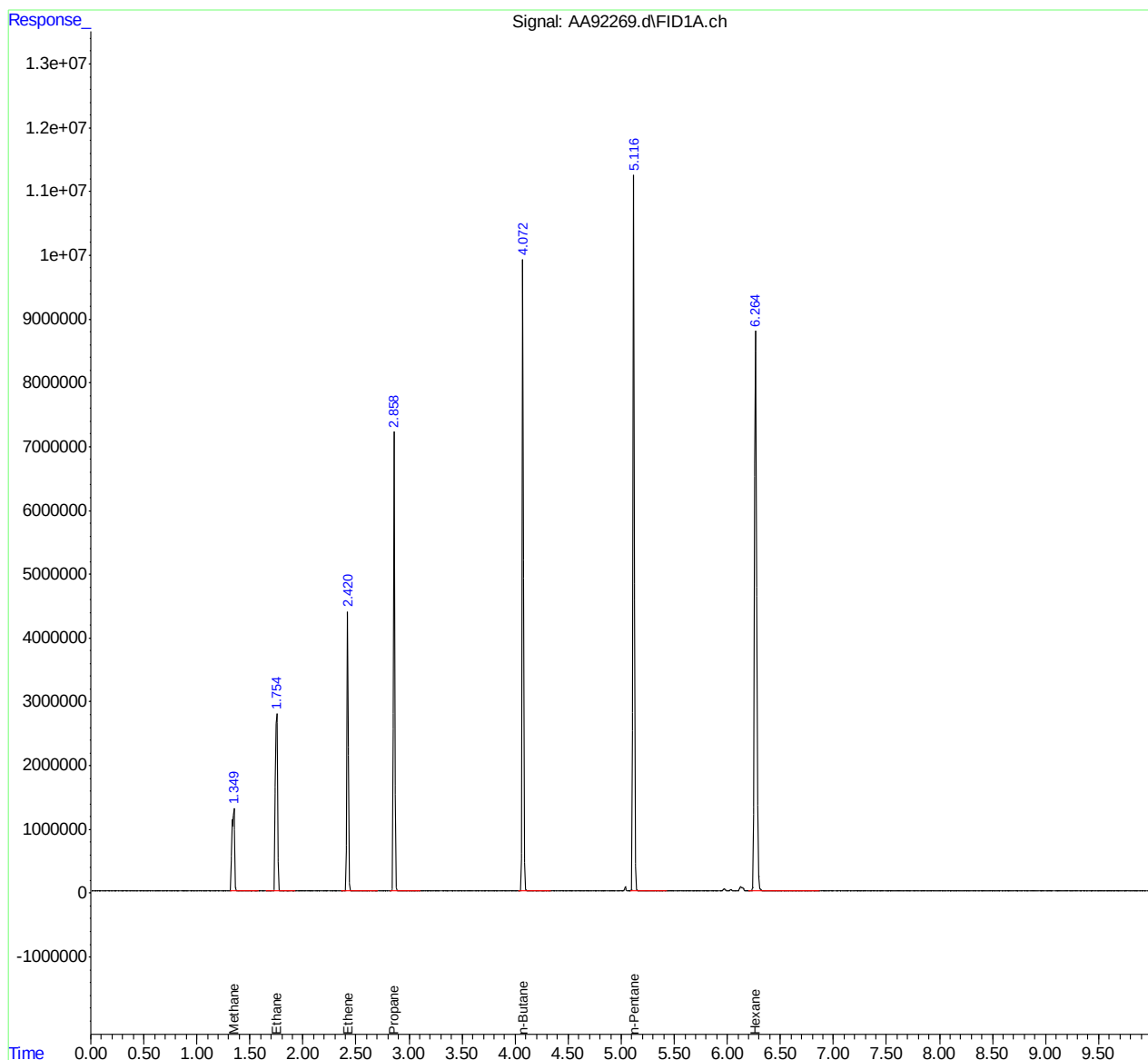
6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92269.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 3:58 pm
Operator : williamc
Sample : ic2456-1000
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 16:08:23 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 15:56:15 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92270.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 4:14 pm
Operator : williamc
Sample : icv2456-100
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 16:24:40 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) Methane	1.350	2580606	105.160	PPMV
2) Ethane	1.756	4813258	109.612	PPMV
3) Ethene	2.426	4863207	110.084	PPMV
4) Propane	2.864	6830381	101.391	PPMV
5) n-Butane	4.079	8689464	95.646	PPMV
6) n-Pentane	5.118	8577822	75.289	PPMV
7) Hexane	6.265	8208584	60.314	PPMV

(f)=RT Delta > 1/2 Window

(m)=manual int.

6.5.9

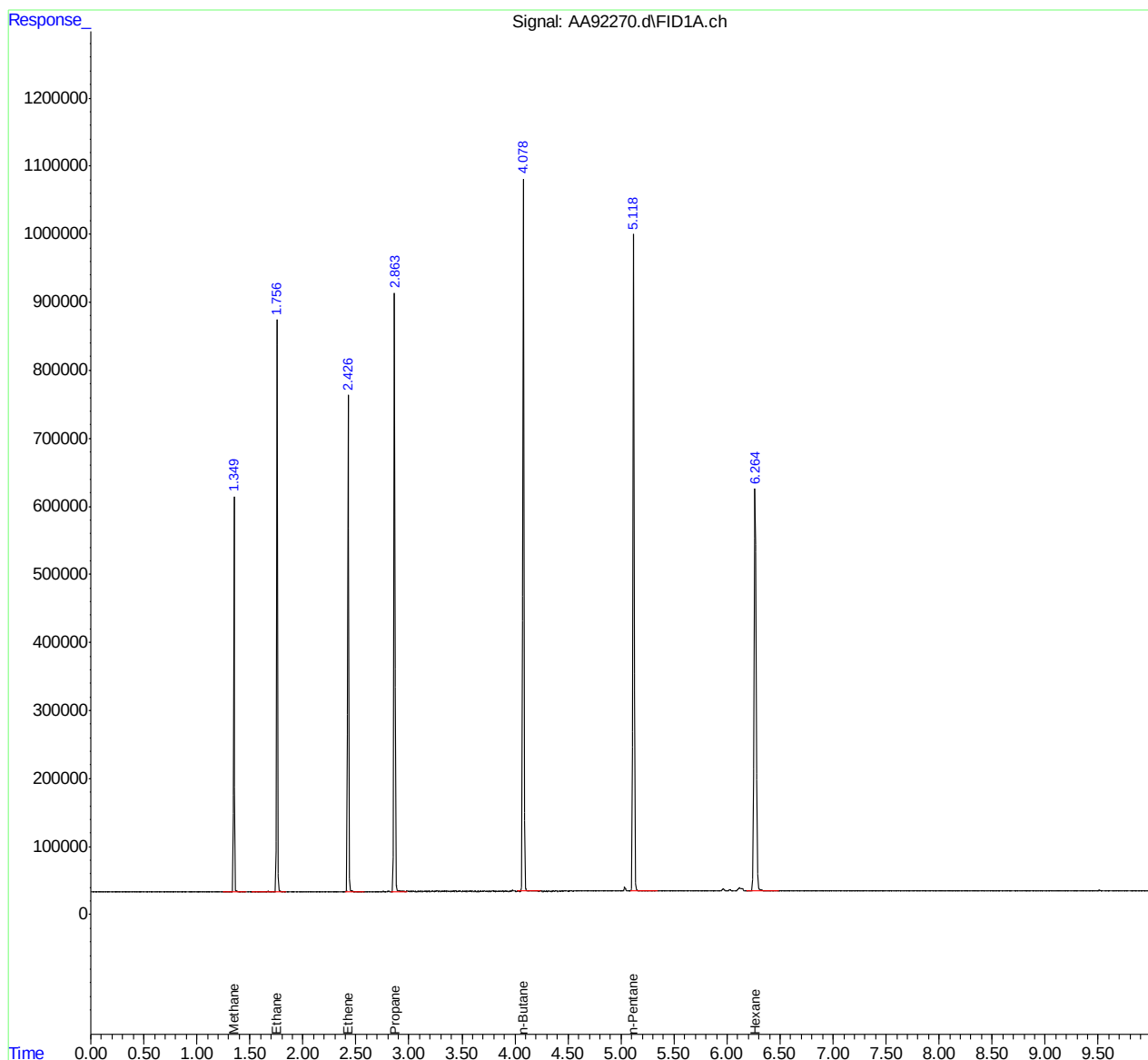
6

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA92270.d
Signal(s) : FID1A.ch
Acq On : 6 Dec 2021 4:14 pm
Operator : williamc
Sample : icv2456-100
Misc : GC58872,GAA2456,,,,,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 06 16:24:40 2021
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94379.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 12:01 pm
Operator : williamc
Sample : cc2456-100
Misc : GC59511,GAA2539,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Apr 20 13:11:21 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) Methane	1.341	2483111	101.187	PPMV
2) Ethane	1.742	4629791	105.434	PPMV
3) Ethene	2.399	4644870	105.142	PPMV
4) Propane	2.841	7263211	107.816	PPMV
5) n-Butane	4.057	9747855	107.295	PPMV
6) n-Pentane	5.101	12637682	110.923	PPMV
7) Hexane	6.240	15777800	115.930	PPMV

(f)=RT Delta > 1/2 Window

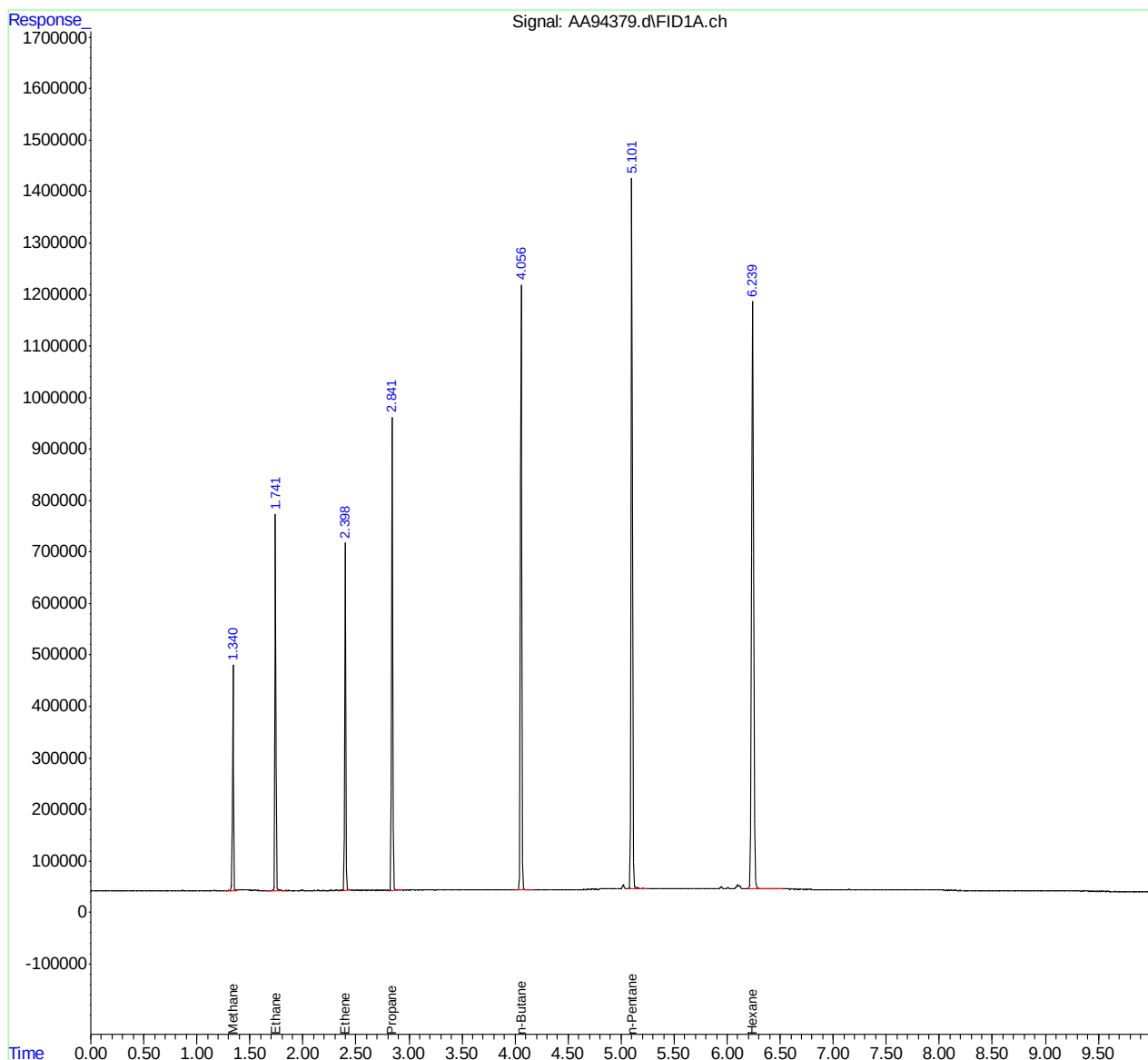
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94379.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 12:01 pm
Operator : williamc
Sample : cc2456-100
Misc : GC59511,GAA2539,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Apr 20 13:11:21 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94392.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 3:01 pm
Operator : williamc
Sample : cc2456-100
Misc : GC59514,GAA2539,,,,,1
ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Apr 20 16:11:11 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df

Compound	R.T.	Response	Conc	Units

Target Compounds				
1) Methane	1.354	2543296	103.640	PPMV
2) Ethane	1.755	4795526	109.208	PPMV
3) Ethene	2.412	4802529	108.710	PPMV
4) Propane	2.850	7508007	111.450	PPMV
5) n-Butane	4.060	9994560	110.011	PPMV
6) n-Pentane	5.087	12627900	110.837	PPMV
7) Hexane	6.211	14900901	109.487	PPMV

(f)=RT Delta > 1/2 Window

(m)=manual int.

9.5.11

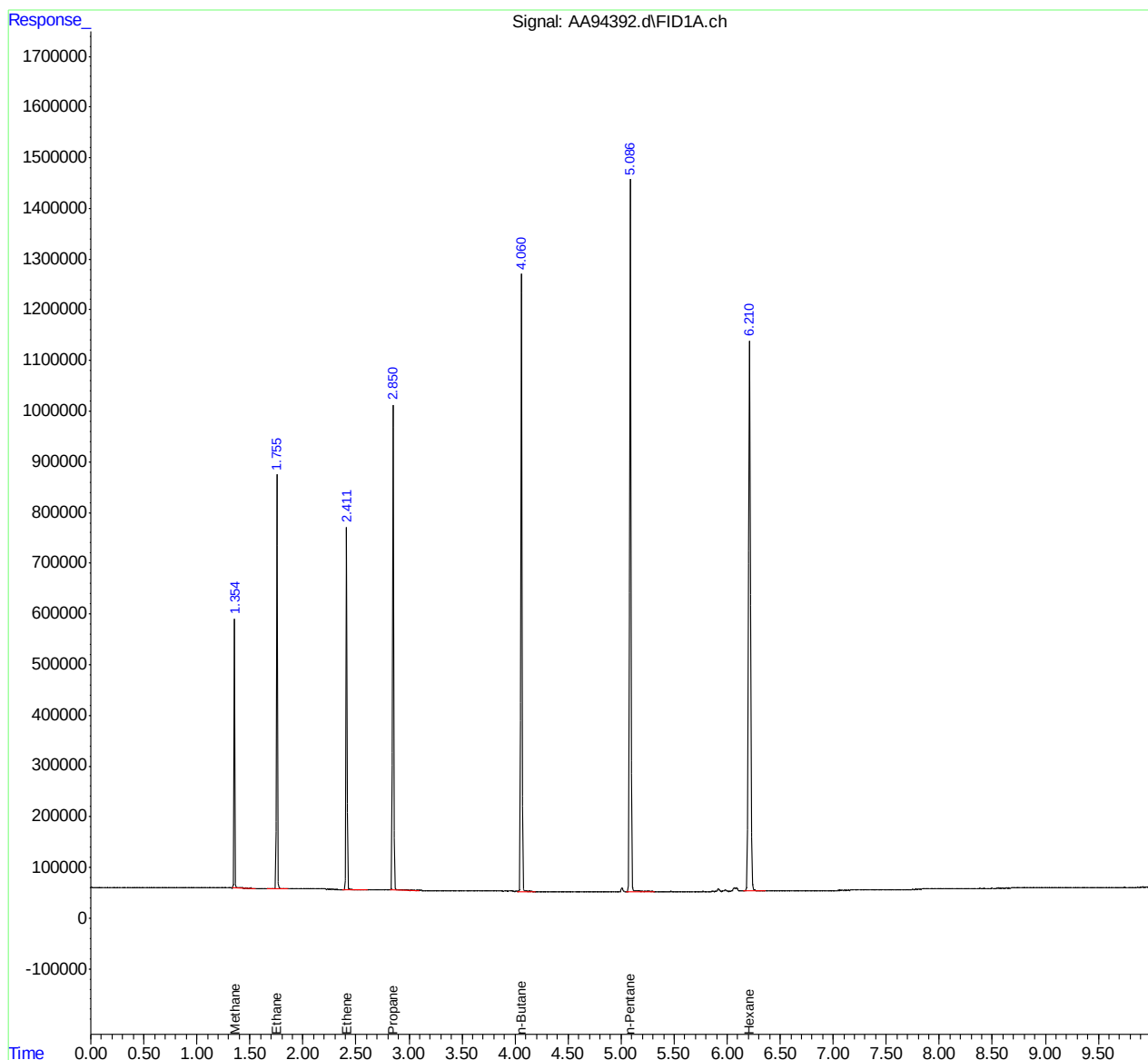
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : AA94392.d
Signal(s) : FID1A.ch
Acq On : 20 Apr 2022 3:01 pm
Operator : williamc
Sample : cc2456-100
Misc : GC59514,GAA2539,,,,,1
ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Apr 20 16:11:11 2022
Quant Method : C:\MSDCHEM\1\METHODS\MAA2456.M
Quant Title : METHOD V8015 DG by GC-FID
QLast Update : Mon Dec 06 16:10:39 2021
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 0.5 ml
Signal Phase : Rt-Alumina BOND/Na2SO4
Signal Info : 50m x 0.53 mm ID x 10um df



SGS

DISSOLVED GASES by GC/FID/TCD
INSTRUMENT LOGBatch ID: GAA2456Date: 12-8-21Analyst: WJC

STD LCS LIMSTD

Standard Data

Components	MW	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)
Methane	16	1000		1000		10			
Ethane	30	1000		1000		10			
Ethene	28	1000		1000		10			
Oxygen	32								
Nitrogen	28								
Hydrogen	2								
CO	28								
CO2	44								

ug/L = (ppmv) x (mw/24.45)

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of SGS SOP EQA044.

Supervisor Signature: [Signature]Date: 12/7/21

R	Data File	Sample ID	Test	VIAL (CC)	Head-space (CC)	Final Sample (CC)	CC Inj.	Temp C	Dil Fact	Status (Data)	Comments	pH* <2
	AA92250	IC2456-1					0.0005	23		NR		
	AA92251	IC2456-2					0.001	23		RR		
	AA92252	IC2456-2					0.001	23		RR		
	AA92253	helium blank					0.5	23				
	AA92254	dry run					0	23				
	AA92255	no volume injection					0	23			replace septum	
	AA92256	IC2456-1					0.0005	23		OK		
	AA92257	IC2456-2					0.001	23		RR		
	AA92258	IC2456-2					0.001	23		OK		
	AA92259	IC2456-10					0.005	23		RR		
	AA92260	IC2456-10					0.005	23		RR		
	AA92261	IC2456-10					0.005	23		OK		
	AA92262	IC2456-20					0.01	23		OK		
	AA92263	IC2456-100					0.05	23		OK		
	AA92264	IC2456-200					0.1	23		OK		

* If pH > 2, comment on sample result.

All strikeouts must be initialed, dated, and reason applied if not transcription error.

OR008-02 (dissolved gases)-DAYT-ORG-0048-03-FORM-Dissolved Gases Log.doc
1/25/18

DISSOLVED GASES by GC/FID/TCID INSTRUMENT LOG

Batch ID: GAA2456Date: 12-6-21Analyst: we

Standard Data

Components	MW	Lot# <u>A9245</u>	Lot# <u>A9245</u>	Lot# <u>A9362</u>	Lot#	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)
		Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)
Methane	16	1000		1000		10			
Ethane	30	1000		1000		10			
Ethene	28	1000		1000		10			
Oxygen	32								
Nitrogen	28								
Hydrogen	2								
CO	28								
CO2	44								

Columns: RT Alumina/Ag₂SO₄Method (Collect.) MAA2456Method (Quant) MAA2456Initial Cal: GAA2456Seq. file: AA20211206.spH Paper E: 207519 Exp: 3-15-22
Thermometer 50: 285901 Exp: 7-2-22

ug/L = (ppmv) x (mw/24.45)

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of SGS SOP EQA044.

Supervisor Signature: [Signature]Date: 12/7/21

R	Data File	Sample ID	Test	VIAL (CC)	Head-space (CC)	Final Sample (CC)	CC Inj.	Temp C	Dil Fact	Status (Data)	Comments	pH* <2
	<u>AA92265</u>	<u>IC2456-500</u>					<u>0.25</u>	<u>23</u>		<u>ON</u>		
	<u>AA92266</u>	<u>IC2456-1000</u>					<u>0.5</u>	<u>23</u>		<u>RR</u>		
	<u>AA92267</u>	<u>IC2456-1000</u>					<u>0.5</u>	<u>23</u>		<u>RR</u>		
	<u>AA92268</u>	<u>IC2456-1000</u>					<u>0.5</u>	<u>23</u>		<u>RR</u>		
	<u>AA92269</u>	<u>IC2456-1000</u>					<u>0.5</u>	<u>23</u>		<u>OK</u>		
	<u>AA92270</u>	<u>ICV2456-100</u>					<u>0.05</u>	<u>23</u>		<u>ON</u>		

If pH > 2, comment on sample result.

All strikeouts must be initialed, dated, and reason applied if not transcription error.

12-6-21 we

SGS

DISSOLVED GASES by GC/FID/TCD
INSTRUMENT LOGBatch ID: GAA2539Date: 4/20/22Analyst: SG

Standard Data

Components	MW	STD		LCS		Lot#		Lot#	
		Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)	Conc. (ppmv)	Conc. (ug/l)
Methane	16	1000		1000					
Ethane	30	1000		1000					
Ethene	28	1000		1000					
Oxygen	32								
Nitrogen	28								
Hydrogen	2								
CO	28								
CO2	44								

Columns: RT ALUMINA w/2003A1Method (Collect.) MAA2456Method (Quant) MAA2456Initial Cal: GAA2456Seq. file: AA20220120.S

pH paper LOT: 212521 EXP 5/1/24

Thermalmax ID: 285801 EXP. 7/2/22

ug/L = (ppmv) x (mw/24.45)

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of SGS SOP EQA044.

Supervisor Signature: [Signature]Date: 4/25/22

R	Data File	Sample ID	Test	VIAL (CC)	Head-space (CC)	Final Sample (CC)	CC Inj.	Temp C	Dil Fact	Status (Data)	Comments	pH* <2
	AA94379	CC2456-100					0.05	22		OK		
	AA94380	LCS					0.05	22		OK		
	AA94381	Helium Blank					0.5	22		OK	14583	
	AA94382	M3					0.5	22		OK		
	AA94383	JD43335-3	CH4 GC59515	43	5	38	0.025	22	20	OK		✓
	AA94384	JD43335-3 DUP		43	5	38	0.025	22	20	OK		✓
	AA94385	JD43242-10	DCMEE GC59511	43	5	38	0.5	22	1	OK		✓
	AA94386	JD43234-2	DCMEE GC59513	43	5	38	0.5	22	1	OK		✓
	AA94387	JD43253-1	ETHANE GC59514	43	5	38	0.5	22	1	OK		✓
	AA94388	JD43253-2		43	5	38	0.5	22	1	OK		✓
	AA94389	JD43253-2		43	5	38	0.005	22	100	OK		✓
	AA94390	JD43253-3		43	5	38	0.5	22	1	OK		✓
	AA94391	JD43253-4		43	5	38	0.5	22	1	OK		✓
	AA94392	CC2456-100					0.05	22		OK		✓

*If pH > 2, comment on sample result.

All strikeouts must be initialed, dated, and reason applied if not transcription error.

MC
4/20/22OR008-02 (dissolved gases)-DAYT-ORG-0048-03-FORM-Dissolved Gases Log.doc
1/25/18

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Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics AnalysesLogin Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NYFile ID: SF042022M1.ICP
Analyst: ND
Parameters: FeDate Analyzed: 04/20/22
Run ID: MA52270
Methods: EPA 200.7, SW846 6010D

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:13	MA52270-STD1	1		STDA
14:18	MA52270-STD2	1		STDB
14:23	MA52270-ICV1	1		
14:30	MA52270-ICB1	1		
14:35	MA52270-CCV1	1		
14:40	MA52270-CCB1	1		
14:46	MA52270-CRI1	1		
14:51	MA52270-CRID1	1		
14:56	MA52270-ICSA1	1		
15:01	MA52270-ICSAB1	1		
15:06	MA52270-HSTD1	1		
15:11	MA52270-HSTD2	1		
15:16	ZZZZZZ	1		
15:21	ZZZZZZ	1		
15:27	ZZZZZZ	1		
15:32	MA52270-CCV2	1		
15:37	MA52270-CCB2	1		
16:36	MA52270-CCV3	1		
16:41	MA52270-CCB3	1		
16:47	MP32404-MB1	1		
16:52	MP32404-B1	1		
16:57	MP32404-S1	1		
17:02	MP32404-S2	1		
17:06	JD40450-1T	1		(sample used for QC only; not part of login JD43253)
17:12	MP32404-SD1	5		
17:17	ZZZZZZ	1		
17:22	ZZZZZZ	1		
17:27	ZZZZZZ	1		
17:33	ZZZZZZ	1		
17:38	MA52270-CCV4	1		
17:43	MA52270-CCB4	1		
17:48	ZZZZZZ	1		
17:53	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP
Analyst: ND
Parameters: Fe

Date Analyzed: 04/20/22
Run ID: MA52270

Methods: EPA 200.7, SW846 6010D

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:59	ZZZZZZ	1		
18:04	ZZZZZZ	1		
18:09	ZZZZZZ	1		
18:14	ZZZZZZ	1		
18:19	ZZZZZZ	1		
18:25	ZZZZZZ	1		
18:30	ZZZZZZ	1		
18:35	MA52270-CCV5	1		
18:40	MA52270-CCB5	1		
18:45	ZZZZZZ	1		
18:51	MP32417-MB1	1		
18:56	MP32417-B1	1		
19:01	MP32417-S1	1		
19:06	MP32417-S2	1		
19:11	JD43339-1	1		(sample used for QC only; not part of login JD43253)
19:16	MP32417-SD1	5		
19:21	JD43253-1	1		
19:26	JD43253-2	1		
19:32	JD43253-3	1		
19:37	MA52270-CCV6	1		
19:41	MA52270-CCB6	1		
19:47	JD43253-4	1		
----->	Last reportable sample/			
19:52	ZZZZZZ	1		prep for job JD43253
19:57	ZZZZZZ	1		
20:02	ZZZZZZ	1		
20:07	ZZZZZZ	1		
20:13	ZZZZZZ	1		
20:18	ZZZZZZ	1		
20:23	ZZZZZZ	1		
20:28	ZZZZZZ	1		
20:33	MA52270-CCV7	1		
----->	20:38 MA52270-CCB7	1		
	Last reportable CCB for job JD43253			
20:43	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD43253

Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP
Analyst: ND
Parameters: Fe

Date Analyzed: 04/20/22
Run ID: MA52270

Methods: EPA 200.7, SW846 6010D

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:48	ZZZZZZ	1		
20:54	ZZZZZZ	1		
20:59	ZZZZZZ	1		
21:04	ZZZZZZ	1		
21:10	MA52270-CCV8	1		
21:14	MA52270-CCB8	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP
 Analyst: ND
 Parameters: Fe

Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
 Run ID: MA52270

Time	Sample Description	Element: F Dilution e
14:23	MA52270-ICV1	1 X
14:30	MA52270-ICB1	1 X
14:35	MA52270-CCV1	1 X
14:40	MA52270-CCB1	1 X
14:46	MA52270-CRI1	1 X
14:51	MA52270-CRID1	1 X
14:56	MA52270-ICSA1	1 X
15:01	MA52270-ICSAB1	1 X
15:06	MA52270-HSTD1	1
15:11	MA52270-HSTD2	1 X
15:16	ZZZZZZ	1
15:21	ZZZZZZ	1
15:27	ZZZZZZ	1
15:32	MA52270-CCV2	1 X
15:37	MA52270-CCB2	1 X
16:36	MA52270-CCV3	1 X
16:41	MA52270-CCB3	1 X
16:47	MP32404-MB1	1
16:52	MP32404-B1	1
16:57	MP32404-S1	1
17:02	MP32404-S2	1
17:06	JD40450-1T	1 (a)
17:12	MP32404-SD1	5
17:17	ZZZZZZ	1
17:22	ZZZZZZ	1
17:27	ZZZZZZ	1
17:33	ZZZZZZ	1
17:38	MA52270-CCV4	1 X
17:43	MA52270-CCB4	1 X
17:48	ZZZZZZ	1
17:53	ZZZZZZ	1
17:59	ZZZZZZ	1
18:04	ZZZZZZ	1
		Element: F e

REPORTED ELEMENTS SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP
 Analyst: ND
 Parameters: Fe

Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
 Run ID: MA52270

Time	Sample Description	Element: Fe Dilution	e
18:09	ZZZZZZ	1	
18:14	ZZZZZZ	1	
18:19	ZZZZZZ	1	
18:25	ZZZZZZ	1	
18:30	ZZZZZZ	1	
18:35	MA52270-CCV5	1	X
18:40	MA52270-CCB5	1	X
18:45	ZZZZZZ	1	
18:51	MP32417-MB1	1	X
18:56	MP32417-B1	1	X
19:01	MP32417-S1	1	X
19:06	MP32417-S2	1	X
19:11	JD43339-1	1	(a)
19:16	MP32417-SD1	5	X
19:21	JD43253-1	1	X
19:26	JD43253-2	1	X
19:32	JD43253-3	1	X
19:37	MA52270-CCV6	1	X
19:41	MA52270-CCB6	1	X
19:47	JD43253-4	1	X
19:52	ZZZZZZ	1	
19:57	ZZZZZZ	1	
20:02	ZZZZZZ	1	
20:07	ZZZZZZ	1	
20:13	ZZZZZZ	1	
20:18	ZZZZZZ	1	
20:23	ZZZZZZ	1	
20:28	ZZZZZZ	1	
20:33	MA52270-CCV7	1	X
20:38	MA52270-CCB7	1	X
20:43	ZZZZZZ	1	
20:48	ZZZZZZ	1	
20:54	ZZZZZZ	1	
		Element: Fe	e

10.1.1
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REPORTED ELEMENTS SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA52270
 Parameters: Fe

Time	Sample Description	Element: Fe Dilution

20:59	ZZZZZZ	1	
21:04	ZZZZZZ	1	
21:10	MA52270-CCV8	1	X
21:14	MA52270-CCB8	1	X

(a) Sample used for QC only; not part of login JD43253.

Element: Fe

INTERNAL STANDARD SUMMARY

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP
Analyst: ND
Parameters: Fe

Date Analyzed: 04/20/22
Run ID: MA52270

Methods: EPA 200.7, SW846 6010D

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:13	MA52270-STD1	2513 R	83020 R	2964 R	6814 R
14:18	MA52270-STD2	2408	78967	2956	6401
14:23	MA52270-ICV1	2474	80880	2946	6514
14:30	MA52270-ICB1	2510	83264	3002	6796
14:35	MA52270-CCV1	2462	80187	2953	6507
14:40	MA52270-CCB1	2498	82936	3007	6746
14:46	MA52270-CRI1	2494	82146	2955	6692
14:51	MA52270-CRID1	2444	81977	2977	6601
14:56	MA52270-ICSA1	2245	75003	2918	5926
15:01	MA52270-ICSAB1	2250	75131	2884	5966
15:06	MA52270-HSTD1	2436	81885	2990	6699
15:11	MA52270-HSTD2	2285	76630	2948	6001
15:16	ZZZZZZ	2463	81640	3058	6808
15:21	ZZZZZZ	2424	82693	3066	6669
15:27	ZZZZZZ	2456	82641	3018	6623
15:32	MA52270-CCV2	2412	80439	3020	6370
15:37	MA52270-CCB2	2506	83111	3011	6741
16:36	MA52270-CCV3	2409	80403	2942	6348
16:41	MA52270-CCB3	2466	82733	2950	6627
16:47	MP32404-MB1	2457	83235	2982	6607
16:52	MP32404-B1	2422	81560	2977	6401
16:57	MP32404-S1	2425	81345	2959	6409
17:02	MP32404-S2	2444	81819	2969	6466
17:06	JD40450-1T	2496	83299	2951	6707
17:12	MP32404-SD1	2501	83198	2928	6716
17:17	ZZZZZZ	2493	82997	2967	6665
17:22	ZZZZZZ	2473	82582	2949	6589
17:27	ZZZZZZ	2480	82643	2954	6682
17:33	ZZZZZZ	2459	82195	2953	6626
17:38	MA52270-CCV4	2426	80621	2910	6387
17:43	MA52270-CCB4	2495	83874	2945	6744
17:48	ZZZZZZ	2489	82984	2954	6721
17:53	ZZZZZZ	2494	82895	2956	6682

INTERNAL STANDARD SUMMARY

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP
Analyst: ND
Parameters: Fe

Date Analyzed: 04/20/22
Run ID: MA52270

Methods: EPA 200.7, SW846 6010D

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:59	ZZZZZZ	2448	82671	2935	6541
18:04	ZZZZZZ	2457	82462	2958	6631
18:09	ZZZZZZ	2475	82739	2943	6652
18:14	ZZZZZZ	2474	83569	2981	6691
18:19	ZZZZZZ	2479	83842	2910	6697
18:25	ZZZZZZ	2473	83104	2943	6680
18:30	ZZZZZZ	2459	82957	2933	6650
18:35	MA52270-CCV5	2441	80932	2897	6435
18:40	MA52270-CCB5	2480	83069	2912	6717
18:45	ZZZZZZ	2470	83700	2927	6672
18:51	MP32417-MB1	2487	83215	2942	6716
18:56	MP32417-B1	2456	81987	2966	6526
19:01	MP32417-S1	2245	76490	2822	5783
19:06	MP32417-S2	2263	76700	2819	5815
19:11	JD43339-1	2291	77157	2814	5927
19:16	MP32417-SD1	2414	81187	2848	6369
19:21	JD43253-1	2372	79643	2876	6225
19:26	JD43253-2	2123	72488	2693	5407
19:32	JD43253-3	2378	80665	2854	6231
19:37	MA52270-CCV6	2414	80473	2832	6418
19:41	MA52270-CCB6	2480	83240	2874	6738
19:47	JD43253-4	2364	79840	2822	6095
19:52	ZZZZZZ	2250	76202	2806	5837
19:57	ZZZZZZ	2251	76492	2763	5833
20:02	ZZZZZZ	2406	80252	2851	6312
20:07	ZZZZZZ	2507	83320	2968	6427
20:13	ZZZZZZ	2482	81835	2903	6338
20:18	ZZZZZZ	2490	82806	2904	6651
20:23	ZZZZZZ	2386	81282	2899	6182
20:28	ZZZZZZ	2422	82206	2925	6185
20:33	MA52270-CCV7	2447	80693	2814	6525
20:38	MA52270-CCB7	2514	83217	2839	6848
20:43	ZZZZZZ	2502	83281	2836	6840

INTERNAL STANDARD SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA52270
 Parameters: Fe

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:48	ZZZZZZ	2544	79784	2977	6502
20:54	ZZZZZZ	2347	79704	2783	6263
20:59	ZZZZZZ	2358	79750	2781	6289
21:04	ZZZZZZ	2499	83817	2842	6810
21:10	MA52270-CCV8	2443	81324	2833	6522
21:14	MA52270-CCB8	2495	83178	2856	6808

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

10.1.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA52270 Units: ug/l

Time: Sample ID:			14:30 ICB1		14:40 CCB1		15:37 CCB2		16:41 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	9.2								
Antimony	6.0	2.8								
Arsenic	3.0	2.6								
Barium	200	.2								
Beryllium	1.0	.2								
Bismuth	20	2.5								
Boron	100	1.8								
Cadmium	3.0	.4								
Calcium	5000	13	anr							
Cerium	100									
Chromium	10	.7								
Cobalt	50	.6								
Copper	10	.7								
Iron	100	3.3	1.70	<100	-1.60	<100	-2.20	<100	-0.500	<100
Lead	3.0	2								
Lithium	50	1.5								
Magnesium	5000	25	anr							
Manganese	15	.1								
Molybdenum	20	.6								
Nickel	10	.8								
Phosphorus	50	7								
Potassium	10000	35	anr							
Selenium	10	3.6								
Silicon	200	2.2								
Silver	10	.6								
Sodium	10000	14	anr							
Strontium	10	.1								
Sulfur	50	3.7								
Thallium	10	5.2								
Tin	10	1.4								
Titanium	10	.8								
Tungsten	50	1.3								
Vanadium	50	.5								

10.1.3
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA52270 Units: ug/l

Time: Sample ID:			14:30 ICB1		14:40 CCB1		15:37 CCB2		16:41 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zinc 20 .3 anr

Zirconium 10 .5

(*) Outside of QC limits
 (anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA52270 Units: ug/l

Time: Sample ID:			17:43 CCB4		18:40 CCB5		19:41 CCB6		20:38 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	9.2								
Antimony	6.0	2.8								
Arsenic	3.0	2.6								
Barium	200	.2								
Beryllium	1.0	.2								
Bismuth	20	2.5								
Boron	100	1.8								
Cadmium	3.0	.4								
Calcium	5000	13	anr							
Cerium	100									
Chromium	10	.7								
Cobalt	50	.6								
Copper	10	.7								
Iron	100	3.3	-3.30	<100	2.00	<100	4.40	<100	5.60	<100
Lead	3.0	2								
Lithium	50	1.5								
Magnesium	5000	25	anr							
Manganese	15	.1								
Molybdenum	20	.6								
Nickel	10	.8								
Phosphorus	50	7								
Potassium	10000	35	anr							
Selenium	10	3.6								
Silicon	200	2.2								
Silver	10	.6								
Sodium	10000	14	anr							
Strontium	10	.1								
Sulfur	50	3.7								
Thallium	10	5.2								
Tin	10	1.4								
Titanium	10	.8								
Tungsten	50	1.3								
Vanadium	50	.5								

10.1.3
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BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA52270 Units: ug/l

Time: Sample ID:			17:43 CCB4		18:40 CCB5		19:41 CCB6		20:38 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zinc 20 .3 anr

Zirconium 10 .5

(*) Outside of QC limits
 (anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA52270 Units: ug/l

Time: Sample ID:		14:23 ICV1	% Rec	14:35 CCV1	% Rec	15:32 CCV2	% Rec
Metal	ICV True	Results		CCV True		Results	
Aluminum							
Antimony							
Arsenic							
Barium							
Beryllium							
Bismuth							
Boron							
Cadmium							
Calcium	anr						
Cerium							
Chromium							
Cobalt							
Copper							
Iron	40000	39700	99.3	40000	38500	96.3	40000
Lead							
Lithium							
Magnesium	anr						
Manganese							
Molybdenum							
Nickel							
Phosphorus							
Potassium	anr						
Selenium							
Silicon							
Silver							
Sodium	anr						
Strontium							
Sulfur							
Thallium							
Tin							
Titanium							
Tungsten							
Vanadium							

10.1.4
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA52270 Units: ug/l

Time:		14:23		14:35		15:32	
Sample ID:		ICV		CCV		CCV	
Metal		True		True		True	
		Results		Results		Results	
		% Rec		% Rec		% Rec	

Zinc anr

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA52270 Units: ug/l

Time: Sample ID: CCV		16:36 CCV3	% Rec	17:38 CCV4		% Rec	18:35 CCV5		% Rec
Metal	True	Results		True	Results		True	Results	
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Bismuth									
Boron									
Cadmium									
Calcium	anr								
Cerium									
Chromium									
Cobalt									
Copper									
Iron	40000	37200	93.0	40000	37200	93.0	40000	37300	93.3
Lead									
Lithium									
Magnesium	anr								
Manganese									
Molybdenum									
Nickel									
Phosphorus									
Potassium	anr								
Selenium									
Silicon									
Silver									
Sodium	anr								
Strontium									
Sulfur									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									

10.1.4
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA52270 Units: ug/l

Time:		16:36				17:38				18:35	
Sample ID:		CCV	CCV3	CCV		CCV4	CCV		CCV5		
Metal		True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zinc anr

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA52270 Units: ug/l

Time:		19:37			20:33		
Sample ID:		CCV	CCV6	CCV	CCV7		
Metal	True	Results	% Rec	True	Results	% Rec	
Aluminum							
Antimony							
Arsenic							
Barium							
Beryllium							
Bismuth							
Boron							
Cadmium							
Calcium	anr						
Cerium							
Chromium							
Cobalt							
Copper							
Iron	40000	37800	94.5	40000	38100	95.3	
Lead							
Lithium							
Magnesium	anr						
Manganese							
Molybdenum							
Nickel							
Phosphorus							
Potassium	anr						
Selenium							
Silicon							
Silver							
Sodium	anr						
Strontium							
Sulfur							
Thallium							
Tin							
Titanium							
Tungsten							
Vanadium							

10.1.4
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA52270 Units: ug/l

Time:		19:37			20:33		
Sample ID:		CCV	CCV6	CCV	CCV7		
Metal	True	Results	% Rec	True	Results	% Rec	

Zinc anr

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
 QC Limits: 90 to 110 % Recovery Run ID: MA52270 Units: ug/l

Time:		15:06		15:11	
Sample ID:	HSTD	HSTD1		HSTD2	
Metal	True	Results	% Rec	True	Results % Rec
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Bismuth					
Boron					
Cadmium					
Calcium					
Cerium					
Chromium					
Cobalt					
Copper					
Iron		200000	187000	93.5	
Lead					
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silicon					
Silver					
Sodium					
Strontium					
Sulfur					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					

10.1.5
10

HIGH STANDARD CHECK SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
 QC Limits: 90 to 110 % Recovery Run ID: MA52270 Units: ug/l

Time:		15:06		15:11	
Sample ID:		HSTD		HSTD	
Metal		True		True	
		Results		Results	
		% Rec		% Rec	

Zinc anr

Zirconium

(*) Outside of QC limits
 (anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA52270 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	14:46 CRI1	% Rec	14:51 CRID1	% Rec
Metal	True	True	True	Results		Results	
Aluminum	200	500	100				
Antimony	6.0	20	3.0				
Arsenic	8.0	20	3.0				
Barium	200		4.0				
Beryllium	2.0		1.0				
Bismuth	20						
Boron	100		10				
Cadmium	3.0		1.0				
Calcium	5000	2000	1000	anr			
Cerium							
Chromium	10		2.0				
Cobalt	50		3.0				
Copper	10		2.0				
Iron	100	500		99.3	99.3		
Lead	3.0	20	2.5				
Lithium	50						
Magnesium	5000	2000	100	anr			
Manganese	15		3.0				
Molybdenum	20						
Nickel	10		4.0				
Phosphorus	50						
Potassium	5000		2000	anr			
Selenium	10	20	5.0				
Silicon	200						
Silver	5.0		2.0				
Sodium	5000		1000	anr			
Strontium	10						
Sulfur	50						
Thallium	10		2.0				
Tin	10						
Titanium	10						
Tungsten	50						
Vanadium	50		2.0				

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA52270 Units: ug/l

Time:				14:46		14:51	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1	
Metal	True	True	True	Results	% Rec	Results	% Rec

Zinc	20		10	anr			
Zirconium	10						

(*) Outside of QC limits
 (anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA52270 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	14:56 ICSA1 Results	% Rec	15:01 ICSAB1 Results	% Rec
Metal						
Aluminum	500000	500000	496000	99.2	512000	102.4
Antimony		1000	3.20		1020	102.0
Arsenic		1000	2.60		991	99.1
Barium		500	4.70		483	96.6
Beryllium		500	0.300		474	94.8
Bismuth		500	1.10		484	96.8
Boron		500	2.70		490	98.0
Cadmium		1000	0.400		1020	102.0
Calcium	400000	400000	371000	92.8	391000	97.8
Cerium			81.6			
Chromium		500	-1.70		462	92.4
Cobalt		500	0.700		463	92.6
Copper		500	3.60		540	108.0
Iron	200000	200000	184000	92.0	196000	98.0
Lead		1000	2.20		921	92.1
Lithium		500	-4.60		557	111.4
Magnesium	500000	500000	482000	96.4	482000	96.4
Manganese		500	0.900		485	97.0
Molybdenum		500	1.00		475	95.0
Nickel		1000	2.00		915	91.5
Phosphorus		500	9.80		480	96.0
Potassium			-101		-36.1	
Selenium		1000	3.00		926	92.6
Silicon		500	-14.0		517	103.4
Silver		1000	2.50		991	99.1
Sodium			47.5		53.0	
Strontium		500	-1.50		481	96.2
Sulfur		500	35.0		521	104.2
Thallium		1000	-3.10		900	90.0
Tin		500	-5.10		459	91.8
Titanium		500	-1.90		481	96.2
Tungsten		500	-6.50		488	97.6
Vanadium		500	6.30		473	94.6

10.1.7
10

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: SF042022M1.ICP Date Analyzed: 04/20/22 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA52270 Units: ug/l

Time:				14:56		15:01	
Sample ID:	ICSAB	ICSAB	ICSAB	ICSAB1	ICSAB1	ICSAB1	ICSAB1
Metal	True	True	True	Results	% Rec	Results	% Rec

Zinc		1000	6.40			910	91.0
Zirconium		500	3.20			434	86.8
(*) Outside of QC limits							
(anr) Analyte not requested							

BLANK RESULTS SUMMARY
Part 2 - Method BlanksLogin Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NYQC Batch ID: MP32417
Matrix Type: AQUEOUSMethods: SW846 6010D
Units: ug/l

Prep Date: 04/20/22

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	9.2	150		
Antimony	6.0	2.8	4.7		
Arsenic	3.0	2.6	2.8		
Barium	200	.2	13		
Beryllium	1.0	.2	.5		
Bismuth	20	2.5	8.6		
Boron	100	1.8	10		
Cadmium	3.0	.4	1		
Calcium	5000	13	99		
Cerium	100				
Chromium	10	.7	2		
Cobalt	50	.6	2.6		
Copper	10	.7	5.9		
Iron	100	3.3	32	6.1	<100
Lead	3.0	2	1.8		
Lithium	50	1.5	7.3		
Magnesium	5000	25	140		
Manganese	15	.1	1.4		
Molybdenum	20	.6	3.6		
Nickel	10	.8	1.7		
Phosphorus	50	7	18		
Potassium	10000	35	200		
Selenium	10	3.6	4.9		
Silicon	200	2.2	32		
Silver	10	.6	6.1		
Sodium	10000	14	570		
Strontium	10	.1	2.7		
Sulfur	50	3.7	45		
Thallium	10	5.2	1.8		
Tin	10	1.4	3.7		
Titanium	10	.8	2.5		
Tungsten	50	1.3	40		
Vanadium	50	.5	1.8		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

QC Batch ID: MP32417
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 04/20/22

Metal	RL	IDL	MDL	MB raw	final
Zinc	20	.3	6.9		
Zirconium	10	.5	4.1		

Associated samples MP32417: JD43253-1, JD43253-2, JD43253-3, JD43253-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

QC Batch ID: MP32417
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 04/20/22

Metal	JD43339-1 Original MS	SpikeLot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Bismuth				
Boron				
Cadmium				
Calcium				
Cerium				
Chromium				
Cobalt				
Copper				
Iron	173	24700	25000	98.1 75-125
Lead				
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	anr			

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

QC Batch ID: MP32417
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 04/20/22

Metal	JD43339-1 Original MS	Spikelet MPSPK2	% Rec	QC Limits

Zirconium

Associated samples MP32417: JD43253-1, JD43253-2, JD43253-3, JD43253-4

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

QC Batch ID: MP32417
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 04/20/22

Metal	JD43339-1 Original	MSD	SpikeLot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Bismuth						
Boron						
Cadmium						
Calcium						
Cerium						
Chromium						
Cobalt						
Copper						
Iron	173	24500	25000	97.3	0.8	20
Lead						
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc	anr					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

QC Batch ID: MP32417
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 04/20/22

Metal	JD43339-1 Original MSD	Spike lot MPSPK2	% Rec	MSD RPD	QC Limit

Zirconium

Associated samples MP32417: JD43253-1, JD43253-2, JD43253-3, JD43253-4

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

QC Batch ID: MP32417
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 04/20/22

Metal	BSP Result	Spike lot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Bismuth				
Boron				
Cadmium				
Calcium				
Cerium				
Chromium				
Cobalt				
Copper				
Iron	24400	25000	97.6	80-120
Lead				
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

QC Batch ID: MP32417
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 04/20/22

Metal	BSP Result	Spike lot MPSPK2	% Rec	QC Limits

Zinc anr

Zirconium

Associated samples MP32417: JD43253-1, JD43253-2, JD43253-3, JD43253-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

QC Batch ID: MP32417
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 04/20/22

Metal	JD43339-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Bismuth				
Boron				
Cadmium				
Calcium				
Cerium				
Chromium				
Cobalt				
Copper				
Iron	173	190	9.5	0-10
Lead				
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	anr			

10.2.4
10

SERIAL DILUTION RESULTS SUMMARY

Login Number: JD43253
 Account: GESNYP - Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

QC Batch ID: MP32417
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 04/20/22

Metal	JD43339-1 Original SDL 1:5	%DIF	QC Limits

Zirconium

Associated samples MP32417: JD43253-1, JD43253-2, JD43253-3, JD43253-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

Instrument Detection Limits

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Instrument ID: SSTRACE6	Effective Date: 02/11/21

Analyte	IDL ug/l
Aluminum	9.2
Antimony	2.8
Arsenic	2.6
Barium	.2
Beryllium	.2
Bismuth	2.5
Boron	1.8
Cadmium	.4
Calcium	13
Chromium	.7
Cobalt	.6
Copper	.7
Iron	3.3
Lead	2
Lithium	1.5
Magnesium	24.8
Manganese	.1
Molybdenum	.6
Nickel	.8
Phosphorus	7
Potassium	34.5
Selenium	3.6
Silicon	2.2
Silver	.6
Sodium	13.9
Sulfur	3.7
Strontium	.1
Thallium	5.2
Tin	1.4
Titanium	.8
Tungsten	1.3
Vanadium	.5
Zinc	.3
Zirconium	.5

The above applies to the following instrument runs:
MA52270

10.3
10

Instrument Linear Ranges

Job Number: JD43253
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Instrument ID: SSTRACE6	Effective Date: 08/22/19

Analyte	Linear Range ug/l
Aluminum	300000
Antimony	8000
Arsenic	8000
Barium	8000
Beryllium	8000
Bismuth	8000
Boron	8000
Cadmium	8000
Calcium	200000
Cerium	8000
Chromium	8000
Cobalt	8000
Copper	8000
Iron	200000
Lead	8000
Lithium	8000
Magnesium	300000
Manganese	8000
Molybdenum	8000
Nickel	8000
Palladium	8000
Phosphorus	8000
Potassium	200000
Selenium	8000
Silicon	25000
Silver	625
Sodium	200000
Sulfur	100000
Strontium	8000
Thallium	8000
Tin	8000
Titanium	8000
Tungsten	8000
Vanadium	8000
Zinc	8000
Zirconium	8000

The above applies to the following instrument runs:
MA52270

10.3
10



Dayton, NJ

Section 11

Metals Analysis

Raw Data

Sample Name: STDA Acquired: 4/20/2022 14:13:26 Type: Cal									
Method: SGS NO VALVE3(v262) Mode: IR Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-0.0037	.0060	.0005	.0005	.0022	-0.0004	.0021	.0054	.0005
Stddev	.0000	.0008	.0001	.0001	.0020	.0006	.0002	.0005	.0003
%RSD	.8201	12.71	26.02	25.08	87.02	155.5	9.068	8.555	54.31
#1	-.0037	.0052	.0004	.0005	.0030	-.0008	.0019	.0057	.0002
#2	-.0037	.0067	.0004	.0007	.0037	.0003	.0021	.0049	.0006
#3	-.0037	.0060	.0006	.0005	.0000	-.0007	.0023	.0057	.0008
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0006	-0.0000	.0001	.0129	.0007	-0.014	.0027	-0.0002	.0000
Stddev	.0001	.0001	.0001	.0001	.0002	.0014	.0020	.0002	.0000
%RSD	11.22	150.0	66.91	8141	28.64	98.22	76.94	126.3	20.62
#1	.0006	-.0001	.0000	.0129	.0009	-.0011	.0027	-.0001	.0000
#2	.0005	.0000	.0001	.0127	.0005	-.0002	.0047	.0000	.0000
#3	.0006	-.0000	.0001	.0129	.0006	-.0028	.0006	-.0004	.0000
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-0.0001	-0.0040	.0004	-0.0079	-0.0007	.0003	.0004	.0004	.0034
Stddev	.0002	.0013	.0001	.0001	.0001	.0002	.0000	.0001	.0002
%RSD	221.7	31.94	34.82	1.126	18.30	61.05	5.248	31.97	5.732
#1	.0001	-.0027	.0004	-.0079	-.0008	.0002	.0004	.0004	.0034
#2	-.0001	-.0041	.0003	-.0080	-.0007	.0002	.0004	.0003	.0036
#3	-.0003	-.0053	.0005	-.0078	-.0006	.0006	.0004	.0005	.0032
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	.0001	-0.0003	.0001	-0.0007	-0.0001	-0.0004	.0012	.0001	
Stddev	.0003	.0002	.0000	.0001	.0000	.0002	.0001	.0001	
%RSD	210.4	87.72	49.56	15.85	10.69	63.33	11.46	73.28	
#1	-.0001	-.0000	.0001	-.0007	-.0002	-.0006	.0011	.0001	
#2	.0004	-.0005	.0001	-.0009	-.0002	-.0001	.0011	.0000	
#3	.0001	-.0002	.0000	-.0006	-.0001	-.0005	.0013	.0001	

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Sample Name: STDA Acquired: 4/20/2022 14:13:26 Type: Cal									
Method: SGS NO VALVE3(v262) Mode: IR Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6813.6	83020.	2964.4	2512.6					
Stddev	17.0	374.	21.2	8.9					
%RSD	.24987	.45074	.71488	.35424					
#1	6832.7	83407.	2987.9	2522.0					
#2	6808.2	82991.	2946.8	2511.7					
#3	6800.0	82661.	2958.5	2504.2					

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Sample Name: STDB Acquired: 4/20/2022 14:18:39 Type: Cal									
Method: SGS NO VALVE3(v262) Mode: IR Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0836	3.615	.5431	1.153	10.42	8.952	1.004	5.536	5.393
Stddev	.0005	.009	.0023	.005	.01	.016	.005	.013	.033
%RSD	.6034	.2421	.4315	.4791	.1195	.1727	.4846	.2296	.6041
#1	.0836	3.607	.5418	1.150	10.41	8.934	1.002	5.525	5.383
#2	.0831	3.615	.5418	1.149	10.43	8.960	1.001	5.534	5.366
#3	.0841	3.625	.5459	1.159	10.43	8.961	1.010	5.550	5.429
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.1303	2.111	.5136	.4123	2.685	2.885	4.002	.4413	1.347
Stddev	.0008	.010	.0021	.0026	.002	.006	.012	.0011	.004
%RSD	.5967	.4816	.4092	.6192	.0554	.2184	.2947	.2406	.2845
#1	.1301	2.108	.5135	.4123	2.684	2.878	3.990	.4407	1.345
#2	.1297	2.103	.5115	.4097	2.684	2.889	4.002	.4407	1.345
#3	.1312	2.123	.5157	.4148	2.686	2.889	4.013	.4425	1.352
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.212	10.96	1.405	.6555	.7373	.3978	.9712	.5008	2.757
Stddev	.019	.02	.008	.0037	.0035	.0019	.0052	.0019	.014
%RSD	.4541	.1916	.5835	.5635	.4805	.4832	.5348	.3795	.5201
#1	4.203	10.94	1.403	.6533	.7364	.3966	.9701	.5004	2.750
#2	4.199	10.96	1.399	.6534	.7343	.3968	.9667	.4991	2.747
#3	4.234	10.98	1.415	.6597	.7412	.4000	.9769	.5029	2.773
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	.7518	9.097	.6309	.1926	.6680	2.230	6.226	1.714	
Stddev	.0036	.027	.0030	.0009	.0035	.010	.033	.009	
%RSD	.4810	.2980	.4828	.4496	.5286	.4399	.5217	.5085	
#1	.7508	9.066	.6307	.1919	.6667	2.225	6.225	1.713	
#2	.7488	9.111	.6279	.1923	.6652	2.223	6.194	1.706	
#3	.7558	9.114	.6340	.1935	.6720	2.241	6.259	1.724	

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Sample Name: STDB Acquired: 4/20/2022 14:18:39 Type: Cal									
Method: SGS NO VALVE3(v262) Mode: IR Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6401.2	78967.	2956.0	2407.8					
Stddev	28.5	181.	12.7	10.0					
%RSD	.44487	.22863	.42947	.41412					
#1	6408.1	78762.	2951.0	2409.1					
#2	6425.6	79104.	2970.5	2417.0					
#3	6369.9	79034.	2946.6	2397.2					

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Sample Name: icv 7 Acquired: 4/20/2022 14:23:42 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2437	39.12	1.928	1.902	F 1.890	1.928	F 1.864	39.24	1.904
Stddev	.0024	.01	.001	.003	.004	.003	.005	.13	.001
%RSD	.9907	.0375	.0730	.1317	.2224	.1456	.2595	.3186	.0518
#1	.2455	39.11	1.929	1.900	1.886	1.927	1.860	39.13	1.904
#2	.2448	39.14	1.926	1.904	1.894	1.931	1.869	39.38	1.905
#3	.2410	39.12	1.929	1.904	1.890	1.926	1.862	39.23	1.904
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value					2.000		2.000		
Range					-5.000%		-5.000%		
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.966	F 1.896	1.918	1.965	39.70	39.13	1.903	39.62	F 1.885
Stddev	.018	.002	.017	.016	.09	.12	.005	.20	.016
%RSD	.8982	.0861	.8900	.7871	.2345	.3185	.2735	.5005	.8670
#1	1.979	1.896	1.932	1.979	39.61	38.99	1.897	39.58	1.897
#2	1.974	1.898	1.923	1.966	39.80	39.18	1.907	39.83	1.891
#3	1.946	1.895	1.899	1.949	39.71	39.22	1.905	39.44	1.866
Check ?	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value		2.000							2.000
Range		-5.000%							-5.000%
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.938	39.34	1.946	F 1.882	1.911	1.902	1.939	F 1.846	4.954
Stddev	.001	.09	.003	.003	.003	.005	.006	.004	.004
%RSD	.0676	.2264	.1271	.1435	.1537	.2664	.3046	.2412	.0804
#1	1.938	39.25	1.943	1.882	1.908	1.896	1.936	1.841	4.949
#2	1.940	39.42	1.948	1.884	1.911	1.906	1.946	1.846	4.956
#3	1.937	39.37	1.946	1.879	1.913	1.904	1.936	1.850	4.956
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value				2.000				2.000	
Range				-5.000%				-5.000%	

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Sample Name: icb 7 Acquired: 4/20/2022 14:30:33 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	-0.0034	F -0.0020	.0021	.0001	.0001	.0013	-0.0022	-0.0001
Stddev	.0003	.0135	.0011	.0007	.0003	.0051	.0006	.0034	.0002
%RSD	113.9	392.4	57.66	34.76	321.0	165.2	44.07	153.3	219.1
#1	-.0004	.0064	.0011	.0023	-.0002	.0001	.0018	-.0043	.0002
#2	-.0003	.0021	.0015	.0013	.0002	-.0001	.0012	.0017	-.0003
#3	.0001	-.0189	.0033	.0027	.0004	.0002	.0007	-.0041	-.0002
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.0015						
Low Limit			-.0015						
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	-0.0002	-0.0001	.0011	.0017	.0539	.0014	-0.0505	.0000
Stddev	.0016	.0001	.0002	.0005	.0055	.0201	.0010	.0332	.0000
%RSD	384.1	55.66	389.0	45.74	320.1	37.23	72.50	65.80	1128.
#1	.0005	-.0001	.0001	.0011	.0028	.0316	.0006	-.0843	-.0000
#2	.0020	-.0003	.0001	.0016	-.0043	.0594	.0012	-.0180	.0000
#3	-.0012	-.0004	-.0004	.0006	.0066	.0706	.0026	-.0491	-.0000
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	.0064	-0.0002	-0.0003	-0.0005	-0.0013	-0.0009	-0.0020	-0.0004
Stddev	.0001	.0080	.0004	.0018	.0009	.0010	.0002	.0020	.0015
%RSD	11.12	124.9	229.9	640.6	162.8	72.30	23.05	100.6	359.6
#1	.0005	.0137	.0002	.0003	.0002	-.0019	-.0011	-.0006	-.0006
#2	.0006	.0078	-.0001	-.0022	-.0004	-.0019	-.0007	-.0011	.0012
#3	.0005	-.0022	-.0006	.0011	-.0015	-.0002	-.0010	-.0043	-.0018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

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Sample Name: icv 7 Acquired: 4/20/2022 14:23:42 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.938	1.908	1.935	1.920	F 1.864	2.002	F 1.880	F 1.889	
Stddev	.002	.004	.015	.002	.017	.003	.002	.015	
%RSD	.1103	.1810	.7737	.1052	.9035	.1505	.1027	.8151	
#1	1.937	1.904	1.947	1.920	1.876	1.999	1.881	1.901	
#2	1.940	1.910	1.939	1.918	1.871	2.005	1.881	1.894	
#3	1.936	1.911	1.918	1.922	1.845	2.001	1.878	1.872	
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	
Value					2.000		2.000	2.000	
Range					-5.000%		-5.000%	-5.000%	
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6514.2	80880.	2946.1	2474.2					
Stddev	5.2	546.	9.5	3.8					
%RSD	.08038	.67536	.32287	.15359					
#1	6514.7	80475.	2953.2	2473.7					
#2	6508.7	80664.	2935.3	2470.7					
#3	6519.1	81501.	2949.8	2478.3					

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Sample Name: icb 7 Acquired: 4/20/2022 14:30:33 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-0.0009	.0002	.0002	-0.0015	.0002	.0034	-0.0002	-0.0000	
Stddev	.0008	.0002	.0005	.0009	.0001	.0021	.0001	.0002	
%RSD	80.39	88.51	243.4	60.85	73.65	61.27	57.49	3606.	
#1	-.0017	.0003	.0002	-.0019	.0003	.0056	-.0001	.0001	
#2	-.0003	.0003	-.0003	-.0005	.0000	.0033	-.0004	.0001	
#3	-.0008	-.0000	.0008	-.0022	.0003	.0014	-.0002	-.0002	
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	
High Limit									
Low Limit									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6796.4	83264.	3001.9	2509.9					
Stddev	24.1	507.	2.5	12.0					
%RSD	.35508	.60929	.08330	.47735					
#1	6816.3	82741.	3000.0	2519.9					
#2	6769.5	83754.	3000.9	2496.6					
#3	6803.3	83297.	3004.7	2513.3					

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Sample Name: ccv Acquired: 4/20/2022 14:35:52 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Cs3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2445	38.09	1.944	2.000	1.995	2.012	1.959	38.30	1.997
Stddev	.0008	.15	.008	.006	.009	.008	.007	.11	.011
%RSD	.3307	.3850	.4063	.3112	.4779	.3781	.3738	.2877	.5474
#1	.2443	38.25	1.946	2.002	2.006	2.020	1.958	38.39	2.000
#2	.2454	37.97	1.936	1.994	1.990	2.011	1.952	38.32	1.985
#3	.2438	38.04	1.951	2.006	1.988	2.005	1.966	38.18	2.007
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.931	2.017	2.017	2.011	38.50	37.85	1.933	38.08	2.031
Stddev	.003	.008	.006	.014	.20	.08	.007	.05	.008
%RSD	.1409	.4045	.3144	.7118	.5237	.2217	.3684	.1427	.3814
#1	1.929	2.022	2.016	2.005	38.72	37.93	1.941	38.04	2.032
#2	1.934	2.007	2.023	2.027	38.46	37.87	1.931	38.06	2.038
#3	1.929	2.021	2.011	2.001	38.32	37.76	1.927	38.14	2.022
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.989	38.10	2.044	1.990	2.041	1.914	1.958	1.982	4.868
Stddev	.011	.12	.009	.010	.011	.014	.012	.009	.027
%RSD	.5661	.3187	.4216	.4869	.5180	.7144	.5856	.4396	.5548
#1	1.995	38.24	2.047	1.995	2.045	1.924	1.958	1.984	4.872
#2	1.976	38.08	2.034	1.978	2.029	1.899	1.946	1.973	4.839
#3	1.996	38.00	2.051	1.996	2.049	1.921	1.969	1.990	4.892
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

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Sample Name: ccb Acquired: 4/20/2022 14:40:44 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Cs3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	.0021	-0.0003	.0022	.0001	.0001	.0005	-0.0094	.0000
Stddev	.0004	.0149	.0013	.0003	.0003	.0000	.0011	.0027	.0000
%RSD	178.4	704.9	489.8	15.28	198.0	65.76	219.0	29.10	100.7
#1	-.0006	-.0123	.0011	.0024	.0003	.0001	-.0004	-.0110	.0001
#2	-.0003	.0011	-.0002	.0024	-.0002	.0001	.0003	-.0109	-.0000
#3	.0002	.0175	-.0016	.0018	.0002	.0000	.0017	-.0062	.0000
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0006	-0.0001	-0.0001	-0.0019	-0.0016	.0770	-0.0005	-0.0093	.0001
Stddev	.0026	.0002	.0002	.0007	.0085	.0228	.0015	.0107	.0000
%RSD	407.3	145.2	160.0	35.07	527.3	29.65	297.9	115.2	64.67
#1	.0013	-.0003	.0001	-.0026	.0081	.0574	.0008	.0029	.0001
#2	-.0037	.0001	-.0003	-.0013	-.0077	.1021	-.0022	-.0135	.0000
#3	.0005	-.0001	-.0002	-.0018	-.0052	.0715	-.0002	-.0174	.0000
Check ? High Limit Low Limit	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	.0132	.0002	.0010	.0009	-0.0005	-0.0003	-0.0004	.0005
Stddev	.0000	.0084	.0002	.0013	.0005	.0031	.0009	.0016	.0010
%RSD	4.837	63.62	100.6	127.0	54.32	639.0	274.9	437.3	186.1
#1	.0007	.0129	.0002	.0021	.0005	.0009	-.0010	-.0020	-.0003
#2	.0006	.0218	.0000	.0014	.0014	-.0040	.0007	.0012	.0003
#3	.0007	.0050	.0004	-.0004	.0008	.0017	-.0006	-.0002	.0016
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

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Sample Name: ccv Acquired: 4/20/2022 14:35:52 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.991	2.021	1.975	2.046	1.985	1.993	2.018	1.970	
Stddev	.010	.006	.010	.016	.005	.012	.013	.007	
%RSD	.5062	.2792	.5260	.7995	.2642	.6172	.6196	.3392	
#1	1.995	2.028	1.974	2.044	1.989	1.995	2.027	1.972	
#2	1.980	2.018	1.986	2.031	1.987	1.980	2.004	1.976	
#3	1.999	2.018	1.965	2.064	1.979	2.004	2.025	1.963	
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	
Int. Std. Units	In2306 Cts/S	Y_3600 Cts/S	Y_3710 Cts/S	Y_2243 Cts/S					
Avg	6507.2	80187.	2952.5	2462.4					
Stddev	26.2	309.	12.6	13.2					
%RSD	.40264	.38540	.42828	.53650					
#1	6491.9	80163.	2958.5	2455.6					
#2	6537.5	79891.	2937.9	2477.6					
#3	6492.3	80508.	2960.9	2454.0					

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Sample Name: ccb Acquired: 4/20/2022 14:40:44 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0000	.0002	.0002	-0.0016	.0002	.0021	-0.0003	.0001	
Stddev	.0005	.0003	.0002	.0016	.0002	.0005	.0002	.0002	
%RSD	51450.	122.7	69.19	98.88	82.36	25.77	69.29	270.9	
#1	.0003	.0003	.0002	-.0011	.0004	.0024	-.0001	-.0001	
#2	.0003	.0005	.0004	-.0034	.0002	.0023	-.0005	-.0000	
#3	-.0005	-.0001	.0001	-.0004	.0000	.0014	-.0002	.0004	
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	
Int. Std. Units	In2306 Cts/S	Y_3600 Cts/S	Y_3710 Cts/S	Y_2243 Cts/S					
Avg	6745.8	82936.	3007.2	2498.0					
Stddev	26.3	299.	35.7	12.7					
%RSD	.39053	.36025	1.1867	.50717					
#1	6715.5	83256.	3033.5	2483.4					
#2	6758.6	82685.	3021.5	2504.6					
#3	6763.3	82886.	2966.6	2506.0					

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Sample Name: cri Acquired: 4/20/2022 14:46:01 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047	.1869	.0082	.0980	.1951	.0020	.0192	5.109	.0029
Stddev	.0003	.0108	.0014	.0004	.0002	.0000	.0005	.011	.0000
%RSD	6.687	5.758	17.63	.4425	.1132	2.421	2.542	.2202	1.382
#1	.0049	.1876	.0070	.0985	.1952	.0019	.0192	5.108	.0029
#2	.0049	.1758	.0098	.0977	.1948	.0020	.0188	5.120	.0029
#3	.0043	.1973	.0077	.0977	.1952	.0020	.0197	5.097	.0030
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027	.0494	.0097	.0085	.0993	5.014	.0534	5.086	.0151
Stddev	.0023	.0003	.0003	.0007	.0012	.036	.0008	.067	.0002
%RSD	86.36	.6916	3.146	7.750	1.198	.7275	1.460	1.324	1.065
#1	.0023	.0491	.0099	.0082	.0987	4.995	.0528	5.060	.0152
#2	.0006	.0495	.0093	.0080	.0986	5.056	.0543	5.162	.0149
#3	.0051	.0497	.0098	.0093	.1007	4.990	.0532	5.035	.0151
Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0207	5.029	.0102	.0499	.0026	.0507	.0049	.0094	.1908
Stddev	.0002	.016	.0005	.0008	.0011	.0022	.0007	.0026	.0009
%RSD	.8975	.3186	4.485	1.582	41.54	4.393	13.41	27.98	.4807
#1	.0208	5.047	.0098	.0490	.0036	.0483	.0043	.0067	.1899
#2	.0208	5.019	.0107	.0503	.0014	.0527	.0047	.0119	.1917
#3	.0205	5.020	.0101	.0504	.0027	.0510	.0056	.0095	.1907
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

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Sample Name: crid Acquired: 4/20/2022 14:51:14 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	F_.0006	.0845	.0035	.0010	.0039	.0009	-.0018	1.013	
Stddev	.0003	.0236	.0012	.0009	.0003	.0001	.0011	.004	
%RSD	47.02	27.96	35.67		7.623	12.37	61.52	.3659	
#1	.0008	.0584	.0030	.0006	.0041	.0009	-.0024	1.015	
#2	.0007	.1043	.0049	.0020	.0036	.0008	-.0005	1.015	
#3	.0003	.0908	.0026	.0003	.0041	.0010	-.0025	1.009	
Check ? Value Range	Chk Fail .0020 -20.00%	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	
Elem	Cd2288	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0009	.0023	.0030	.0021	F_.0011	.0058	1.885	-.0028	
Stddev	.0000	.0041	.0002	.0002	.0003	.0030	.013	.0013	
%RSD	4.423	178.8	7.136	9.268	25.28	52.76	.7035	46.65	
#1	.0009	.0055	.0032	.0021	.0013	.0033	1.873	-.0013	
#2	.0009	-.0023	.0029	.0022	.0008	.0092	1.899	-.0035	
#3	.0009	.0037	.0028	.0018	.0012	.0048	1.883	-.0036	
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail .0020 -20.00%	None	Chk Pass	None	
Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	F_.0708	.0030	.0003	1.069	.0040	.0026	F_.0008	-.0006	
Stddev	.0401	.0001	.0001	.003	.0001	.0007	.0002	.0022	
%RSD	56.55	1.818	45.64	.2613	1.498	27.52	29.48	375.5	
#1	.1126	.0031	.0002	1.070	.0040	.0030	.0009	.0020	
#2	.0327	.0030	.0002	1.065	.0039	.0018	.0005	-.0020	
#3	.0672	.0030	.0004	1.070	.0041	.0030	.0009	-.0017	
Check ? Value Range	Chk Fail .1000 -20.00%	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Fail .0025 -20.00%	None	

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Sample Name: cri Acquired: 4/20/2022 14:46:01 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0099	.0097	.0101	.0102	.0474	.0508	.0194	.0114	
Stddev	.0004	.0003	.0004	.0010	.0007	.0004	.0002	.0002	
%RSD	4.420	2.947	4.266	10.10	1.373	.8258	1.192	1.779	
#1	.0104	.0094	.0101	.0090	.0472	.0506	.0192	.0117	
#2	.0099	.0096	.0105	.0107	.0469	.0512	.0197	.0113	
#3	.0095	.0100	.0096	.0108	.0481	.0504	.0194	.0114	
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6692.2	82146.	2955.2	2493.7					
Stddev	17.3	649.	6.4	7.9					
%RSD	.25834	.79041	.21658	.31486					
#1	6707.3	81732.	2960.3	2500.7					
#2	6673.3	82895.	2957.3	2485.2					
#3	6696.0	81812.	2948.0	2495.2					

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Sample Name: crid Acquired: 4/20/2022 14:51:14 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	F_.0008	F_.0033	.0067	-.0006	.0001	.0001	F_.0035	.0019	
Stddev	.0007	.0023	.0008	.0007	.0002	.0003	.0023	.0001	
%RSD	91.17	71.28	11.27	116.1	295.7	562.7	64.19	5.475	
#1	-.0000	.0060	.0075	-.0010	.0002	-.0003	.0052	.0019	
#2	-.0009	.0017	.0065	-.0002	.0001	.0004	.0044	.0021	
#3	-.0015	.0022	.0060	-.0009	-.0001	.0001	.0010	.0019	
Check ? Value Range	Chk Fail .0030 -20.00%	Chk Fail .0050 -20.00%	None	None	None	None	Chk Fail .0020 20.00%	Chk Pass	
Elem	W_2079	Zn2062	Zr3391						
Units	ppm	ppm	ppm						
Avg	.0002	.0095	-.0002						
Stddev	.0011	.0002	.0001						
%RSD	485.4	2.059	38.40						
#1	.0014	.0096	-.0003						
#2	-.0000	.0093	-.0002						
#3	-.0007	.0096	-.0002						
Check ? Value Range	None	Chk Pass	None						
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6600.7	81977.	2977.3	2443.9					
Stddev	29.2	404.	27.3	11.2					
%RSD	.44274	.49329	.91644	.45732					
#1	6620.6	81545.	3008.8	2452.2					
#2	6567.1	82042.	2962.0	2431.2					
#3	6614.3	82346.	2961.0	2448.4					

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[illegible]

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Sample Name: icsa

Acquired: 4/20/2022 14:56:29

Type: QC

Zoom Out

Method: SGS NO VALVE3(v262)

Mode: CONC

Corr. Factor: 1.000000

User: admin

Custom ID1:

Custom ID2:

Custom ID3:

Comment:

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0051	-0015	-0019	-0031	.0063	-0065	.0064	.0032
Stddev	.0018	.0001	.0005	.0064	.0006	.0014	.0003	.0001
%RSD	34.36	6.090	25.03	208.7	8.776	22.18	4.989	2.598
#1	-.0034	-.0014	-.0014	.0040	.0056	-.0056	.0061	.0031
#2	-.0049	-.0016	-.0022	-.0047	.0066	-.0058	.0063	.0033
#3	-.0069	-.0015	-.0023	-.0086	.0066	-.0082	.0067	.0032

Check ?

High Limit

Low Limit

Int. Std.	In2306	Y_3600	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5925.5	7500.3	2918.4	2244.5
Stddev	22.7	220.	17.4	12.1
%RSD	.38311	.29360	.59458	.54021
#1	5916.2	75173.	2938.2	2237.6
#2	5951.4	75083.	2911.1	2258.5
#3	5909.0	74755.	2905.8	2237.5

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Sample Name: ICSAB

Acquired: 4/20/2022 15:01:34

Type: QC

Method: SGS NO VALVE3(v262)

Mode: CONC

Corr. Factor: 1.000000

User: admin

Custom ID1:

Custom ID2:

Custom ID3:

Comment:

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4591	4810	4808	9004	4728	4880	9101	4342
Stddev	.0040	.0076	.0006	.0067	.0009	.0034	.0068	.0022
%RSD	.8665	1.573	.1206	.7462	.2004	.6927	.7493	.5013
#1	.4570	.4777	.4803	.9022	.4718	.4916	.9053	.4322
#2	.4565	.4757	.4806	.8930	.4737	.4875	.9071	.4340
#3	.4636	.4897	.4814	.9061	.4730	.4849	.9179	.4365
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range								
Int. Std.	In2306	Y_3600	Y_3710	Y_2243				
Units	Cts/S	Cts/S	Cts/S	Cts/S				
Avg	5966.3	75131.	2883.9	2249.9				
Stddev	27.0	39.	69.5	11.6				
%RSD	.45218	.05161	2.4089	.51668				
#1	5986.3	75089.	2908.2	2259.5				
#2	5977.0	75136.	2937.9	2253.3				
#3	5935.6	75166.	2805.5	2237.0				

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Sample Name: hstd

Acquired: 4/20/2022 15:06:27

Type: QC

Method: SGS NO VALVE3(v262)

Mode: CONC

Corr. Factor: 1.000000

User: admin

Custom ID1:

Custom ID2:

Custom ID3:

Comment:

Elem Units

Avg

Stddev

%RSD

#1

#2

#3

Check ?

Value

Range

Ag3280

.5860

.0006

.1072

.5854

.5866

.5861

Chk Pass

Al3961

.1593

.0159

9.962

.1411

.1702

.1666

None

As1890

7.400

.012

.1629

7.413

7.389

7.398

Chk Pass

B_2089

7.591

.020

.2566

7.589

7.573

7.611

Chk Pass

Ba4554

7.771

.115

1.479

7.692

7.718

7.902

Chk Pass

Be3130

7.727

.114

1.475

7.642

7.684

7.857

Chk Pass

Bi2230

7.365

.018

.2485

7.363

7.348

7.384

Chk Pass

Ca3179

.1452

.0020

1.347

.1465

.1429

.1462

None

Cd2288

7.464

.019

.2499

7.473

7.443

7.476

Chk Pass

Elem Units

Avg

Stddev

%RSD

#1

#2

#3

Check ?

Value

Range

Ce4040

7.621

.006

.0803

7.624

7.613

7.624

Chk Pass

Co2286

7.604

.014

.1789

7.600

7.593

7.620

Chk Pass

Cr2677

7.632

.020

.2559

7.612

7.650

7.635

Chk Pass

Cu3247

7.921

.029

.3655

7.948

7.926

7.890

Chk Pass

Fe2599

.1027

.0059

5.731

.0959

.1054

.1067

None

K_7664

.0171

.0444

259.2

-.0302

.0578

.0237

None

Li6707

7.664

.120

1.560

7.576

7.617

7.800

Chk Pass

Mg2790

.0888

.0117

13.22

.1008

.0774

.0881

None

Mn2576

7.448

.059

.7856

7.383

7.497

7.464

Chk Pass

Elem Units

Avg

Stddev

%RSD

#1

#2

#3

Check ?

Value

Range

Mo2020

7.640

.015

.1980

7.651

7.623

7.645

Chk Pass

Na5895

.1945

.0005

.2770

.1940

.1945

.1951

None

Ni2316

7.674

.018

.2333

7.669

7.659

7.694

Chk Pass

P_1774

7.462

.019

.2551

7.469

7.440

7.476

Chk Pass

Pb2203

7.598

.015

.1987

7.591

7.588

7.615

Chk Pass

S_1820

93.50

.18

.1960

93.60

93.29

93.61

Chk Pass

Sb2068

7.556

.012

.1644

7.561

7.541

7.564

Chk Pass

Se1960

7.488

.012

.1580

7.494

7.474

7.496

Chk Pass

Si2124

24.47

.08

.3105

24.47

24.40

24.55

Chk Pass

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[illegible]

Zoom Out

Sample Name: hstd		Acquired: 4/20/2022 15:06:27		Type: QC				
Method: SGS NO VALVE3(v262)		Mode: CONC		Corr. Factor: 1.000000				
User: admin		Custom ID1:		Custom ID3:				
Comment:								
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.720	7.671	7.664	7.538	7.462	7.779	7.609	7.438
Stddev	.010	.114	.013	.015	.014	.012	.011	.049
%RSD	.1249	1.481	.1742	.1979	.1809	.1529	.1418	.6543
#1	7.727	7.587	7.659	7.527	7.447	7.786	7.619	7.428
#2	7.709	7.625	7.680	7.533	7.471	7.765	7.598	7.396
#3	7.724	7.800	7.655	7.555	7.469	7.785	7.611	7.491
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								
Int. Std.	In2306	Y_3600	Y_3710	Y_2243				
Units	Cts/S	Cts/S	Cts/S	Cts/S				
Avg	6698.8	81885.	2989.6	2436.2				
Stddev	6.9	348.	38.9	4.2				
%RSD	.10375	.42439	1.2995	.17076				
#1	6697.7	82283.	3034.2	2432.2				
#2	6706.2	81642.	2971.7	2440.5				
#3	6692.4	81731.	2962.9	2436.1				

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Sample Name: feconf Acquired: 4/20/2022 15:16:44 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014	.0407	.0023	.0001	.0006	.0005	.0003	.0006	.0007
Stddev	.0004	.0237	.0002	.0005	.0004	.0001	.0009	.0059	.0002
%RSD	26.80	58.12	8.097	716.4	68.27	18.37	301.4	914.4	32.42
#1	.0015	.0641	.0022	-.0003	.0004	.0006	-.0013	.0045	.0007
#2	.0018	.0411	.0025	-.0001	.0010	.0005	.0006	.0007	.0008
#3	.0010	.0168	.0021	.0006	.0003	.0004	-.0002	-.0071	.0004
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0774	.0012	.0018	.0067	196.9	-.0421	.0030	.0115	.0011
Stddev	.0018	.0004	.0006	.0005	.5	.0580	.0009	.0488	.0001
%RSD	2.352	29.64	32.05	7.822	.2389	138.0	29.26	424.9	7.027
#1	.0763	.0010	-.0011	.0062	197.4	.0139	-.0026	-.0513	.0012
#2	.0765	.0016	-.0022	.0067	196.6	-.0381	-.0039	-.0262	.0010
#3	.0795	.0010	-.0021	.0073	196.6	-.1020	-.0023	.0430	.0010
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0654	.0027	.0003	.0004	.0013	.0005	.0031	.0011
Stddev	.0002	.0142	.0005	.0002	.0012	.0023	.0017	.0024	.0014
%RSD	85.26	21.72	19.31	66.37	297.5	177.5	356.2	75.35	133.9
#1	.0003	.0559	.0021	.0006	.0014	-.0013	.0017	.0020	.0000
#2	.0000	.0817	.0031	.0003	-.0010	.0020	.0012	.0016	-.0027
#3	.0005	.0586	.0029	.0001	.0008	.0033	-.0014	.0059	-.0005
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0009	.0000	.0005	.0002	.0063	.0005	.0016	.0035	
Stddev	.0006	.0001	.0002	.0008	.0003	.0014	.0002	.0003	
%RSD	64.44	697.6	51.50	364.9	4.079	284.2	11.91	9.111	
#1	-.0007	.0001	.0007	-.0005	.0065	-.0021	.0016	.0039	
#2	-.0016	-.0001	.0002	.0010	.0060	-.0000	.0018	.0033	
#3	-.0004	.0000	.0005	.0001	.0062	.0006	.0014	.0034	

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Sample Name: feconf Acquired: 4/20/2022 15:16:44 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6807.8	81640.	3057.7	2462.5					
Stddev	6.7	248.	12.2	3.8					
%RSD	.09880	.30384	.39995	.15390					
#1	6800.4	81573.	3043.7	2458.2					
#2	6809.3	81915.	3063.1	2465.2					
#3	6813.6	81433.	3066.3	2464.2					

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Sample Name: crconf Acquired: 4/20/2022 15:21:59 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0066	.0021	.0015	.0002	.0000	.0008	.0077	.0004
Stddev	.0003	.0181	.0011	.0007	.0003	.0001	.0012	.0020	.0002
%RSD	53.18	273.8	53.29	47.52	154.0	726.8	150.1	26.29	41.79
#1	.0003	-.0118	.0034	.0009	.0004	-.0000	-.0022	.0100	-.0006
#2	.0007	.0072	.0013	.0013	-.0002	-.0000	-.0002	.0065	-.0004
#3	.0009	.0244	.0017	.0023	.0004	.0001	.0000	.0065	-.0003
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0002	F 9.915	.0007	.0103	-.1344	.0028	.0033	.0010
Stddev	.0034	.0001	.045	.0008	.0041	.0453	.0014	.0398	.0000
%RSD	1382.	64.76	.4586	114.8	39.65	33.73	49.38	1192.	3.572
#1	.0017	-.0000	9.950	.0001	.0146	-.1518	-.0013	-.0347	-.0010
#2	.0017	-.0002	9.864	.0005	.0099	-.0830	-.0040	.0414	-.0011
#3	-.0042	-.0002	9.931	.0017	.0065	-.1684	-.0029	-.0168	-.0010
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	.0394	.0003	.0001	.0018	.0033	.0018	.0013	.0055
Stddev	.0003	.0124	.0002	.0017	.0005	.0023	.0011	.0016	.0012
%RSD	46.93	31.54	62.96	1185.	27.47	68.68	60.79	128.1	21.01
#1	.0007	.0435	.0005	-.0014	.0024	.0044	-.0018	-.0032	-.0055
#2	.0010	.0492	.0001	-.0001	.0017	.0048	-.0029	-.0005	-.0043
#3	.0004	.0254	.0004	.0019	.0014	.0007	-.0007	-.0001	-.0066
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0001	.0002	.0036	.0007	.0173	.0005	.0014	.0018	
Stddev	.0002	.0001	.0004	.0018	.0001	.0010	.0001	.0001	
%RSD	146.1	43.60	10.05	268.5	.6294	206.4	4.730	4.337	
#1	-.0002	.0003	-.0039	-.0009	.0172	.0004	.0014	-.0017	
#2	-.0002	.0001	-.0036	.0003	.0172	-.0016	.0014	-.0019	
#3	.0001	.0002	-.0032	.0027	.0174	-.0003	.0015	-.0018	

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Sample Name: crconf Acquired: 4/20/2022 15:21:59 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6668.8	82693.	3066.3	2423.8					
Stddev	7.8	277.	20.3	3.3					
%RSD	.11700	.33488	.66131	.13468					
#1	6662.7	82584.	3046.5	2421.0					
#2	6677.6	83008.	3065.6	2427.4					
#3	6666.2	82488.	3087.0	2423.0					

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Sample Name: asconf Acquired: 4/20/2022 15:27:15 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	-0.0066	4.950	.0021	-0.0000	-0.0000	-0.0006	.0176	.0018
Stddev	.0000	.0095	.026	.0001	.0003	.0000	.0019	.0008	.0002
%RSD	274.4	143.5	.5313	5.118	606.0	93.47	312.2	4.375	8.467
#1	.0000	-.0132	4.938	.0021	-.0003	.0000	-.0028	.0176	.0018
#2	-.0000	.0042	4.980	.0020	.0003	-.0001	.0004	.0183	.0017
#3	.0000	-.0108	4.932	.0022	.0000	-.0001	.0005	.0168	.0020
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014	-0.0001	.0001	.0001	.0050	-0.0960	-0.0008	-0.0074	.0001
Stddev	.0034	.0002	.0006	.0002	.0051	.0423	.0007	.0570	.0000
%RSD	246.7	309.3	400.3	155.0	100.9	44.12	86.46	770.1	19.82
#1	.0018	.0001	.0007	-.0001	-.0006	-.1437	-.0004	-.0727	.0001
#2	-.0022	.0000	-.0004	.0003	.0066	-.0815	-.0004	.0177	.0001
#3	.0045	-.0002	.0000	.0002	.0092	-.0628	-.0017	.0327	.0001
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.1148	-0.0000	.0019	.0016	-0.0025	.0037	-0.0019	.0075
Stddev	.0002	.0117	.0003	.0011	.0015	.0027	.0010	.0010	.0011
%RSD	32.36	10.21	794.6	58.95	94.31	108.8	27.73	53.38	14.34
#1	.0006	.1165	-.0002	.0029	.0012	-.0035	.0039	-.0015	.0087
#2	.0004	.1255	.0003	.0022	.0032	.0006	.0046	-.0012	.0071
#3	.0008	.1023	-.0002	.0007	.0003	-.0045	.0026	-.0030	.0066
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-0.0009	.0002	.0003	.0005	.0006	.0001	-0.0004	-0.0001	
Stddev	.0004	.0001	.0006	.0016	.0006	.0009	.0001	.0003	
%RSD	43.25	54.59	209.1	326.0	113.5	797.5	30.28	330.5	
#1	-.0006	.0004	.0002	.0011	.0004	-.0007	-.0004	-.0004	
#2	-.0013	.0001	-.0003	.0017	.0013	-.0000	-.0003	.0001	
#3	-.0007	.0002	.0009	-.0013	.0000	.0010	-.0005	.0001	

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Sample Name: ccv Acquired: 4/20/2022 15:32:29 Type: QC									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2423	38.00	1.908	2.020	1.999	1.980	2.014	37.62	2.007
Stddev	.0018	.05	.009	.008	.002	.002	.011	.02	.010
%RSD	.7349	.1339	.4463	.4082	.0977	.1137	.5209	.0575	.5029
#1	.2415	37.99	1.905	2.012	2.002	1.982	2.006	37.60	1.998
#2	.2443	37.95	1.918	2.029	1.998	1.977	2.026	37.63	2.018
#3	.2410	38.05	1.902	2.020	1.999	1.980	2.011	37.64	2.005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.926	2.007	2.004	2.163	37.78	37.34	1.910	37.44	1.989
Stddev	.008	.008	.010	.013	.07	.07	.006	.18	.011
%RSD	.4127	.3954	.5038	.6000	.1943	.1845	.3101	.4899	.5590
#1	1.926	2.000	2.005	2.160	37.83	37.39	1.915	37.40	1.986
#2	1.933	2.015	2.014	2.177	37.69	37.26	1.903	37.28	2.002
#3	1.917	2.005	1.994	2.152	37.81	37.37	1.910	37.64	1.980
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.983	38.10	2.063	1.994	2.034	1.923	1.961	1.975	4.962
Stddev	.007	.06	.012	.009	.007	.007	.009	.007	.021
%RSD	.3778	.1614	.5670	.4345	.3371	.3543	.4710	.3434	.4297
#1	1.976	38.06	2.051	1.986	2.026	1.916	1.952	1.971	4.945
#2	1.991	38.07	2.074	2.003	2.038	1.930	1.971	1.983	4.986
#3	1.981	38.17	2.065	1.993	2.037	1.924	1.960	1.972	4.956
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: asconf Acquired: 4/20/2022 15:27:15 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6622.9	82641.	3018.4	2456.0					
Stddev	31.1	19.	19.5	11.1					
%RSD	.46992	.02265	.64728	.45057					
#1	6626.4	82623.	2996.8	2457.5					
#2	6590.2	82640.	3023.3	2444.2					
#3	6652.1	82661.	3035.0	2466.2					

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Sample Name: ccv Acquired: 4/20/2022 15:32:29 Type: QC									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.985	2.005	2.011	2.000	1.947	1.987	1.978	1.971	
Stddev	.008	.001	.012	.010	.012	.012	.009	.011	
%RSD	.4127	.0441	.6075	.4973	.6059	.5842	.4542	.5394	
#1	1.977	2.005	2.012	1.995	1.948	1.977	1.970	1.971	
#2	1.994	2.005	2.023	2.011	1.959	2.000	1.988	1.982	
#3	1.984	2.006	1.999	1.993	1.936	1.986	1.976	1.961	
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	
Value									
Range									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6369.6	80439.	3019.7	2412.2					
Stddev	22.8	346.	8.5	8.9					
%RSD	.35750	.42991	.28171	.37023					
#1	6393.4	80535.	3028.6	2420.1					
#2	6348.0	80056.	3011.6	2402.5					
#3	6367.5	80727.	3019.0	2413.9					

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Sample Name: mp32404-b1 Acquired: 4/20/2022 16:52:19 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2330	24.97	1.845	1.904	1.884	1.846	.0939	24.53	1.906
Stddev	.0008	.14	.015	.017	.015	.014	.0037	.14	.018
%RSD	.3624	.5754	.7928	.8976	.8182	.7566	3.900	.5537	.9522
#1	.2325	24.80	1.838	1.896	1.867	1.830	.0897	24.38	1.898
#2	.2340	25.05	1.836	1.893	1.894	1.854	.0961	24.62	1.893
#3	.2325	25.04	1.862	1.924	1.893	1.855	.0960	24.60	1.927
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0062	1.913	1.892	2.115	24.36	24.68	-.0039	24.09	1.871
Stddev	.0009	.015	.005	.005	.18	.21	.0025	.20	.006
%RSD	14.58	.7907	.2699	.2407	.7511	.8414	64.85	.8512	.3131
#1	.0053	1.903	1.886	2.112	24.16	24.45	-.0027	23.87	1.865
#2	.0071	1.905	1.896	2.121	24.42	24.76	-.0022	24.12	1.877
#3	.0062	1.930	1.894	2.112	24.52	24.84	-.0068	24.27	1.872
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.957	25.28	1.979	1.884	1.933	-.0235	1.924	1.852	-.0033
Stddev	.018	.20	.016	.018	.018	.0014	.017	.016	.0012
%RSD	.9383	.8106	.8098	.9383	.9454	5.976	.8555	.8556	35.95
#1	1.946	25.04	1.971	1.877	1.926	-.0221	1.917	1.841	-.0029
#2	1.946	25.40	1.969	1.870	1.919	-.0249	1.911	1.844	-.0047
#3	1.978	25.38	1.998	1.904	1.954	-.0235	1.942	1.870	-.0024
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.958	1.879	1.982	1.892	1.824	1.943	1.877	1.928	
Stddev	.021	.016	.004	.020	.004	.020	.019	.004	
%RSD	1.058	.8594	.2182	1.073	.1907	1.042	1.003	.1956	
#1	1.949	1.860	1.977	1.883	1.823	1.934	1.869	1.926	
#2	1.942	1.887	1.984	1.878	1.828	1.930	1.864	1.932	
#3	1.981	1.890	1.984	1.916	1.821	1.967	1.899	1.925	

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Sample Name: mp32404-s1 Acquired: 4/20/2022 16:57:11 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2330	25.34	1.833	1.895	1.915	1.869	.0953	25.58	1.907
Stddev	.0003	.29	.007	.008	.020	.018	.0012	.29	.008
%RSD	.1417	1.162	.4013	.4014	1.025	.9710	1.222	1.123	.4216
#1	.2333	25.68	1.833	1.890	1.938	1.889	.0965	25.90	1.903
#2	.2330	25.20	1.840	1.904	1.903	1.861	.0951	25.47	1.917
#3	.2326	25.15	1.825	1.891	1.906	1.856	.0942	25.36	1.902
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0096	1.915	1.903	2.139	24.63	25.12	-.0005	24.44	1.875
Stddev	.0028	.010	.001	.008	.20	.22	.0017	.12	.000
%RSD	29.02	.5189	.0616	.3820	.8108	.8596	320.8	.4822	.0096
#1	.0105	1.908	1.904	2.147	24.85	25.37	-.0003	24.56	1.875
#2	.0064	1.927	1.903	2.130	24.55	25.04	.0011	24.44	1.875
#3	.0117	1.912	1.902	2.140	24.48	24.96	-.0023	24.32	1.875
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.959	25.76	1.983	1.878	1.931	-.0215	1.921	1.847	.1385
Stddev	.010	.21	.010	.009	.011	.0018	.012	.012	.0008
%RSD	.4957	.8243	.5139	.5054	.5439	8.234	.6276	.6251	.5847
#1	1.953	26.00	1.976	1.873	1.923	-.0224	1.911	1.844	.1378
#2	1.970	25.65	1.995	1.889	1.943	-.0226	1.935	1.860	.1394
#3	1.955	25.62	1.979	1.873	1.929	-.0194	1.918	1.838	.1383
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.957	1.910	1.994	1.892	1.831	1.964	1.878	1.937	
Stddev	.010	.018	.002	.012	.001	.010	.011	.001	
%RSD	.5135	.9224	.1005	.6527	.0784	.5092	.5868	.0722	
#1	1.950	1.931	1.995	1.888	1.833	1.956	1.866	1.938	
#2	1.969	1.901	1.991	1.905	1.830	1.975	1.888	1.935	
#3	1.953	1.900	1.994	1.882	1.831	1.961	1.878	1.937	

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Sample Name: mp32404-b1 Acquired: 4/20/2022 16:52:19 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6401.0	81560.	2977.0	2421.5					
Stddev	47.8	407.	15.3	20.8					
%RSD	.74685	.49894	.51402	.85961					
#1	6426.7	82029.	2990.2	2431.2					
#2	6430.5	81305.	2980.5	2435.7					
#3	6345.8	81345.	2960.2	2397.6					

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Sample Name: mp32404-s1 Acquired: 4/20/2022 16:57:11 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6408.9	81345.	2958.6	2425.4					
Stddev	31.8	102.	33.9	9.3					
%RSD	.49628	.12566	1.1446	.38402					
#1	6441.2	81374.	2927.0	2435.3					
#2	6377.6	81231.	2954.5	2416.8					
#3	6407.7	81429.	2994.3	2424.3					

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Sample Name: mp32404-sd1 Acquired: 4/20/2022 17:12:08 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016	-.0275	-.0003	.0084	.0007	-.0004	.0009	.7077	-.0001
Stddev	.0020	.1019	.0021	.0008	.0006	.0009	.0036	.0299	.0013
%RSD	129.3	371.0	670.2	9.075	88.53	228.0	383.1	4.226	915.4
#1	.0033	-.0215	-.0004	.0078	.0001	.0007	-.0007	.7130	.0005
#2	.0020	-.1322	-.0024	.0081	.0007	-.0008	-.0016	.6755	-.0017
#3	-.0006	.0713	.0019	.0093	.0013	-.0011	.0051	.7346	.0008
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0019	-.0010	-.0009	.0092	-.0096	.0736	-.0009	-.1137	.0002
Stddev	.0148	.0020	.0015	.0053	.0196	.0718	.0091	.1442	.0002
%RSD	791.2	202.5	174.6	57.57	204.3	97.50	984.7	126.9	69.75
#1	.0096	-.0026	-.0027	.0112	-.0198	-.0044	-.0050	-.0289	.0004
#2	.0034	.0013	.0000	.0132	.0130	.0884	-.0073	-.2802	.0002
#3	-.0186	-.0018	-.0000	.0032	-.0221	.1368	.0095	-.0319	.0001
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014	.0936	-.0002	.0139	.0049	.0071	.0010	-.0138	.1470
Stddev	.0013	.0475	.0018	.0037	.0002	.0082	.0093	.0053	.0028
%RSD	94.89	50.73	890.4	26.87	4.036	114.8	969.2	38.45	1.878
#1	.0026	.0393	.0013	.0158	.0050	.0019	-.0001	-.0083	.1442
#2	.0016	.1140	-.0022	.0163	.0047	.0165	-.0077	-.0189	.1472
#3	-.0000	.1274	.0003	.0096	.0051	.0030	.0107	-.0141	.1497
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0019	.0043	.0008	.0002	.0004	.0036	-.0005	.0004	
Stddev	.0035	.0001	.0013	.0058	.0007	.0026	.0004	.0009	
%RSD	186.4	1.275	156.0	2853.	178.2	72.94	82.64	243.1	
#1	-.0005	.0042	-.0006	.0050	-.0004	.0007	-.0005	.0009	
#2	.0059	.0042	.0010	-.0062	.0009	.0044	-.0008	-.0007	
#3	.0003	.0043	.0020	.0018	.0007	.0058	-.0001	.0009	

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Sample Name: mp32404-sd1 Acquired: 4/20/2022 17:12:08 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_3600	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6715.9	83198.	2927.8	2501.0
Stddev	32.5	86.	15.9	12.9
%RSD	.48388	.10280	.54188	.51728

#1	6741.1	83273.	2928.8	2509.0
#2	6727.4	83216.	2943.1	2507.9
#3	6679.2	83105.	2911.4	2486.1

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Sample Name: jd40450-2t Acquired: 4/20/2022 17:17:23 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	-.0085	-.0010	.0019	.0034	-.0000	-.0007	1.732	.0000
Stddev	.0003	.0159	.0011	.0005	.0003	.0002	.0014	.011	.0002
%RSD	63.96	187.3	112.9	25.70	8.599	645.0	181.7	.6551	1278.
#1	.0008	.0057	.0001	.0014	.0037	-.0003	.0003	1.723	.0002
#2	.0003	-.0054	-.0022	.0023	.0032	.0002	-.0002	1.745	-.0000
#3	.0003	-.0256	-.0009	.0021	.0032	-.0000	-.0023	1.729	-.0002
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047	-.0004	.0025	.0017	.0086	.0303	.0018	.0409	.0003
Stddev	.0006	.0002	.0003	.0003	.0040	.0358	.0032	.0222	.0001
%RSD	12.35	37.56	13.52	19.11	46.48	118.0	182.5	54.21	16.96
#1	.0045	-.0003	.0028	.0014	.0070	.0659	.0020	.0456	.0003
#2	.0043	-.0006	.0022	.0017	.0056	-.0056	-.0016	.0168	.0004
#3	.0054	-.0003	.0024	.0020	.0131	.0307	.0049	.0603	.0003
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	11.44	.0002	.0020	.0002	.0031	.0002	-.0006	.0220
Stddev	.0001	.05	.0001	.0007	.0015	.0024	.0003	.0018	.0008
%RSD	48.70	.4474	31.23	33.53	608.4	78.29	176.6	327.6	3.657
#1	.0002	11.39	.0002	.0015	-.0006	.0003	-.0002	-.0024	.0226
#2	.0002	11.48	.0002	.0018	.0020	.0043	.0003	.0013	.0211
#3	.0004	11.47	.0003	.0028	-.0006	.0047	.0004	-.0006	.0223
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0117	.0151	-.0000	-.0005	.0002	.0003	.0000	.0002	
Stddev	.0007	.0001	.0002	.0021	.0003	.0017	.0001	.0002	
%RSD	5.769	.5121	2460.	392.7	174.3	639.1	408.7	99.13	
#1	.0119	.0150	-.0002	.0006	.0004	.0010	-.0001	.0003	
#2	.0123	.0151	.0002	-.0029	-.0002	.0016	.0001	-.0000	
#3	.0110	.0151	-.0000	.0008	.0004	-.0017	.0002	.0004	

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Sample Name: jd40450-2t Acquired: 4/20/2022 17:17:23 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_3600	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6664.5	82997.	2967.4	2493.4
Stddev	37.4	193.	16.1	11.4
%RSD	.56146	.23279	.54288	.45780

#1	6689.9	83214.	2979.0	2502.7
#2	6621.6	82844.	2949.0	2480.7
#3	6682.2	82934.	2974.2	2496.9

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Sample Name: jd40450-3t Acquired: 4/20/2022 17:22:37 Type: Unk								
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000								
User: admin Custom ID1: Custom ID2: Custom ID3:								
Comment:								
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	-.0005	-.0006	.0009	.0038	-.0001	-.0013	1.934
Stddev	.0001	.0129	.0007	.0000	.0005	.0001	.0003	.011
%RSD	32.46	2615.	115.2	.2113	12.20	159.4	21.54	.5501
#1	.0006	-.0151	-.0012	.0009	.0043	-.0002	-.0010	1.943
#2	.0003	.0095	.0001	.0009	.0034	-.0001	-.0015	1.937
#3	.0005	.0041	-.0007	.0009	.0037	.0000	-.0013	1.923
Elem	Cd2288	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0042	-.0004	.0031	-.0012	.0040	-.0026	-.0001
Stddev	.0003	.0022	.0002	.0002	.0004	.0038	.0897	.0010
%RSD	102.2	53.24	46.78	6.664	36.57	94.93	3493.	1636.
#1	.0005	.0067	-.0002	.0030	-.0015	.0014	.0976	-.0011
#2	-.0000	.0024	-.0006	.0034	-.0007	.0084	-.0753	.0009
#3	.0003	.0035	-.0004	.0030	-.0014	.0022	-.0300	.0000
Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0405	.0003	.0001	23.44	.0004	.0033	.0008	.0039
Stddev	.0375	.0000	.0001	.10	.0002	.0004	.0008	.0016
%RSD	92.54	13.89	72.46	.4065	46.24	12.06	107.6	40.60
#1	.0341	.0002	.0001	23.52	.0007	.0029	.0005	.0054
#2	.0809	.0003	.0000	23.33	.0004	.0037	.0001	.0042
#3	.0067	.0003	.0002	23.47	.0003	.0034	.0017	.0022
Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0008	-.0014	.0197	.0064	.0192	-.0002	F_-.0026	.0003
Stddev	.0006	.0019	.0018	.0005	.0001	.0001	.0020	.0001
%RSD	77.33	137.9	9.132	8.378	.6145	40.72	77.30	29.59
#1	-.0014	.0006	.0197	.0061	.0193	-.0003	-.0049	.0004
#2	-.0005	-.0033	.0179	.0070	.0191	-.0002	-.0018	.0003
#3	-.0004	-.0015	.0215	.0061	.0192	-.0001	-.0011	.0002

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Sample Name: jd40450-4t Acquired: 4/20/2022 17:27:53 Type: Unk								
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000								
User: admin Custom ID1: Custom ID2: Custom ID3:								
Comment:								
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0038	.0003	.0012	.0011	-.0000	-.0002	.8178
Stddev	.0001	.0064	.0010	.0004	.0003	.0000	.0010	.0080
%RSD	66.66	168.1	328.3	34.33	24.50	126.1	440.9	.9749
#1	.0001	-.0015	.0014	.0007	.0010	-.0001	.0003	.8161
#2	.0001	.0108	-.0000	.0015	.0009	.0000	.0004	.8108
#3	.0003	.0020	-.0005	.0012	.0014	-.0001	-.0014	.8265
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009	-.0003	.0006	-.0016	.0022	.0138	.0008	-.0120
Stddev	.0039	.0000	.0003	.0003	.0018	.0798	.0018	.0411
%RSD	430.1	15.83	40.82	16.45	81.96	578.4	232.7	341.7
#1	.0039	-.0003	.0007	-.0018	.0033	-.0339	-.0010	.0036
#2	.0022	-.0003	.0009	-.0015	.0001	-.0306	.0008	-.0587
#3	-.0035	-.0003	.0004	-.0013	.0032	.1059	.0026	.0190
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.1125	.0003	.0025	.0000	.0083	-.0004	-.0014
Stddev	.0001	.0152	.0001	.0008	.0016	.0024	.0009	.0003
%RSD	27.67	13.50	20.27	31.61	5832.	28.92	218.2	21.19
#1	.0004	.1228	.0002	.0034	.0012	.0097	-.0009	-.0017
#2	.0004	.1195	.0003	.0018	-.0018	.0098	-.0008	-.0014
#3	.0002	.0950	.0003	.0023	.0006	.0056	.0006	-.0011
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0052	.0000	-.0008	.0003	.0004	-.0003	.0001
Stddev	.0015	.0002	.0006	.0022	.0005	.0010	.0001	.0001
%RSD	228.2	3.876	1459.	274.3	149.5	279.1	22.07	88.86
#1	-.0010	.0053	.0006	.0016	.0006	-.0004	-.0004	.0002
#2	.0010	.0054	-.0006	-.0014	-.0002	-.0000	-.0003	.0000
#3	.0019	.0050	.0001	-.0027	.0007	.0015	-.0002	.0001

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Sample Name: jd40450-3t Acquired: 4/20/2022 17:22:37 Type: Unk				
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000				
User: admin Custom ID1: Custom ID2: Custom ID3:				
Comment:				
Elem	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	
Avg	.0008	-.0001	.0003	
Stddev	.0012	.0002	.0000	
%RSD	141.0	158.1	15.46	
#1	-.0005	-.0003	.0003	
#2	.0017	-.0002	.0004	
#3	.0014	.0001	.0003	
Int. Std.	In2306	Y_3600	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6588.9	82582.	2948.5	2472.8
Stddev	29.9	469.	7.8	10.2
%RSD	.45427	.56731	.26437	.41187
#1	6554.4	83025.	2939.6	2461.2
#2	6608.3	82630.	2951.9	2480.1
#3	6603.9	82091.	2954.0	2477.2

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Sample Name: jd40450-4t Acquired: 4/20/2022 17:27:53 Type: Unk				
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000				
User: admin Custom ID1: Custom ID2: Custom ID3:				
Comment:				
Int. Std.	In2306	Y_3600	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6681.6	82643.	2954.4	2480.2
Stddev	44.3	324.	10.3	18.8
%RSD	.66271	.39222	.34825	.75754
#1	6721.9	82984.	2966.2	2496.9
#2	6634.2	82604.	2947.5	2459.9
#3	6688.6	82340.	2949.4	2483.9

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Sample Name: jd40450-5t Acquired: 4/20/2022 17:33:09 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	-.0183	.0007	.0013	.0058	-.0002	.0002	2.907	.0002
Stddev	.0005	.0129	.0003	.0006	.0002	.0002	.0003	.012	.0002
%RSD	68.30	70.43	45.76	50.58	3.297	91.96	143.4	.3986	92.24
#1	.0004	-.0266	.0003	.0005	.0060	-.0003	-.0000	2.915	.0002
#2	.0013	-.0250	.0010	.0016	.0057	-.0003	.0005	2.893	.0003
#3	.0004	-.0035	.0008	.0016	.0057	.0000	.0001	2.912	-.0000
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0025	-.0006	.0003	-.0011	.0019	-.1225	-.0028	.0129	.0006
Stddev	.0039	.0002	.0004	.0001	.0007	.0553	.0021	.0447	.0000
%RSD	157.0	36.69	143.0	5.926	35.19	45.10	74.75	347.2	.5550
#1	-.0019	-.0005	.0005	-.0012	.0021	-.1471	-.0045	-.0016	.0006
#2	.0036	-.0004	.0005	-.0010	.0012	-.0592	-.0034	.0631	.0006
#3	.0057	-.0008	-.0002	-.0011	.0025	-.1612	-.0005	-.0228	.0006
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.1000	.0001	.0025	-.0001	.0025	-.0013	-.0017	.0298
Stddev	.0004	.0063	.0006	.0012	.0015	.0018	.0018	.0015	.0003
%RSD	101.5	6.282	443.8	45.68	1384.	70.57	133.9	91.47	.8532
#1	.0003	.1033	-.0004	.0023	.0013	.0038	.0007	-.0035	.0301
#2	.0001	.1041	.0008	.0038	.0001	.0005	-.0026	-.0006	.0296
#3	.0008	.0928	-.0000	.0015	-.0017	.0032	-.0021	-.0011	.0297
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.0010	.0260	.0005	-.0009	.0005	.0006	-.0002	-.0001	
Stddev	.0007	.0000	.0002	.0038	.0003	.0011	.0002	.0001	
%RSD	66.94	.1590	53.13	397.5	62.36	195.0	126.4	149.9	
#1	-.0012	.0260	.0007	-.0043	.0002	.0011	-.0003	.0000	
#2	-.0003	.0260	.0002	-.0017	.0004	.0013	-.0002	-.0001	
#3	-.0016	.0261	.0004	.0031	.0008	-.0007	.0001	-.0001	

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Sample Name: ccv Acquired: 4/20/2022 17:38:26 Type: QC									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2417	38.34	1.906	2.027	2.021	1.966	2.030	37.61	2.020
Stddev	.0018	.13	.005	.005	.003	.006	.003	.11	.003
%RSD	.7297	.3460	.2853	.2296	.1671	.3082	.1645	.3024	.1387
#1	.2429	38.27	1.905	2.032	2.018	1.962	2.031	37.52	2.023
#2	.2424	38.25	1.901	2.024	2.020	1.963	2.032	37.57	2.018
#3	.2396	38.49	1.912	2.025	2.025	1.973	2.026	37.73	2.018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.920	2.022	2.018	F 2.223	37.15	38.49	1.954	37.24	1.992
Stddev	.009	.004	.016	.018	.11	.07	.005	.09	.015
%RSD	.4916	.1951	.8123	.8084	.2988	.1943	.2687	.2351	.7436
#1	1.925	2.026	2.024	2.231	37.14	38.52	1.954	37.15	1.999
#2	1.925	2.020	2.030	2.235	37.05	38.40	1.949	37.23	2.003
#3	1.909	2.020	1.999	2.202	37.27	38.54	1.960	37.33	1.976
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range				2.000 10.00%					
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.991	38.92	2.087	2.012	2.048	1.933	1.968	1.983	4.990
Stddev	.002	.14	.007	.009	.007	.002	.002	.004	.008
%RSD	.1131	.3697	.3279	.4249	.3386	.1253	.0839	.2122	.1586
#1	1.993	38.83	2.095	2.021	2.056	1.936	1.969	1.986	4.998
#2	1.989	38.83	2.084	2.004	2.044	1.931	1.967	1.978	4.983
#3	1.990	39.08	2.083	2.012	2.044	1.933	1.966	1.983	4.989
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									

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Sample Name: jd40450-5t Acquired: 4/20/2022 17:33:09 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6625.6	82195.	2952.9	2458.7					
Stddev	16.3	905.	7.4	6.6					
%RSD	.24652	1.1015	.25044	.26653					
#1	6641.3	81149.	2957.9	2463.0					
#2	6626.7	82707.	2956.3	2462.0					
#3	6608.7	82728.	2944.4	2451.1					

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Sample Name: ccv Acquired: 4/20/2022 17:38:26 Type: QC									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.997	2.011	2.033	2.008	1.952	1.994	1.988	1.981	
Stddev	.002	.006	.014	.008	.014	.004	.004	.013	
%RSD	.1111	.2828	.7066	.3817	.6927	.1811	.2158	.6412	
#1	2.000	2.006	2.036	2.017	1.957	1.993	1.993	1.986	
#2	1.996	2.009	2.046	2.002	1.961	1.992	1.988	1.991	
#3	1.995	2.017	2.018	2.006	1.936	1.999	1.984	1.967	
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	
Value Range									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6386.7	80621.	2910.4	2425.6					
Stddev	23.0	521.	14.2	5.3					
%RSD	.36055	.64655	.48784	.21949					
#1	6364.9	80286.	2913.2	2421.2					
#2	6384.5	80357.	2923.0	2424.1					
#3	6410.8	81222.	2895.0	2431.5					

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Sample Name: ccb Acquired: 4/20/2022 17:43:17 Type: QC										◀ Zoom In ▶ Zoom Out	
Method: SGS NO VALVE3(v262)		Mode: CONC		Corr. Factor: 1.000000							
User: admin		Custom ID1:		Custom ID2:		Custom ID3:					
Comment:											
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0005	.0081	-0.0006	.0019	-0.0003	-0.0000	.0004	-0.0065	.0000		
Stddev	.0002	.0098	.0006	.0008	.0004	.0003	.0020	.0033	.0003		
%RSD	43.93	120.3	95.41	41.82	123.6	1144.	559.8	51.19	2139.		
#1	.0003	.0055	-0.0000	.0018	.0001	.0001	.0012	-0.0095	.0002		
#2	.0007	.0190	-0.0012	.0011	-0.0007	.0002	-0.0019	-0.0072	-0.0003		
#3	.0005	-0.0001	-0.0006	.0027	-0.0005	-0.0003	.0018	-0.0029	.0002		
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		
High Limit											
Low Limit											
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0005	-0.0001	-0.0002	F .0040	-0.0033	-0.0854	-0.0010	.0390	.0000		
Stddev	.0040	.0001	.0003	.0008	.0064	.0427	.0009	.0470	.0000		
%RSD	891.6	126.5	197.6	19.42	197.8	50.04	91.22	120.5	513.7		
#1	-.0022	-.0002	.0001	.0039	-.0011	-.1345	-.0003	-.0119	-.0000		
#2	.0051	.0000	-0.0001	.0049	.0019	-.0565	-.0021	.0808	.0000		
#3	-.0016	-0.0001	-0.0005	.0033	-.0105	-.0652	-.0007	.0482	.0000		
Check ?	None	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		
High Limit				.0032							
Low Limit				-.0032							
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0004	.0261	.0004	.0020	-0.0005	.0010	-0.0008	-0.0007	.0016		
Stddev	.0001	.0193	.0004	.0013	.0008	.0013	.0008	.0032	.0004		
%RSD	31.12	74.19	96.06	67.66	147.2	125.8	99.47	466.4	24.62		
#1	.0004	.0471	.0008	.0034	.0002	.0024	-.0006	.0016	.0012		
#2	.0006	.0220	.0002	.0017	-.0004	.0003	-.0001	-.0044	.0017		
#3	.0004	.0091	.0001	.0008	-.0014	.0003	-.0017	.0007	.0020		
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		
High Limit											
Low Limit											
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Sample Name: jd40450-6t Acquired: 4/20/2022 17:48:34 Type: Unk										◀ Zoom In ▶ Zoom Out	
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000											
User: admin		Custom ID1:		Custom ID2:		Custom ID3:					
Comment:											
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0008	-.0073	.0001	.0020	.0042	.0001	.0003	2.086	.0000		
Stddev	.0001	.0070	.0010	.0003	.0002	.0002	.0007	.011	.0001		
%RSD	18.53	94.96	870.4	14.67	5.057	246.1	217.1	.5202	328.9		
#1	.0008	-.0015	-.0010	.0023	.0042	.0001	.0002	2.076	-.0001		
#2	.0009	-.0150	.0002	.0020	.0044	.0002	-.0003	2.086	-.0000		
#3	.0006	-.0055	.0011	.0017	.0040	-.0001	.0010	2.097	.0002		
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0006	-.0001	.0036	.0005	.0094	-.0640	-.0017	-.0403	.0004		
Stddev	.0033	.0001	.0001	.0002	.0058	.0836	.0005	.0148	.0000		
%RSD	584.1	142.0	1.832	48.90	62.22	130.6	29.98	36.75	7.066		
#1	-.0023	.0001	.0036	.0003	.0077	-.1290	-.0019	-.0449	.0004		
#2	.0042	-.0001	.0035	.0004	.0159	-.0932	-.0011	-.0237	.0004		
#3	-.0002	-.0002	.0037	.0008	.0045	.0303	-.0019	-.0522	.0004		
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0005	.1187	-.0000	.0035	.0005	.0028	-.0001	-.0013	.0316		
Stddev	.0001	.0082	.0001	.0012	.0005	.0011	.0007	.0024	.0008		
%RSD	11.08	6.937	322.6	35.85	120.0	39.13	615.4	182.7	2.380		
#1	.0005	.1128	-.0002	.0040	.0011	.0034	-.0009	-.0038	.0324		
#2	.0004	.1281	.0001	.0021	.0002	.0015	.0003	-.0011	.0314		
#3	.0005	.1151	-.0001	.0044	.0001	.0035	.0003	.0010	.0310		
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391			
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm			
Avg	-0.0007	.0185	.0003	-0.0010	.0003	.0008	.0003	.0003			
Stddev	.0003	.0002	.0004	.0018	.0003	.0005	.0001	.0002			
%RSD	47.50	1.165	143.4	174.1	98.74	72.13	42.72	62.37			
#1	-.0011	.0185	.0007	-.0014	.0001	.0004	.0002	.0002			
#2	-.0005	.0188	-.0001	.0009	.0001	.0005	.0004	.0005			
#3	-.0005	.0184	.0003	-.0027	.0006	.0014	.0004	.0002			
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◀ Zoom In
Zoom Out

Sample Name: ccb		Acquired: 4/20/2022 17:43:17		Type: QC				
Method: SGS NO VALVE3(v262)		Mode: CONC		Corr. Factor: 1.000000				
User: admin	Custom ID1:	Custom ID2:	Custom ID3:					
Comment:								
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	.0000	.0002	.0005	.0002	.0000	.0000	-0.0001
Stddev	.0004	.0002	.0005	.0013	.0002	.0005	.0001	.0001
%RSD	189.4	982.4	302.8	258.1	70.84	3959.	294.0	51.23
#1	-.0005	.0002	.0001	-.0009	.0000	.0002	.0001	-.0001
#2	-.0004	-.0002	-.0003	.0007	.0003	-.0006	-.0001	-.0001
#3	.0003	.0000	.0007	.0018	.0004	.0004	.0000	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								
Int. Std.	In2306	Y_3600	Y_3710	Y_2243				
Units	Cts/S	Cts/S	Cts/S	Cts/S				
Avg	6743.6	83874.	2944.7	2494.8				
Stddev	1.9	643.	27.1	3.5				
%RSD	.02767	.76685	.92094	.14184				
#1	6743.4	84517.	2933.2	2497.9				
#2	6745.6	83231.	2975.7	2495.6				
#3	6741.9	83875.	2925.2	2491.0				

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◀ Zoom In
Zoom Out

Sample Name: jd40450-6t		Acquired: 4/20/2022 17:48:34		Type: Unk
Method: SGS NO VALVE3(v262)		Mode: CONC		Corr. Factor: 1.000000
User: admin	Custom ID1:	Custom ID2:	Custom ID3:	
Comment:				
Int. Std.	In2306	Y_3600	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6720.8	82984.	2953.7	2489.1
Stddev	16.0	275.	13.4	5.2
%RSD	.23787	.33144	.45256	.21000
#1	6702.3	82895.	2943.1	2483.5
#2	6730.2	83293.	2968.7	2490.0
#3	6729.8	82765.	2949.3	2493.8

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Sample Name: jd40450-7t Acquired: 4/20/2022 17:53:50 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	-.0151	-.0005	.0018	.0044	-.0001	-.0012	2.123	.0002
Stddev	.0002	.0114	.0009	.0000	.0003	.0002	.0024	.009	.0002
%RSD	59.67	75.60	197.9	2.649	6.505	164.9	199.5	.4142	102.6

#1	.0001	-.0257	-.0013	.0018	.0047	-.0003	-.0038	2.113	.0002
#2	.0005	-.0030	-.0005	.0017	.0045	.0000	-.0004	2.125	-.0000
#3	.0005	-.0167	.0005	.0018	.0041	-.0000	.0007	2.130	.0003

Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010	-.0002	.0036	-.0001	.0076	.0142	.0005	.0045	.0004
Stddev	.0026	.0002	.0002	.0004	.0130	.0331	.0008	.0273	.0000
%RSD	259.6	107.1	5.272	341.6	171.2	234.0	160.0	608.1	12.43

#1	.0040	.0000	.0034	.0004	.0226	-.0239	.0009	.0163	.0003
#2	-.0005	-.0005	.0037	-.0005	.0001	.0365	.0009	.0239	.0004
#3	-.0005	-.0002	.0038	-.0002	.0000	.0298	-.0004	-.0267	.0004

Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	18.26	.0003	.0031	.0006	.0065	-.0005	-.0000	.0238
Stddev	.0004	.09	.0001	.0003	.0020	.0018	.0004	.0005	.0002
%RSD	102.8	.4669	29.00	9.780	318.1	27.60	75.31	1521.	.7793

#1	.0008	18.24	.0004	.0032	-.0003	.0045	-.0010	.0006	.0237
#2	.0004	18.18	.0002	.0028	.0029	.0080	-.0002	-.0002	.0237
#3	-.0000	18.35	.0004	.0034	-.0007	.0070	-.0004	-.0005	.0240

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0182	.0186	.0001	-.0001	.0004	.0003	-.0000	.0002	
Stddev	.0004	.0001	.0003	.0024	.0001	.0004	.0002	.0001	
%RSD	2.164	.3872	229.2	2635.	15.07	133.5	742.8	69.61	

#1	.0184	.0187	.0003	-.0028	.0004	.0000	.0002	.0000	
#2	.0177	.0186	.0004	.0015	.0005	.0008	-.0002	.0002	
#3	.0184	.0185	-.0002	.0011	.0004	.0001	-.0001	.0002	

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Sample Name: jd40450-7t Acquired: 4/20/2022 17:53:50 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_3600	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6682.4	82895.	2955.6	2493.7
Stddev	2.2	429.	6.9	3.0
%RSD	.03357	.51716	.23187	.12066

#1	6679.9	82445.	2961.7	2491.7
#2	6683.7	82940.	2948.2	2492.3
#3	6683.8	83299.	2956.9	2497.2

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Sample Name: jd40450-8t Acquired: 4/20/2022 17:59:05 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	.0139	.0003	.0004	.0049	-.0001	-.0015	2.441	.0000
Stddev	.0004	.0030	.0016	.0005	.0004	.0002	.0012	.035	.0003
%RSD	58.98	21.48	476.8	136.1	8.944	344.4	77.35	1.442	2458.

#1	.0009	.0119	-.0015	.0009	.0045	.0001	-.0025	2.405	.0003
#2	.0009	.0174	.0015	.0003	.0049	-.0000	-.0002	2.475	-.0003
#3	.0002	.0125	.0010	-.0001	.0054	-.0002	-.0017	2.442	.0001

Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	-.0002	.0031	-.0010	.0090	-.0499	.0008	.0596	.0004
Stddev	.0010	.0004	.0003	.0002	.0024	.0270	.0008	.0387	.0000
%RSD	152.4	246.6	10.49	17.95	26.98	54.17	107.5	65.04	4.108

#1	.0007	-.0006	.0033	-.0011	.0117	-.0405	.0015	.0777	.0004
#2	-.0004	.0002	.0033	-.0008	.0068	-.0289	-.0001	.0151	.0005
#3	.0017	-.0001	.0027	-.0010	.0087	-.0804	.0010	.0859	.0004

Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	35.80	.0004	.0025	-.0003	.0068	-.0027	-.0001	.5482
Stddev	.0003	.67	.0000	.0012	.0004	.0032	.0010	.0022	.0015
%RSD	74.72	1.876	12.14	49.56	151.2	46.88	35.29	2393.	.2690

#1	.0007	35.15	.0004	.0011	-.0006	.0077	-.0034	-.0024	.5481
#2	.0001	36.49	.0004	.0030	-.0003	.0033	-.0031	.0003	.5468
#3	.0004	35.74	.0003	.0033	.0002	.0095	-.0016	.0019	.5497

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0099	.0205	.0002	-.0014	.0003	.0001	-.0003	.0002	
Stddev	.0008	.0004	.0004	.0013	.0002	.0014	.0001	.0001	
%RSD	8.233	1.763	165.9	92.29	66.42	2047.	28.67	70.27	

#1	.0106	.0202	-.0001	-.0011	.0001	-.0005	-.0004	.0002	
#2	.0099	.0209	.0001	-.0003	.0002	-.0009	-.0003	.0003	
#3	.0090	.0204	.0006	-.0028	.0005	.0016	-.0002	.0000	

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Sample Name: jd40450-8t Acquired: 4/20/2022 17:59:05 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_3600	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6541.2	82671.	2935.0	2447.5
Stddev	5.6	271.	52.1	3.4
%RSD	.08538	.32800	1.7751	.13721

#1	6544.7	82976.	2985.6	2448.9
#2	6534.8	82582.	2881.6	2443.7
#3	6544.1	82456.	2937.9	2450.0

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Sample Name: jd40450-9t		Acquired: 4/20/2022 18:04:17		Type: Unk					
Method: SGS NO VALVE3(v262)		Mode: CONC		Corr. Factor: 1.000000					
User: admin		Custom ID1:		Custom ID2:		Custom ID3:			
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	-.0158	-.0005	.0007	.0044	-.0000	.0001	2.052	.0001
Stddev	.0003	.0079	.0005	.0004	.0004	.0002	.0004	.005	.0001
%RSD	49.08	50.14	105.5	54.49	8.102	942.3	700.0	.2409	77.35
#1	.0008	-.0249	-.0004	.0003	.0041	.0001	.0004	2.056	.0001
#2	.0003	-.0102	-.0000	.0009	.0042	-.0002	-.0004	2.047	.0002
#3	.0005	-.0124	-.0011	.0010	.0048	.0001	.0002	2.053	.0000
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010	-.0001	.0040	-.0011	.0415	-.0502	-.0009	.0008	.0004
Stddev	.0008	.0001	.0005	.0002	.0017	.0599	.0005	.0424	.0001
%RSD	75.43	199.5	13.13	19.08	4.128	119.2	58.51	5286.	14.38
#1	.0002	-.0001	.0046	-.0009	.0405	-.0439	-.0015	-.0270	.0005
#2	.0017	.0001	.0036	-.0013	.0405	.0063	-.0006	-.0202	.0004
#3	.0012	-.0002	.0038	-.0011	.0435	-.1130	-.0007	.0496	.0004
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	.1179	.0003	.0041	.0021	.0241	.0002	-.0022	.0264
Stddev	.0003	.0105	.0004	.0010	.0011	.0022	.0010	.0012	.0012
%RSD	62.88	8.873	133.6	24.47	50.85	9.255	403.9	52.94	4.609
#1	.0002	.1174	.0005	.0037	.0012	.0215	-.0009	-.0025	.0270
#2	.0004	.1077	-.0002	.0053	.0019	.0255	.0005	-.0009	.0272
#3	.0008	.1286	.0006	.0034	.0034	.0253	.0011	-.0032	.0250
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.0009	.0179	.0000	-.0010	.0004	-.0006	.0000	.0001	
Stddev	.0005	.0003	.0003	.0032	.0002	.0009	.0002	.0000	
%RSD	49.87	1.824	571.0	313.5	57.53	159.6	1912.	16.03	
#1	-.0005	.0183	-.0002	-.0002	.0007	-.0012	-.0002	.0001	
#2	-.0008	.0177	.0003	-.0045	.0003	.0005	.0002	.0002	
#3	-.0014	.0178	.0000	.0016	.0002	-.0010	.0000	.0001	

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Sample Name: jd40450-10t		Acquired: 4/20/2022 18:09:30		Type: Unk					
Method: SGS NO VALVE3(v262)		Mode: CONC		Corr. Factor: 1.000000					
User: admin		Custom ID1:		Custom ID2:		Custom ID3:			
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	-.0230	.0004	-.0001	.0034	-.0000	.0008	1.915	.0001
Stddev	.0003	.0168	.0010	.0002	.0005	.0002	.0006	.006	.0002
%RSD	67.37	73.24	252.0	198.0	13.58	751.5	80.71	.3268	208.5
#1	.0004	-.0388	-.0000	-.0000	.0030	.0002	.0014	1.919	.0003
#2	.0009	-.0247	-.0003	-.0003	.0034	-.0003	.0001	1.918	-.0001
#3	.0002	-.0053	.0016	.0001	.0039	-.0000	.0009	1.908	.0001
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011	-.0002	.0035	-.0011	.0197	-.0179	.0004	.0077	.0003
Stddev	.0026	.0001	.0002	.0001	.0021	.0884	.0036	.1135	.0000
%RSD	242.2	68.42	4.358	6.034	10.88	494.9	836.5	1469.	15.85
#1	-.0012	-.0002	.0036	-.0012	.0188	.0584	.0032	.1213	.0002
#2	.0040	-.0000	.0033	-.0010	.0221	-.1147	.0018	-.1058	.0003
#3	.0005	-.0003	.0036	-.0011	.0181	.0028	-.0037	.0077	.0003
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.1136	.0000	.0031	.0005	.0079	-.0002	-.0019	.0212
Stddev	.0000	.0058	.0003	.0015	.0005	.0019	.0019	.0015	.0005
%RSD	6.017	5.100	642.4	49.18	95.27	23.53	1132.	77.71	2.123
#1	.0003	.1091	.0003	.0048	.0001	.0058	.0005	-.0023	.0207
#2	.0004	.1117	-.0002	.0028	.0005	.0088	.0014	-.0032	.0214
#3	.0003	.1202	-.0000	.0018	.0011	.0091	-.0024	-.0003	.0216
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0111	.0168	.0002	-.0007	.0005	-.0003	-.0003	.0001	
Stddev	.0007	.0002	.0003	.0020	.0001	.0014	.0002	.0001	
%RSD	6.509	1.070	132.1	271.8	13.21	413.9	75.70	102.2	
#1	.0113	.0166	.0005	.0003	.0006	.0010	-.0005	.0003	
#2	.0117	.0170	.0001	-.0031	.0005	-.0017	-.0001	.0001	
#3	.0103	.0169	.0000	.0005	.0005	-.0003	-.0002	.0000	

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Sample Name: jd40450-9t		Acquired: 4/20/2022 18:04:17		Type: Unk	
Method: SGS NO VALVE3(v262)		Mode: CONC		Corr. Factor: 1.000000	
User: admin		Custom ID1:		Custom ID2:	
Comment:		Custom ID3:			
Int. Std.	In2306	Y_3600	Y_3710	Y_2243	
Units	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	6630.9	82462.	2958.3	2457.3	
Stddev	21.8	614.	7.3	9.2	
%RSD	.32856	.74465	.24642	.37455	
#1	6607.7	82822.	2966.7	2447.7	
#2	6651.0	82812.	2954.7	2466.1	
#3	6634.0	81753.	2953.6	2458.2	

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Sample Name: jd40450-10t		Acquired: 4/20/2022 18:09:30		Type: Unk	
Method: SGS NO VALVE3(v262)		Mode: CONC		Corr. Factor: 1.000000	
User: admin		Custom ID1:		Custom ID2:	
Comment:		Custom ID3:			
Int. Std.	In2306	Y_3600	Y_3710	Y_2243	
Units	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	6652.4	82739.	2942.8	2474.7	
Stddev	11.6	808.	5.1	5.3	
%RSD	.17392	.97646	.17390	.21380	
#1	6657.3	83564.	2948.7	2477.7	
#2	6660.7	81949.	2939.2	2477.8	
#3	6639.2	82704.	2940.6	2468.6	

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Sample Name: jd40450-11t Acquired: 4/20/2022 18:14:43 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012	-.0057	-.0002	.0010	.0065	-.0001	-.0010	3.412	.0002
Stddev	.0007	.0151	.0009	.0003	.0003	.0001	.0011	.007	.0001
%RSD	61.16	265.1	474.7	26.26	4.453	160.5	111.4	.2153	47.19
#1	.0009	-.0229	-.0010	.0007	.0068	-.0002	-.0015	3.421	.0002
#2	.0020	.0001	.0008	.0011	.0062	-.0000	-.0018	3.409	.0002
#3	.0006	.0057	-.0004	.0012	.0064	.0000	.0003	3.408	.0004

Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0003	-.0002	.0028	.0005	.0074	-.0856	-.0027	.0832	.0005
Stddev	.0009	.0004	.0001	.0004	.0023	.0024	.0013	.0317	.0000
%RSD	289.3	213.7	4.502	69.47	31.16	2.844	46.78	38.04	2.303

#1	.0003	-.0001	.0026	.0001	.0081	-.0868	-.0029	.0553	.0005
#2	.0001	.0002	.0028	.0009	.0048	-.0828	-.0014	.1176	.0005
#3	-.0013	-.0006	.0028	.0006	.0093	-.0871	-.0040	.0768	.0005

Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.1145	.0001	.0029	.0004	.0056	-.0006	-.0020	.0273
Stddev	.0003	.0169	.0002	.0012	.0005	.0022	.0006	.0022	.0016
%RSD	85.49	14.73	206.5	40.74	107.1	39.30	98.75	108.7	5.729

#1	.0007	.1325	.0002	.0017	.0002	.0051	-.0003	-.0035	.0262
#2	.0001	.1118	.0002	.0041	.0010	.0081	-.0003	.0005	.0291
#3	.0002	.0991	-.0001	.0029	.0001	.0037	-.0014	-.0030	.0265

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0005	.0299	.0002	-.0002	.0004	.0003	.0000	-.0000
Stddev	.0001	.0001	.0002	.0015	.0004	.0016	.0002	.0000
%RSD	16.39	.4986	106.9	766.8	101.9	468.3	985.1	98.17

#1	-.0005	.0300	.0000	-.0002	.0002	.0021	-.0002	-.0001
#2	-.0005	.0300	.0004	-.0018	.0001	-.0001	-.0000	-.0000
#3	-.0004	.0297	.0002	.0013	.0008	-.0009	.0002	-.0000

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Sample Name: jd40450-12t Acquired: 4/20/2022 18:19:57 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	-.0013	.0001	.0005	.0046	-.0000	-.0004	2.289
Stddev	.0002	.0200	.0012	.0006	.0003	.0001	.0013	.040
%RSD	77.15	1583.	835.8	107.0	5.602	374.2	306.0	1.726

#1	.0003	.0062	-.0009	.0007	.0048	-.0001	-.0016	2.282
#2	.0005	.0140	.0015	.0010	.0047	-.0001	-.0005	2.331
#3	.0001	-.0240	-.0001	-.0001	.0043	.0001	.0009	2.253

Elem	Cd2288	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0004	-.0002	.0030	.0004	.0037	-.0426	-.0013
Stddev	.0004	.0016	.0003	.0004	.0003	.0034	.0195	.0003
%RSD	849.8	365.0	127.2	14.47	74.79	90.67	45.80	25.43

#1	.0005	.0018	-.0006	.0030	.0007	.0076	-.0539	-.0014
#2	-.0002	-.0013	-.0000	.0026	.0003	.0015	-.0201	-.0015
#3	-.0002	.0008	-.0001	.0034	.0002	.0020	-.0537	-.0009

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0275	.0004	.0006	.1019	.0000	.0033	.0012	.0058
Stddev	.0104	.0000	.0003	.0092	.0001	.0017	.0002	.0029
%RSD	37.90	10.10	54.85	9.015	2972.	52.81	19.82	50.37

#1	.0323	.0003	.0003	.1005	-.0000	.0044	.0010	.0087
#2	.0346	.0004	.0005	.0935	-.0000	.0013	.0015	.0029
#3	.0155	.0004	.0010	.1117	.0001	.0041	.0012	.0058

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	-.0003	.0203	.0001	.0200	.0004	F_-.0020	.0004
Stddev	.0000	.0003	.0000	.0001	.0003	.0004	.0033	.0005
%RSD	9.049	85.25	.2142	80.43	1.665	94.45	162.6	121.4

#1	.0005	-.0006	.0203	.0000	.0199	.0003	-.0012	.0008
#2	.0004	-.0004	.0203	.0002	.0204	.0008	.0008	-.0001
#3	.0004	-.0000	.0202	.0001	.0198	.0001	-.0056	.0005

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Sample Name: jd40450-11t Acquired: 4/20/2022 18:14:43 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_3600	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6690.5	83569.	2981.4	2473.5
Stddev	9.7	332.	23.0	2.8
%RSD	.14521	.39708	.77175	.11512

#1	6699.9	83599.	2955.5	2471.3
#2	6691.2	83884.	2999.6	2472.3
#3	6680.5	83223.	2989.0	2476.7

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Sample Name: jd40450-12t Acquired: 4/20/2022 18:19:57 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-.0003	.0010	.0001
Stddev	.0013	.0001	.0002
%RSD	422.4	8.938	139.2

#1	.0009	.0010	.0003
#2	-.0017	.0010	-.0001
#3	-.0002	.0009	.0001

Int. Std.	In2306	Y_3600	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6696.7	83842.	2909.7	2478.8
Stddev	9.1	251.	47.6	2.2
%RSD	.13557	.29890	1.6344	.08890

#1	6688.1	84112.	2937.2	2479.2
#2	6706.2	83796.	2854.8	2480.7
#3	6695.7	83617.	2937.1	2476.4

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Sample Name: jd40450-13t Acquired: 4/20/2022 18:25:11 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	-.0189	.0011	.0005	.0029	.0000	-.0006	1.443	.0002
Stddev	.0004	.0256	.0008	.0004	.0001	.0002	.0016	.006	.0001
%RSD	58.92	134.9	76.30	73.37	4.183	616.7	284.9	.4121	43.17
#1	.0011	-.0020	.0017	.0006	.0029	.0002	-.0005	1.449	.0003
#2	.0004	-.0483	.0013	.0001	.0031	-.0001	-.0022	1.438	.0003
#3	.0004	-.0065	.0002	.0008	.0029	-.0001	.0010	1.442	.0001
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019	-.0002	.0003	-.0008	.0034	-.0866	.0008	-.0048	.0002
Stddev	.0009	.0004	.0002	.0003	.0050	.0658	.0021	.0602	.0001
%RSD	49.44	146.3	86.76	41.10	145.4	76.00	258.0	1248.	40.88
#1	.0027	-.0006	.0005	-.0012	-.0019	-.0560	-.0012	-.0364	.0001
#2	.0009	-.0002	.0001	-.0005	.0079	-.1621	.0007	.0646	.0002
#3	.0022	.0001	.0002	-.0009	.0042	-.0416	.0030	-.0427	.0002
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0914	-.0000	.0022	.0004	.0071	-.0016	.0000	.0736
Stddev	.0003	.0081	.0005	.0011	.0010	.0035	.0009	.0019	.0007
%RSD	105.0	8.843	5499.	48.98	262.5	48.60	57.42	4658.	.9258
#1	-.0001	.0955	-.0004	.0011	.0013	.0094	-.0022	.0005	.0738
#2	.0005	.0821	-.0002	.0032	.0005	.0031	-.0005	-.0020	.0742
#3	.0005	.0966	.0005	.0024	-.0007	.0088	-.0020	.0016	.0729
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0005	.0119	.0001	-.0012	.0005	-.0007	.0001	.0001	
Stddev	.0004	.0003	.0005	.0025	.0002	.0011	.0001	.0001	
%RSD	82.25	2.325	526.8	213.4	43.07	157.1	102.0	148.8	
#1	.0001	.0122	-.0003	-.0008	.0004	-.0020	.0000	-.0000	
#2	.0009	.0117	.0007	.0011	.0003	-.0003	.0000	.0001	
#3	.0004	.0117	-.0000	-.0038	.0007	.0001	.0002	.0001	

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Sample Name: jd40450-13t Acquired: 4/20/2022 18:25:11 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_3600	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6679.6	83104.	2942.6	2472.7
Stddev	18.3	278.	18.8	4.7
%RSD	.27336	.33501	.63727	.19107

#1	6684.2	83124.	2936.5	2475.0
#2	6695.1	83372.	2927.6	2475.8
#3	6659.5	82816.	2963.6	2467.3

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Sample Name: jd40450-14t Acquired: 4/20/2022 18:30:25 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	-.0070	-.0005	.0000	.0000	.0000	-.0005	1.566	.0002
Stddev	.0005	.0198	.0001	.0005	.0002	.0001	.0024	.007	.0001
%RSD	79.98	284.5	26.72	1104.	6.105	427.5	513.6	.4190	36.65
#1	.0010	.0128	-.0006	-.0003	.0032	-.0000	-.0031	1.569	.0003
#2	.0001	-.0269	-.0003	.0006	.0036	.0002	.0003	1.558	.0002
#3	.0006	-.0068	-.0006	-.0001	.0033	-.0000	.0015	1.570	.0002
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0002	.0003	-.0002	.0050	-.1073	-.0012	-.0600	.0002
Stddev	.0042	.0002	.0003	.0001	.0029	.0296	.0011	.0177	.0000
%RSD	5005.	115.0	90.49	60.07	58.75	27.53	97.55	29.47	14.96
#1	-.0036	-.0000	.0001	-.0003	.0042	-.1285	-.0012	-.0757	.0002
#2	-.0008	.0001	.0002	-.0001	.0025	-.0736	-.0000	-.0408	.0002
#3	.0046	.0004	.0007	-.0004	.0082	-.1200	-.0023	-.0636	.0002
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.1021	-.0002	.0029	.0004	.0072	-.0012	.0006	.0417
Stddev	.0001	.0111	.0005	.0013	.0009	.0021	.0018	.0002	.0003
%RSD	44.16	10.92	217.2	44.64	267.7	28.93	149.7	35.53	.6020
#1	.0004	.0908	-.0003	.0014	.0003	.0079	-.0010	.0009	.0420
#2	.0004	.1023	-.0007	.0039	.0013	.0048	.0005	.0004	.0415
#3	.0002	.1131	.0003	.0035	-.0006	.0088	-.0031	.0006	.0417
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0032	.0133	.0001	-.0014	.0004	-.0002	.0006	-.0001	
Stddev	.0008	.0001	.0002	.0032	.0004	.0012	.0001	.0001	
%RSD	25.25	.9820	140.6	223.3	98.60	508.5	23.25	104.6	
#1	.0024	.0132	.0000	-.0050	.0009	-.0016	.0005	-.0002	
#2	.0032	.0133	.0000	-.0006	.0002	.0002	.0008	-.0000	
#3	.0040	.0134	.0004	.0012	.0001	.0006	.0005	-.0001	

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Sample Name: jd40450-14t Acquired: 4/20/2022 18:30:25 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_3600	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6649.5	82957.	2932.5	2459.4
Stddev	51.4	328.	12.1	18.4
%RSD	.77305	.39508	.41395	.74729

#1	6692.2	83333.	2943.6	2473.9
#2	6663.7	82736.	2919.6	2465.7
#3	6592.4	82801.	2934.2	2438.7

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Sample Name: ccv Acquired: 4/20/2022 18:35:42 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2420	38.37	1.918	2.022	2.023	1.969	2.020	37.55	2.011
Stddev	.0003	1.40	.004	.000	.073	.071	.002	1.32	.001
%RSD	.1244	3.660	.1869	.0177	3.634	3.593	.1196	3.522	.0482
#1	.2421	39.47	1.914	2.022	2.083	2.027	2.020	38.57	2.011
#2	.2417	36.79	1.921	2.023	1.941	1.890	2.017	36.06	2.012
#3	.2423	38.84	1.918	2.022	2.046	1.989	2.022	38.02	2.010
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.912	2.013	2.016	2.197	37.29	38.64	1.968	37.20	1.992
Stddev	.003	.001	.005	.006	1.36	1.43	.071	1.41	.003
%RSD	.1464	.0410	.2508	.2783	3.650	3.709	3.590	3.782	.1678
#1	1.915	2.013	2.017	2.197	38.39	39.85	2.024	38.18	1.994
#2	1.913	2.014	2.020	2.203	35.77	37.05	1.889	35.59	1.995
#3	1.909	2.012	2.010	2.191	37.71	39.01	1.992	37.83	1.989
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.987	39.17	2.072	2.012	2.044	1.933	1.970	1.979	4.967
Stddev	.002	1.41	.002	.004	.003	.002	.002	.001	.002
%RSD	.1061	3.602	.1175	.2203	.1298	.1059	.0905	.0440	.0319
#1	1.985	40.28	2.072	2.010	2.046	1.934	1.969	1.980	4.966
#2	1.990	37.58	2.075	2.017	2.045	1.935	1.968	1.980	4.966
#3	1.987	39.64	2.070	2.009	2.041	1.931	1.972	1.978	4.969
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

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Sample Name: ccb Acquired: 4/20/2022 18:40:33 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	.0033	-0.006	.0012	.0003	-0.0000	-0.0005	.0004	.0002
Stddev	.0002	.0151	.0008	.0007	.0004	.0000	.0005	.0044	.0002
%RSD	24.71	454.8	131.4	61.07	140.5	190.9	92.68	1167.	135.1
#1	.0006	.0194	-.0006	.0020	.0004	-.0001	-.0002	-.0042	.0001
#2	.0006	-.0105	-.0014	.0011	.0006	.0000	-.0003	.0046	.0004
#3	.0009	.0011	-.0002	.0005	-.0002	-.0000	-.0011	.0007	-.0000
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0031	.0003	.0001	F .0050	.0020	-1.073	-0.0020	.0558	.0001
Stddev	.0014	.0003	.0002	.0006	.0060	.0328	.0021	.0407	.0000
%RSD	45.76	76.12	183.3	11.77	304.2	30.62	106.6	72.98	43.94
#1	.0048	.0004	.0000	.0049	.0014	-.1363	-.0019	.0474	.0000
#2	.0027	.0006	.0004	.0045	-.0037	-.1139	.0001	.0199	.0001
#3	.0020	.0001	-.0000	.0057	.0082	-.0716	-.0041	.1000	.0001
Check ? High Limit Low Limit	None	Chk Pass	Chk Pass	Chk Fail .0032 -.0032	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0221	.0005	.0011	.0004	-0.0020	-0.0009	-0.0016	.0028
Stddev	.0003	.0060	.0004	.0009	.0003	.0005	.0007	.0008	.0011
%RSD	123.2	27.13	94.55	88.17	92.55	26.35	83.85	49.61	40.23
#1	.0006	.0197	.0009	.0000	-.0000	-.0016	-.0006	-.0008	.0034
#2	.0003	.0177	.0001	.0014	.0005	-.0026	-.0003	-.0023	.0036
#3	-.0001	.0289	.0003	.0018	.0006	-.0017	-.0017	-.0016	.0015
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

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Sample Name: ccv Acquired: 4/20/2022 18:35:42 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.988	2.023	2.022	2.012	1.944	1.988	1.982	1.973	
Stddev	.004	.074	.004	.005	.002	.004	.002	.004	
%RSD	.1830	3.655	.1938	.2262	.1041	.1753	.0881	.2233	
#1	1.992	2.081	2.021	2.010	1.944	1.986	1.981	1.973	
#2	1.985	1.940	2.026	2.009	1.946	1.985	1.980	1.978	
#3	1.988	2.048	2.019	2.018	1.942	1.992	1.984	1.969	
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	
Int. Std. Units	In2306 Cts/S	Y_3600 Cts/S	Y_3710 Cts/S	Y_2243 Cts/S					
Avg	6434.9	80932.	2897.1	2441.3					
Stddev	11.4	251.	72.0	2.8					
%RSD	.17734	.31009	2.4863	.11640					
#1	6423.4	80689.	2847.3	2438.1					
#2	6435.2	80917.	2979.7	2442.5					
#3	6446.2	81191.	2864.4	2443.4					

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Sample Name: ccb Acquired: 4/20/2022 18:40:33 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-0.0000	.0001	.0003	.0002	.0004	.0001	-0.0001	.0001	
Stddev	.0008	.0002	.0004	.0003	.0001	.0006	.0001	.0000	
%RSD	2148.	191.0	141.4	143.4	35.30	779.7	71.94	67.72	
#1	-.0006	.0000	.0002	.0002	.0004	.0001	-.0002	.0000	
#2	.0009	-.0000	-.0001	.0004	.0005	.0006	-.0001	.0000	
#3	-.0005	.0003	.0007	-.0001	.0002	-.0005	-.0000	.0001	
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	
Int. Std. Units	In2306 Cts/S	Y_3600 Cts/S	Y_3710 Cts/S	Y_2243 Cts/S					
Avg	6717.3	83069.	2912.2	2479.5					
Stddev	21.8	605.	54.3	7.6					
%RSD	.32425	.72786	1.8659	.30750					
#1	6692.2	82816.	2942.8	2470.9					
#2	6730.0	82631.	2944.3	2482.4					
#3	6729.8	83759.	2849.4	2485.3					

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Sample Name: jd40450-15t Acquired: 4/20/2022 18:45:50 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009	-.0124	-.0004	.0006	.0023	.0000	.0009	1.147	.0001
Stddev	.0002	.0119	.0007	.0001	.0002	.0003	.0018	.006	.0001
%RSD	23.00	96.22	196.3	19.90	7.526	837.7	199.9	.5557	83.83
#1	.0011	.0013	-.0006	.0005	.0025	.0001	.0022	1.149	.0000
#2	.0008	-.0200	.0004	.0006	.0023	.0003	-.0012	1.140	.0001
#3	.0007	-.0185	-.0009	.0008	.0021	-.0002	.0017	1.152	.0001
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023	-.0002	.0001	-.0002	-.0029	-.0973	-.0019	.0596	.0002
Stddev	.0044	.0002	.0002	.0001	.0061	.0181	.0020	.0196	.0000
%RSD	191.0	72.31	176.0	62.01	206.4	18.61	104.4	32.93	24.62
#1	.0074	-.0004	-.0001	-.0003	.0019	-.1076	.0003	.0821	.0002
#2	.0000	-.0001	.0004	-.0001	-.0098	-.0764	-.0023	.0511	.0002
#3	-.0005	-.0001	.0001	-.0003	-.0010	-.1079	-.0037	.0457	.0003
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.1266	.0002	.0023	.0007	.0039	.0001	-.0011	.0778
Stddev	.0004	.0111	.0002	.0004	.0004	.0030	.0008	.0010	.0006
%RSD	89.07	8.799	130.4	17.77	61.54	75.84	1563.	90.58	.7759
#1	.0009	.1296	.0001	.0021	.0002	.0017	-.0008	-.0016	.0771
#2	.0001	.1359	.0004	.0021	.0010	.0027	.0002	-.0018	.0782
#3	.0003	.1143	-.0000	.0028	.0008	.0073	.0008	.0000	.0782
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.0001	.0087	-.0000	.0003	.0006	-.0005	.0007	.0001	
Stddev	.0001	.0001	.0006	.0016	.0001	.0005	.0001	.0000	
%RSD	156.9	1.056	4379.	570.2	16.27	86.60	10.63	37.12	
#1	-.0002	.0086	-.0006	.0020	.0005	-.0001	.0007	.0001	
#2	.0000	.0088	.0001	-.0001	.0006	-.0005	.0007	.0001	
#3	-.0001	.0087	.0005	-.0011	.0007	-.0010	.0008	.0001	

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Sample Name: mp32417-mb1 7 Acquired: 4/20/2022 18:51:05 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment: sw									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	-.0114	.0001	.0002	.0003	.0002	-.0010	.0146	.0001
Stddev	.0002	.0301	.0013	.0011	.0004	.0001	.0013	.0026	.0001
%RSD	48.49	264.9	1403.	704.0	159.6	84.72	129.8	17.86	135.7
#1	.0003	.0045	-.0004	.0003	-.0000	-.0003	-.0017	.0145	.0001
#2	.0003	.0075	.0016	-.0010	.0007	-.0002	-.0017	.0121	-.0000
#3	.0006	-.0460	-.0009	.0012	.0001	-.0000	.0005	.0173	.0002
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0014	-.0001	.0002	.0030	.0061	-.0609	-.0013	-.0116	.0002
Stddev	.0019	.0002	.0003	.0007	.0020	.0194	.0018	.0285	.0001
%RSD	133.5	321.0	134.7	22.62	32.64	31.83	140.9	245.3	36.87
#1	.0003	-.0000	-.0001	.0028	.0054	-.0559	-.0026	.0171	.0002
#2	-.0010	-.0003	.0005	.0024	.0084	-.0824	-.0021	-.0400	.0001
#3	-.0035	.0001	.0003	.0037	.0046	-.0446	.0008	-.0120	.0002
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0248	.0005	.0034	.0004	.0010	.0001	-.0016	.0083
Stddev	.0004	.0069	.0003	.0005	.0009	.0020	.0019	.0021	.0008
%RSD	119.3	27.82	63.82	15.65	195.8	197.8	1446.	127.4	9.553
#1	-.0001	.0287	.0005	.0028	.0002	-.0007	-.0018	.0007	.0079
#2	.0004	.0290	.0002	.0037	-.0003	.0005	.0019	-.0026	.0092
#3	.0008	.0169	.0008	.0037	.0014	.0032	.0003	-.0030	.0078
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.0006	.0001	.0001	.0000	.0003	.0002	.0023	-.0000	
Stddev	.0008	.0001	.0002	.0031	.0005	.0009	.0001	.0001	
%RSD	147.7	39.42	328.1	23430.	177.4	421.7	2.278	167.3	
#1	-.0015	.0001	.0002	.0035	-.0003	.0004	.0023	-.0000	
#2	-.0004	.0002	-.0001	-.0024	.0003	.0010	.0024	.0000	
#3	.0002	.0002	.0000	-.0011	.0008	-.0008	.0023	-.0001	

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Sample Name: jd40450-15t Acquired: 4/20/2022 18:45:50 Type: Unk					
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000					
User: admin Custom ID1: Custom ID2: Custom ID3:					
Comment:					
Int. Std.	In2306	Y_3600	Y_3710	Y_2243	
Units	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	6672.1	83700.	2927.2	2470.2	
Stddev	33.4	208.	8.6	11.9	
%RSD	.49988	.24891	.29459	.48114	
#1	6683.6	83812.	2917.2	2477.1	
#2	6634.6	83459.	2932.1	2456.4	
#3	6698.3	83828.	2932.2	2477.0	

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Sample Name: mp32417-mb1 7 Acquired: 4/20/2022 18:51:05 Type: Unk					
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000					
User: admin Custom ID1: Custom ID2: Custom ID3:					
Comment: sw					
Int. Std.	In2306	Y_3600	Y_3710	Y_2243	
Units	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	6716.4	83215.	2941.6	2486.8	
Stddev	9.3	178.	6.7	4.2	
%RSD	.13807	.21380	.22903	.16834	
#1	6721.5	83341.	2936.9	2490.4	
#2	6705.7	83012.	2938.6	2482.2	
#3	6722.0	83292.	2949.3	2487.7	

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Sample Name: mp32417-s2 Acquired: 4/20/2022 19:06:11 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2516	25.59	2.011	2.961	2.011	1.876	.0748	146.3	1.979
Stddev	.0013	.14	.010	.013	.006	.009	.0033	.7	.010
%RSD	.5354	.5484	.5062	.4397	.2914	.4712	4.350	.4764	.4950
#1	.2512	25.43	2.000	2.949	2.005	1.865	.0783	145.6	1.971
#2	.2531	25.69	2.020	2.975	2.015	1.881	.0718	147.0	1.989
#3	.2505	25.64	2.012	2.959	2.014	1.880	.0742	146.3	1.975
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0113	1.923	1.848	1.898	24.51	65.26	.0231	99.01	2.086
Stddev	.0017	.009	.008	.008	.04	.29	.0007	.63	.007
%RSD	15.13	.4468	.4095	.4281	.1594	.4374	3.215	.6355	.3406
#1	.0118	1.914	1.846	1.892	24.48	64.95	.0223	98.47	2.084
#2	.0126	1.931	1.856	1.907	24.51	65.51	.0238	99.71	2.094
#3	.0094	1.924	1.841	1.894	24.55	65.31	.0232	98.86	2.081
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.967	875.8	1.958	2.243	1.932	45.03	1.998	1.965	9.078
Stddev	.009	17.0	.009	.012	.010	.22	.011	.009	.043
%RSD	.4645	1.945	.4716	.5144	.5055	.4968	.5588	.4617	.4680
#1	1.958	869.6	1.951	2.232	1.925	44.84	1.992	1.956	9.046
#2	1.976	895.1	1.969	2.255	1.943	45.28	2.011	1.974	9.126
#3	1.967	862.8	1.955	2.243	1.927	44.98	1.992	1.966	9.062
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.901	3.026	1.925	1.861	1.834	1.955	2.122	1.921	
Stddev	.007	.013	.008	.008	.006	.011	.013	.008	
%RSD	.3892	.4222	.4355	.4123	.3040	.5550	.6325	.4037	
#1	1.895	3.011	1.920	1.852	1.831	1.944	2.108	1.917	
#2	1.910	3.034	1.935	1.865	1.841	1.965	2.135	1.930	
#3	1.899	3.033	1.921	1.865	1.831	1.955	2.124	1.916	

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Sample Name: jd43339-1 Acquired: 4/20/2022 19:11:07 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014	.0490	.0195	1.041	.1068	-.0002	.0022	124.8	.0001
Stddev	.0008	.0252	.0015	.004	.0008	.0000	.0008	1.2	.0001
%RSD	55.07	51.48	7.780	.3810	.7749	19.89	34.72	.9731	39.62
#1	.0022	.0473	.0180	1.037	.1063	-.0002	.0025	124.0	.0002
#2	.0007	.0246	.0210	1.044	.1078	-.0002	.0013	126.2	.0002
#3	.0013	.0750	.0194	1.043	.1064	-.0003	.0028	124.3	.0001
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029	-.0004	.0004	.0043	.1734	39.28	.0243	77.39	.2450
Stddev	.0038	.0004	.0005	.0006	.0037	.41	.0012	.69	.0013
%RSD	129.7	111.4	110.7	13.22	2.118	1.055	5.074	.8855	.5165
#1	.0010	-.0008	.0010	.0036	.1759	39.07	.0236	76.78	.2440
#2	.0005	-.0002	.0003	.0046	.1750	39.75	.0257	78.14	.2446
#3	.0073	-.0000	.0000	.0046	.1692	39.01	.0236	77.26	.2464
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0088	858.4	.0040	.2603	.0015	45.40	.0007	-.0029	9.036
Stddev	.0002	9.6	.0001	.0015	.0009	.28	.0013	.0032	.049
%RSD	1.838	1.120	2.772	.5587	58.74	.6075	194.8	112.2	.5458
#1	.0087	854.9	.0040	.2586	.0014	45.08	.0005	.0007	8.980
#2	.0086	869.2	.0041	.2611	.0025	45.58	.0021	-.0057	9.073
#3	.0089	851.0	.0039	.2613	.0007	45.54	-.0006	-.0036	9.055
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.0036	1.144	-.0001	-.0001	.0019	.0030	.2575	-.0038	
Stddev	.0004	.011	.0004	.0025	.0002	.0011	.0020	.0000	
%RSD	10.37	.9341	267.8	3929.	10.09	37.88	.7703	.9968	
#1	-.0037	1.136	.0003	-.0029	.0021	.0018	.2552	-.0038	
#2	-.0039	1.156	-.0005	.0017	.0017	.0041	.2588	-.0037	
#3	-.0032	1.140	-.0002	.0011	.0019	.0031	.2584	-.0038	

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Sample Name: mp32417-s2 Acquired: 4/20/2022 19:06:11 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	5814.7	76700.	2819.0	2262.9					
Stddev	21.1	306.	20.9	9.6					
%RSD	.36250	.39865	.74062	.42519					
#1	5826.5	76495.	2830.3	2269.0					
#2	5790.3	76554.	2794.9	2251.8					
#3	5827.1	77051.	2831.7	2267.9					

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Sample Name: jd43339-1 Acquired: 4/20/2022 19:11:07 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	5927.4	77157.	2814.4	2290.9					
Stddev	31.1	584.	27.1	10.0					
%RSD	.52550	.75749	.96248	.43867					
#1	5962.5	77812.	2842.7	2302.1					
#2	5903.1	76970.	2788.7	2282.5					
#3	5916.6	76689.	2811.8	2288.1					

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Sample Name: jd43253-2 Acquired: 4/20/2022 19:26:41 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038	.7385	.0208	.0767	4.651	-.0005	.0078	F 405.5	.0891
Stddev	.0005	.0190	.0007	.0004	.017	.0001	.0011	2.0	.0007
%RSD	14.51	2.575	3.334	.4729	.3659	20.93	13.85	.4842	.7774
#1	.0041	.7203	.0210	.0769	4.646	-.0004	.0069	405.3	.0883
#2	.0031	.7371	.0200	.0769	4.637	-.0005	.0090	403.7	.0895
#3	.0041	.7582	.0213	.0762	4.670	-.0005	.0076	407.6	.0895
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0673	.0032	.0174	.5315	58.25	16.64	.0286	49.96	F 15.73
Stddev	.0076	.0004	.0004	.0037	.27	.08	.0026	.45	.10
%RSD	11.34	11.26	2.171	.6946	.4703	.4726	9.086	.8977	.6055
#1	.0758	.0034	.0175	.5315	58.31	16.61	.0284	50.16	15.63
#2	.0612	.0035	.0177	.5351	57.95	16.58	.0260	49.45	15.74
#3	.0647	.0028	.0170	.5277	58.49	16.73	.0312	50.28	15.82
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039	F 1913.	.0413	2.609	.0204	7.451	.0016	.0012	9.065
Stddev	.0003	57.	.0005	.011	.0022	.035	.0007	.0007	.051
%RSD	8.834	2.976	1.174	.4236	10.80	.4715	48.03	58.46	.5678
#1	.0035	1977.	.0418	2.597	.0224	7.414	.0021	.0009	9.008
#2	.0042	1893.	.0410	2.613	.0207	7.457	.0007	.0021	9.080
#3	.0039	1869.	.0410	2.617	.0181	7.484	.0019	.0008	9.107
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.0018	1.743	.0248	.0113	.0165	.0068	.4670	-.0028	
Stddev	.0006	.007	.0010	.0007	.0004	.0010	.0018	.0003	
%RSD	30.32	.4069	3.900	5.904	2.303	14.68	.3925	9.165	
#1	-.0013	1.741	.0244	.0117	.0161	.0078	.4683	-.0030	
#2	-.0024	1.737	.0259	.0117	.0169	.0058	.4649	-.0029	
#3	-.0018	1.750	.0241	.0105	.0166	.0069	.4679	-.0025	

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Sample Name: jd43253-2 Acquired: 4/20/2022 19:26:41 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	5406.5	72488.	2692.5	2122.7					
Stddev	40.7	513.	20.4	13.6					
%RSD	.75262	.70721	.75669	.64005					
#1	5432.9	73068.	2685.6	2133.4					
#2	5427.0	72097.	2715.5	2127.2					
#3	5359.6	72298.	2676.5	2107.4					

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Sample Name: jd43253-3 Acquired: 4/20/2022 19:32:00 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014	1.815	.0058	.0732	.3772	-.0001	.0025	140.0	.0121
Stddev	.0006	.015	.0012	.0010	.0032	.0001	.0026	1.0	.0003
%RSD	43.13	.8253	20.46	1.358	.8405	94.33	103.1	.6943	2.216
#1	.0011	1.802	.0049	.0722	.3737	-.0001	-.0003	138.9	.0123
#2	.0009	1.831	.0053	.0731	.3798	-.0000	.0048	140.9	.0123
#3	.0020	1.813	.0071	.0742	.3782	-.0001	.0032	140.0	.0118
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0408	.0057	.0103	.1190	7.009	3.770	.0059	25.96	3.426
Stddev	.0049	.0001	.0001	.0019	.082	.032	.0020	.23	.043
%RSD	12.04	2.265	.7977	1.604	1.170	.8567	33.47	.8822	1.258
#1	.0423	.0057	.0104	.1192	6.917	3.791	.0053	25.71	3.440
#2	.0353	.0059	.0103	.1170	7.074	3.732	.0082	26.17	3.377
#3	.0448	.0056	.0103	.1208	7.037	3.785	.0043	25.99	3.460
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013	F 200.1	.0198	.2180	.0198	5.794	-.0008	-.0013	9.793
Stddev	.0002	1.9	.0002	.0021	.0009	.045	.0008	.0008	.063
%RSD	12.96	.9563	1.040	.9465	4.785	.7837	108.4	62.39	.6449
#1	.0015	197.9	.0199	.2158	.0204	5.741	-.0011	-.0005	9.720
#2	.0013	201.5	.0200	.2183	.0187	5.822	.0002	-.0012	9.835
#3	.0011	200.8	.0196	.2199	.0201	5.817	-.0015	-.0021	9.824
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.0029	.4779	.0292	.0049	.0091	.0032	.3832	-.0053	
Stddev	.0007	.0032	.0008	.0024	.0004	.0012	.0027	.0002	
%RSD	23.23	.6617	2.681	48.63	4.300	36.84	.7079	4.053	
#1	-.0035	.4743	.0290	.0045	.0095	.0044	.3802	-.0051	
#2	-.0030	.4802	.0286	.0027	.0088	.0020	.3856	-.0055	
#3	-.0022	.4791	.0301	.0074	.0091	.0032	.3838	-.0054	

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Sample Name: jd43253-3 Acquired: 4/20/2022 19:32:00 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6230.8	80665.	2853.6	2378.2					
Stddev	36.2	738.	15.0	14.0					
%RSD	.58101	.91497	.52490	.58839					
#1	6270.6	80146.	2868.8	2393.8					
#2	6199.9	81510.	2838.9	2366.8					
#3	6221.9	80340.	2853.2	2374.1					

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Sample Name: ccv Acquired: 4/20/2022 19:37:08 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2464	38.62	1.976	2.038	2.025	1.997	2.010	37.66	2.027
Stddev	.0007	.07	.011	.015	.005	.007	.010	.09	.013
%RSD	.0006	.1939	.5423	.7163	.2575	.3298	.5186	.2489	.6294
#1	.2471	38.70	1.977	2.038	2.031	2.004	2.005	37.67	2.026
#2	.2459	38.56	1.986	2.053	2.022	1.995	2.022	37.76	2.039
#3	.2463	38.60	1.965	2.024	2.023	1.991	2.003	37.57	2.014
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.935	2.023	2.023	2.074	37.84	38.82	1.994	37.58	2.018
Stddev	.003	.007	.003	.005	.19	.15	.006	.17	.004
%RSD	.1685	.3682	.1642	.2607	.5014	.3758	.3104	.4449	.2013
#1	1.937	2.024	2.023	2.073	38.00	38.95	2.001	37.57	2.020
#2	1.931	2.030	2.019	2.069	37.89	38.86	1.992	37.75	2.013
#3	1.936	2.015	2.026	2.080	37.63	38.66	1.990	37.42	2.021
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.015	39.27	2.065	2.025	2.057	1.961	1.998	2.012	4.996
Stddev	.011	.07	.008	.012	.008	.013	.013	.038	.038
%RSD	.5668	.1740	.3818	.6083	.3828	.6305	.6696	.6284	.7682
#1	2.013	39.32	2.065	2.024	2.057	1.960	1.995	2.015	4.986
#2	2.028	39.31	2.073	2.037	2.066	1.974	2.013	2.023	5.039
#3	2.005	39.20	2.057	2.013	2.050	1.949	1.987	1.998	4.964
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

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Sample Name: ccb Acquired: 4/20/2022 19:41:59 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	-.0011	.0005	.0026	-.0001	-.0000	.0009	-.0037	.0001
Stddev	.0003	.0222	.0009	.7609	.0002	.0002	.0011	.0071	.0002
%RSD	35.70	1990.	199.5	0.002	136.2	496.4	120.9	194.4	385.6
#1	.0007	.0183	-.0001	.0024	-.0004	.0002	.0005	-.0056	.0002
#2	.0010	-.0253	-.0001	.0028	-.0001	-.0002	.0022	-.0096	.0001
#3	.0005	.0036	.0016	.0025	.0000	-.0001	.0001	.0042	-.0001
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0012	-.0002	-.0000	F .0058	.0044	.0436	.0008	-.0683	.0001
Stddev	.0008	.0004	.0003	.0012	.0073	.0259	.0015	.0291	.0000
%RSD	70.76	225.6	705.1	21.01	164.8	59.33	194.1	42.55	61.90
#1	-.0016	.0001	.0000	.0048	-.0040	.0154	.0024	-.0437	.0001
#2	-.0002	-.0006	.0002	.0071	.0087	.0493	-.0004	-.1003	.0001
#3	-.0017	-.0000	-.0004	.0054	.0086	.0661	.0003	-.0608	.0000
Check ? High Limit Low Limit	None	Chk Pass	Chk Pass	Chk Fail .0032 -.0032	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.2055	.0002	.0015	-.0001	.0043	-.0005	-.0007	.0017
Stddev	.0001	.0079	.0002	.0014	.0003	.0003	.0005	.0006	.0010
%RSD	23.32	3.839	99.25	93.29	410.6	8.016	119.8	83.86	60.14
#1	.0004	.1971	.0005	.0000	-.0004	.0044	-.0011	-.0008	.0019
#2	.0004	.2068	.0000	.0029	-.0000	.0047	-.0001	-.0013	.0027
#3	.0003	.2127	.0002	.0016	.0002	.0040	-.0002	-.0001	.0006
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

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Sample Name: ccv Acquired: 4/20/2022 19:37:08 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	2.011	2.058	1.995	2.046	1.965	2.006	2.012	1.978	
Stddev	.016	.006	.004	.008	.007	.014	.013	.004	
%RSD	.7815	.3037	.2046	.3726	.3348	.6713	.6669	.2015	
#1	2.013	2.065	1.995	2.050	1.970	2.010	2.015	1.982	
#2	2.025	2.055	1.991	2.050	1.958	2.018	2.024	1.974	
#3	1.994	2.053	1.999	2.037	1.967	1.992	1.998	1.979	
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6417.6	80473.	2831.9	2413.7					
Stddev	22.4	180.	28.9	14.2					
%RSD	.34885	.22364	1.0205	.58916					
#1	6416.9	80490.	2850.5	2413.5					
#2	6395.5	80644.	2798.6	2399.6					
#3	6440.3	80285.	2846.5	2428.1					

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Sample Name: ccb Acquired: 4/20/2022 19:41:59 Type: QC Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:									
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0004	.0002	.0005	.0001	.0003	.0002	-.0000	-.0002	
Stddev	.0004	.0002	.0005	.0017	.0001	.0015	.0002	.0001	
%RSD	89.93	136.1	118.0	128.1	50.36	813.3	595.4	86.01	
#1	.0008	.0004	.0002	-.0003	.0002	-.0015	.0001	-.0002	
#2	.0005	-.0001	.0011	.0020	.0004	.0014	-.0000	-.0003	
#3	.0000	.0002	.0001	-.0013	.0003	.0007	-.0002	-.0000	
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6737.9	83240.	2873.9	2480.3					
Stddev	32.5	128.	22.7	11.8					
%RSD	48166	.15346	.79028	.47677					
#1	6700.6	83101.	2851.7	2466.8					
#2	6753.2	83267.	2897.1	2485.4					
#3	6759.9	83352.	2873.0	2488.7					

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Sample Name: jd43253-4 Acquired: 4/20/2022 19:47:15 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011	1.542	.0036	.2115	.1171	.0000	.0020	53.09	.0036
Stddev	.0005	.002	.0008	.0012	.0011	.0001	.0008	.36	.0003
%RSD	47.71	.1247	22.02	.5887	.9009	1761.	39.04	.6793	7.716
#1	.0009	1.540	.0028	.2125	.1183	-.0000	.0014	53.50	.0039
#2	.0017	1.544	.0035	.2101	.1170	.0001	.0018	52.92	.0034
#3	.0007	1.541	.0044	.2119	.1162	-.0000	.0029	52.85	.0035
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0120	.0022	.0028	.1125	2.135	5.212	.0010	7.706	1.168
Stddev	.0028	.0004	.0003	.0023	.015	.094	.0017	.110	.021
%RSD	23.18	18.29	10.32	2.039	.7058	1.810	169.6	1.428	1.778
#1	.0152	.0022	.0025	.1125	2.149	5.277	.0029	7.832	1.174
#2	.0107	.0025	.0030	.1148	2.137	5.104	.0004	7.626	1.185
#3	.0101	.0018	.0030	.1102	2.119	5.255	-.0003	7.660	1.145
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024	508.5	.0061	.4247	.0049	8.360	-.0019	-.0028	8.236
Stddev	.0003	4.8	.0002	.0022	.0015	.038	.0010	.0007	.034
%RSD	11.02	.9435	3.575	.5105	30.90	.4525	52.78	23.96	.4074
#1	.0024	514.0	.0060	.4271	.0039	8.357	-.0020	-.0026	8.248
#2	.0022	506.2	.0059	.4242	.0066	8.324	-.0028	-.0022	8.198
#3	.0027	505.3	.0063	.4228	.0042	8.400	-.0008	-.0035	8.261
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.0028	.1781	.0360	.0036	.0052	.0014	.0400	-.0046	
Stddev	.0009	.0015	.0006	.0042	.0001	.0014	.0002	.0001	
%RSD	30.03	.8431	1.590	115.8	2.663	94.46	.5744	2.223	
#1	-.0024	.1798	.0354	.0076	.0053	.0029	.0400	-.0047	
#2	-.0023	.1770	.0361	.0038	.0052	.0003	.0403	-.0046	
#3	-.0038	.1775	.0366	-.0007	.0050	.0011	.0398	-.0045	

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Sample Name: jd43339-2 Acquired: 4/20/2022 19:52:23 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	.0227	.0163	1.014	.1024	-.0004	.0027	125.7	-.0001
Stddev	.0007	.0128	.0003	.002	.0006	.0001	.0021	.4	.0003
%RSD	95.65	56.55	1.778	.1935	.5644	33.24	76.11	.3017	258.8
#1	.0014	.0236	.0159	1.013	.1030	-.0005	.0015	125.3	.0001
#2	.0005	.0094	.0165	1.016	.1023	-.0003	.0015	126.0	-.0005
#3	.0001	.0350	.0163	1.012	.1018	-.0004	.0051	125.8	.0001
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0072	-.0006	.0006	.0030	.0136	39.54	.0256	75.15	.0005
Stddev	.0007	.0002	.0001	.0002	.0065	.21	.0015	.29	.0001
%RSD	10.35	26.03	18.28	5.384	47.62	.5384	5.875	.3829	12.72
#1	.0069	-.0005	.0007	.0028	.0115	39.46	.0238	74.82	.0004
#2	.0066	-.0005	.0006	.0031	.0084	39.78	.0266	75.25	.0005
#3	.0080	-.0008	.0005	.0031	.0208	39.37	.0262	75.37	.0005
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0083	872.1	.0022	.1803	.0007	45.92	-.0005	-.0028	9.149
Stddev	.0001	5.8	.0006	.0019	.0007	.07	.0008	.0012	.021
%RSD	1.783	.6661	26.30	1.041	105.7	.1548	176.5	44.25	.2353
#1	.0085	865.4	.0021	.1819	.0013	45.96	-.0010	-.0014	9.156
#2	.0082	874.7	.0028	.1807	.0009	45.97	-.0008	-.0036	9.167
#3	.0082	876.1	.0016	.1782	-.0001	45.84	.0005	-.0034	9.125
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.0037	1.148	-.0003	.0016	.0007	.0007	.0448	-.0049	
Stddev	.0012	.003	.0001	.0032	.0003	.0004	.0001	.0001	
%RSD	32.28	.2408	19.10	203.6	38.46	49.35	.1287	2.392	
#1	-.0037	1.145	-.0002	.0013	.0008	.0006	.0448	-.0050	
#2	-.0025	1.151	-.0003	.0049	.0009	.0005	.0449	-.0048	
#3	-.0049	1.148	-.0003	-.0015	.0004	.0012	.0448	-.0050	

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Sample Name: jd43253-4 Acquired: 4/20/2022 19:47:15 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6094.6	79840.	2821.7	2363.5					
Stddev	17.9	1268.	16.1	8.9					
%RSD	.29334	1.5876	.56949	.37595					
#1	6105.5	79156.	2807.7	2365.5					
#2	6104.4	79061.	2818.1	2371.2					
#3	6074.0	81302.	2839.2	2353.8					

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Sample Name: jd43339-2 Acquired: 4/20/2022 19:52:23 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	5836.6	76202.	2806.0	2250.3					
Stddev	17.5	670.	9.9	6.9					
%RSD	.29909	.87883	.35181	.30527					
#1	5855.3	76567.	2817.1	2256.6					
#2	5820.8	75429.	2798.2	2243.0					
#3	5833.5	76610.	2802.8	2251.3					

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Sample Name: jd43339-3 Acquired: 4/20/2022 19:57:39 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009	.0384	.0147	1.020	.1051	-.0002	.0053	128.4	.0002
Stddev	.0002	.0088	.0009	.005	.0001	.0001	.0013	.5	.0001
%RSD	25.54	22.95	5.859	.5435	.1264	39.07	25.54	.4033	33.41
#1	.0009	.0385	.0142	1.016	.1049	-.0002	.0050	128.1	.0001
#2	.0007	.0295	.0142	1.026	.1051	-.0001	.0067	129.0	.0003
#3	.0011	.0472	.0157	1.017	.1052	-.0003	.0041	128.1	.0003
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0104	-.0003	.0013	.0027	.0191	39.75	.0262	75.71	.0005
Stddev	.0037	.0004	.0002	.0004	.0043	.20	.0017	.41	.0001
%RSD	35.32	128.0	13.08	13.02	22.43	.5143	6.470	.5476	19.11
#1	.0077	-.0003	.0011	.0024	.0201	39.71	.0242	75.56	.0004
#2	.0146	-.0008	.0014	.0027	.0144	39.97	.0273	76.18	.0005
#3	.0089	.0001	.0015	.0031	.0227	39.56	.0270	75.40	.0005
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0085	864.0	.0022	.1774	.0014	46.22	.0003	-.0019	9.243
Stddev	.0003	10.1	.0007	.0010	.0011	.23	.0004	.0010	.044
%RSD	3.892	1.169	31.46	.5746	80.20	.4915	120.1	49.74	.4743
#1	.0088	856.0	.0015	.1777	.0003	46.03	.0007	-.0030	9.218
#2	.0086	875.4	.0023	.1762	.0025	46.47	-.0000	-.0012	9.293
#3	.0082	860.8	.0028	.1782	.0012	46.16	.0002	-.0016	9.217
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.0036	1.172	-.0004	.0017	.0004	.0002	.0404	-.0056	
Stddev	.0009	.004	.0003	.0029	.0003	.0013	.0004	.0001	
%RSD	25.51	.3061	78.45	172.9	79.58	697.8	.9087	1.424	
#1	-.0047	1.171	-.0002	-.0014	.0007	.0017	.0404	-.0057	
#2	-.0032	1.176	-.0007	.0045	.0002	-.0003	.0400	-.0056	
#3	-.0030	1.169	-.0003	.0019	.0002	-.0008	.0407	-.0055	

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Sample Name: jd43353-1 Acquired: 4/20/2022 20:02:55 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013	4.122	.0099	.2190	.1600	.0004	.0094	121.1	.0012
Stddev	.0001	.064	.0018	.0015	.0013	.0003	.0030	1.4	.0002
%RSD	8.837	1.557	18.58	.6874	.7888	73.20	32.29	1.153	20.92
#1	.0012	4.176	.0113	.2204	.1604	.0002	.0092	121.5	.0009
#2	.0013	4.051	.0078	.2193	.1585	.0003	.0126	119.5	.0013
#3	.0014	4.140	.0107	.2174	.1609	.0007	.0065	122.2	.0013
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0403	.0032	.0090	.0266	8.214	12.14	.0278	14.38	2.032
Stddev	.0011	.0006	.0003	.0002	.101	.11	.0023	.14	.034
%RSD	2.765	19.74	2.858	.9232	1.227	.8906	8.217	.9833	1.683
#1	.0411	.0026	.0090	.0267	8.257	12.24	.0285	14.43	2.071
#2	.0408	.0031	.0088	.0264	8.099	12.03	.0296	14.23	2.017
#3	.0391	.0038	.0093	.0268	8.286	12.16	.0252	14.50	2.008
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018	112.1	.0125	1.618	.0169	10.66	.0002	-.0011	19.96
Stddev	.0002	1.3	.0007	.003	.0007	.01	.0015	.0014	.05
%RSD	12.31	1.126	5.701	.2037	4.356	.0861	735.5	135.4	.2621
#1	.0019	112.3	.0132	1.616	.0161	10.66	.0004	-.0004	20.01
#2	.0020	110.7	.0118	1.617	.0175	10.65	.0016	-.0001	19.95
#3	.0015	113.2	.0125	1.622	.0170	10.67	-.0014	-.0027	19.91
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.3003	.7147	.2681	.0047	.0090	.0008	.0901	-.0100	
Stddev	.0012	.0082	.0082	.0022	.0007	.0010	.0006	.0003	
%RSD	.3905	1.153	3.046	46.19	7.366	128.9	.6940	3.269	
#1	.3001	.7181	.2688	.0070	.0097	.0018	.0899	-.0096	
#2	.2992	.7053	.2760	.0028	.0085	-.0003	.0897	-.0102	
#3	.3016	.7207	.2597	.0042	.0086	.0009	.0909	-.0101	

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Sample Name: jd43339-3 Acquired: 4/20/2022 19:57:39 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_3600	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5833.4	76492.	2763.3	2250.6
Stddev	16.8	192.	19.6	3.8
%RSD	.28749	.25037	.70862	.16956
#1	5818.2	76651.	2781.7	2248.6
#2	5830.5	76279.	2742.7	2248.2
#3	5851.4	76546.	2765.3	2255.0

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Sample Name: jd43353-1 Acquired: 4/20/2022 20:02:55 Type: Unk
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_3600	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6311.7	80252.	2851.3	2406.2
Stddev	6.6	1247.	38.8	.7
%RSD	.10454	1.5543	1.3613	.02940
#1	6319.2	78891.	2856.8	2407.0
#2	6306.7	80526.	2887.0	2405.9
#3	6309.3	81340.	2810.0	2405.7

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Sample Name: jd43353-4 Acquired: 4/20/2022 20:18:20 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011	7.350	.0055	.0611	.0618	.0005	.0091	23.14	.0002
Stddev	.0004	.017	.0010	.0003	.0006	.0001	.0033	.03	.0003
%RSD	38.48	.2292	18.91	.4768	.9251	17.23	36.49	.1429	151.7
#1	.0013	7.362	.0065	.0608	.0616	.0006	.0114	23.16	.0006
#2	.0006	7.357	.0055	.0614	.0613	.0005	.0053	23.10	-.0000
#3	.0014	7.331	.0045	.0611	.0624	.0005	.0106	23.16	.0001
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0363	.0023	.0128	.0288	8.746	2.266	.0075	5.683	.1377
Stddev	.0014	.0004	.0003	.0002	.031	.002	.0004	.051	.0001
%RSD	3.796	15.17	2.441	.8393	.3545	.0837	5.362	.8997	.1059
#1	.0372	.0027	.0132	.0285	8.739	2.264	.0075	5.627	.1378
#2	.0369	.0022	.0126	.0290	8.719	2.267	.0070	5.728	.1377
#3	.0347	.0020	.0126	.0289	8.780	2.267	.0078	5.693	.1375
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015	8.103	.0073	.2846	.0165	5.744	-.0009	.0028	18.53
Stddev	.0001	.002	.0001	.0008	.0014	.017	.0011	.0013	.10
%RSD	6.255	.0271	1.745	.2687	8.410	2928	116.7	45.45	.5182
#1	.0014	8.105	.0072	.2853	.0180	5.763	-.0002	.0040	18.63
#2	.0015	8.101	.0073	.2838	.0153	5.734	-.0004	.0015	18.54
#3	.0016	8.103	.0075	.2848	.0163	5.734	-.0021	.0028	18.43
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.0005	.1094	.3373	.0007	.0147	.0009	.0346	-.0088	
Stddev	.0008	.0004	.0062	.0009	.0002	.0008	.0001	.0003	
%RSD	154.1	.3679	1.845	128.0	1.676	85.94	2169	3.074	
#1	.0004	.1097	.3439	-.0003	.0148	.0014	.0347	-.0090	
#2	-.0008	.1089	.3364	.0011	.0145	.0012	.0345	-.0089	
#3	-.0011	.1095	.3316	.0014	.0149	.0000	.0346	-.0085	

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Sample Name: jd43353-4 Acquired: 4/20/2022 20:18:20 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6650.6	82806.	2904.3	2490.4					
Stddev	16.7	160.	2.5	9.4					
%RSD	.25140	.19368	.08443	.37897					
#1	6631.4	82956.	2903.3	2479.8					
#2	6658.4	82824.	2902.5	2493.4					
#3	6662.0	82637.	2907.1	2497.9					

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Sample Name: jd43353-5 Acquired: 4/20/2022 20:23:27 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0039	19.54	.0277	.2096	.1912	.0026	.0327	F 290.6	
Stddev	.0005	.03	.0003	.0017	.0010	.0003	.0010	.3	
%RSD	12.27	.1564	1.255	.8018	.5225	10.21	3.065	.1130	
#1	.0042	19.51	.0278	.2091	.1906	.0023	.0329	291.0	
#2	.0040	19.53	.0280	.2114	.1906	.0027	.0316	290.6	
#3	.0033	19.57	.0273	.2081	.1924	.0028	.0335	290.3	
Elem	Cd2288	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0035	.1625	.0585	.0638	.1400	26.54	10.10	.0402	
Stddev	.0002	.0034	.0006	.0003	.0008	.02	.10	.0017	
%RSD	4.552	2.066	1.089	.4869	.5534	.0843	.9662	4.165	
#1	.0034	.1650	.0578	.0636	.1394	26.56	10.12	.0389	
#2	.0033	.1638	.0589	.0641	.1409	26.52	9.994	.0396	
#3	.0036	.1587	.0588	.0636	.1396	26.54	10.19	.0421	
Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	50.51	F 22.07	.0078	124.1	.0809	2.290	.1266	F 231.1	
Stddev	.05	.15	.0003	.1	.0007	.014	.0005	1.5	
%RSD	.0957	.6901	3.290	.0684	.8541	.6145	.4261	.6361	
#1	50.52	22.24	.0077	124.2	.0801	2.281	.1259	230.4	
#2	50.55	21.99	.0081	124.2	.0814	2.306	.1268	232.8	
#3	50.46	21.97	.0076	124.0	.0811	2.282	.1269	230.2	
Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0095	.0116	F 43.82	.7088	4859	1.052	.0289	.0452	
Stddev	.0009	.0012	.29	.0030	.0007	.009	.0011	.0002	
%RSD	9.086	10.58	.6725	.4168	.1503	.8451	3.694	.3500	
#1	.0097	.0126	43.69	.7061	4861	1.042	.0277	.0451	
#2	.0103	.0120	44.15	.7119	4865	1.052	.0293	.0454	
#3	.0086	.0102	43.61	.7084	4851	1.060	.0297	.0452	

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[Zoom In](#)
[Zoom Out](#)

Sample Name: jd43353-5 Acquired: 4/20/2022 20:23:27 Type: Unk									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	W_2079	Zn2062	Zr3391						
Units	ppm	ppm	ppm						
Avg	.0008	.2431	F -.0112						
Stddev	.0004	.0011	.0011						
%RSD	56.60	.4552	9.843						
#1	.0004	.2426	-.0100						
#2	.0013	.2443	-.0119						
#3	.0006	.2423	-.0118						
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6181.8	81282.	2899.1	2386.4					
Stddev	21.8	431.	7.1	7.2					
%RSD	.35186	.53083	.24617	.30060					
#1	6189.1	81761.	2899.8	2390.0					
#2	6157.3	80924.	2891.7	2378.1					
#3	6199.0	81159.	2905.9	2391.1					

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[Zoom In](#)
[Zoom Out](#)

Sample Name: ccb Acquired: 4/20/2022 20:38:34 Type: QC									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	-.0065	.0008	.0015	.0002	.0001	.0007	-.0027	.0003
Stddev	.0003	.0089	.0003	.0014	.0003	.0001	.0017	.0030	.0004
%RSD	76.32	136.4	30.59	97.25	127.8	88.90	258.1	110.0	127.6
#1	.0001	-.0014	.0011	-.0000	.0003	.0000	-.0011	-.0023	-.0001
#2	.0006	-.0168	.0006	.0028	.0005	.0001	.0008	.0000	.0003
#3	.0007	-.0013	.0008	.0016	-.0001	.0001	.0024	-.0059	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	Ce4040	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009	.0003	-.0001	F .0059	.0056	-.0750	-.0021	-.0163	.0001
Stddev	.0010	.0002	.0001	.0004	.0074	.0655	.0013	.0203	.0000
%RSD	103.3	68.97	153.8	6.766	132.0	87.38	59.27	124.7	15.33
#1	.0019	.0003	-.0000	.0059	.0021	-.0920	-.0008	-.0242	.0001
#2	.0009	.0006	.0000	.0055	.0005	-.0026	-.0023	-.0314	.0001
#3	-.0000	.0001	-.0002	.0063	.0140	-.1303	-.0033	.0068	.0001
Check ?	None	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0032					
Low Limit				-.0032					
Elem	Mo2020	Na5895	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.1322	.0001	.0001	.0008	-.0002	-.0010	.0001	.0004
Stddev	.0002	.0077	.0003	.0012	.0012	.0003	.0015	.0016	.0009
%RSD	61.95	5.861	423.2	1286.	162.9	136.8	153.3	2249.	244.5
#1	.0005	.1407	.0003	.0015	.0018	.0001	-.0027	.0017	-.0004
#2	.0001	.1255	-.0003	-.0007	.0012	-.0005	-.0003	.0001	.0002
#3	.0003	.1305	.0002	-.0005	-.0006	-.0002	.0000	-.0015	.0013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

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Sample Name: ccb Acquired: 4/20/2022 20:38:34 Type: QC									
Method: SGS NO VALVE3(v262) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	W_2079	Zn2062	Zr3391	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0002	-.0001	.0002	.0012	.0003	.0002	-.0001	-.0001	
Stddev	.0009	.0001	.0003	.0019	.0003	.0014	.0001	.0001	
%RSD	363.4	208.9	198.9	161.3	95.81	814.7	92.44	60.19	
#1	-.0002	.0000	.0006	.0005	.0004	.0015	-.0000	-.0001	
#2	.0012	-.0002	-.0000	.0034	-.0000	.0003	-.0003	-.0000	
#3	-.0003	-.0000	-.0000	-.0003	.0004	-.0013	-.0001	-.0001	
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	
High Limit									
Low Limit									
Int. Std.	In2306	Y_3600	Y_3710	Y_2243					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	6847.7	83217.	2839.3	2514.1					
Stddev	64.4	291.	17.8	27.0					
%RSD	.94019	.35020	.62630	1.0729					
#1	6810.9	83024.	2856.1	2501.4					
#2	6810.2	83075.	2820.7	2495.8					
#3	6922.1	83552.	2841.3	2545.1					

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	17	Mn	0.000056	0.000000	No
			Mo	-0.000079	0.000000	No
			Ti	-0.000330	0.000000	No
			V	-0.007600	0.000000	No
			Zr	0.009420	0.000000	No
			Sb	-0.000013	0.000000	No
			Mg	-0.000001	0.000000	No
			Ca	-0.000003	0.000000	No
			Fe	-0.000136	0.000000	No
			Al	-0.000002	0.000000	No
			Zn	-0.000090	0.000000	No
			Ba	-0.000087	0.000000	No
			Ni	-0.000021	0.000000	No
			Cr	0.000013	0.000000	No
			As	0.000081	0.000000	No
			Ce	-0.001282	0.000000	No
			W	0.000000	0.000000	No
Al 396.152 { 85}	☒	9	Ca	0.000067	0.000000	No
			Mo	0.044823	0.000000	No
			Ti	0.000037	0.000000	No
			Si	0.000228	0.000000	No
			Co	-0.000115	0.000000	No
			Li	-0.001000	0.000000	No
			Ba	0.000725	0.000000	No
			Zr	0.004878	0.000000	No
			Ce	-0.001000	0.000000	No
As 189.042 {478}	☒	23	Al	0.000017	0.000000	No
			Fe	-0.000018	0.000000	No
			Ca	0.000009	0.000000	No
			Mn	-0.000148	0.000000	No
			Mo	0.000657	0.000000	No
			Cr	0.000300	0.000000	No
			Co	-0.000023	0.000000	No
			Si	-0.000047	0.000000	No
			Cu	0.000120	0.000000	No
			Mg	0.000002	0.000000	No
			Cd	-0.001100	0.000000	No
			Sn	-0.000017	0.000000	No
			Zn	-0.000045	0.000000	No
			Zr	-0.000145	0.000000	No
			Sb	0.000022	0.000000	No
			Ti	-0.000100	0.000000	No
			Ni	0.000131	0.000000	No
			W	-0.010000	0.000000	No
			S	0.000000	0.000000	No
			Ba	-0.000070	0.000000	No
			Sr	0.000000	0.000000	No
			V	-0.000100	0.000000	No
			Ce	-0.000636	0.000000	No
B 208.959 {462}	☒	1	Mo	0.032260	0.000000	No
Ba 455.403 { 74}	☒	3	Al	0.000000	0.000000	No
			Zr	0.000824	0.000000	No
Be 313.042 {108}	☒	13	Mn	0.000000	0.000000	No
			V	0.000120	0.000000	No
			Mo	-0.000040	0.000000	No
			Ti	-0.000917	0.000000	No
			Mn	0.000006	0.000000	No
			Ba	-0.000013	0.000000	No
			Zn	0.000010	0.000000	No
			Sb	-0.000021	0.000000	No
			Ag	0.000060	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Sn	0.000010	0.000000	No
			Fe	-0.000003	0.000000	No
			K	0.000000	0.000000	No
			Ca	0.000002	0.000000	No
			Al	-0.000001	0.000000	No
Bi 223.061 {451}	☒	9	Fe	0.000133	0.000000	No
			Ti	-0.174000	0.000000	No
			Co	-0.003172	0.000000	No
			Cr	0.001172	0.000000	No
			Cu	-0.001562	0.000000	No
			V	-0.000498	0.000000	No
			W	0.000000	0.000000	No
			Ce	0.000000	0.000000	No
			Ca	-0.000013	0.000000	No
Ca 317.933 {106}	☒	5	Al	0.000043	0.000000	No
			Fe	0.000046	0.000000	No
			Mg	0.000071	0.000000	No
			Ti	-0.000042	0.000000	No
			Co	0.001523	0.000000	No
Cd 228.802 {448}	☒	14	As	0.016500	0.000000	No
			Ni	-0.000060	0.000000	No
			Fe	0.000021	0.000000	No
			Ba	0.000100	0.000000	No
			Co	-0.001764	0.000000	No
			Al	0.000002	0.000000	No
			Mg	0.000000	0.000000	No
			Ca	0.000000	0.000000	No
			Mn	-0.000014	0.000000	No
			Ti	0.000051	0.000000	No
			Cu	0.000009	0.000000	No
			Sr	-0.000050	0.000000	No
			W	-0.000194	0.000000	No
			Cr	0.000010	0.000000	No
Ce 404.076 { 83}	☒	2	Mn	-0.002972	0.000000	No
			Zr	-0.024982	0.000000	No
Co 228.616 {448}	☒	5	Fe	-0.000001	0.000000	No
			Ca	-0.000003	0.000000	No
			Mg	0.000001	0.000000	No
			Ti	0.001922	0.000000	No
			Mo	-0.001460	0.000000	No
Cr 267.716 {126}	☒	8	Mn	0.000098	0.000000	No
			Mo	-0.000153	0.000000	No
			Co	0.000007	0.000000	No
			Al	0.000000	0.000000	No
			Sn	0.000032	0.000000	No
			Ti	0.000042	0.000000	No
			Ca	0.000000	0.000000	No
			Fe	-0.000003	0.000000	No
Cu 324.754 {104}2	☒	8	Cr	0.000009	0.000000	No
			Mn	-0.000130	0.000000	No
			Zn	0.000037	0.000000	No
			Fe	-0.000028	0.000000	No
			V	-0.000357	0.000000	No
			Ni	-0.000268	0.000000	No
			W	0.060000	0.000000	No
			Ti	-0.001700	0.000000	No
Fe 259.940 {130}	☒	11	Cr	0.000237	0.000000	No
			Zn	0.000466	0.000000	No
			Al	0.000022	0.000000	No
			Co	0.000318	0.000000	No
			Cd	0.000700	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Sn	-0.000019	0.000000	No
			Ti	-0.000710	0.000000	No
			Si	0.000053	0.000000	No
			Ca	0.000012	0.000000	No
			Ba	0.000400	0.000000	No
			Mn	-0.000272	0.000000	No
In 230.606 {446}* K 766.490 { 44} Li 670.784 { 50}	☒ ☒ ☒	None None 2				
			Ca	0.000022	0.000000	No
			Fe	0.000000	0.000000	No
Mg 279.079 {121}	☒	3	Mo	-0.021115	0.000000	No
			Pb	-0.000009	0.000000	No
			Fe	-0.000081	0.000000	No
Mn 257.610 {131}	☒	2	Fe	-0.000091	0.000000	No
			Mo	0.000011	0.000000	No
Mo 202.030 {467}	☒	6	Ti	0.000050	0.000000	No
			Mg	-0.000005	0.000000	No
			Ca	0.000000	0.000000	No
			Fe	-0.000006	0.000000	No
			V	-0.000100	0.000000	No
			W	-0.000612	0.000000	No
Na 589.592 { 57}	☒	1	Al	0.000039	0.000000	No
Ni 231.604 {446}	☒	7	Cr	-0.000028	0.000000	No
			Mo	-0.000041	0.000000	No
			Fe	0.000010	0.000000	No
			Zn	0.000017	0.000000	No
			Co	-0.000329	0.000000	No
			Ti	0.000010	0.000000	No
			W	-0.000073	0.000000	No
P 177.495 {490}	☒	2	Mn	-0.004648	0.000000	No
			Cu	0.004091	0.000000	No
Pb 220.353 {453}	☒	22	Al	-0.000124	0.000000	No
			Ca	-0.000001	0.000000	No
			Mn	0.000066	0.000000	No
			Zn	0.000027	0.000000	No
			Mo	-0.001130	0.000000	No
			Ni	0.000306	0.000000	No
			Cu	0.000235	0.000000	No
			V	-0.000083	0.000000	No
			Co	-0.000540	0.000000	No
			Ti	0.000270	0.000000	No
			Si	-0.000046	0.000000	No
			Mg	-0.000001	0.000000	No
			Sb	0.000041	0.000000	No
			Cr	-0.000230	0.000000	No
			Sn	0.000010	0.000000	No
			Fe	0.000051	0.000000	No
			W	0.000000	0.000000	No
			Sr	-0.000036	0.000000	No
			Zr	-0.000610	0.000000	No
			S	0.000000	0.000000	No
			Ce	0.000000	0.000000	No
			As	-0.000440	0.000000	No
S 182.034 {485}	☒	10	Ca	-0.000015	0.000000	No
			Mo	-0.003422	0.000000	No
			Al	-0.000024	0.000000	No
			Fe	0.000008	0.000000	No
			Mn	0.002516	0.000000	No
			W	0.000000	0.000000	No
			Mg	0.000012	0.000000	No
			Cr	0.000119	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			V	0.000018	0.000000	No
			B	-0.000196	0.000000	No
Sb 206.833 {463}	☒	18	Fe	0.000027	0.000000	No
			Al	0.000003	0.000000	No
			Ca	-0.000006	0.000000	No
			Ni	0.000014	0.000000	No
			Cr	0.012000	0.000000	No
			V	-0.001700	0.000000	No
			Zn	-0.000104	0.000000	No
			Mo	-0.003039	0.000000	No
			Ti	0.001270	0.000000	No
			Sn	-0.012429	0.000000	No
			Mn	0.000100	0.000000	No
			Co	-0.000336	0.000000	No
			Se	-0.000075	0.000000	No
			Zr	0.000000	0.000000	No
			W	0.000000	0.000000	No
			Mg	-0.000003	0.000000	No
			S	-0.000017	0.000000	No
Se 196.090 {472}	☒	19	Ce	-0.001909	0.000000	No
			Al	-0.000010	0.000000	No
			Ca	-0.000008	0.000000	No
			Mn	0.000349	0.000000	No
			Mo	0.000066	0.000000	No
			Co	-0.000296	0.000000	No
			Cu	-0.000107	0.000000	No
			Mg	0.000003	0.000000	No
			Ti	-0.000093	0.000000	No
			Zn	-0.000077	0.000000	No
			Fe	-0.000328	0.000000	No
			Si	0.000068	0.000000	No
			B	-0.000043	0.000000	No
			Ba	0.000050	0.000000	No
			S	-0.000033	0.000000	No
			Zr	-0.000206	0.000000	No
			V	0.000082	0.000000	No
			W	0.000000	0.000000	No
			Sn	0.000000	0.000000	No
			Ce	-0.002000	0.000000	No
Si 212.412 {459}	☒	12	Mn	0.000152	0.000000	No
			Fe	0.000021	0.000000	No
			Ca	0.000041	0.000000	No
			Ni	0.000391	0.000000	No
			Cd	0.001794	0.000000	No
			Cr	0.001112	0.000000	No
			Mo	0.028700	0.000000	No
			Ti	0.004391	0.000000	No
			Ba	0.000825	0.000000	No
			Sn	0.005204	0.000000	No
			V	0.001738	0.000000	No
			Zr	0.000400	0.000000	No
Sn 189.989 {478}	☒	5	Ti	-0.004159	0.000000	No
			Fe	-0.000003	0.000000	No
			Mo	-0.000051	0.000000	No
			Zr	0.000976	0.000000	No
			W	0.000000	0.000000	No
Sr 407.771 { 83}	☒	2	Ca	0.000019	0.000000	No
			Zr	-0.000004	0.000000	No
Ti 334.904 {101}	☒	5	Cr	0.000072	0.000000	No
			Mo	0.001014	0.000000	No
			Zr	0.000002	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			W	0.000004	0.000000	No
			V	0.000064	0.000000	No
Tl 190.856 {477}	☒	31	Cr	0.000310	0.000000	No
			Mo	-0.009210	0.000000	No
			Al	-0.000003	0.000000	No
			V	-0.027592	0.000000	No
			Mn	0.001010	0.000000	No
			Si	-0.000121	0.000000	No
			Ca	-0.000002	0.000000	No
			Ti	-0.001296	0.000000	No
			Cu	0.000040	0.000000	No
			Co	0.002600	0.000000	No
			Sr	-0.000233	0.000000	No
			Zn	0.000069	0.000000	No
			Pb	0.000324	0.000000	No
			Mg	-0.000001	0.000000	No
			Ba	0.000319	0.000000	No
			W	-0.020000	0.000000	No
			B	-0.000349	0.000000	No
			Ni	-0.000034	0.000000	No
			Sn	0.000010	0.000000	No
			Fe	-0.000051	0.000000	No
			Li	-0.000224	0.000000	No
			S	-0.000010	0.000000	No
			As	0.000036	0.000000	No
			Bi	-0.000040	0.000000	No
			P	0.000021	0.000000	No
			Cd	0.000117	0.000000	No
			Sb	0.000034	0.000000	No
			K	0.000000	0.000000	No
			Zr	0.000059	0.000000	No
			Be	-0.000289	0.000000	No
			Ce	-0.002100	0.000000	No
V 292.402 {115}	☒	6	Fe	0.000010	0.000000	No
			Ti	0.000440	0.000000	No
			Mo	-0.013150	0.000000	No
			Co	-0.000085	0.000000	No
			Cr	-0.003900	0.000000	No
			Mn	-0.000620	0.000000	No
W 207.911 {462}	☒	3	V	0.000064	0.000000	No
			Zn	0.009425	0.000000	No
			Fe	0.000002	0.000000	No
Y 360.073 {94}* Y 371.030 {91}* Y 224.306 {451}* Zn 206.200 {464}	☒ ☒ ☒ ☒	None None None 13				
			Cr	-0.001000	0.000000	No
			Mo	-0.000376	0.000000	No
			Fe	0.000011	0.000000	No
			Co	0.000122	0.000000	No
			Ni	0.000058	0.000000	No
			Se	0.000849	0.000000	No
			Ca	0.000003	0.000000	No
			Ti	0.000131	0.000000	No
			Sn	0.000068	0.000000	No
			V	-0.000012	0.000000	No
			Al	0.000001	0.000000	No
			Si	0.000017	0.000000	No
			Zr	0.000269	0.000000	No
Zr 339.198 {99}	☒	14	Fe	-0.000067	0.000000	No
			Si	0.000631	0.000000	No
			Ba	-0.000049	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Sn	0.000146	0.000000	No
			Sb	-0.000067	0.000000	No
			V	0.000026	0.000000	No
			W	0.000000	0.000000	No
			Ti	0.000107	0.000000	No
			Al	0.000001	0.000000	No
			Ca	-0.000001	0.000000	No
			Li	0.000000	0.000000	No
			Bi	0.000607	0.000000	No
			Mn	0.000059	0.000000	No
			Mo	0.000801	0.000000	No

Aqueous Metals Digestion Form

Batch Information						
Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP32417	4/20/2022	11:15	4/20/2022	16:45	JD43339-1	

Temperature						
		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	MP-8	4156488	96	-1	95
1	End	MP-8	4156488	96	-1	95
2	Start					
2	End					

Methods and Equipment					
	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #
	SW846 3010A	Digestion Block		M-81	2111109

Sample ID	Bottle Number	pH<2 (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP32417-MB1	N/A	N	50	50	AB		
MP32417-B1	N/A	N	50	50	AB	ABCD	
MP32417-S1	1	Y	50	50	AB	ABCD	
MP32417-S2	1	Y	50	50	AB	ABCD	
MP32417-SD1	1	Y	50	50	AB		
JD43253-1	1	Y	50	50	AB		
JD43253-2	1	Y	50	50	AB		
JD43253-3	1	Y	50	50	AB		
JD43253-4	1	Y	50	50	AB		
JD43339-1	1	Y	50	50	AB		
JD43339-2	1	Y	50	50	AB		
JD43339-3	1	Y	50	50	AB		
JD43353-1	3	Y	50	50	AB		
JD43353-2	3	Y	50	50	AB		
JD43353-3	3	Y	50	50	AB		
JD43353-4	3	Y	50	50	AB		
JD43353-5	3	Y	50	50	AB		
JD43353-6	3	Y	50	50	AB		

Reagents Groups		
Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups		
Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000 PPM	0.25
D	AG 20 PPM	0.625
E		
F		
G		
H		
I		

Comments: _____

Analyst SARAHF Approved by MELVINA Approved on 4/20/2022

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted



Metals Digestion Reagents Information Log

 Digestion Batch ID: **MP32417**

 Date: **04/20/22**

 Matrix: **ALL**

<u>Standard/Reagent Type</u>	<u>Exp. Date</u>	<u>Standard/Reagent ID</u>
Spiking Solution- (ACCUTEST 13A REV1)	7/7/2022	MP-21-58-35
Spiking Solution- (ACCUTEST 14A REV1)	8/16/2022	MP-21-58-27
Spiking Solution - 5000 mg/l Minerals	2/16/2023	S2-MEB712064 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	5/17/2024	LOT: 051721 MFG: ABSOLUTE STD.
Spiking Solution - Si 1000ppm	11/29/2022	S2-S1700841 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	5/24/2022	P2-BI687736 MFG: INO. VENT.
Spiking Solution - Se 20ppm	5/27/2022	MP-21-58-32
Spiking Solution - Li 1000ppm	11/2/2022	S2-L1701641 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	7/14/2022	MP-21-58-37
Spiking Solution - (ACCUTEST 13B REV1)	7/7/2022	MP-21-58-29
Spiking Solution - (ACCUTEST 14B REV1)	6/30/2022	MP-21-58-12
Spiking Solution - 1000ppm Minerals	6/30/2022	MP-21-58-13
Spiking Solution- P		
Nitric Acid	4/14/2024	LOT: MKCP2488 MFG: SIGMA ALDRICH
Nitric Acid (1:1)	10/6/2022	MP-21-60-42 1:1 HNO3
Hydrochloric Acid	4/14/2024	LOT: 22C1662007 MFG: BAKER
Hydrochloric Acid (1:1)	10/6/2022	MP-21-60-41 1:1 HCL
Hydrogen Peroxide	3/22/2024	LOT: 206258 MFG: FISHER
Soil Lab Control/Soil LC	9/22/2022	LOT: D110-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 27407287 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 2111109 MFG: ENV. EXPRESS
pH Paper	2/15/2024	LOT: 205521 MFG: HYDRION
Filter paper Q8	N/A	LOT: 17470298 MFG: FISHER

Spike witnessed By:

Validated By:

Validated On:

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY

GENERAL CHEMISTRY

Login Number: JD43253

Account: GESNYP - Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP39616/GN28373	2.0	0.0	mg/l	80	80.2	100.3	90-110%
Fluoride	GP39616/GN28373	0.20	0.0	mg/l	2	2.15	107.5	90-110%
Iron, Ferrous	GN28385	0.20	0.0	mg/l	3.0	3.1	103.3	85-115%
Nitrogen, Nitrate + Nitrite	GP39645/GN28430	0.10	0.0	mg/l	2	2.20	110.0	90-110%
Nitrogen, Nitrite	GN28342	0.010	0.0	mg/l	0.04	0.037	92.5	90-110%
Sulfate	GP39616/GN28373	2.0	0.0	mg/l	80	83.0	103.8	90-110%
Total Organic Carbon	GP39614/GN28383	1.0	0.0	mg/l	10	9.69	96.9	90-110%

Associated Samples:
Batch GN28342: JD43253-1, JD43253-2, JD43253-3, JD43253-4
Batch GN28385: JD43253-1, JD43253-2, JD43253-3, JD43253-4
Batch GP39614: JD43253-1, JD43253-2, JD43253-3, JD43253-4
Batch GP39616: JD43253-1, JD43253-2, JD43253-3, JD43253-4
Batch GP39645: JD43253-1, JD43253-2, JD43253-3, JD43253-4
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP39616/GN28373	JD43272-1	mg/l	42.0	41.9	0.2	0-20%
Fluoride	GP39616/GN28373	JD43272-1	mg/l	0.081 B	0.080	1.2	0-20%
Nitrogen, Nitrate + Nitrite	GP39645/GN28430	JD43255-2	mg/l	3.9	3.9	0.0	0-33%
Sulfate	GP39616/GN28373	JD43272-1	mg/l	9.2	9.1	1.1	0-20%

Associated Samples:

Batch GP39616: JD43253-1, JD43253-2, JD43253-3, JD43253-4

Batch GP39645: JD43253-1, JD43253-2, JD43253-3, JD43253-4

(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP39616/GN28373	JD43272-1	mg/l	42.0	80	121	98.8	80-120%
Fluoride	GP39616/GN28373	JD43272-1	mg/l	0.081 B	2	2.2	106.0	80-120%
Iron, Ferrous	GN28385	JD43253-1	mg/l	0.0	3.0	2.8	93.3	92-113%
Nitrogen, Nitrate + Nitrite	GP39645/GN28430	JD43255-2	mg/l	3.9	1	4.6	70.0N(a)	90-110%
Nitrogen, Nitrite	GN28342	JD43255-2	mg/l	0.63	0.4	0.98	87.5(b)	22-140%
Sulfate	GP39616/GN28373	JD43272-1	mg/l	9.2	80	92.2	103.8	80-120%
Total Organic Carbon	GP39614/GN28383	JD43253-1	mg/l	5.8	50	57.9	104.2	71-132%

Associated Samples:

Batch GN28342: JD43253-1, JD43253-2, JD43253-3, JD43253-4

Batch GN28385: JD43253-1, JD43253-2, JD43253-3, JD43253-4

Batch GP39614: JD43253-1, JD43253-2, JD43253-3, JD43253-4

Batch GP39616: JD43253-1, JD43253-2, JD43253-3, JD43253-4

Batch GP39645: JD43253-1, JD43253-2, JD43253-3, JD43253-4

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Spike recovery indicates possible matrix interference.

(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Iron, Ferrous	GN28385	JD43253-1	mg/l	0.0	3.0	2.8	0.0	20%
Nitrogen, Nitrite	GN28342	JD43255-2	mg/l	0.63	0.4	0.98	0.0	20%
Total Organic Carbon	GP39614/GN28383	JD43253-1	mg/l	5.8	50	59.6	2.9	10%

Associated Samples:

Batch GN28342: JD43253-1, JD43253-2, JD43253-3, JD43253-4

Batch GN28385: JD43253-1, JD43253-2, JD43253-3, JD43253-4

Batch GP39614: JD43253-1, JD43253-2, JD43253-3, JD43253-4

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: D22042001.TXT
Analyst: JD
Parameters: Sulfate

Date Analyzed: 04/12/22
Run ID: GN28373

Methods: EPA 300/SW846 9056A

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:46	GN28373-STD1	1		STDA
18:59	GN28373-STD2	1		STDC
19:12	GN28373-STD3	1		STDD
19:25	GN28373-STD4	1		STDE
19:38	GN28373-STD5	1		STDF
19:51	GN28373-STD6	1		STDG
20:03	GN28373-ICV1	1		
10:13	ZZZZZZ	1		
10:25	ZZZZZZ	1		
10:38	ZZZZZZ	1		
10:51	GN28373-CCV1	1		
11:04	GN28373-CCB1	1		
11:17	ZZZZZZ	1		
11:30	ZZZZZZ	1		
11:43	GP39596-S1	2		
11:56	ZZZZZZ	10		
12:09	ZZZZZZ	2		
12:21	ZZZZZZ	4		
12:37	GP39616-MB1	1		
12:49	GP39616-B1	1		
13:02	ZZZZZZ	1		
13:15	ZZZZZZ	1		
13:28	GN28373-CCV2	1		
13:41	GN28373-CCB2	1		
13:54	ZZZZZZ	1		
14:07	GP39616-S1	1		
14:20	GP39616-D1	1		
14:33	JD43272-1	1		(sample used for QC only; not part of login JD43253)
14:46	ZZZZZZ	1		
14:59	ZZZZZZ	1		
15:11	ZZZZZZ	1		
15:24	ZZZZZZ	1		
15:37	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: D22042001.TXT
Analyst: JD
Parameters: Sulfate

Date Analyzed: 04/12/22
Run ID: GN28373

Methods: EPA 300/SW846 9056A

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:50	JD43253-1	1		
16:03	GN28373-CCV3	1		
16:16	GN28373-CCB3	1		
16:29	JD43253-2	1		
16:42	JD43253-3	1		
16:59	JD43253-4	1		
17:12	ZZZZZZ	1		
17:25	ZZZZZZ	1		
17:38	ZZZZZZ	1		
17:51	ZZZZZZ	1		
18:04	ZZZZZZ	1		
18:17	ZZZZZZ	1		
18:30	ZZZZZZ	1		
18:43	GN28373-CCV4	1		
18:55	GN28373-CCB4	1		
19:08	GP39620-MB1	1		
19:21	GP39620-B1	1		
19:34	GP39620-S1	1		
19:47	GP39620-D1	1		
20:00	JD43349-3	1		(sample used for QC only; not part of login JD43253)
20:13	ZZZZZZ	1		
20:26	ZZZZZZ	1		
20:39	ZZZZZZ	1		
20:52	ZZZZZZ	1		
21:05	ZZZZZZ	1		
21:18	GN28373-CCV5	1		
21:31	GN28373-CCB5	1		
21:44	ZZZZZZ	1		
21:56	ZZZZZZ	1		
22:09	ZZZZZZ	1		
22:22	GN28373-CCV6	1		
22:35	GN28373-CCB6	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: D22042001.TXT

Date Analyzed: 04/12/22
Run ID: GN28373

Methods: EPA 300/SW846 9056A
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN28373-ICV1	Sulfate	102	2.0	0.89	100	102.0	90-110
GN28373-CCV1	Sulfate	207	2.0	0.89	200	103.5	90-110
GN28373-CCB1	Sulfate	0.89 U	2.0	0.89			
GN28373-CCV2	Sulfate	208	2.0	0.89	200	104.0	90-110
GN28373-CCB2	Sulfate	0.89 U	2.0	0.89			
GN28373-CCV3	Sulfate	207	2.0	0.89	200	103.5	90-110
GN28373-CCB3	Sulfate	0.89 U	2.0	0.89			
GN28373-CCV4	Sulfate	208	2.0	0.89	200	104.0	90-110
GN28373-CCB4	Sulfate	0.89 U	2.0	0.89			
GN28373-CCV5	Sulfate	208	2.0	0.89	200	104.0	90-110
GN28373-CCB5	Sulfate	0.89 U	2.0	0.89			
GN28373-CCV6	Sulfate	208	2.0	0.89	200	104.0	90-110
GN28373-CCB6	Sulfate	0.89 U	2.0	0.89			

(!) Outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: E220420W1.TXT Date Analyzed: 04/20/22 Methods: SM5310 B-11
Analyst: MB Run ID: GN28383
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:41	GN28383-STD1	1		STDA
13:58	GN28383-STD2	1		STDB
14:11	GN28383-STD3	1		STDC
14:28	GN28383-STD4	1		STDD
14:42	GN28383-STD5	1		STDE
14:57	GN28383-STD6	1		STDF
15:12	GN28383-STD7	1		STDG
15:27	GN28383-STD8	1		STDH
10:53	ZZZZZ	1		
11:05	GN28383-CRI1	1		
11:34	GN28383-HSTD1	1		
11:50	GN28383-ICV1	1		
12:03	GN28383-ICB1	1		
12:17	GN28383-CCV1	1		
12:32	GN28383-CCB1	1		
12:47	ZZZZZ	1		
12:58	GP39614-MB1	1		
13:51	GP39614-B1	1		
14:02	JD43253-1	5		
14:13	GP39614-S1	5		
14:25	GP39614-MSD1	5		
14:36	JD43253-2	3		overrange, see rerun
14:49	JD43253-3	2		
14:58	JD43253-4	2		
15:09	GN28383-CCVA1	1		
15:22	GN28383-CCB2	1		
15:47	JD43253-2	20		
15:58	GN28383-CCV2	1		
16:11	GN28383-CCB3	1		
16:19	ZZZZZ	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: E220420W1.TXT

Date Analyzed: 04/20/22
Run ID: GN28383

Methods: SM5310 B-11
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN28383-CRI1	Total Organic Carbon	0.772	1.0	0.72	1	77.2	70-130
GN28383-HSTD1	Total Organic Carbon	52.0	1.0	0.72	50	104.0	90-110
GN28383-ICV1	Total Organic Carbon	20.3	1.0	0.72	20	101.5	90-110
GN28383-ICB1	Total Organic Carbon	0.72 U	1.0	0.72			
GN28383-CCV1	Total Organic Carbon	25.0	1.0	0.72	25	100.0	90-110
GN28383-CCB1	Total Organic Carbon	0.72 U	1.0	0.72			
GN28383-CCVA1	Total Organic Carbon	51.7	1.0	0.72	50	103.4	
GN28383-CCB2	Total Organic Carbon	0.736	1.0	0.72			
GN28383-CCV2	Total Organic Carbon	26.0	1.0	0.72	25	104.0	90-110
GN28383-CCB3	Total Organic Carbon	0.72 U	1.0	0.72			

(!) Outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: E042122W1.N032 Date Analyzed: 04/21/22 Methods: EPA 353.2/LACHAT
Analyst: MM Run ID: GN28430
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:19	GN28430-STD1	1		STDA
16:20	GN28430-STD2	1		STDB
16:22	GN28430-STD3	1		STDC
16:23	GN28430-STD4	1		STDD
16:24	GN28430-STD5	1		STDE
16:25	GN28430-STD6	1		STDF
16:26	GN28430-STD7	1		STDG
16:28	GN28430-ICV1	1		
16:29	GN28430-ICB1	1		
16:30	GN28430-CCV1	1		
16:31	GN28430-CCB1	1		
16:32	GP39645-MB1	1		
16:34	GP39645-B1	1		
16:35	GP39645-S1	1		
16:36	GP39645-S2	1		
16:37	GP39645-D1	1		
16:38	JD43255-2	1		(sample used for QC only; not part of login JD43253)
16:39	JD43360-1	1		(sample used for QC only; not part of login JD43253)
16:40	JD43253-1	1		
16:41	JD43253-2	1		
16:42	JD43253-3	1		
16:43	GN28430-CCV2	1		
16:45	GN28430-CCB2	1		
16:46	JD43253-4	1		
16:47	ZZZZZZ	1		
16:48	ZZZZZZ	1		
16:49	ZZZZZZ	1		
16:50	ZZZZZZ	1		
16:51	ZZZZZZ	1		
16:52	ZZZZZZ	1		
16:53	ZZZZZZ	1		
16:54	ZZZZZZ	1		
16:55	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: E042122W1.N032 Date Analyzed: 04/21/22 Methods: EPA 353.2/LACHAT
Analyst: MM Run ID: GN28430
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:57	GN28430-CCV3	1		
16:58	GN28430-CCB3	1		
16:59	ZZZZZZ	1		
17:00	ZZZZZZ	1		
17:01	ZZZZZZ	1		
17:02	ZZZZZZ	1		
17:03	ZZZZZZ	1		
17:04	GP39646-MB1	1		
17:05	GP39646-B1	1		
17:07	GP39646-S1	1		
17:08	GP39646-S2	1		
17:09	GP39646-D1	1		
17:10	GN28430-CCV4	1		
17:11	GN28430-CCB4	1		
17:12	JD43360-4	1		(sample used for QC only; not part of login JD43253)
17:13	JD43360-6	1		(sample used for QC only; not part of login JD43253)
17:14	ZZZZZZ	1		
17:15	ZZZZZZ	1		
17:16	ZZZZZZ	1		
17:18	ZZZZZZ	1		
17:19	ZZZZZZ	1		
17:20	ZZZZZZ	1		
17:21	ZZZZZZ	1		
17:22	ZZZZZZ	1		
17:23	GN28430-CCV5	1		
17:24	GN28430-CCB5	1		
17:25	ZZZZZZ	1		
17:26	ZZZZZZ	1		
17:27	ZZZZZZ	1		
17:29	ZZZZZZ	1		
17:30	ZZZZZZ	1		
17:31	ZZZZZZ	1		
17:32	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: E042122W1.N032 Date Analyzed: 04/21/22 Methods: EPA 353.2/LACHAT
Analyst: MM Run ID: GN28430
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:33	ZZZZZZ	1		
17:34	ZZZZZZ	1		
17:35	ZZZZZZ	1		
17:36	GN28430-CCV6	1		
17:37	GN28430-CCB6	1		
17:39	GP39647-MB1	1		
17:40	GP39647-B1	1		
17:41	GP39647-S1	1		
17:42	GP39647-S2	1		
17:43	GP39647-D1	1		
17:44	JD43390-4	1		(sample used for QC only; not part of login JD43253)
17:45	JD43376-5	1		(sample used for QC only; not part of login JD43253)
17:46	ZZZZZZ	1		
17:47	ZZZZZZ	1		
17:49	ZZZZZZ	1		
17:50	GN28430-CCV7	1		
17:51	GN28430-CCB7	1		
17:52	ZZZZZZ	1		
17:53	ZZZZZZ	1		
17:54	ZZZZZZ	1		
17:55	ZZZZZZ	1		
17:56	ZZZZZZ	1		
17:57	ZZZZZZ	1		
17:59	ZZZZZZ	1		
18:00	ZZZZZZ	1		
18:01	ZZZZZZ	1		
18:02	ZZZZZZ	1		
18:05	GN28430-CCV8	1		
18:06	GN28430-CCB8	1		
18:07	ZZZZZZ	1		
18:08	GN28430-CCV9	1		
18:09	GN28430-CCB9	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JD43253
Account: GESNYP - Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

File ID: E042122W1.N032

Date Analyzed: 04/21/22
Run ID: GN28430

Methods: EPA 353.2/LACHAT
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN28430-ICV1	Nitrogen, Nitrate + Nitrite	2.14	0.10	0.090	2	107.0	90-110
GN28430-ICB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN28430-CCV1	Nitrogen, Nitrate + Nitrite	2.51	0.10	0.090	2.5	100.4	90-110
GN28430-CCB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN28430-CCV2	Nitrogen, Nitrate + Nitrite	2.49	0.10	0.090	2.5	99.6	90-110
GN28430-CCB2	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN28430-CCV3	Nitrogen, Nitrate + Nitrite	2.47	0.10	0.090	2.5	98.8	90-110
GN28430-CCB3	Nitrogen, Nitrate + Nitrite	-0.0929	0.10	0.090			
GN28430-CCV4	Nitrogen, Nitrate + Nitrite	2.71	0.10	0.090	2.5	108.4	90-110
GN28430-CCB4	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN28430-CCV5	Nitrogen, Nitrate + Nitrite	2.68	0.10	0.090	2.5	107.2	90-110
GN28430-CCB5	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN28430-CCV6	Nitrogen, Nitrate + Nitrite	2.74	0.10	0.090	2.5	109.6	90-110
GN28430-CCB6	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN28430-CCV7	Nitrogen, Nitrate + Nitrite	2.75	0.10	0.090	2.5	110.0	90-110
GN28430-CCB7	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN28430-CCV8	Nitrogen, Nitrate + Nitrite	2.64	0.10	0.090	2.5	105.6	90-110
GN28430-CCB8	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN28430-CCV9	Nitrogen, Nitrate + Nitrite	2.64	0.10	0.090	2.5	105.6	90-110
GN28430-CCB9	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			

(!) Outside of QC limits

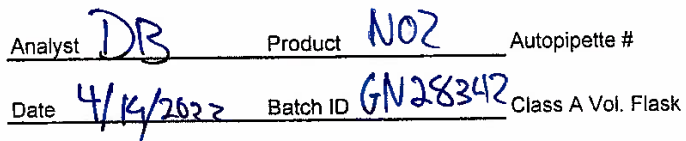


Dayton, NJ

Section 13

General Chemistry

Raw Data



Sample Dilution Prep Log

[illegible]

QC Reviewer: _____ Date: _____

Form: GN165-01
Rev. Date: 2/25/03

SGS

Test: Nitrogen, Nitrite

Product: NO2

Method: SM18 4500 NO2B (aqueous)
SM18 4500 NO2B M (solids)Units: mg/l
mg/kgAnalyst: DB
GNBatch ID: GN28342
GPBatch ID: _____
Date: 4/19/2022**Preparation Batch QC Summary**Units = mg/L

Method Blank ID: GN28342-MB1 Date: 4/19/2022 Result: <DL DL: 0.01 <DL: Yes
 Spike Blank ID: -BI Date: 4/19/2022 Result: 0.037 Spike: 0.04 %Rec.: 92.5%
 MS ID: -MS1 Samp. Result: 0.626 MS Result: 0.982 Spike: 0.4 %Rec.: 89%
 MSDUP ID: -MSD1 Samp. Result: 0.626 MSDUP Result: 0.979 Spike: 0.4 %Rec.: 88.25%
 MSDUP ID: -MSD1 MSDUP Result: 0.979 MS Result: 0.982 %RPD: 0.31%

Method Blank ID: _____ Date: _____ Result: _____ DL: _____ <DL: _____
 Spike Blank ID: _____ Date: _____ Result: _____ Spike: _____ %Rec.: _____
 MS ID: _____ Samp. Result: _____ MS Result: _____ Spike: _____ %Rec.: _____
 MSDUP ID: _____ Samp. Result: _____ MSDUP Result: _____ Spike: _____ %Rec.: _____
 MSDUP ID: _____ MSDUP Result: _____ MS Result: _____ %RPD: _____

Analysis Batch QC Summary

Units = _____

ICV (Ext): 4/19/2022 Result: 0.108 TV: 0.1 %Rec.: 106%
 CCV: _____ Result: 0.108 TV: 0.1 %Rec.: 106%
 CCVA: _____ Result: 0.195 TV: 0.2 %Rec.: 97.5%
 CCV: _____ Result: _____ TV: 0.1 %Rec.: _____
 CCVA: _____ Result: _____ TV: 0.2 %Rec.: _____
 CCV: _____ Result: _____ TV: 0.1 %Rec.: _____
 CCVA: _____ Result: _____ TV: 0.2 %Rec.: _____
 CCB: _____ Result: <DL DL: 0.01 <DL: Yes
 CCB: _____ Result: I DL: I <DL: I
 CCB: _____ Result: _____ DL: _____ <DL: _____
 CCB: _____ Result: _____ DL: _____ <DL: _____
 CCB: _____ Result: _____ DL: _____ <DL: _____
 CCB: _____ Result: _____ DL: _____ <DL: _____

Reagent Reference Numbers:

Analyst: DB Date: 4/19/2022Comments: _____

Form: GN032-01

Rev. Date: 9/4/09]



GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: NO2
GN or GP Number: GN28342

Standard	Manufacturer/Lot Number	Concentration	Expiration Date
1000 mg/l Nitrite Standard	ERA LOT# 291020M	1000 PPM	10/21/2022
1000 mg/l Nitrite Standard (ICV)	ERA LOT# 120421M	1000 PPM	4/7/2023
Standard Description	Lot or Tracking #	Initial Volume	Standard Used
10 PPM NO2 STANDARD	ONE4-69761-NO2	1.0 ml	1000 mg/l Nitrite Standard
1 PPM NO2 STANDARD	ONE4-69762-NO2	10.0 ml	10 PPM NO2 STANDARD
10 PPM NO2 EXTERNAL	ONE4-69763-NO2	1.0 ml	Nitrite Standard (ICV)
1 PPM NO2 EXTERNAL	ONE4-69764-NO2	10.0 ml	10 PPM NO2 EXTERNAL
Standard Description	Intermediate or Stock used to prepare standard	Initial Volume	Concentration of Standard Used
0.2 mg/L (high)	ONE4-69762-NO2	20.0 ml	1.0 mg/L
0.1 mg/L		10.0 ml	1.0 mg/L
0.075 mg/L		7.5 ml	1.0 mg/L
0.05 mg/L		5.0 ml	1.0 mg/L
0.025 mg/L		2.5 ml	1.0 mg/L
0.01 mg/L (low)	ONE4-69762-NO2	1.0 ml	1.0 mg/L
0 mg/L	NA	NA	NA
CCV	ONE4-69762-NO2	10.0 ml	1.0 mg/L
CCVA	ONE4-69762-NO2	20.0 ml	1.0 mg/L
ICV	ONE4-69764-NO2	10.0 ml	1.0 mg/L

Autopipet ID	Diluent	Final Volume	Final Concentration	Expiration Date	Analyst	Date
A	DI water	100 ml	10 mg/l	4/19/2022	DB	4/19/2022
A	DI water	100 ml	1 mg/L	4/19/2022	DB	4/19/2022
A	DI water	100 ml	10 mg/l	4/19/2022	DB	4/19/2022
A	DI water	100 ml	1 mg/l	4/19/2022	DB	4/19/2022
Autopipet ID	Diluent	Final Volume	Final Concentration	Expiration Date	Analyst	Date
A	DI water	100 ml	0.2 mg/L	4/19/2022	DB	4/19/2022
A	DI water	100 ml	0.1 mg/L			
A	DI water	100 ml	0.075 mg/L			
A	DI water	100 ml	0.05 mg/L			
A	DI water	100 ml	0.025 mg/L			
A	DI water	100 ml	0.01 mg/L	4/19/2022	DB	4/19/2022
NA	NA	100 ml	NA	4/19/2022	DB	4/19/2022
A	DI water	100 ml	0.1 mg/L	4/19/2022	DB	4/19/2022
A	DI water	100 ml	0.2 mg/L	4/19/2022	DB	4/19/2022
A	DI water	100 ml	0.1 mg/L	4/19/2022	DB	4/19/2022

* If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.

Form: GN121-01
Rev. Date: 1/13/09



Reagent Information Log - Nitrite as Nitrogen

<u>Reagent</u>	<u>Reagent # or Manufacturer/Lot</u>
<u>Calibration Source: 1000 mg/l nitrite stock (STD)</u>	<u>ERA LOT #291020M XP: 10/21/2022</u>
<u>External Check (ICV)</u>	<u>ERA LOT #120421M XP: 4/7/2023</u>
<u>Spiking Solution Source (1 PPM)</u>	<u>ERA LOT #291020M XP: 10/21/2022</u>
<u>Color Reagent</u>	<u>GNE4-69561-NO2 XP 5/4/2022</u>
<u>NH4OH</u>	<u>FISHER 193136 XP 2/20/2027</u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>

All standards and stocks were made as described in the SOP for this method (circle one): Y or N
If no (N), see attached page for standards prep.

Form: GN087A-42
Rev. Date: 4/19/2022

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)File ID: D22042001.TXT
Analyst: JDDate Analyzed: 04/12/22
Run ID: GN28373

Methods: EPA 300/SW846 9056A

The following analyst(s) have reviewed this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: JD Date 4/21/22

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee):  Date 4/21/22

Sequence: D22042001
Last Update Operator: Chemistry

CD	Name	Type	Position	Dilution	Comment	Level	Volume	Status	Inject Time	Instrument Method
	STDA 3	Calibration Standard	11	1.0000		1	5000	Finished	4/12/2022 6:46:40 PM -04:00	Anions_012919
	STDC	Calibration Standard	12	1.0000		3	5000	Finished	4/12/2022 6:59:33 PM -04:00	Anions_012919
	STDD	Calibration Standard	13	1.0000		4	5000	Finished	4/12/2022 7:12:26 PM -04:00	Anions_012919
	STDE	Calibration Standard	14	1.0000		5	5000	Finished	4/12/2022 7:25:18 PM -04:00	Anions_012919
	STDF	Calibration Standard	15	1.0000		6	5000	Finished	4/12/2022 7:38:11 PM -04:00	Anions_012919
	STDG	Calibration Standard	16	1.0000		7	5000	Finished	4/12/2022 7:51:04 PM -04:00	Anions_012919
	ICV	Unknown	17	1.0000			5000	Finished	4/12/2022 8:03:57 PM -04:00	Anions_012919
	WASHCONF	Unknown	1	1.0000			5000	Finished	4/20/2022 10:13:06 AM -04:00	Anions_012919
	WASHCONF	Unknown	2	1.0000			5000	Finished	4/20/2022 10:25:36 AM -04:00	Anions_012919
	WASHCONF	Unknown	3	1.0000			5000	Finished	4/20/2022 10:38:32 AM -04:00	Anions_012919
	CCV	Unknown	4	1.0000			5000	Finished	4/20/2022 10:51:27 AM -04:00	Anions_012919
	CCB	Unknown	5	1.0000			5000	Finished	4/20/2022 11:04:23 AM -04:00	Anions_012919
	mb1conf	Unknown	6	1.0000			5000	Finished	4/20/2022 11:17:19 AM -04:00	Anions_012919
	b1conf	Unknown	7	1.0000			5000	Finished	4/20/2022 11:30:15 AM -04:00	Anions_012919
	GP39596-S1	Unknown	8	2.0000			5000	Finished	4/20/2022 11:43:11 AM -04:00	Anions_012919
	JD43234-6	Unknown	9	10.0000			5000	Finished	4/20/2022 11:56:08 AM -04:00	Anions_012919
	JD43242-2	Unknown	10	2.0000			5000	Finished	4/20/2022 12:09:03 PM -04:00	Anions_012919
	JD43242-3	Unknown	11	4.0000			5000	Finished	4/20/2022 12:21:58 PM -04:00	Anions_012919
	GP39616-MB1	Unknown	12	1.0000			5000	Finished	4/20/2022 12:37:09 PM -04:00	Anions_012919
	GP39616-B1	Unknown	13	1.0000			5000	Finished	4/20/2022 12:49:47 PM -04:00	Anions_012919
	JD43272-6	Unknown	14	1.0000			5000	Finished	4/20/2022 1:02:43 PM -04:00	Anions_012919
	JD43349-14	Unknown	15	1.0000			5000	Finished	4/20/2022 1:15:39 PM -04:00	Anions_012919
	CCV	Unknown	16	1.0000			5000	Finished	4/20/2022 1:28:34 PM -04:00	Anions_012919
	CCB	Unknown	17	1.0000			5000	Finished	4/20/2022 1:41:29 PM -04:00	Anions_012919
	JD43349-15	Unknown	18	1.0000			5000	Finished	4/20/2022 1:54:24 PM -04:00	Anions_012919
	GP39616-S1	Unknown	19	1.0000	JD43272-1		5000	Finished	4/20/2022 2:07:19 PM -04:00	Anions_012919
	GP39616-D1	Unknown	20	1.0000			5000	Finished	4/20/2022 2:20:15 PM -04:00	Anions_012919
	JD43272-1	Unknown	21	1.0000			5000	Finished	4/20/2022 2:33:10 PM -04:00	Anions_012919
	JD43272-2	Unknown	22	1.0000			5000	Finished	4/20/2022 2:46:05 PM -04:00	Anions_012919
	JD43272-3	Unknown	23	1.0000			5000	Finished	4/20/2022 2:59:01 PM -04:00	Anions_012919
	JD43272-4	Unknown	24	1.0000			5000	Finished	4/20/2022 3:11:57 PM -04:00	Anions_012919
	JD43272-5	Unknown	25	1.0000			5000	Finished	4/20/2022 3:24:54 PM -04:00	Anions_012919

Sequence: D22042001
Last Update Operator: Chemistry

CD	Name	Type	Position	Dilution	Comment	Level	Volume	Status	Infect Time	Instrument Method
	JD43333-1	Unknown	26	1.0000			5000	Finished	4/20/2022 3:37:48 PM -04:00	Anions_012919
	JD43253-1	Unknown	27	1.0000			5000	Finished	4/20/2022 3:50:45 PM -04:00	Anions_012919
	CCV	Unknown	28	1.0000			5000	Finished	4/20/2022 4:03:41 PM -04:00	Anions_012919
	CCB	Unknown	29	1.0000			5000	Finished	4/20/2022 4:16:36 PM -04:00	Anions_012919
	JD43253-2	Unknown	30	1.0000			5000	Finished	4/20/2022 4:29:31 PM -04:00	Anions_012919
	JD43253-3	Unknown	31	1.0000			5000	Finished	4/20/2022 4:42:27 PM -04:00	Anions_012919
	JD43253-4	Unknown	32	1.0000			5000	Finished	4/20/2022 4:59:49 PM -04:00	Anions_012919
	JD43353-1	Unknown	33	1.0000			5000	Finished	4/20/2022 5:12:36 PM -04:00	Anions_012919
	JD43353-2	Unknown	34	1.0000			5000	Finished	4/20/2022 5:25:31 PM -04:00	Anions_012919
	JD43353-3	Unknown	35	1.0000			5000	Finished	4/20/2022 5:38:27 PM -04:00	Anions_012919
	JD43353-4	Unknown	36	1.0000			5000	Finished	4/20/2022 5:51:23 PM -04:00	Anions_012919
	JD43353-5	Unknown	37	1.0000			5000	Finished	4/20/2022 6:04:17 PM -04:00	Anions_012919
	JD43353-6	Unknown	38	1.0000			5000	Finished	4/20/2022 6:17:13 PM -04:00	Anions_012919
	JD37791-7CONF	Unknown	39	1.0000	MDL		5000	Finished	4/20/2022 6:30:09 PM -04:00	Anions_012919
	CCV	Unknown	40	1.0000			5000	Finished	4/20/2022 6:43:04 PM -04:00	Anions_012919
	CCB	Unknown	41	1.0000			5000	Finished	4/20/2022 6:55:58 PM -04:00	Anions_012919
	GP39620-MB1	Unknown	42	1.0000			5000	Finished	4/20/2022 7:08:54 PM -04:00	Anions_012919
	GP39620-B1	Unknown	43	1.0000			5000	Finished	4/20/2022 7:21:49 PM -04:00	Anions_012919
	GP39620-S1	Unknown	44	1.0000	JD43349-3		5000	Finished	4/20/2022 7:34:45 PM -04:00	Anions_012919
	GP39620-D1	Unknown	45	1.0000			5000	Finished	4/20/2022 7:47:42 PM -04:00	Anions_012919
	JD43349-3	Unknown	46	1.0000			5000	Finished	4/20/2022 8:00:37 PM -04:00	Anions_012919
	JD43349-4	Unknown	47	1.0000			5000	Finished	4/20/2022 8:13:33 PM -04:00	Anions_012919
	JD43349-5	Unknown	48	1.0000			5000	Finished	4/20/2022 8:26:28 PM -04:00	Anions_012919
	JD43349-8	Unknown	49	1.0000			5000	Finished	4/20/2022 8:39:24 PM -04:00	Anions_012919
	JD43349-9	Unknown	50	1.0000			5000	Finished	4/20/2022 8:52:20 PM -04:00	Anions_012919
	JD43349-10	Unknown	1	1.0000			5000	Finished	4/20/2022 9:05:15 PM -04:00	Anions_012919
	CCV	Unknown	2	1.0000			5000	Finished	4/20/2022 9:18:10 PM -04:00	Anions_012919
	CCB	Unknown	3	1.0000			5000	Finished	4/20/2022 9:31:07 PM -04:00	Anions_012919
	JD43349-11	Unknown	4	1.0000			5000	Finished	4/20/2022 9:44:03 PM -04:00	Anions_012919
	JD43349-12	Unknown	5	1.0000			5000	Finished	4/20/2022 9:56:58 PM -04:00	Anions_012919
	JD43349-13	Unknown	6	1.0000			5000	Finished	4/20/2022 10:09:54 PM -04:00	Anions_012919
	CCV	Unknown	7	1.0000			5000	Finished	4/20/2022 10:22:50 PM -04:00	Anions_012919
	CCB	Unknown	8	1.0000			5000	Finished	4/20/2022 10:35:45 PM -04:00	Anions_012919

Chromleon 7,
Version 7.2.8.10783, Thermo Fisher Scientific

Printed by Chemistry
21/04/22 11:59

Page 2 of 6

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Reagent Information Log - IONC IC D - Water /Soil GN Batch ID#: _____ GN28373 _____

<u>Reagent</u>	<u>Reagent # or Man./Lot</u>	<u>Exp. Date</u>
Standard Stocks (for Calibration Curve) (4000 PPM CHL/SO4)	SCP S211020035	11/30/2022
Standard Stocks (for Calibration Curve) (100 PPM BRO)	SCP S210416021	5/31/2022
Standard Stocks (for Calibration Curve) (100 PPM F)	SCP S211020036	11/30/2022
ICV MIX I (200 PPM CHL/SO4)	SCP S210712065	8/30/2022
ICV MIX II (10 PPM F/BRO)	SCP S210920022	10/31/2022
ICV	GNE4-69711-IC	5/15/2022
Eluent	210500525312	5/30/2022
CCV	GNE4-69717-IC	5/15/2022
Spiking Solution	SCP S211026021	11/30/2022
Filter lot numbers	TISCH 290064158	NA

Form : GN087A-76

Rev. Date: 4/7/09



Anions Standard Preparation Log

Class A pipet used :
Autopipet used : 43

Date **4/20/2022**
GN Number **GN28373**

Intermediate Standard Description	Stock Standard used for preparation	Stock concentration	Anion	Stock volume or weight used with units	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
GNE3-68649-IC	SPEC S210416022	400ppm	CHL/SO4	2.5 ml	DI	100 mL	100ppm	4/17/2022	JD	3/17/2022
GNE3-68648-IC	SPEC S210416023	100ppm	F	20ml	DI	100 mL	20ppm	4/17/2022	JD	3/17/2022
GNE3-68650-IC	SPEC S210416021	100ppm	BRO	20ml	DI	100 mL	20ppm	4/17/2022	JD	3/17/2022
ICV	SPEC S210712065	200 ppm	CHL/SO4	50 ml	DI	100 mL	100 ppm			
GNE3-69363-IC	SPEC S210920022	10 ppm	F/BRO	30 ml	DI	100 mL	3 ppm	4/17/2022	JD	3/17/2022
Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Anion	Intermediate or Stock volume used in ml	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	Analyst	Date
STD C	GNE3-68649-IC	100ppm	CHL/SO4	2.0ml			2ppm			
GNE3-69357-IC	SPEC S210416021	100ppm	BRO	0.5ml	DI	100 mL	0.5ppm	4/17/2022	JD	3/17/2022
	GNE3-68648-IC	20ppm	F	1.0ml			0.2ppm			
STD D	GNE3-68649-IC	100ppm	CHL/SO4	10ml			10ppm			
GNE3-69358-IC	SPEC S210416021	100ppm	BRO	1ml	DI	100 mL	1ppm	4/17/2022	JD	3/17/2022
	GNE3-68648-IC	20ppm	F	2ml			0.4ppm			
STD E	GNE3-68649-IC	100ppm	CHL/SO4	50ml			50ppm			
GNE3-69359-IC	SPEC S210416021	100ppm	BRO	2ml	DI	100 mL	2ppm	4/17/2022	JD	3/17/2022
	GNE3-68648-IC	20ppm	F	5ml			1ppm			
STD F	SPEC S210416022	400ppm	CHL/SO4	10ml			200ppm			
GNE3-69360-IC	SPEC S210416021	100ppm	BRO	6ml	DI	200 mL	3ppm	4/17/2022	JD	3/17/2022
	GNE3-68648-IC	20ppm	F	30ml			3ppm			
STD G	SPEC S210416022	400ppm	CHL/SO4	10ml			400ppm			
GNE3-69361-IC	SPEC S210416021	100ppm	BRO	5ml	DI	100 mL	5ppm	4/17/2022	JD	3/17/2022
	GNE3-68648-IC	20ppm	F	30ml			6ppm			
CCV	SPEC S210416022	400ppm	CHL/SO4	10ml			200ppm			
GNE3-69362-IC	SPEC S210416021	100ppm	BRO	6ml	DI	200 mL	3ppm	4/17/2022	JD	3/17/2022
	GNE3-68648-IC	20ppm	F	30ml			3ppm			

* If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate SGS ID number.
NO2/NO3/P4 included in curve but not reported

Form: GN316-01

Rev Date: 6/23/2020



Analyst: JD

Product: ANIONS

Pipette ID: 48

Prep Date: 4/20/2022

Balance ID: 354

Batch ID: GP39620

Sample Prep Log

[illegible]

Reviewer:

Date: 09/21

Form: GN166-04
Revised: 10/27/16



Batch ID: GN28373

Balance ID: _____

Sample Prep Log

[illegible]

Date: 10/21/02

SGS



Date 4/20/2022

Batch ID GN 28373

Class A Vol. Flask

Sample Dilution Prep Log

[illegible]

Date:

Form: GN165-01
Rev. Date: 2/25/03

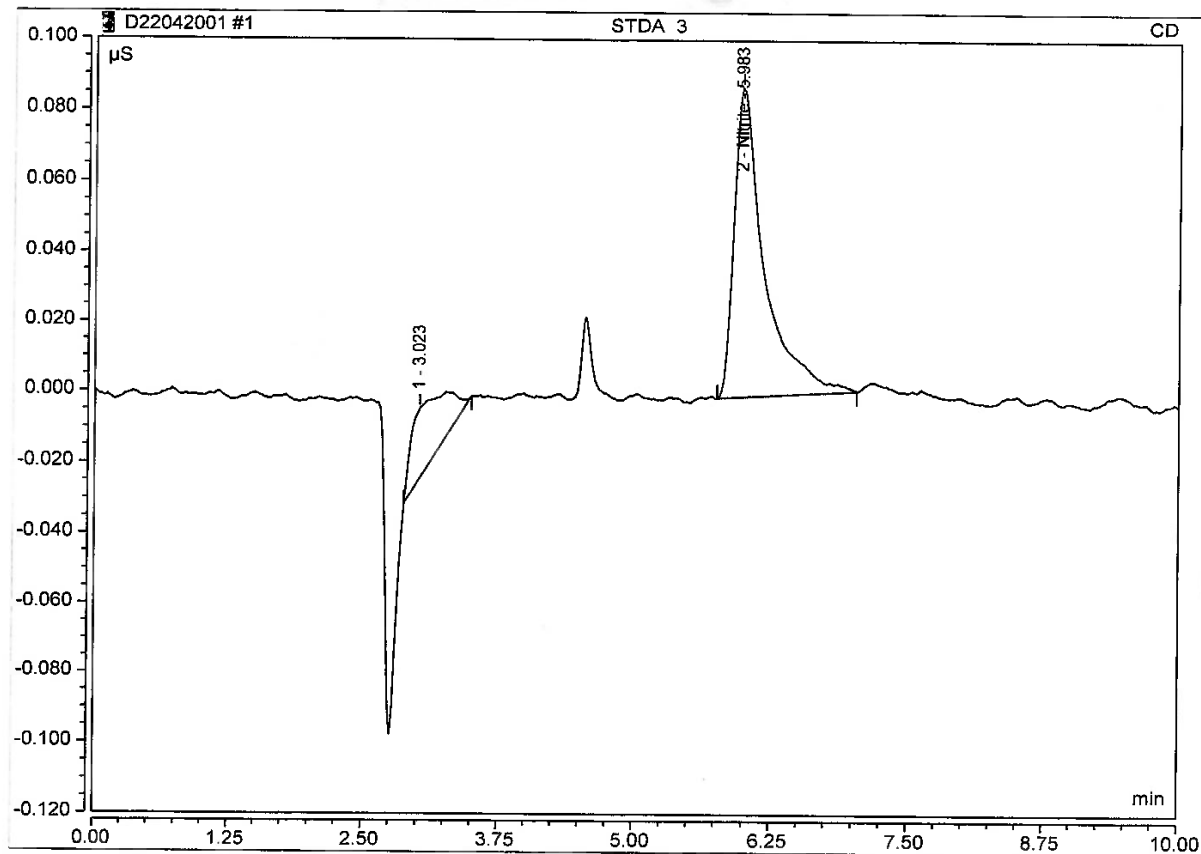
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

Page 1 of 65
4/21/2022 10:05 AM

Peak Integration Report

Sample Name:	STDA 3	Inj. Vol.:	5000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	12-Apr-2022 / 18:46	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
2	5.98	Nitrite	BMB	0.028	0.088	0.1516
TOTAL:				0.03	0.09	0.15



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

Logged on User: Chemistry
Instrument: Integron_1
Sequence: D22042001

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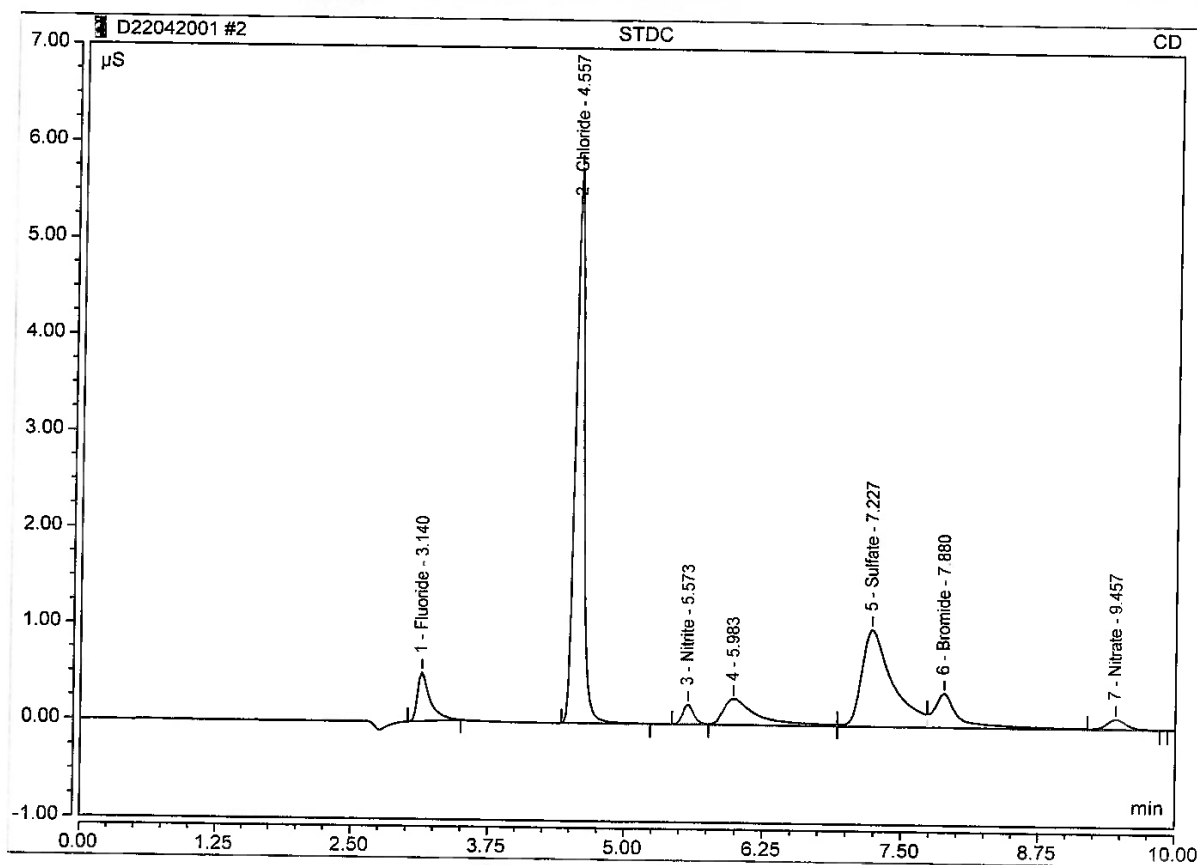
Peak Integration Report

Sample Name:	STDC	Inj. Vol.:	5000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	12-Apr-2022 / 18:59	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.14	Fluoride	BMB	0.065	0.498	0.2078
2	4.56	Chloride	BMB	0.543	5.760	1.9869
3	5.57	Nitrite	Ru	0.023	0.199	0.1242
5	7.23	Sulfate	M	0.321	1.007	2.0481
6	7.88	Bromide	MB	0.097	0.349	0.4920
7	9.46	Nitrate	Rd	0.021	0.103	0.1470
TOTAL:				1.07	7.92	5.01

RF%
3.9%
0.655%

2.41%
1.60%



13.2
13

Anion/Integration

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Version 7.2.8.10783

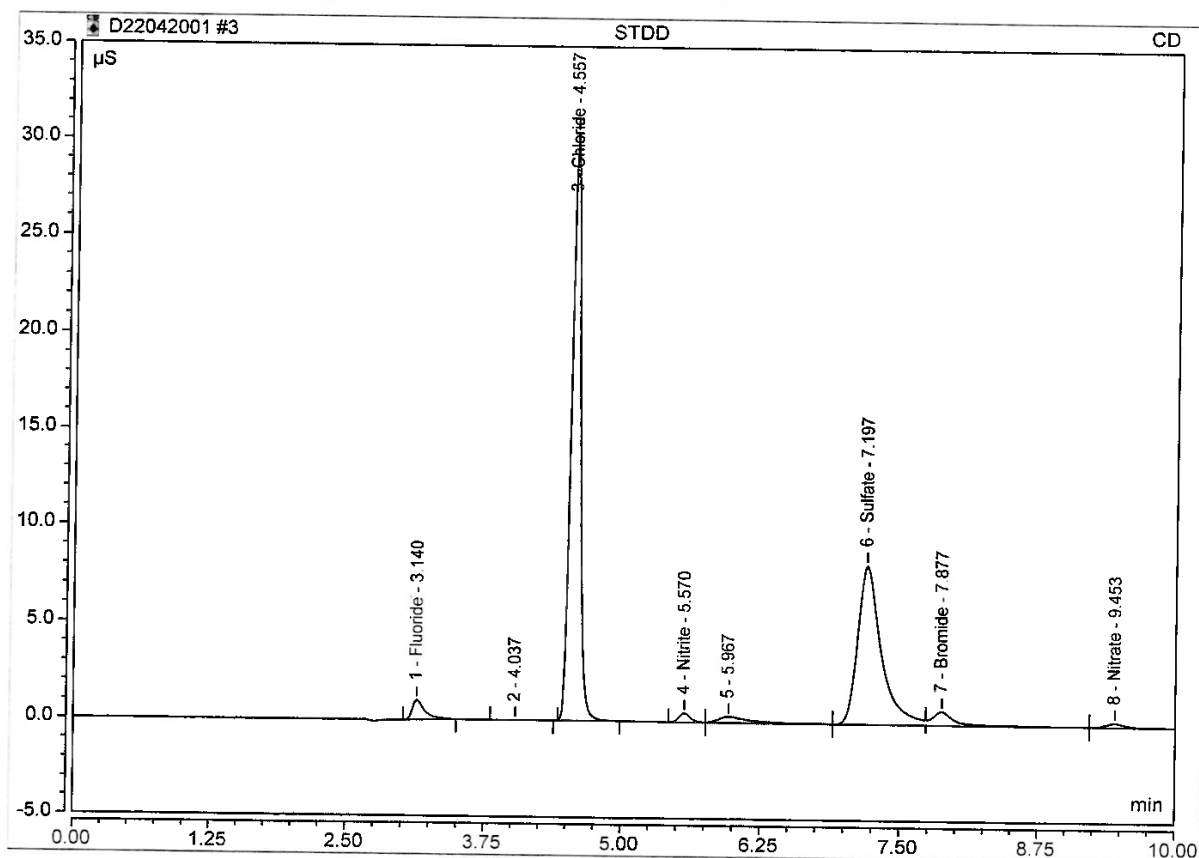
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	STDD	Inj. Vol.:	5000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	12-Apr-2022 / 19:12	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.14	Fluoride	BMB	0.132	1.006	0.3752
3	4.56	Chloride	BMB	2.970	30.457	10.0351
4	5.57	Nitrite	BM	0.054	0.465	0.2837
6	7.20	Sulfate	M	2.000	8.192	9.7331
7	7.88	Bromide	M	0.175	0.718	1.1340
8	9.45	Nitrate	MB	0.043	0.213	0.3330
TOTAL:				5.37	41.05	21.89



Anion/Integration

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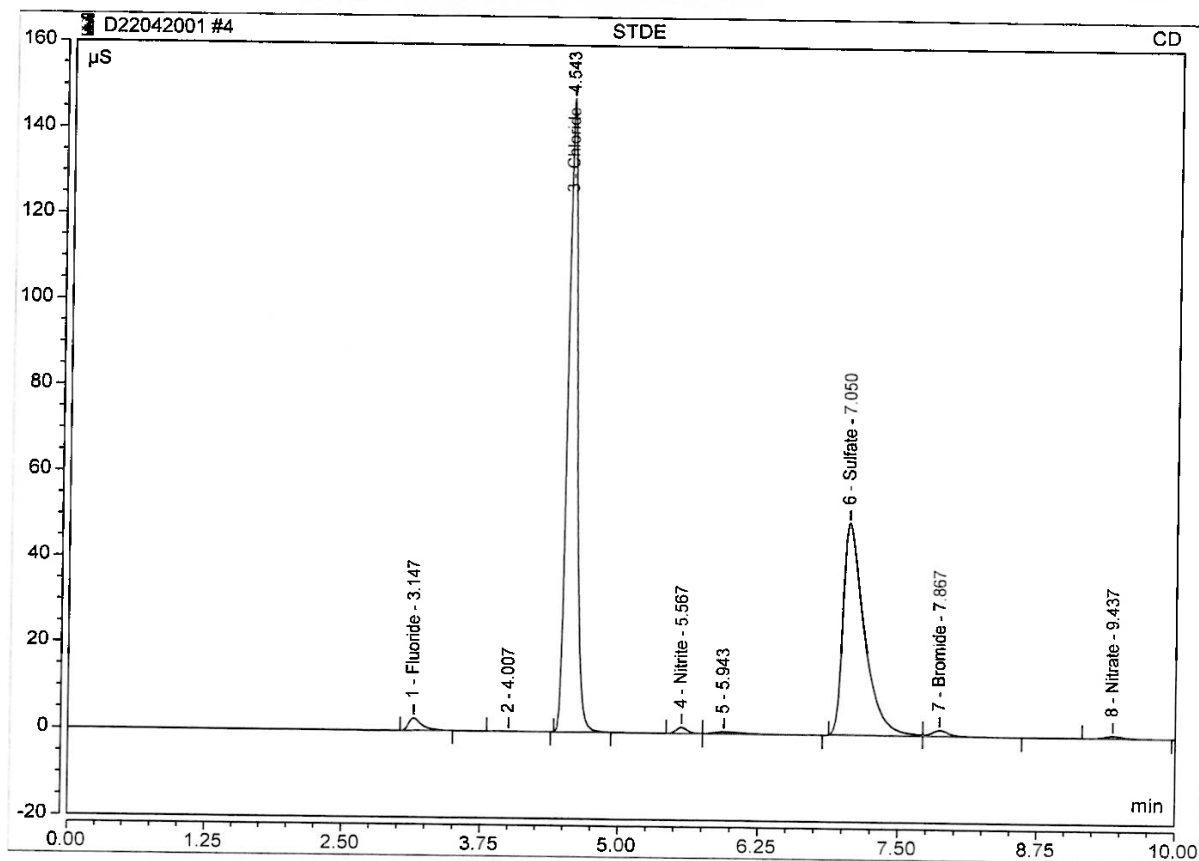
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	STDE	Inj. Vol.:	5000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	12-Apr-2022 / 19:25	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.15	Fluoride	BMB	0.378	2.798	0.9877
3	4.54	Chloride	BMB	14.997	147.504	49.9082
4	5.57	Nitrite	BM	0.158	1.414	0.8264
6	7.05	Sulfate	BM	10.755	49.304	49.8004
7	7.87	Bromide	MB	0.250	1.365	1.7534
8	9.44	Nitrate	BMB	0.116	0.597	0.9267
TOTAL:				26.65	202.98	104.20



Anion/Integration

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Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

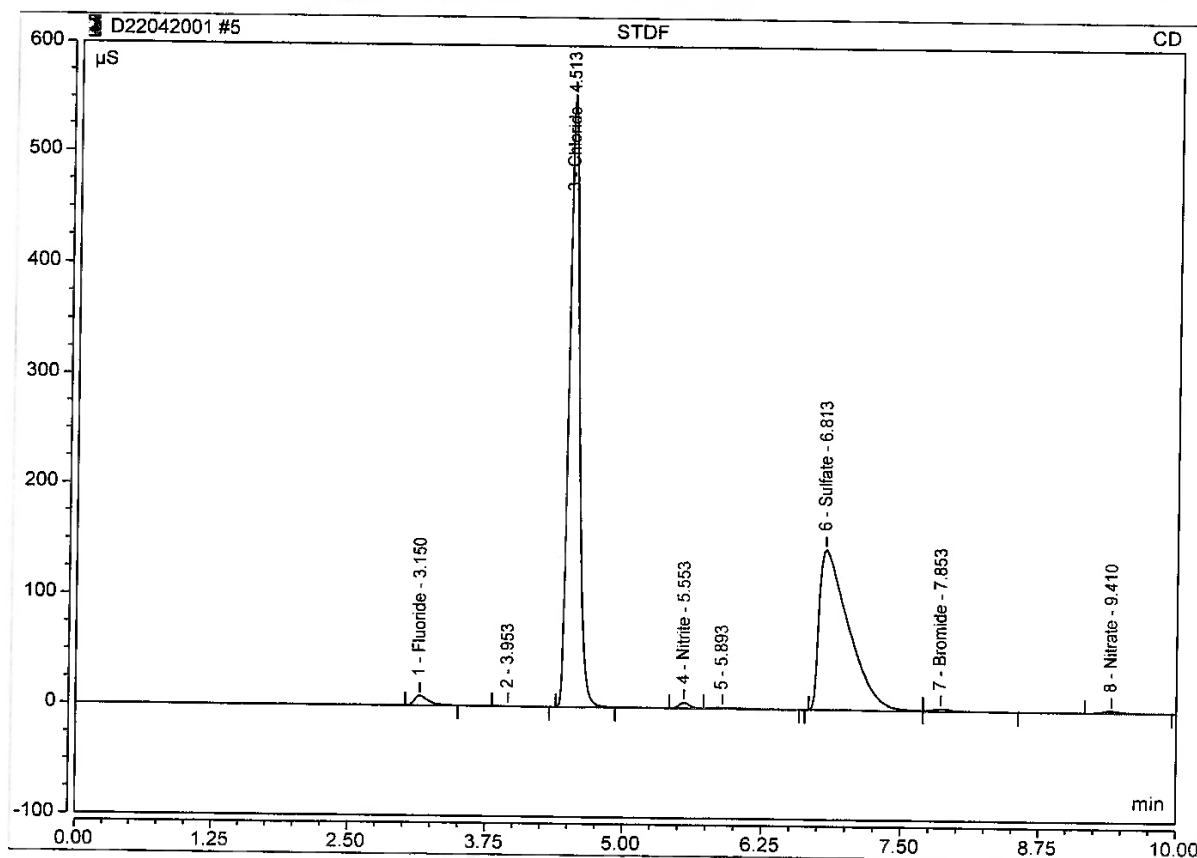
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Peak Integration Report

Sample Name:	STDF	Inj. Vol.:	5000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	12-Apr-2022 / 19:38	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.15	Fluoride	BMB	1.260	8.684	3.1842
3	4.51	Chloride	BMB	60.840	554.842	201.8873
4	5.55	Nitrite	BMB	0.606	5.007	3.1463
6	6.81	Sulfate	BM	44.059	144.862	202.2254
7	7.85	Bromide	MB	0.383	2.110	2.8596
8	9.41	Nitrate	BMB	0.408	2.123	3.3128
TOTAL:				107.56	717.63	416.62

RE%
6.14%
0.944%
1.11%
4.65%



Anion/Integration

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Version 7.2.8.10783

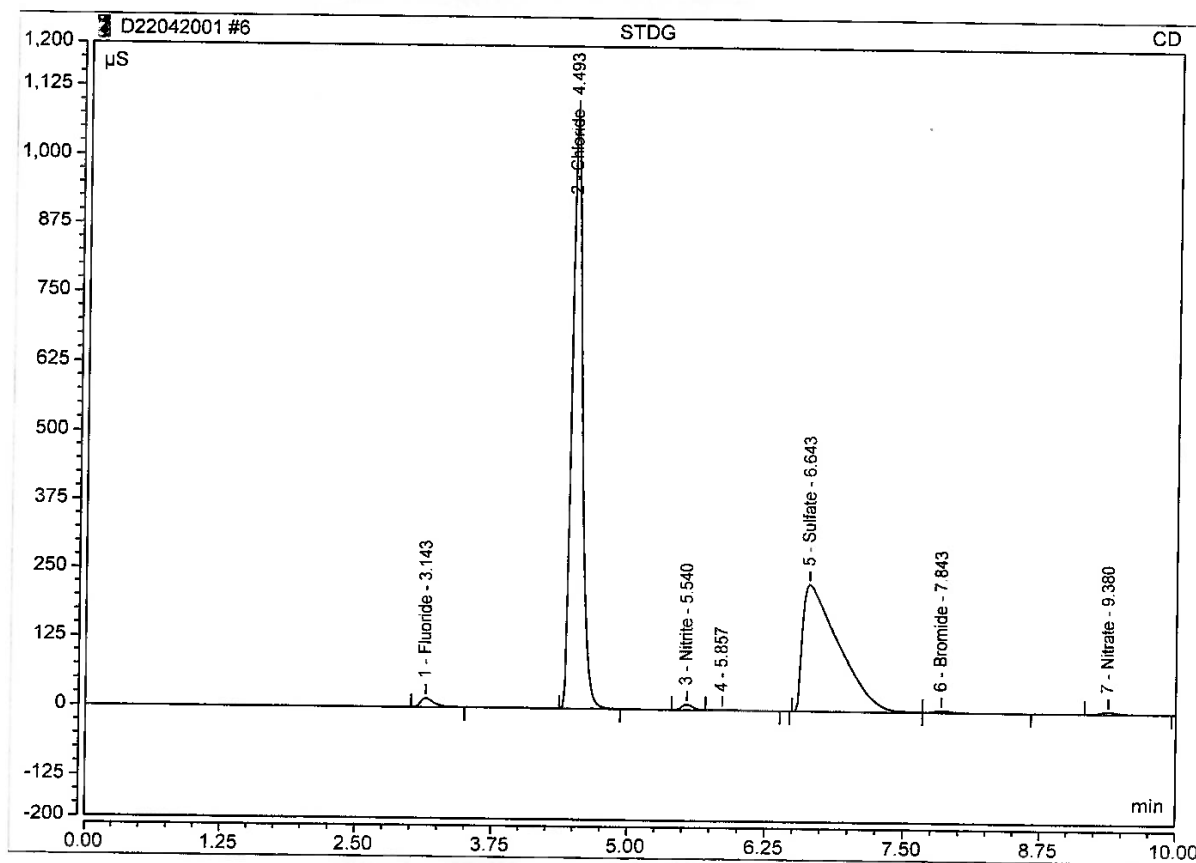
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Instrument: Integriion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	STDG	Inj. Vol.:	5000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	12-Apr-2022 / 19:51	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.14	Fluoride	BMB	2.329	16.465	5.8451
2	4.49	Chloride	BMB	120.049	1073.859	398.1827
3	5.54	Nitrite	BMB	1.200	9.618	6.2194
5	6.64	Sulfate	BM	86.878	229.499	398.1929
6	7.84	Bromide	MB	0.673	3.643	5.2610
7	9.38	Nitrate	BMB	0.832	4.222	6.7805
TOTAL:				211.96	1337.31	820.48



Anion/Integration

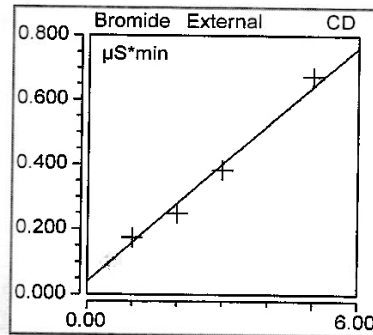
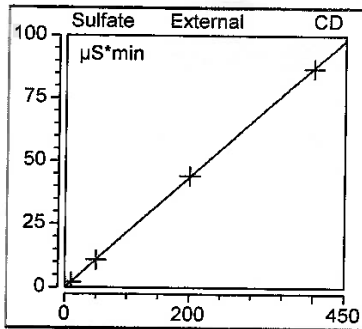
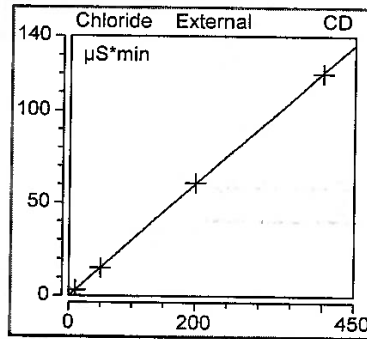
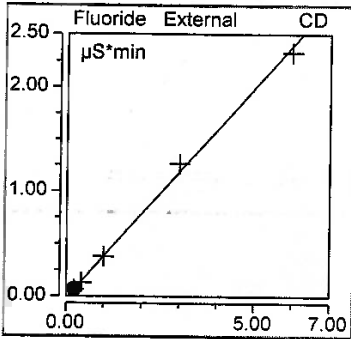
Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

Calibration Batch Report

Sequence: D22042001	Injection Volu 5,000.00
Instrument M: Anions_012 919	Operator: Chemistry
Inj. Date / Tin 12/04/2022 / 18:59	Run Time: 10

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
Fluoride	Area	, WithOffset,	5.000	-0.018	0.402	0.000	99.7792
Chloride	Area	, WithOffset,	5.000	-0.057	0.302	0.000	99.9957
Nitrite	Area	, WithOffset,	6.000	-0.001	0.193	0.000	97.5346
Sulfate	Area	, WithOffset,	5.000	-0.126	0.218	0.000	99.9932
Bromide	Area	, WithOffset,	5.000	0.038	0.121	0.000	98.7212
Nitrate	Area	, WithOffset,	5.000	0.003	0.122	0.000	92.8466
AVERAGE:				-0.0270	0.2263	0.0000	98.1451

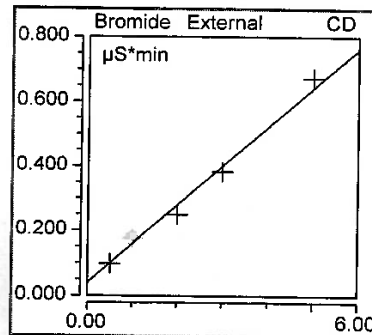
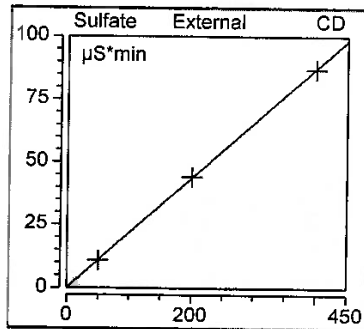
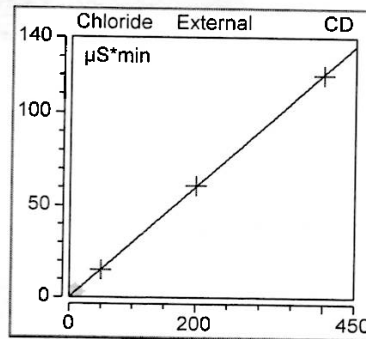
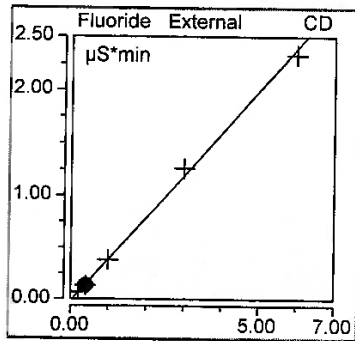


Calibration Batch Report

Sequence: D22042001	Injection Volu 5,000.00
Instrument M: Anions_012	Operator: Chemistry
Inj. Date / Tin 12/04/2022 / 19:12	Run Time: 10

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
Fluoride	Area	, WithOffset,	5.000	-0.018	0.402	0.000	99.7792
Chloride	Area	, WithOffset,	5.000	-0.057	0.302	0.000	99.9957
Nitrite	Area	, WithOffset,	6.000	-0.001	0.193	0.000	97.5346
Sulfate	Area	, WithOffset,	5.000	-0.126	0.218	0.000	99.9932
Bromide	Area	, WithOffset,	5.000	0.038	0.121	0.000	98.7212
Nitrate	Area	, WithOffset,	5.000	0.003	0.122	0.000	92.8466
AVERAGE:				-0.0270	0.2263	0.0000	98.1451

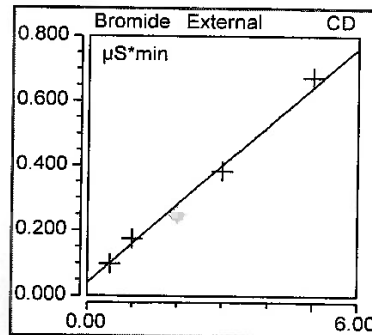
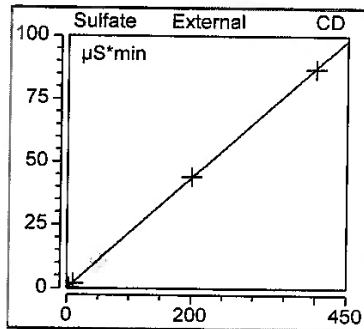
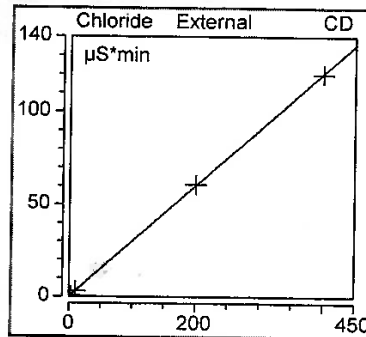
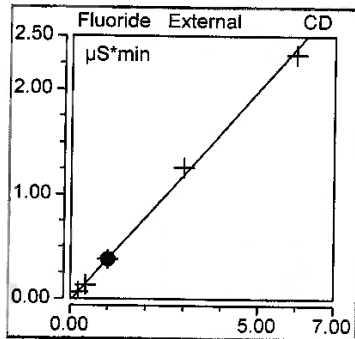


Calibration Batch Report

Sequence: D22042001	Injection Volu 5,000.00
Instrument M: Anions_012	Operator: Chemistry
919	
Inj. Date / Tin 12/04/2022 / 19:25	Run Time: 10

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
Fluoride	Area	WithOffset.	5.000	-0.018	0.402	0.000	99.7792
Chloride	Area	WithOffset.	5.000	-0.057	0.302	0.000	99.9957
Nitrite	Area	WithOffset.	6.000	-0.001	0.193	0.000	97.5346
Sulfate	Area	WithOffset.	5.000	-0.126	0.218	0.000	99.9932
Bromide	Area	WithOffset.	5.000	0.038	0.121	0.000	98.7212
Nitrate	Area	WithOffset.	5.000	0.003	0.122	0.000	92.8466
AVERAGE:				-0.0270	0.2263	0.0000	98.1451

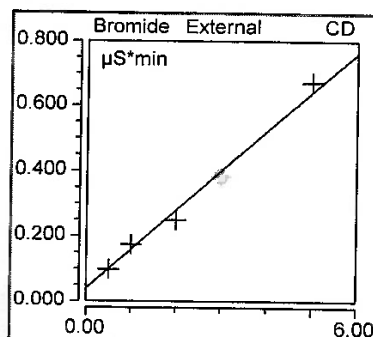
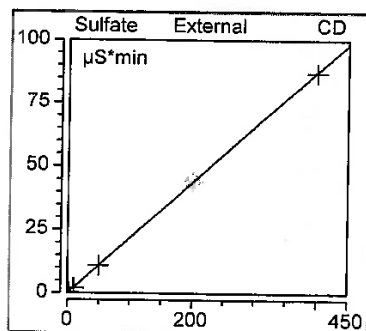
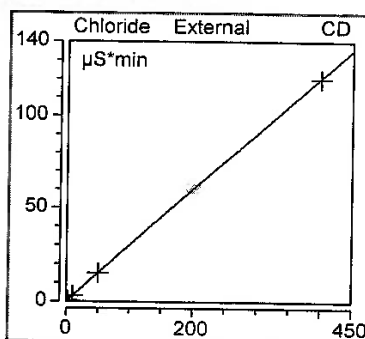
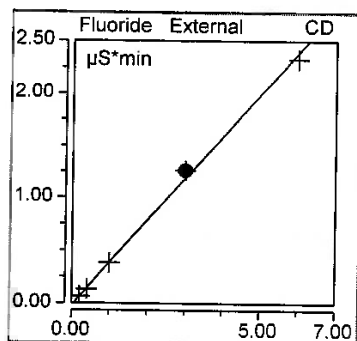


Calibration Batch Report

Sequence: D22042001	Injection Volu 5,000.00
Instrument M Anions_012 919	Operator: Chemistry
Inj. Date / Tin 12/04/2022 / 19:38	Run Time: 10

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
Fluoride	Area	WithOffset,	5.000	-0.018	0.402	0.000	99.7792
Chloride	Area	WithOffset,	5.000	-0.057	0.302	0.000	99.9957
Nitrite	Area	WithOffset,	6.000	-0.001	0.193	0.000	97.5346
Sulfate	Area	WithOffset,	5.000	-0.126	0.218	0.000	99.9932
Bromide	Area	WithOffset,	5.000	0.038	0.121	0.000	98.7212
Nitrate	Area	WithOffset,	5.000	0.003	0.122	0.000	92.8466
AVERAGE:				-0.0270	0.2263	0.0000	98.1451

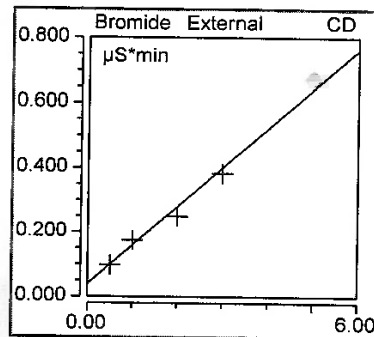
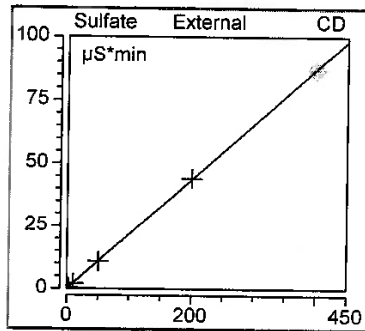
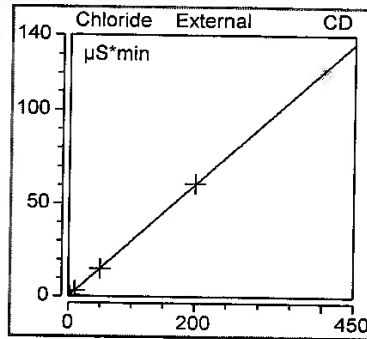
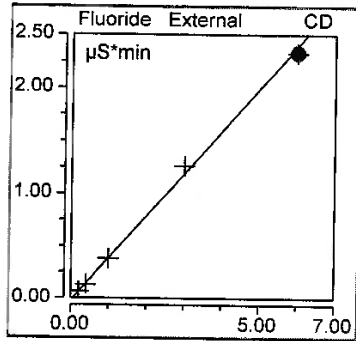


Calibration Batch Report

Sequence: D22042001	Injection Volu 5,000.00
Instrument M Anions_012 919	Operator: Chemistry
Inj. Date / Tin 12/04/2022 / 19:51	Run Time: 10

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
Fluoride	Area	WithOffset,	5.000	-0.018	0.402	0.000	99.7792
Chloride	Area	WithOffset,	5.000	-0.057	0.302	0.000	99.9957
Nitrite	Area	WithOffset,	6.000	-0.001	0.193	0.000	97.5346
Sulfate	Area	WithOffset,	5.000	-0.126	0.218	0.000	99.9932
Bromide	Area	WithOffset,	5.000	0.038	0.121	0.000	98.7212
Nitrate	Area	WithOffset,	5.000	0.003	0.122	0.000	92.8466
AVERAGE:				-0.0270	0.2263	0.0000	98.1451



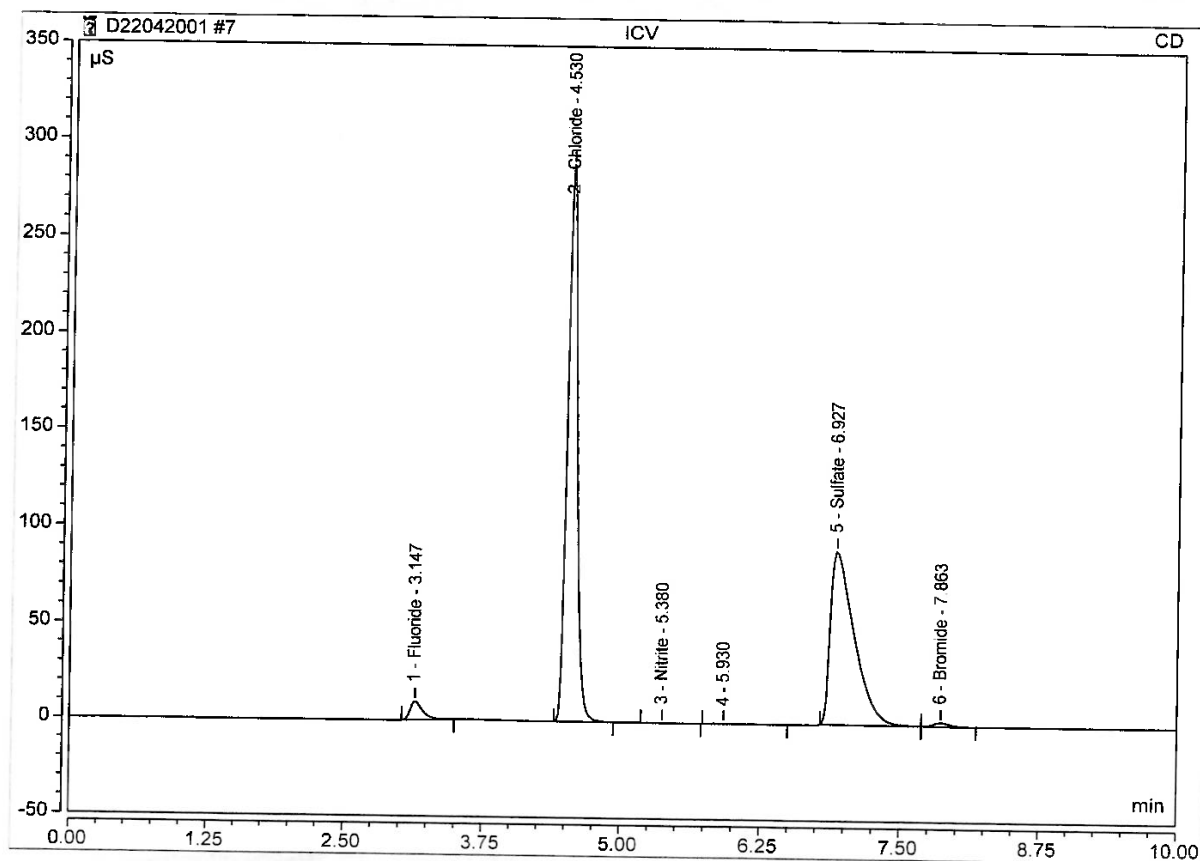
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	ICV	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	12-Apr-2022 / 20:03	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.15	Fluoride	BMB	1.258	9.637	3.1795
2	4.53	Chloride	BMB	30.262	288.405	100.5139
3	5.38	Nitrite	BMB	0.003	0.011	0.0221
5	6.93	Sulfate	BM	22.053	90.044	101.5070
6	7.86	Bromide	MB	0.301	1.941	2.1746
TOTAL:				53.88	390.04	207.40



Anion/Integration

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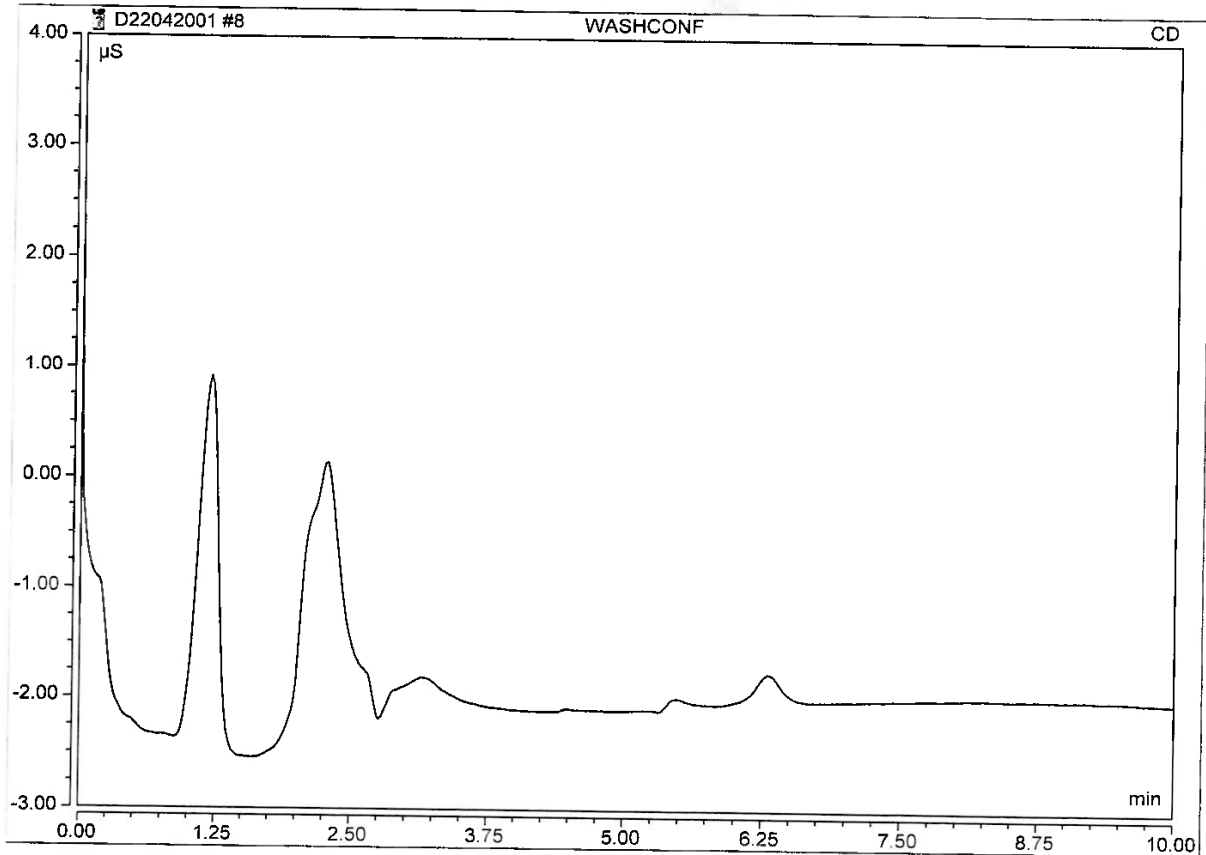
Logged on User: Chemistry
Instrument: Integration_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	WASHCONF	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 10:13	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount n.a.
TOTAL:				0.00	0.00	0.00



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

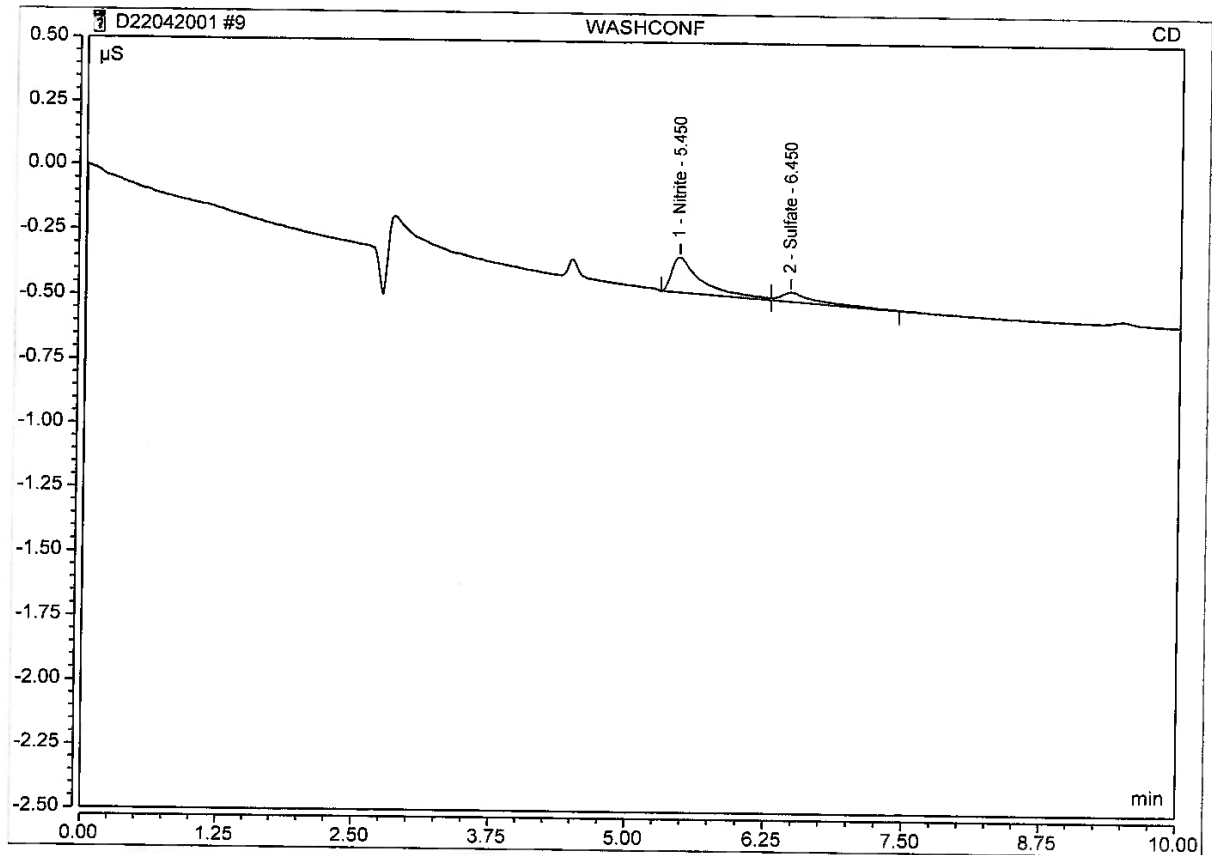
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	WASHCONF	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 10:25	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	5.45	Nitrite	BM	0.041	0.134	0.2189
2	6.45	Sulfate	MB	0.013	0.036	0.6394
TOTAL:				0.05	0.17	0.86



Anion/Integration

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Version 7.2.8.10783

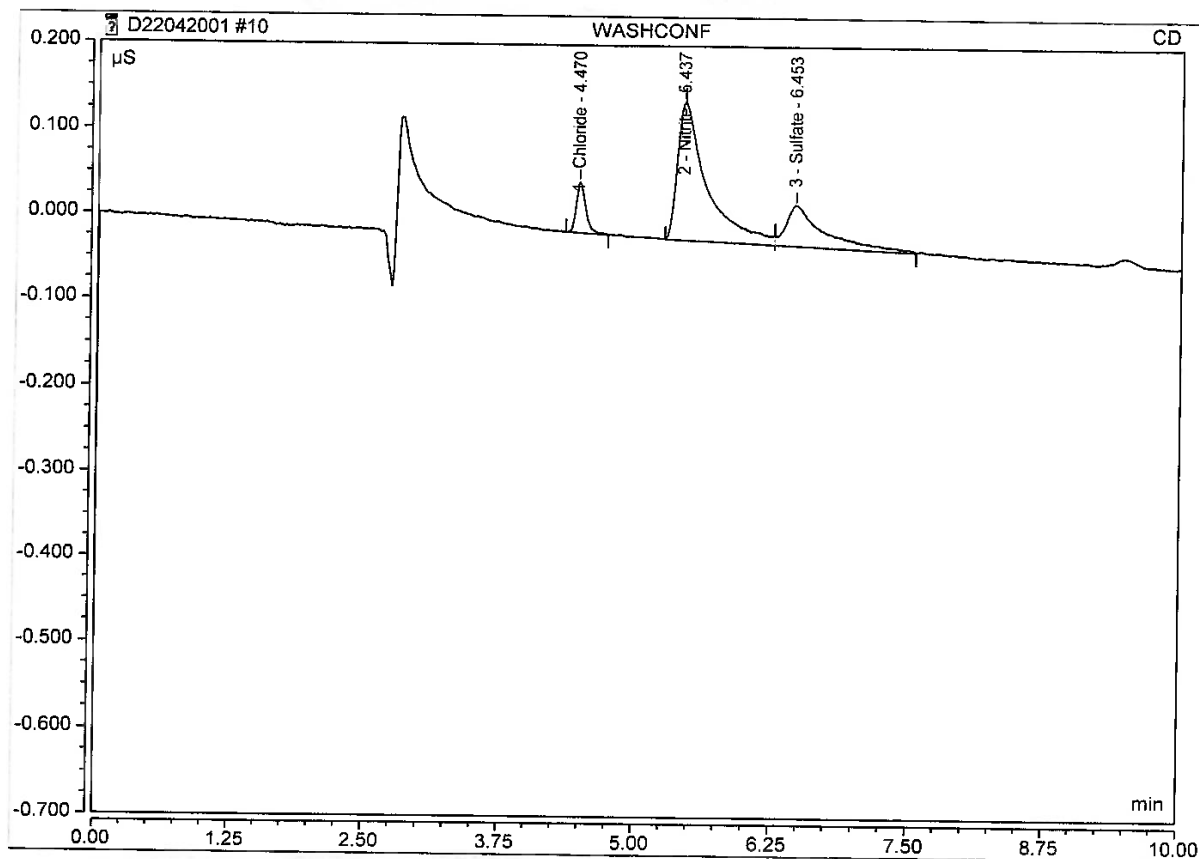
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	WASHCONF	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 10:38	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.47	Chloride	BMB	0.006	0.059	0.2077
2	5.44	Nitrite	BM	0.051	0.163	0.2702
3	6.45	Sulfate	MB	0.020	0.048	0.6680
TOTAL:				0.08	0.27	1.15



Anion/Integration

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Version 7.2.8.10783

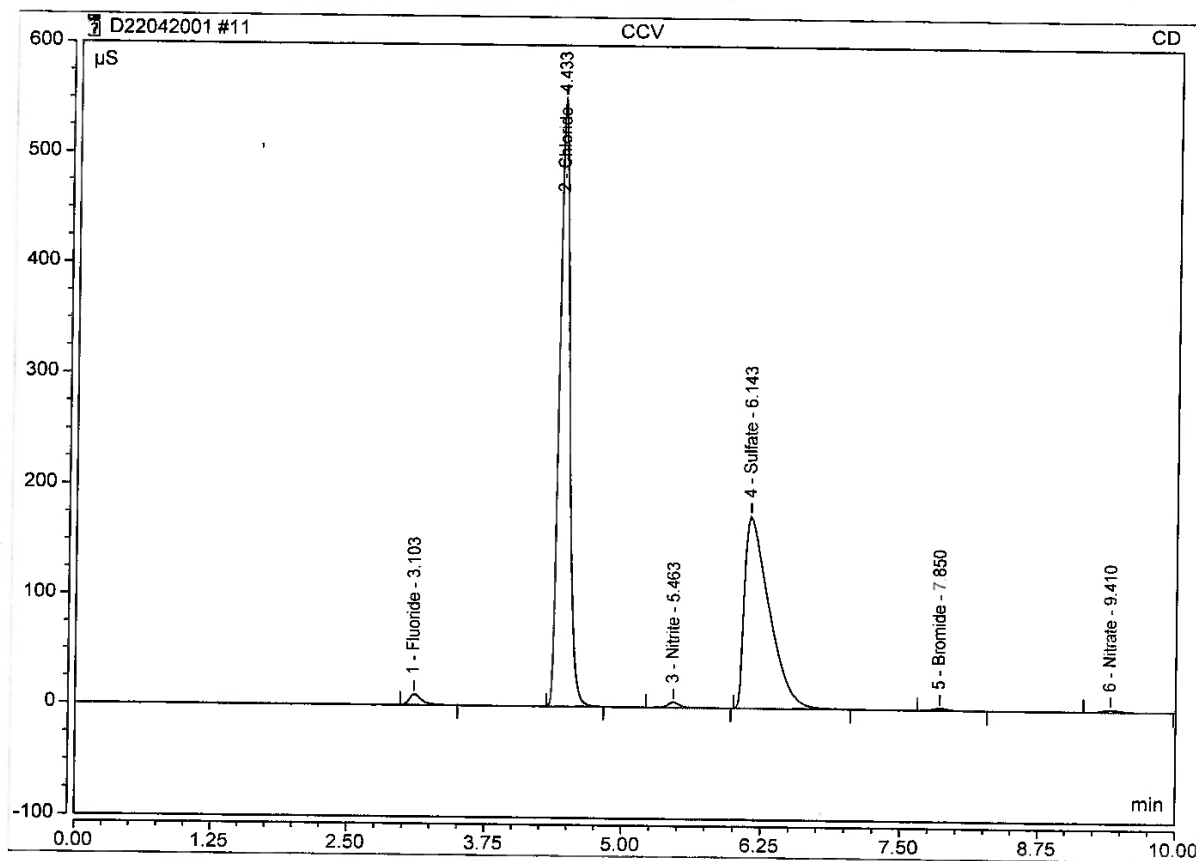
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	CCV	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 10:51	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB	1.255	9.790	3.1719
2	4.43	Chloride	BMB	60.000	552.214	199.1028
3	5.46	Nitrite	BMB	0.651	5.067	3.3761
4	6.14	Sulfate	BMB	45.044	175.111	206.7336
5	7.85	Bromide	BMB	0.314	1.966	2.2859
6	9.41	Nitrate	BMB	0.413	2.090	3.3514
TOTAL:				107.68	746.24	418.02



Anion/Integration

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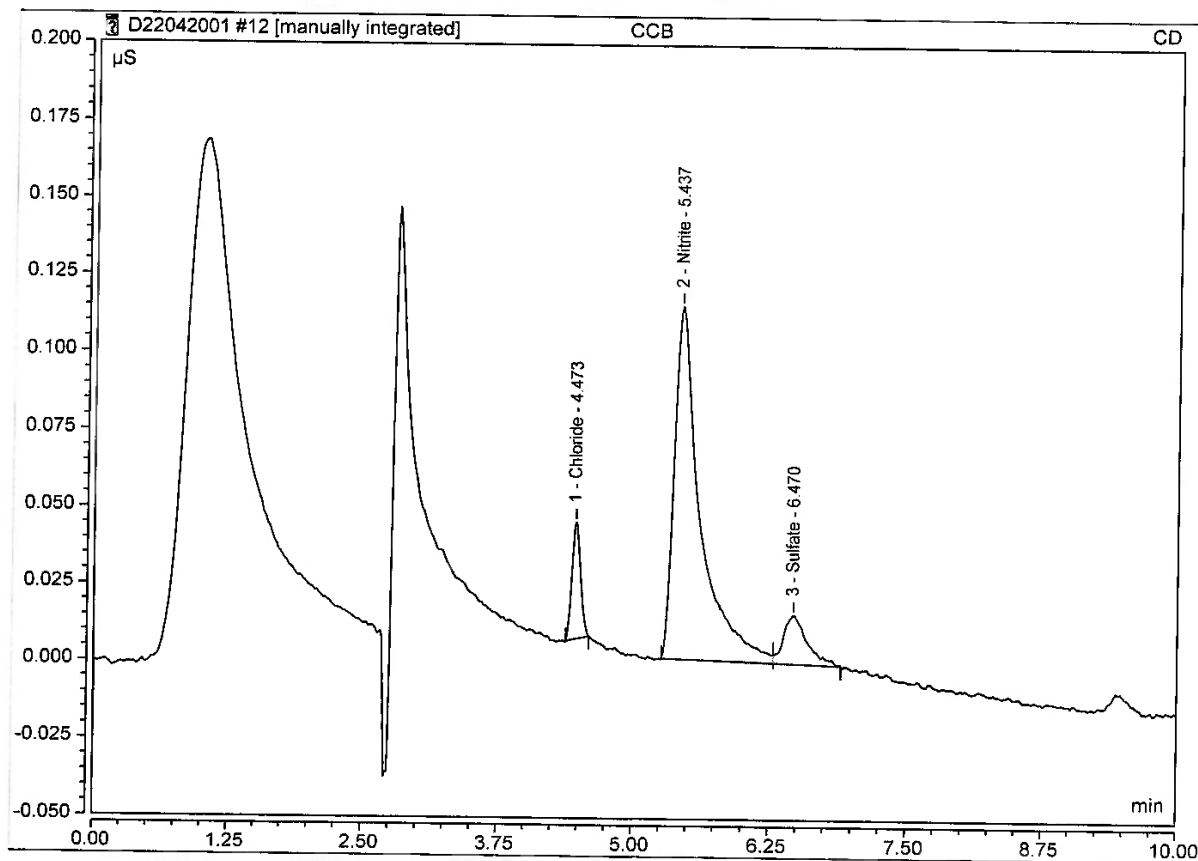
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Instrument: Integration_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 11:04	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.47	Chloride	BMB*	0.004	0.038	0.1992
2	5.44	Nitrite	BM *	0.032	0.114	0.1695
3	6.47	Sulfate	MB*	0.004	0.016	0.5964
TOTAL:				0.04	0.17	0.97



Anion/Integration

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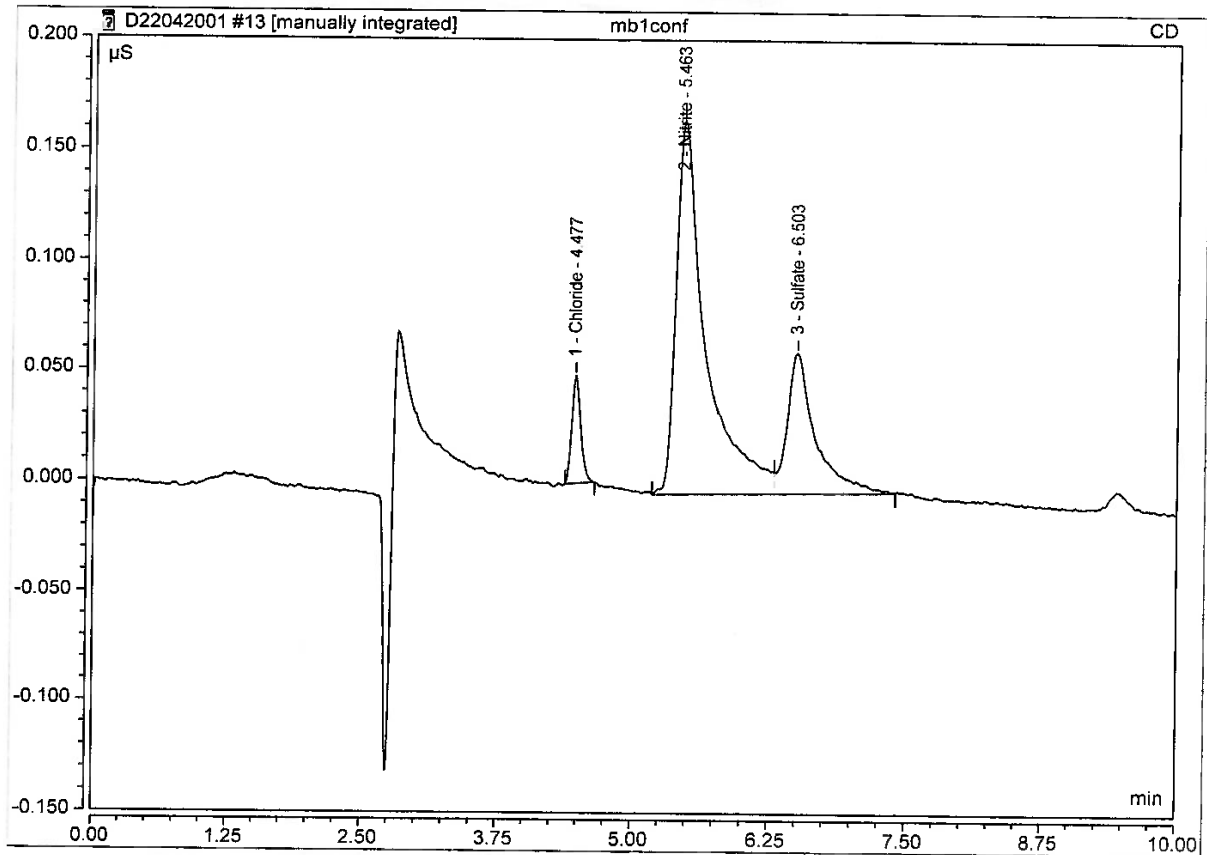
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	mb1conf	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 11:17	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.48	Chloride	BMB*	0.005	0.048	0.2028
2	5.46	Nitrite	BM	0.053	0.169	0.2800
3	6.50	Sulfate	MB	0.019	0.063	0.6645
TOTAL:				0.08	0.28	1.15



Anion/Integration

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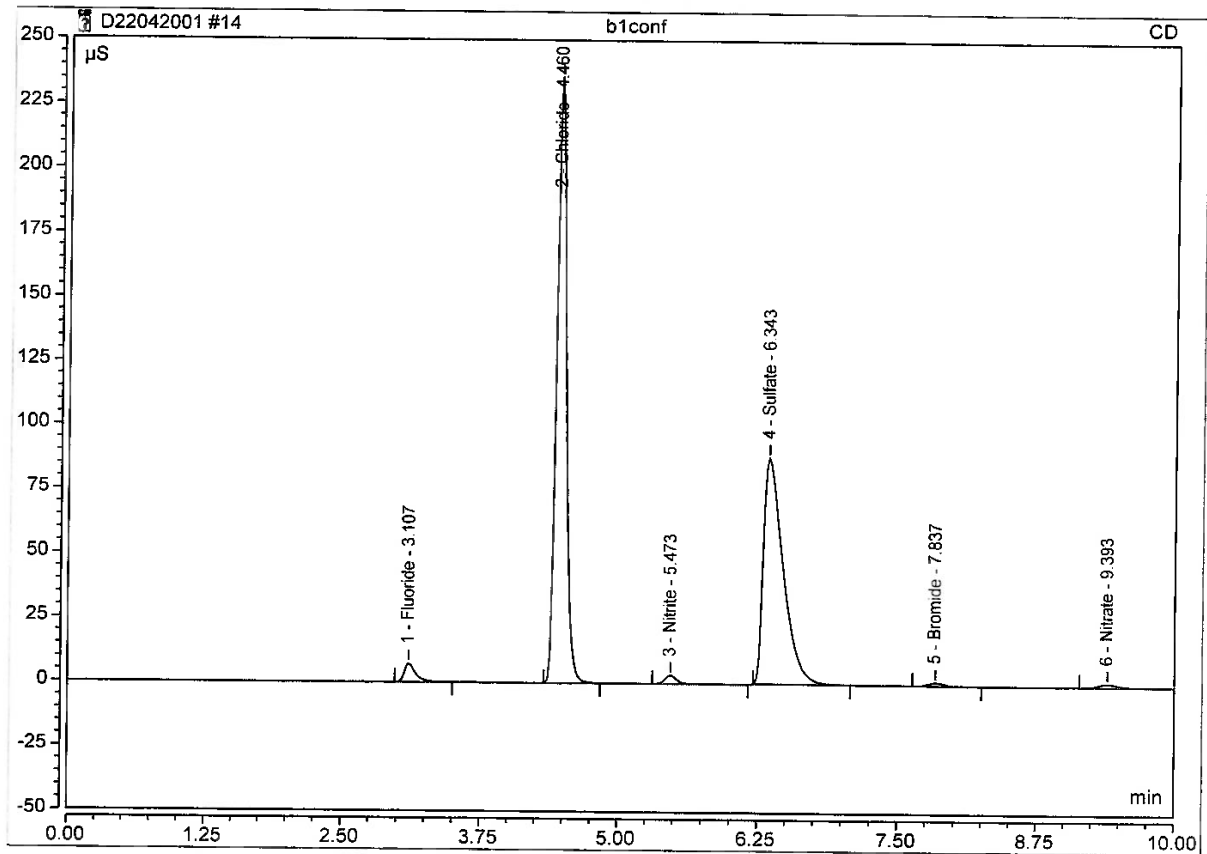
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	b1conf	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 11:30	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.11	Fluoride	BMB	0.831	7.043	2.1144
2	4.46	Chloride	BMB	24.088	235.909	80.0446
3	5.47	Nitrite	BMB	0.418	3.306	2.1688
4	6.34	Sulfate	BMB	17.967	87.963	82.8085
5	7.84	Bromide	BMB	0.203	1.298	1.3709
6	9.39	Nitrate	BMB	0.263	1.350	2.1246
TOTAL:				43.77	336.87	170.63



Anion/Integration

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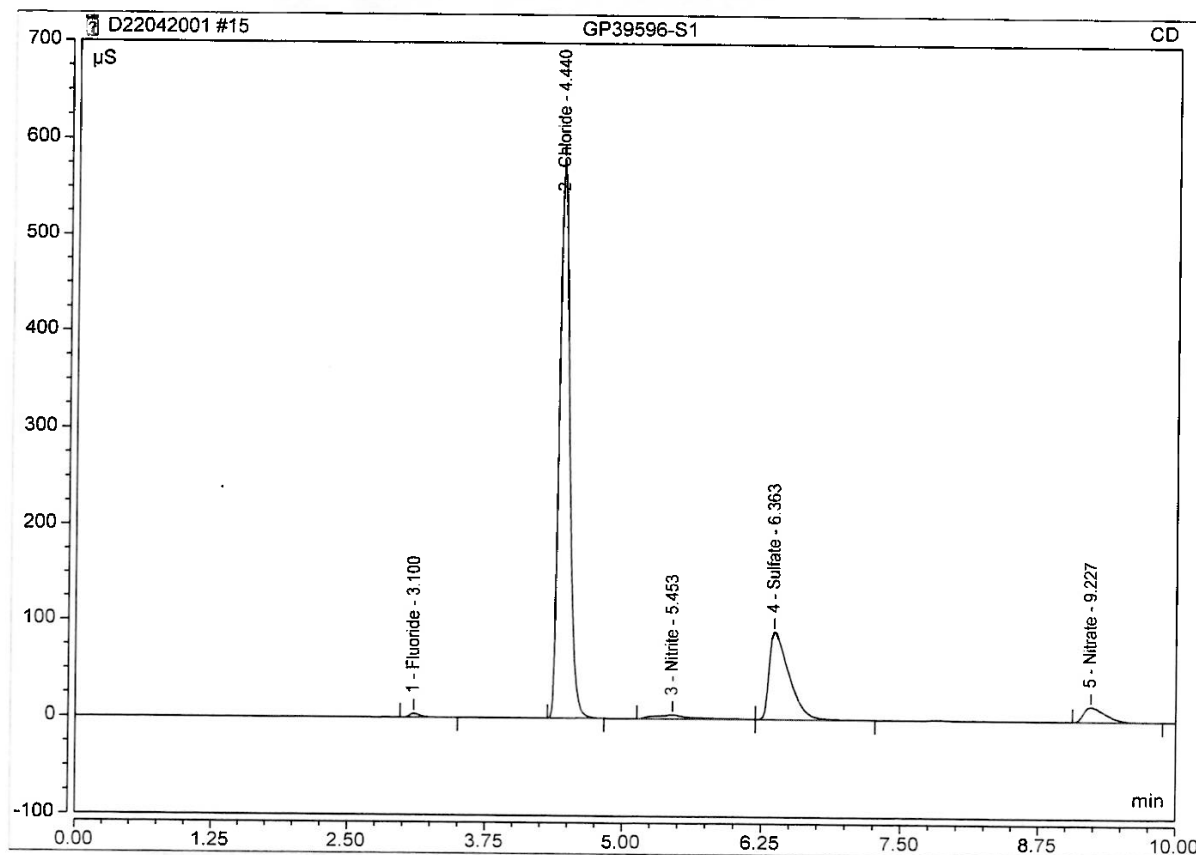
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	GP39596-S1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	2.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 11:43	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB	0.452	4.080	2.3446
2	4.44	Chloride	BMB	62.918	581.133	417.5579
3	5.45	Nitrite	BM	1.624	4.281	16.8361
4	6.36	Sulfate	MB	18.634	91.116	171.7223
5	9.23	Nitrate	BMB	3.556	15.555	58.0657
TOTAL:				87.19	696.16	666.53



Anion/Integration

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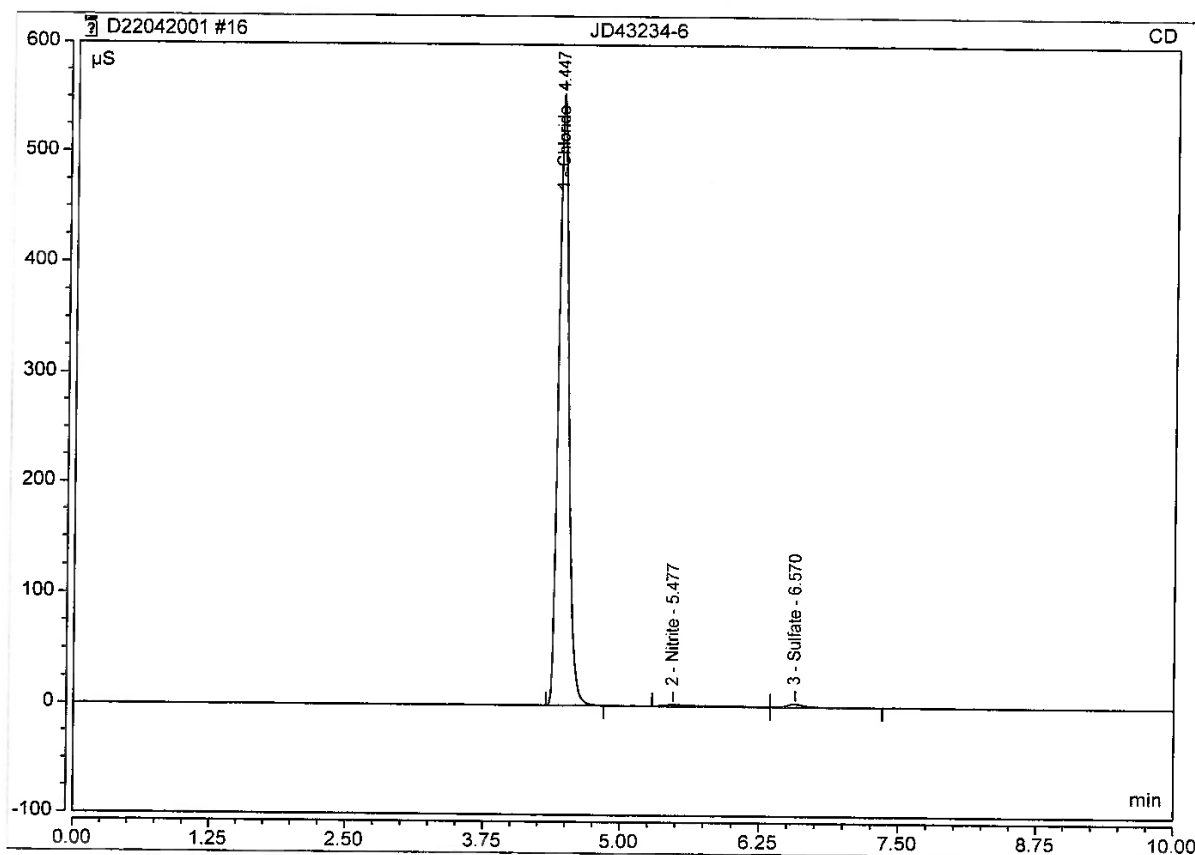
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43234-6	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	10.0000
Instrument Method:	Anlons_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 11:56	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.45	Chloride	BMB	59.930	554.660	1988.7072
2	5.48	Nitrite	BM	0.422	1.246	21.9134
3	6.57	Sulfate	MB	0.486	2.728	28.0308
TOTAL:				60.84	558.63	2038.65



Anion/Integration

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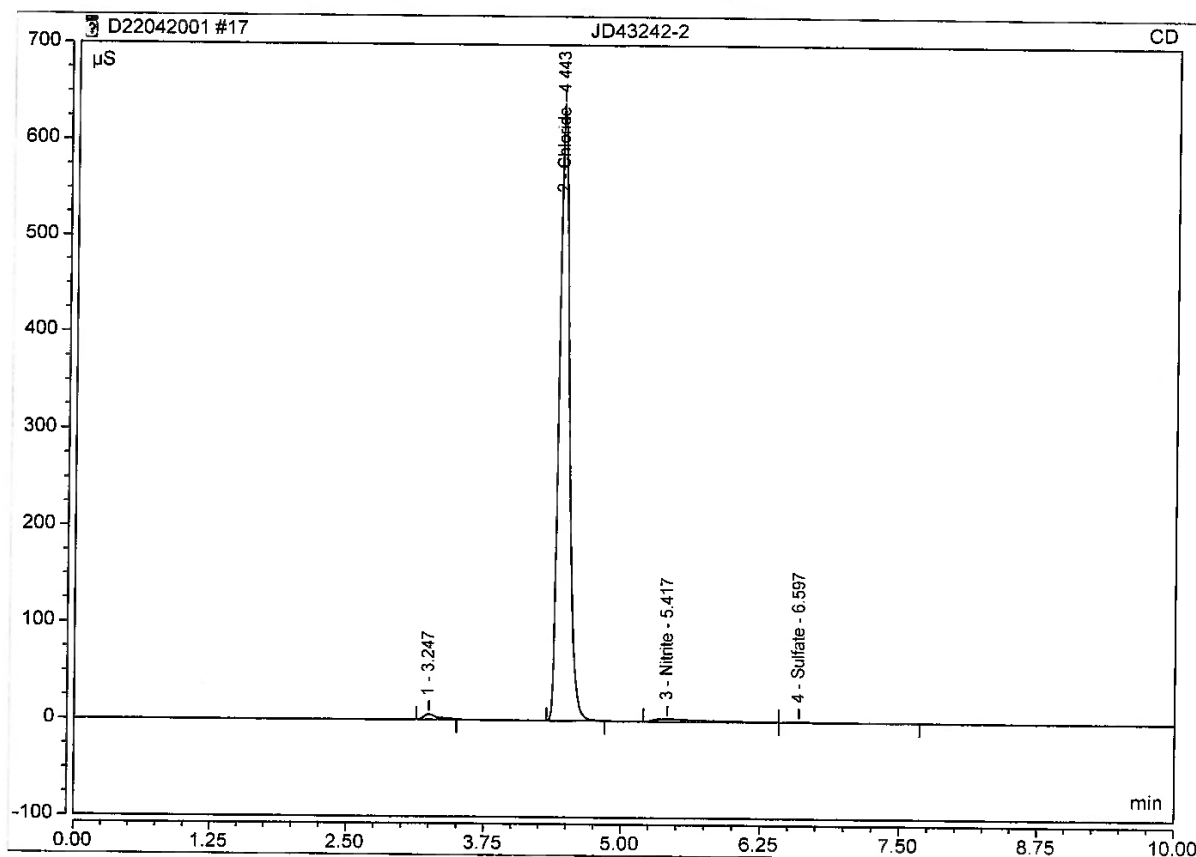
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43242-2	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	2.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 12:09	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
2	4.44	Chloride	BMB	69.146	638.957	458.8511
3	5.42	Nitrite	BM	1.228	2.568	12.7337
4	6.60	Sulfate	MB	0.210	0.694	3.0826
TOTAL:				70.58	642.22	474.67



Anion/Integration

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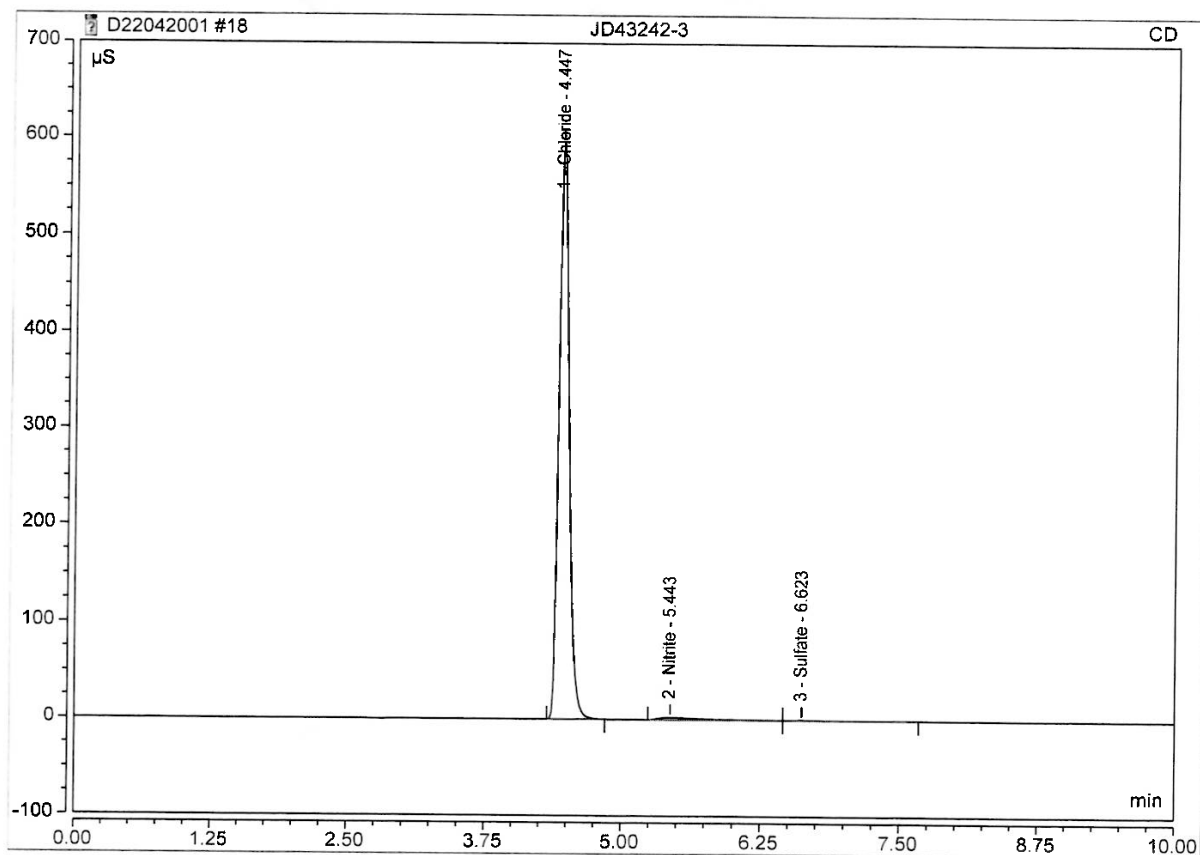
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43242-3	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	4.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 12:21	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.45	Chloride	BMB	64.299	596.463	853.4272
2	5.44	Nitrite	BM	1.114	2.413	23.1101
3	6.62	Sulfate	MB	0.155	0.491	5.1572
TOTAL:				65.57	599.37	881.69



Anion/Integration

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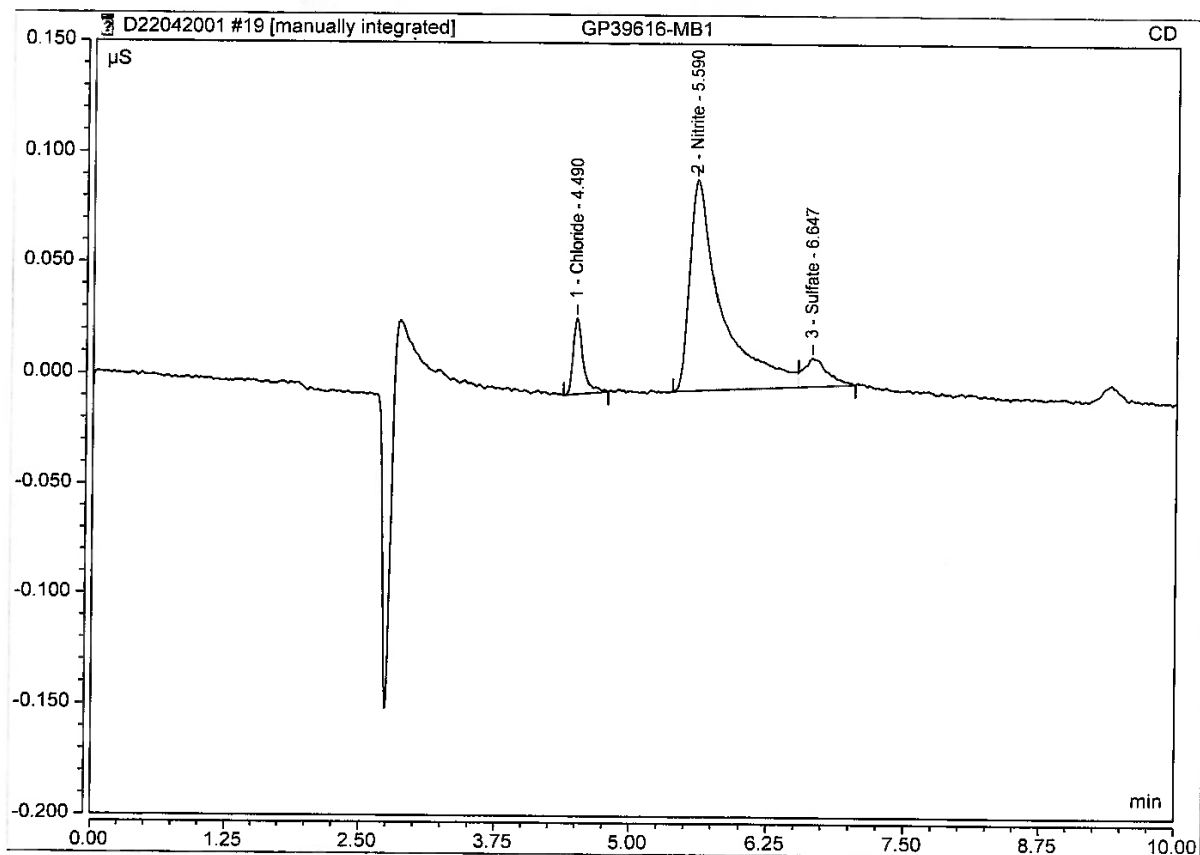
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	GP39616-MB1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 12:37	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.49	Chloride	BMB	0.004	0.034	0.1998
2	5.59	Nitrite	BM *	0.032	0.095	0.1720
3	6.65	Sulfate	MB*	0.003	0.013	0.5930
TOTAL:				0.04	0.14	0.96



Anion/Integration

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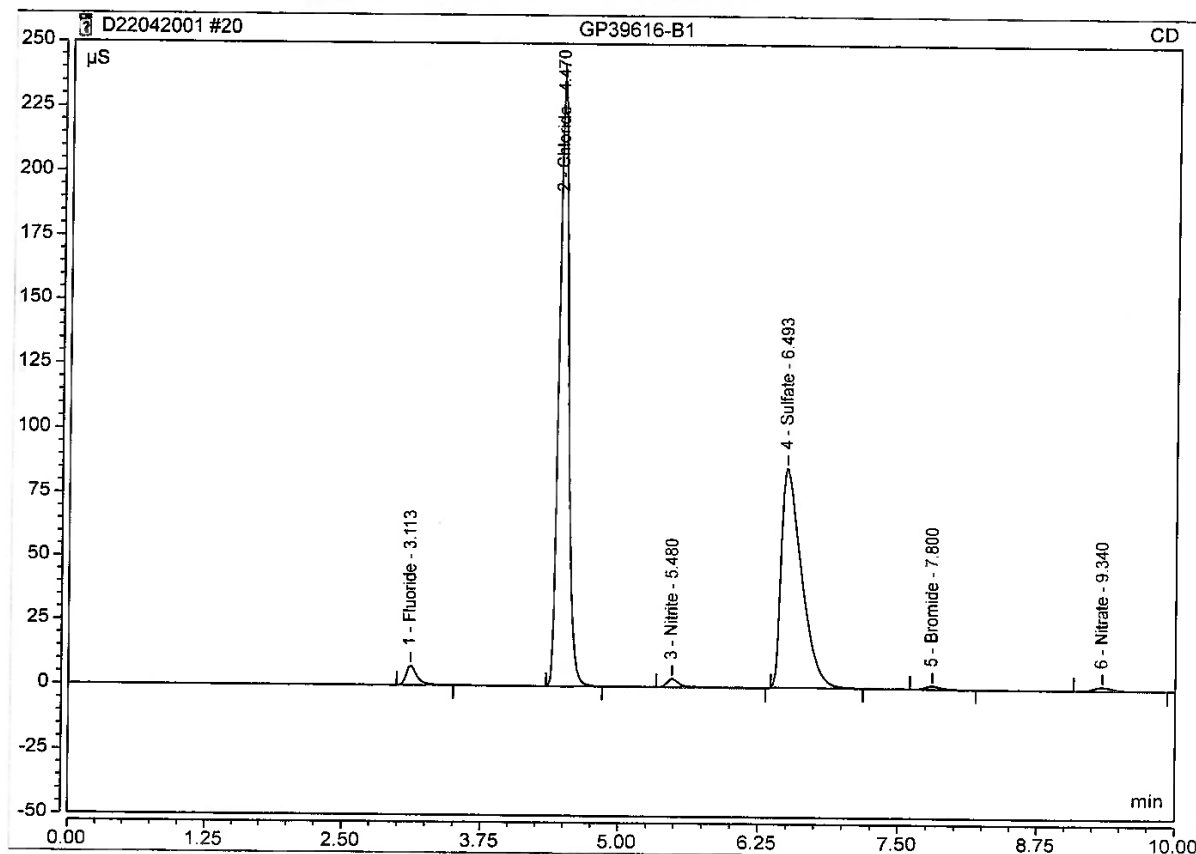
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	GP39616-B1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 12:49	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.11	Fluoride	BMB	0.845	7.468	2.1496
2	4.47	Chloride	BMB	24.141	236.862	80.2205
3	5.48	Nitrite	BMB	0.430	3.249	2.2309
4	6.49	Sulfate	BMB	18.007	85.911	82.9909
5	7.80	Bromide	BMB	0.203	1.315	1.3654
6	9.34	Nitrate	BMB	0.265	1.385	2.1479
TOTAL:				43.89	336.19	171.11



Anion/Integration

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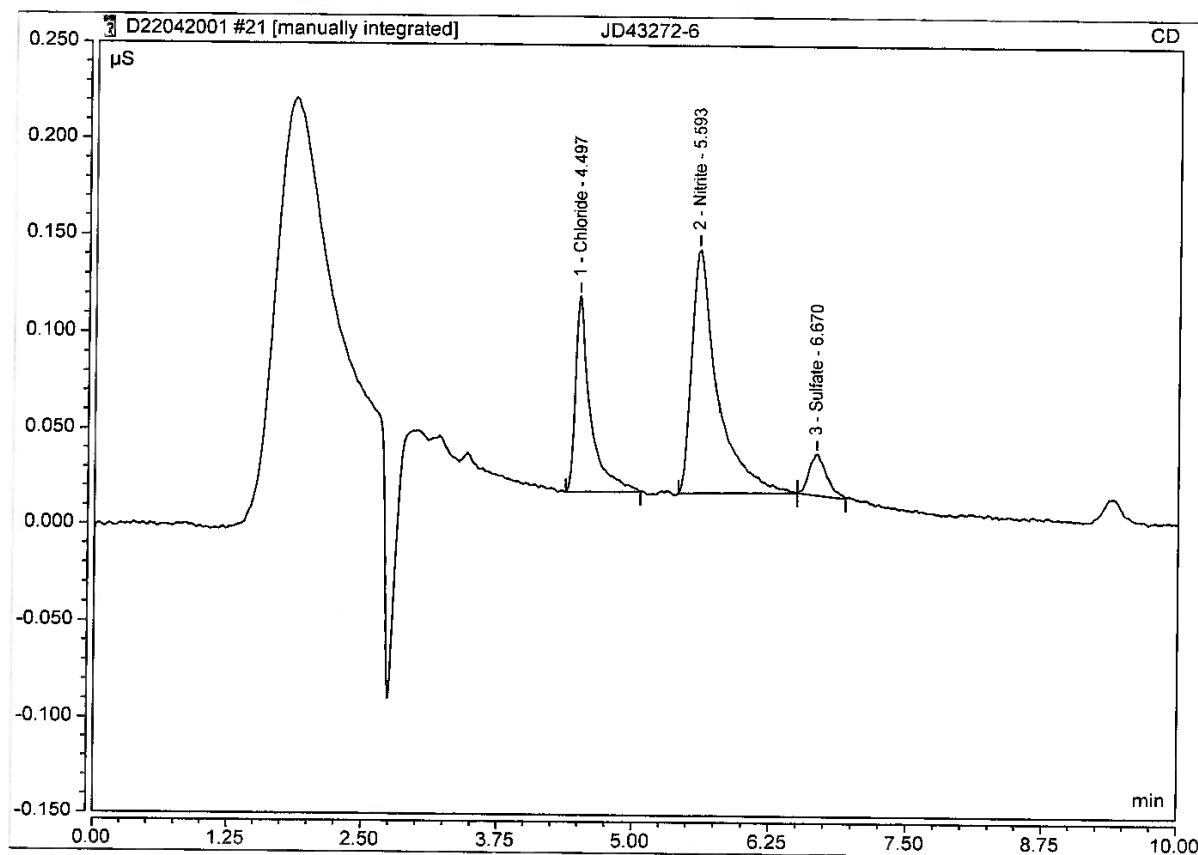
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Peak Integration Report

Sample Name:	JD43272-6	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 13:02	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.50	Chloride	BMB*	0.016	0.102	0.2417
2	5.59	Nitrite	BMB*	0.034	0.127	0.1844
3	6.67	Sulfate	bMB*	0.004	0.022	0.5963
TOTAL:				0.05	0.25	1.02



Anion/Integration

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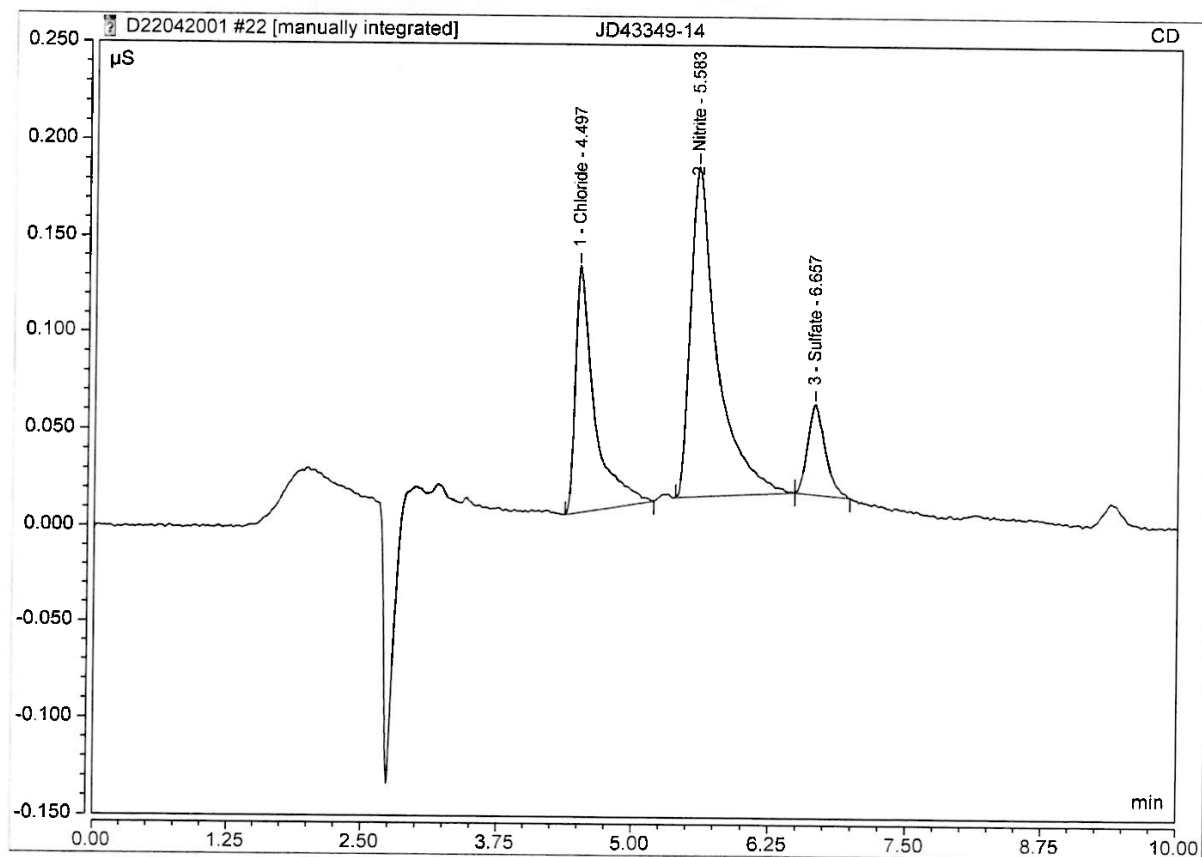
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43349-14	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 13:15	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.50	Chloride	BMB	0.026	0.127	0.2736
2	5.58	Nitrite	BMB	0.048	0.171	0.2525
3	6.66	Sulfate	BMB*	0.009	0.046	0.6173
TOTAL:				0.08	0.34	1.14



Anion/Integration

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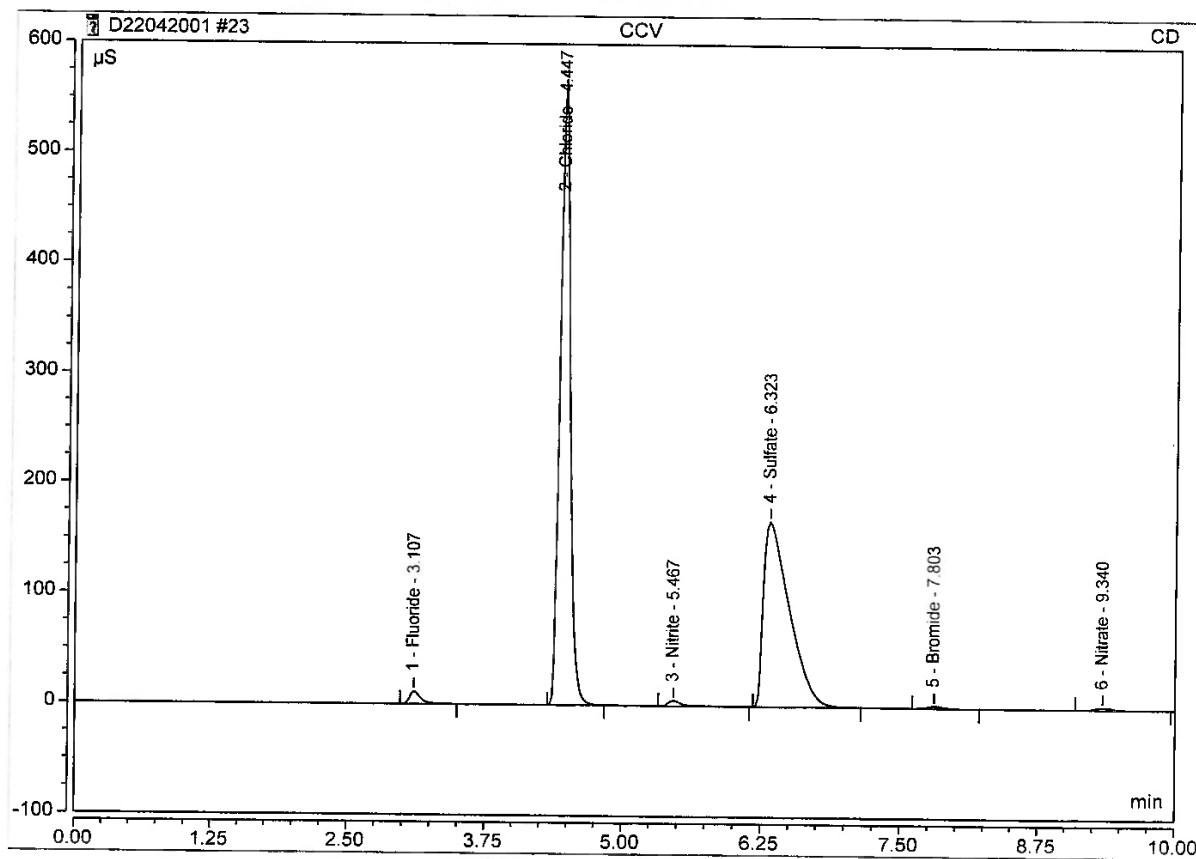
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	CCV	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 13:28	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.11	Fluoride	BMB	1.303	11.545	3.2919
2	4.45	Chloride	BMB	60.086	556.811	199.3907
3	5.47	Nitrite	BMB	0.647	4.946	3.3564
4	6.32	Sulfate	BMB	45.225	167.703	207.5608
5	7.80	Bromide	BMB	0.315	2.025	2.2941
6	9.34	Nitrate	BMB	0.413	2.141	3.3564
TOTAL:				107.99	745.17	419.25



Anion/Integration

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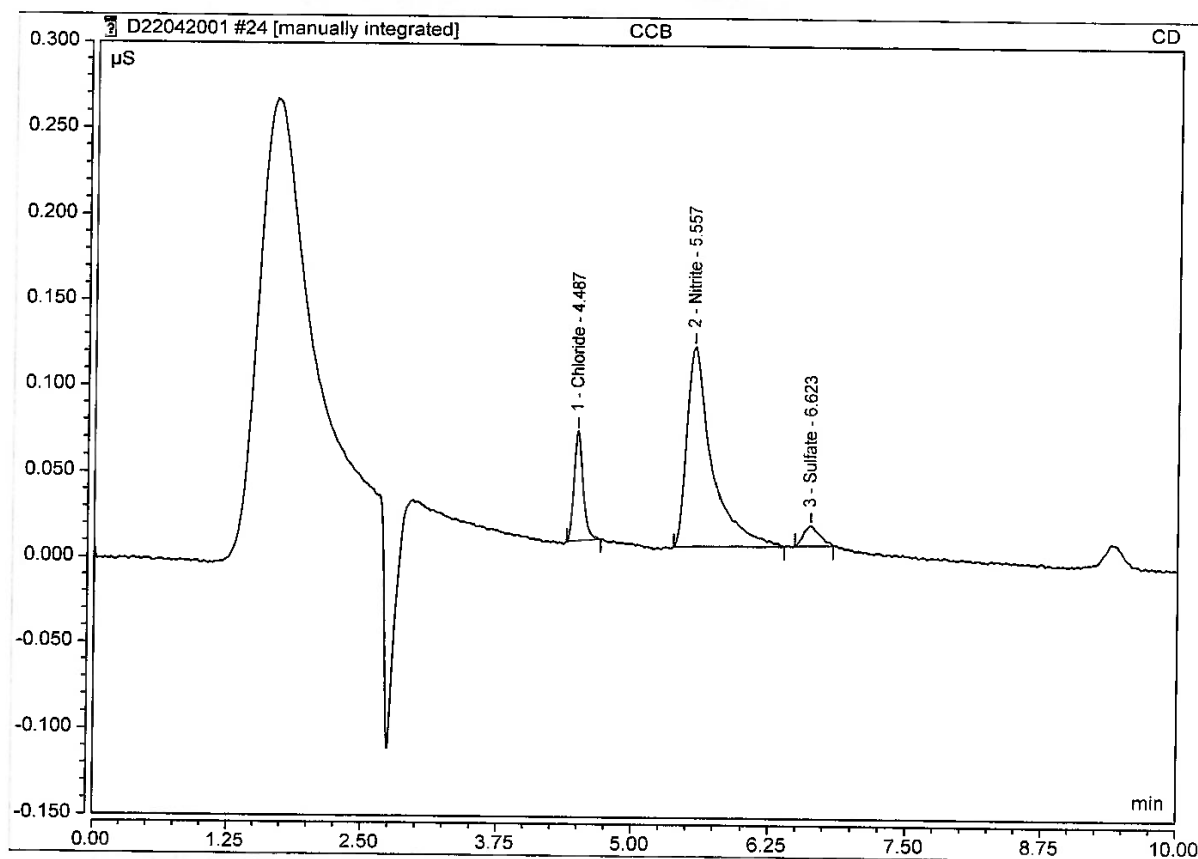
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 13:41	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.49	Chloride	BMB*	0.006	0.064	0.2082
2	5.56	Nitrite	BMB*	0.031	0.116	0.1655
3	6.62	Sulfate	BMB*	0.002	0.012	0.5876
TOTAL:				0.04	0.19	0.96



Anion/Integration

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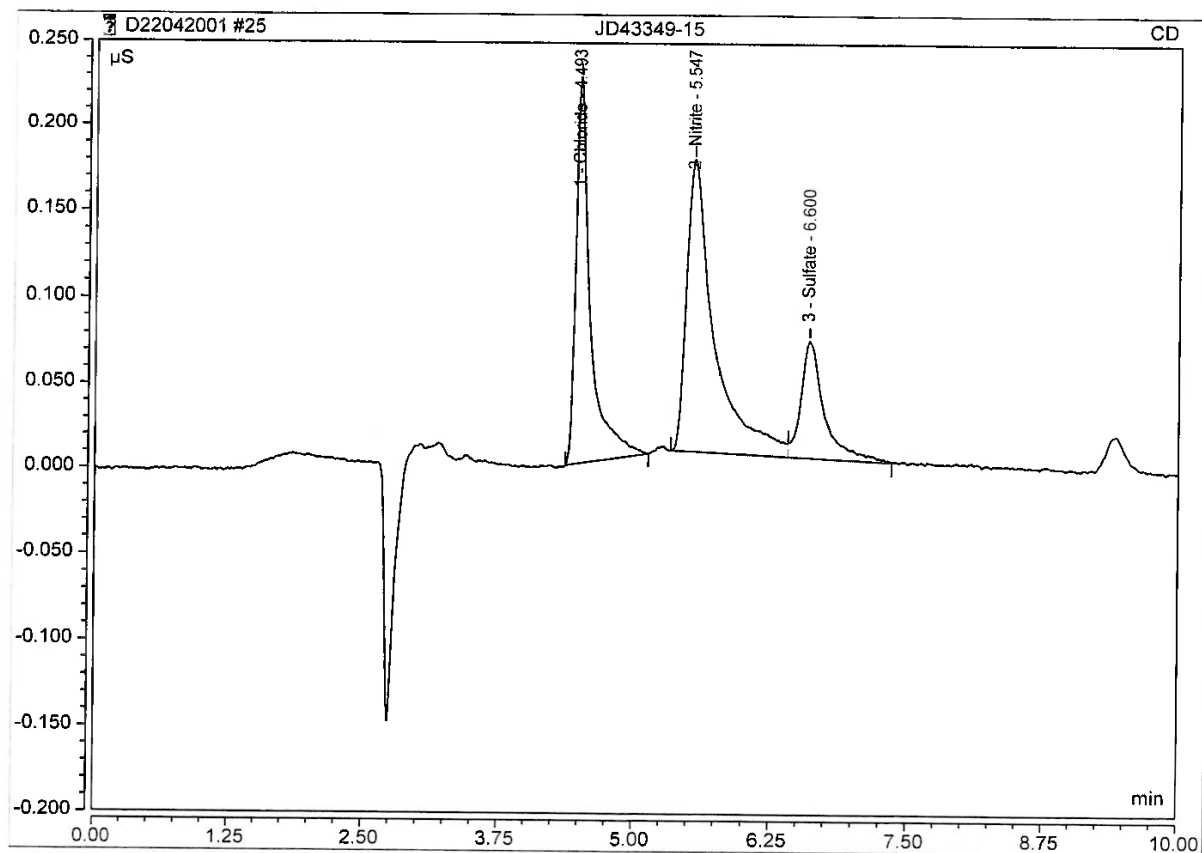
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43349-15	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 13:54	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.49	Chloride	BMB	0.035	0.226	0.3039
2	5.55	Nitrite	BM	0.050	0.170	0.2658
3	6.60	Sulfate	MB	0.017	0.069	0.6563
TOTAL:				0.10	0.47	1.23



Anion/Integration

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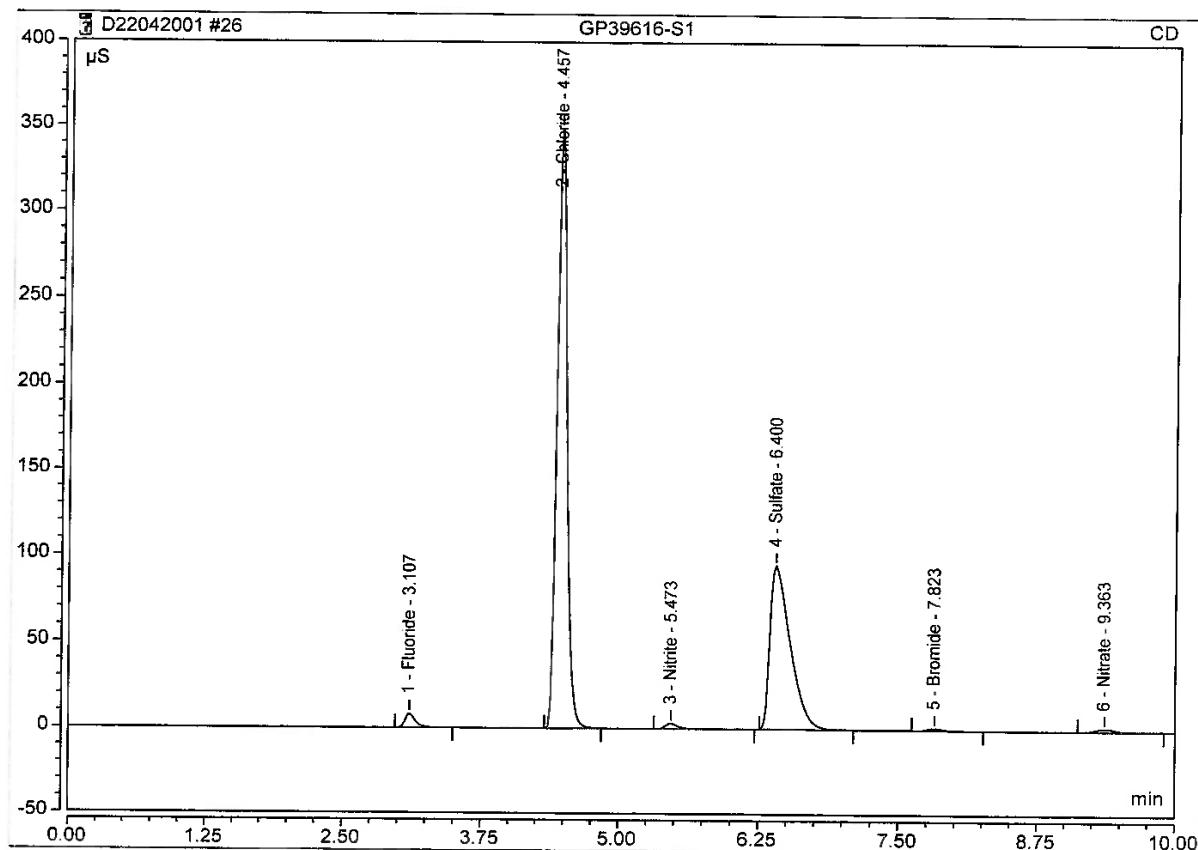
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	GP39616-S1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 14:07	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.11	Fluoride	BMB	0.882	8.089	2.2434
2	4.46	Chloride	BMB	36.534	349.257	121.3071
3	5.47	Nitrite	BMB	0.491	3.344	2.5472
4	6.40	Sulfate	BMB	20.025	94.790	92.2261
5	7.82	Bromide	BMB	0.206	1.311	1.3894
6	9.36	Nitrate	BMB	0.348	1.808	2.8210
TOTAL:				58.49	458.60	222.53



Anion/Integration

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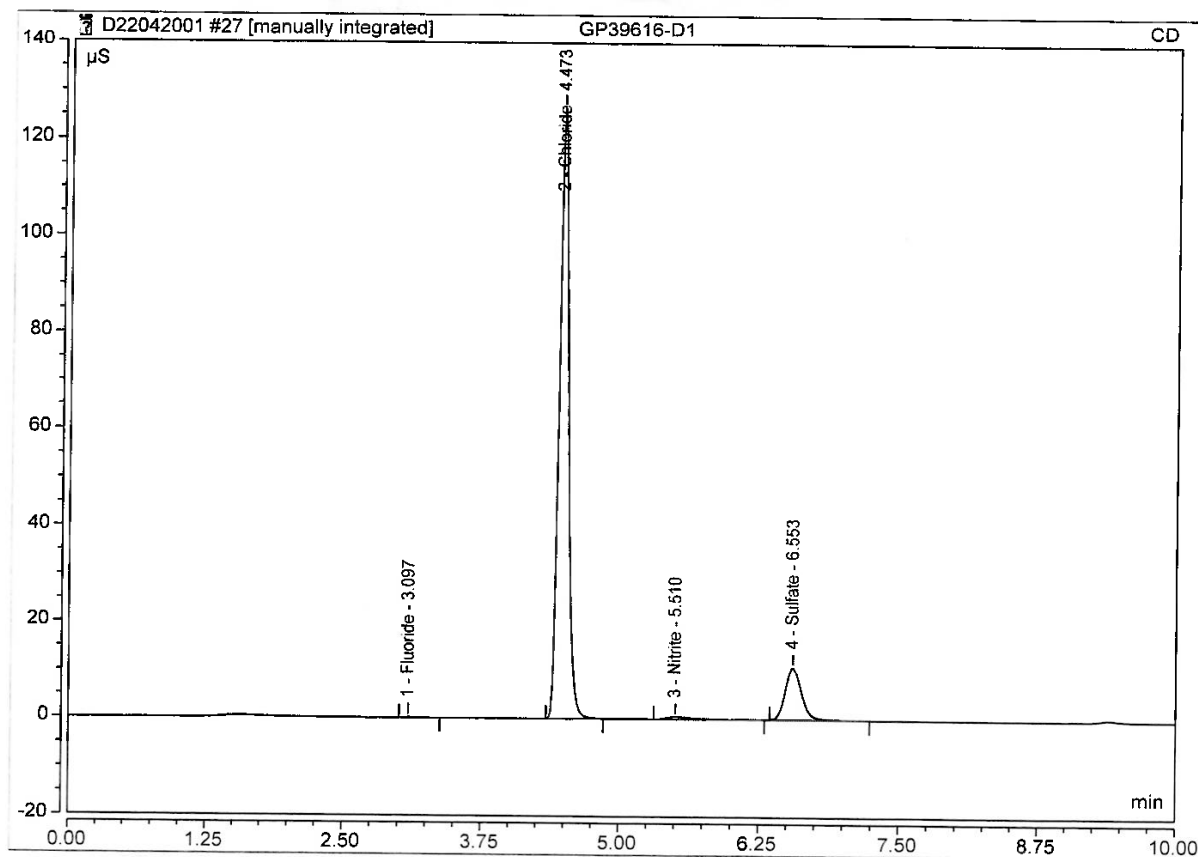
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	GP39616-D1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 14:20	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB*	0.014	0.129	0.0801
2	4.47	Chloride	BMB	12.585	126.551	41.9111
3	5.51	Nitrite	BMB*	0.154	0.550	0.8048
4	6.55	Sulfate	BMB	1.856	10.963	9.0722
TOTAL:				14.61	138.19	51.87



Anion/Integration

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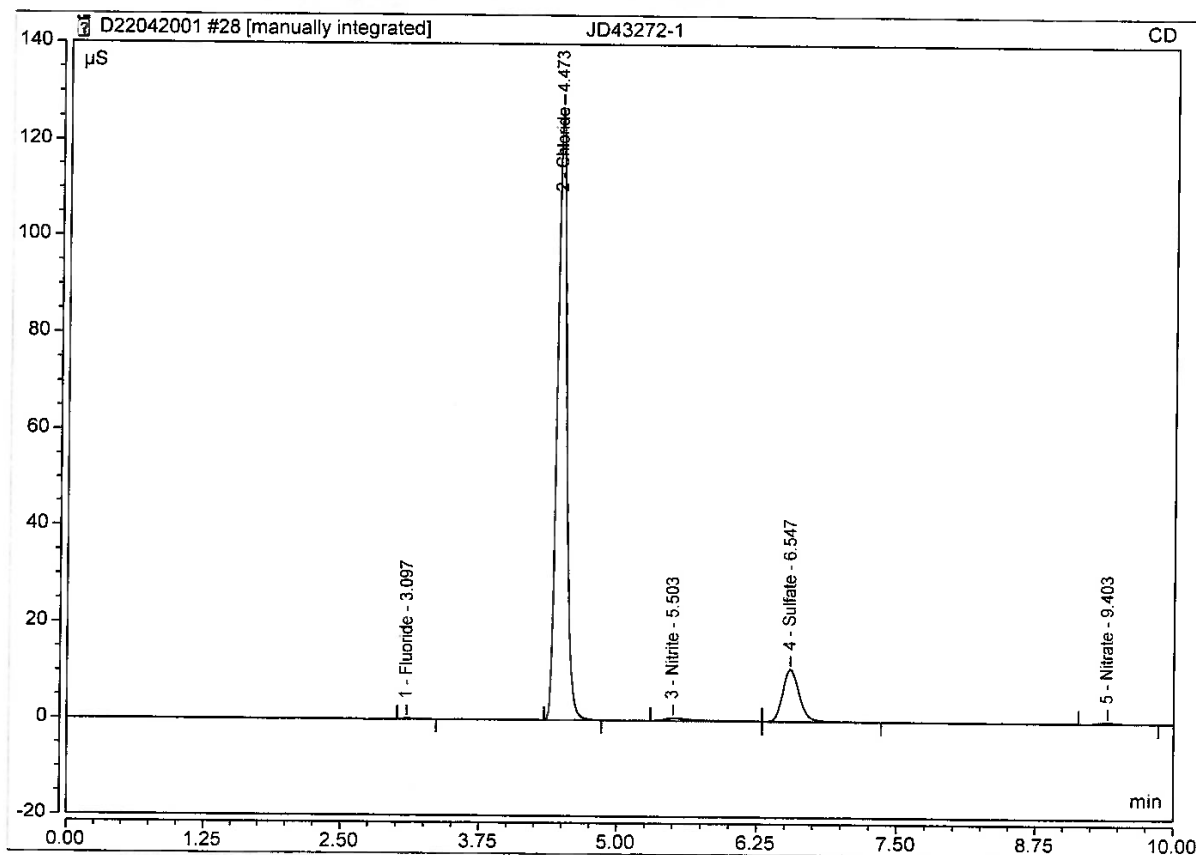
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43272-1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 14:33	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB*	0.014	0.125	0.0809
2	4.47	Chloride	BMB	12.618	127.005	42.0182
3	5.50	Nitrite	BM	0.163	0.559	0.8507
4	6.55	Sulfate	MB	1.875	10.911	9.1609
5	9.40	Nitrate	BMB	0.071	0.359	0.5573
TOTAL:				14.74	138.96	52.67



Anion/Integration

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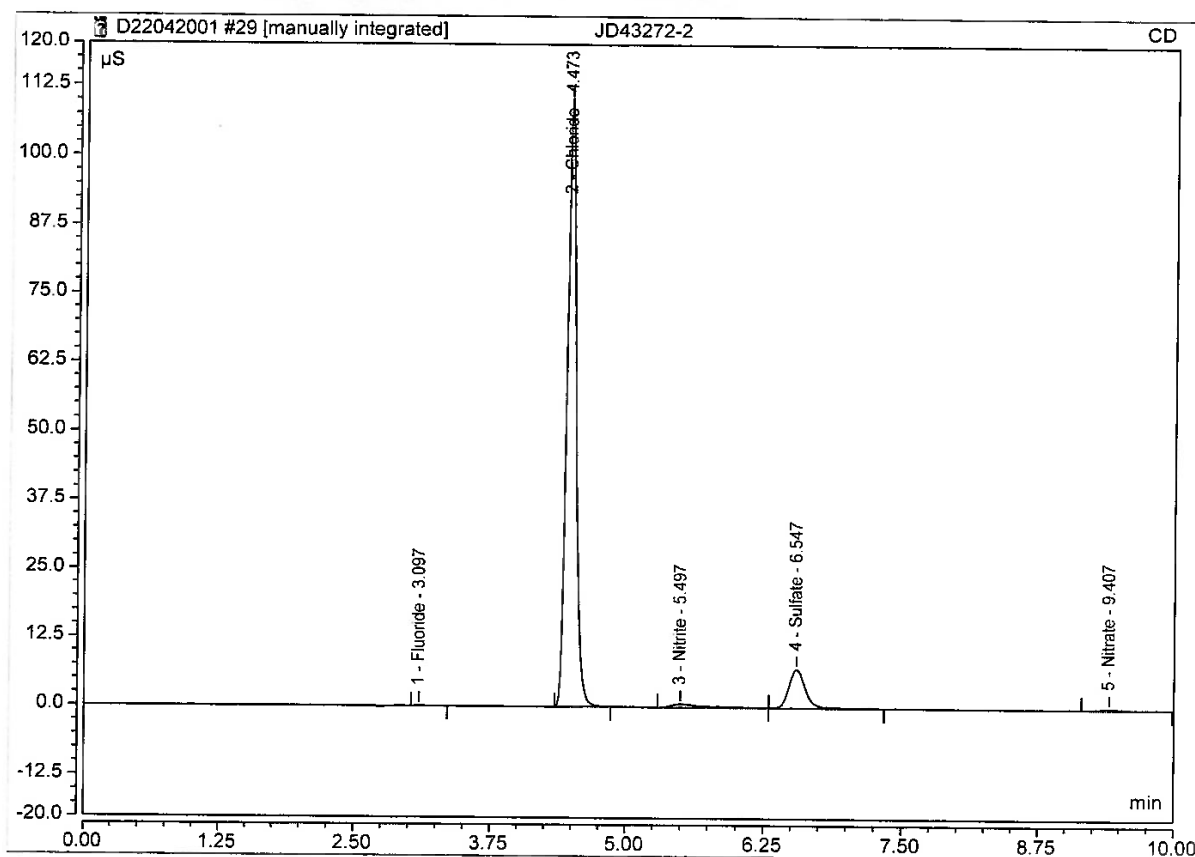
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43272-2	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 14:46	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB*	0.011	0.099	0.0721
2	4.47	Chloride	BMB	10.886	110.079	36.2760
3	5.50	Nitrite	BM	0.179	0.602	0.9336
4	6.55	Sulfate	MB	1.201	6.974	6.0769
5	9.41	Nitrate	BMB	0.051	0.254	0.3974
TOTAL:				12.33	118.01	43.76



Anion/Integration

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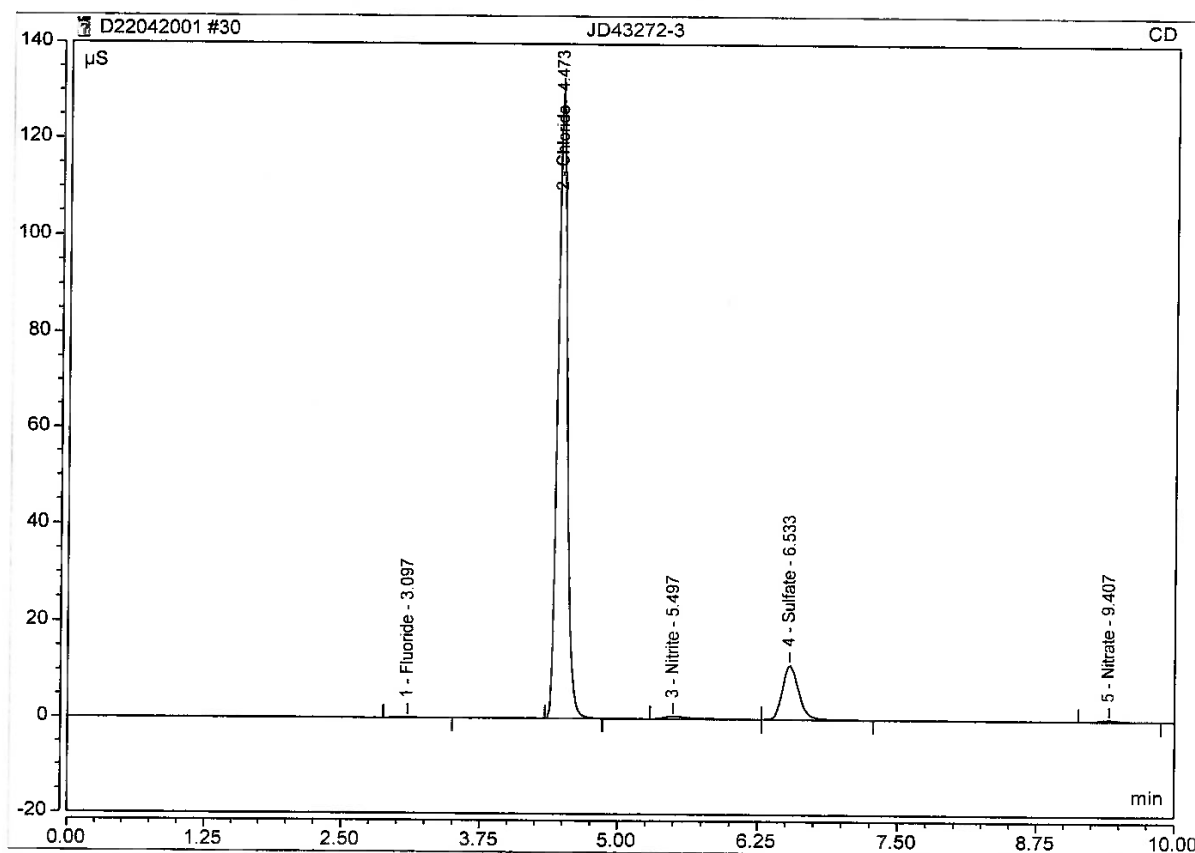
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43272-3	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 14:59	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB	0.019	0.137	0.0930
2	4.47	Chloride	BMB	12.947	130.120	43.1103
3	5.50	Nitrite	BM	0.157	0.549	0.8192
4	6.53	Sulfate	MB	1.960	11.393	9.5493
5	9.41	Nitrate	BMB	0.072	0.364	0.5664
TOTAL:				15.16	142.56	54.14



Anion/Integration

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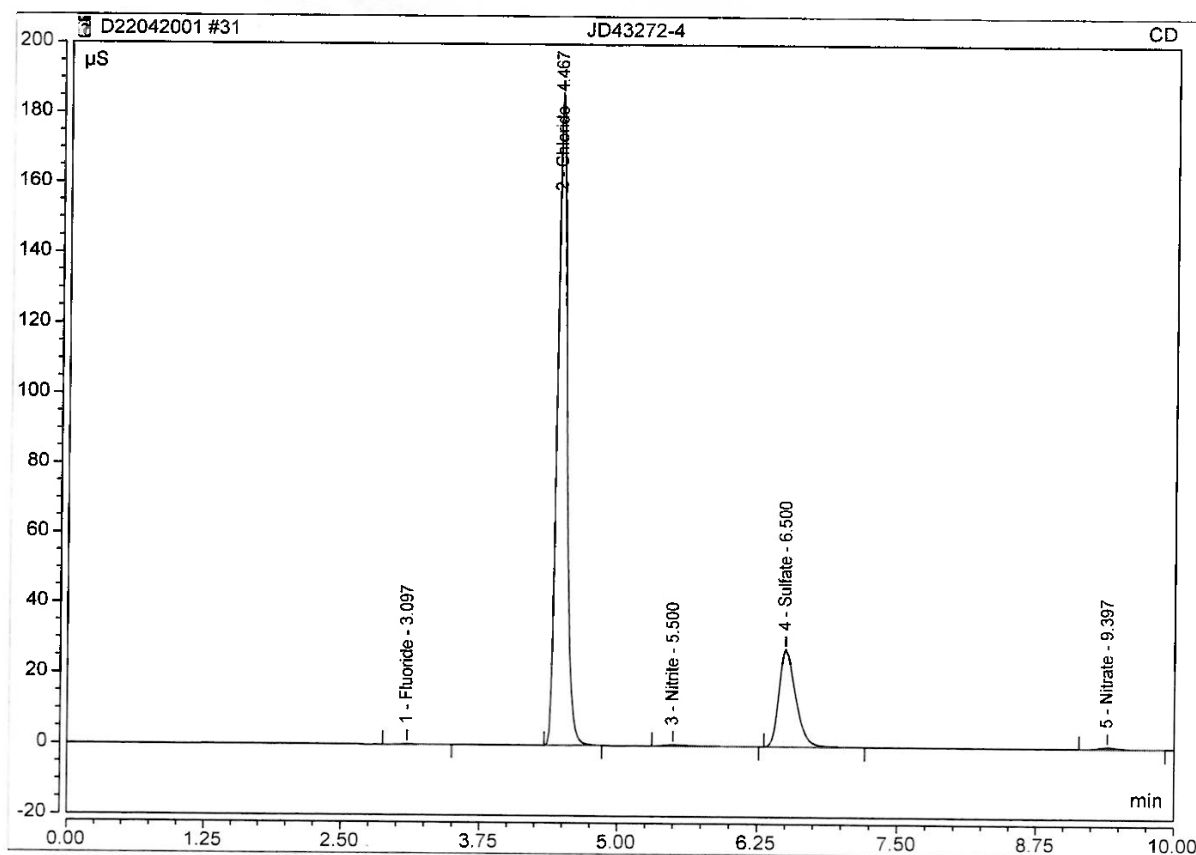
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43272-4	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 15:11	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB	0.024	0.186	0.1051
2	4.47	Chloride	BMB	18.812	185.974	62.5542
3	5.50	Nitrite	BMB	0.097	0.370	0.5056
4	6.50	Sulfate	BMB	4.766	27.412	22.3912
5	9.40	Nitrate	BMB	0.122	0.626	0.9798
TOTAL:				23.82	214.57	86.54



Anion/Integration

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Version 7.2.8.10783

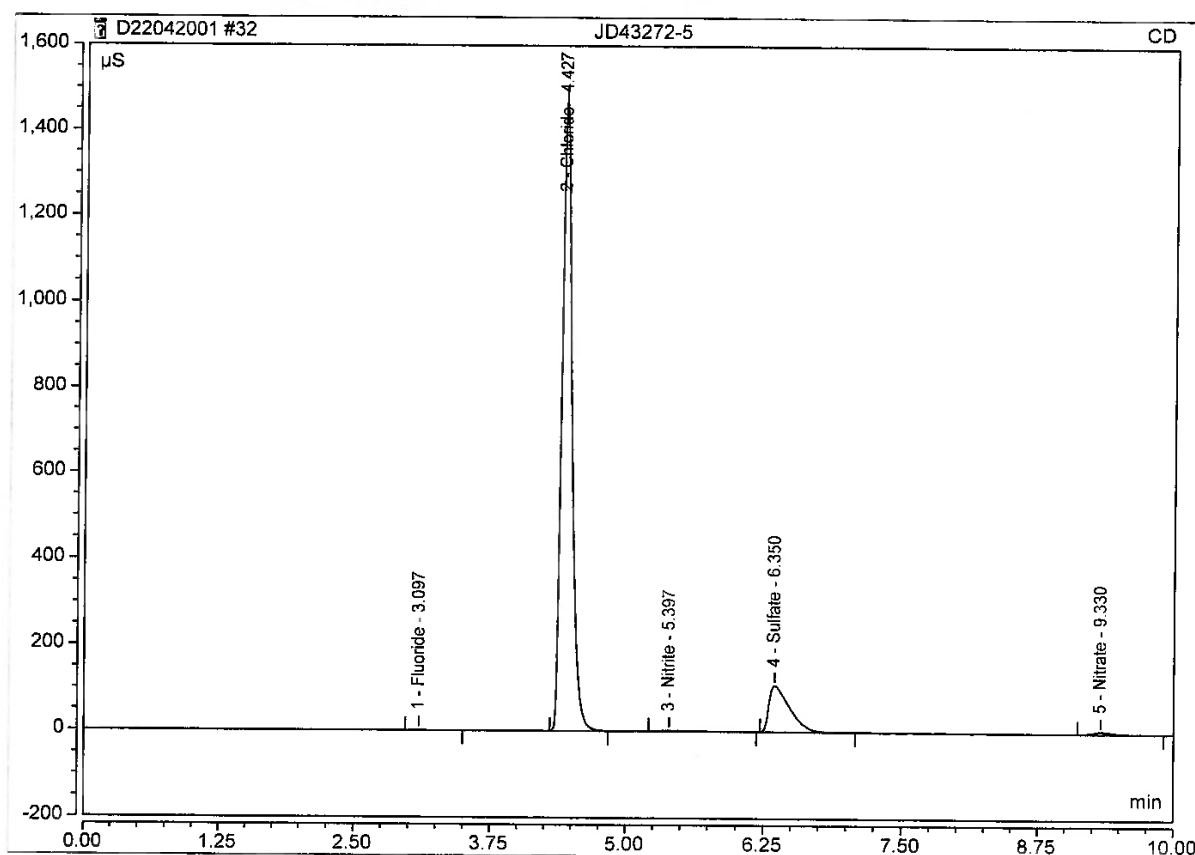
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43272-5	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 15:24	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB	0.107	0.892	0.3126
2	4.43	Chloride	BMB	158.673	1472.722	526.2323
3	5.40	Nitrite	BMB	0.821	2.227	4.2574
4	6.35	Sulfate	BMB	23.519	108.649	108.2167
5	9.33	Nitrate	BMB	1.001	5.029	8.1607
TOTAL:				184.12	1589.52	647.18



Anion/Integration

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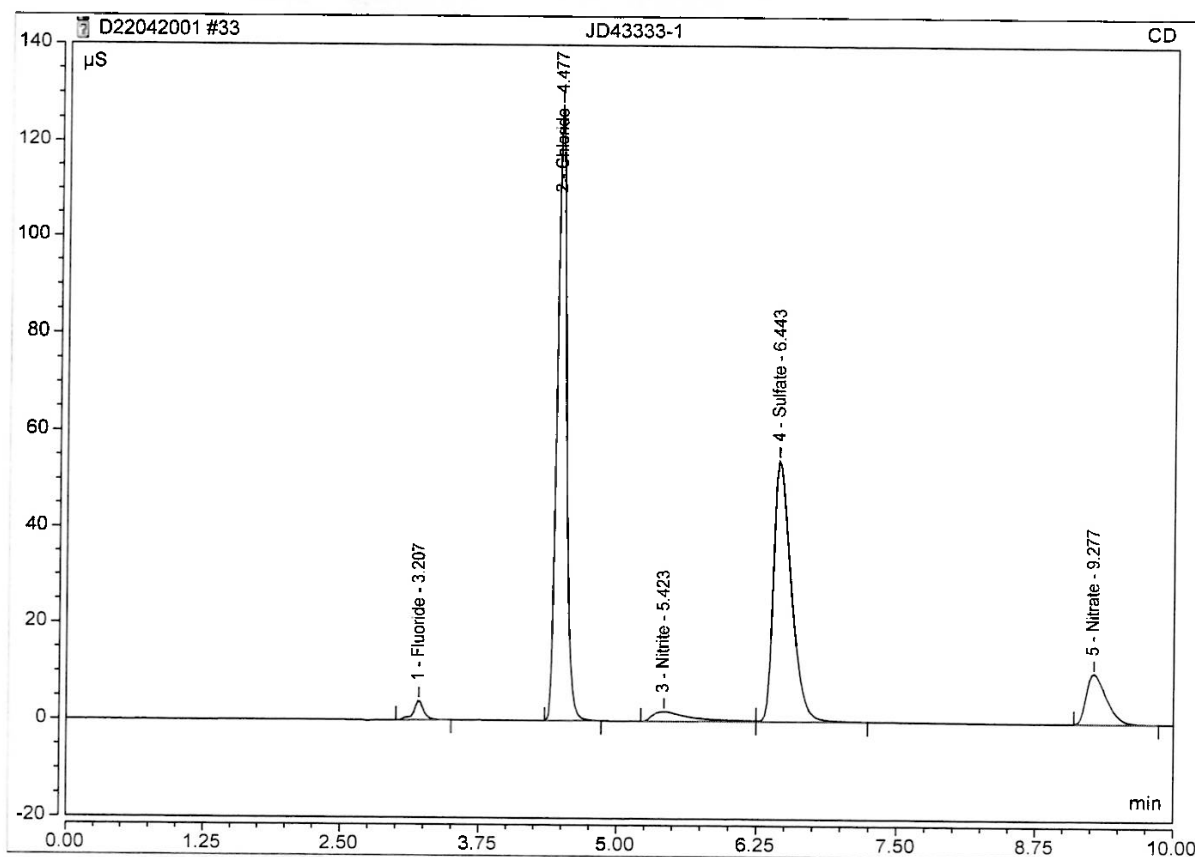
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Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43333-1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 15:37	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.21	Fluoride	BMB	0.419	3.976	1.0897
2	4.48	Chloride	BMB	12.592	127.774	41.9319
3	5.42	Nitrite	BM	0.789	2.023	4.0917
4	6.44	Sulfate	MB	10.000	54.383	46.3456
5	9.28	Nitrate	BMB	2.204	10.331	17.9815
TOTAL:				26.00	198.49	111.44



Anion/Integration

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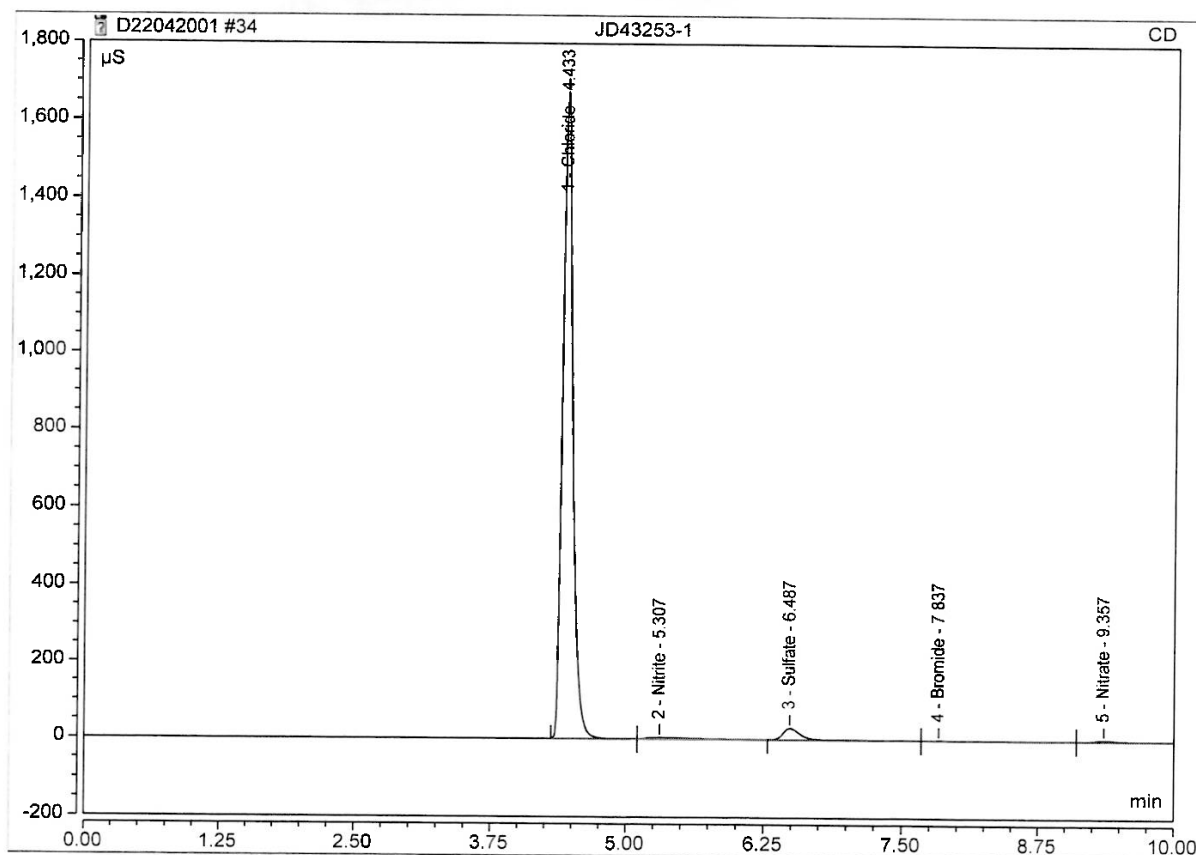
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43253-1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 15:50	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.43	Chloride	BM	181.239	1673.774	601.0447
2	5.31	Nitrite	Ru	1.709	3.663	8.8558
3	6.49	Sulfate	M	6.308	30.740	29.4459
4	7.84	Bromide	M	0.153	0.321	0.9488
5	9.36	Nitrate	MB	0.618	3.134	5.0278
TOTAL:				190.03	1711.63	645.32



Anion/Integration

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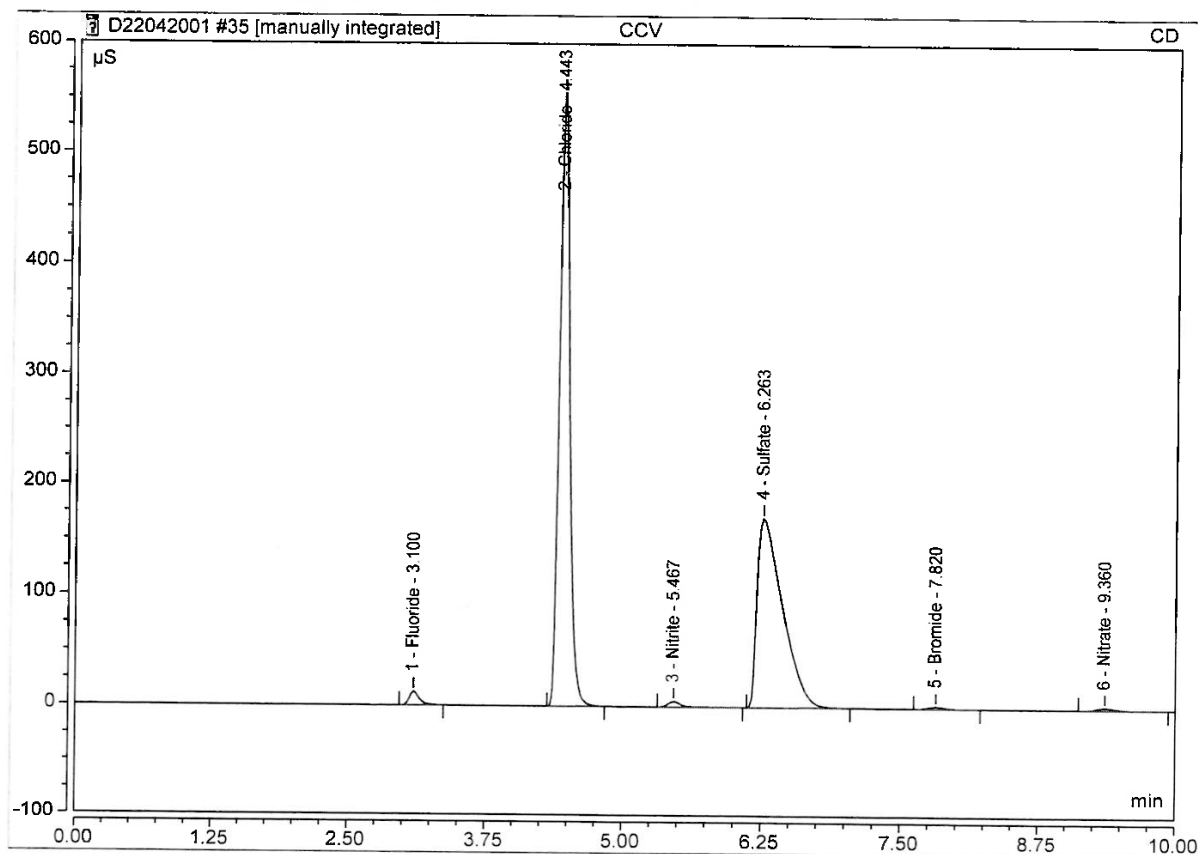
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Peak Integration Report

Sample Name:	CCV	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 16:03	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB*	1.288	12.318	3.2523
2	4.44	Chloride	BMB	60.075	555.749	199.3536
3	5.47	Nitrite	BMB	0.652	4.983	3.3838
4	6.26	Sulfate	BMB	45.165	171.055	207.2856
5	7.82	Bromide	BMB	0.313	2.013	2.2781
6	9.36	Nitrate	BMB	0.410	2.113	3.3283
TOTAL:				107.90	748.23	418.88



Anion/Integration

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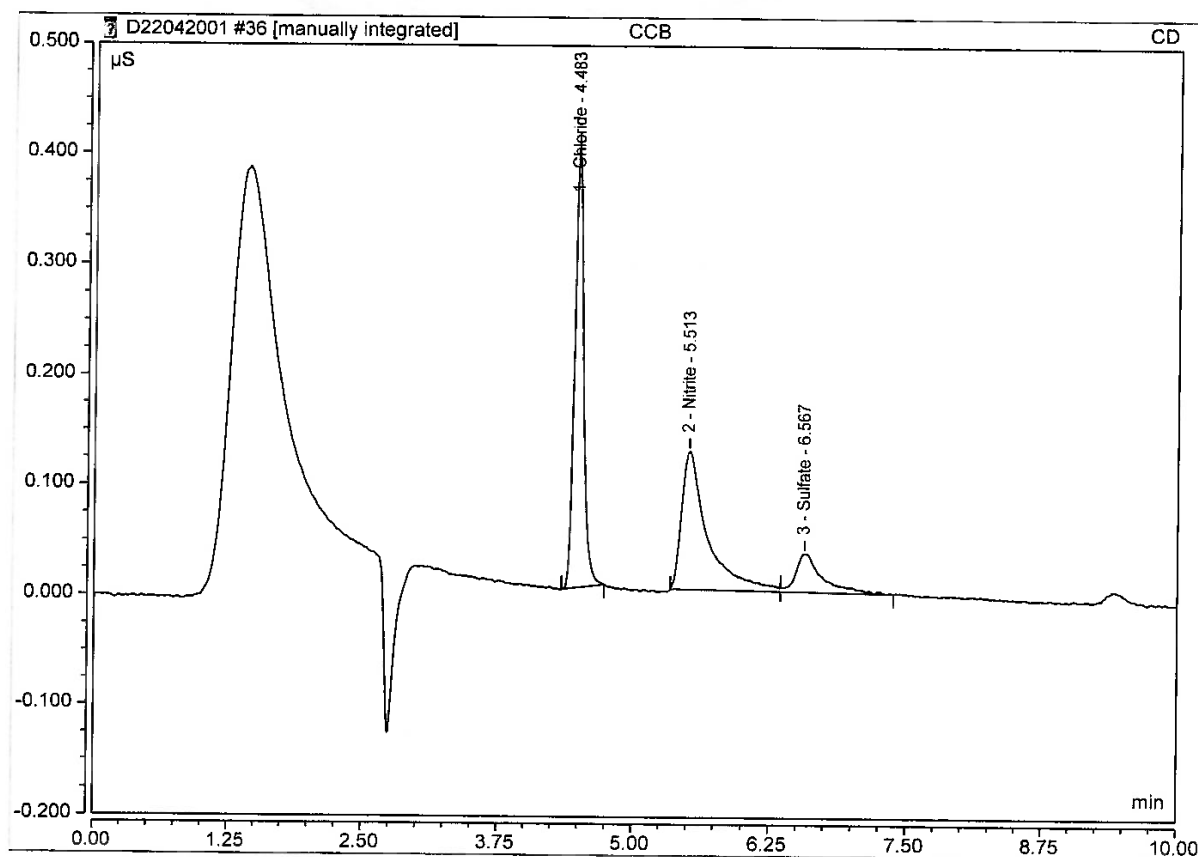
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Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 16:16	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.48	Chloride	BMB*	0.039	0.399	0.3156
2	5.51	Nitrite	BM *	0.034	0.125	0.1832
3	6.57	Sulfate	MB*	0.010	0.035	0.6237
TOTAL:				0.08	0.56	1.12



Anion/Integration

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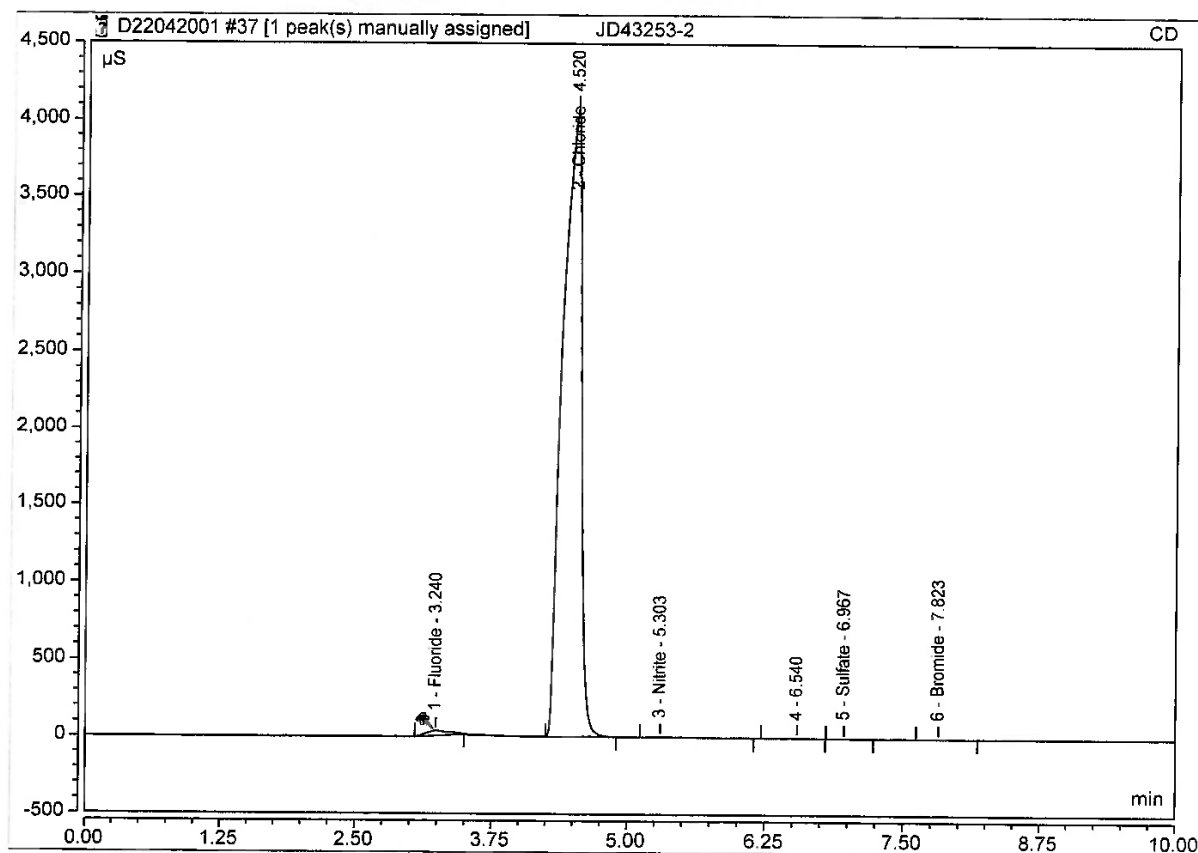
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43253-2	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 16:29	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.24	Fluoride	BMB^	7.035	30.290	17.5643
2	4.52	Chloride	BMB	817.554	4074.133	2710.6023
3	5.30	Nitrite	BMB	1.350	3.075	6.9991
5	6.97	Sulfate	BMB	0.038	0.194	0.7508
6	7.82	Bromide	BMB	0.115	0.685	0.6366
TOTAL:				826.09	4108.38	2736.55



Anion/Integration

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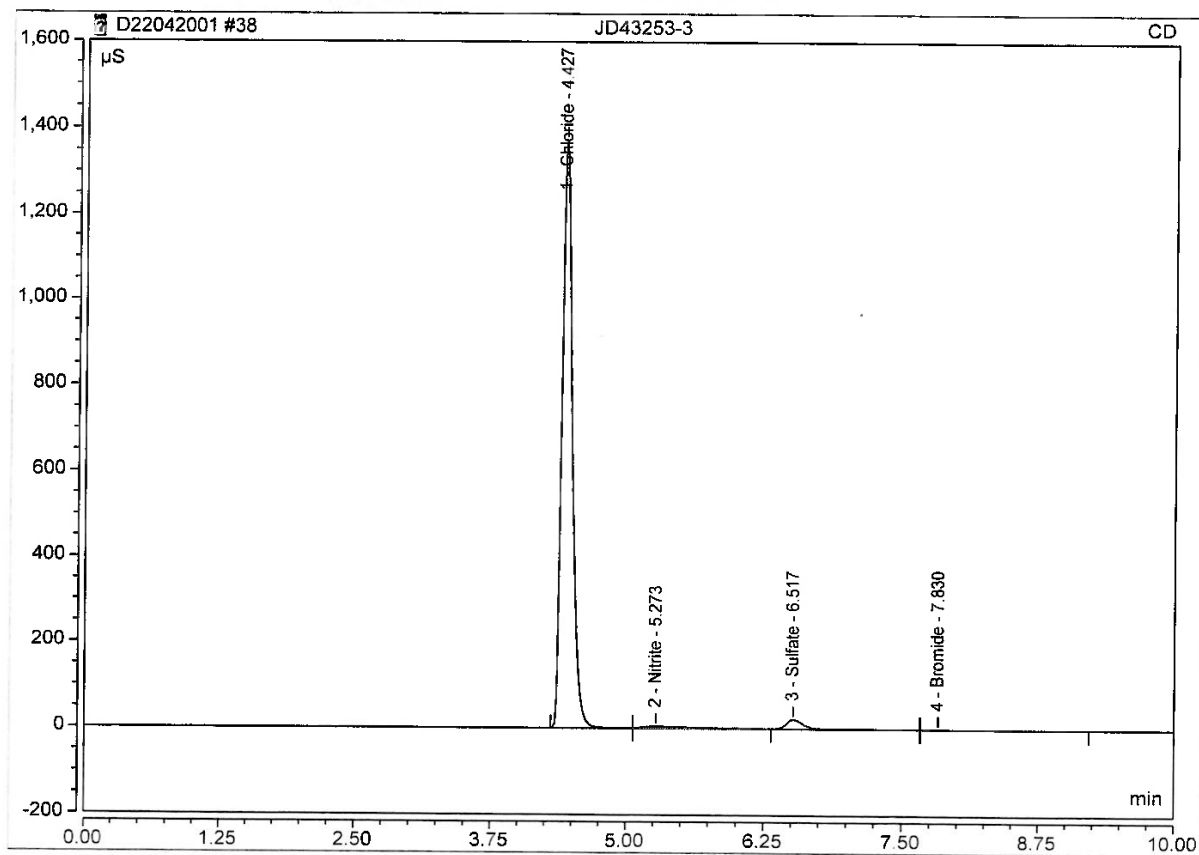
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Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43253-3	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 16:42	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.43	Chloride	BM	150.896	1373.145	500.4489
2	5.27	Nitrite	Ru	2.092	4.162	10.8426
3	6.52	Sulfate	M	4.777	22.034	22.4388
4	7.83	Bromide	MB	0.142	0.353	0.8633
TOTAL:				157.91	1399.69	534.59



Anion/Integration

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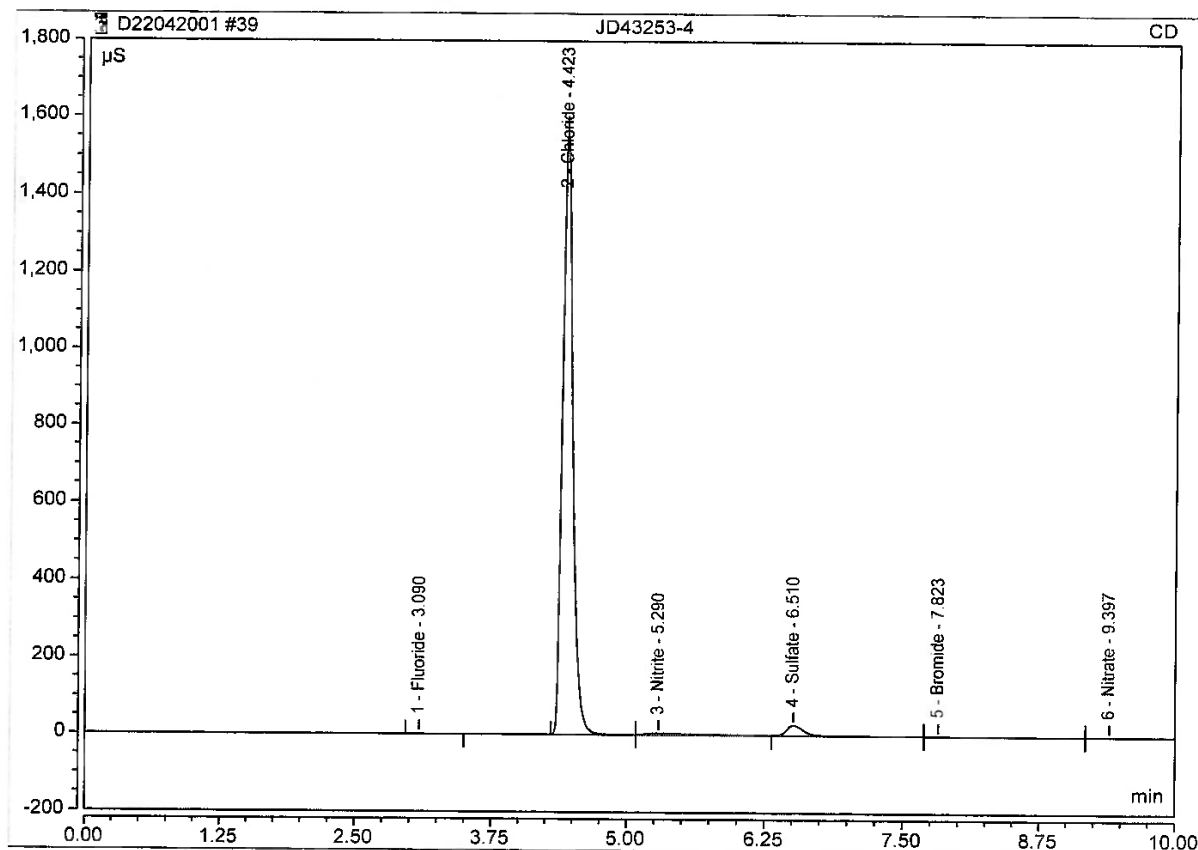
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43253-4	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 16:59	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.09	Fluoride	BMB	0.070	0.585	0.2204
2	4.42	Chloride	BM	171.040	1568.309	567.2338
3	5.29	Nitrite	Ru	1.954	3.974	10.1247
4	6.51	Sulfate	M	5.731	27.349	26.8088
5	7.82	Bromide	M	0.154	0.241	0.9571
6	9.40	Nitrate	MB	0.030	0.109	0.2267
TOTAL:				178.98	1600.57	605.57



Anion/Integration

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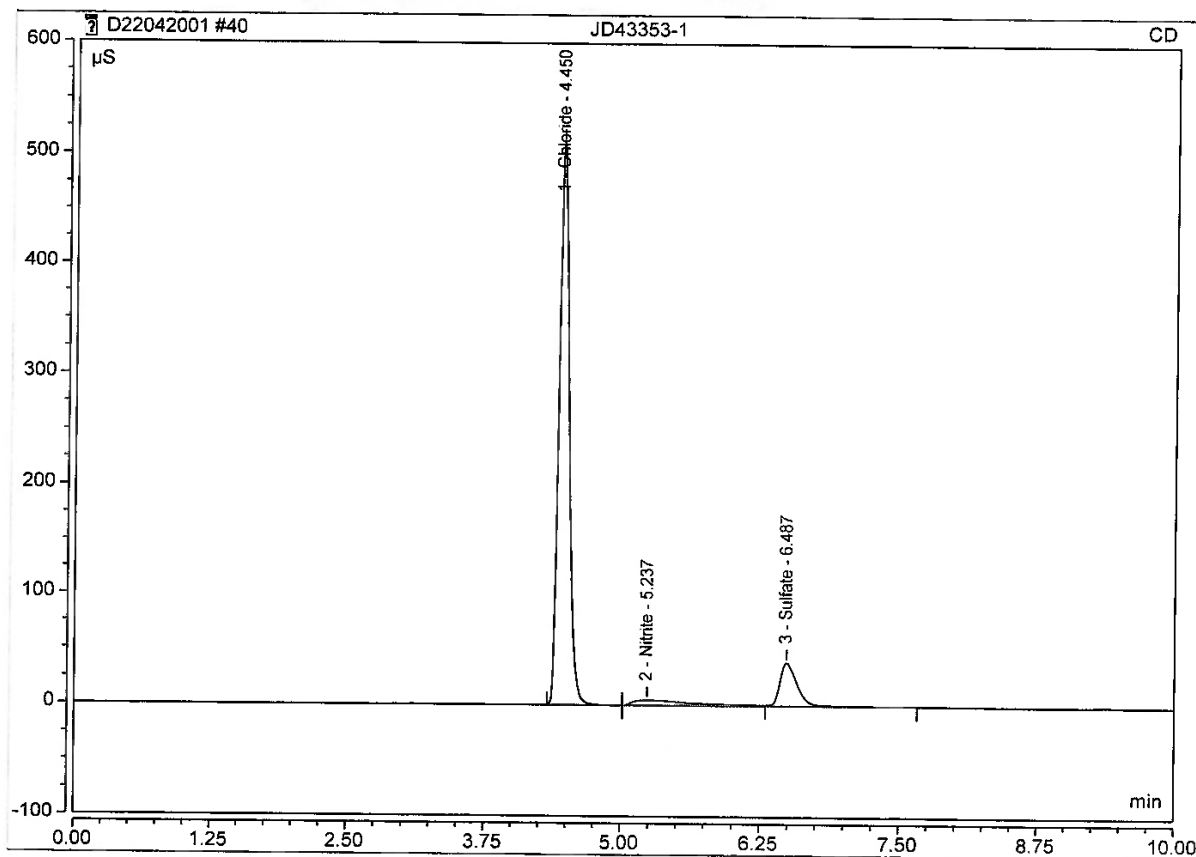
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Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43353-1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 17:12	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.45	Chloride	BM	54.755	510.597	181.7167
2	5.24	Nitrite	Ru	2.511	4.669	13.0088
3	6.49	Sulfate	MB	7.622	39.091	35.4629
TOTAL:				64.89	554.36	230.19



Anion/Integration

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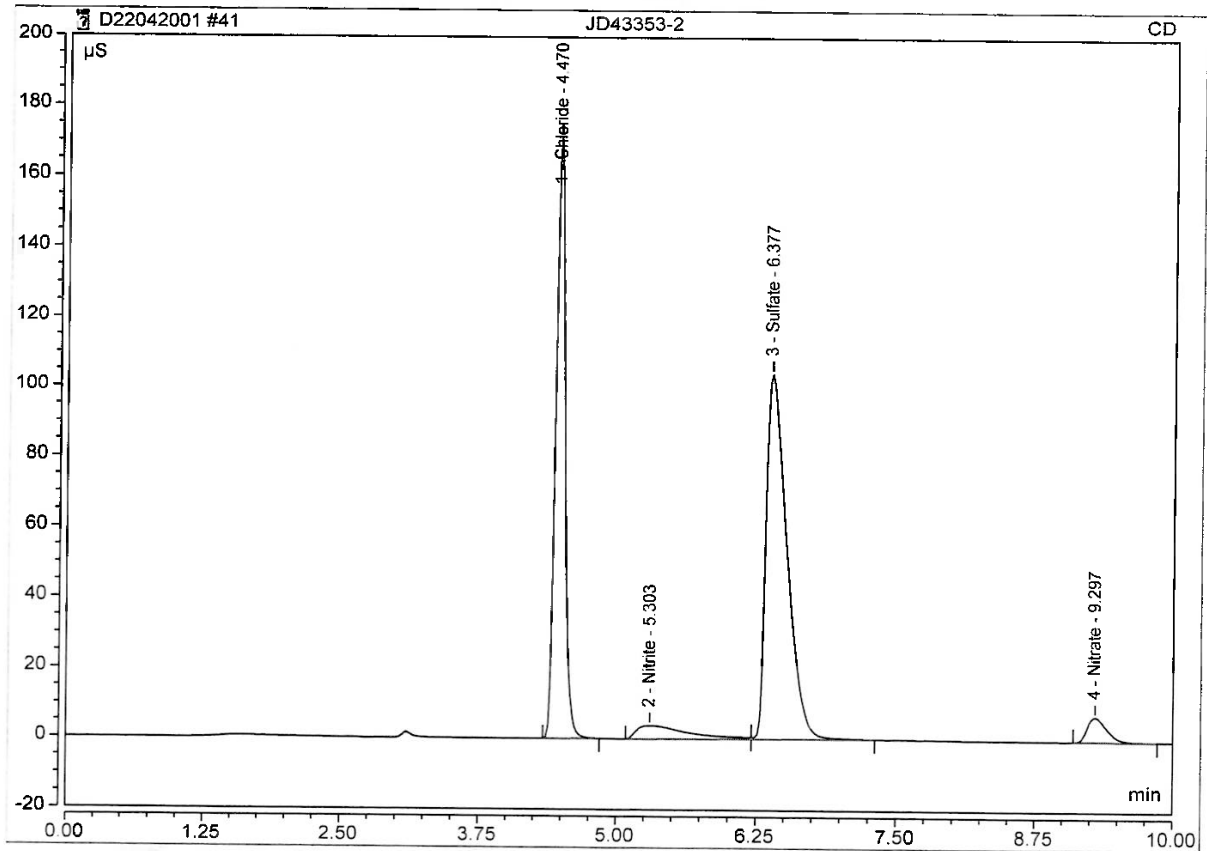
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Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43353-2	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 17:25	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.47	Chloride	BMB	17.005	171.398	56.5631
2	5.30	Nitrite	BM	2.020	3.800	10.4696
3	6.38	Sulfate	MB	22.486	104.165	103.4921
4	9.30	Nitrate	BMB	1.457	7.160	11.8816
TOTAL:				42.97	286.52	182.41



Anion/Integration

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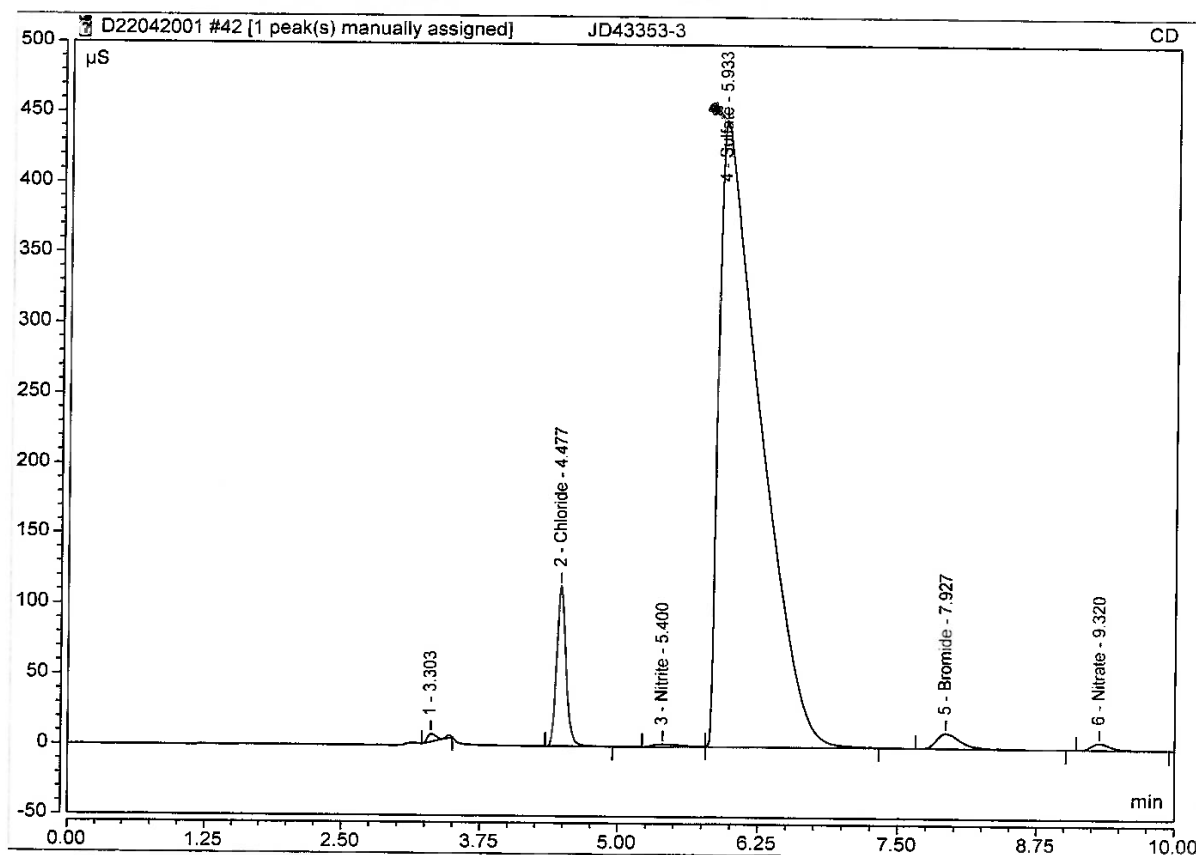
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Peak Integration Report

Sample Name:	JD43353-3	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 17:38	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
2	4.48	Chloride	BMB	11.097	113.585	36.9780
3	5.40	Nitrite	BM	0.558	1.834	2.8963
4	5.93	Sulfate	MB^	189.731	445.862	868.9232
5	7.93	Bromide	BMB	2.687	10.712	21.9278
6	9.32	Nitrate	BMB	0.982	4.811	8.0042
TOTAL:				205.06	576.80	938.73



Anion/Integration

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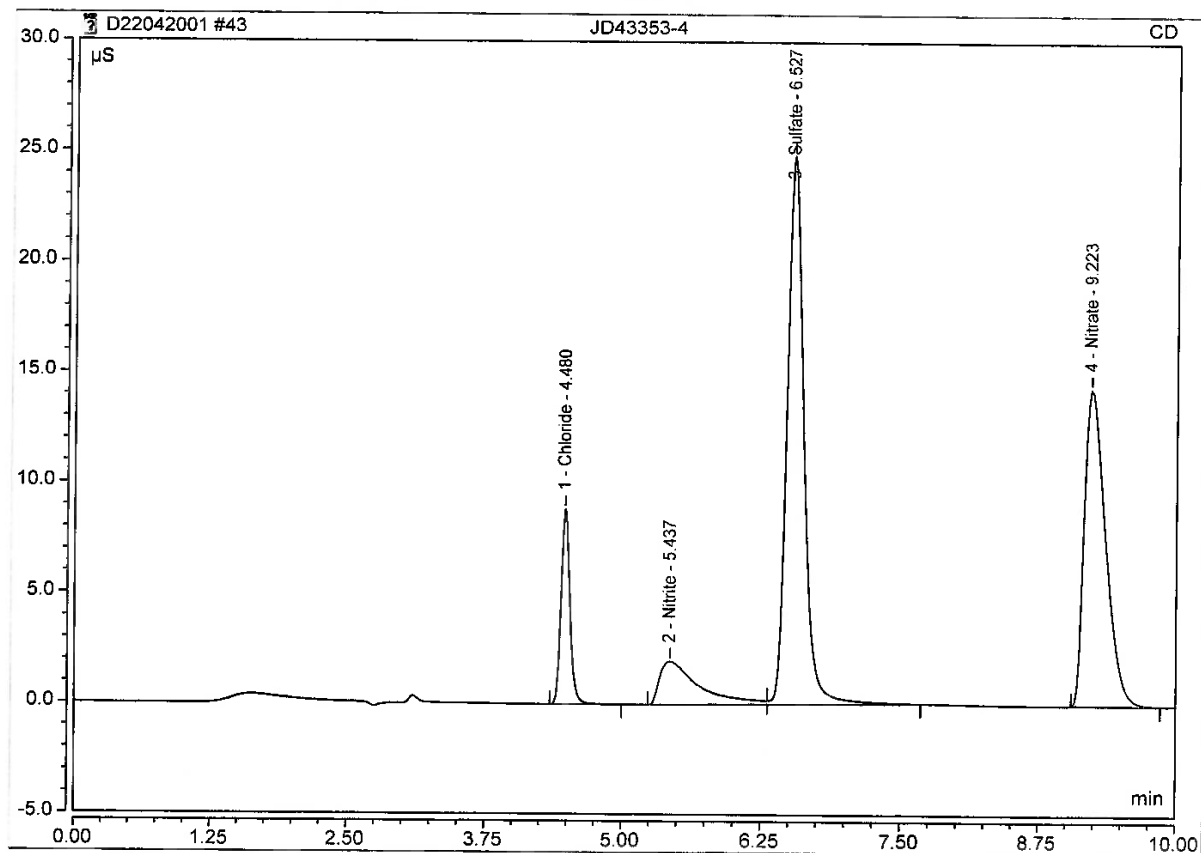
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Peak Integration Report

Sample Name:	JD43353-4	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 17:51	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.48	Chloride	BMB	0.832	8.844	2.9475
2	5.44	Nitrite	BM	0.816	1.978	4.2345
3	6.53	Sulfate	MB	4.384	24.817	20.6409
4	9.22	Nitrate	BMB	3.241	14.366	26.4557
TOTAL:				9.27	50.00	54.28



Anion/Integration

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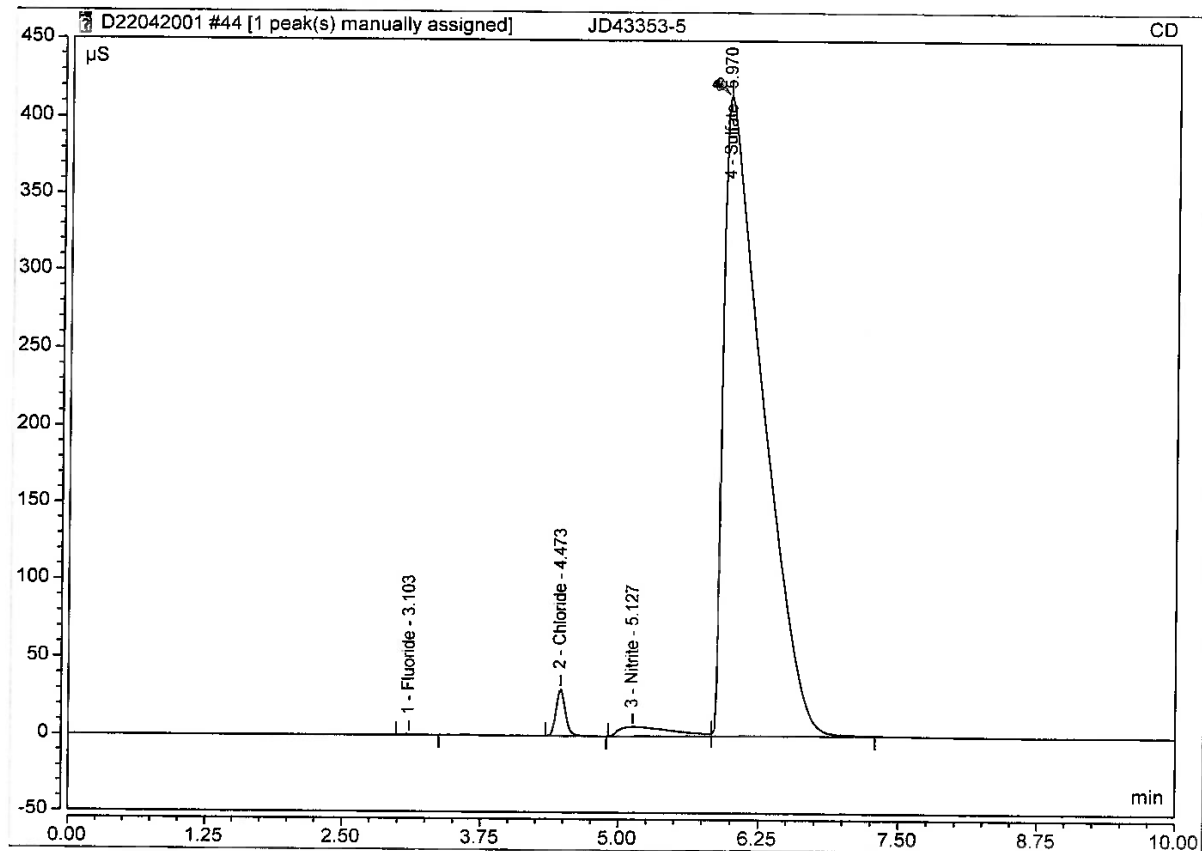
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43353-5	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 18:04	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB	0.080	0.515	0.2458
2	4.47	Chloride	BMB	2.959	30.423	9.9976
3	5.13	Nitrite	BM	3.456	6.084	17.9036
4	5.97	Sulfate	MB^	167.639	414.424	767.8131
TOTAL:				174.13	451.45	795.96



Anion/Integration

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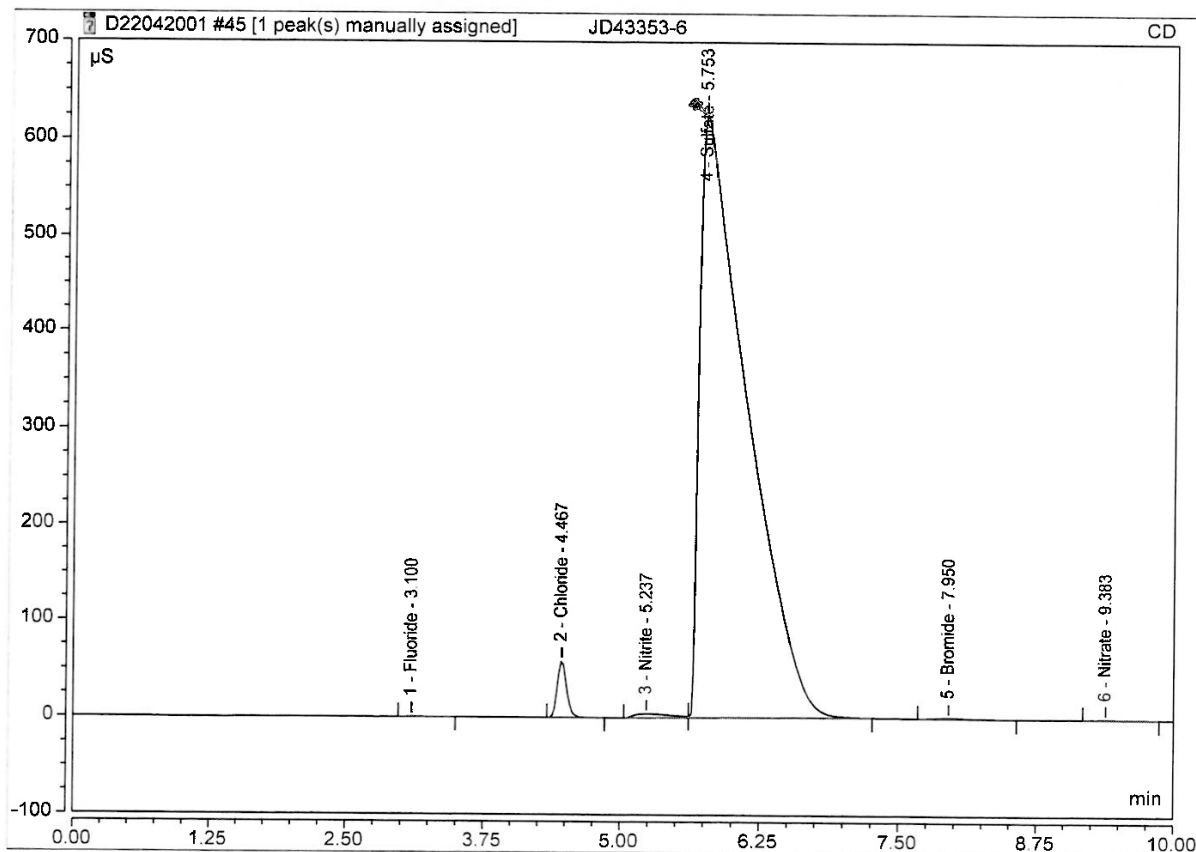
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43353-6	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 18:17	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB	0.097	0.586	0.2885
2	4.47	Chloride	BMB	5.616	58.104	18.8063
3	5.24	Nitrite	BM	1.602	4.092	8.3027
4	5.75	Sulfate	MB^	305.267	624.879	1397.6990
5	7.95	Bromide	BMB	0.282	0.929	2.0211
6	9.38	Nitrate	BMB	0.096	0.420	0.7658
TOTAL:				312.96	689.01	1427.88



Anion/Integration

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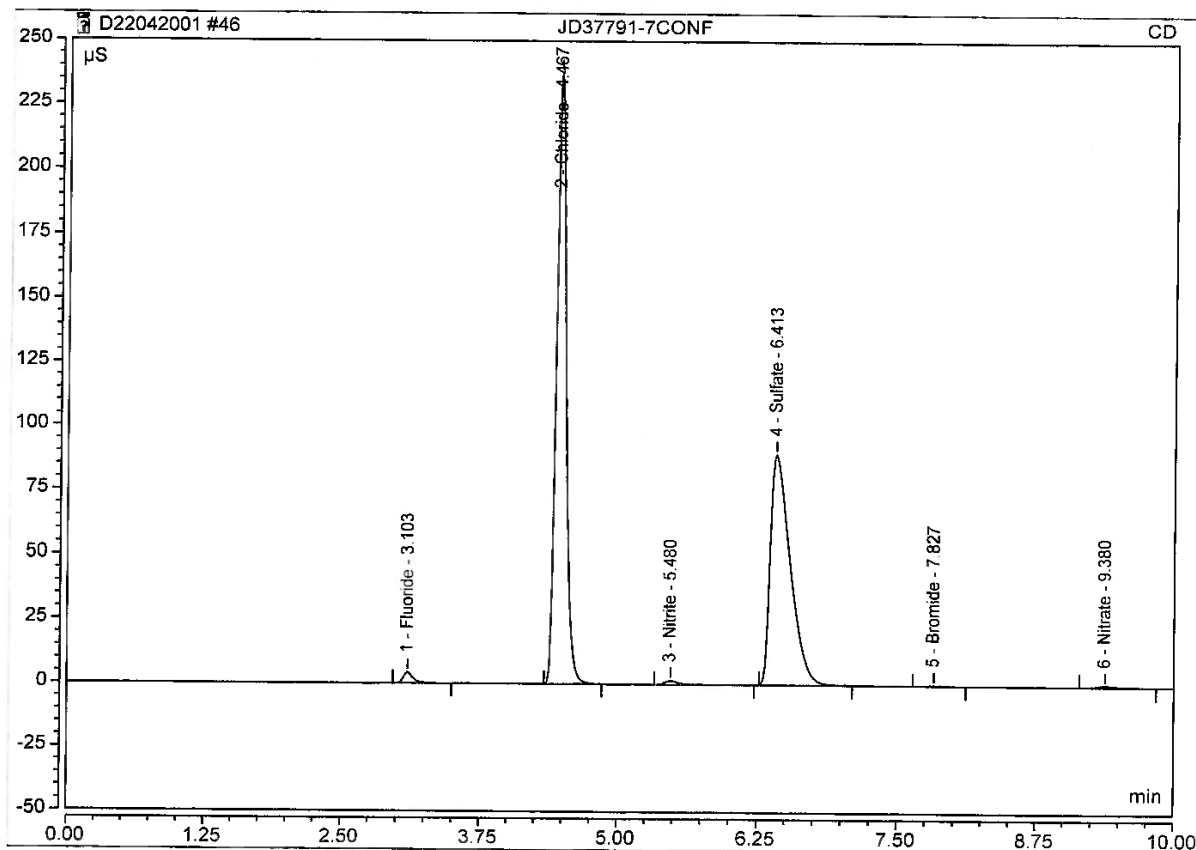
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD37791-7CONF	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Antons_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 18:30	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB	0.424	4.309	1.1021
2	4.47	Chloride	BMB	24.393	237.580	81.0563
3	5.48	Nitrite	BMB	0.231	1.611	1.2013
4	6.41	Sulfate	BMB	18.475	89.315	85.1334
5	7.83	Bromide	BMB	0.046	0.288	0.0705
6	9.38	Nitrate	BMB	0.122	0.626	0.9798
TOTAL:				43.69	333.73	169.54



Anion/Integration

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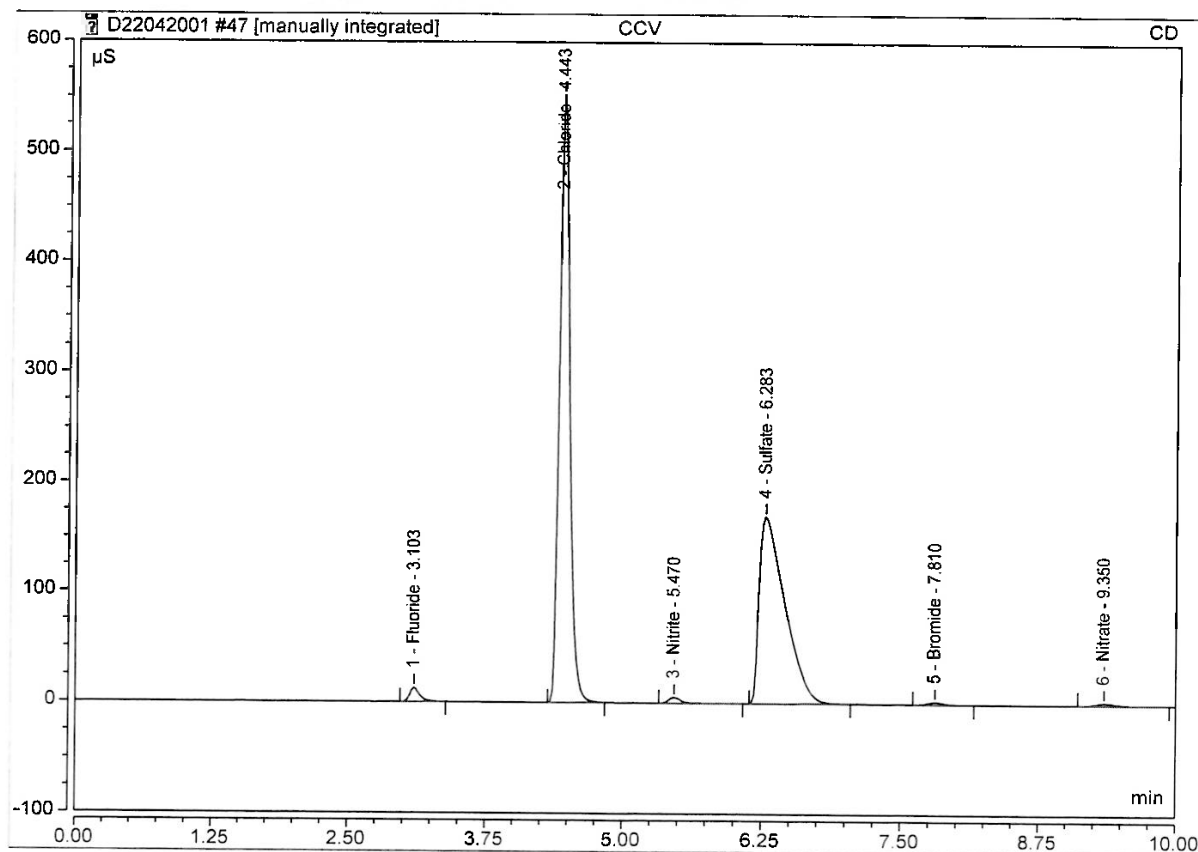
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Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	CCV	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 18:43	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB*	1.306	12.724	3.2990
2	4.44	Chloride	BMB	60.024	552.295	199.1833
3	5.47	Nitrite	BMB	0.598	4.942	3.1041
4	6.28	Sulfate	BMB	45.306	170.114	207.9312
5	7.81	Bromide	BMB	0.316	2.022	2.3037
6	9.35	Nitrate	BMB	0.409	2.103	3.3192
TOTAL:				107.96	744.20	419.14



Anion/Integration

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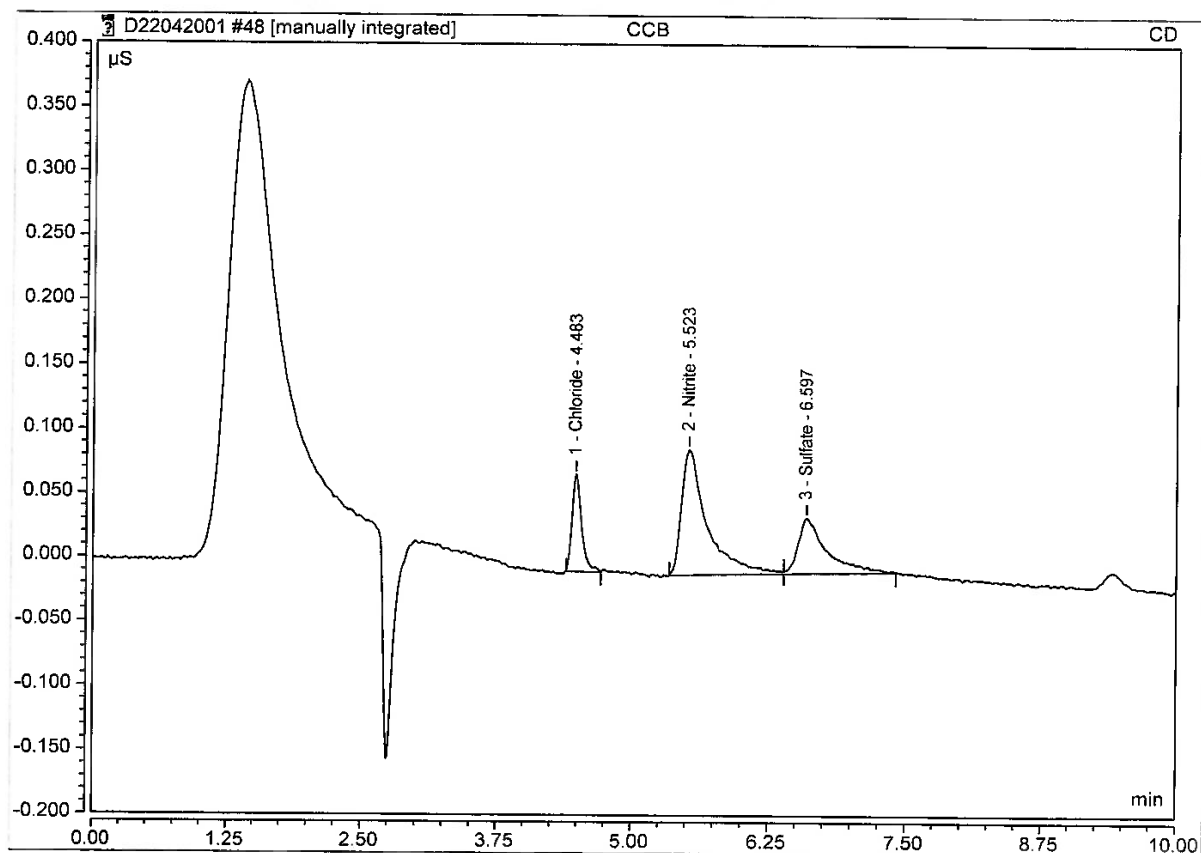
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Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 18:55	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.48	Chloride	BMB*	0.008	0.076	0.2135
2	5.52	Nitrite	BM *	0.027	0.098	0.1434
3	6.60	Sulfate	MB*	0.013	0.044	0.6385
TOTAL:				0.05	0.22	1.00



Anion/Integration

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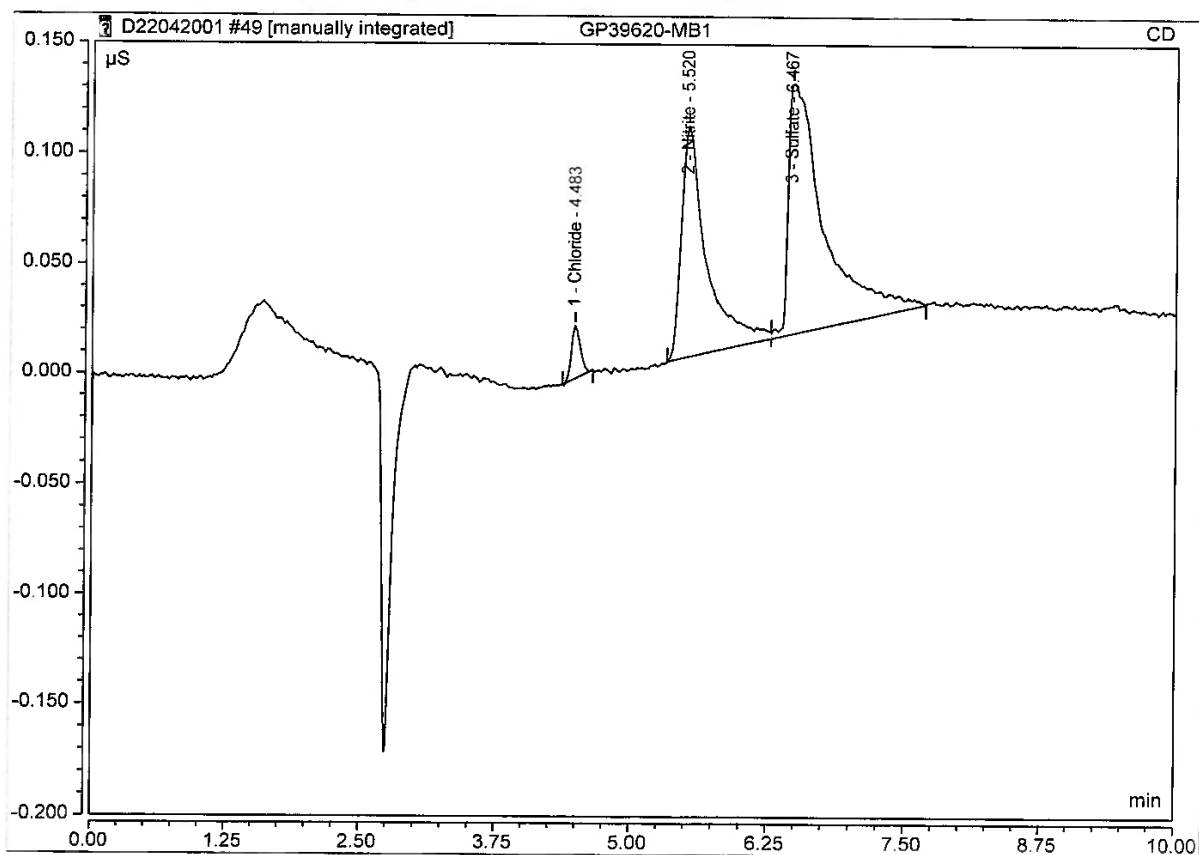
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Peak Integration Report

Sample Name:	GP39620-MB1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 19:08	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.48	Chloride	BMB*	0.002	0.024	0.1951
2	5.52	Nitrite	BM	0.028	0.105	0.1505
3	6.47	Sulfate	MB	0.043	0.113	0.7755
TOTAL:				0.07	0.24	1.12



Anion/Integration

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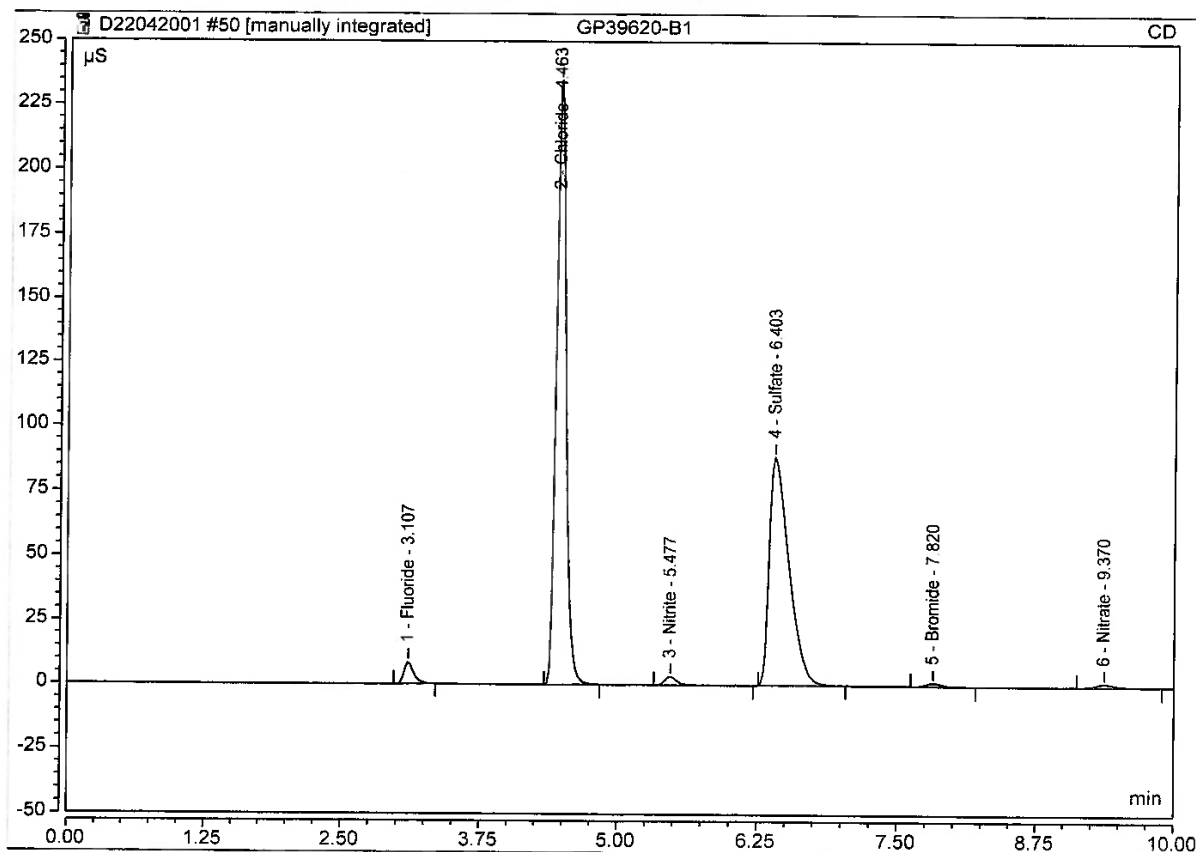
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Sequence: D22042001

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Peak Integration Report

Sample Name:	GP39620-B1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 19:21	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.11	Fluoride	BMB*	0.844	8.495	2.1472
2	4.46	Chloride	BMB	24.092	234.692	80.0579
3	5.48	Nitrite	BMB	0.425	3.267	2.2058
4	6.40	Sulfate	BMB	18.135	88.489	83.5757
5	7.82	Bromide	BMB	0.205	1.312	1.3861
6	9.37	Nitrate	BMB	0.261	1.347	2.1139
TOTAL:				43.96	337.60	171.49



Anion/Integration

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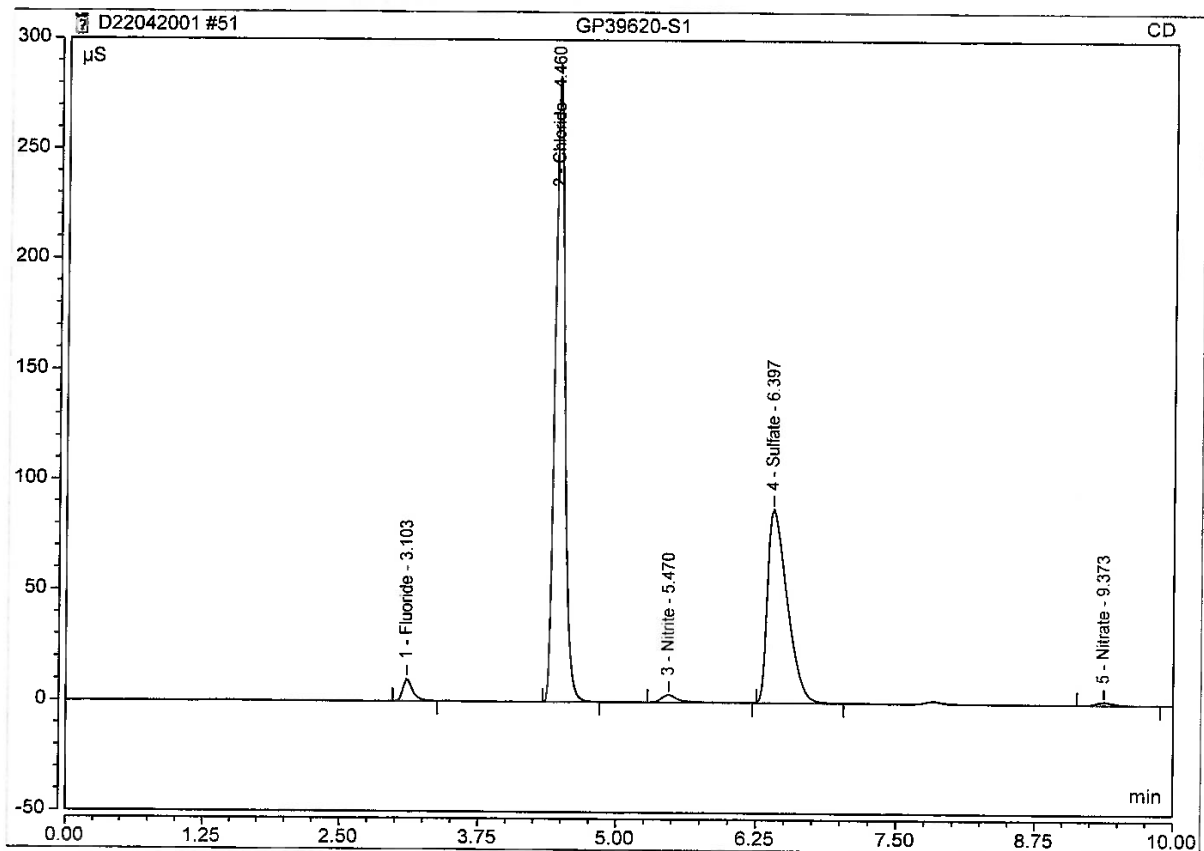
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Peak Integration Report

Sample Name:	GP39620-S1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 19:34	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB	1.015	9.974	2.5736
2	4.46	Chloride	BMB	29.328	283.527	97.4186
3	5.47	Nitrite	BMB	0.642	3.560	3.3311
4	6.40	Sulfate	BMB	17.819	87.643	82.1303
5	9.37	Nitrate	BMB	0.268	1.389	2.1714
TOTAL:				49.07	386.09	187.62



Anion/Integration

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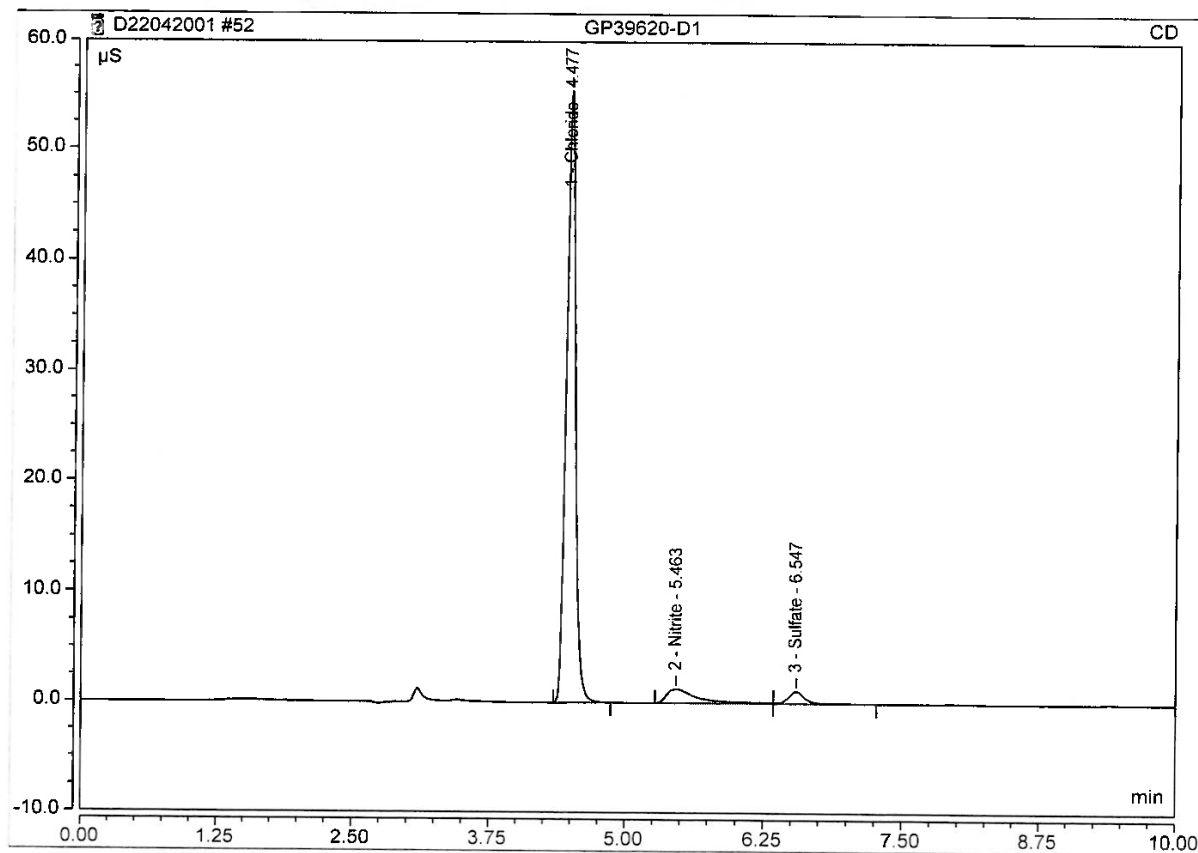
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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4/21/2022 10:06 AM

Peak Integration Report

Sample Name:	GP39620-D1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 19:47	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.48	Chloride	BMB	5.405	55.410	18.1066
2	5.46	Nitrite	BM	0.421	1.287	2.1868
3	6.55	Sulfate	MB	0.197	1.124	1.4774
TOTAL:				6.02	57.82	21.77



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

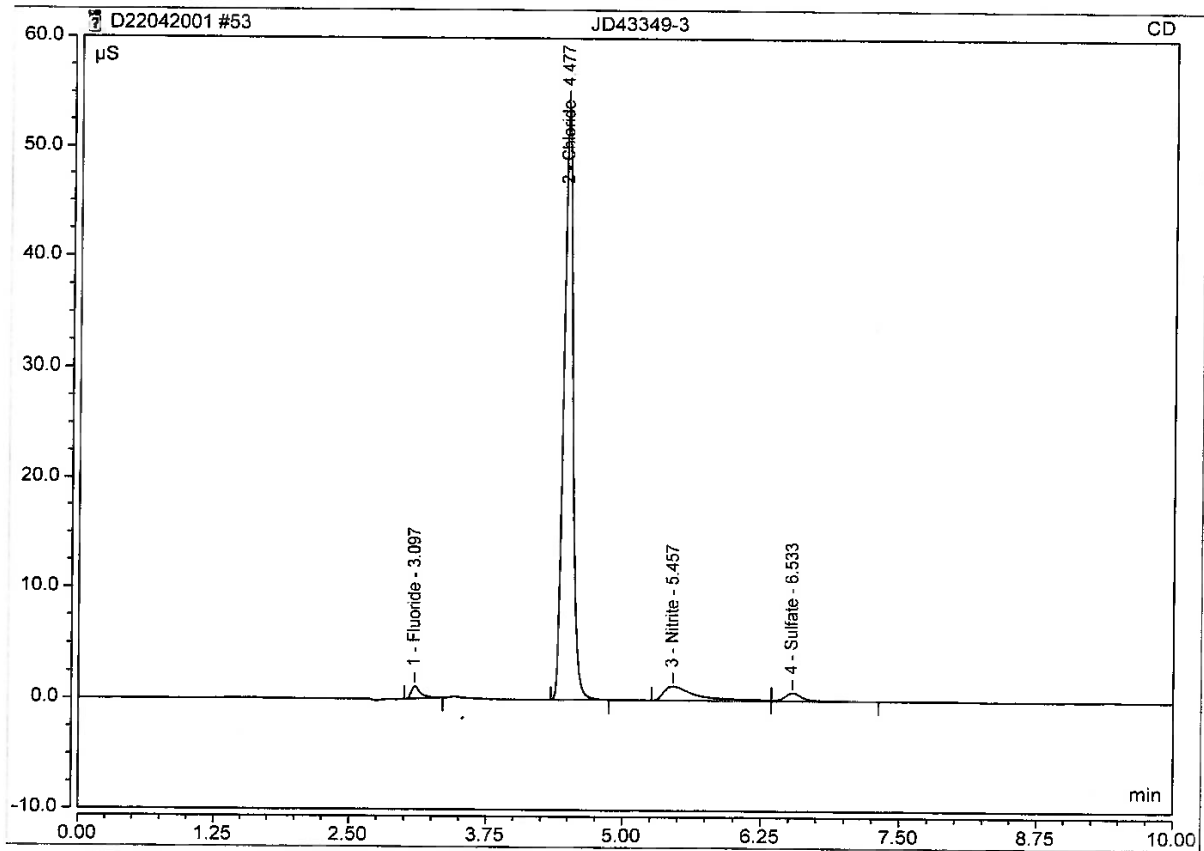
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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4/21/2022 10:06 AM

Peak Integration Report

Sample Name:	JD43349-3	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 20:00	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB	0.109	1.158	0.3171
2	4.48	Chloride	BMB	5.256	54.016	17.6121
3	5.46	Nitrite	BM	0.423	1.283	2.1977
4	6.53	Sulfate	MB	0.136	0.727	1.2002
TOTAL:				5.92	57.18	21.33



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

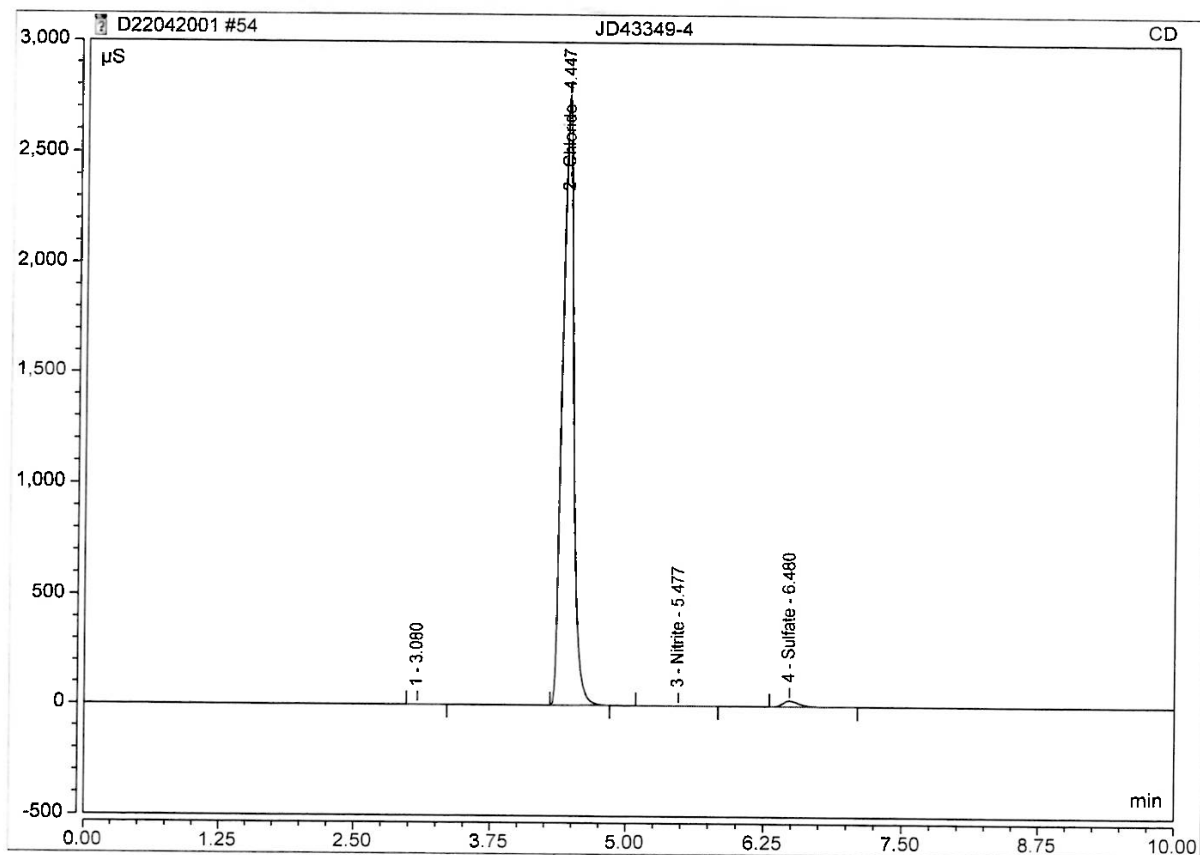
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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4/21/2022 10:06 AM

Peak Integration Report

Sample Name:	JD43349-4	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 20:13	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
2	4.45	Chloride	BMB	328.845	2755.826	1090.3975
3	5.48	Nitrite	BMB	0.071	0.219	0.3719
4	6.48	Sulfate	BMB	4.558	26.930	21.4395
TOTAL:				333.47	2782.97	1112.21



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

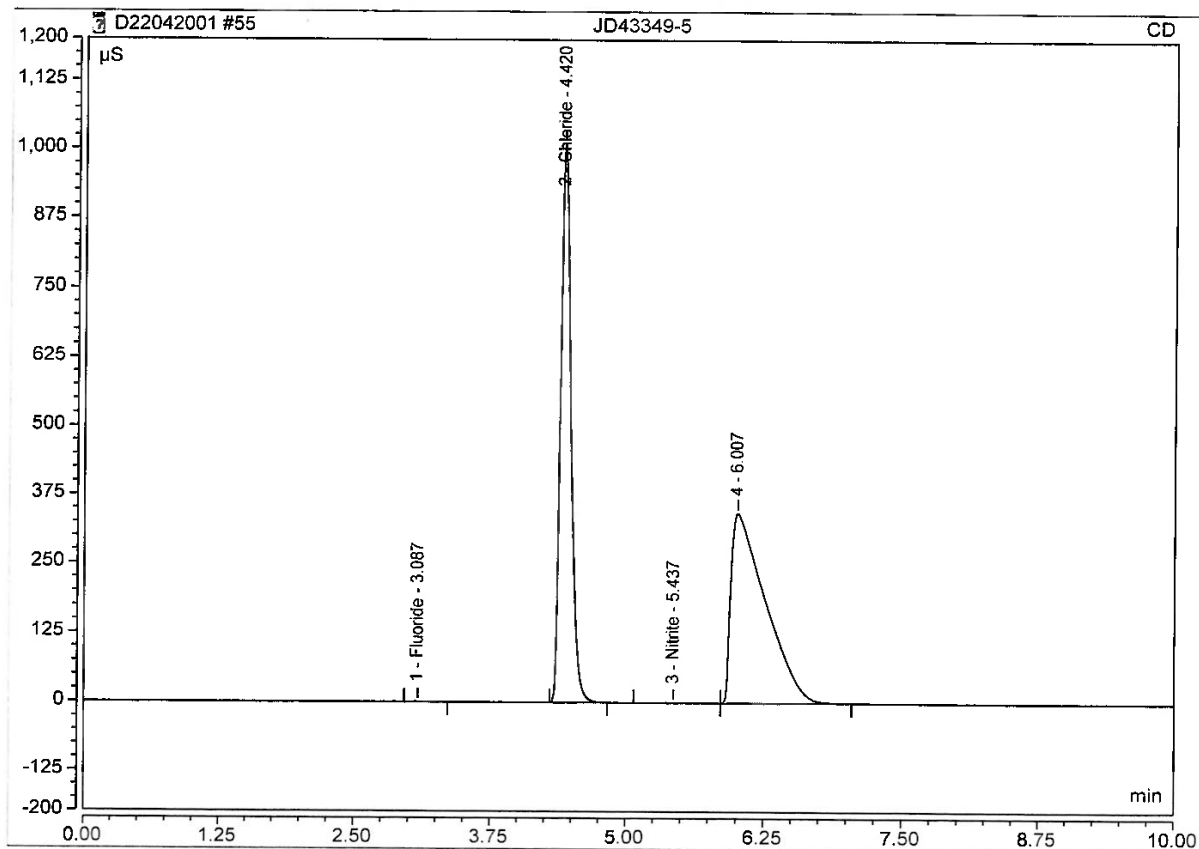
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43349-5	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 20:26	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.09	Fluoride	BMB	0.073	0.667	0.2276
2	4.42	Chloride	BMB	111.734	1009.819	370.6150
3	5.44	Nitrite	BMB	0.144	0.606	0.7525
TOTAL:				111.95	1011.09	371.60



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

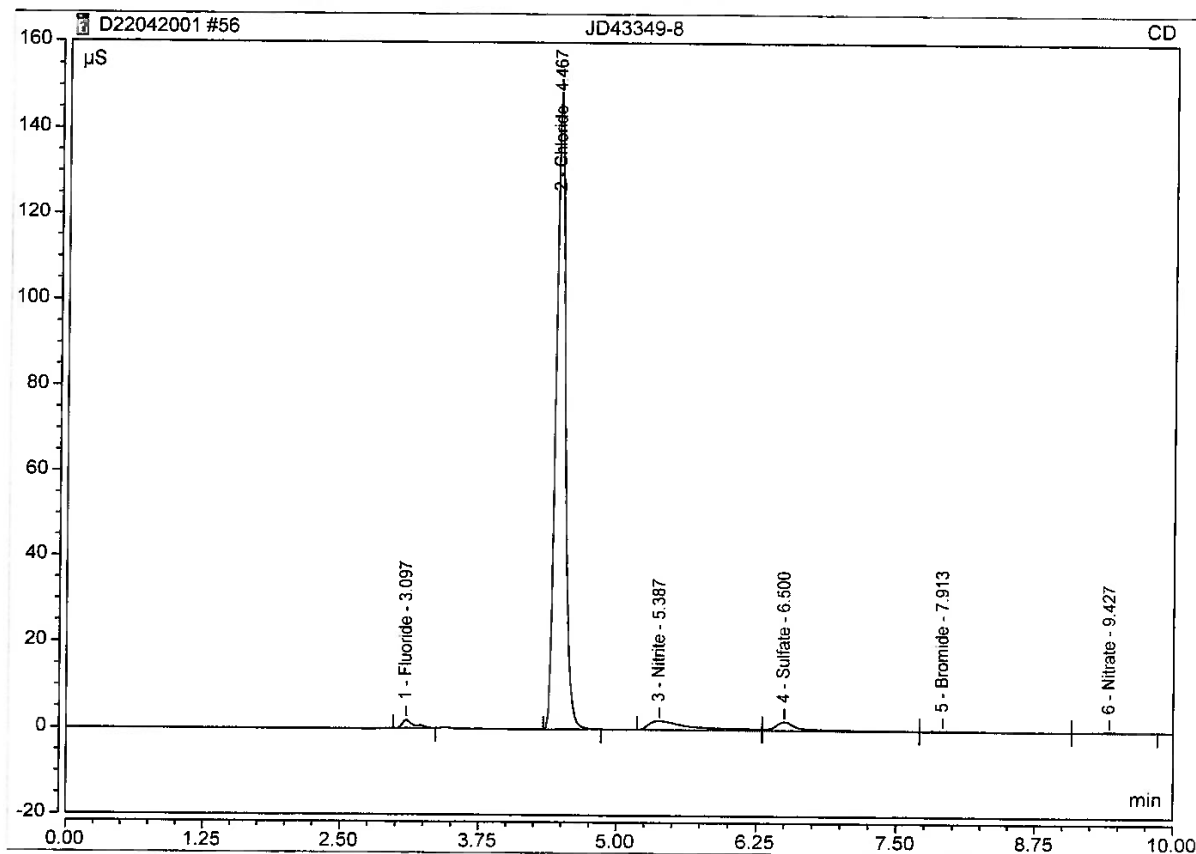
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43349-8	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 20:39	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB	0.226	1.966	0.6094
2	4.47	Chloride	BMB	14.855	148.646	49.4375
3	5.39	Nitrite	BM	0.877	2.069	4.5470
4	6.50	Sulfate	M	0.516	2.053	2.9409
5	7.91	Bromide	M	0.046	0.103	0.0709
6	9.43	Nitrate	MB	0.024	0.109	0.1751
TOTAL:				16.55	154.95	57.78



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

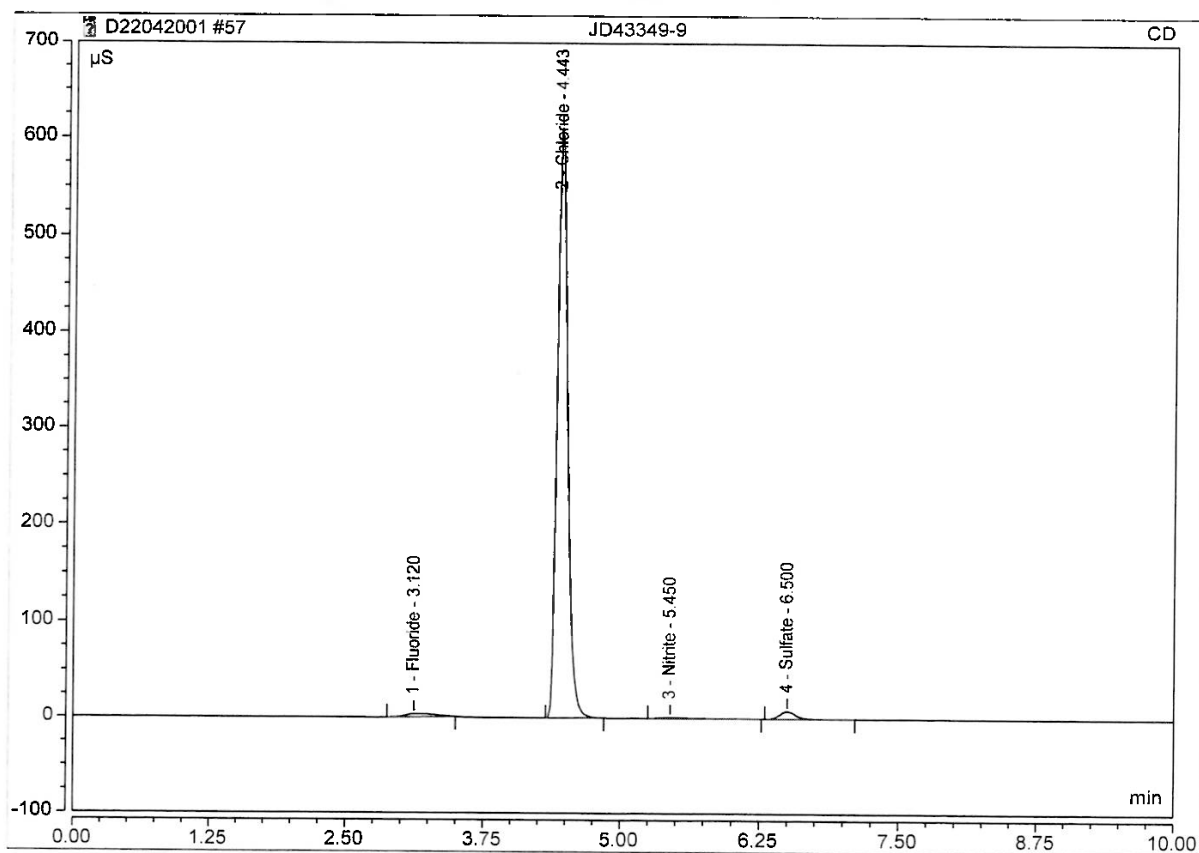
Logged on User: Chemistry
Instrument: Integriion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43349-9	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 20:52	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.12	Fluoride	BMB	1.011	3.225	2.5640
2	4.44	Chloride	BMB	67.009	610.320	222.3424
3	5.45	Nitrite	BMB	0.268	0.968	1.3957
4	6.50	Sulfate	BMB	1.314	8.169	6.5903
TOTAL:				69.60	622.68	232.89



Anion/Integration

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Version 7.2.8.10783

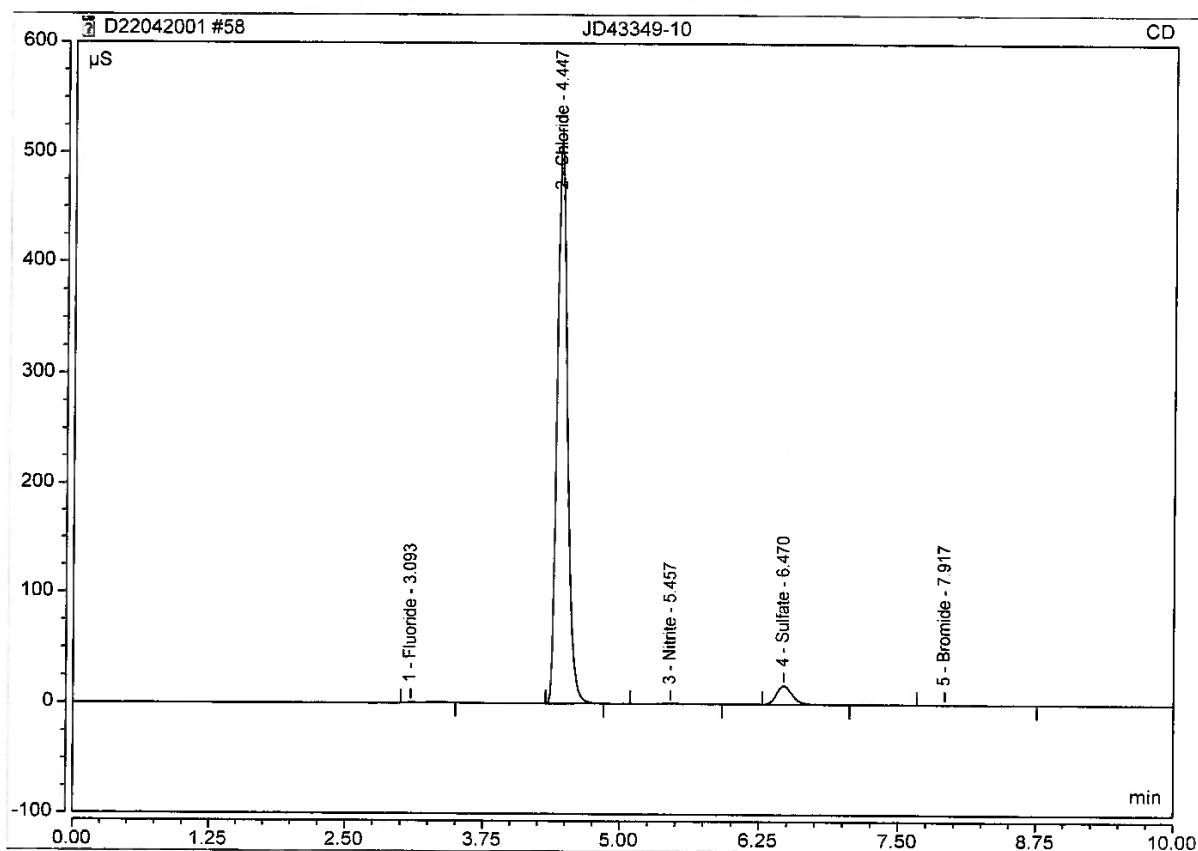
Logged on User: Chemistry
Instrument: Integriion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43349-10	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 21:05	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.09	Fluoride	BMB	0.177	0.805	0.4853
2	4.45	Chloride	BMB	55.557	510.928	184.3741
3	5.46	Nitrite	BMB	0.120	0.515	0.6277
4	6.47	Sulfate	BMB	2.777	16.863	13.2865
5	7.92	Bromide	BMB	0.071	0.269	0.2760
TOTAL:				58.70	529.38	199.05



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

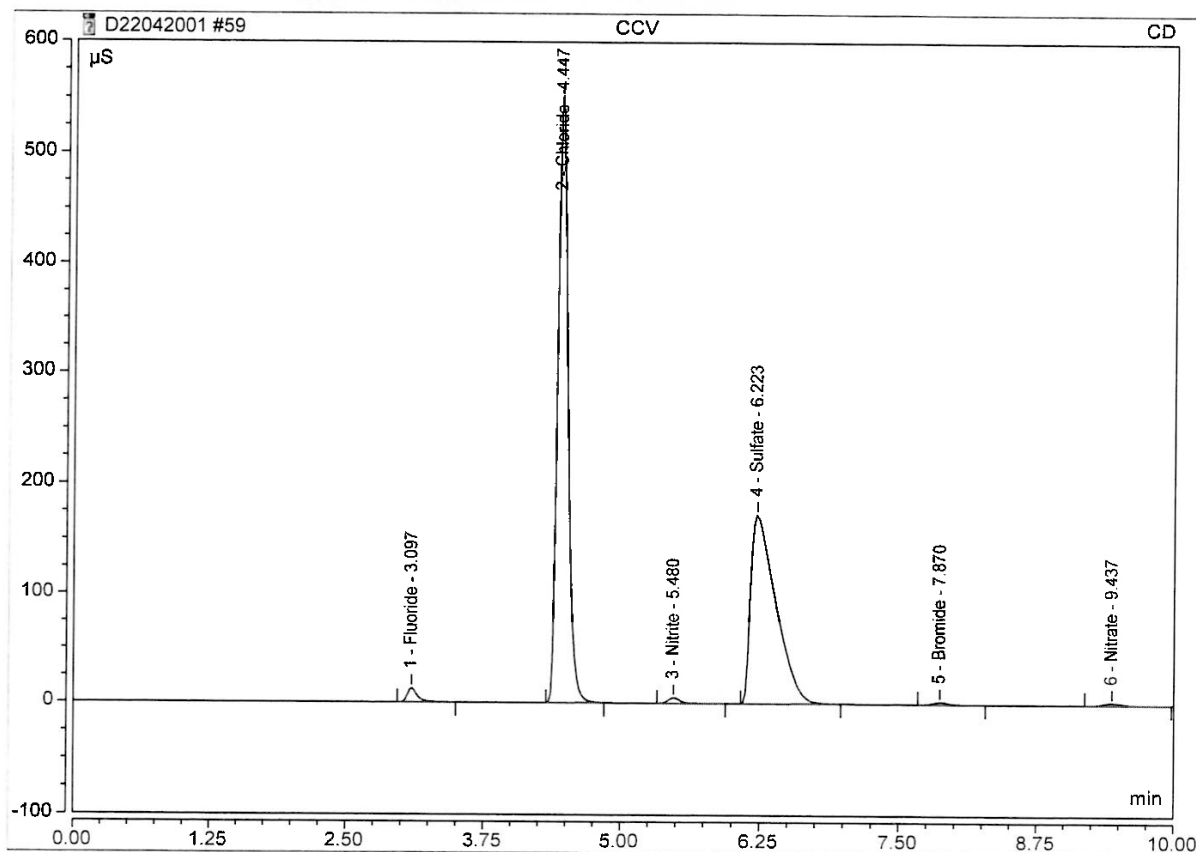
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	CCV	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 21:18	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB	1.341	12.867	3.3852
2	4.45	Chloride	BMB	60.045	550.714	199.2525
3	5.48	Nitrite	BMB	0.591	4.943	3.0644
4	6.22	Sulfate	BMB	45.271	172.387	207.7721
5	7.87	Bromide	BMB	0.313	1.982	2.2740
6	9.44	Nitrate	BMB	0.403	2.051	3.2682
TOTAL:				107.96	744.94	419.02



Anion/Integration

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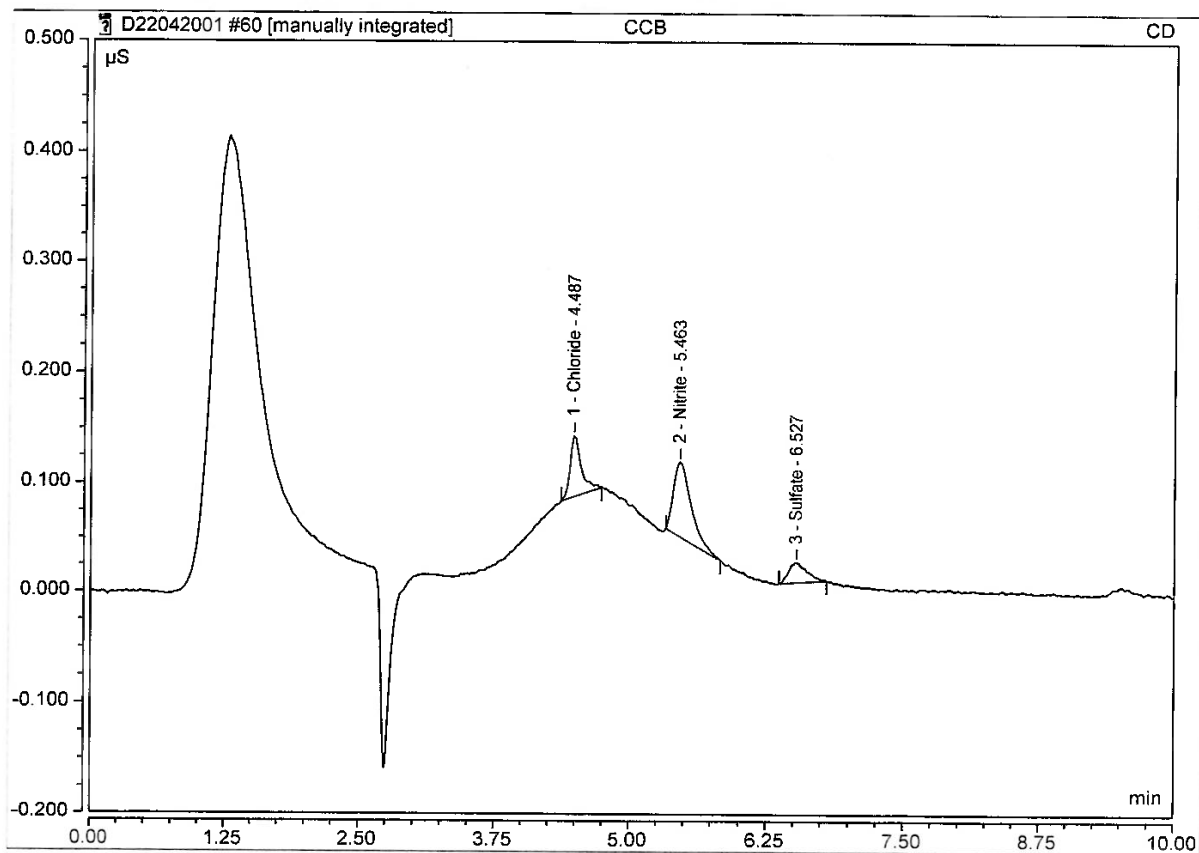
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 21:31	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.49	Chloride	BMB*	0.007	0.056	0.2095
2	5.46	Nitrite	BMB*	0.013	0.069	0.0732
3	6.53	Sulfate	BMB*	0.004	0.019	0.5946
TOTAL:				0.02	0.14	0.88



Anion/Integration

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Version 7.2.8.10783

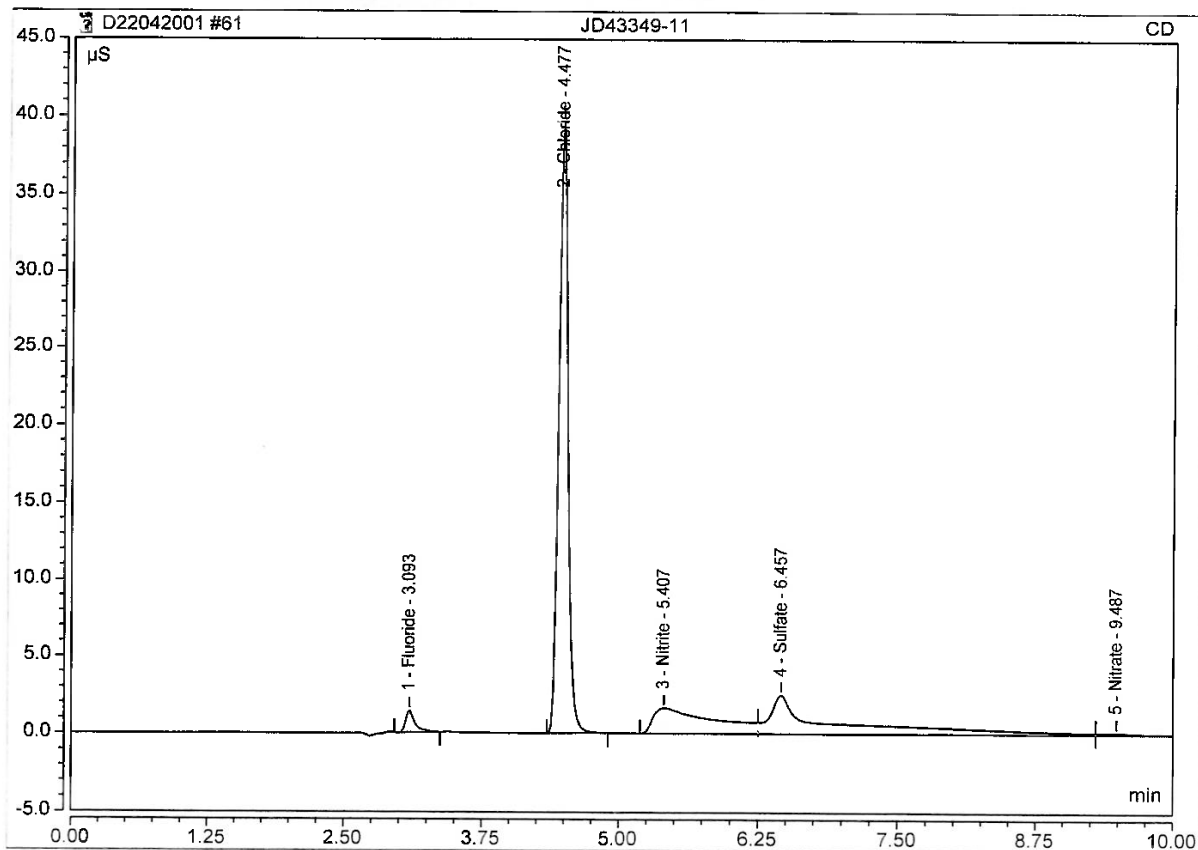
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43349-11	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 21:44	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.09	Fluoride	BMB	0.131	1.370	0.3728
2	4.48	Chloride	BMB	3.857	39.665	12.9733
3	5.41	Nitrite	BM	1.017	1.615	5.2715
4	6.46	Sulfate	M	1.546	2.465	7.6535
5	9.49	Nitrate	MB	0.034	0.105	0.2535
TOTAL:				6.58	45.22	26.52



Anion/Integration

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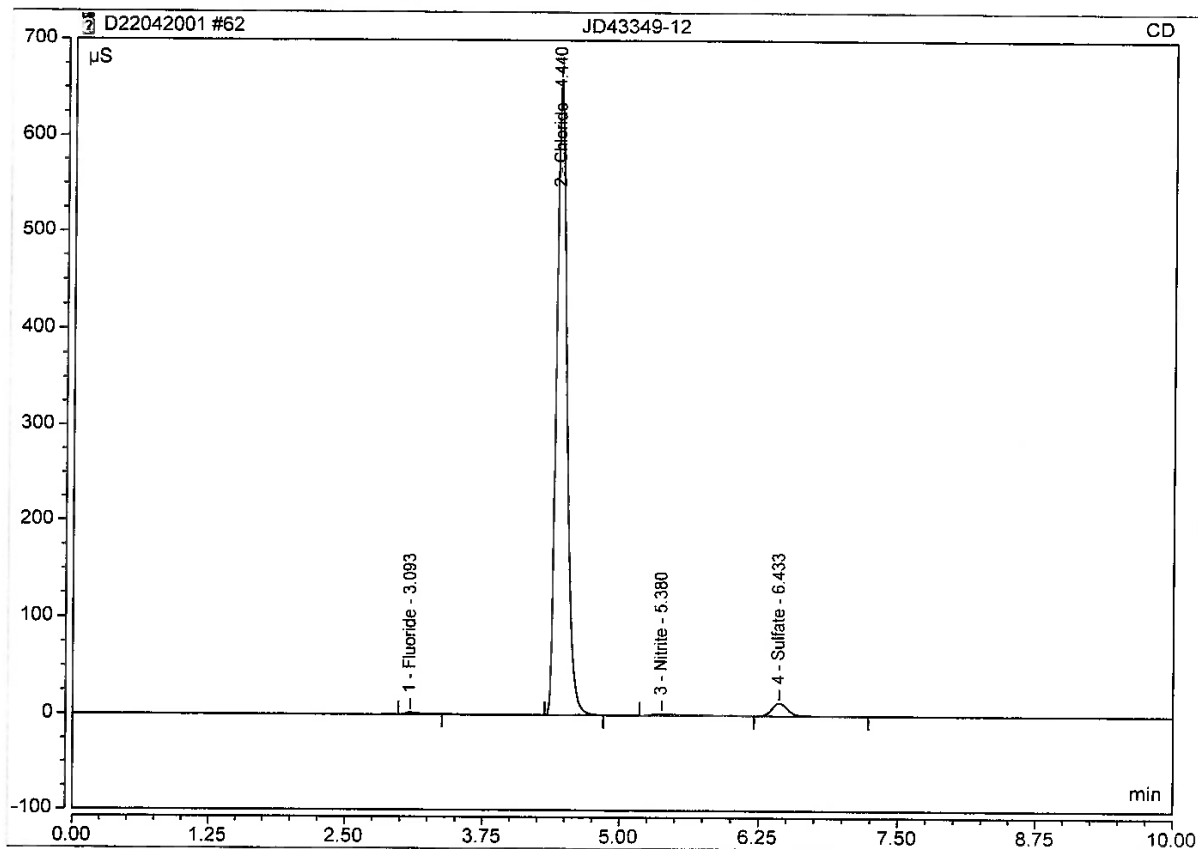
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43349-12	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 21:56	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.09	Fluoride	BMB	0.248	1.784	0.6628
2	4.44	Chloride	BMB	72.774	658.974	241.4541
3	5.38	Nitrite	Ru	0.498	1.533	2.5852
4	6.43	Sulfate	BMB	2.228	13.253	10.7767
TOTAL:				75.75	675.54	255.48



Anion/Integration

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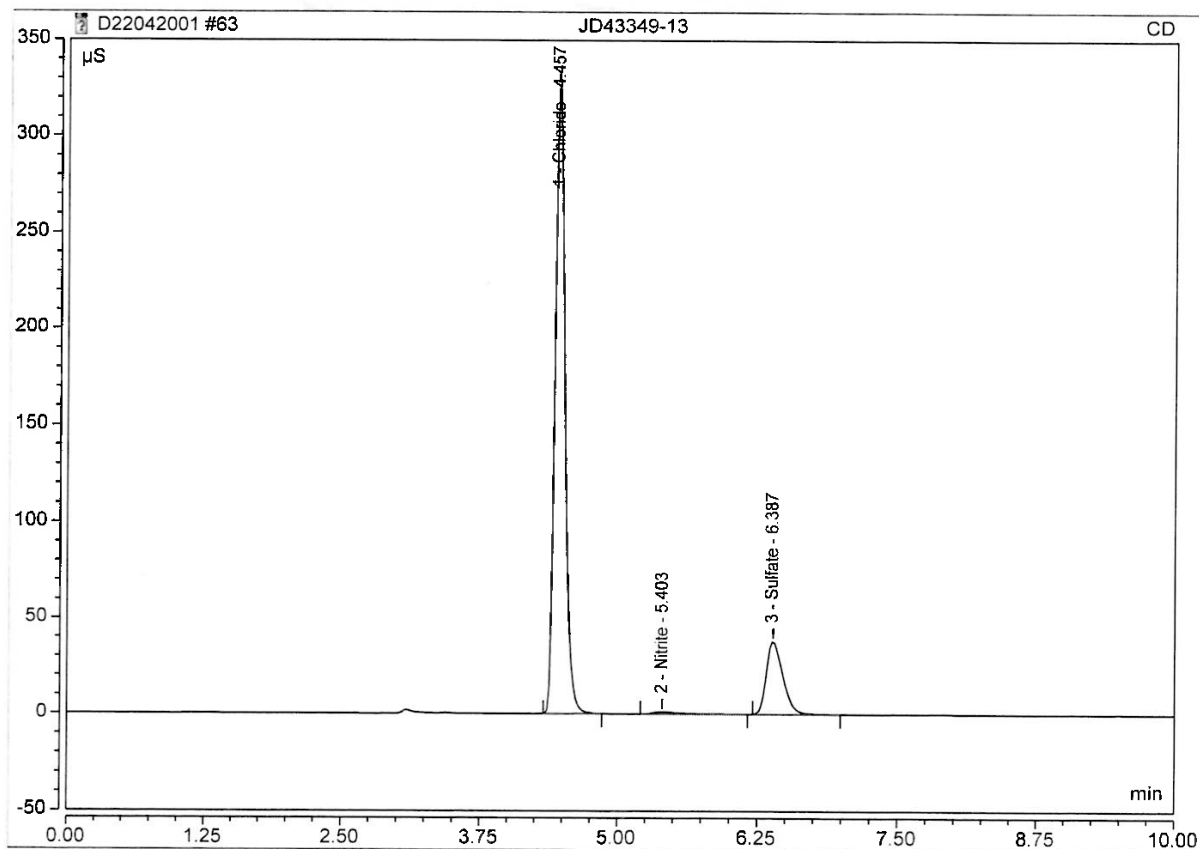
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	JD43349-13	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 22:09	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.46	Chloride	BMB	34.382	326.399	114.1733
2	5.40	Nitrite	BMB	0.286	1.003	1.4879
3	6.39	Sulfate	BMB	6.487	38.062	30.2654
TOTAL:				41.15	365.46	145.93



Anion/Integration

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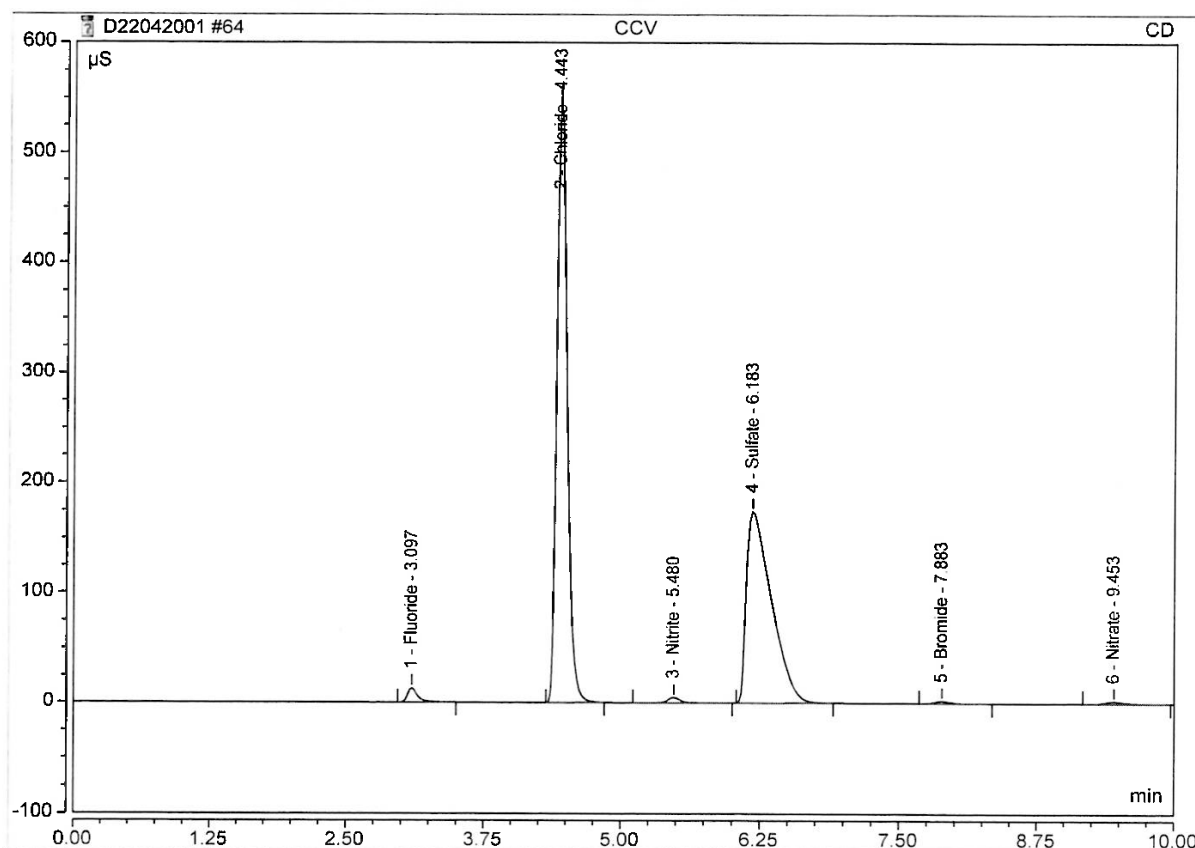
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	CCV	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 22:22	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.10	Fluoride	BMB	1.389	13.117	3.5052
2	4.44	Chloride	BMB	60.050	549.625	199.2688
3	5.48	Nitrite	BMB	0.609	4.968	3.1620
4	6.18	Sulfate	BMB	45.253	173.960	207.6900
5	7.88	Bromide	BMB	0.312	1.972	2.2683
6	9.45	Nitrate	BMB	0.402	2.038	3.2623
TOTAL:				108.02	745.68	419.16



Anion/Integration

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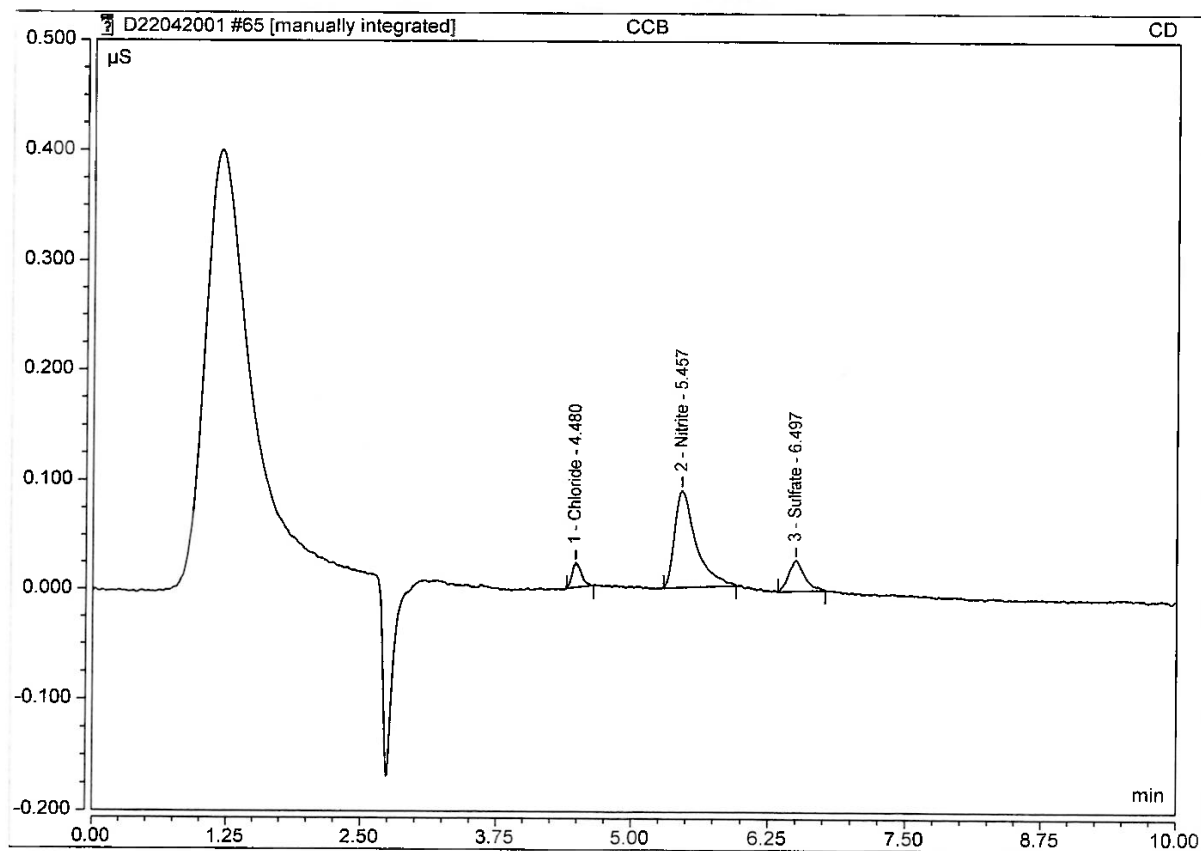
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D22042001

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Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	20-Apr-2022 / 22:35	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.48	Chloride	BMB*	0.002	0.022	0.1949
2	5.46	Nitrite	BMB*	0.020	0.089	0.1098
3	6.50	Sulfate	BMB*	0.005	0.028	0.6001
TOTAL:				0.03	0.14	0.90



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)File ID: E220420W1.TXT
Analyst: MBDate Analyzed: 04/20/22
Run ID: GN28383

Methods: SM5310 B-11

The following analyst(s) have reviewed this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: MB Date 4-20-22

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee):  Date 4/21/22

	Type	Sample Name	Sample ID	Origin	Manual Dilution	Result
1	Unknown	WASHCONF		TOCAQSW846.met	1.000	NPOC:0.4564mg/L
2	Unknown	CRI		TOCAQSW846.met	1.000	NPOC:0.7719mg/L
3	Unknown	HSTD		TOCAQSW846.met	1.000	NPOC:51.97mg/L
4	Unknown	ICV		TOCAQSW846.met	1.000	NPOC:20.28mg/L
5	Unknown	ICB		TOCAQSW846.met	1.000	NPOC:0.2983mg/L
6	Unknown	CCV		TOCAQSW846.met	1.000	NPOC:24.99mg/L
7	Unknown	CCB		TOCAQSW846.met	1.000	NPOC:0.06257mg/L
8	Unknown	SPARGERCHK		TOCAQSW846.met	1.000	NPOC:0.5099mg/L
9	Unknown	GP39614-MB1	[toc]	TOCAQ.met	1.000	NPOC:0.3574mg/L
10	Unknown	GP39614-B1		TOCAQ.met	1.000	NPOC:9.688mg/L
11	Unknown	JD43253-1		TOCAQ.met	5.000	NPOC:5.776mg/L
12	Unknown	GP39614-S1	JD43253-1	TOCAQ.met	5.000	NPOC:57.85mg/L
13	Unknown	GP39614-MSD1	JD43253-1	TOCAQ.met	5.000	NPOC:59.56mg/L
14	Unknown	JD43253-2	average, see rerun	TOCAQ.met	3.000	NPOC:439.7mg/L
15	Unknown	JD43253-3		TOCAQ.met	2.000	NPOC:9.880mg/L
16	Unknown	JD43253-4		TOCAQ.met	2.000	NPOC:6.888mg/L
17	Unknown	CCVA		TOCAQ.met	1.000	NPOC:51.73mg/L
18	Unknown	CCB		TOCAQ.met	1.000	NPOC:0.7359mg/L
19	Unknown	JD43253-2	[rerun]	TOCAQ.met	20.00	NPOC:405.5mg/L
20	Unknown	CCV		TOCAQ.met	1.000	NPOC:26.03mg/L
21	Unknown	CCB		TOCAQ.met	1.000	NPOC:0.4987mg/L
22	Unknown	SPARGERCHK		TOCAQ.met	1.000	NPOC:0.6984mg/L

e220420w1.toc

GN28383

MB

4-20-22

13.3
13

GN Batch ID: GN28383Date: 4-20-22Test: **Total Organic Carbon**Product: **TOC or DOC**Method: **SM5310 B, C, or D-11, SW846 9060M***e 220420 wl. toc*

Note: Refer to raw data and LIMS for information not shown below.

Autosampler Position #	Sample ID	pH	Dilution Factor	Bottle #	Comments
1	WASHCONF	< 2			
2	CRI				
3	HSTD				
4	ICV				
5	ICB				
6	CCV				
7	CCB				
8	SPARGERCHK				
9	GP39614 - MB			-	[+oc]
10	GP39614 - B			-	
11	JD43253-1		1:5	4	JD43253-1
12	GP39614 - S		1:5	4	↓
13	GP39614 - MSD		1:5	4	↓
14	JD43253-2		1:3	4	
15	JD43253-3		1:2	4	Large particulates
16	JD43253-4		1:2	4	↓
17	CCVA				
18	CCB				
19	SPARGERCHK				
20					
21					
22					
23					
24					
25					
26					
27					

Analyst: MB Date: _____ QCReviewer: 4/21/22 Date: _____

Comments: BSP: 500ul of 1000ppm KHP up to 50mL with DI H2O TV= 10 mg/L

MS/MSD: 200ul of 1000ppm KHP up to 20mL with sample TV=10 mg/L

ICV: 5mL of 100 ppm Sucrose up to 25mL with DI H2O TV=20 mg/L

Form: GN054-04

Rev. Date: 2/27/18

13.3
13



Analyst MB Product TOC Autopipette # 53
Date 4-20-22 Batch ID GN2P383 Class A Vol. Flask

Sample Dilution Prep Log

[illegible]

QC Reviewer:

Date:

Form: GN165-01
Rev. Date: 2/25/03



Reagent Information Log - TOC/DOC - Water

GN28383

<u>Reagent</u>	<u>Reagent # or Manufacturer/Lot</u>	<u>Exp. Date</u>
Potassium Hydrogen Phthalate (KHP), Stock Solution 1000 mg/L	GNE4-69737-TOC	7/18/2022
Carbonate/Bicarbonate Stock Solution	GNE4-69750-TOC	7/18/2022
Sparger Check Solution	GNE4-69751-TOC	5/16/2022
CCV Solution	GNE4-69748-TOC	5/16/2022
CCVA Solution (50 ppm)	GNE4-69749-TOC	5/16/2022
CRI Check	GNE4-69740-TOC	5/16/2022
HCl	SIGMA-ALDRICH LOT: 4102438121	1/21/2024
pH Hydron paper	FISHER LOT: 222221	8/1/2024
Sucrose stock solution	GNE4-69739-TOC	5/16/2022

All standards and stocks were made as described in the SOP for this method (circle one): Y or N
If no (N), see attached page for standards prep.

Form: GN087A67-04
Rev. Date: 4/6/18



GENERAL CHEMISTRY STANDARD PREPARATION LOG FOR TOC

Product: TOC

GN or GP Number: GN28383

Intermediate Standard Description	Stock used to prepare standard	Stock concentration (mg/l)	Stock volume or weight used with units	Balance/ Autopipet ID (*)	Diluent (a)	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
GN E4-69737-TOC	Fisher lot: 178879	KHP	2.125g	B-39	DI H2O	1000 ml	1000 ppm	7/18/2022	MB	4/18/2022
GN E4-69738-TOC	GN E4-69737-TOC	1000ppm	20 mL	Class A pipet	DI H2O	200 ml	100 ppm	5/16/2022	MB	4/18/2022
GN E4-69739-TOC	Fisher lot: 210554	Sucrose	0.0474g	B-39	DI H2O	200 ml	100 ppm	5/16/2022	MB	4/18/2022
Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration (mg/L)	Intermediate or Stock volume used in ml	Balance/ Autopipet ID (*)	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	Analyst	
KHP STDS										
GN E4-69740-TOC	GN E4-69738-TOC	100 ppm	1.0	Class A pipet	DI H2O	100 ml	1.0	5/16/2022	MB	4/18/2022
GN E4-69741-TOC	GN E4-69738-TOC	100 ppm	2.0	Class A pipet	DI H2O	100 ml	2.0	5/16/2022	MB	4/18/2022
GN E4-69742-TOC	GN E4-69738-TOC	100 ppm	5.0	Class A pipet	DI H2O	100 ml	5.0	5/16/2022	MB	4/18/2022
GN E4-69743-TOC	GN E4-69738-TOC	100 ppm	10.0	Class A pipet	DI H2O	100 ml	10.0	5/16/2022	MB	4/18/2022
GN E4-69744-TOC	GN E4-69738-TOC	100 ppm	20.0	Class A pipet	DI H2O	100 ml	20.0	5/16/2022	MB	4/18/2022
GN E4-69745-TOC	GN E4-69738-TOC	100 ppm	30.0	Class A pipet	DI H2O	100 ml	30.0	5/16/2022	MB	4/18/2022
GN E4-69746-TOC	GN E4-69738-TOC	100 ppm	50.0	Class A pipet	DI H2O	100 ml	50.0	5/16/2022	MB	4/18/2022
KHP STDS										
GN E4-69747-TOC	Acros lot: A0376652	KHP	0.2125g	B-39	DI H2O	1000 ml	100 ppm	5/16/2022	MB	4/18/2022
GN E4-69748-TOC	GN E4-69747-TOC	100 ppm	50 mL	Class A pipet	DI H2O	200 ml	25 ppm	5/16/2022	MB	4/18/2022
GN E4-69749-TOC	GN E4-69747-TOC	100 ppm	100 mL	Class A pipet	DI H2O	200 ml	50 ppm	5/16/2022	MB	4/18/2022

(a) Diluent reagent reference number _____ Expiration Date _____

**Volume will change with standardization concentration.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: GN199-02
Rev. Date: 3/2/18

TOC-Control L Report

e220418w1.toc.tlx

Instr. InformationInstrument Options
CatalystTOC/ASI/Spurge Kit'
Regular SensitivityCal. Curve

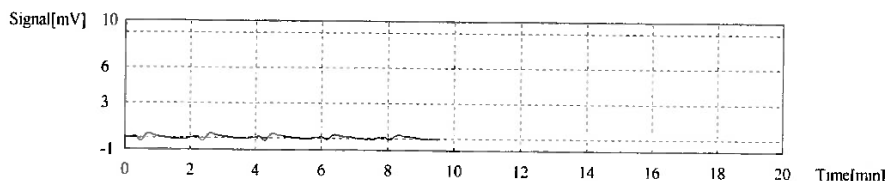
Sample Name: Untitled
Sample ID: Untitled
Cal. Curve: e220418w1 2022_04_18_13_37_11 cal
Status: Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1.588	100uL	1.000	*****		4/18/2022 1:41:47 PM
2	1.678	100uL	1.000	*****		4/18/2022 1:44:02 PM
3	1.560	100uL	1.000	*****		4/18/2022 1:46:17 PM
4	1.168	100uL	1.000	*****		4/18/2022 1:48:32 PM
5	0.8108	100uL	1.000	*****	E	4/18/2022 1:50:47 PM

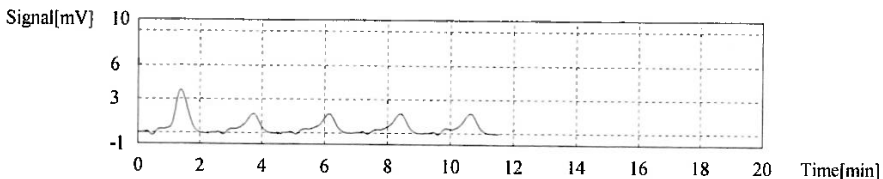
Acid Add: 0.000%
Sp. Time: 600.0sec
Mean Area: 1.499



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	12.47	100uL	1.000	*****	E	4/18/2022 1:55:33 PM
2	6.782	100uL	1.000	*****		4/18/2022 1:58:14 PM
3	6.797	100uL	1.000	*****		4/18/2022 2:00:52 PM
4	6.812	100uL	1.000	*****		4/18/2022 2:03:28 PM
5	7.156	100uL	1.000	*****		4/18/2022 2:06:11 PM

Acid Add: 0.000%
Sp. Time: 600.0sec
Mean Area: 6.887



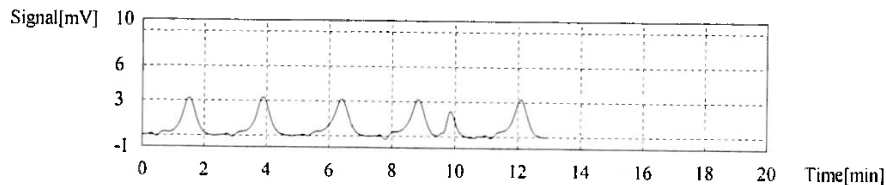
Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	10.57	100uL	1.000	*****		4/18/2022 2:11:06 PM
2	11.40	100uL	1.000	*****		4/18/2022 2:13:54 PM
3	11.47	100uL	1.000	*****		4/18/2022 2:16:41 PM
4	17.90	100uL	1.000	*****	E	4/18/2022 2:20:23 PM
5	11.30	100uL	1.000	*****		4/18/2022 2:23:01 PM

TOC-Control L Report

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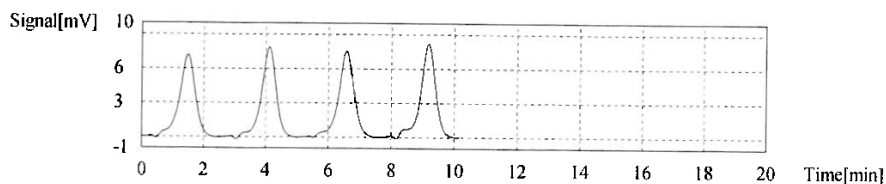
Acid Add 0.000%
Sp. Time 600.0sec
Mean Area 11.18



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	26.17	100uL	1.000	*****		4/18/2022 2:28:05 PM
2	26.50	100uL	1.000	*****		4/18/2022 2:30:57 PM
3	25.89	100uL	1.000	*****		4/18/2022 2:33:54 PM
4	26.94	100uL	1.000	*****		4/18/2022 2:36:43 PM

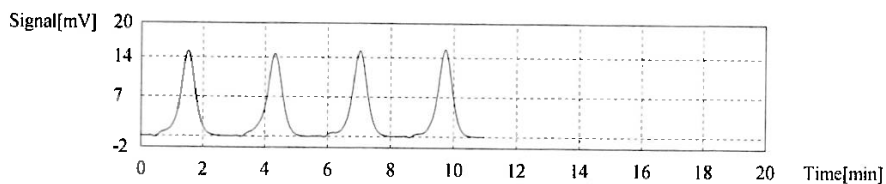
Acid Add 0.000%
Sp. Time 600.0sec
Mean Area 26.38



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	52.36	100uL	1.000	*****		4/18/2022 2:42:13 PM
2	51.55	100uL	1.000	*****		4/18/2022 2:45:14 PM
3	51.29	100uL	1.000	*****		4/18/2022 2:48:17 PM
4	52.45	100uL	1.000	*****		4/18/2022 2:51:28 PM

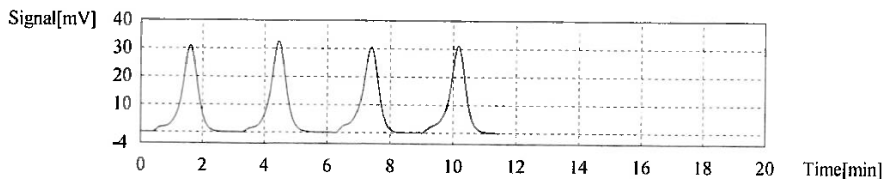
Acid Add 0.000%
Sp. Time 600.0sec
Mean Area 51.91



Conc: 20.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	112.8	100uL	1.000	*****		4/18/2022 2:57:05 PM
2	114.9	100uL	1.000	*****		4/18/2022 3:00:22 PM
3	113.1	100uL	1.000	*****		4/18/2022 3:03:28 PM
4	112.5	100uL	1.000	*****		4/18/2022 3:06:42 PM

Acid Add 0.000%
Sp. Time 600.0sec
Mean Area 113.3



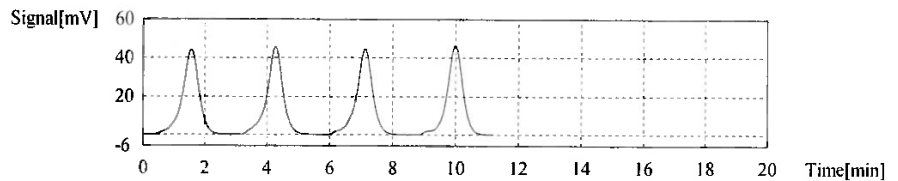
Conc: 30.00mg/L

TOC-Control L Report

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No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	164.2	100uL	1.000	*****		4/18/2022 3:12:13 PM
2	161.9	100uL	1.000	*****		4/18/2022 3:15:20 PM
3	159.9	100uL	1.000	*****		4/18/2022 3:18:34 PM
4	161.8	100uL	1.000	*****		4/18/2022 3:21:40 PM

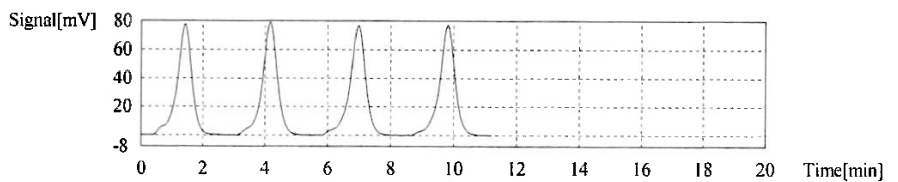
Acid Add. 0.000%
 Sp. Time 600.0sec
 Mean Area 161.9



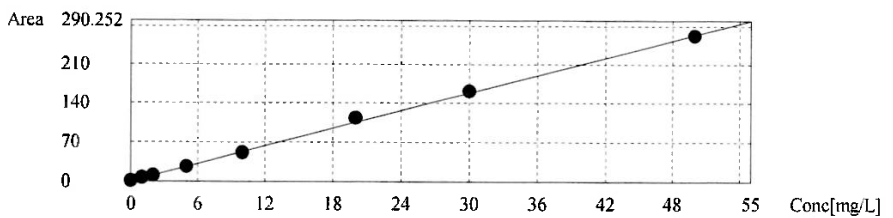
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	258.1	100uL	1.000	*****		4/18/2022 3:27:04 PM
2	263.1	100uL	1.000	*****		4/18/2022 3:30:10 PM
3	262.2	100uL	1.000	*****		4/18/2022 3:33:20 PM
4	266.6	100uL	1.000	*****		4/18/2022 3:36:37 PM

Acid Add. 0.000%
 Sp. Time 600.0sec
 Mean Area 262.5



Slope: 5.277
 Intercept: 0.000
 r^2 : 0.9990
 r : 0.9995
 Zero Shift: Yes

13.3
13

TOC-Control L Report

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Instr. InformationInstrument Options
CatalystTOC/ASI Sparge Kit/
Regular Sensitivity**Sample**

Sample Name: WASHCONF
Sample ID:
Origin: TOCAQSW846 met
Status: Completed
Chk. Result

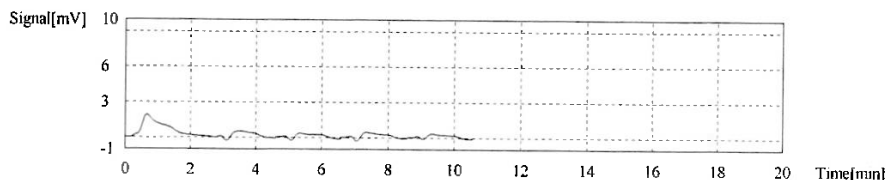
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.4564mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.770	1.662mg/L	100uL	1.000	E	e220418w1 2022_04_18_13_37_11 cal	4/20/2022 10:50:55 AM
2	3.482	0.6598mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 10:53:06 AM
3	2.600	0.4927mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 10:55:20 AM
4	1.865	0.3534mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 10:57:35 AM
5	1.687	0.3197mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 10:59:49 AM

Mean Conc. 0.4564mg/L
CV Conc 33.94%

**Sample**

Sample Name: CRI
Sample ID:
Origin: TOCAQSW846 met
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.7719mg/L

1. Det

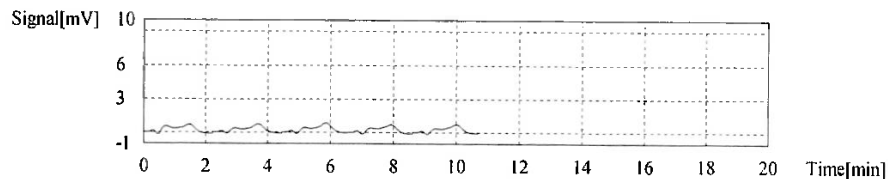
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.030	0.8782mg/L	100uL	1.000		e211018w1 2021_10_18_11_02_19 cal	4/20/2022 11:05:07 AM
2	3.375	0.7354mg/L	100uL	1.000		e211018w1 2021_10_18_11_02_19 cal	4/20/2022 11:07:36 AM
3	3.406	0.7422mg/L	100uL	1.000		e211018w1 2021_10_18_11_02_19 cal	4/20/2022 11:09:57 AM
4	3.271	0.7128mg/L	100uL	1.000		e211018w1 2021_10_18_11_02_19 cal	4/20/2022 11:12:13 AM
5	3.630	0.7910mg/L	100uL	1.000		e211018w1 2021_10_18_11_02_19 cal	4/20/2022 11:14:32 AM

TOC-Control L Report

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Mean Conc. 0.7719mg/L
CV Conc 8.54%

**Sample**

Sample Name: HSTD
Sample ID:
Origin: TOCAQSW846 met
Status: Completed
Chk. Result

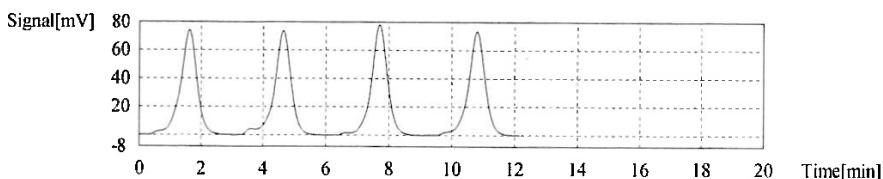
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 51.97mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	276.0	52.30mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 11:34:29 AM
2	273.3	51.79mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 11:37:44 AM
3	278.5	52.77mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 11:41:05 AM
4	269.3	51.03mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 11:44:21 AM

Mean Conc. 51.97mg/L
CV Conc 1.44%

**Sample**

Sample Name: ICV
Sample ID:
Origin: TOCAQSW846 met
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 20.28mg/L

1. Det

Anal.: NPOC

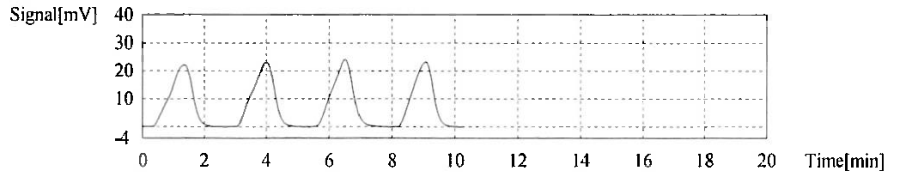
13.3
13

TOC-Control L Report

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	109.5	20.75mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 11:50:12 AM
2	108.4	20.54mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 11:52:57 AM
3	107.3	20.33mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 11:55:43 AM
4	103.0	19.52mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 11:58:19 AM

Mean Conc. 20.28mg/L
CV Conc 2.66%

**Sample**

Sample Name: ICB
Sample ID:
Origin: TOCAQSW846 met
Status: Completed
Chk. Result:

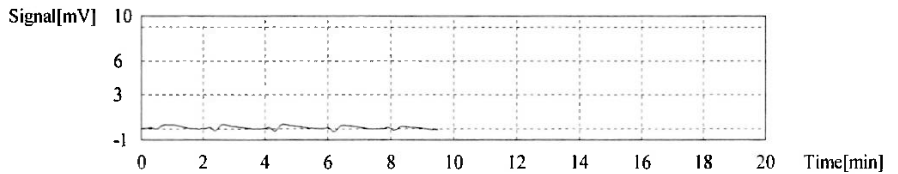
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.2983mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.522	0.2884mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 12:03:26 PM
2	1.732	0.3282mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 12:05:35 PM
3	1.162	0.2202mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 12:07:40 PM
4	1.881	0.3564mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 12:09:45 PM
5	0.8479	0.1607mg/L	100uL	1.000	E	e220418w1 2022_04_18_13_37_11 cal	4/20/2022 12:11:50 PM

Mean Conc. 0.2983mg/L
CV Conc 19.81%

**Sample**

Sample Name: CCV
Sample ID:
Origin: TOCAQSW846 met
Status: Completed
Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 24.99mg/L

TOC-Control L Report

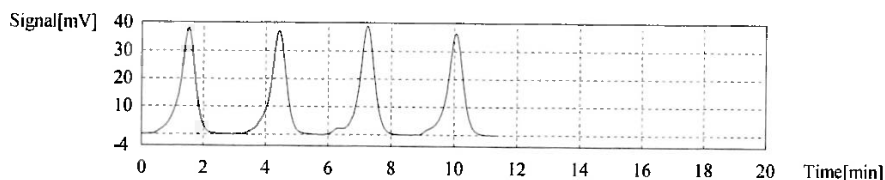
e220420w1.toc.tlx

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	133.0	25.20mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 12:17:49 PM
2	130.6	24.75mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 12:20:48 PM
3	134.8	25.54mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 12:23:48 PM
4	129.2	24.48mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 12:26:52 PM

Mean Conc. 24.99mg/L
CV Conc 1.89%



Sample

Sample Name: CCB
Sample ID:
Origin: TOCAQSW846 met
Status: Completed
Chk. Result:

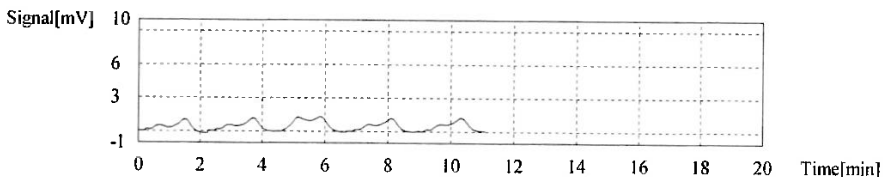
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.06257mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.144	0.05917mg/L	100uL	1.000		e211213w1 2021_12_13_11_40_18 cal	4/20/2022 12:32:15 PM
2	5.294	0.06090mg/L	100uL	1.000		e211213w1 2021_12_13_11_40_18 cal	4/20/2022 12:34:41 PM
3	8.489	0.09765mg/L	100uL	1.000	E	e211213w1 2021_12_13_11_40_18 cal	4/20/2022 12:37:08 PM
4	5.605	0.06447mg/L	100uL	1.000		e211213w1 2021_12_13_11_40_18 cal	4/20/2022 12:39:37 PM
5	5.714	0.06573mg/L	100uL	1.000		e211213w1 2021_12_13_11_40_18 cal	4/20/2022 12:41:57 PM

Mean Conc. 0.06257mg/L
CV Conc 4.88%



Sample

Sample Name: SPARGERCHK
Sample ID:
Origin: TOCAQSW846 met
Status: Completed
Chk. Result:

13.3
13

TOC-Control L Report

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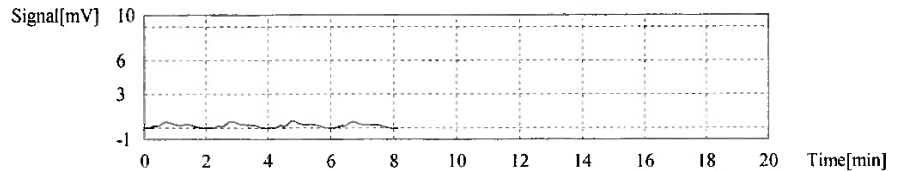
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.5099mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.642	0.5006mg/L	100uL	1.000		e220418wl 2022_04_18_13_37_11 cal	4/20/2022 12:47:09 PM
2	2.667	0.5054mg/L	100uL	1.000		e220418wl 2022_04_18_13_37_11 cal	4/20/2022 12:49:19 PM
3	2.746	0.5203mg/L	100uL	1.000		e220418wl 2022_04_18_13_37_11 cal	4/20/2022 12:51:31 PM
4	2.708	0.5131mg/L	100uL	1.000		e220418wl 2022_04_18_13_37_11 cal	4/20/2022 12:53:53 PM

Mean Conc. 0.5099mg/L
CV Conc 1.70%

Sample

Sample Name: GP39614-MB1
Sample ID: [toc]
Origin: TOCAQ met
Status: Completed
Chk. Result:

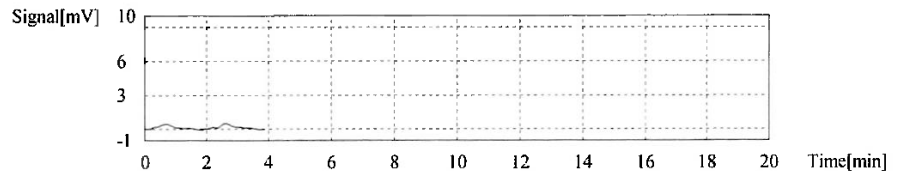
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.3574mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.915	0.3629mg/L	100uL	1.000		e220418wl 2022_04_18_13_37_11 cal	4/20/2022 12:58:42 PM
2	1.857	0.3519mg/L	100uL	1.000		e220418wl 2022_04_18_13_37_11 cal	4/20/2022 1:00:56 PM

Mean Conc. 0.3574mg/L
CV Conc 2.17%

Sample13.3
13

TOC-Control L Report

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Sample Name GP39614-B1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

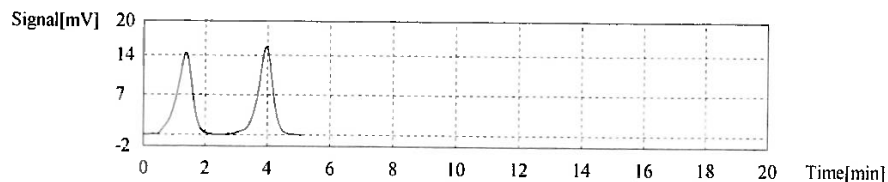
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 9.688mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	50.91	9.647mg/L	100uL	1.000		e220418wl 2022_04_18_13_37_11 cal	4/20/2022 1:51:26 PM
2	51.34	9.728mg/L	100uL	1.000		e220418wl 2022_04_18_13_37_11 cal	4/20/2022 1:54:16 PM

Mean Conc. 9.688mg/L
CV Conc 0.59%

Sample

Sample Name: JD43253-1
Sample ID:
Origin: TOCAQ.met
Status Completed
Chk. Result

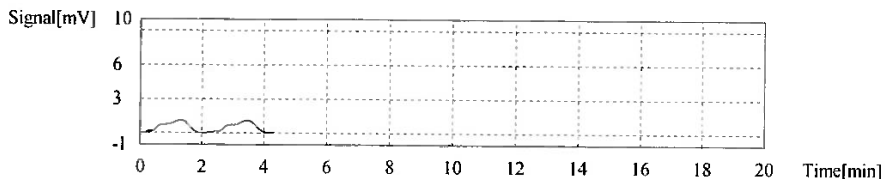
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC 5.776mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.307	5.976mg/L	100uL	1.000		e220418wl 2022_04_18_13_37_11 cal	4/20/2022 2:02:16 PM
2	5.886	5.577mg/L	100uL	1.000		e220418wl 2022_04_18_13_37_11 cal	4/20/2022 2:04:40 PM

Mean Conc. 5.776mg/L
CV Conc 4.88%

Sample13.3
13

TOC-Control L Report

e220420w1.toc.tlx

Sample Name: GP39614-S1
Sample ID: JD43253-1
Origin: TOCAQ met
Status: Completed
Chk. Result

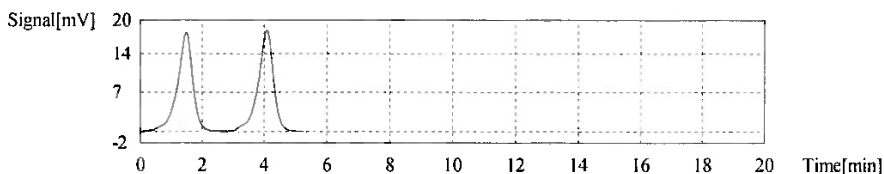
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC 57.85mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	60.77	57.58mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 2:13:55 PM
2	61.35	58.13mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 2:16:43 PM

Mean Conc. 57.85mg/L
CV Conc 0.67%

Sample

Sample Name: GP39614-MSDI
Sample ID: JD43253-1
Origin: TOCAQ met
Status: Completed
Chk. Result

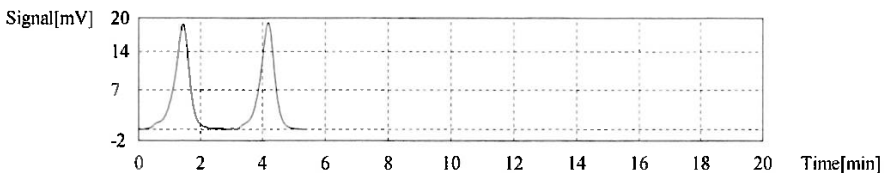
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC 59.56mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	64.16	60.79mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 2:25:10 PM
2	61.57	58.33mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 2:28:02 PM

Mean Conc. 59.56mg/L
CV Conc 2.91%

Sample13.3
13

TOC-Control L Report

e220420w1 toc tlx

Sample Name: JD43253-2
Sample ID:
Origin: TOCAQ met
Status: Completed
Chk. Result:

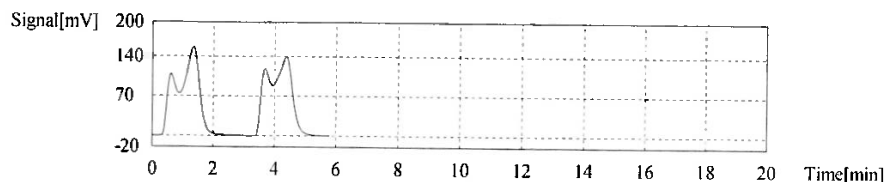
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	3.000	NPOC 439.7mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	782.5	444.8mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 2:36:41 PM
2	764.4	434.5mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 2:39:38 PM

Mean Conc. 439.7mg/L
CV Conc 1.65%

Sample

Sample Name: JD43253-3
Sample ID:
Origin: TOCAQ met
Status: Completed
Chk. Result:

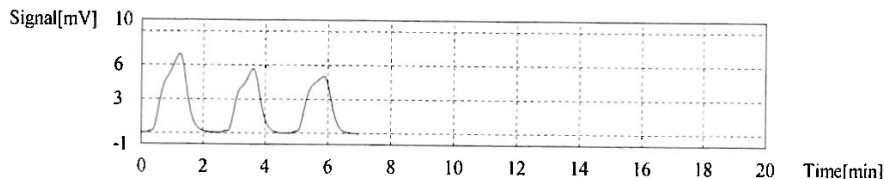
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC 9.880mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	33.98	12.88mg/L	100uL	1.000	E	e220418w1 2022_04_18_13_37_11 cal	4/20/2022 2:47:10 PM
2	26.30	9.967mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 2:49:35 PM
3	25.84	9.793mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 2:52:10 PM

Mean Conc. 9.880mg/L
CV Conc 1.25%

Sample

TOC-Control L Report

e220420w1.toc.tlx

Sample Name: JD43253-4
Sample ID:
Origin: TOCAQ met
Status: Completed
Chk. Result

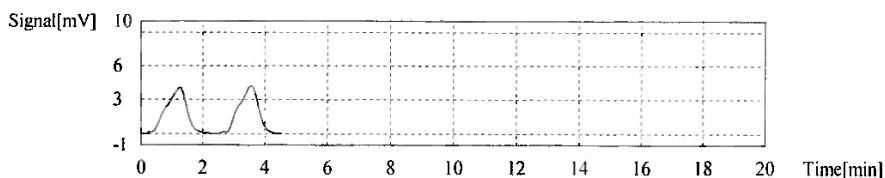
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC 6.888mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.36	6.958mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 2:58:15 PM
2	17.99	6.818mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 3:00:39 PM

Mean Conc. 6.888mg/L
CV Conc 1.44%

Sample

Sample Name: CCVA
Sample ID:
Origin: TOCAQ met
Status: Completed
Chk. Result

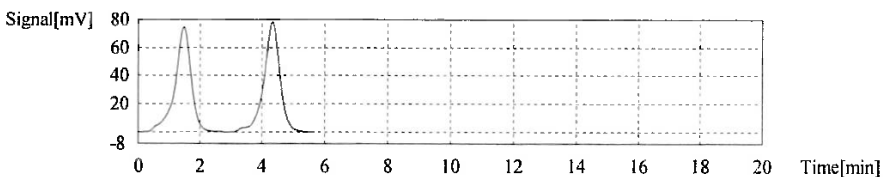
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 51.73mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	268.8	50.94mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 3:09:50 PM
2	277.2	52.53mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 3:13:01 PM

Mean Conc. 51.73mg/L
CV Conc 2.18%

Sample13.3
13

TOC-Control L Report

e220420w1.toc.tlx

Sample Name: CCB
Sample ID:
Origin: TOCAQ met
Status: Completed
Chk. Result

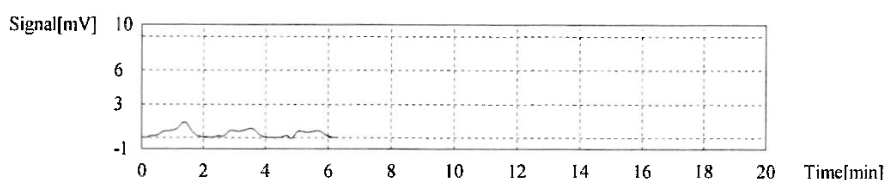
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.7359mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.922	1.122mg/L	100uL	1.000	E	e220418w1 2022_04_18_13_37_11 cal	4/20/2022 3:20:24 PM
2	4.516	0.8557mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 3:22:44 PM
3	3.251	0.6160mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 3:24:55 PM

Mean Conc. 0.7359mg/L
CV Conc 23.03%

**Sample**

Sample Name: JD43253-2
Sample ID: [rerun]
Origin: TOCAQ met
Status: Completed
Chk. Result

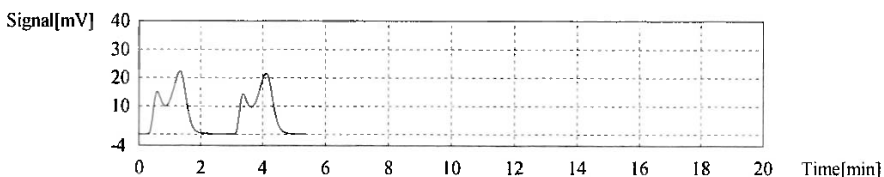
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC 405.5mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	108.9	412.7mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 3:47:15 PM
2	165.1	398.3mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 3:50:07 PM

Mean Conc. 405.5mg/L
CV Conc 2.51%

**Sample**

10/12

4/20/2022 4:25:41 PM

13.3
13

TOC-Control L Report

e220420w1 toc.tlx

Sample Name: CCV
Sample ID:
Origin: TOCAQ met
Status: Completed
Chk. Result

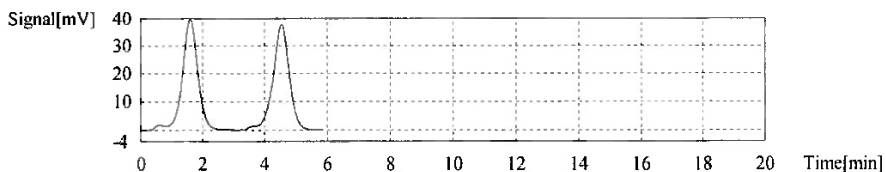
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 26.03mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	138.1	26.17mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 3:58:36 PM
2	136.6	25.88mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 4:01:43 PM

Mean Conc. 26.03mg/L
CV Conc 0.77%

Sample

Sample Name: CCB
Sample ID:
Origin: TOCAQ met
Status: Completed
Chk. Result

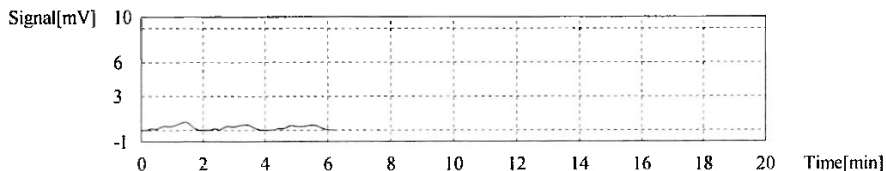
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.4987mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.367	0.6380mg/L	100uL	1.000	E	e220418w1 2022_04_18_13_37_11 cal	4/20/2022 4:08:50 PM
2	2.544	0.4821mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 4:11:05 PM
3	2.720	0.5154mg/L	100uL	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 4:13:24 PM

Mean Conc. 0.4987mg/L
CV Conc 4.73%

Sample13.3
13

TOC-Control L Report

e220420w1.toc.tif

Sample Name: SPARGERCHK
Sample ID:
Origin: TOCAQ met
Status: Completed
Chk. Result

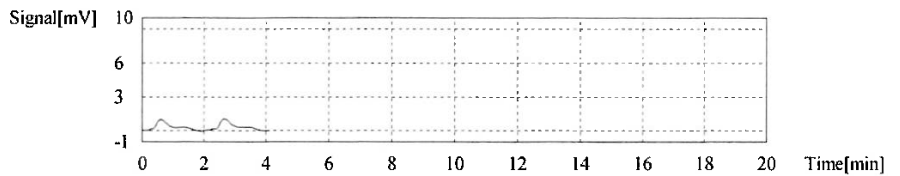
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC 0.6984mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.699	0.7009mg/L	100ul	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 4:19:57 PM
2	3.672	0.6958mg/L	100ul	1.000		e220418w1 2022_04_18_13_37_11 cal	4/20/2022 4:22:18 PM

Mean Conc. 0.6984mg/L
CV Conc 0.52%



Test: Iron, Ferrous
Product: FE2
Method: SM3500FE B-11

Analyst: JAREDO/DANIELB
GN Batch ID: GN28385
GP Batch ID: N/A
Date: 4/20/2022
Instrument ID: M

Units: mg/l

Original Calibration Information													
Calibration Date: 3/3/2022													
Blank	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7						
Known:	0.000	0.100	0.200	0.600	1.000	2.000	4.000	6.000					
Absorbance:	0.000	0.015	0.028	0.061	0.124	0.236	0.469	0.699					
Actual Value:	-0.032	0.097	0.209	0.493	1.036	2.001	4.008	5.989					
% RE:	#DIV/0!	2.93	-4.52	1.34	-3.59	-0.03	-0.19	0.19					
Continuing Calibration Check Standards Data:													
Blank	Std 1	Std 6											
Known:	0.000	0.100	6.000										
Absorbance:	0.000	0.015	0.685										
Recovery:	0.0%	97.1%	97.8%										
Actual Value:	-0.032	0.097	5.868										
Correlation Coeff. = 0.99996													
Slope = 8.61340													
Intercept = -0.03213													
Bottle #	Sample ID	Time Analyzed	Initial Wt (g) or Vol (ml)	Final Vol (ml)	Dilution	Sample Abs	Background Abs.	Result From Curve (mg/L)	Final Result	RL (Normal RL = 0.200 mg/l)	Units	Factor	pH Adjust
1	ICV	18:30	50	50	1	0.116	NA	0.967	0.967	NA	mg/l	NA	NA
2	GCV	18:46	50	50	1	0.115	NA	0.956	0.956	NA	mg/l	NA	NA
3	GN28385-MB1	18:47	50	50	1	0.000	0.000	-0.032	-0.032	0.200	mg/l	1	NA
4	GN28385-B1	18:50	50	50	1	0.361	0.000	3.077	3.077	0.200	mg/l	1	NA
5	GN28385-S1	18:51	50	50	1	0.329	0.000	2.802	2.802	0.200	mg/l	1	NA
6	GN28385-MSD1	18:52	50	50	1	0.329	0.000	2.802	2.802	0.200	mg/l	1	NA
7	2 JD43253-1	18:53	50	50	1	0.000	0.000	-0.032	-0.032	0.200	mg/l	1	NA
8	2 JD43253-2conf	18:54	50	50	1	1.386	0.180	10.356	10.356	0.200	mg/l	1	NA
9	2 JD43253-3	18:55	50	50	1	0.000	0.000	-0.032	-0.032	0.200	mg/l	1	NA
10	2 JD43253-4	18:56	50	50	1	0.000	0.000	-0.032	-0.032	0.200	mg/l	1	NA
11	4 JD43370-1conf	18:57	50	50	1	2.457	0.027	20.898	20.898	0.200	mg/l	1	NA
12	4 JD43370-2conf	19:00	50	50	1	2.167	0.000	18.633	18.633	0.200	mg/l	1	NA
13	CCVA	19:01	50	50	1	0.685	NA	5.868	5.868	NA	mg/l	NA	NA
14	2 JD43370-3	19:02	50	50	1	0.000	0.000	-0.032	-0.032	0.200	mg/l	1	NA
15	3 JD43370-4	19:03	50	50	1	0.000	0.000	-0.032	-0.032	0.200	mg/l	1	NA
16	JD43253-2	19:04	50	50	10	0.155	0.000	1.303	13.029	2.000	mg/l	1	NA
17	JD43370-1	19:05	50	50	20	0.393	0.000	3.353	67.059	4.000	mg/l	1	NA
18	JD43370-2	19:06	50	50	20	0.654	0.000	5.601	112.021	4.000	mg/l	1	NA
19		19:07	50	50	1								NA
20		19:07	50	50	1								NA
21		19:07	50	50	1								NA
22		19:07	50	50	1								NA
23		19:07	50	50	1								NA
24		19:07	50	50	1								NA

Analyst: DB

Date: 4/20/2022 QC Reviewer:

Date:

Analyst:	JAREDO/DANIELB
GN Batch ID:	GN28385
GP Batch ID:	N/A
Date:	4/20/2022
Instrument ID:	M

© Units: mg/l

[illegible]

EDM

Analyst: _____

Date: 4/20/2022 QC Reviewer:

QC Reviewer:

Date:

SGS

Test: IRON, FERROUS

Product: FE2

Method: SM18 3500FE B-2011 (aqueous) Units: mg/l

Analyst: DBGNBatch ID: GN28385

GPBatch ID: _____

Date: 4/20/2022**Preparation Batch QC Summary**

Units = _____

Method Blank ID: GN28385-MB1 Date: 4/20/2022 Result: <DL DL: 0.2 <DL: Yes

Spike Blank ID: -B1 Date: 4/20/2022 Result: 3.077 Spike: 3.00 %Rec.: 102.56%

MS Blank ID: -S1 Date: 4/20/2022 Results: 2.802 Samp. Result: <DL Spike: 3.0 %Rec.: 93.4%

MS Duplicate ID: MSD1 Date: 4/20/2022 Results: 2.802 Samp. Result: <DL Spike: 3.0 %Rec.: 93.4%

Duplicate ID: _____ Date: _____ Dup. Result: _____ Samp. Result: _____ %RPD: _____

Matrix spike Duplicate Result: 2.802 Matrix spike Result: 2.802 %RPD: 0

Analysis Batch QC Summary

Units = _____

ICV (Ext): 4/20/2022 Result: 0.967 TV: 1.0 %Rec.: 96.7%

CCV: 4/20/2022 Result: 0.956 TV: 1.00 %Rec.: 95.6%

CCVA: 4/20/2022 Result: 5.868 TV: 6.00 %Rec.: 97.8%

CCV: 4/26/2022 Result: 0.958 TV: 1.00 %Rec.: 95.8%

CCVA: _____ Result: _____ TV: 6.00 %Rec.: _____

CCV: _____ Result: _____ TV: 1.00 %Rec.: _____

CCVA: _____ Result: _____ TV: 6.00 %Rec.: _____

CCB: _____ Result: _____ DL: _____ <DL: _____

CCB: _____ Result: _____ DL: _____ <DL: _____

CCB: _____ Result: _____ DL: _____ <DL: _____

CCB: _____ Result: _____ DL: _____ <DL: _____

CCB: _____ Result: _____ DL: _____ <DL: _____

CCB: _____ Result: _____ DL: _____ <DL: _____

Reagent Reference Numbers:

Analyst: DB Date: 4/20/2022

Comments: _____

Form: GN032-01

Rev. Date: 9/4/09]

SGS

579 of 596

**Analyst:**

10

Product: FE2

Date:

2 | 20 | 22

Batch ID: GA 28383

Auto-pipette ID: 49

Sample Dilution Prep Log

[illegible]

Form: GN165-04

Rev Date: 3/28/17

Reviewer:_____

Date: _____

Q 4/21/2

SGS

GN 28385

Reagent Information Log

Test Name: FERROUS IRON (FE2)

Reagent	Reagent # or Manufacturer/Lot
PHENANTHROLINE REAGENT	GNE3-69164-FE2 XP 9/3/22
AMMONIUM ACETATE BUFFER	GNE10-67487-FE2 XP 4/14/2022
FE2 STOCK(200mg/L)	GNE3-69158-FE2 XP 5/3/2022
ICV(200mg/L)	GNE3-69159-FE2 XP 5/3/2022
POTASSIUM PERMANGANATE (0.1 N)	GNE3-69157-FE2 XP 9/3/22
HYDOXYLAMINE HYDROCHLRIDE	GNE10-67527-FERROUS XP4/17/22

All standards and stocks were made as described in the SOP for this method (circle one) Y or N
If no (N), see attached page for standards prep.

Form: GN087-01
Rev. Date:4/20/2022

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: Fe₂

GN or GP Number: _____

Reagent Standards		Tracking #		Expiration							
200 PPM FE2 STOCK		GNE3-69158-FE2		5/3/2022							
200 PPM FE2 ICV		GNE3-69159-FE3		5/3/2022							
Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume or weight used with units	Balance or Autopipet ID (*)	Additional Reagents	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
10 PPM FE2 STD											
GNE4-69648-FE2	GNE3-69648-FE2	200 mg/L	5.00 mL	A		DI water	100mls	10.0	04/20/22	JO	04/20/22
10 PPM FE2 ICV											
GNE4-69649-FE2	GNE3-69649-FE2	200 mg/L	5.00 MI	A		DI water	100mls	10.0	04/20/22	JO	04/20/22
Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml	Balance or Autopipet ID (*)	Additional Reagents	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	Analyst	Date
BLANK	NA	0 mg/l	0.00	A	2.00 ml of concentrated	DI water	100 ml	0.00	04/20/22	JO	04/20/22
0.10 mg/l	GNE4-69648-FE2	10 mg/l	1.00	A	HCL and 1.00	DI water	100 ml	0.10	04/20/22	JO	04/20/22
0.20 mg/l		10 mg/l	2.00	A		DI water	100 ml	0.20			
0.50 mg/l		10 mg/l	5.00	A	ml of	DI water	100 ml	0.50			
1.00 mg/l		10 mg/l	10.00	A	hydroxylamine	DI water	100 ml	1.00			
2.00 mg/l		200 mg/l	1.00	A	hydrochloride	DI water	100 ml	2.00			
4.00 mg/l		200 mg/l	2.00	A	added to each	DI water	100 ml	4.00			
6.00 mg/l	GNE3-69158-FE2	200 mg/l	3.00	A	standard.	DI water	100 ml	6.00	04/20/22	JO	04/20/22
ICV	GNE4-69649-FE2	10 mg/l	10.00	A		DI water	100 ml	1.00	04/20/22	JO	04/20/22
CCV	GNE4-69648-FE2	10 mg/l	10.00	A		DI water	100 ml	1.00	04/20/22	JO	04/20/22
CCVA	GNE3-69158-FE2	200 mg/l	3.00			DI water	100 ml	6.00	04/20/22	JO	04/20/22

* If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.

Form: GN121-01
Rev. Date: 1/13/09

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)File ID: E042122W1.NO32
Analyst: MMDate Analyzed: 04/21/22
Run ID: GN28430

Methods: EPA 353.2/LACHAT

The following analyst(s) have reviewed this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: MM Date: 04/21/22

Analyst: _____ Date: _____

Analyst: _____ Date: _____

Analyst: _____ Date: _____

Analyst: _____ Date: _____

Analyst: _____ Date: _____

Analyst: _____ Date: _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee):  Date: 4/21/22

GN28430

Author: Chemistry

Date : 4/21/2022

Original Run Filename: OM_4-21-2022_04-18-59PM.OMN Created: 4/21/2022 4:18:59 PM

Original Run Author's Signature: [Chemistry]

Current Run Filename: OM_4-21-2022_04-18-59PM.OMN Last Modified: 4/21/2022 6:16:30 PM

Current Run Author's Signature: [Chemistry]

Description: Default New Run

e042122 w1. n032

Sample	Rep.	Cup No.	Channel 1 NO32 (mg/L)	Detection Time	MDF
STDA	1	1	5.00	4/21/2022@4:19:51 PM	
STDB	1	2	2.50	4/21/2022@4:20:56 PM	
STDC	1	3	1.00	4/21/2022@4:22:02 PM	
STDD	1	4	0.500	4/21/2022@4:23:07 PM	
STDE	1	5	0.200	4/21/2022@4:24:12 PM	
STDF	1	6	0.100	4/21/2022@4:25:17 PM	
STDG	1	7	0.00	4/21/2022@4:26:23 PM	
EFFCHK	1	8	1.99	4/21/2022@4:27:29 PM	
Known Conc:			2.00		
ICV	1	9	2.14	4/21/2022@4:28:35 PM	
Known Conc:			2.00		
ICB	1	10	-0.0809	4/21/2022@4:29:40 PM	
Known Conc:			0.00		
CCV	1	11	2.51	4/21/2022@4:30:46 PM	
Known Conc:			2.50		
CCB	1	12	-0.0879	4/21/2022@4:31:51 PM	
Known Conc:			0.00		
GP39645-MB1	1	13	-0.0679	4/21/2022@4:32:57 PM	
GP39645-B1	1	14	2.20	4/21/2022@4:34:03 PM	
GP39645-S1	1	15	4.55	4/21/2022@4:35:08 PM	
GP39645-S2	1	16	1.18	4/21/2022@4:36:14 PM	
GP39645-D1	1	17	3.88	4/21/2022@4:37:20 PM	
JD43255-2	1	18	3.87	4/21/2022@4:38:25 PM	
JD43360-1	1	35	-0.0557	4/21/2022@4:39:31 PM	
JD43253-1	1	19	1.01	4/21/2022@4:40:37 PM	
JD43253-2	1	20	-0.0390	4/21/2022@4:41:43 PM	
JD43253-3	1	21	-0.0142	4/21/2022@4:42:49 PM	
CCV	1	11	2.49	4/21/2022@4:43:54 PM	
Known Conc:			2.50		
CCB	1	12	-0.0879	4/21/2022@4:45:00 PM	
Known Conc:			0.00		
JD43253-4	1	22	-0.0654	4/21/2022@4:46:06 PM	
JD43335-3	1	23	2.99	4/21/2022@4:47:11 PM	
JD43335-4	1	24	3.52	4/21/2022@4:48:17 PM	
JD43335-5	1	25	-0.0342	4/21/2022@4:49:23 PM	
JD43335-6	1	26	0.111	4/21/2022@4:50:29 PM	
JD43335-7	1	27	0.785	4/21/2022@4:51:36 PM	
JD43335-10	1	28	-0.0319	4/21/2022@4:52:41 PM	
JD43335-11	1	29	-0.0478	4/21/2022@4:53:47 PM	
JD43335-12	1	30	-0.0403	4/21/2022@4:54:53 PM	
JD43335-13	1	31	0.0356	4/21/2022@4:55:59 PM	
CCV	1	11	2.47	4/21/2022@4:57:05 PM	
Known Conc:			2.50		
CCB	1	12	-0.0929	4/21/2022@4:58:10 PM	
Known Conc:			0.00		
JD43335-14	1	32	4.45e-5	4/21/2022@4:59:16 PM	
JD43335-15	1	33	3.80	4/21/2022@5:00:23 PM	
JD43335-16	1	34	2.52e-6	4/21/2022@5:01:29 PM	
JD43360-2	1	36	-0.0640	4/21/2022@5:02:35 PM	
JD43360-3	1	37	-0.0632	4/21/2022@5:03:41 PM	
GP39646-MB1	1	38	-0.0722	4/21/2022@5:04:48 PM	
GP39646-B1	1	39	2.20	4/21/2022@5:05:54 PM	
GP39646-S1	1	40	1.09	4/21/2022@5:07:00 PM	
GP39646-S2	1	41	1.12	4/21/2022@5:08:06 PM	
GP39646-D1	1	42	-0.0894	4/21/2022@5:09:12 PM	
CCV	1	11	2.71	4/21/2022@5:10:18 PM	
Known Conc:			2.50		
CCB	1	12	-0.0860	4/21/2022@5:11:23 PM	
Known Conc:			0.00		
JD43360-4	1	43	-0.0711	4/21/2022@5:12:30 PM	

99.5%

107%

100.4%

110%

99.6%

98.8%

110%

108.4%

135
13

Author: Chemistry

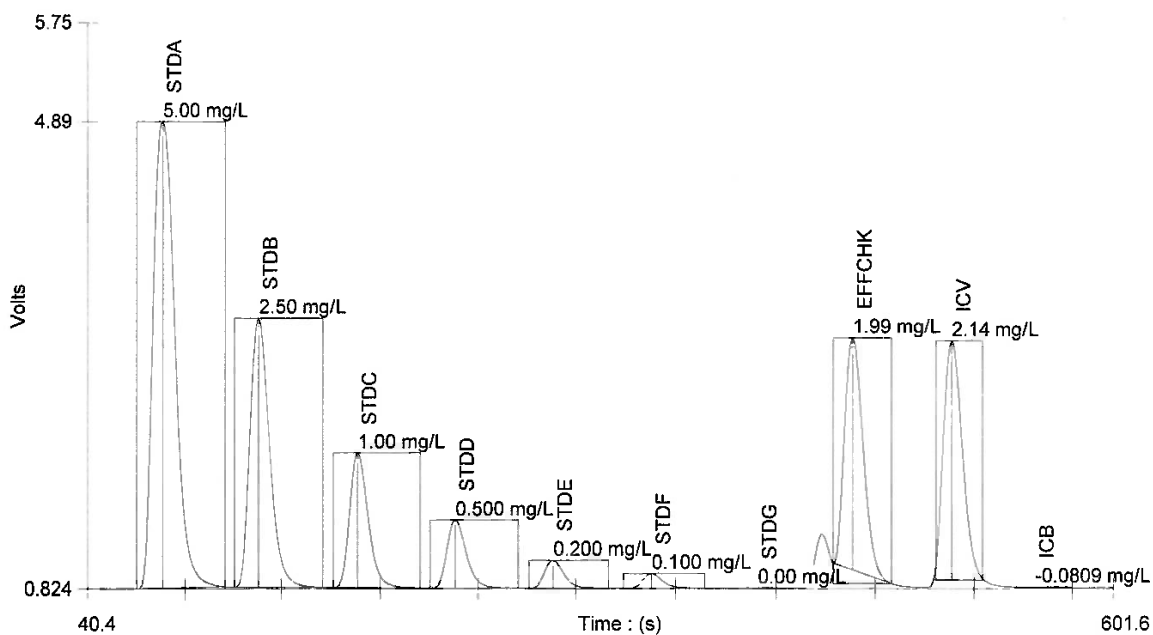
Date : 4/21/2022

JD43360-6	1	45	-0.0595	4/21/2022@5:13:37 PM	
JD43360-5	1	44	0.214	4/21/2022@5:14:43 PM	
JD43370-1	1	46	-0.0428	4/21/2022@5:15:49 PM	
JD43370-2	1	47	-0.0522	4/21/2022@5:16:56 PM	
JD43370-3	1	48	0.914	4/21/2022@5:18:02 PM	
JD43370-4	1	49	2.67	4/21/2022@5:19:09 PM	
JD43372-1	1	50	-0.0903	4/21/2022@5:20:15 PM	
JD43372-3	1	51	-0.0484	4/21/2022@5:21:22 PM	
JD43372-4	1	52	-0.0694	4/21/2022@5:22:28 PM	
CCV	1	11	2.68	4/21/2022@5:23:34 PM	107.2%
Known Conc:			2.50		
CCB	1	12	-0.0883	4/21/2022@5:24:39 PM	
Known Conc:			0.00		
JD43372-5	1	53	-0.0617	4/21/2022@5:25:45 PM	
JD43372-6	1	54	-1.36e-3	4/21/2022@5:26:51 PM	
JD43372-7	1	55	-0.0560	4/21/2022@5:27:58 PM	
JD43372-8	1	56	-0.0580	4/21/2022@5:29:05 PM	
JD43372-9	1	57	-0.0547	4/21/2022@5:30:12 PM	
JD43372-10	1	58	-0.0567	4/21/2022@5:31:18 PM	
JD43376-1	1	59	2.44	4/21/2022@5:32:25 PM	
JD43376-2	1	60	0.206	4/21/2022@5:33:31 PM	
JD43376-3	1	61	0.838	4/21/2022@5:34:38 PM	
JD43376-4	1	62	-0.0700	4/21/2022@5:35:45 PM	69.6%
CCV	1	11	2.74	4/21/2022@5:36:51 PM	
Known Conc:			2.50		
Calibration: Table/Fig. : 1					
CCB	1	12	-0.0897	4/21/2022@5:37:56 PM	
Known Conc:			0.00		
GP39647-MB1	1	63	-0.0740	4/21/2022@5:39:03 PM	
GP39647-B1	1	64	2.20	4/21/2022@5:40:09 PM	110%
GP39647-S1	1	65	1.09	4/21/2022@5:41:16 PM	
GP39647-S2	1	66	1.40	4/21/2022@5:42:23 PM	
GP39647-D1	1	67	-0.0645	4/21/2022@5:43:30 PM	
JD43390-4	1	68	-0.0610	4/21/2022@5:44:37 PM	
JD43376-5	1	69	0.208	4/21/2022@5:45:45 PM	
JD43376-6	1	70	0.565	4/21/2022@5:46:51 PM	
JD43376-7	1	71	-3.99e-3	4/21/2022@5:47:58 PM	
JD43376-8	1	72	-0.0822	4/21/2022@5:49:05 PM	110%
CCV	1	11	2.75	4/21/2022@5:50:10 PM	
Known Conc:			2.50		
CCB	1	12	-0.0856	4/21/2022@5:51:15 PM	
Known Conc:			0.00		
JD43390-1	1	73	-0.0590	4/21/2022@5:52:23 PM	
JD43390-3	1	74	-0.0619	4/21/2022@5:53:30 PM	
MM JD43426-1	1	75	-0.0349	4/21/2022@5:54:37 PM	
MM JD43426-2	1	76	-0.0636	4/21/2022@5:55:45 PM	
MM JD43426-3	1	77	-0.0603	4/21/2022@5:56:51 PM	
MM JD43426-4	1	78	-0.0502	4/21/2022@5:57:58 PM	
MM JD43426-5	1	79	-0.0619	4/21/2022@5:59:06 PM	
MM JD43426-6	1	80	1.40	4/21/2022@6:00:13 PM	
MM JD43426-7	1	81	-0.0356	4/21/2022@6:01:20 PM	
MM JD43426-8	1	82	-0.0576	4/21/2022@6:02:28 PM	
CCV	1	11	2.64	4/21/2022@6:05:17 PM	105.6%
Known Conc:			2.50		
CCB	1	12	-0.0775	4/21/2022@6:06:22 PM	
Known Conc:			0.00		
JD37791-15A	1	83	0.0526	4/21/2022@6:07:29 PM	
CCV	1	11	2.64	4/21/2022@6:08:34 PM	105.6%
Known Conc:			2.50		
CCB	1	12	-0.0769	4/21/2022@6:09:40 PM	
Known Conc:			0.00		

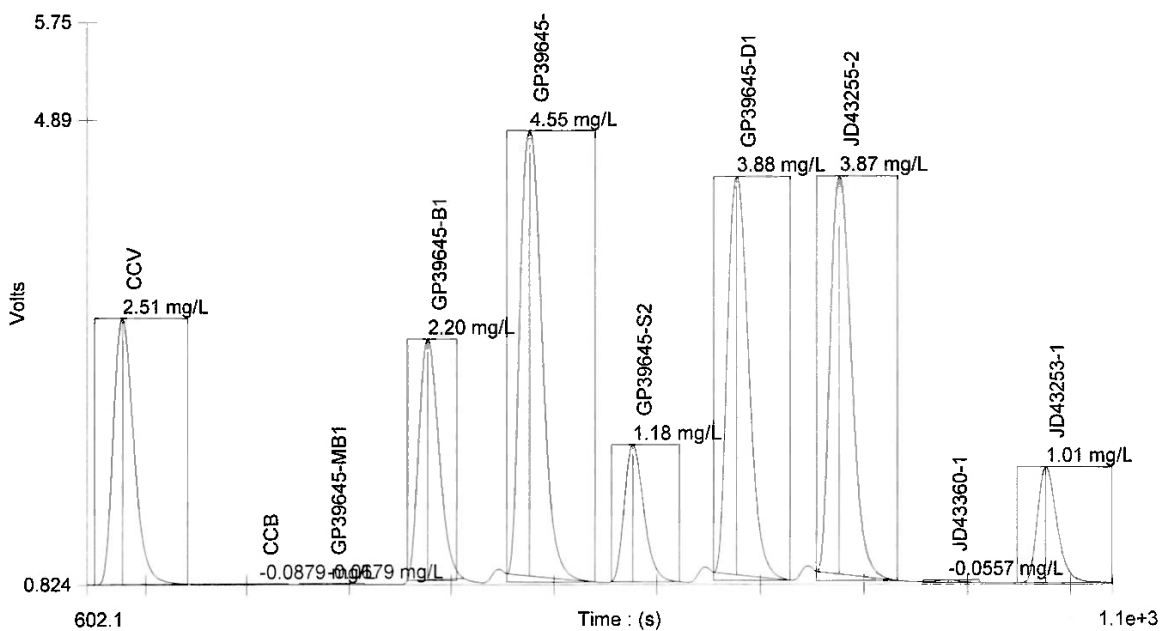
Author: Chemistry

Date : 4/21/2022

Channel 1 - Set: 1 / 10



Channel 1 - Set: 2 / 10

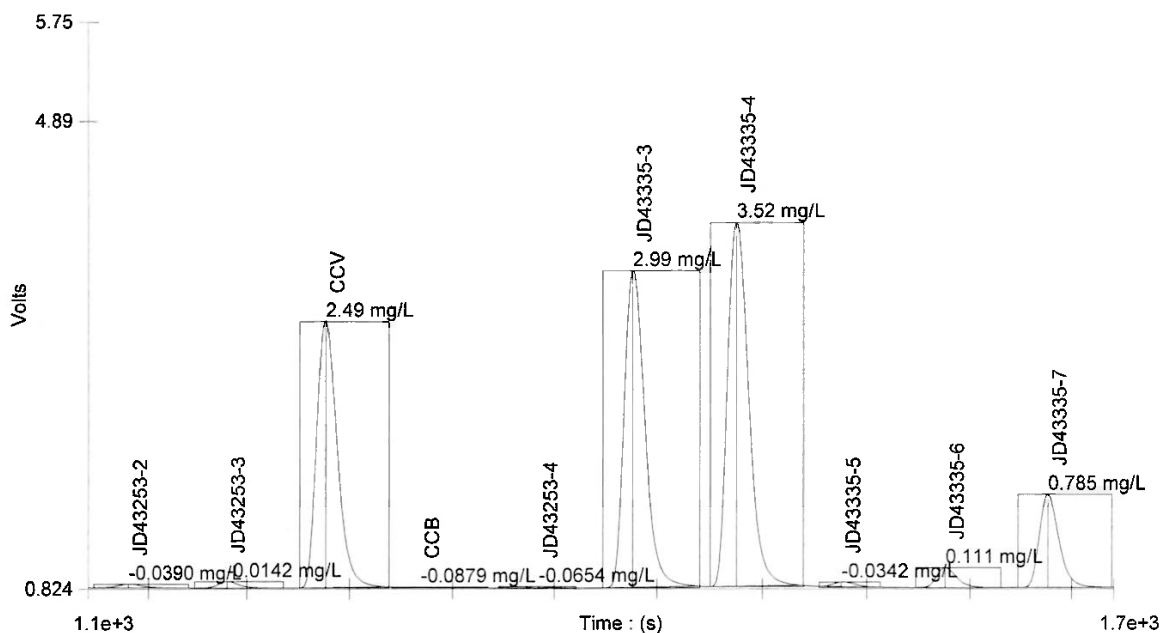


- 3 -

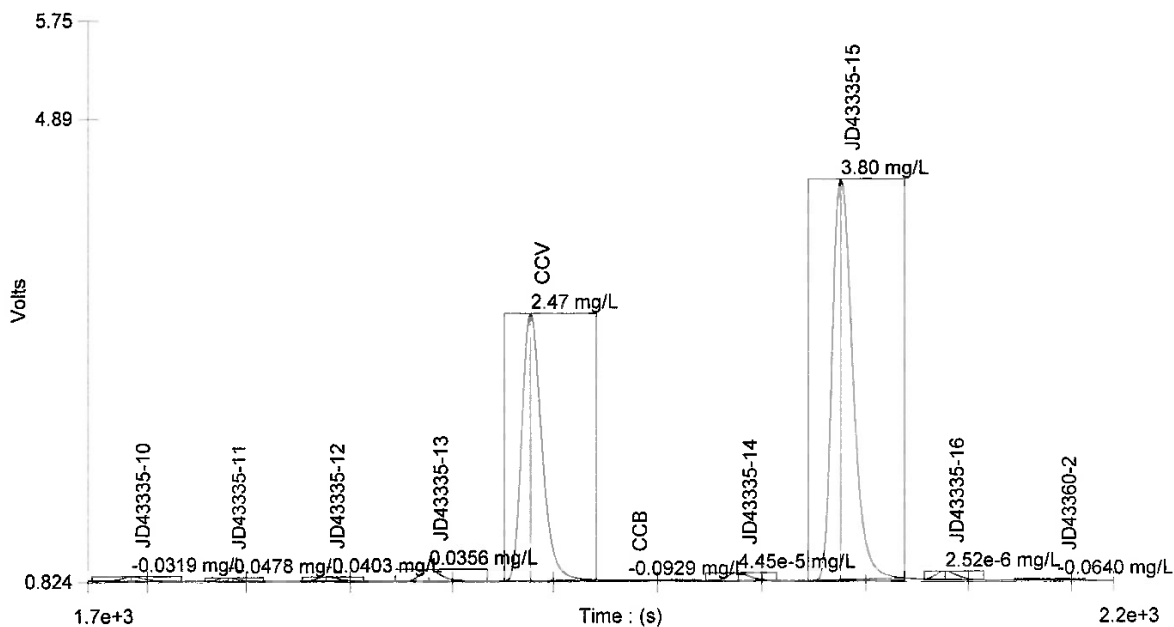
Author: Chemistry

Date : 4/21/2022

Channel 1 - Set: 3 / 10



Channel 1 - Set: 4 / 10



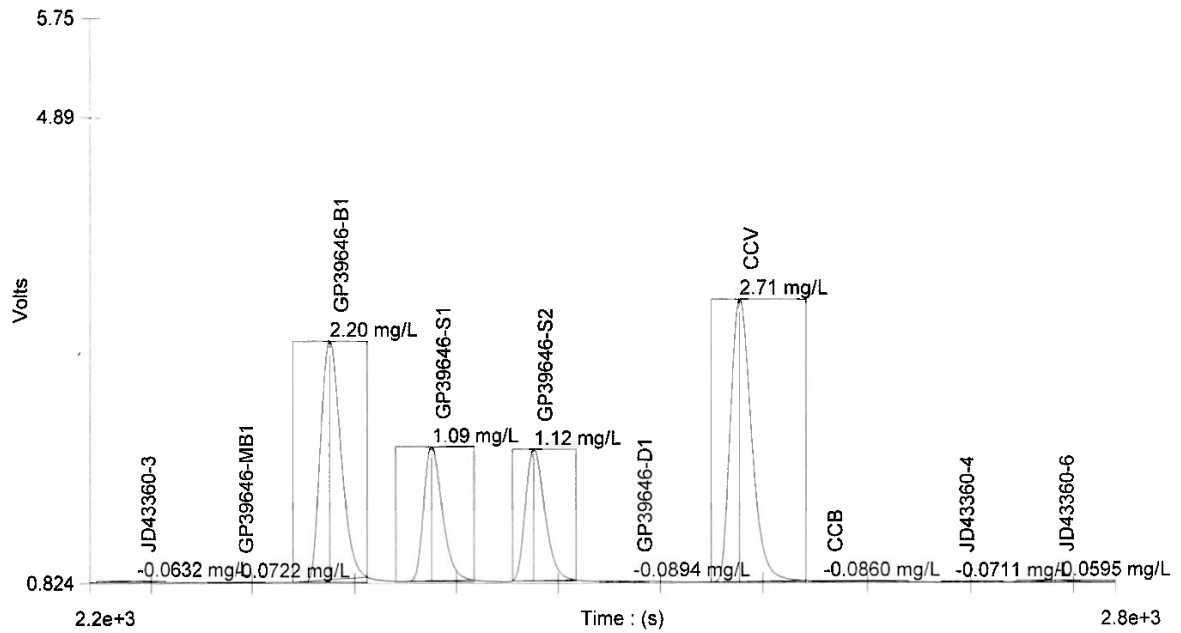
- 4 -

13.5
13

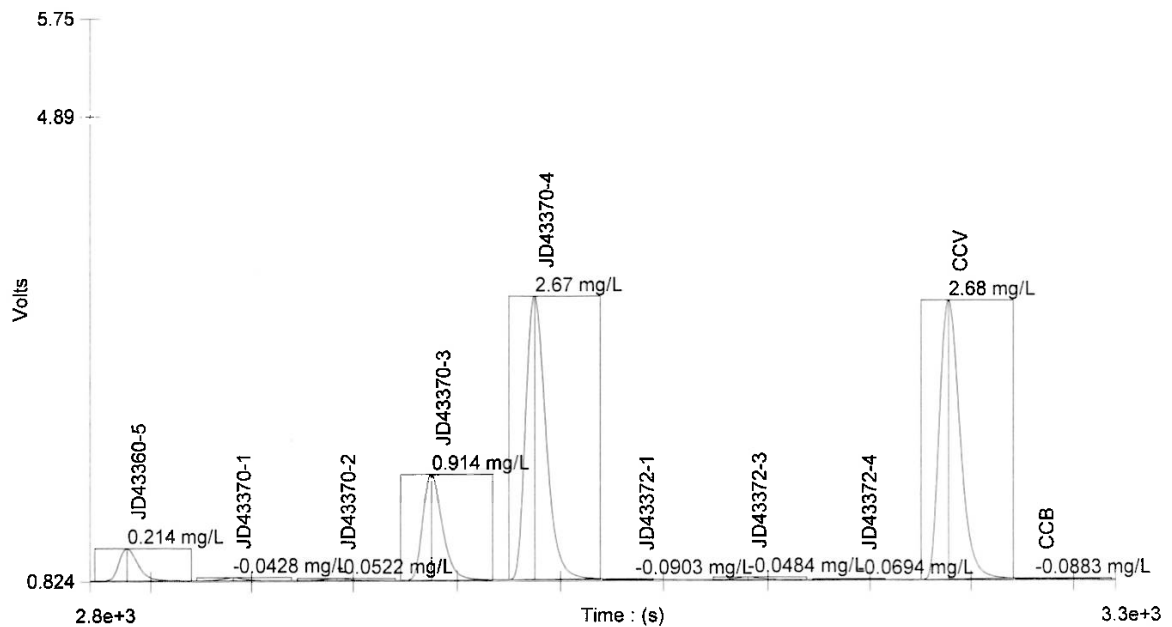
Author: Chemistry

Date : 4/21/2022

Channel 1 - Set: 5 / 10



Channel 1 - Set: 6 / 10



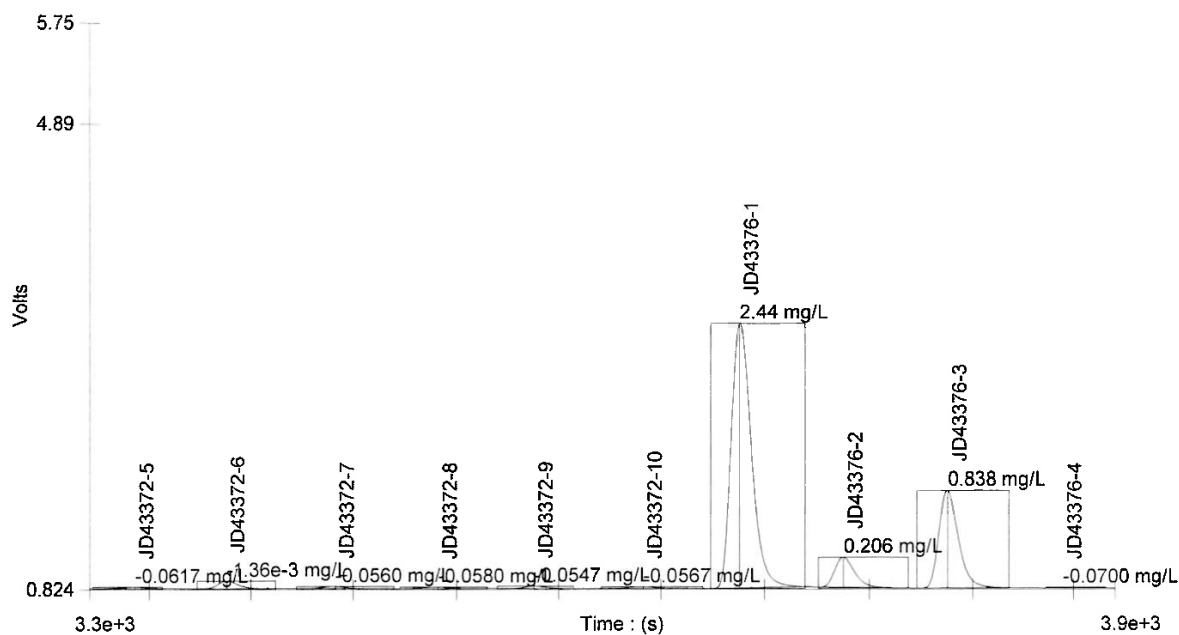
- 5 -

13.5
13

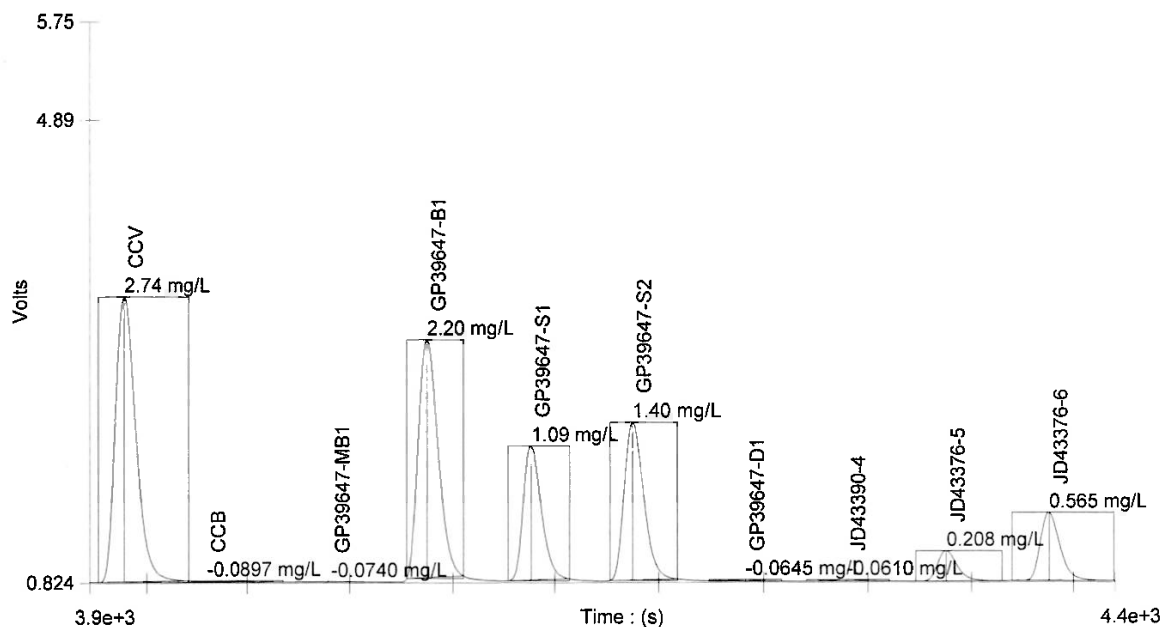
Author: Chemistry

Date : 4/21/2022

Channel 1 - Set: 7 / 10



Channel 1 - Set: 8 / 10



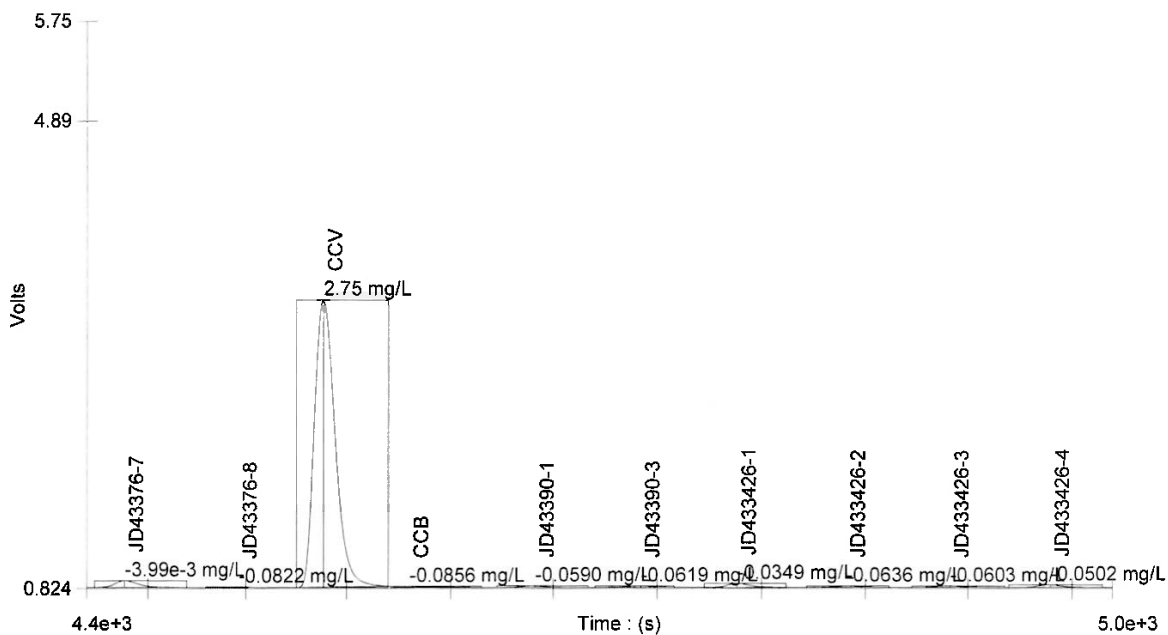
- 6 -

13.5
13

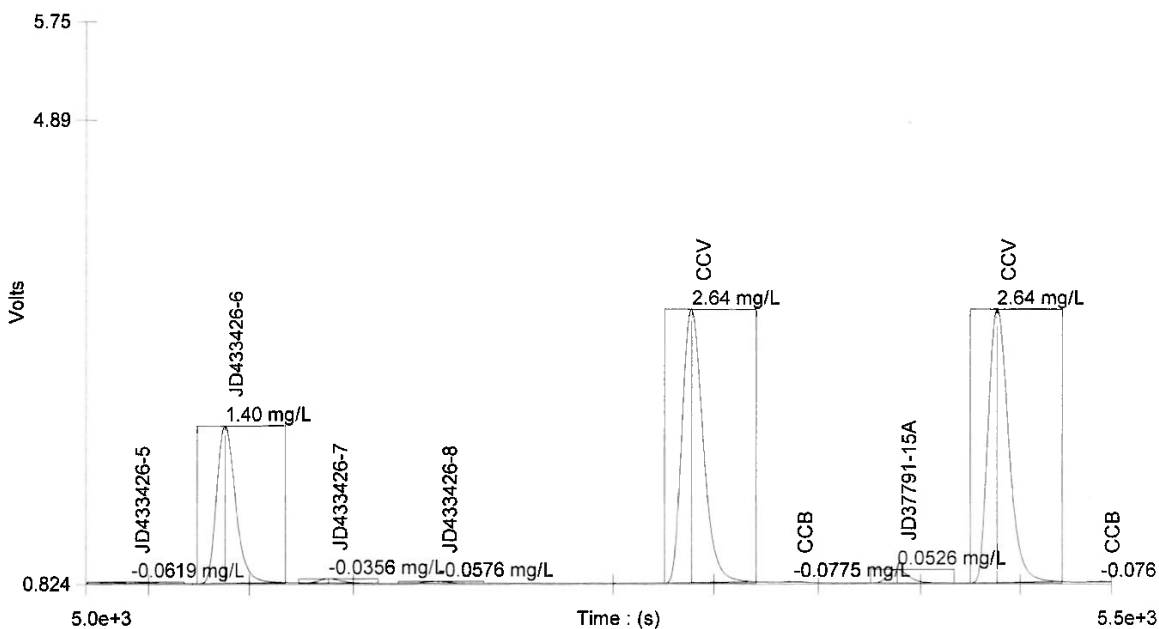
Author: Chemistry

Date : 4/21/2022

Channel 1 - Set: 9 / 10



Channel 1 - Set: 10 / 10



- 7 -

13.5
13

Author: Chemistry

Date : 4/21/2022

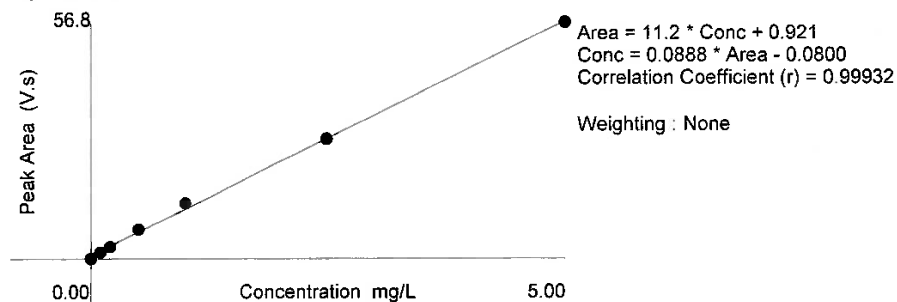
Table : 1 (NO32)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	5.00	1	56.8	4.06	0.0	0.5	4.97	4/21/2022	4:19:51 PM
2	2.50	1	29.0	2.35	0.0	0.2	2.49	4/21/2022	4:20:56 PM
3	1.00	1	13.6	1.17	0.0	-11.4	1.12	4/21/2022	4:22:02 PM
4	0.500	1	7.13	0.587	0.0	-9.0	0.553	4/21/2022	4:23:07 PM
5	0.200	1	2.94	0.242	0.0	7.3	0.181	4/21/2022	4:24:12 PM
6	0.100	1	1.53	0.126	0.0	24.9	0.0564	4/21/2022	4:25:17 PM
7	0.00	1	0.0259	2.81e-3			-0.0777	4/21/2022	4:26:23 PM

-12%

-43.6%

Figure : 1 (NO32)

13.5
13

SGS

Analyst: MM

Prep Date: 4/21/2022

Pipette ID: 48

Batch ID: GP39645

Batch QC Prep Log / Sample pH Log

Sample ID	Standard Prep	Std Final Volume	SAMPLE pH 5 - 9
EDTA BUFFER SOLN.	N/A	N/A	9.1
-B1	2 ML OF 100 PPM NO32 STANDARD	100 ML CARRIER	Y
-S1	0.5 ML OF 100 PPM NO32 STANDARD	50 ML JD43255-2	Y
-S2	0.5 ML OF 100 PPM NO32 STANDARD	50 ML JD43360-1	Y
JD43253-1			Y
JD43253-2			Y
JD43253-3			Y
JD43253-4			Y
JD43255-2			Y
JD43335-3			Y
JD43335-4			Y
JD43335-5			Y
JD43335-6			Y
JD43335-7			Y
JD43335-10			Y
JD43335-11			Y
JD43335-12			Y
JD43335-13			Y
JD43335-14			Y
JD43335-15			Y
JD43335-16			Y
JD43360-1			Y
JD43360-2			Y
JD43360-3			Y

Form GN319-02 (Formerly DAYT-WET-0318-01-Form)

Reviewer:

Rev date: 06/23/2021

Date:



Analyst: MM

Prep Date: 4/21/2022

Pipette ID: 48

Batch ID: GP39646

Batch QC Prep Log / Sample pH Log

Sample ID	Standard Prep	Std Final Volume	SAMPLE pH 5 - 9
EDTA BUFFER SOLN.	N/A	N/A	9.1
-B1	2 ML OF 100 PPM NO32 STANDARD	100 ML CARRIER	Y
-S1	0.5 ML OF 100 PPM NO32 STANDARD	50 ML JD43360-4	Y
-S2	0.5 ML OF 100 PPM NO32 STANDARD	50 ML JD43360-6	Y
JD43360-4			Y
JD43360-5			Y
JD43360-6			Y
JD43370-1			Y
JD43370-2			Y
JD43370-3			Y
JD43370-4			Y
JD43372-1			Y
JD43372-3			Y
JD43372-4			Y
JD43372-5			Y
JD43372-6			Y
JD43372-7			Y
JD43372-8			Y
JD43372-9			Y
JD43372-10			Y
JD43376-1			Y
JD43376-2			Y
JD43376-3			Y
JD43376-4			Y

Form GN319-02 (Formerly DAYT-WET-0318-01-Form)

Reviewer:

Rev date: 06/23/2021

Date:

13.5
13

SGS

Analyst: MM

Prep Date: 4/21/2022

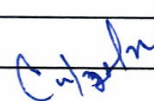
Pipette ID: 48

Batch ID: GP39647

Batch QC Prep Log / Sample pH Log

Sample ID	Standard Prep	Std Final Volume	SAMPLE pH 5 - 9
EDTA BUFFER SOLN.	N/A	N/A	9.1
-B1	2 ML OF 100 PPM NO32 STANDARD	100 ML CARRIER	Y
-S1	0.5 ML OF 100 PPM NO32 STANDARD	50 ML JD43390-4	Y
-S2	0.5 ML OF 100 PPM NO32 STANDARD	50 ML JD43376-5	Y
JD43376-5			Y
JD43376-6			Y
JD43376-7			Y
JD43376-8			Y
JD43390-1			Y
JD43390-3			Y
JD43390-4			Y
JD43426-1			Y
JD43426-2			Y
JD43426-3			Y
JD43426-4			Y
JD43426-5			Y
JD43426-6			Y
JD43426-7			Y
JD43426-8			Y
JD37791-15A			Y

Form GN319-02 (Formerly DAYT-WET-0318-01-Form)

Reviewer: 

Rev date: 06/23/2021

Date:

13.5
13



GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product:

NO32

GN/GP number:

Analyst:

MM

Date:

4/21/2022

Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume used in ml	Pipette ID*	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Standard ID
100 ppm NO3 intermediate	GNE8-66815-NO32	1000	10	48	Carrier	100 ml	100	5/19/2022	NO32-100-41922
100 ppm NO2 Intermediate	GNE8-66816-NO32	1000	10	48	Carrier	100 ml	100	5/19/2022	NO2-100-41922
100 ppm NO3 External	GNE8-66817-NO32	1000	10	48	Carrier	100 ml	100	5/19/2022	NO32E-100-41922
Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml		Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	
5.0 mg/l NO3	NO32-100-41922	100 mg/l	5.0	48	Carrier	100 ml	5.0	4/26/2022	STDA-41922
2.5 mg/l NO3	NO32-100-41922	100 mg/l	2.5	48	Carrier	100 ml	2.5	4/26/2022	STDB-41922
1.0 mg/l NO3	NO32-100-41922	100 mg/l	1.0	48	Carrier	100 ml	1.0	4/26/2022	STDC-41922
0.5 mg/l NO3	NO32-100-41922	100 mg/l	0.5	48	Carrier	100 ml	0.5	4/26/2022	STDG-41922
0.2 mg/l NO3	NO32-100-41922	100 mg/l	0.2	48	Carrier	100 ml	0.2	4/26/2022	STDE-41922
0.1 mg/l NO3	NO32-100-41922	100 mg/l	0.1	48	Carrier	100 ml	0.1	4/26/2022	STDF-41922
Effcheck 2.0	NO2-100-41922	100 mg/l	2.0	48	Carrier	100 ml	2.0	4/26/2022	EFFcheck-41922
ICV	NO32E-100-41922	100 mg/l	2.0	48	Carrier	100 ml	2.0	4/26/2022	ICV-41922

*If Class A glass pipettes are used, enter an A.



Reagent Information Log - Nitrate Lachat Autoanalyzer

<u>Reagent</u>	<u>Reagent # or Manufacturer/Lot</u>	<u>Expiration Date</u>
Nitrate Stock Solution	GNE2-69019-NO32	8/18/2022
Ammonium Chloride Buffer Solution	GNE12-68390-NO3	6/22/2022
Sulfanilamide Color Reagent	GNE3-69543-NO32	4/30/2022
1:1 NH4OH	GNE11-67624-NO3	5/12/2022
Carrier Solution	GNE9-67304-NO32	9/30/2023
1000 ppm Nitrite Solution	GNE2-69020-NO32	8/18/2022
Nitrate External Stock Solution	GNE2-69021-NO32	8/18/2022

Reason codes for data corrections: 1-reviewer error correction; 2-transcription error; 3-computer error; 4-analyst error

Form: GN087A-43
Rev. Date: 7/19/06

Appendix G – DUSR

Quality Assessment Data Usability Summary Report

		RemVēr Project #2022GE01Q2	
		Client Project # 1102783-06-206	
Site:	Orangetown Shopping Center	Site #:	C344066
Client:	GES, Inc.	Site Owner:	UB Orangeburg, LLC (UBO)
Sample Delivery Group (SDG)	JD43253		
Sample Matrix:	☐ Drinking water ☒ Groundwater ☐ Surface water ☐ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

Groundwater & Environmental Services (GES) contracted RemVēr to perform a data quality assessment (DQA) on analytical laboratory data of environmental samples (in this case: groundwater samples). This DQA addressed analytical data reported in Sample Delivery Groups (SDGs) #JD43253.

The DQA evaluated the performance of the analytical procedures and the quality of the resulting data. RemVēr followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Table 1 describes qualification flags applied to the data either by SGS Accutest or during the DQA process.

Reported Methods

☐ Method 1311 TCLP ☐ Method 1312 SPLP ☒ Method 6010A/B/C/D or 6020 Trace Metals ☐ Method 7000 Metals ☐ Method 7196 Hexavalent Chromium (other: _____) ☐ Method 7470A or 7471 Mercury ☐ Method 8021 Volatile Organic Compounds (VOCs) GC ☐ Method 8081B Pesticides ☐ Method 8082 PCBs ☐ Method 8151 Chlorinated Herbicides ☒ Method 8260C/D VOCs GC/MS ☐ Method 8270D Semi-VOCs (sVOCs) GC/MS ☐ Method 9010/9012/9014 Cyanides (_____)	☐ Method TO-13A PAHs (air) ☐ Method TO-14A / -15 VOCs (air, summa) (_____) ☐ Method TO-17 VOCs (air, sorbent) ☐ Extractable Petroleum Hydrocarbons (EPH) ☐ Volatile Petroleum Hydrocarbons (VPH) Method ☐ EPH-total ☒ Other Methods: Method 9060A/SM5310 Total Organic Carbon Method 300.0/9056A Anions (IC) Method RSK-175 Dissolved Gases Method SM4500 Nitrite Method 353.2 Nitrite & Nitrate Method SM3500 Fe ⁺² / Fe ⁺³

Quality Control Requirements Summary

☒ Duplicate ☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD] ☒ Trip Blank(s) ☒ Equipment, Method, &/or Rinsate Blank	☒ Other Field QC: Field notes regarding sampling ☐ Special QAPP Requirements: _____ _____

Intended Use of Data under Review

The client collected groundwater samples during a one-day collection event: April 18, 2022 at the referenced New York State Brownfields site. The site is under a Site Management Plan (SMP) requiring several kinds of monitoring. This event provided gauging/biostimulant and quarterly groundwater monitoring (see §3.3 of Kleinfelder, 2011).

Significant Data Usability Issues Identified for SDG: # JD43253

Of the four (4) samples (plus one duplicate and three blanks) discussed herein, the results are acceptable for use even though the results of some analytes are flagged due to sample handling, laboratory accuracy or precision issues.

All the Ferrous results were qualified (UJ or J) due to a holding violation, causing similar flagging of calculated Ferric results.

Please refer to the Lab Results and Data Usability Narrative section for further detail.

Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☒	☐	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☒	☐	☐	See Attachment #4
Sampling Report (by Field Team Leader)	☒	☐	☐	

Lab Report Contents (SGS Accutest SDG Report: #JD43253)

☒ SDG Narrative	☒ Spike recoveries
☒ Contract Lab Sample Information Sheets	☒ Duplicate results
☒ Data Package Summary Forms	☒ Confirmation (lab check/QC) samples
☒ Chain-of-Custody (COC) Forms	☒ Internal standard area & retention time summary
☒ Test Results (no tentatively identified compounds [TICs])	☒ Chromatograms
☒ Calibration standards	☒ Raw data files
☒ Surrogate recoveries	☒ Other specific information
☒ Blank results	

The SDG reported the following samples:

Sample ID	SDG #JD43253– Sample #	Matrix	Sampled	Received
MW-3				
MW-4	#-1	Water	04/18/22	04/19/22
MW-5	#-2	Water	04/18/22	04/19/22
MW-6				
MW-7				
MW-8A	#-3	Water	04/18/22	04/19/22
MW-8B				
MW-10				
MW-15A				
MW-C				
MW-D				
MW-E	#-4	Water	04/18/22	04/19/22
MW-F				
MW-4 (MS/MSD)	#-1 MS/MSD	Water	04/18/22	04/19/22
Field Duplicate (FD) (MW-4)	#-5 (rep of #-1)	Water	04/18/22	04/19/22
Field Blank (FB)	#-6	Water	04/18/22	04/19/22
Equipment Blank (EB)	#-7	Water	04/18/22	04/19/22
Trip Blank (TB #1)	#-8	Water	04/18/22	04/19/22

The SDG included the following samples with their analyses:

JD43253:	Well	VOCs	Ethene	TOC	Iron	Fe ²⁺	Fe ³⁺	NO ₂	NO ₃	SO ₄
#-1	MW-4	X	X	X	X	X	X	X	X	X
#-1MS	MW-4	X	—	X	X	X	X	—	—	X
#-1MSD	MW-4	X	—	X	X	X	X	—	—	X
#-2	MW-5	X	X	X	X	X	X	X	X	X
#-3	MW-8A	X	X	X	X	X	X	X	X	X
#-4	MW-E	X	X	X	X	X	X	X	X	X
#-5	FD (MW-4)	X	—	—	—	—	—	—	—	—
#-6	FB	X	—	—	—	—	—	—	—	—
#-7	EB	X	—	—	—	—	—	—	—	—
#-8	TB	X	—	—	—	—	—	—	—	—

TOC: Total Organic Carbon | Iron: Total Iron | Fe²⁺: Ferrous Iron | Fe³⁺: Ferric Iron | NO₃: Nitrate | SO₄: Sulfate

Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	Complete (Y/N)	Comments
JD43253	Y	Yes

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	Hold Times (Y/N)	Preservation (Y/N)	Exception Comment
JD43253	Y N--Ferrous	Y	Hold time for all Ferrous analysis missed, effects derivatives as well, flag HT

Do the QC data fall within the protocol required limits and specifications? (1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data									
SDG	1	2	3	4	5	6	7	8	9
JD43253	☐	☐	☐	☒	☐	☒	☐	☒	☒
The narrative section, below, discusses these deficiencies in detail, see Attachment 2 as well.									

Were the data generated using established and agreed upon analytical protocols?		
Laboratory Report	Protocols (Y/N)	Exception Comment
JD43253	Y	None

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	Confirmation (Y/N)	Exception Comment
JD43253	Y	None

Are correct data qualifiers used and are they consistent with current guidance?		
Laboratory Report	Qualifiers (Y/N)	Comment
JD43253	Y	The laboratory generally applied appropriate qualifiers.

Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	QC Exceedances Documented (Y/N)	Comment
JD43253	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The groundwater samples came from a one-day collection event: April 18, 2022. A review of the field notes provided the following information pertaining to data usability.

Groundwater MWs	April-2022 Comments SDG #JD43253
MW-4	#-1, Bailer purge (≈7.4-gal), sampled; duplicate and MS/MSD samples came from this well
MW-5	#-2, Bailer purge (≈6-gal), sampled
MW-8A	#-3, Bailer purge (≈1.2-gal), sampled
MW-E	#-4, Bailer purge (≈2.0-gal), sampled

Laboratory Report Inspection

The laboratory produced SDG report #JD43253 (dated 27-Apr-22), which contained the required data and information.

Chain of Custody (COC) Evaluation

GES produced one COC for the referenced fieldwork (#JD43253, single, one-page COC). The laboratory noted no issues at the time of receipt; however, they note in the case narrative that they received Ferrous Iron samples outside of Holding Time, see discussion below.

Sample Preservation & Holding Time Evaluation

Laboratory received one cooler with samples on 4/19/2022 @ 10:15 (designated as SDG-JD43253) in proper condition and, where required, on ice. The temperature of the cooler at receipt was measured as 2.1°C and corrected to 1.8°C. Holding times and preservation requirements were met with the following exceptions (note: Receipt Summary said nothing about this holding time deviation):

- Ferrous—samples #-1 (MW-4), -2 (MW-5), -3 (MW-8A), and -4 (MW-E) were analyzed outside of holding for this analysis and received an HT flag.
- Ferric—because this analyte is derived by calculation all results were similarly qualified as Ferrous (see Attachments 2 and 3).

Sample Preparation & Analyses

Sample preparations for organic and inorganic analyses were within acceptable parameters with no exceptions. The laboratory reported no analytical issues other than those specified in the following sections. VOC analysis occurred as two batches: V2D8765 (Samples #-1, -3, -4, -6, -7, and #-8) and V3D7465 (Samples #-2 and #-5). The other analytes were each handled as single batches.

Detection Limits

If an analyte was below the method detection limit (MDL), then a “U” flag was set to indicate non-detection (undetected); whereas if an analyte was below the reporting limit (RL), then a “J” flag was set to indicate detection with an estimated result. Reported results were typically from undiluted samples and analytical detection limits (DLs) and all met the requirements for the reported analytes. Diluted samples were flagged with a D. There were no other detection issues other than those noted below:

- *Method SM5310*—Sample #-1 required elevated TOC RLs due to analytical difficulties posed by the sample matrix. RemVër flagged these results as UJ (when undetected) or J (when detected) as appropriate.

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) were acceptable for all analytes. Initial and Continuing Calibration Verifications (ICV/CCVs) were acceptable for all methods and analytes, with the following exceptions:

- *Method 8260* (VOCs)—
 - Batch V2D8765 (Samples #-1, -3, -4, -6, -7, & -8): CCVs for 2-Butanone (MEK), Acetone, Methyl Tert Butyl Ether, and Methyl Acetate were less than the lower control limit (<LCL). A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. RemVër flagged the results as UJ or J.
 - Batch V3D7465: The associated CCVs for Bromomethane and Dichlorodifluoromethane in Samples #-2 and -5 were greater than the upper control limits (>UCL) with high bias, but the results were non-detect. RemVër flagged the results as UJ+ or J+.
 - Batch V3D7465: The associated CCVs for Bromoform in Samples #-2 and -5 were less than the lower control limit (<LCL), but the results were non-detect. RemVër flagged the results as UJ or J.

Blank Evaluation

The Method Blanks run for each analysis had no detections or qualifications. The Trip Blank (TB) had no detectable VOC analytes (above their respective the reporting limits). Both the Equipment Blank (EB) and Field Blank (FB) had no detectable VOC analytes (above their respective the RLs). Therefore, no results were flagged for in-field handling contamination.

Laboratory Control Samples (LCS)

The various LCS' were within the acceptable range for their particular analyses in SDG JD43253, with the following exceptions:

- *Method 8260*—Batch V3D7465 had LCS/LCSD spike recoveries greater than the upper control limits (UCL) with high bias for analytes Acetone and Dichlorodifluoromethane. RemVēr flagged Sample #-2 and #-5 results as either UJ+ or J+, as appropriate.

Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses for JD43253 met the QA criteria, with the following exceptions:

- *Method 8260* (VOCs)—Batch V2D8765 had spike recovery >UCL indicative of high bias (likely due to matrix interference) for 1,1-Dichloroethene, 1,3-Dichlorobenzene, Bromodichloromethane, Carbon disulfide, and Tetrachloroethene. RemVēr flagged Sample #-1, 3, 4, 6, 7, and 8 results as either UJ+ or J+, as appropriate.
- *Method 353.2* (Nitrate + Nitrite)—Batch GP39645 had spike recovery <LCL indicative of low bias, most likely due to matrix interference. Therefore, RemVēr flagged the Samples #-1 – #-4 results as either UJ- or J-, as appropriate.

Duplicates

The analytical Method Duplicates met their respective RPD performance criteria. GES collected a field replicate of MW-4 (compare samples #-1 and #-5). The VOC analytes met the RPD performance criteria of <20%.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable. No data received an R (rejected) flag. Using the analytically estimated Total and Ferrous Iron concentrations or Nitrate + Nitrite and Nitrite, SGS calculated the concentration of Ferric Iron or Nitrate (respectively) by difference. Therefore, qualifier flags associated with analytic results automatically attach to the calculated results.

RemVēr modified SGS's laboratory electronic data reports by adding quality flags, highlighted in yellow (see Attachment #4 [separate file]: Orangetown_2022Q2_DUSR.xls [EXCEL file]).

References

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- USEPA, 2020c, *National Functional Guidelines for High Resolution Superfund Methods Data Review*. EPA 542-R-20-007. Washington, DC: U.S. Environmental Protection Agency, November, 86p, https://www.epa.gov/sites/default/files/2021-03/documents/nfg_for_hrsm_superfund_methods_data_review_november_2020.pdf
- NYSDEC, 2021, *Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs*, Division of Environmental Remediation: Albany, NY, January, 33p

Tables

1. Qualifier Flags

Attachments

1. Data Usability Reviewer Qualifications
2. DQA Detail Worksheet
3. DQA Non-Conformance Summary Workheet
4. Separate EXCEL File: Orangetown_2022Q2_DUSR.xls [NOTE: RemVēr modified the SGS work products by adding quality flags, which are in yellow highlight.]

Prepared by: Kurt A. Frantzen, PhD, CHMM
May 8, 2022



GES PO #1121925

Table 1 Qualifier Flags

Qualifier	Quality Implication
0-9	Use with Coeluting Congeners
A	Tentatively Identified Compound (TIC) suspected to be an aldol condensation product
B EB TB BB RB BH/BL	An analyte identified in method blank (B), aqueous equipment (EB), rinsate (RB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results. Analyte detected in Blank at level >10X/5-10X that of the Sample
D	Sample analysis from dilution of original sample
E	Analyte concentration exceeds calibration range
H	Biased High
HT	Holding time violation
I	Analyte concentration is an estimated maximum possible concentration (EMPC) due to transition mass ratio and likely to have a high bias (see J+ below)
J	Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample
J +	Sample likely to have a high bias
J -	Sample likely to have a low bias
L	Biased Low
N	The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
R	Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (<i>i.e.</i> , dilutions or re-analyses), the most technically acceptable result is considered acceptable.
P	Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (<i>see below</i>).
PM	A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.
U	The analyte was analyzed for but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.
UJ	Analyte analyzed for but not detected. Reported quantitation limit is approximate and may be inaccurate or imprecise

Attachment 1

Data Usability Reviewer: Kurt A. Frantzen, PhD

Experience

2013-Present	d/b/a RemVër	Owner
2014-2019	AECC	Senior EHS Consultant
2011-2012	RemVër, Inc.	President
2006-2011	Kleinfelder	Senior Principal Scientist
2005	Kleinfelder	Principal Scientist, Part-Time/On Call
2004-2006	d/b/a Environmental Risk Group	Owner
2004-2006	RemVër, Inc., Larchmont, NY	Founder, President
1999-2004	VHB, Inc.	ERM Director & Associate
1997-1998	GEI Consultants, Inc.	Senior Project Manager
1992-1997	Ecology and Environment, Inc.	Technical Chief
1991-1992	EA Engineering, Science, & Technology, Inc.	Project Manager III
1990-1991	Ecology and Environment, Inc.	Technical Group Manager
1986-1990	Ecology and Environment, Inc.	Senior Environmental Scientist

Education

Am Cancer Soc. Post-Doctoral Fellow, U Washington 1985-1986
PhD—Life Sci. / Biochem, NU—Lincoln 1985
MS—Plant Pathology, Kansas State Univ. 1980
BS—Biology, NU—Omaha 1978

Other

- CERCLA & RCRA experience, as well as DOD (Air Force & Army) & DOE (INEL)
- NE Regional Experience—NY BCP; Mass MCP; & various sites in CT, RI & NH
- National Experience: NE, SE, Gulf & West Coast, Mid-west, Inter-mountain, California, Alaska
- International: Germany, Israel, Kuwait, Australia
- Selected Publications
 - *Using Risk Appraisals to Manage Environmentally Impaired Properties*, 2000, VHB Site Works, Report 108
 - *Risk-Based Analysis for Environmental Managers*, 2001, CRC/Lewis
 - Chapter 7 Risk Assessment, *Managing Hazardous Materials*, 2002 & 2009, IHMM
 - Chapter 22 Cleanup Goals, *Brownfields Law & Practice*, 2004-Present, Lexis/Nexis
 - *Use of Risk Assessment in Risk Management of Contaminated Sites*, 2008, ITRC
- 61 Conference Papers & Invited Professional Presentations
 - 1999-2022, Visiting Lecturer, Brownfields Program & Open Studio, Harvard Graduate School of Design
 - 2010-2013, Invited Lecturer, Pace University Law School
 - 2014-2015, Adjunct Professor, Pace University Law School

Attachment 2 DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
Method Blank: VOCs	No	—	No Comment
Method Blank: Ethene	No	—	No Comment
Method Blank: TOC	No	—	No Comment
Method Blanks: Nitrate & Sulfate	No	—	No Comment
Method Blank: Iron	No	—	No Comment
Method Blank: Ferrous	No	—	No Comment
Field/Equipment/Trip Blanks	No	—	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOCs	—	—	—	Other VOCs	No Comment
#-2 & #-5	—	—	X	Acetone & Dichlorodifluoromethane	Flag UJ+/J+
Ethene	—	—	—	Ethene	No Comment
Metals	—	—	—	Iron	No Comment
TOC	—	—	—	TOC	No Comment
NO ₃ / NO ₂ SO ₄	—	—	—	Nitrite (NO ₂), Nitrate (NO ₃), Sulfate	No Comment
Ferrous/Ferric	—	—	—	Iron +2 / Iron +3	No Comment

SURROGATES	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOCs	—	—	—	—	No Comment
Ethene	—	—	—	—	No Comment
TOC	—	—	—	—	No Comment
NO ₃ / SO ₄	—	—	—	—	No Comment
Ferrous/Ferric	—	—	—	—	No Comment

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOCs	—	—	—	#-1	—	No Comment
1,1-DCE, 1,3- DCB, BCl ₂ Methane, CS ₂ , & PCE	—	—	X	#-1	—	#-1, 3, 4, 6, 7, & 8: Flag UJ+/J+
Ethene	—	—	—	—	—	N/A
TOC	—	—	—	#-1	—	No Comment
Ferrous Iron	—	—	—	#-1	—	No Comment
Sulfate	—	—	—	#-1	—	No Comment
Nitrate + Nitrite	—	X	—	#-2	—	Flag UJ-/J-
Nitrite	—	—	—	#-2	—	No Comment

Attachment 2 continued

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
VOCs	MW-4 (#-1 & #-5)	N/A	—	VOCs	None
Ethene		N/A	N/C	—	Not Collected
Total Iron		N/A	N/C	—	
Nitrate & Sulfate		N/A	N/C	—	
Total Metals (Iron)		N/A	N/C	—	
Iron, Ferrous & Ferric		N/A	N/C	—	
TOC		N/A	N/C	—	
LAB DUPLICATES					
JD43253	Batch	N/A	—	As listed	No Comment
Reasonable Confidence Achieved ☐ Y ☐ N—N/A Significant QC Variances ☒ Y ☐ N					
Requested Reporting Limits Achieved ☒ Y ☐ N Preservation Require. Met ☒ Y ☐ N					
Holding Time Requirements Met ☐ Y ☒ N—Ferrous Iron samples, results qualified, as are ferric					
Abbreviations: RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report Notes: * Typical lab contaminants, not site-related					

Attachment 3 DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

Sample Number(s)	Compound(s)	QC Non- Conformance	% Recovery	% RPD †	High or Low Bias ‡	Comments
ALL	Any	Non-Detect				Flag U
	Any	MDL>result<RDL	—	—	—	Flag J
	Any	Dilution				Flag D
#-1	TOC	Elevated RL	—	—	—	Flag UJ or J
#-1, 3, 4, 6, 7, & 8	MEK, Acetone, MTBE, & Me-Acetate	CCV	>UCL	—	—	Flag UJ or J
#-2 & 5	BromoMe / Dichloro- difluoromethane	CCV	>UCL	—	Hi	Flag UJ+ or J+
#-2 & 5	Bromoform	CCV	<LCL	—	—	Flag UJ or J
#-2 & 5	Acetone & Dichloro- difluoromethane	LCS	>UCL	—	Hi	Flag UJ+ or J+
#-1, 3, 4, 6, 7, & 8	1,1-DCE, 1,3-DCB, BCl ₂ Methane, CS ₂ , & PCE	MS/MSD	>UCL	—	Hi	Flag UJ+ or J+
#-1, 2, 3, 4	Nitrate + Nitrite	MS/MSD	<LCL	—	Lo	Flag UJ- or J-
#-1, 2, 3, 4	Ferrous Ferric Iron	Holding Time Derivative of Fe ²⁺	—	—	—	Flag HT

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.